AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON APRIL 4, 2000

REGISTRATION NO. 333-30134

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 3

TO

FORM S-1
REGISTRATION STATEMENT
UNDER

THE SECURITIES ACT OF 1933

SANGAMO BIOSCIENCES, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	8731	68-0359556
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	(I.R.S. EMPLOYER IDENTIFICATION NUMBER)

501 CANAL BOULEVARD, SUITE A100
RICHMOND, CA 94804
(510) 970-6000
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF THE REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

EDWARD O. LANPHIER II
PRESIDENT AND CHIEF EXECUTIVE OFFICER
SANGAMO BIOSCIENCES, INC.
501 CANAL BOULEVARD, SUITE A100
RICHMOND, CA 94804
(510) 970-6000
(NAME AND ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

COPIES TO:

JOHN W. LARSON, ESQ. ELIZABETH A. R. YEE, ESQ. BROBECK, PHLEGER & HARRISON LLP ONE MARKET SPEAR STREET TOWER SAN FRANCISCO, CA 94105 (415) 442-0900	WILLIAM J. CERNIUS, ESQ. JOSEPH G. MCCARTHY, ESQ. LATHAM & WATKINS 650 TOWN CENTER DRIVE, 20TH FLOOR COSTA MESA, CA 92626 (714) 540-1235

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable after the effective date of this Registration Statement.

If the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. [ ]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT THAT SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES, AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES, IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED APRIL 4, 2000

PROSPECTUS

5,000,000 Shares

[SANGAMO LOGO]

SANGAMO BIOSCIENCES, INC.

Common Stock

This is our initial public offering of shares of common stock. We are offering 5,000,000 shares. No public market currently exists for our shares. We currently anticipate the price range for the common stock to be between $15.00 and $17.00 per share.

We intend to apply to have our common stock approved for quotation on the Nasdaq National Market under the symbol "SGMO."

INVESTING IN THE SHARES INVOLVES RISK. "RISK FACTORS" BEGIN ON PAGE 5.

	PER SHARE	TOTAL
Public Offering Price	$	$
Underwriting discounts	$	$
Proceeds to Sangamo	$	$

We have granted the underwriters a 30-day option to purchase up to 750,000 additional shares of common stock to cover any over-allotments.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS ACCURATE OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Lehman Brothers expects to deliver the shares on or about April , 2000.

LEHMAN BROTHERS

CHASE H&Q

ING BARINGS

WILLIAM BLAIR & COMPANY

, 2000

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Until , 2000, 25 days after the date of this prospectus, all dealers that effect transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligations to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

This summary highlights some of the information found in greater detail elsewhere in this prospectus. Unless otherwise indicated, information in this prospectus assumes that the underwriters do not exercise their over-allotment option, assumes the conversion of all of our preferred stock into common stock upon effectiveness of this offering and a 2-for-1 stock split which will be effected before completion of the offering.

Sangamo BioSciences, Inc. is a leader in the research and development of novel transcription factors for the regulation of genes. Genes are composed of DNA and control the expression and transmission of all inherited traits. Transcription factors are proteins that turn genes on and turn genes off, or regulate gene expression, by recognizing specific DNA sequences.

Our Universal Gene Recognition technology enables the engineering of a class of transcription factors known as zinc finger DNA binding proteins, or ZFPs. ZFPs are the most abundant class of transcription factors in humans and other higher organisms and naturally function to regulate gene expression. By engineering ZFPs so that they can recognize a specific gene, we have created ZFP transcription factors that can control gene expression and, consequently, cell function. We intend to establish Universal Gene Recognition as a widely used technology for commercial applications in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology.

The identification of all human genes, referred to as the sequencing of the human genome, involves the dedication of enormous scientific and financial resources. The accelerating pace of genetic discovery creates significant opportunities for pharmaceutical and other life science companies. The challenge facing these companies is how to derive medically and commercially valuable knowledge from this large accumulation of new genetic information.

We believe our Universal Gene Recognition technology has the potential to address these challenges and has broad applicability to the sectors below, each of which represents a significant target market with unmet needs:

- Universal GeneTools for Pharmaceutical Discovery are ZFP transcription factors for the identification and evaluation of medically important genes in humans, animals and other organisms, and for improved efficiency in the screening of chemical compounds for pharmaceutical discovery;

- ZFP-Therapeutics are ZFP transcription factors developed as pharmaceutical products to treat a broad spectrum of diseases through the regulation of disease-related genes;

- ZFP-Diagnostics are developed to detect specific DNA sequences in clinical samples of DNA, to determine an individual's potential susceptibility to disease or probable response to drug therapy; and

- ZFP Transcription Factors for Agricultural and Industrial Biotechnology are designed for use in the study of newly discovered plant genes, agrochemical discovery, the engineering of plants with improved properties and the biological production of industrial chemicals.

We believe our engineered ZFP transcription factors have numerous advantages for the regulation of gene expression including:

- ZFP transcription factors normally and naturally regulate gene expression in the cells of virtually all higher organisms;

- ZFPs can be designed to recognize unique DNA sequences resulting in the ability to recognize a single gene within an organism's entire genome;

- ZFP transcription factors can turn on or turn off a target gene, enhancing their versatility;

- ZFP transcription factors can be used to regulate gene expression in many different organisms including humans, animals, plants, fungi, bacteria and viruses; and

- ZFP transcription factors can turn genes on and turn genes off in a reversible fashion, allowing regulation of gene expression for a defined period of time.

To date, we have engineered hundreds of ZFP transcription factors and have performed experiments to test their ability to recognize their target sequences and to function in cells. We have also demonstrated the ability of ZFP transcription factors to regulate a limited number of commercially important genes.

We intend to develop our Universal Gene Recognition technology for applications in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology. To establish Universal Gene Recognition as a widely used technology in life sciences industries, and to fund internal research and development activities, we have established and will continue to pursue collaborations with selected pharmaceutical and biotechnology companies. We have signed Universal GeneTools agreements, which we refer to as collaborations, with 18 pharmaceutical or biotechnology companies including the following companies or their subsidiaries:

- Pfizer Inc.,
- SmithKline Beecham plc,
- Millennium Pharmaceuticals, Inc.,
- AstraZeneca PLC,
- Schering AG,
- Bayer Corporation,
- Glaxo Wellcome plc,
- DuPont Pharmaceuticals Company,
- Japan Tobacco Inc.,
- F. Hoffmann-La Roche Ltd.,
- Immunex Corporation,
- Pharmacia & Upjohn Company,
- Genset SA,
- Warner-Lambert Company,
- Merck KGaA,
- Zaiya Incorporated and
- Procter & Gamble Pharmaceuticals.

We have also entered into a strategic partnership with Edwards LifeScience, Inc., formerly the CardioVascular Group of Baxter Healthcare Corporation, for the development and commercialization of ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. Under this agreement, Baxter has purchased a $5 million convertible note which will convert into common stock upon consummation of this offering, and we have received $1 million in initial research funding from Baxter. Baxter has exercised an option by purchasing an additional $7.5 million convertible note which will convert into common stock upon consummation of this offering for a right of first refusal to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. We expect to enter into other strategic partnerships to accelerate the development of ZFP transcription factors as potential pharmaceutical candidates.

Sangamo was founded and incorporated in Delaware in 1995. Our principal offices are located at 501 Canal Boulevard, Suite A100, Richmond, CA 94804, and our telephone number is (510) 970-6000.

THE OFFERING

Common stock offered by Sangamo.....	5,000,000 shares
Common stock to be outstanding after the offering.....	22,300,147 shares
Use of proceeds.....	For research and development, capital equipment and general corporate purposes. See "Use of Proceeds" for more information regarding our planned use of the proceeds from this offering.
Proposed Nasdaq National Market symbol.....	SGMO

The number of shares of common stock to be outstanding after this offering is based on the number of shares outstanding as of December 31, 1999 adjusted to reflect the issuance of 333,333 shares of preferred stock in January 2000 which converts into 666,666 shares of common stock upon consummation of this offering and, together with accrued interest, the issuance of a $5 million note in January 2000 and a $7.5 million note in March 2000 which convert into common stock at the initial public offering price upon the consummation of the offering, and excludes:

- a total of 1,872,666 shares issuable upon the exercise of outstanding options at a weighted average exercise price of $0.15 per share;
- a total of 259,962 shares issuable upon the exercise of outstanding warrants at a weighted average exercise price of $2.00 per share; and
- a total of 2,400,000 shares available for future issuance under our stock plans.

SUMMARY FINANCIAL DATA

The following table sets forth summary financial data for our company. You should read this information together with the financial statements and the notes to those statements appearing elsewhere in this prospectus and the information under "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Please see the financial statements and the notes to the statements appearing elsewhere in this prospectus for the determination of the number of shares used in computing the basic and diluted and pro forma basic and diluted net loss per share.

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
	(IN THOUSANDS, EXCEPT PER SHARE DATA)		
STATEMENT OF OPERATIONS DATA:			
Total revenues	$ 1,152	$ 2,038	$ 2,182
Operating expenses:			
Research and development	1,700	4,259	4,266
General and administrative	797	1,237	1,822
Total operating expenses	2,497	5,496	6,088
Loss from operations	(1,345)	(3,458)	(3,906)
Interest income (expense), net	(55)	173	131
Net loss	$(1,400)	$(3,285)	$(3,775)
Basic and diluted net loss per share	$ (0.26)	$ (0.56)	$ (0.63)
Shares used in computing basic and diluted net loss per share	5,485	5,843	5,991
Pro forma basic and diluted net loss per share (unaudited)			$ (0.29)
Shares used in computing pro forma basic and diluted net loss per share (unaudited)			13,102

The following table is a summary of our balance sheet as of December 31, 1999. The pro forma column reflects the issuance in January 2000 of 333,333 shares of preferred stock for $1.5 million which converts into 666,666 shares of common stock upon consummation of this offering and a $5 million note in January 2000 and a $7.5 million note in March 2000 which convert, together with accrued interest, into common stock at the initial public offering price upon consummation of this offering. The pro forma as adjusted column also reflects our receipt of the estimated net proceeds from the sale of the shares of common stock offered in this offering at an assumed initial public offering price of $16.00 per share after deducting the estimated underwriting discount and offering expenses payable by us. See "Use of Proceeds" and "Capitalization" and Notes 1, 4, and 7 of Notes to Financial Statements.

	AS OF DECEMBER 31, 1999		
	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
	(IN THOUSANDS)		
BALANCE SHEET DATA:			
Cash, cash equivalents, and short-term investments	$ 7,503	$21,503	$94,703
Working capital	7,206	21,206	94,406
Total assets	9,162	23,162	96,362
Long-term debt	250	250	250
Accumulated deficit	(8,785)	(8,918)	(8,918)
Total stockholders' equity	7,882	21,882	95,082

RISK FACTORS

An investment in our common stock is risky. You should carefully consider the following risks, as well as the other information contained in this prospectus. If any of the following risks actually occurs, it would harm our business. In that case, the trading price of our common stock could decline, and you might lose all or a part of your investment. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently see as immaterial, may also harm our business.

RISKS RELATED TO OUR BUSINESS

OUR GENE REGULATION TECHNOLOGY IS UNPROVEN AND IF WE ARE UNABLE TO USE THIS TECHNOLOGY IN ALL OUR INTENDED APPLICATIONS, IT WOULD LIMIT OUR REVENUE OPPORTUNITIES.

Our technology involves new and unproven approaches to gene regulation. Although we have generated some ZFP transcription factors for some gene sequences, we have not created ZFP transcription factors for all gene sequences and we may not be able to create ZFP transcription factors for all gene sequences which would limit the usefulness of our technology. In addition, while we have demonstrated the function of engineered ZFP transcription factors in cell cultures, we have not done so in animals and humans and many other organisms, and the failure to do so could restrict our ability to develop commercially viable products. If we and our Universal Gene Tools collaborators or strategic partners are unable to extend our results to new gene sequences and experimental animal models, we may be unable to use our technology in all its intended applications. Also, delivery of ZFP transcription factors into cells in these and other environments is limited by a number of technical challenges, which we may be unable to surmount.

The utility of our ZFP transcription factors is in part based on the belief that the regulation of gene expression may help scientists better understand the role of human, animal, plant and other genes in drug discovery, as well as therapeutic, diagnostic, agricultural and industrial biotechnology applications. There is only a limited understanding of the role of genes in all these fields. Life sciences companies have developed or commercialized only a few products in any of these fields based on results from genomic research or the ability to regulate gene expression. We, our Universal GeneTools collaborators or our strategic partners may not be able to use our technology to identify and validate drug targets or other targets in order to develop commercial products.

IF OUR TECHNOLOGY DOES PROVE TO BE EFFECTIVE, IT STILL MAY NOT LEAD TO COMMERCIALLY VIABLE PRODUCTS, WHICH WOULD REDUCE OUR REVENUE OPPORTUNITIES.

Even if our Universal GeneTools collaborators or strategic partners are successful in identifying drug targets or other targets based on discoveries made using our ZFP transcription factors, they may not be able to discover or develop commercially viable products or may determine to pursue products that do not use our technology. To date, no company has developed or commercialized any therapeutic, diagnostic, agricultural or industrial biotechnology products based on our technology. The failure of our technology to provide safe, effective, useful or commercially viable approaches to the discovery and development of these products would significantly limit our business plan and future growth.

INITIAL EVALUATIONS OF OUR ENGINEERED ZFP TRANSCRIPTION FACTORS DELIVERED TO OUR UNIVERSAL GENETOOLS COLLABORATORS HAVE PRODUCED MIXED RESULTS.

Some of our Universal GeneTools collaborators have been able to confirm the potential utility of our gene regulation technology. Two of our collaborators, Immunex Corporation and Millennium Pharmaceuticals, Inc., however, have not yet been able to regulate gene expression using our technology. We have taken steps to ascertain the reasons for these initial observations. We continue to work with these collaborators to address and remedy any issues that may be associated with the ZFP transcription factors, including redesign of the ZFP transcription factors. These collaborators continue to evaluate our technology. Further, most of our collaborators have not yet started testing or have not yet generated the final results of their testing. The ZFP transcription factors that we have generated for our other collaborators or our strategic partner may not function as intended and the ZFP transcription factors engineered in the future for other collaborators or strategic partners may not function as intended. If we are unsuccessful in engineering ZFP transcription factors that achieve positive results for our collaborators or strategic partners, this would significantly harm our business by reducing our revenues.

IF OUR COMPETITORS DEVELOP, ACQUIRE OR MARKET TECHNOLOGIES OR PRODUCTS THAT ARE MORE EFFECTIVE THAN OURS, THIS WOULD REDUCE OR ELIMINATE OUR COMMERCIAL OPPORTUNITY.

Any products that we or our collaborators or strategic partners develop using our Universal Gene Regulation technology platform will participate in highly competitive markets. Even if we are able to generate ZFP transcription factors that achieve useful results, competing technologies may prove to be more effective or less expensive which would limit or eliminate our revenue opportunities. Competing technologies may include other methods of regulating gene expression. Universal Gene Recognition has broad application in the life sciences, and competes with a broad array of new technologies and approaches being applied to genetic research by many companies. Competitive technologies include those used to map and sequence DNA, analyze the expression of genes in cells or tissues, determine gene function, discover new genes, analyze genetic information and regulate genes. Our competitors include biotechnology companies with:

- competing proprietary technology;
- substantially greater capital resources than ours;
- larger research and development staffs and facilities than ours;
- greater experience in product development and in obtaining regulatory approvals and patent protection; and
- greater manufacturing and marketing capabilities than we do.

These organizations also compete with us to:

- attract qualified personnel;
- attract parties for acquisitions, joint ventures or other collaborations; and
- license the proprietary technologies of academic and research institutions that are competitive with our technology which may preclude us from pursuing similar opportunities.

Accordingly, our competitors may succeed in obtaining patent protection or commercializing products before us. In addition, any products that we develop may compete with existing products or services that are well-established in the marketplace.

FAILURE TO ATTRACT, RETAIN AND MOTIVATE SKILLED PERSONNEL AND CULTIVATE KEY ACADEMIC COLLABORATIONS WILL DELAY OUR PRODUCT DEVELOPMENT PROGRAMS AND OUR RESEARCH AND DEVELOPMENT EFFORTS.

We are a small company with 45 employees, and our success depends on our continued ability to attract, retain and motivate highly qualified management and scientific personnel, and our ability to develop and maintain important relationships with leading academic and other research institutions and scientists. Competition for personnel and academic and other research collaborations is intense. The success of our technology development programs depends on our ability to attract and retain highly trained personnel. If we lose the services of personnel with these types of skills, it could impede significantly the achievement of our research and development objectives. If we fail to negotiate additional acceptable collaborations with academic and other research institutions and scientists, or if our existing collaborations are unsuccessful, our technology development programs may be delayed or may not succeed.

At present the scope of our needs is somewhat limited to the expertise of personnel who are able to engineer ZFP transcription factors and apply them to gene regulation. In the future, we will need to hire additional personnel and develop additional academic collaborations as we continue to expand our research and development activities and to work on some of our planned projects because these activities and projects will require additional expertise in disciplines applicable to the products we would develop with them. Further, our planned activities will require existing management to develop additional expertise. We do not know if we will be able to attract, retain or motivate the required personnel to achieve our goals.

WE MAY HAVE DIFFICULTY MANAGING OUR GROWTH, WHICH MAY SLOW OUR GROWTH RATE OR GIVE RISE TO INEFFICIENCIES WHICH WOULD REDUCE OUR PROFITS.

We have recently experienced, and expect to continue to experience, growth in the number of our employees and the scope of our operating and financial systems. This growth has resulted in an increase in responsibilities for both existing and new management personnel. Our ability to manage growth effectively will require us to continue to implement and improve our operational, financial and management information systems and to recruit, train, motivate and manage our employees. We may not be able to manage our growth and expansion, and the failure to do so may slow our growth rate or give rise to inefficiencies which would reduce our profits.

WE ARE AT AN EARLY STAGE OF DEVELOPMENT AND MAY NOT SUCCEED OR BECOME PROFITABLE.

We began operations in 1995 and are at an early stage of development. We have incurred significant losses to date, and our revenues have been limited to federal government research grants and Universal GeneTools collaborators and a strategic partner. Our Universal GeneTools collaborators are evaluating our initial ZFP transcription factors. If the initial ZFP transcription factors do not provide sufficient value to those collaborators, then they may not continue to work with us. This may also impair our ability to attract additional collaborators. As a result, our business is subject to all of the risks inherent in the development of a new technology, which includes the need to:

- attract additional new Universal GeneTools collaborators and strategic partners;

- attract and retain qualified scientific and technical staff and management, particularly scientific staff with expertise to further apply and develop our early stage technology;

- attract and enter into research collaborations with academic and other research institutions and scientists;

- obtain sufficient capital to support the expense of developing our technology platform and developing, testing and commercializing products;

- develop a market for our products; and

- successfully transition from a company with a research focus to a company capable of supporting commercial activities.

In addition to competitive pressures, problems frequently encountered with research, development and commercialization of new technologies and products will likely affect us. Most of our ZFP design and testing procedures take place on a relatively small scale. In the future, we intend to apply ZFP design and testing procedures at a scale involving hundreds of genes per year. We may not be able to successfully or efficiently achieve this scale. In addition, while we have had success in applying ZFP gene regulation in our laboratories, we may have difficulty in transferring our technology to our collaborators' and strategic partners' laboratories.

WE ANTICIPATE CONTINUING TO INCUR OPERATING LOSSES FOR AT LEAST TWO YEARS. IF MATERIAL LOSSES CONTINUE FOR A LONGER PERIOD, WE MAY BE UNABLE TO CONTINUE OUR OPERATIONS.

We have generated operating losses since we began operations in 1995. The extent of our future losses and the timing of profitability are highly uncertain, and we may not be profitable in the foreseeable future. We have been engaged in developing our Universal Gene Recognition technology since inception, which has and will continue to require significant research and development expenditures. To date, we have generated our revenues from federal government research grants, Universal GeneTools collaboration agreements and a strategic partnership agreement. As of December 31, 1999, we had an accumulated deficit of approximately $8.8 million. Even if we succeed in increasing our current product and research revenue or developing additional commercial products, we expect to incur losses in the near future and may continue to incur losses for at least the next two years. These losses may increase as we expand our research and development activities. If the time required to generate significant product revenues and achieve profitability is longer than we currently anticipate, we may not be able to sustain our operations.

WE MAY REQUIRE FINANCING BEYOND THE PROCEEDS OF THIS OFFERING. IF WE ARE UNABLE TO OBTAIN THIS FINANCING, WE WILL BE UNABLE TO DEVELOP OUR TECHNOLOGY AND PRODUCTS.

We do not know whether we will require additional financing, or that, if acquired, it will be on terms favorable to our stockholders or us. We have consumed substantial amounts of cash to date and expect capital outlays and operating expenditures to increase over the next several years as we expand our infrastructure and research and development activities. We may raise this financing through public or private financings or additional Universal GeneTools collaborations, strategic partnerships or licensing arrangements. If additional financing becomes necessary in the future, it would likely be at least tens of millions of dollars.

While we believe our current financial resources and the proceeds of this offering should be adequate to sustain our operations for two years, it is not possible to estimate our financial requirements thereafter. However, to the extent we concentrate our efforts on proprietary human therapeutics, we will require FDA approval and extensive clinical trials of our potential products. This process may cost in excess of $100 million per product.

OUR TECHNOLOGY INFRASTRUCTURE IS NOT YET COMPLETE AND ANY DELAY OR FAILURE TO COMPLETE IT COULD PREVENT US FROM EFFICIENTLY DELIVERING ZFP TRANSCRIPTION FACTORS TO OUR UNIVERSAL GENETOOLS COLLABORATORS OR STRATEGIC PARTNERS.

Part of our strategy involves building additional technology infrastructure to support our Universal Gene Recognition technology. This strategy includes the continued research and

development of improved and automated processes for design and production of our ZFP transcription factors. In addition, we intend to continue to assemble large collections, or libraries, of ZFPs for use in pharmaceutical target discovery. Because this infrastructure is an important part of our platform, any delay or failure to complete it could slow our growth and our ability to advance our strategic initiatives.

OUR UNIVERSAL GENETOOLS COLLABORATION AGREEMENTS WITH COMPANIES ARE OF LIMITED SCOPE, AND IF WE ARE NOT ABLE TO EXPAND THE SCOPE OF OUR EXISTING COLLABORATIONS OR ENTER INTO NEW ONES, OUR REVENUES WILL BE NEGATIVELY IMPACTED AND OUR RESEARCH INITIATIVES MAY BE SLOWED OR HALTED.

Our Universal GeneTools collaborations are important to us because they permit us to introduce our technology to many companies by supplying them with a specified ZFP transcription factor for a payment without licensing any of our technology. The collaboration agreements, however, are of limited scope. Under most of our current Universal GeneTools collaborations we receive a payment for supplying ZFP transcription factors for gene targets specified by the companies. These companies are not obligated to make continuing payments to us in connection with their research efforts or to pursue any product development program with us. As a result, we may not develop long-term relationships with these companies that could lead to additional revenues. If we are not able to expand the scope of our existing collaborations or enter into new ones, we may have reduced revenues and be forced to slow or halt research initiatives.

COMMERCIALIZATION OF OUR TECHNOLOGIES DEPENDS ON STRATEGIC PARTNERING WITH OTHER COMPANIES, AND IF WE ARE NOT ABLE TO FIND STRATEGIC PARTNERS IN THE FUTURE, WE MAY NOT BE ABLE TO DEVELOP OUR TECHNOLOGIES OR PRODUCTS, WHICH COULD SLOW OUR GROWTH AND DECREASE OUR REVENUES.

We expect to rely, to some extent, on our strategic partners to provide funding in support of our research and to perform some independent research, preclinical and clinical testing. We currently have only one strategic partner. Our technology is broad based and we do not currently possess the resources necessary to develop and commercialize potential products that may result from our technologies, or the resources or capabilities to complete any approval processes that may be required for the products, therefore we must enter into additional strategic partnerships to develop and commercialize products. Of the thousands of ZFP transcription factors which target specific genes, our current 18 collaborators and strategic partner are working with less than 100, therefore in order to fully utilize our ZFP transcriptions factors we would need a number of new Universal GeneTools collaborators and strategic partners to accomplish our research.

We may require significant time to secure additional collaborations or strategic partners because we need to effectively market the benefits of our technology to these future collaborators and strategic partners, which uses the time and efforts of research and development personnel and our management. Further, each collaboration or strategic partnering arrangement will involve the negotiation of terms that may be unique to each collaborator or strategic partner. These business development efforts may not result in a collaboration or strategic partnership.

If we do not enter into additional strategic partnering agreements, we will experience reduced revenues and may not develop or commercialize our products. The loss of our current or any future strategic partnering agreement would not only delay or terminate the potential development or commercialization of any products we may derive from our technologies but also delay or terminate our ability to test ZFP transcription factors for specific genes. If any strategic partner fails to conduct the collaborative activities successfully and in a timely manner, the preclinical or clinical development or commercialization of the affected product candidates or research programs could be delayed or terminated.

Our existing strategic partnering agreement is, and we would expect any future arrangement to be based on the achievement of milestones. Under the strategic partnering agreements, we expect to receive revenue for the research and development of a therapeutic product based on achievement of specific milestones. Achieving these milestones will depend, in part, on the efforts of our strategic partner as well as our own. In contrast, our current Universal GeneTools collaboration agreements only pay us to supply ZFP transcription factors for the collaborator's independent use, rather than for future results of the collaborator's efforts. If we or any strategic partner fails to meet specific milestones, then the strategic partnership can be terminated which could decrease our revenues.

OUR UNIVERSAL GENETOOLS COLLABORATORS AND STRATEGIC PARTNERS MAY DECIDE TO ADOPT ALTERNATIVE TECHNOLOGIES OR MAY BE UNABLE TO DEVELOP COMMERCIALLY VIABLE PRODUCTS USING OUR TECHNOLOGY, WHICH WOULD NEGATIVELY IMPACT OUR REVENUES AND OUR STRATEGY TO DEVELOP THESE PRODUCTS.

Our collaborators or strategic partners may adopt the alternative technology of our competitors which could decrease the marketability of our technology. Because many of our Universal GeneTools collaborators or strategic partners are likely to be working on more than one research project, they could choose to shift their resources to projects other than those they are working on with us. If they do so, that would delay our ability to test our technology and would delay or terminate the development of potential products based on our gene regulation technology. Further, our collaborators and strategic partners may elect not to develop products arising out of our collaborative and strategic partnering arrangements or to devote sufficient resources to the development, manufacturing, marketing or sale of these products. If any of these events occur, we may not be able to develop our technologies or commercialize our products.

WE INTEND TO CONDUCT PROPRIETARY RESEARCH PROGRAMS TO DISCOVER THERAPEUTIC PRODUCT CANDIDATES. THESE PROGRAMS INCREASE OUR RISK OF PRODUCT FAILURE, MAY SIGNIFICANTLY INCREASE OUR RESEARCH EXPENDITURES, AND MAY INVOLVE CONFLICTS WITH OUR COLLABORATORS AND STRATEGIC PARTNERS.

Conducting proprietary research programs may not generate corresponding revenue and may create conflicts with our collaborators or strategic partners. The implementation of this strategy will involve substantially greater business risks and the expenditure of significantly greater funds than our current research activities. In addition, these programs will require substantial commitments of time from our management and staff. Moreover, we have no experience in preclinical or clinical testing, obtaining regulatory approval or commercial-scale manufacturing and marketing of therapeutic products, and we currently do not have the resources or capability to manufacture therapeutic products on a commercial scale. In order for us to commercialize these products directly, we would need to develop, or obtain through outsourcing arrangements, the capability to execute all of these functions, market and sell products. We do not have these capabilities, and we may not be able to develop or otherwise obtain the requisite preclinical, clinical, regulatory, manufacturing, marketing and sales capabilities.

In addition, disagreements with our Universal GeneTools collaborators or strategic partners could develop over rights to our intellectual property with respect to our proprietary research activities. Any conflict with our collaborators or strategic partners could reduce our ability to enter into future collaboration or strategic partnering agreements and negatively impact our relationship with existing collaborators and strategic partners, which could reduce our revenue and delay or terminate our product development.

BECAUSE IT IS DIFFICULT AND COSTLY TO PROTECT OUR PROPRIETARY RIGHTS, AND THIRD PARTIES HAVE FILED PATENT APPLICATIONS THAT ARE SIMILAR TO OURS, WE CANNOT ENSURE THE PROPRIETARY PROTECTION OF OUR TECHNOLOGIES AND PRODUCTS.

Our commercial success will depend in part on obtaining patent protection of our technology and successfully defending these patents against third party challenges. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. Accordingly, we cannot predict the breadth of claims allowed in patents we own or license.

We are a party to various license agreements that give us rights under specified patents and patent applications. We currently hold an exclusive sublicense for ZFP transcription factor technology which is limited to using the technology in human and animal healthcare. The scope of this license may be subject to dispute. We may need to license additional rights to commercialize our technology outside human and animal healthcare. We will seek to obtain a sublicense to these patent applications for use in our agricultural and industrial biotechnology efforts. If we are not able, however, to license these additional rights, it could harm our business. Similarly, our current licenses, and our future licenses will, contain performance obligations. If we fail to meet those obligations, the licenses could be terminated. If we are unable to continue to license these technologies on commercially reasonable terms, or at all, we may be forced to delay or terminate our product development and research activities.

With respect to our present and any future sublicenses, since our rights derive from those granted to our sublicensor, we are subject to the risk that our sublicensor may fail to perform its obligations under the master license or fail to inform us of useful improvements in, or additions to, the underlying intellectual property owned by the original licensor.

We are unable to exercise the same degree of control over intellectual property that we license from third parties as we exercise over our internally developed intellectual property. We generally do not control the prosecution of patent applications that we license from third parties; therefore, the patent applications may not be prosecuted in a timely manner.

The degree of future protection for our proprietary rights is uncertain and we cannot ensure that:

- we or our licensors were the first to make the inventions covered by each of our pending patent applications;
- we or our licensors were the first to file patent applications for these inventions;
- others will not independently develop similar or alternative technologies or reverse engineer any of our products, processes or technologies;
- any of our pending patent applications will result in issued patents;
- any patents issued or licensed to us or our Universal GeneTools collaborators or strategic partners will provide a basis for commercially viable products or will provide us with any competitive advantages or will not be challenged and invalidated by third parties;
- we will develop additional products, processes or technologies that are patentable; or
- the patents of others will not have an adverse effect on our ability to do business.

Others have filed and in the future are likely to file patent applications that are similar to ours. We are aware that there are academic groups and other companies that are attempting to develop technology which is based on the use of zinc finger and other DNA binding proteins, and that these groups and companies have filed patent applications. Several patents have been issued, although

Sangamo has no current plans to use the associated inventions. More particularly, we are aware of pending patent applications with claims directed to zinc finger libraries and methods of designing zinc finger DNA binding proteins. These applications are not issued patents. If the pending claims were granted in their present form, however, they could interfere with our right to commercialize our products and processes. If these or other patents issue, it is possible that the holder of any patent or patents granted on these applications may bring an infringement action against our collaborators, strategic partner or us claiming damages and seeking to enjoin commercial activities relating to the affected products and processes. The costs of litigating the claim could be substantial. Moreover, we cannot predict whether our Universal GeneTools collaborators, strategic partners or we would prevail in any actions. In addition, if the relevant patent claims were upheld as valid and enforceable and our products or processes were found to infringe the patent or patents, we could be prevented from making, using or selling the relevant product or process unless we could obtain a license or were able to design around the patent claims. While we believe that our proprietary intellectual property would give us substantial leverage to secure a cross-license, it is uncertain that any license required under that patent or patents would be made available on commercially acceptable terms, if at all. We believe that there may be significant litigation in the genomics industry regarding patent and other intellectual property rights which could subject us to litigation. If we become involved in litigation, it could consume a substantial portion of our managerial and financial resources.

We have received unsolicited invitations to license existing patented technology from a number of third parties, at least one of which contained an allegation of infringement. Upon careful analysis of each of these technologies, we have determined that we already own rights to these technologies or that our scientific and commercial interests would not benefit from the acquisition of rights to these technologies. Further, we believe that the making, using or selling of our products and processes need not infringe any claims in the proffered patents. Accordingly, we have declined to enter into license negotiations with these parties. It is possible, however, that these parties will bring future actions against us, our Universal GeneTools collaborators or our strategic partners alleging infringement of their patents. As detailed above, the outcome of any litigation, particularly lawsuits involving biotechnology patents, is difficult to predict and likely to be costly regardless of the outcome. In these circumstances, the risks of a negative impact on our business can neither be clearly defined nor entirely eliminated.

We rely on trade secrets to protect technology where we believe patent protection is not appropriate or obtainable. Trade secrets, however, are difficult to protect. While we require employees, academic collaborators and consultants to enter into confidentiality agreements, we may not be able to adequately protect our trade secrets or other proprietary information or enforce these confidentiality agreements.

Our Universal GeneTools collaborators, strategic partners and scientific advisors have rights to publish data and information in which we may have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations and strategic partnerships, then we may not be able to receive patent protection or protect our proprietary information. See "Business -- Intellectual Property and Technology Licenses."

OUR POTENTIAL THERAPEUTIC PRODUCTS ARE SUBJECT TO A LENGTHY AND UNCERTAIN REGULATORY PROCESS, AND IF THESE POTENTIAL PRODUCTS ARE NOT APPROVED, WE WILL NOT BE ABLE TO COMMERCIALIZE THOSE PRODUCTS.

The Food and Drug Administration, or FDA, must approve any therapeutic and some diagnostic products based on ZFP technology before it can be marketed in the United States. The process for receiving regulatory approval is long and uncertain, and even if we had a potential product, this product may not withstand the rigors of testing under the regulatory approval processes.

Before commencing clinical trials in humans, we must submit and receive approval from the FDA of an Investigational New Drug Application. Clinical trials are subject to oversight by institutional review boards and the FDA and these trials must meet particular conditions, such that they:

- must be conducted in conformance with the FDA's good clinical practice regulations;
- must meet requirements for institutional review board oversight;
- must meet requirements for informed consent;
- are subject to continuing FDA oversight;
- may require large numbers of test subjects; and
- may be suspended by us or the FDA at any time if it is believed that the subjects participating in these trials are being exposed to unacceptable health risks or if the FDA finds deficiencies in the Investigational New Drug application or the conduct of these trials.

We must also demonstrate that the product is safe and effective in the patient population that will be treated. Data obtained from preclinical and clinical activities are susceptible to varying interpretations that could delay, limit or prevent regulatory clearances. In addition, we may encounter delays or rejections based upon additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review. Failure to comply with applicable FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production or injunction, as well as other regulatory action against our potential products or us. Additionally, we have no experience in conducting and managing the clinical trials necessary to obtain regulatory approval.

In addition, we may also require approval from the Recombinant DNA Advisory Committee, or RAC, which is the advisory board to the National Institutes of Health, or NIH, focusing on clinical trials involving gene transfer.

We have not submitted an application with the FDA or any other regulatory authority for any product candidate, and neither the FDA nor any other regulatory authority has approved any therapeutic, diagnostic, agricultural or industrial product candidate developed with our technology for commercialization in the United States or elsewhere.

REGULATORY APPROVAL, IF GRANTED, MAY BE LIMITED TO SPECIFIC USES OR GEOGRAPHIC AREAS WHICH COULD LIMIT OUR ABILITY TO GENERATE REVENUES.

Regulatory approval may limit the indicated use for which we can market a product. Further, once regulatory approval for a product is obtained, it and its manufacturer are subject to continual review. Discovery of previously unknown problems with a product or manufacturer may result in restrictions on the product, manufacturer and manufacturing facility, including withdrawal of the product from the market. In Japan and Europe, regulatory agencies also set or approve prices.

Even if regulatory clearance of a product is granted, this clearance is limited to those specific states and conditions for which the product is useful as demonstrated through clinical trials. We cannot ensure that any therapeutic product developed by us, alone or with others, will prove to be safe and effective in clinical trials and will meet all of the applicable regulatory requirements needed to receive marketing clearance.

Outside the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities so we cannot predict whether or

when we would be permitted to commercialize our product. These foreign regulatory approval processes include all of the risks associated with FDA clearance described above.

LAWS OR PUBLIC SENTIMENT MAY LIMIT OUR PRODUCTION OF GENETICALLY ENGINEERED AGRICULTURAL PRODUCTS IN THE FUTURE, AND THESE LAWS COULD REDUCE OUR ABILITY TO SELL THESE PRODUCTS.

Genetically engineered products are currently subject to public debate and heightened regulatory scrutiny, either of which could prevent or delay production of agricultural products. We may develop genetically engineered agricultural products for ourselves or with our strategic partners. The field testing, production and marketing of genetically engineered plants and plant products are subject to federal, state, local and foreign governmental regulation. Regulatory agencies administering existing or future regulations or legislation may not allow production and marketing of our genetically engineered products in a timely manner or under technically or commercially feasible conditions. In addition, regulatory action or private litigation could result in expenses, delays or other impediments to our product development programs or the commercialization of resulting products.

The FDA currently applies the same regulatory standards to foods developed through genetic engineering as applied to foods developed through traditional plant breeding. Genetically engineered food products, however, will be subject to premarket review if these products raise safety questions or are deemed to be food additives. Governmental authorities could also, for social or other purposes, limit the use of genetically engineered products created with our gene regulation technology.

Even if we are able to obtain regulatory approval of genetically engineered products, our success will also depend on public acceptance of the use of genetically engineered products including drugs, plants and plant products. Claims that genetically engineered products are unsafe for consumption or pose a danger to the environment may influence public attitudes. Our genetically engineered products may not gain public acceptance. The subject of genetically modified organisms has received negative publicity in Europe, which has aroused public debate. The adverse publicity in Europe could lead to greater regulation and trade restrictions on imports of genetically altered products. If similar adverse public reaction occurs in the United States, genetic research and its resulting products could be subject to greater domestic regulation and could decrease the demand for our technology and products.

IF CONFLICTS ARISE BETWEEN US AND OUR COLLABORATORS, STRATEGIC PARTNERS, SCIENTIFIC ADVISORS OR DIRECTORS, THESE PARTIES MAY ACT IN THEIR SELF-INTEREST, WHICH MAY LIMIT OUR ABILITY TO IMPLEMENT OUR STRATEGIES.

If conflicts arise between us and our corporate or academic collaborators, strategic partners or scientific advisors or directors, the other party may act in its self-interest which may limit our ability to implement our strategies. Some of our Universal GeneTools or academic collaborators or strategic partners are conducting multiple product development efforts within each area that is the subject of the collaboration with us. Generally, in each of our collaborations, we have agreed not to conduct independently, or with any third party, any research that is competitive with the research conducted under our collaborations. Our collaborations may cause us to limit the areas of research that we pursue, either alone or with others. Our collaborators or strategic partners, however, may develop, either alone or with others, products in related fields that are competitive with the products or potential products that are the subject of these collaborations. Competing products, either developed by the collaborators or strategic partners or to which the collaborators or strategic partners have rights, may result in their withdrawal of support for our product candidates.

Some of our collaborators or strategic partners could also become competitors in the future. Our collaborators or strategic partners could develop competing products, preclude us from entering into collaborations with their competitors, fail to obtain timely regulatory approvals, terminate their

agreements with us prematurely or fail to devote sufficient resources to the development and commercialization of products. Any of these developments could harm our product development efforts.

OUR COLLABORATIONS WITH OUTSIDE SCIENTISTS MAY BE SUBJECT TO CHANGE WHICH COULD LIMIT OUR ACCESS TO THEIR EXPERTISE.

We work with scientific advisors and collaborators at academic research institutions. These scientists are not our employees and may have other commitments that would limit their availability to us. Although our scientific advisors generally agree not to do competing work, if a conflict of interest between their work for us and their work for another entity arises, we may lose their services. Although our scientific advisors and academic collaborators sign agreements not to disclose our confidential information, it is possible that some of our valuable proprietary knowledge may become publicly known through them.

IF WE USE BIOLOGICAL AND HAZARDOUS MATERIALS IN A MANNER THAT CAUSES INJURY OR VIOLATES LAWS, WE MAY BE LIABLE FOR DAMAGES.

Our research and development activities involve the controlled use of potentially harmful biological materials as well as hazardous materials, chemicals and various radioactive compounds. We cannot completely eliminate the risk of accidental contamination or injury from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for damages that result, and any liability could exceed our resources. We are subject to federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations could be significant.

ANTI-TAKEOVER PROVISIONS IN OUR CERTIFICATE OF INCORPORATION AND DELAWARE LAW COULD PREVENT A POTENTIAL ACQUIROR FROM BUYING YOUR STOCK.

Anti-takeover provisions of Delaware law, in our certificate of incorporation and equity benefit plans may make a change in control of our company more difficult, even if a change in control would be beneficial to our stockholders. These provisions may allow our board of directors to prevent or make changes in the management and control of our company. In particular, our board of directors will be able to issue up to 5,000,000 shares of preferred stock with rights and privileges that might be senior to our common stock, without the consent of the holders of the common stock. Further, without any further vote or action on the part of the stockholders, the board of directors will have the authority to determine the price, rights, preferences, privileges and restrictions of the preferred stock. This preferred stock, if it is ever issued, may have preference over and harm the rights of the holders of common stock. Although the issuance of this preferred stock will provide us with flexibility in connection with possible acquisitions and other corporate purposes, this issuance may make it more difficult for a third party to acquire a majority of our outstanding voting stock. Similarly, our authorized but unissued common stock is available for future issuance without stockholder approval.

In addition, our certificate of incorporation:

- states that stockholders may not act by written consent but only at a stockholders' meeting;

- establishes advance notice requirements for nominations for election to the board of directors or proposing matters that can be acted upon at stockholders' meetings; or

- limits who may call a special meeting of stockholders.

RISKS RELATED TO THIS OFFERING

OUR STOCK PRICE MAY BE VOLATILE, WHICH COULD RESULT IN SUBSTANTIAL LOSSES FOR INVESTORS PURCHASING SHARES IN THIS OFFERING.

Volatility in the biotechnology market could cause you to incur substantial losses. Prior to this offering, you could not buy or sell our common stock publicly. An active public market for our common stock may not develop or be sustained after this offering. We will negotiate and determine the initial public offering price with the representatives of the underwriters based on several factors. In addition, the market price of our common stock may be highly volatile. The market prices of securities of biotechnology companies are currently highly volatile. The market price of our common stock may fluctuate significantly in response to the following factors, some of which are beyond our control:

- changes in market valuations of similar companies, since many biotechnology companies have recently registered their securities to trade publicly and may create a more volatile trading sector;

- announcements by us or our competitors of new or enhanced products, technologies or services or significant contracts, acquisitions, strategic relationships, joint ventures or capital commitments;

- regulatory developments;

- additions or departures of key personnel;

- deviations in our results of operations from the estimates of securities analysts; and

- future sales of our common stock or other securities.

OUR STOCK PRICE COULD BE ADVERSELY AFFECTED BY ADDITIONAL SHARES BECOMING AVAILABLE FOR SALE.

Sales of a substantial number of shares of our common stock, or the perception that these sales could occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. In addition, we have entered into registration rights agreements with some investors that entitle these investors to have their shares registered for sale in the public market. The exercise of these rights could affect the market price of our common stock. See "Shares Eligible for Future Sale" for further information concerning potential sales of our shares after this offering.

PURCHASERS IN THIS OFFERING WILL INCUR IMMEDIATE AND SUBSTANTIAL DILUTION.

We expect that the initial public offering price of our common stock will be substantially higher than the book value per share of the outstanding common stock. As a result, you will incur immediate and substantial dilution of $11.73 per share in the net tangible book value per share of common stock from the initial public offering price. In the past, we issued options and warrants to acquire common stock at prices significantly below the initial public offering price. The exercise of options and warrants currently outstanding could cause additional, substantial dilution to you. See "Dilution" for more detailed information regarding the potential dilution you may incur.

INSIDERS WILL CONTINUE TO HAVE SUBSTANTIAL CONTROL OVER SANGAMO AFTER THIS OFFERING AND COULD DELAY OR PREVENT A CHANGE IN CORPORATE CONTROL.

The interest of management could conflict with the interest of our other stockholders. Upon completion of this offering, our executive officers, directors and principal stockholders will beneficially

own, in the aggregate, approximately 31.3% of our outstanding common stock. As a result, these stockholders, if they choose to act together, will be able to exercise control over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change of control of Sangamo, which in turn could reduce the market price of our stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some statements contained in this prospectus are forward-looking with respect to our operations, economic performance and financial condition. Statements that are forward-looking in nature should be read with caution because they involve risks and uncertainties, they are included, for example, in specific and general discussions about:

- our strategy;
- sufficiency of our cash resources;
- revenues from existing and new collaborations;
- product development;
- our research and development and other expenses;
- our operational and legal risks; and
- our plans, objectives, expectations and intentions and any other statements that are not historical facts.

Various terms and expressions similar to them are intended to identify these cautionary statements. These terms include: "anticipates," "believes," "continues," "could," "estimates," "expects," "intends," "may," "plans," "seeks," "should" and "will." Actual results may differ materially from those expressed or implied in those statements. Factors that could cause these differences include, but are not limited to, those discussed under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

ABOUT THIS PROSPECTUS

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information that is different from that contained in this prospectus. We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock.

This preliminary prospectus is subject to completion prior to this offering. Among other things, this preliminary prospectus describes our company as we currently expect it to exist at the time of this offering.

Universal Gene Recognition(TM), Universal GeneTools(TM), ZFP-Diagnostics(TM), ZFP-Therapeutics(TM), ZFP-Transgenics(TM) and ZFP(TM) are our trademarks. We will apply to register Universal Gene Recognition, Universal GeneTools, ZFP-Diagnostics, ZFP-Therapeutics, ZFP-Transgenics and ZFP. All trademarks and trade names appearing elsewhere in this prospectus are the property of their respective holders.

USE OF PROCEEDS

Our net proceeds from the sale of the 5,000,000 shares of common stock we are offering will be approximately $73.2 million, or $84.4 million if the underwriters' over-allotment option is exercised in full, based on an assumed initial offering price of $16.00 per share, after deducting the estimated underwriting discount and commissions and the estimated offering expenses.

We currently expect to use the net proceeds of this offering for research and development, capital equipment and general corporate purposes. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own, although no acquisitions are planned or being negotiated as of the date of this prospectus, and no portion of the net proceeds has been allocated for any specific acquisition or for acquisitions generally. Pending these uses, the net proceeds will be invested in short term, investment grade, interest-bearing securities.

The principal purposes of the offering are to increase our capitalization and financial flexibility, to provide a public market for our common stock and to facilitate access to public equity markets. While it is not possible to estimate with certainty how the net proceeds of this offering will be used over the next three years, we believe that approximately $60 million will be used for research and development, approximately $10 million for capital equipment and the balance for general corporate purposes. Since these are only estimates, our management will have broad discretion in the application of net proceeds.

DIVIDEND POLICY

We have never paid dividends on our common or preferred stock. We currently intend to retain any future earnings to support the development of our business. Therefore, we do not currently anticipate paying any cash dividends in the foreseeable future.

CAPITALIZATION

The following table sets forth our capitalization as of December 31, 1999:

- on an actual basis
- on a pro forma basis to give effect to:
  - automatic conversion of all outstanding shares of preferred stock into 9,711,834 shares of common stock upon consummation of the offering;
  - the issuance of 333,333 shares of preferred stock in January 2000 which converts into 666,666 shares of common stock upon consummation of the offering;
  - the issuance of a $5 million note in January 2000 and a $7.5 million note in March 2000 which convert, together with accrued interest, into 789,587 shares of common stock at an assumed initial public offering price upon consummation of the offering of $16.00.
- on a pro forma as adjusted basis to give effect to the sale of 5,000,000 shares of our common stock at an assumed initial public offering price of $16.00 per share in this offering, after deducting the estimated underwriting discounts and commissions and our estimated offering expenses.

You should read this table with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Financial Statements and Notes to the Financial Statements appearing elsewhere in this prospectus.

	AS OF DECEMBER 31, 1999		
	ACTUAL	PRO FORMA	PRO FORMA AS ADJUSTED
	(IN THOUSANDS)		
Long-term debt, less current portion	$ 250	$ 250	$ 250
Stockholders' equity:			
Preferred stock, $0.01 par value, 6,000,000 shares authorized, actual and pro forma, 5,000,000 shares authorized, as adjusted; 4,855,917 shares issued and outstanding, actual, no shares issued and outstanding, pro forma and pro forma as adjusted	15,187	--	--
Common stock, $0.01 par value, 15,000,000 authorized, actual, 80,000,000 shares authorized, pro forma and pro forma as adjusted; 6,132,060 shares issued and outstanding, actual, 17,300,417 shares issued and outstanding, pro forma and 22,300,417 shares issued and outstanding, pro forma as adjusted	3,258	32,578	105,778
Note receivable from stockholder	(125)	(125)	(125)
Deferred stock compensation	(1,736)	(1,736)	(1,736)
Accumulated deficit	(8,785)	(8,918)	(8,918)
Accumulated other comprehensive income	83	83	83
Total stockholders' equity	7,882	21,882	95,082
Total capitalization	$ 8,132	$22,132	$ 95,332

The number of shares of common stock outstanding excludes:

- 1,872,666 shares of common stock issuable upon exercise of stock options outstanding at a weighted average exercise price of $0.15 per share;
- 259,962 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of $2.00 per share; and
- a total of 2,400,000 shares of common stock available for future issuance under our stock option plans.

DILUTION

Our pro forma net tangible book value at December 31, 1999 was $7.1 million, or $0.50 per share, assuming the conversion of our preferred stock into common stock upon consummation of the offering. Pro forma net tangible book value per share represents total net tangible assets less liabilities, divided by pro forma common shares outstanding after giving effect to the conversion of our preferred stock into common stock upon the consummation of this offering. Subsequent to December 31, 1999, we issued 333,333 shares of preferred stock for $1.5 million which converts into 666,666 shares of common stock upon consummation of this offering, and a $5 million note in January 2000 and a $7.5 million note in March 2000 which convert, together with accrued interest, into 789,587 shares of common stock at an assumed initial offering price of $16.00, upon consummation of this offering. These subsequent issuances increased our pro forma net tangible book value per share by $0.76, assuming their conversion into common stock.

After giving effect to our sale of shares of common stock in this offering and after deducting the underwriting discounts and commissions and our estimated offering expenses, our pro forma net tangible book value as of December 31, 1999 would have been $95.1 million, or $4.26 per share. This represents an immediate increase in pro forma net tangible book value of $3.00 per share to existing stockholders and an immediate dilution of $11.74 per share to new investors. Dilution in pro forma net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of our common stock in this offering and the pro forma net tangible book value per share of our common stock immediately following this offering. The following table illustrates this per share dilution:

Initial public offering price per share		$16.00
Pro forma net tangible book value per share at December 31, 1999	$ 0.50	
Increase per share attributable to equity and convertible note issuances subsequent to December 31, 1999	0.76	
Increase per share attributable to the offering	3.00	
Pro forma net tangible book value per share after the offering		4.26
Dilution per share to new investors		$11.74

The following table summarizes, using the same pro forma assumptions as above and assuming an initial public offering price of $16.00, the differences between the existing stockholders and new investors with respect to the number of shares of common stock purchased from us, the total consideration paid to us, and the average price per share.

	SHARES PURCHASED		TOTAL CONSIDERATION		AVERAGE PRICE
	NUMBER	PERCENT	AMOUNT	PERCENT	PER SHARE
Existing stockholders	17,300,417	78%	$ 29,478,000	27%	$ 1.70
New investors	5,000,000	22	80,000,000	73	16.00
Totals	22,300,417	100%	$109,478,000	100%	

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This table excludes the following shares as of December 31, 1999:

- 1,872,666 shares issuable upon exercise of outstanding options at a weighted average exercise price of $0.15 per share;
- 259,962 shares issuable upon exercise of outstanding warrants at a weighted average exercise price of $2.00 per share; and
- a total of 2,400,000 shares available for future issuance under our stock plans.

See "Management -- Stock Plans" and Note 4 of Notes to Financial Statements.

SELECTED FINANCIAL DATA

Our audited financial statements, which have been audited by Ernst & Young LLP, were used for the following selected statement of operations data for the period from inception to December 31, 1995 and for the years ended December 31, 1996, 1997, 1998 and 1999, and the balance sheet data as of December 31, 1995, 1996, 1997, 1998 and 1999. The diluted net loss per share computation excludes potential shares of common stock (preferred stock, options and warrants to purchase common stock and common stock subject to repurchase rights that we hold), since their effect would be antidilutive. See Note 1 of Notes to Financial Statements for a detailed explanation of the determination of the shares used to compute actual and pro forma basic and diluted net loss per share. Our historical results are not necessarily indicative of results to be expected for future periods. You should read the following selected financial data along with our Financial Statements and related Notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

	YEAR ENDED DECEMBER 31,				
	1995	1996	1997	1998	1999
	(IN THOUSANDS, EXCEPT PER SHARE DATA)				
STATEMENT OF OPERATIONS DATA:					
Total revenues	$ 183	$ 632	$ 1,152	$ 2,038	$ 2,182
Operating expenses:					
Research and development	150	628	1,700	4,259	4,266
General and administrative	50	322	797	1,237	1,822
Total operating expenses	200	950	2,497	5,496	6,088
Loss from operations	(17)	(318)	(1,345)	(3,458)	(3,906)
Interest income (expense), net	--	10	(55)	173	131
Net loss	$ (17)	$ (308)	$(1,400)	$(3,285)	$(3,775)
Basic and diluted net loss per share	$(0.00)	$(0.06)	$ (0.26)	$ (0.56)	$ (0.63)
Shares used in computing basic and diluted net loss per share	5,000	5,143	5,485	5,843	5,991
Pro forma basic and diluted net loss per share (unaudited)					$ (0.29)
Shares used in computing pro forma basic and diluted net loss per share (unaudited)					13,102

	AS OF DECEMBER 31,				
	1995	1996	1997	1998	1999
	(IN THOUSANDS)				
BALANCE SHEET DATA:					
Cash, cash equivalents and short-term investments	$243	$ 358	$ 6,314	$ 3,058	$ 7,503
Working capital	308	434	6,233	3,161	7,206
Total assets	346	539	6,896	4,032	9,162
Long-term debt	--	--	--	250	250
Accumulated deficit	(17)	(325)	(1,725)	(5,010)	(8,785)
Total stockholders' equity	308	434	6,409	3,404	7,882

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis along with the "Selected Financial Data" and the financial statements and notes attached to those statements included elsewhere in this prospectus.

OVERVIEW

We were incorporated in June 1995. From our inception through December 31, 1999, our activities related primarily to establishing a research and development organization and developing relationships with our Universal GeneTools collaborators. We have incurred net losses since inception and expect to incur losses in the near future as we expand our research and development activities. To date, we have funded our operations primarily through the issuance of equity securities, borrowings, and payments from federal government research grants and from Universal GeneTools collaborators. As of December 31, 1999, we had an accumulated deficit of $8.8 million.

Our revenues consist primarily of federal government research grant funding and revenues from our Universal GeneTools collaborators. We expect that in the near future, our revenues will also include payments from strategic partners for technology access fees, committed research funding and research milestone payments.

In January 2000, we announced that we had entered into a strategic partner agreement with Edwards LifeScience, Inc., formerly the CardioVascular Group of Baxter Healthcare Corporation for the development of ZFPs in cardiovascular and peripheral vascular diseases. Under this agreement, Baxter has purchased a $5 million convertible note which will convert, together with accrued interest, into common stock upon consummation of this offering, and we have received $1 million in initial research funding from Baxter. In March 2000, Baxter exercised an option by purchasing a $7.5 million convertible note, which will convert, together with accrued interest, into common stock upon consummation of this offering, for a right of first refusal to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular disease. In the future, we may receive option fees, milestone payments, royalties and additional research funding from this agreement. See "Business -- Corporate Collaborations" and Note 7 of Notes to Financial Statements.

Research and development expenses consist primarily of salaries and related personnel expenses, subcontracted research expenses, and technology license expenses. As of December 31, 1999, all research and development costs have been expensed as incurred. We believe that continued investment in research and development is critical to attaining our strategic objectives. We expect these expenses will increase significantly in the future as we continue to develop our Universal Gene Recognition technology platform.

General and administrative expenses consist primarily of salaries and related personnel expenses for executive, finance and administrative personnel, professional fees, and other general corporate expenses. As we add personnel and incur additional costs related to the growth of our business, general and administrative expenses will also increase.

STOCK COMPENSATION

During the years ended December 31, 1997, 1998 and 1999, in connection with the grant of stock options to employees and directors, we recorded deferred stock compensation totaling $449,000, $780,000 and $1.5 million, respectively, representing the difference between the fair value of our common stock on the date such options were granted and the exercise price. These amounts are

included as a reduction of stockholders' equity and are being amortized over the vesting period of the individual options, generally four years, using the graded vesting method. The graded vesting method provides for vesting of portions of the overall award at interim dates and results in higher vesting in earlier years than straight-line vesting. The fair value of our common stock for purposes of this calculation was determined based on the business factors underlying the value of our common stock on the date such option grants were made, viewed in light of this offering and the expected initial public offering price per share. We recorded amortization of deferred stock compensation of $46,000, $410,000 and $519,000, for the years ended December 31, 1997, 1998 and 1999, respectively. At December 31, 1999, we had a total of $1.7 million remaining to be amortized over the vesting periods of the stock options. Through March 13, 2000 we recorded additional deferred stock compensation of $5.8 million in connection with grants of stock options subsequent to December 31, 1999 and we may record additional deferred stock compensation for options granted prior to the closing of this offering. You should read Note 4 of Notes to Financial Statements for more information.

RESULTS OF OPERATIONS

Years Ended December 31, 1999 and 1998

Total revenues. Total revenues consist of revenues from collaboration agreements and federal government research grants. Revenues from our Universal GeneTools agreements were $1.0 million in 1999, compared with $150,000 during 1998, an increase of $850,000. The increase in 1999 was principally attributable to revenues recognized from collaboration agreements signed since the third quarter of 1998. We expect revenues from these agreements to continue to increase as additional agreements are signed or existing agreements are expanded. Federal government research grant revenues were $1.2 million in 1999, compared to $1.9 million in 1998, a decrease of $706,000. The decrease in 1999 was principally due to an increased focus on Universal GeneTools collaborations and strategic partners in 1999 as some existing federal research government grants ended. We plan to continue to apply for federal government research grants.

Research and development expenses. Research and development expenses were $4.3 million for 1999 and 1998 as reductions in laboratory supplies and equipment expenses were offset by increases in stock compensation expense. We expect research and development expenses to increase significantly in future periods, particularly as we increase the scientific staff to continue to develop the Universal Gene Recognition technology and to meet the needs of our Universal GeneTools collaborators and strategic partners.

General and administrative expenses. General and administrative expenses increased by $585,000, from $1.2 million in 1998 to $1.8 million in 1999. This increase was primarily attributable to increased staffing to support our expanded research and development activities and development of our Universal Gene Recognition technology. We expect that general and administrative expenses will increase in the future to support continued growth of our research and development efforts.

Interest income (expense), net. Interest income (expense), net decreased by $42,000 from $173,000 in 1998 to $131,000 in 1999. The decrease in interest income, net resulted from lower average interest-bearing balances and higher debt balances during 1999.

Years Ended December 31, 1998 and 1997

Total revenues. Federal government research grant revenues increased by $736,000 from $1.2 million in 1997 to $1.9 million in 1998. This increase was principally attributable to revenue from new federal government research grants, including a grant from the Department of Commerce under the Advanced Technology Program initiated in late 1997.

Research and development expenses. Research and development expenses increased $2.6 million from $1.7 million in 1997 to $4.3 million in 1998. This increase was primarily attributable to increases in staffing as we added additional employees to invest in the development of our Universal Gene Recognition technology platform. In addition, we incurred additional expense from expanded laboratory facilities in 1998, our first full year in our new facility in Richmond, California.

General and administrative expenses. General and administrative expenses increased by $440,000 from $797,000 in 1997 to $1.2 million in 1998. This increase reflected increased administrative staffing in support of our expanding research and development activities.

Interest income (expense), net. Interest income (expense), net increased by $228,000 from net interest expense of $55,000 in 1997 to net interest income of $173,000 in 1998. This increase was due to higher interest-bearing balances as a result of preferred stock financings in late 1997, as well as the elimination of interest expense as a result of conversion of a bridge loan into preferred stock in the 1997 financings.

We incurred net operating losses in 1997, 1998 and 1999 and consequently we did not pay any federal, state or foreign income taxes.

LIQUIDITY AND CAPITAL RESOURCES

Since inception, we have financed our operations primarily through the private placements of preferred stock, federal government research grants, payments from Universal GeneTools collaborators and a strategic partner and financing activities such as a bank line of credit. As of December 31, 1999, we had cash, cash equivalents and short-term investments totaling $7.5 million.

Net cash used in operating activities was $2.4 million for 1999, $3.2 million in 1998 and $818,000 in 1997. In all periods, net cash used in operating activities was primarily due to funding of net operating losses.

Net cash used in investing activities was $6.0 million in 1999, $2.2 million in 1998 and $124,000 in 1997. Cash was used during these periods to purchase short-term investments and property and equipment.

Net cash provided by financing activities during 1999 was $7.5 million as a result of the private placement of preferred stock. Net cash provided by financing activities in 1998 was $253,000 primarily representing the proceeds from a bank note payable used to finance equipment purchases. Net cash provided by financing activities in 1997 was $6.9 million primarily from proceeds from the private placement of preferred stock.

We believe that the net proceeds of this offering, together with available cash resources, funds received under federal government research grants and from Universal GeneTools collaborators and a strategic partner are sufficient to finance our operations for at least two years. To date, we have been awarded research grants from the National Institute of Standards and Technology and the National Institutes of Health amounting to approximately $5.6 million, of which approximately $5.0 million has been used from our inception through December 31, 1999. We may need to raise substantial additional capital to fund subsequent operations. Funding, however, may not be available on favorable terms, if at all.

As of December 31, 1999, we had federal and state net operating loss carryforwards of approximately $7.9 million to offset future taxable income. We also had federal research and development tax credit carryforwards of approximately $100,000. If not used, net operating loss and credit carryforwards will begin to expire in 2010. Use of the net operating losses and credits may be

subject to a substantial annual limitation due to ownership change limitations provided by the Internal Revenue Code of 1986. The annual limitation may result in the expiration of our net operating losses and credits before they can be used. Also, if we do not become profitable, we will not be able to use these net operating losses and credits.

DISCLOSURE ABOUT MARKET RISK

Our exposure to market risk for changes in interest rates relates primarily to our cash equivalents and short-term investments. The short-term investments are available for sale. We do not use derivative financial instruments in our investment portfolio. We attempt to ensure the safety and preservation of our invested funds by limiting default and market risks. Our cash and investments policy emphasizes liquidity and preservation of principal over other portfolio considerations. We select investments that maximize interest income to the extent possible within these guidelines. We satisfy liquidity requirements by investing excess cash in securities with different maturities to match projected cash needs and limit concentration of credit risk by diversifying our investments among a variety of high credit-quality issuers. We mitigate default risk by investing in only investment-grade securities. The portfolio includes marketable securities with active secondary or resale markets to ensure portfolio liquidity. All short-term investments have a fixed interest rate and are carried at market value, which approximates cost. Our investment portfolio at December 31, 1999 had an average maturity of 104 days, and therefore we believe we have insignificant market risk. If market interest rates were to increase by 1% from December 31, 1999, the fair value of our portfolio would decline by less than $25,000. The modeling technique used measures the change in fair values arising from an immediate hypothetical shift in market interest rates and assumes ending fair values include principal plus accrued interest.

YEAR 2000 ISSUES

We did not experience any significant problems associated with Year 2000 issues, and we are not aware that any of our vendors or suppliers experienced any of these problems. We do not believe that any Year 2000 issues are likely to have a material effect on our business, financial condition or results of operations.

BUSINESS

OVERVIEW

Sangamo is a leader in the research and development of transcription factors for the regulation of genes. Our Universal Gene Recognition platform is a proprietary technology based on engineering a class of transcription factors referred to as zinc finger DNA binding proteins, or ZFPs. We believe that Universal Gene Recognition is a fundamentally enabling technology, widely applicable to pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics and agricultural and industrial biotechnology. We intend to commercialize our technology broadly over its many applications.

BACKGROUND

Genes and Gene Expression. Deoxyribonucleic acid, or DNA, is present in all living cells and is responsible for determining the inherited characteristics of all living organisms. DNA is arranged on chromosomes in individual units called genes. Genes encode proteins, which are assembled through the processes of transcription, whereby DNA is transcribed into ribonucleic acid, or RNA, and translation, whereby RNA is translated into protein. DNA, RNA, and proteins represent a large percentage of the targets for pharmaceutical drug discovery.

The human body is composed of specialized cells that perform different functions and are thus organized into tissues and organs. All cells in the human body contain the same set of genes. It is believed, however, that only about 10% of these genes are turned on, or expressed, in an individual human cell. Genes are turned on or turned off, or activated or repressed, in response to a wide variety of stimuli and developmental signals. Different sets of genes are expressed in distinct types of cells. It is this pattern of gene expression that determines the structure, biological function and health of all cells, tissues and organisms. The under- or over-expression of certain genes, can lead to disease.

Transcription Factors. Regulation of gene expression is controlled by proteins that bind to DNA called transcription factors. A transcription factor regulates gene expression by recognizing and binding to a specific DNA sequence associated with a particular gene and causing that gene to be activated or repressed. In virtually all higher organisms, transcription factors consist of two components: the first is a DNA binding element, or domain, that recognizes a specific DNA sequence and thereby directs the transcription factor to the proper chromosomal location; the second is a functional domain that determines whether the gene is activated or repressed.

The Genomics Revolution. Genomics refers to the sequencing and functional analysis of the complete set of genes of diverse organisms throughout the animal and plant world. Enormous scientific and financial resources are being dedicated to the sequencing of all human genes, including the Human Genome Project and other publicly and privately funded genomics initiatives. It is expected that a preliminary sequence of the human genome will be completed in the year 2000.

Over the past decade, genomics research has produced a significant quantity of information on the location, sequence and structure of thousands of genes. The human genome may contain upwards of 140,000 unique genes. The challenge facing the pharmaceutical and other life science industries is how to derive medically and commercially valuable knowledge about the function of these genes from this large accumulation of new genomic information.

Genome-Based Drug Discovery and Other Applications. The delivery of the entire human DNA sequence, with its bounty of new genes and potential drug discovery targets, simultaneously poses a competitive challenge and significant commercial opportunity to every pharmaceutical company to:

- accelerate the identification of drug targets from thousands of newly discovered genes whose functions are unknown;
- sort through the hundreds of potential drug targets to confirm those for which proprietary drugs may be successfully developed;
- increase the accuracy and efficiency of the process by which pharmaceutical researchers screen large libraries of chemical compounds to identify those which have therapeutic activity, known as compound screening; and
- discover new therapeutics that can control disease through the regulation of genes.

The genomics revolution poses a similar set of challenges and opportunities to agricultural biotechnology researchers, including identification of agriculturally important genes, the assessment of which genes may be commercially viable and the development of improved agrochemicals and crops. In another application of genomics research, bacteria, yeast and plants may be used for the biological production of industrial chemicals.

Commercial Opportunities Based on the Regulation of Gene Expression. The ability to regulate genes has the potential to enable far-reaching applications in the human healthcare, agricultural and industrial biotechnology sectors, including:

- discovery of new genes and analysis of how they function;
- therapeutic products for the regulation of disease-related genes;
- manufacture of pharmaceutical products;
- modifying cells for the selection of new drugs;
- DNA sequence detection for applications in pharmaceutical research and clinical diagnostics;
- engineering plants to improve their nutritional and growth properties; and
- manufacture of industrial chemicals using biological systems.

A technology enabling the design of transcription factors to regulate genes could have significant commercial utility in each of the applications listed above.

SANGAMO'S UNIVERSAL GENE RECOGNITION TECHNOLOGY PLATFORM

Our Universal Gene Recognition platform is a proprietary technology for the regulation of gene expression that is enabled by the engineering of a class of transcription factors called zinc finger DNA binding proteins, or ZFPs. ZFP transcription factors have two distinct elements, or domains: a DNA recognition domain that directs the transcription factor to the proper chromosomal location by recognizing a specific DNA sequence and a functional domain that causes the gene to be activated or repressed. This two-component structure of our engineered ZFP transcription factors is modelled on the structure of naturally occurring transcription factors in virtually all higher organisms.

THE MODULAR STRUCTURE OF ZFP TRANSCRIPTION FACTORS

[MODULAR STRUCTURE OF ZFP]

[The figure is a "bar-bell" type structure identifying the DNA domain and the functional domains of the ZFP transcription factor. Also included is a list of functional domains.]

Consistent with this two-domain structure, we take a modular approach to the design of ZFP transcription factors. The recognition domain is composed of one or more ZFPs. Each ZFP recognizes and binds to a three base pair sequence of DNA. Multiple ZFPs can be linked together to recognize longer stretches of DNA. By modifying those portions of a ZFP that interact with DNA, we believe we can create new ZFPs capable of recognizing DNA sequences in virtually any gene whose sequence is known.

The ZFP DNA recognition domain is coupled to a functional domain, which causes the ZFP transcription factor to control or regulate the gene in a desired manner. For instance, an activation domain causes a target gene to be activated. Alternatively, a repression domain causes the gene to be repressed. Similarly, a detection domain could be used to identify or detect the target DNA sequence in a diagnostic test. It is also possible to use the ZFP transcription factor in a way that temporarily activates or represses a gene. This conditional regulation of a gene allows the effects of gene expression to be controlled in a reversible fashion.

In order to regulate a gene, the ZFP transcription factor must be delivered to a cell. We have licensed gene transfer technology from Targeted Genetics, Inc. for use with our Universal GeneTools in pharmaceutical discovery. We are evaluating this and other technologies for the delivery of ZFPs into cells.

To date, we have generated hundreds of ZFPs and have tested their affinity, or tightness of binding, to their DNA target, and their specificity, or preference for their intended DNA target. We have developed software and standardized methods for the assembly of ZFPs capable of binding to a

wide spectrum of DNA sequences. We have linked ZFPs to functional domains to create ZFP transcription factors and have demonstrated the ability of these ZFP transcription factors to regulate a limited number of commercially important genes. We have also shown that engineered ZFPs can detect discrete changes in medically interesting genes.

THE SANGAMO ADVANTAGE

We believe that the unique features of ZFP transcription factors will result in important technical advantages, as compared to alternative technologies. Among the advantages of our ZFP transcription factor-based approach to gene regulation are:

- ZFP transcription factors normally and naturally regulate genes in virtually all higher organisms;

- ZFPs can be designed to recognize unique DNA sequences, resulting in the ability to distinguish a single gene within the entire genome;

- ZFP transcription factors can activate or repress genes, enhancing their versatility;

- ZFP transcription factors can be used to regulate gene expression in humans, animals, plants, microbes and viruses; and

- ZFP transcription factors can themselves be activated and repressed, allowing conditional and reversible regulation of a gene.

We believe that the technical advantages of Universal Gene Recognition will create leverage across multiple applications, products, markets and commercial partners:

Pharmaceutical Discovery Research

- DISCOVERY OF NEW GENES AND TARGETS. ZFP transcription factors can be used to change patterns of gene expression in cells, to stimulate clinically interesting changes in these cells, and to determine the genes associated with these changes.

- VALIDATION OF GENE TARGETS. ZFP transcription factors can be used to target specific genes which is critical to researchers trying to confirm the function and validity of gene targets for drug development.

- ANIMAL MODELS OF HUMAN DISEASES. The reversible expression of ZFP transcription factors is a desirable feature in animal models.

- ASSAY DEVELOPMENT. The regulation of multiple genes may be an effective approach to the engineering of proprietary cells for the screening and selection of new pharmaceutical products.

Human Therapeutics

- HUMAN THERAPEUTICS. ZFP-Therapeutics are transcription factors developed as pharmaceutical products to treat a broad spectrum of diseases through the regulation of disease-related genes.

- MANUFACTURING OF PROTEIN PHARMACEUTICALS. We believe ZFP-engineered human cell lines can be used for production of commercially relevant protein pharmaceuticals.

DNA Diagnostics

- SNP DETECTION. The specificity of ZFPs permits the detection of discrete changes in DNA, also known as single nucleotide polymorphisms or SNPs. We believe SNPs are likely to

become increasingly important in clinical diagnosis to determine an individual's susceptibility to disease or probable response to drug therapy.

- AUTOMATION. Unlike conventional DNA detection technologies, ZFPs recognize DNA in its natural form, which may permit a proprietary and automated approach to the development of DNA diagnostic assays.

Agricultural and Industrial Biotechnology

- AGRICULTURAL BIOTECHNOLOGY. ZFP transcription factors can be used to regulate genes in plants, potentially leading to applications in the identification of plant genes, agrochemical discovery and the development of new crops with enhanced nutritional properties.

- INDUSTRIAL BIOTECHNOLOGY. ZFP transcription factors may be used to regulate genes in yeast, other micro-organisms and plants which may permit the expanded use of engineered organisms for the manufacture of industrial chemicals.

OUR STRATEGY

Our strategic objective is to be the worldwide leader in the research and development of ZFP gene regulation technology and to commercialize this technology broadly. The key elements of our strategy are as follows:

Develop the Universal Gene Recognition Platform Across Multiple Applications. Our core competence, the generation of ZFP transcription factors for the regulation of genes in different organisms, creates leverage across many commercial applications. We intend to establish ZFP gene regulation as a widely accepted technology with applications and competitive advantages in each of our target markets.

Build the Technical Infrastructure of ZFP Gene Regulation. Our objective is to establish ZFPs as a widely used technology platform for the regulation of gene expression and DNA sequence detection. We are currently building an electronic "ZFP directory," or database that, when given a specific gene or DNA sequence, is designed to select optimal sites for ZFP binding and the corresponding ZFPs. Because of the modular nature of our engineered ZFP transcription factors, these ZFPs can be efficiently combined with a variety of functional domains, gene expression systems, and methods of delivery to target cells. We also intend to automate the assembly and testing of engineered ZFP transcription factors.

Develop Proprietary Drug Targets and Therapeutics. As we continue to build our technology platform and expand our revenue base through Universal GeneTools collaborations and strategic partnerships, we plan to apply ZFP transcription factors to the identification and validation of drug targets, and to the generation of proprietary data on new drug targets that can form the basis for future strategic partnerships as well as internal product development (see "Universal GeneTools for Pharmaceutical Discovery"). We also intend to develop ZFP transcription factors as human therapeutics for the direct regulation of disease-related genes (see "ZFP-Therapeutics").

Multi-tiered Business Model. We intend to leverage the broad applicability of ZFP gene regulation into commercial opportunities across multiple product markets. We are currently selling our proprietary Universal GeneTools on a non-exclusive basis to collaborators engaged in target validation for pharmaceutical discovery. We also intend to develop ZFP transcription factors for therapeutics with pharmaceutical and biotechnology companies on an exclusive basis in milestone-and royalty-based strategic partnerships. We plan to enter into several similar strategic partnerships across the pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology markets. We further intend to capture

additional value through our proprietary programs, which we may commercialize directly or enter into partnerships at a later stage to increase the economic benefit we retain.

COMMERCIAL APPLICATIONS

We are pursuing commercial applications of our Universal Gene Recognition technology in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology.

SANGAMO'S BUSINESS PLATFORM

[UNIVERSAL GENE RECOGNITION GRAPH]

[Graphic showing the four different commercial applications of our Universal Gene Recognition technology platform.]

Universal GeneTools for Pharmaceutical Discovery

We are applying Universal GeneTools to assist pharmaceutical researchers in their efforts to capitalize on the large accumulation of new genetic information being generated by the genomics revolution. Among the issues that researchers must address are:

- identifying disease-related genes;
- confirming the validity of these genes and their protein products as appropriate targets for drug discovery by determining the function and suitability of targets for therapeutic intervention;
- for validated drug targets, screening large collections of chemicals to identify chemical leads for drug development; and
- identifying variations in these gene sequences among patients and determining the relationship of these genetic variations with susceptibility to disease and probable response to drug therapy.

We believe that Universal GeneTools can accelerate the pace and quality of genome-based drug discovery at each of these critical steps.

Universal GeneTools for Validation of Drug Targets

As the number of genes identified as potential drug targets increases, the need to rapidly and efficiently confirm their role in disease increases as well. ZFP transcription factors are designed to regulate the expression of genes in cells and animals to determine their role in a particular disease. We and our Universal GeneTools collaborators have demonstrated the use of ZFP transcription factors in gene regulation in several cell models of gene expression and our collaborators are applying the technology to target validation in animal models of human disease.

The use of ZFP transcription factors addresses a number of technical challenges associated with target validation studies in transgenic animals. Typically, transgenic animals are genetically engineered mice in which a target gene has been inactivated, or knocked out. Generating a knockout mouse is labor intensive and can take up to one year. We believe the generation time for mice which have been engineered with ZFP transcription factors, or ZFP-Transgenic mice, may be much faster than the generation time for standard knockouts. In addition, researchers should gain more information from ZFP-Transgenics because ZFP transcription factors can themselves be regulated thus permitting the regulation of a target gene in a reversible fashion. This conditional control of genes in ZFP transcription factors should be a distinct advantage for the functional study of genes required in normal development. Typically, if an essential gene is knocked out, the knockout mouse will not grow to maturity. With ZFP gene regulation, however, we believe researchers can regulate essential genes at virtually any point in the animal's development. This enables the study of a gene's function in mature animals without altering the animal's normal development. We are working closely with some of our Universal GeneTools collaborators on ZFP-Transgenic models.

To date, we have entered into Universal GeneTools agreements with 18 leading pharmaceutical and biotechnology companies or their subsidiaries. These collaborators are applying our ZFP transcription factors to the validation of human gene targets for drug discovery. ZFP transcription factors are being incorporated into both cells and animals for this purpose. We are working with many of these companies to lay the basis for additional and expanded collaborations and increased market acceptance of our Universal GeneTools. See "Corporate Collaborations -- Universal GeneTools Collaborations."

ZFP-Engineered Cells for Identification of Drug Candidates

We plan to incorporate ZFP transcription factors into appropriate cell lines for the purpose of screening chemical compounds for drug discovery. In particular, we plan to engineer cell lines that permit the regulation of validated gene targets. Activating a gene may allow pharmaceutical researchers to increase the sensitivity, or responsiveness, to a given concentration of test compound in an assay. In addition, if a response is observed when the gene is both activated or repressed, it can be concluded that the test compound is not acting through the protein encoded by that gene and may be showing a false positive result.

We intend to commercialize ZFP-engineered cell lines for identification of drug product candidates by developing relationships with strategic partners in our Universal GeneTools business. Cell lines will be engineered and optimized by Sangamo scientists and transferred to our partners for use in their drug screening operations.

ZFP Libraries for Target Discovery

Pharmaceutical researchers are also interested in accelerating an important step in the first stages of genome-based drug discovery: the initial identification of new drug targets.

ZFP transcription factors can be used to change patterns of gene expression in cells, to stimulate clinically interesting changes in these cells, and to determine the genes associated with these changes. ZFP libraries are large collections of ZFP transcription factors that can be incorporated into populations of cells such that each cell receives one ZFP transcription factor. In any given cell, the ZFP transcription factor may change the function or health of the cell, causing it to change in appearance. The ZFP transcription factor that triggers this change can be purified, and its gene target identified. In this manner, these genes could be identified as potential targets for further study, validation, and drug screening.

We intend to commercialize our ZFP libraries by establishing strategic partnerships. We anticipate that ZFP libraries will be optimized by Sangamo scientists and used to identify targets in our partners' drug discovery programs. We also plan to use ZFP libraries to discover novel gene targets in our future, proprietary product development programs.

ZFP-Therapeutics

The promise of genome-based drug discovery includes the increasing supply of new drug targets. ZFP transcription factors may offer a highly specific approach to regulation of disease-related genes. We are developing ZFP transcription factors for the treatment of human diseases, or ZFP-Therapeutics, for cardiovascular, viral, and ophthalmic diseases and cancer.

Cardiovascular Disease

Cardiovascular disease is the leading cause of death in the United States with nearly one million deaths annually. Approximately 400,000 Americans undergo angioplasty, or opening, of coronary blood vessels each year due to cardiovascular disease. Approximately 35% of these patients suffer from restenosis, or partial reclosing of treated blood vessels, and require a second procedure or more invasive surgery such as coronary bypass.

There is increasing interest in the development of therapeutic approaches to cardiovascular disease that might stimulate the human body's natural ability to form new blood vessels. This natural process is called angiogenesis. In partnership with Edwards LifeScience, Inc., formerly the Cardiovascular Group of Baxter Healthcare Corporation, or Baxter, we are developing ZFP transcription factors designed to activate the expression of vascular endothelial growth factors, or VEGFs.

ZFP transcription factors for therapeutic angiogenesis may also be used in peripheral vascular diseases. We believe an advantage of the ZFP-Therapeutic approach is the potential ability to activate multiple genes as necessary to provide effective biological stimulation of angiogenesis. Our experiments on VEGF activation are ongoing.

Hepatitis B Viral Disease

Hepatitis B Virus, or HBV, is a worldwide health problem and is endemic in many regions of Asia and Africa. Although HBV infection can generally be prevented by vaccination, HBV remains a major clinical problem. It is estimated that there are more than 350 million chronic HBV carriers worldwide. The consequences of HBV infection include chronic active hepatitis and liver cirrhosis, the latter of which is a major cause of mortality. The risk of liver cancer in HBV carriers is estimated to be 100 times greater than in uninfected individuals.

In 1998, we initiated a research collaboration with Dr. Alan McLachlan of The Scripps Research Institute. The purpose of the collaboration is to evaluate our ZFP transcription factors designed to

repress the expression of HBV genes and viral replication in liver cells. Dr. McLachlan is an expert in the regulation of HBV gene expression and has developed several biological assays for the measurement of HBV gene expression and viral replication. Preliminary data suggest that our ZFP transcription factors can repress the expression of HBV genes in liver cells. We are continuing these studies to confirm and extend these results.

HIV Disease

HIV is the causative agent of AIDS, a disease that killed approximately 17,000 patients in the United States in 1998. Despite advances in pharmaceutical therapy, there are currently approximately 400,000 HIV-infected individuals in the United States and over 30 million people carrying the virus worldwide. The new combination therapies, known as cocktail therapies, have been demonstrated to be effective in clinical trials; however, the complexity of these regimens often results in poor patient compliance and reduced efficacy.

In collaboration with Dr. Leonid Stamatatos of the Aaron Diamond AIDS Research Center, we are testing our ZFP transcription factors designed to repress HIV gene expression in human cells. These transcription factors could provide the basis for the inhibition of HIV proliferation in patients infected with HIV. Preliminary data suggest these ZFP transcription factors can repress HIV gene expression in cells. Further experiments are ongoing.

In collaboration with Dr. Jeremy Berg of the Johns Hopkins University School of Medicine, we are also testing ZFP transcription factors designed to repress the expression of the human CCR5 gene, which encodes a protein used by HIV to gain entry into cells of the immune system. Repression of CCR5 expression in immune system cells may prevent HIV infection of these cells. Preliminary data suggest that our ZFP transcription factors can repress CCR5 gene expression in cells. Further experiments are ongoing.

Repression of Angiogenesis for Diabetic Retinopathy and Cancer

In contrast to cardiovascular disease, there are diseases that might benefit from the inhibition of angiogenesis. Diabetic retinopathy, the leading cause of blindness among diabetics, is the result of uncontrolled vascularization of the retina and appears to be due to the secretion of angiogenic factors such as VEGF. We believe that ZFP transcription factors designed to repress the expression of VEGF and other angiogenic factors may reverse this process.

Solid tumors require the ingrowth of new blood vessels if they are to grow beyond even a few millimeters in diameter. Tumor cells frequently signal for additional blood supply by secreting VEGF. Repression of VEGF expression in tumor cells with ZFP-Therapeutics may prevent this angiogenesis and slow or halt solid tumor growth.

We have designed multiple ZFP transcription factors designed to repress the expression of the VEGF gene. These ZFP transcription factors have shown repression of VEGF expression in cultured human cells. We intend to test this same approach in animal models of angiogenesis and cancer and, if successful, to enter into human clinical trials with a future strategic partner.

Commercialization of ZFP-Therapeutics

We plan to develop and commercialize ZFP-Therapeutics in partnership with pharmaceutical and biotechnology companies. We intend to negotiate partnerships with terms that will provide partners with exclusive rights to the regulation of specific genes, delineating in exact terms the

clinical indications and geographic areas covered under the agreement. We intend to commence additional therapeutic programs and may retain commercial rights to some of these products.

ZFP-Engineered Cell Lines for the Production of Protein Pharmaceuticals

Protein pharmaceuticals manufactured with genetically modified cells now account for more than $10 billion in annual worldwide sales. By using ZFP transcription factors to activate the expression of genes encoding therapeutic proteins in human cells, we are able to genetically engineer cells for production of protein pharmaceuticals. We plan to develop ZFP-engineered cell lines for production of commercially relevant proteins in partnership with pharmaceutical and biotechnology companies.

ZFPs for Pharmacogenomics and Clinical Diagnostics

Single nucleotide polymorphisms, or SNPs, are DNA sequence variations at specific chromosomal sites. SNPs have been the subject of increasing research in recent years. It is now believed that some SNPs may be strongly associated with some disease states, providing indicators of disease susceptibility and how individual patients might respond to a particular drug therapy. The pharmaceutical industry is investing in technology to monitor and record patient SNPs in clinical trials and to correlate clinical outcomes with SNP status.

We have shown that ZFPs can effectively detect small variations in DNA sequences and therefore may be used to detect SNPs in clinical samples. In addition, ZFPs bind to DNA in its natural form, permitting simplified preparation of DNA for analysis. Further, ZFPs are stable proteins and therefore amenable to the types of assays and instrumentation used in standard clinical and molecular biology laboratories. Combined with sensitive detection technologies, ZFPs have the potential to eliminate the extensive manipulation of patient DNA samples, reducing the time and cost, and increasing the accuracy of diagnostic assays.

We intend to commercialize ZFPs for SNP detection and DNA diagnostics in conjunction with partners engaged in the development of SNP diagnostic technology or the manufacturing and marketing of clinical diagnostics.

ZFP Transcription Factors for Agricultural and Industrial Biotechnology

Agricultural Biotechnology

The multibillion-dollar agrochemical industry is undergoing a transition to genome-based product discovery that is parallel to that of the worldwide pharmaceutical industry. In a relatively recent development, the genomics revolution has been applied to the sequencing of plant genes from some of the world's largest commercial crops. We believe that the genomes of most commercially important plants will be sequenced over the next several years. Similar to trends in pharmaceutical research, discovery of thousands of plant genes is creating enormous demand for technologies that can help ascertain gene function, identify important gene and agrochemical targets and regulate those genes through improved transgenic plants.

ZFP transcription factors are a central mode of gene regulation in plants. The ability to identify and subsequently regulate the expression of genes with ZFP transcription factors could lead to the creation of new plants that may increase crop yields, lower production costs, resist herbicides, pesticides and plant pathogens, and permit the development of branded agricultural products with unique nutritional and processing characteristics. In addition, ZFP transcription factors may be used to confirm the role of newly discovered genes in plant growth, metabolism and resistance to pathogens.

Modification of fatty acid composition in soybean seed oil is an example of this approach. Americans annually consume approximately 7.0 million metric tons of soybean seed oil. This oil is low in monounsaturated fatty acids as compared with the oil extracted from other seeds, and has reduced value because it must be chemically modified for some applications. Therefore, a genetically modified strain of soybean that yielded a higher mix of monounsaturated fatty acids in its seed oil would be highly desirable. FAD2-1 is a soybean gene that encodes an enzyme responsible for lowering the levels of monounsaturated fatty acids. We have generated ZFP transcription factors designed to recognize the FAD2-1 gene and repress its expression in soybean seed. We have initiated studies of FAD2-1 repression in soybeans.

To commercialize ZFP transcription factors in agricultural biotechnology, we intend to seek strategic relationships with corporate partners having capabilities in the research, development and commercialization of agricultural products.

Industrial Biotechnology

The U.S. chemical industry is undertaking a major strategic initiative to develop bacterial, fungal and plant biological systems for the production of industrial chemicals. This initiative is motivated by considerations of product performance, capital costs, environmental impact and dependence on fossil fuels, which provide the raw material for the production of many chemical feedstocks in the United States and around the world.

A principal challenge in harnessing biological systems for this purpose is engineering bacterial and fungal cells and plants to achieve predictable and specific regulation of multiple genes. We believe ZFP transcription factors are well suited to this task because of their natural ability to discriminate among closely related genes and their ability to regulate gene expression in a reversible fashion.

We believe that ZFP transcription factors will prove to be a commercially feasible approach for the engineering of cells and plants for the biological production of industrial chemicals and food additives. We intend to seek strategic relationships with corporate partners in the chemical and food processing industries to develop and commercialize applications of Universal Gene Recognition in industrial biotechnology.

CORPORATE COLLABORATIONS

We intend to apply the ZFP technology platform in several commercial applications where the products provide our strategic partners and collaborators with technical and economic advantages. We have established and will continue to pursue Universal GeneTools collaborations and strategic partnerships with selected pharmaceutical and biotechnology companies to fund internal research and development activities and to assist in product commercialization.

Baxter CardioVascular Group Strategic Partnership

In January 2000, we announced the initiation of a multiyear, therapeutic product development collaboration with Edwards LifeScience, Inc., formerly the CardioVascular Group of Baxter Healthcare Corporation. Under the agreement, we have licensed to Baxter on a worldwide, exclusive basis our ZFP-Therapeutics for the activation of VEGFs and VEGF receptors in cardiovascular and peripheral vascular diseases. In addition, Baxter has purchased a $5 million convertible note which will convert, together with accrued interest, into common stock upon consummation of this offering, and we have received $1 million in initial research funding from Baxter. We will be responsible for advancing product candidates into preclinical animal testing. Baxter will be responsible for preclinical

development, regulatory affairs, clinical development and the sales and marketing of the ZFP-Therapeutic products. In March 2000, Baxter exercised an option by purchasing a $7.5 million convertible note which will convert into common stock, together with accrued interest, upon consummation of this offering for a right of first refusal for three years to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. In the future, we may receive option fees, milestone payments, royalties and additional research funding from this agreement. Baxter has the right to terminate the agreement at any time upon 90 days written notice. In the event of termination, we retain all payments previously received.

Universal GeneTools Collaborations

We began marketing our Universal GeneTools products to the pharmaceutical and biotechnology industry in 1998. Our Universal GeneTools business is based upon the delivery of an engineered ZFP transcription factor which is capable of regulating the expression of a gene for which it is specifically designed and targeted.

Our Universal GeneTools agreements generally contain the following terms:

- Collaborators provide us with the gene target they wish to study and we design and deliver at least two ZFP transcription factors designed specifically for that collaborator's gene target;

- Collaborators retain all their rights in confidential gene targets and any data they generate with our ZFP transcription factors;

- Collaborators must provide us with the DNA sequence for the genes they wish to regulate;

- In most agreements, we retain the rights to make, use, develop and sell any product or service utilizing the ZFP transcription factors we provide to our collaborators. In the other agreements, however, our rights are limited, but we do not regard these limitations as material to our business;

- Many of our agreements provide that collaborators make a partial payment for ZFP transcription factors during the design stage, and complete their payment after receipt of the ZFP transcription factors. The agreements do not provide for milestone or royalty payments;

For fiscal year 1999, we recognized $1.0 million in revenues from these Universal GeneTools agreements.

To date, we have not licensed any intellectual property rights to our current Universal GeneTools collaborators that we believe are material to our business. Our Universal GeneTools collaborators are under no obligation to pursue product development programs with us, to use our technology, or to purchase any additional product from us. See "Risk Factors -- Commercialization of our technologies depends on strategic partnering with other companies, and if we are not able to find strategic partners in the future, we may not be able to develop our technologies or products which could slow our growth and decrease our revenues."

We have entered into Universal GeneTools collaborations with 18 leading pharmaceutical or biotechnology companies or their subsidiaries.

RESEARCH GRANTS

We have received awards and government grants during the past several years that have totaled approximately $5.6 million. These grants have provided non-dilutive research funding to develop our technology platform for specific applications, primarily in the areas of diagnostics and anti-viral therapeutics.

SUMMARY OF MAJOR U.S. GOVERNMENT GRANTS

AREA OF GRANT	GRANTING AGENCY	DESCRIPTION	GRANT DATE	DOLLAR AMOUNT
DNA Diagnostics	National Institute of Standards and Technology	Generation and development of novel nucleic acid binding proteins and their use as DNA diagnostics	August 1995 (completed)	$2,000,000
Antiviral Therapeutics	National Institute of Standards and Technology	Development of novel DNA binding proteins as antiviral therapeutics targeting HIV and Hepatitis B	May 1997	$2,000,000
HIV	National Institutes of Health	Designer DNA binding proteins targeting HIV genes	May 1998	$ 533,000
Agriculture	U.S. Department of Agriculture	Demonstrating commercial potential of ZFPs for generating value added crops	September 1999	$ 220,000

INTELLECTUAL PROPERTY AND TECHNOLOGY LICENSES

Our success and ability to compete is dependent in part on the protection of our proprietary technology and information. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality agreements and licensing agreements, to establish and protect our proprietary rights. We have licensed intellectual property covering the design, composition and use of ZFPs and ZFP transcription factors for the recognition and regulation of genes. To date, Sangamo has licensed rights to three issued U.S. patents and five U.S. and four Patent Cooperation Treaty, or P.C.T., patent applications covering the design, generation and use of ZFPs. We have also licensed five issued U.S. patents covering the linking of DNA recognition domains to additional functional domains that provide various DNA-related functions such as detection and inactivation. We have also filed 11 U.S. and two P.C.T. patent applications covering improvements in the design and use of ZFPs and ZFP transcription factors. We plan to continue to license and to generate internally intellectual property covering the design, selection, generation and composition of ZFPs, the genes encoding these proteins and the application of ZFPs and ZFP transcription factors in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology applications.

Although we have filed for patents on some aspects of our technology, we cannot assure you that patents will issue as a result of these pending applications or that any patent that has or may be issued will be upheld. Despite our efforts to protect our proprietary rights, existing patent, copyright, trademark and trade secret laws afford only limited protection, and we cannot assure you that our intellectual property rights, if challenged, will be upheld as valid or will be adequate to protect our proprietary technology and information. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as do the laws of the United States. Attempts may be made to copy or reverse engineer aspects of our technology or to obtain and use information that we regard as proprietary. Our patent filings may be subject to interferences. Litigation or opposition proceedings may be necessary in the future to enforce or uphold our intellectual property rights, to determine the scope of our licenses, or determine the validity and scope of the proprietary rights of others. The defense and prosecution of intellectual property suits, United States Patent and Trademark Office interference proceedings and related legal and administrative proceedings in the United States and internationally involve complex legal and factual questions. As a result, these proceedings are costly and time-consuming to pursue, and result in diversion of resources. The outcome of these proceedings is uncertain and could significantly harm our business.

We have received unsolicited invitations to license existing patented technology from a number of third parties, at least one of which contained an allegation of infringement. No litigation is being threatened and no license fees are being proposed. Upon careful analysis of each of these

technologies, we have determined that we already own rights to these technologies or that our scientific and commercial interests would not benefit from the acquisition of rights to these technologies. Further, we believe that the making, using or selling of our products and processes need not infringe any claims in the proffered patents. Accordingly, we have declined to enter into license negotiations with these parties. We cannot assure you, however, that these parties will not bring future actions against us, our collaborators or strategic partners alleging infringement of their patents. As detailed above, the outcome of any litigation, particularly lawsuits involving biotechnology patents, is difficult to predict and likely to be costly regardless of the outcome. In these circumstances, litigation, the risks of a negative impact on our business can neither be clearly defined nor entirely eliminated.

In the future, however, third parties may assert patent, copyright, trademark and other intellectual property rights to technologies that are important to our business. Any claims asserting that our products infringe or may infringe proprietary rights of third parties, if determined adversely to us, could significantly harm our business. Any claims, with or without merit, could result in costly litigation, divert the efforts of our technical and management personnel or require us to enter into or modify existing royalty or licensing agreements, any of which could significantly harm our business. Royalty or licensing agreements, if required, may not be available on terms acceptable to us, if at all. See "Risk Factors -- Because it is difficult and costly to protect our proprietary rights, and third parties have filed patent applications that are similar to ours, we cannot ensure the proprietary protection of our technologies and products."

COMPETITION

We believe that we are a leader in the field of ZFP gene regulation. We are aware that there are many companies focused on other methods for regulating gene expression and a limited number of commercial and academic groups pursuing the development of ZFP gene regulation technology. The field of regulation of gene expression is highly competitive, and we expect competition to persist and intensify in the future from a number of different sources, including pharmaceutical and biotechnology companies, academic and research institutions, and government agencies that will seek to develop technologies that will compete with our Universal Gene Recognition technology platform.

Any products that we develop using our Universal Gene Recognition technology will participate in highly competitive markets. Many of our potential competitors in these markets, either alone or with their collaborative partners, may have substantially greater financial, technical and personnel resources than we do, and they may succeed in developing technologies and products that would render our technology obsolete or noncompetitive. In addition, many of those competitors have significantly greater experience than we do in their respective fields.

Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA approval or commercializing ZFP transcription factors or other competitive products before us. If we commence commercial product sales, we will be competing against companies with greater marketing and manufacturing capabilities, areas in which we have limited or no experience. In addition, any product candidate that we successfully develop may compete with existing products that have long histories of safe and effective use.

Competition may also arise from other drug development technologies and methods of preventing or reducing the incidence of disease, small molecule therapeutics, or other classes of therapeutic agents.

We expect to face intense competition from other companies for collaborative arrangements with pharmaceutical, biotechnology, agricultural and chemical companies, for establishing relationships

with academic and research institutions, and for licenses to proprietary technology. These competitors, either alone or with their collaborative partners, may succeed in developing technologies or products that are more effective or less costly than ours.

Our ability to compete successfully will depend, in part, on our ability to:

- develop proprietary products;
- develop and maintain products that reach the market first, are technologically superior to or are of lower cost than other products in the market;
- attract and retain scientific and product development personnel;
- obtain and enforce patents, licenses or other proprietary protection for our products and technologies;
- obtain required regulatory approvals; and
- manufacture, market and sell any product that we develop.

GOVERNMENT REGULATION

We have not applied for any regulatory approvals with respect to any of our technology or products under development. We anticipate that the production and distribution of any therapeutic or diagnostic products developed, either alone or with our strategic partners or collaborators, will be subject to extensive regulation in the United States and other countries. We intend to pursue therapeutic, diagnostic, agricultural and industrial biotechnology products, some of which may be subject to different government regulation.

Before marketing in the United States, any pharmaceutical, therapeutic or diagnostic products developed by us must undergo rigorous preclinical testing and clinical trials and an extensive regulatory clearance process implemented by the FDA under the federal Food, Drug and Cosmetic Act. The FDA regulates, among other things, the development, testing, manufacture, safety, efficacy, record keeping, labeling, storage, approval, advertising, promotion, sale and distribution of biopharmaceutical products. The regulatory review and approval process, which includes preclinical testing and clinical trials of each product candidate, is lengthy, expensive and uncertain. Securing FDA approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA for each indication to establish a product candidate's safety and efficacy. The approval process takes many years, requires the expenditure of substantial resources, involves post-marketing surveillance, and may involve ongoing requirements for post-marketing studies. Before commencing clinical investigations in humans, we must submit to, and receive approval from, the FDA of an Investigational New Drug application. We expect to rely on some of our strategic partners to file Investigational New Drug applications and generally direct the regulatory approval process for some products developed using our Universal Gene Recognition technology.

Clinical testing must meet requirements for:

- institutional review board oversight;
- informed consent;
- good clinical practices; and
- FDA oversight.

Before receiving FDA clearance to market a product, we must demonstrate that the product is safe and effective on the patient population that will be treated. If regulatory clearance of a product is granted, this clearance is limited to those specific states and conditions for which the product is useful, as demonstrated through clinical studies. Marketing or promoting a drug for an unapproved

indication is generally prohibited. Furthermore, clearance may entail ongoing requirements for post-marketing studies. Even if this regulatory clearance is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA. Discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on this product or manufacturer, including costly recalls or withdrawal of the product from the market.

The length of time necessary to complete clinical trials varies significantly and may be difficult to predict. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Additional factors that can cause delay or termination of our clinical trials, or the costs of these trials to increase, include:

- slow patient enrollment due to the nature of the protocol, the proximity of patients to clinical sites, the eligibility criteria for the study or other factors;

- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials;

- delays in approvals from a study site's review board;

- longer treatment time required to demonstrate effectiveness or determine the appropriate product dose;

- lack of sufficient supplies of the product candidate;

- adverse medical events or side effects in treated patients; and

- lack of effectiveness of the product candidate being tested.

In addition, the field testing, production and marketing of genetically engineered plants and plant products are subject to federal, state, local and foreign governmental regulation. Regulatory action or private litigation could also result in expenses, delays or other impediments to our product development programs or the commercialization of resulting products.

The FDA currently applies the same regulatory standards to foods developed through genetic engineering as applied to foods developed through traditional plant breeding. Genetically engineered food products, however, will be subject to premarket review if these products raise safety questions or are deemed to be food additives. Our products or those of our strategic partners may be subject to lengthy FDA reviews and unfavorable FDA determinations.

International Biosafety Protocols were recently announced in which signatory states may require that genetically engineered food products be labeled as such. Additional and more restrictive international or foreign policies may be developed which further limit our ability to pursue our business plan in relation to agricultural biotechnology.

Outside the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Community registration procedures are available to companies wishing to market a product in more than one EC member state. If the regulatory authority is presented with adequate evidence of safety, quality and efficacy they will grant a marketing authorization. This foreign regulatory approval process involves all of the risks associated with FDA clearance discussed above.

We intend to consult with, and when appropriate, to hire personnel with expertise in regulatory affairs to assist us in obtaining appropriate regulatory approvals as required. We also intend to work

with our strategic partners and collaborators that have experience in regulatory affairs to assist us in obtaining regulatory approvals for collaborative products. See "Risk Factors -- Our potential therapeutic products are subject to a lengthy and uncertain regulatory process, and if these potential products are not approved, we will not be able to commercialize those products" and "-- Regulatory approval, if granted, may be limited to specific uses or geographic areas which could limit our ability to generate revenues."

EMPLOYEES

As of March 14, 2000, we had 45 full-time employees, 14 of whom hold Ph.D. degrees and 35 of whom hold other graduate or technical degrees. Of our total workforce, 38 are engaged in research and development activities and seven are engaged in business development, finance and administration. None of our employees is represented by a collective bargaining agreement, nor have we experienced work stoppages. We believe that our relations with our employees are good.

FACILITIES

We lease approximately 15,000 square feet of research and office space located at 501 Canal Boulevard in Richmond, California under two separate leases. The leases expire in 2004. We believe that the facilities we currently lease are sufficient for approximately the next 24 months.

LEGAL PROCEEDINGS

We are not a party to any material litigation.

MANAGEMENT

EXECUTIVE OFFICERS AND DIRECTORS

The following table sets forth information regarding our executive officers, directors and key employees as of March 14, 2000:

NAME	AGE	POSITION
Edward O. Lanphier II	43	President, Chief Executive Officer and Director
Alan P. Wolffe, Ph.D.	40	Senior Vice President and Chief Scientific Officer
Casey C. Case, Ph.D.	44	Vice President, Research
Peter Bluford	45	Vice President, Corporate Development
Shawn K. Johnson	32	Director of Finance
Eric T. Rhodes	39	Director of Commercial Development
S. Kaye Spratt, Ph.D.	47	Director of Delivery Technology
Herbert W. Boyer, Ph.D.	63	Director
William G. Gerber, M.D.	53	Director
John W. Larson	64	Director
William J. Rutter, Ph.D.	71	Director
Michael C. Wood	47	Director

Edward O. Lanphier II, the founder of Sangamo BioSciences, Inc., has served as President, Chief Executive Officer and as a member of the board of directors since inception. Mr. Lanphier has eighteen years of experience in the pharmaceutical and biotechnology industry. From June 1992 to May 1997, he held various positions at Somatix Therapy Corporation, a gene therapy company, including Executive Vice President, Commercial Development and Chief Financial Officer. Prior to Somatix, Mr. Lanphier was President and Chief Executive Officer of BioGrowth, Inc., a biotechnology company that merged with Celtrix Laboratories to form Celtrix Pharmaceuticals, Inc. in 1991. From 1986 to 1987, Mr. Lanphier served as Vice President of Corporate Development at Biotherapeutics, Inc. From 1984 to 1986 he served as Vice President of Corporate Development at Synergen Inc. Prior to Synergen, he was employed by Eli Lilly and Company, a pharmaceutical company, in the strategic business planning-biotechnology group. Mr. Lanphier is a member of the Biotechnology Industry Organization (BIO) Emerging Companies Section and the BIO board of directors. Mr. Lanphier has a B.A. in biochemistry from Knox College.

Alan P. Wolffe, Ph.D. joined Sangamo as its Senior Vice President and Chief Scientific Officer in March 2000. Dr. Wolffe is internationally recognized for his research on chromatin structure and its role in the regulation of gene expression, with over 250 research publications on this topic. He was Director of the Department of Molecular Embryology at the National Institutes of Child Health and Human Development from 1990 until March 2000. During this time, Dr. Wolffe's laboratory discovered the determinants of chromosonal gene regulation by ZFPs, including observations that have proven fundamental to the understanding of histone acetylation and deacetylation in transcriptional control. Dr. Wolffe has received numerous prizes for his research and serves as an editor on the editorial boards of Biochemistry, Journal of Cell Science, Molecular Biology of the Cell, Molecular Cell Biology, Nucleic Acids Research, and Science. Dr. Wolffe received a Ph.D. in molecular biology from the Medical Research Council and a B.A. in biochemistry from Oxford University.

Casey C. Case, Ph.D. has served as Vice President, Research since November 1997. From June 1993 to November 1997, Dr. Case served as Director, Cell Biology at Tularik, Inc., a pharmaceutical company focusing on gene regulating drugs, where he was part of the team that established Tularik's

cell-based, high throughput screening of small molecule modulators of specific transcription factors. From June 1989 to June 1993, Dr. Case was Director of Transcriptional Research at Oncogene Science, Inc., a pharmaceutical company, where he led Oncogene's research efforts in the development of mammalian cell-based assays for gene transcription and the automation of these assays for selection of therapeutic targets and compounds. Dr. Case earned a Ph.D. in biochemistry from the University of California, Davis and a B.S. in biology from San Diego State University.

Peter Bluford has served as Vice President, Corporate Development since December 1997 and since joining us has had operating responsibility for Sangamo's licensing, intellectual property and business planning activities. Mr. Bluford also served as Senior Director, Corporate Development, from October 1996 to November 1997. From October 1992 to September 1996, Mr. Bluford served as Director, Commercial Development at Somatix Therapy Corporation, where he was responsible for Somatix's strategic business planning activities while also serving as Project Team Leader, Oncology from 1995 to 1996. From 1991 to 1992, Mr. Bluford was with Celtrix Pharmaceuticals, Inc. as Manager, Strategic Market Planning. From 1990 to 1991, he was Manager of Strategic Planning with BioGrowth, Inc. Mr. Bluford received an M.B.A. and a B.S. in biochemistry from the University of California, Berkeley.

Shawn K. Johnson has served as Director of Finance since December 1997. From July 1995 to October 1997, Mr. Johnson was Director of Finance at Neurobiological Technologies, Inc., a neuroscience company developing drugs. From July 1993 to June 1995, he managed various accounting functions for Glycomed, Inc., a pharmaceutical company. Prior to Glycomed, Mr. Johnson was the Controller for Cognitive Systems, Inc., a software technology company. He holds an M.B.A. from the University of California, Berkeley and a B.S. in accounting from City University in Bellevue, Washington.

Eric T. Rhodes has served as Director of Commercial Development since July 1998 and has primary responsibility for management of our Universal GeneTools business. Prior to joining Sangamo, Mr. Rhodes served in a variety of capacities at Incyte Pharmaceuticals, Inc., a genomic database and data management software company, from March 1994 to July 1998. He initially served as part of the team responsible for expansion of Incyte's high throughput sequencing capabilities and later worked in the business development group where his primary focus was the evaluation and acquisition of new technologies. From 1991 to 1994, Mr. Rhodes directed the molecular biology group at Anergen, Inc., a biotechnology company focusing on treatment of autoimmune disease and prior to that he was with BioGrowth, Inc., from 1989 to 1991 and Triton BioSciences, a biotechnology company, as a molecular biologist from 1987 to 1989. Mr. Rhodes received a B.S. in microbiology and immunology from the University of California, Berkeley.

S. Kaye Spratt, Ph.D. has served as Director of Delivery Technology since January 1998 and is currently directing Sangamo's cell biology and gene therapy efforts for the evaluation and delivery of engineered zinc finger proteins. From June 1997 to January 1998, Dr. Spratt was employed by Acacia Biosciences, a biotechnology research company, as Project Manager. From June 1992 to June 1997, Dr. Spratt was employed by Somatix Therapy Corporation as Section Manager and Senior Scientist responsible for the design, development and production of research and clinical grade gene therapy vectors. From 1987 to 1992, Dr. Spratt was Senior Scientist and Project Leader for BioGrowth Inc. Dr. Spratt received a Ph.D. in microbial genetics from Meharry Medical College and a B.S. in biology from Langston University.

Herbert W. Boyer, Ph.D. has served as a Director since July 1997. Dr. Boyer is the co-inventor of recombinant DNA technology with Dr. Stanley Cohen and founded Genentech, Inc., a biopharmaceutical company, in 1976. Dr. Boyer is currently Professor Emeritus at the University of California, San Francisco. Dr. Boyer has served as a director of Genentech since 1976 and was Vice

Diagram is entitled "Universal Gene Recognition(TM)." Immediately below reads, "Engineered ZFP(TM) Transcription Factors." A line leads from that language to four boxes containing, respectively from left to right: "Universal Gene Tools," "ZFP Therapeutics," "ZFP Diagnostics," and "Agricultural and Industrial Biotechnology." Below the "Universal Gene Tools" box is a bulleted list: "Drug Target Discovery," "Drug Target Validation," and "Pharmaceutical Discovery." Below the "ZFP Therapeutics" box is a bulleted list: "Therapeutic Regulation of Disease-Related Genes," "Activation," "Repression," "Reversible Control," and "Pharmaceutical Protein Production." Below the "ZFP Diagnostics" box is a bulleted list: "Clinical Diagnostics" and "Pharmcogenomics." Below the "Agricultural and Industrial Biotechnology" box is a bulleted list: "Agrochemical Discovery," "ZFP-Transgenic Plants," and "Biological Production of Industrial Chemicals."

In the top left corner is the title "Universal Gene Recognition Technology Platform." Immediately below the title reads, "ZFP, zinc finger DNA binding protein, transcription factors regulate the expression of clinically and commercially important genes." To the right of that language is a short coil on top of a thin cylinder, with "A single zinc finger recognizes three base pairs, 3 bp, of DNA" immediately below. To the right of that is a medium length series of coils on top of a thin cylinder, with "Three zinc fingers recognize nine base pairs, 9 bp, of DNA. ZFPs can be linked together to recognize longer sequences of DNA" immediately below. Near the top right corner is a long series of coils on top of a thin cylinder labeled "Recognition domain." Immediately below reads, "ZFP transcription factors have two parts:" along with two bulleted points, "The ZFP recognition domain directs the ZFP to its target site in the DNA" and "The functional domain causes the target gene to be activated or repressed." To the right of the long series of coils is an oval, labeled "Functional domain," with an arrow pointing to the coils.

In the left portion of the diagram is a double helix. Above and to the left of the double helix states, "Different sets of genes are expressed in different cell types. It is this pattern of gene expression that determines the structure, biological function and health of all cells, tissues and organisms. Genes are regulated, either activated or repressed, by DNA binding proteins called transcription factors." To the right of that is a large coil on top of half a tube divided lengthwise. Immediately below is a multi-colored strand. Above and to the right reads, "Sangamo scientists design ZFP transcription factors to recognize and regulate target genes." Below and to the right of the images is the coil shown on top of the strand with the cylindrical portion below it highlighted.

To the right of the middle is a long double helix with half of one helix multi-colored. Resting on the multi-colored portion is a series of coils. To the left of the coils is a green oval with a plus sign in the middle and a line connecting it to the left-most portion of the coils. Immediately above this image reads, "Once the ZFP transcription factor binds to its target DNA sequence, it can regulate the target gene in a variety of ways. For example, the target gene can be activated..."

To the right of the long double helix is a shorter double helix with half of one helix multi-colored. Resting on the multi-colored portion is a series of coils. To the left of the coils is a red oval with a minus sign in the middle and a line connecting it to the left-most portion of the coils. Immediately above this image reads, "...or repressed."

In the bottom right corner of the diagram reads, "ZFP transcription factors can:" followed by bulleted points: "Activate genes," "Repress genes," "Switch genes on or off temporarily," and "Detect specific DNA sequences." Below this list reads, "The ability of engineered ZFPs to recognize and regulate genes has broad-based applications in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology."

President of Research from 1976 to 1990. Dr. Boyer was also a Professor of biochemistry and biophysics at the University of California, San Francisco from 1966 to 1991 where he retains the position of Professor Emeritus. He was also an Investigator for the Howard Hughes Medical Institute from 1976 to 1983. He has authored over 100 scientific publications and is a member of the National Academy of Sciences. Dr. Boyer has received numerous research awards including the National Medal of Science, the National Medal of Technology and the Albert Lasker Basic Medical Research Award. Dr. Boyer is Chairman of the Board of Directors of Allergan, Inc., a pharmaceutical company and a trustee of the Scripps Research Institute. Dr. Boyer received a Ph.D. in microbiology from the University of Pittsburgh and a B.A. in biology from St. Vincent College.

William G. Gerber, M.D. has served as a member of our board of directors since June 1997. Dr. Gerber is currently Chief Executive Officer and a Director of Epoch Pharmaceuticals, Inc., a biomedical company, where he has been since September 1999. From April 1998 to July 1999, he was President of diaDexus LLC, a pharmacogenomics company. Previous to his appointment at diaDexus, he was Chief Operating Officer of Onyx Pharmaceuticals. Before joining Onyx in 1995, Dr. Gerber was with Chiron Corporation, a biopharmaceutical, vaccine and blood testing company, where he was President of the Chiron Diagnostics business unit after Chiron's merger with Cetus Corporation in December 1991. He joined Cetus in 1987 as senior director of corporate ventures and was named Vice President and General Manager of the PCR (Polymerase Chain Reaction) Division in November 1988. Dr. Gerber earned his B.S. and M.D. degrees from the University of California, San Francisco School of Medicine.

John W. Larson has served as a member of our board of directors since January 1996. Mr. Larson has served as senior partner at the law firm of Brobeck, Phleger & Harrison LLP since March 1996. From 1988 until March 1996, Mr. Larson was Chief Executive Officer of the firm. He has been a partner with the firm since 1969, except for the period from July 1971 to September 1973 when he was in government service as Assistant Secretary of the United States Department of the Interior and Counselor to George P. Shultz, Chairman of the Cost of Living Council. Mr. Larson holds an L.L.B. and a B.A., with distinction, in Economics, from Stanford University.

William J. Rutter, Ph.D. has served as a member of our board of directors since January 2000. He is the co-founder of Chiron Corporation, a biopharmaceutical, vaccine and blood testing company, and served as its Chairman of the Board of Directors from Chiron's inception in 1981 until May 1999. From August 1983 through April 1989, in addition to his responsibilities at Chiron, Dr. Rutter was the Director of the Hormone Research Institute at UCSF, and he became a Professor Emeritus in 1991. In 1969, Dr. Rutter joined the faculty of the University of California, San Francisco as a Herzstein Professor, and served as the chairman of the Department of Biochemistry and Biophysics at UCSF from 1969 to 1982. Dr. Rutter has also served on the Board of Overseers at Harvard University since 1992, on the Board of Trustees at the Carnegie Institution of Washington since 1995 and several private company boards. Dr. Rutter received his Ph.D. in biochemistry from the University of Illinois, an M.S. in biochemistry from the University of Utah and a B.A. in biochemistry from Harvard University.

Michael C. Wood has served as a member of our board of directors since our inception. Mr. Wood is currently President of Knowledge Kids Enterprises, Inc., an educational company which he founded in January 1995. Mr. Wood has 15 years of experience in the corporate legal representation of high technology firms and venture capital partnerships. From 1991 through 1994, he was a partner of the emerging technology companies group at Cooley Godward LLP. From 1979 to 1991, Mr. Wood practiced corporate law in the high technology practice of Crosby Heafy Roach & May. Mr. Wood received a J.D. from the Hastings College of Law, an M.B.A. from the University of California, Berkeley and his B.A. in political science from Stanford University.

SCIENTIFIC ADVISORY BOARD

We use scientists and physicians to advise us on scientific matters as a part of our Scientific Advisory Board, including experts in molecular biology, structural biology, biophysics, biochemistry, cell biology, and gene expression. Generally, our scientific advisors have received options to purchase our common stock as compensation for their consulting services.

The following individuals are members of our Scientific Advisory Board:

Carl Pabo, Ph.D. (Chairman) is a professor of biophysics and structural biology at the Massachusetts Institute of Technology and an investigator in the Howard Hughes Medical Institute. Dr. Pabo is a pioneer in the structural analysis and modification of zinc finger DNA binding proteins and has made many of the fundamental observations as to how ZFPs interact with their DNA binding sites. Dr. Pabo received a Ph.D. in biochemistry and molecular biology from Harvard University and a B.S. in molecular biophysics and biochemistry from Yale College. He is a member of the National Academy of Sciences and of the American Academy of Arts and Sciences.

Carlos F. Barbas III, Ph.D. is an Associate Member of The Scripps Research Institute, where he has been since 1991. Dr. Barbas is an expert in the selection of ZFPs and has published several papers on the use of ZFP transcription factors to regulate gene expression. From 1989 to 1991, he was a postdoctoral fellow at The Scripps Research Institute and Pennsylvania State University. Dr. Barbas received his Ph.D. in chemistry from Texas A&M University and a B.S. in chemistry and physics from Eckerd College.

Jeremy M. Berg, Ph.D. is Professor and Director of the Department of Biophysics and Biophysical Chemistry at The Johns Hopkins University School of Medicine, where he has been since 1990. He is a leader in the field of ZFPs, and the Berg laboratory was one of the first to demonstrate the use of designed zinc finger arrays for the generation of novel, sequence-specific ZFPs. From 1986 to 1990, Dr. Berg was an associate professor in the Department of Chemistry at The Johns Hopkins University, and a postdoctoral fellow in the School of Medicine from 1984 to 1986. Dr. Berg received his Ph.D. in chemistry from Harvard University and a B.S. and M.S. degrees in chemistry from Stanford University.

Judith Campisi, Ph.D. is Head, Center for Research and Education in Aging Life Sciences Division of the Berkeley National Laboratory, where she has been conducting aging and cancer research since 1990. From 1984 to 1990, Dr. Campisi held professorships within the Department of Biochemistry at the Boston University School of Medicine. Dr. Campisi received her Ph.D. in biochemistry and a B.A. in chemistry from the State University of New York, Stony Brook.

Srinivasan Chandrasegaran, Ph.D. is an associate professor at The Johns Hopkins University School of Hygiene and Public Health, and a leading expert on the molecular biology, structure and function of type IIs restriction endonucleases. He has collaborated with Sangamo on the development of our DNA diagnostic program. Dr. Chandrasegaran received his Ph.D. in chemistry from Georgetown University, and B.S. and M.S. degrees in chemistry from Madras University.

George N. ("Joe") Cox, Ph.D. is President and Chief Scientific Officer of Bolder Biotech, a protein delivery biotechnology company. Dr. Cox was Vice President, Research and Development at Sangamo from March 1995 to June 1998. He spent the previous 12 years of his career at Synergen, Inc., in various positions including Group Leader, Discovery Research, Chairman of Synergen's science counsel, Director of Animal Health Care, and Senior Scientist. He received a Ph.D. in biology from the University of California, Santa Cruz and a B.S. in biology from Wesleyan University.

Hamilton O. Smith, M.D. is currently a Professor Emeritus of molecular biology and genetics at The Johns Hopkins University School of Medicine and Director of DNA Resources at Celera Genomics Corporation. Dr. Smith received the 1978 Nobel Prize in Medicine for his co-discovery of type IIs restriction enzymes. Dr. Smith has gone on to publish extensively on the genetic and genomic analysis of haemophilus influenzae and its natural transformation system. Dr. Smith is an American Cancer Society Research Professor and member of the National Academy of Sciences. He received his M.D. from The Johns Hopkins University School of Medicine, an A.B. in mathematics from the University of California, Berkeley, and a B.S. from the University of Illinois, Urbana.

Kevin Struhl, Ph.D. is the David Wesley Gaiser Professor of Biological Chemistry in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Dr. Struhl has established many of the principles involved in the molecular mechanisms of transcriptional activation and repression in eukaryotic cells including the recruitment of gene-specific and general transcription factors as well as histone deacetylases. Dr. Struhl received his Ph.D. in biochemistry from Stanford University, and S.M. and S.B. degrees from the Massachusetts Institute of Technology.

Elton T. ("Ted") Young, Ph.D. is a professor of biochemistry and genetics at the University of Washington in Seattle. Dr. Young has published numerous articles in the field of transcription factors and this remains a focus of his ongoing research at the University of Washington. Dr. Young has served as an editor for the Journal of Molecular and Cellular Biology since 1983. He received his Ph.D. in biophysics from the California Institute of Technology and has a B.A. in chemistry from the University of Colorado at Boulder.

Alan P. Wolffe, Ph.D. joined Sangamo as its Senior Vice President and Chief Scientific Officer in March 2000. Dr. Wolffe is internationally recognized for his research on chromatin structure and its role in the regulation of gene expression, with over 250 research publications on this topic. He was Director of the Department of Molecular Embryology at the National Institutes of Child Health and Human Development from 1990 until March 2000. During this time, Dr. Wolffe's laboratory discovered the determinants of chromosonal gene regulation by ZFPs, including observations that have proven fundamental to the understanding of histone acetylation and deacetylation in transcriptional control. Dr. Wolffe has received numerous prizes for his research and serves as an editor on the editorial boards of Biochemistry, Journal of Cell Science, Molecular Biology of the Cell, Molecular Cell Biology, Nucleic Acids Research, and Science. Dr. Wolffe received a Ph.D. in molecular biology from the Medical Research Council and a B.A. in biochemistry from Oxford University.

BOARD COMMITTEES

Audit Committee. We have established an audit committee composed of independent directors that review and supervise our financial controls, including the selection of our auditors, reviews our books and accounts, meets with our officers regarding our financial controls, acts upon recommendations of our auditors and takes further actions as the audit committee deems necessary to complete an audit of our books and accounts, as well as other matters that may come before it or as directed by the board. The audit committee currently consists of Dr. Gerber, Dr. Rutter and Mr. Wood.

Compensation Committee. We have also established a compensation committee that reviews and approves the compensation and benefits for our executive officers, administers our compensation and stock plans, makes recommendations to the board of directors regarding such matters and performs other duties as may from time-to-time be determined by the board. The compensation committee currently consists of Dr. Boyer and Mr. Larson.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The members of the compensation committee of the board of directors are Dr. Boyer and Mr. Larson. None of our compensation committee members has been an officer or employee of Sangamo at any time. Mr. Larson is a senior partner at Brobeck, Phleger & Harrison LLP, our legal counsel. None of our executive officers serves on the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board or our compensation committee.

COMPENSATION OF DIRECTORS

Other than expenses in connection with attendance at meetings and other customary expenses, we currently do not compensate any non-employee member of the board. Directors who are also employees do not receive additional compensation for serving as directors.

Under our 2000 Stock Incentive Plan, non-employee directors will receive automatic option grants upon becoming directors each of which is determined by the board of directors and 10,000 shares on the date of each annual meeting of stockholders. The 2000 Stock Incentive Plan also contains a director fee option grant program. Should this program be activated in the future, each non-employee board member will have the opportunity to apply all or a portion of any annual retainer fee otherwise payable in cash to the acquisition of an option with an exercise price below the then fair market value of our shares. Non-employee directors will also be eligible to receive discretionary option grants and direct stock issuances under our 2000 Stock Incentive Plan. See "Management -- Stock Plans."

EXECUTIVE COMPENSATION

The following table sets forth information concerning compensation earned during the fiscal year ended December 31, 1999 by our Chief Executive Officer and our other executive officers whose total annual compensation exceeded $100,000.

SUMMARY COMPENSATION TABLE

		ANNUAL COMPENSATION		LONG-TERM COMPENSATION AWARDS	
NAME AND PRINCIPAL POSITION	FISCAL YEAR	SALARY	BONUS	SECURITIES UNDERLYING OPTIONS	OTHER COMPENSATION
Edward O. Lanphier II..... President and Chief Executive Officer	1999	$195,000	$73,788	--	$ 12,500
Casey C. Case, Ph.D. ..... Vice President, Research	1999	131,250	10,000	30,000	--
Peter Bluford..... Vice President, Corporate Development	1999	120,750	10,000	40,000	--

On January 4, 1998, Mr. Lanphier received a loan from us in the principal amount of $250,000. The loan bears interest at a rate of 6% per year. As a special bonus program for Mr. Lanphier the balance of the loan will be forgiven in forty-eight equal monthly installments of principal, together with accrued interest for the year, upon completion of each month of employment with us over the forty-eight month period measured from the date the loan was made. Accordingly, Mr. Lanphier's

reported bonus amount represents the $73,788 of loan forgiveness which occurred on December 31, 1999.

Other compensation for Mr. Lanphier consists of an insurance premium paid by Sangamo on a split dollar life insurance policy. Sangamo will be reimbursed for these insurance premiums out of the cash surrender value of its policy paid by Mr. Lanphier during his lifetime or out of the proceeds paid under the policy upon his death. The face amount of the insurance policy is $2.0 million.

OPTION GRANTS

The following table sets forth summary information regarding the option grants made to our Chief Executive Officer and the other executive officers whose total annual compensation exceeded $100,000 for 1999. Options granted under our 1995 Stock Option Plan are generally immediately exercisable for all the option shares by the optionee but exercised shares are subject to a right of repurchase according to the vesting schedule of each specific grant. In the event that a purchaser ceases to provide service to Sangamo, we have the right to repurchase any of that person's unvested shares of common stock at the original option exercise price. The exercise price per share is equal to the fair market value of our common stock on the date of grant as determined by our board of directors. Twenty-five percent of the option shares vest on the one year anniversary of employment and the remainder vest in a series of equal monthly installments beginning on the one year anniversary of employment and continuing over the next three years of service. The percentage of total options was calculated based on options to purchase an aggregate of 305,500 shares of common stock granted to employees under our 1995 Stock Option Plan in 1999. The potential realizable value was calculated based on the ten-year term of the options and assumed rates of stock appreciation of 5% and 10%, compounded annually from the date the options were granted to their expiration date based on the fair market value of the common stock on the date of grant.

OPTION GRANTS IN 1999

NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED	PERCENTAGE OF TOTAL OPTIONS GRANTED TO EMPLOYEES IN FISCAL 1999	EXERCISE PRICE (PER SHARE)	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM	
					5%	10%
Edward O. Lanphier II.....	--	--%	$ --	--	$ --	$ --
Casey C. Case, Ph.D.	30,000	9.8	0.225	12/8/09	4,245	10,758
Peter Bluford.....	40,000	13.1	0.225	12/8/09	5,660	14,343

FISCAL YEAR-END 1999 OPTION VALUES

The following table sets forth summary information regarding the number and value of options held as of December 31, 1999 for our Chief Executive Officer and our most highly compensated executive officers whose total annual compensation exceeded $100,000. Our Chief Executive Officer and our most highly compensated executive officers did not acquire any shares upon exercise of options in 1999. Amounts shown in the value of unexercised in-the-money options at December 31, 1999 column are based on $0.225, the fair market value of the common stock as of December 31, 1999, multiplied by the number of shares underlying the option, less the aggregate exercise price payable for these shares.

1999 OPTION VALUES

	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT DECEMBER 31, 1999		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT DECEMBER 31, 1999	
NAME	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
Edward O. Lanphier II.....	400,000	--	$ 24,000	$ --
Casey C. Case, Ph.D.	210,000	--	13,500	--
Peter Bluford.....	260,000	--	31,500	--

STOCK PLANS

2000 STOCK INCENTIVE PLAN. The 2000 Stock Incentive Plan is intended to serve as the successor program to our 1995 Stock Option Plan. The 2000 Stock Incentive Plan was adopted by the board in February 2000 and was approved by the stockholders in March 2000. The 2000 Stock Incentive Plan will become effective when the underwriting agreement for this offering is signed. At that time, all outstanding options under our 1995 Stock Option Plan will be transferred to the 2000 Stock Incentive Plan, and no further option grants will be made under the 1995 Stock Option Plan. The transferred options will continue to be governed by their existing terms, unless our compensation committee decides to extend one or more features of the 2000 Stock Incentive Plan to those options. Except as otherwise noted below, the transferred options from the 2000 Stock Incentive Plan have substantially the same terms as will be in effect for grants made under the discretionary option grant program of our 2000 Stock Incentive Plan.

Authorized shares

A total of 3,616,832 shares of our common stock have been authorized for issuance under the 2000 Stock Incentive Plan. This share reserve consists of the number of shares we estimate will be carried over from the 1995 Stock Option Plan including the shares subject to outstanding options thereunder, plus an additional increase of approximately shares. The number of shares authorized for issuance under our 2000 Stock Incentive Plan will automatically increase on the first trading day of the fiscal year, beginning in 2001, by an amount equal to three and one-half percent of the total number of shares of our common stock outstanding on the last trading day immediately preceding fiscal year, but in no event will this annual increase exceed 2,000,000 shares. In addition, the 2000 Stock Incentive Plan prohibits stock option grants or direct stock issuances for more than 2,000,000 shares of common stock in total in any calendar year.

Stock Options

Our 2000 Stock Incentive Plan has five separate programs:

- the discretionary option grant program, under which eligible individuals in our employ may be granted options to purchase shares of our common stock at an exercise price not less than the fair market value of those shares on the grant date;

- the stock issuance program, under which eligible individuals may be issued shares of common stock directly through the purchase of such shares at a price not less than 100% of the then fair market value at time of issuance or as a bonus tied to the attainment of performance milestones or the completion of a specified period of services;

- the salary investment option grant program, under which our executive officers and other highly compensated employees may be given the opportunity to apply a portion of their base salary each year to the acquisition of special below market stock option grants;

- the automatic option grant program, under which option grants will automatically be made at periodic intervals to eligible non-employee members of our board of directors to purchase shares of common stock at an exercise price equal to the fair market value of those shares on the grant date; and

- the director fee option grant program, under which non-employee members of our board of directors may be given the opportunity to apply a portion of any retainer fee otherwise payable to them in cash each year to the acquisition of special below-market option grants.

The individuals eligible to participate in our 2000 Stock Incentive Plan include our officers and other employees, our board members and any consultants we hire.

Plan Administration

The discretionary option grant and stock issuance programs will be administered by our compensation committee. This committee will determine which eligible individuals are to receive option grants or stock issuances under those programs, the time or times when the grants or issuances are to be made, the number of shares subject to each grant or issuance, the status of any granted option as either an incentive stock option or a non-statutory stock option under the federal tax laws, the vesting schedule to be in effect for the option grant or stock issuance and the maximum term for which any granted option is to remain outstanding. The compensation committee will also have the authority to select the executive officers and other highly compensated employees who may participate in the salary investment option grant program if that program is put into effect for one or more calendar years.

Our 2000 Stock Incentive Plan will include the following features:

- The exercise price for any options granted under the 2000 Stock Incentive Plan may be paid in cash or in shares of our common stock valued at fair market value on the exercise date. The option may also be exercised through a same-day sale program without any cash outlay by the optionees. The compensation committee may provide financial assistance to one or more optionees in the exercise of their options by allowing such individuals to deliver full-recourse interest-bearing promissory notes in payment of the exercise price and any associated withholding taxes.

- The compensation committee will have the authority to cancel outstanding options under the discretionary option grant program, including any transferred options from our 1995 Stock Option Plan, in return for the grant of new options for the same or a different number of option shares with an exercise price per share based upon the fair market value of our common stock on the new grant date.

- Stock appreciation rights may be issued under the discretionary option grant program. These rights will provide the holders with the election to surrender their outstanding options for a payment from us equal to the fair market value of the shares subject to the surrendered options less the exercise price payable for those shares. We may make the payment in cash or in shares of our common stock. None of the options under our 1995 Stock Option Plan have any stock appreciation rights.

Changes in Control

The 2000 Stock Incentive Plan will include the following change in control provisions which may result in the accelerated vesting of outstanding option grants and stock issuances:

- If we are acquired by merger or asset sale, each outstanding option under the discretionary option grant program which is not to be assumed by the successor corporation will immediately become exercisable for all the option shares, and all outstanding unvested shares will immediately vest, except to the extent our repurchase rights with respect to those shares are to be assigned to the successor corporation.

- The compensation committee will have complete discretion to grant one or more options that will become exercisable for all the option shares if those options are assumed in the acquisition but the optionee's service with us or the acquiring entity is subsequently terminated. The vesting of any outstanding shares under the stock issuance programs may be accelerated upon similar terms and conditions. The compensation committee will also have the authority to grant options which will immediately vest in the event we are acquired, whether or not those options are assumed.

- The compensation committee may grant options and structure repurchase rights so that the shares subject to those options or repurchase rights will immediately vest in connection with a successful tender offer for more than 50% of our outstanding voting stock or a change in the majority of our board through one or more contested elections. This accelerated vesting may occur either at the time of this type of transaction or upon the subsequent termination of the individual's service.

- If we are acquired by merger or asset sale, the options currently outstanding under the 1995 Stock Option Plan will accelerate in full if the options are not assumed by the acquiring entity and the optionee's employment with us is involuntarily terminated within 12 months following the acquisition. If the options are not so assumed, they will accelerate and become exercisable for fully vested shares immediately before the acquisition and will terminate upon the completion of the acquisition.

Salary Investment Option Grant Program

If the compensation committee decides to put the salary investment option grant program into effect for one or more calendar years, each of our executive officers and other highly compensated employees may elect to reduce his or her base salary for the calendar year by an amount not less than $10,000 nor more than $50,000. Each selected individual who makes this election will automatically be granted, on the first trading day in January of the calendar year for which his or her salary reduction is to be in effect, an option to purchase that number of shares of common stock determined by dividing the salary reduction amount by two-thirds of the fair market value per share of our common stock on the grant date. The option will have an exercise price per share equal to one-third of the fair market value of the option shares on the grant date. As a result, the option will be structured so that the fair market value of the option shares on the grant date less the exercise price payable for those shares will be equal to the amount of the salary reduction. The option will

become exercisable in a series of twelve equal monthly installments over the calendar year for which the salary reduction is to be in effect.

Automatic Option Grant Program

Under the automatic option grant program, each individual who first becomes a non-employee board member at any time after the effective date of this offering will receive an option grant to purchase the number of shares of common stock as determined by the board on the date the individual joins the board. In addition, on the date of each annual stockholders meeting held in 2001 and thereafter, each non-employee board member who is to continue to serve as a non-employee board member, including each of our current non-employee board members, will automatically be granted an option to purchase 10,000 shares of common stock, provided the individual has served on the board for at least six months.

Each automatic grant will have an exercise price per share equal to the fair market value per share of our common stock on the grant date and will have a term of 10 years, subject to earlier termination following the optionee's cessation of board service. The option will be immediately exercisable for all of the option shares; however, we may repurchase, at the exercise price paid per share, any shares purchased under the option which are not vested at the time of the optionee's cessation of board service. The shares subject to each initial option grant will vest in a series of 36 equal monthly installments upon the optionee's completion of each month of board service measured from the grant date. The shares subject to each 10,000 share annual option grant will vest in a series of 12 equal monthly installments upon completion of each month of board service over the 12-month period measured from the grant date. The shares subject to each option will immediately vest in full over the 36-month period upon the optionee's death or disability while a board member.

Director Fee Option Grant Program

If the director fee option grant program is put into effect in the future, then each non-employee board member may elect to apply all or a portion of any cash retainer fee for the year to the acquisition of a below-market option grant. The option grant will automatically be made on the first trading day in January in the year for which the retainer fee would otherwise be payable in cash. The option will have an exercise price per share equal to one-third of the fair market value of the option shares on the grant date, and the number of shares subject to the option will be determined by dividing the amount of the retainer fee applied to the program by two-thirds of the fair market value per share of our common stock on the grant date. As a result, the option will be structured so that the fair market value of the option shares on the grant date less the exercise price payable for those shares will be equal to the portion of the retainer fee applied to that option. The option will become exercisable in a series of 12 equal monthly installments over the calendar year for which the election is in effect. The option, however, will become immediately exercisable for all the option shares upon the death or disability of the optionee while serving as a board member.

Our 2000 Stock Incentive Plan will also have the following features:

- Outstanding options under the salary investment option grant program and the automatic and director fee option grant programs will immediately vest if we are acquired by a merger or asset sale or if there is a successful tender offer for more than 50% of our outstanding voting stock or a change in the majority of our board through one or more contested elections.

- Limited stock appreciation rights will automatically be included as part of each grant made under the salary investment option grant program and the automatic and director fee option grant programs, and these rights may also be granted to one or more officers as part of their option grants under the discretionary option grant program. Options with this feature may be surrendered to us upon the successful completion of a hostile tender offer for more than 50%

of our outstanding voting stock. In return for the surrendered option, the optionee will be entitled to a cash distribution from us in an amount per surrendered option share based upon the highest price per share of our common stock paid in that tender offer.

- The board may amend or modify the 2000 Stock Incentive Plan at any time, subject to any required stockholder approval. The 2000 Stock Incentive Plan will terminate no later than February 7, 2010.

EMPLOYEE STOCK PURCHASE PLAN. Our Employee Stock Purchase Plan was adopted by the board in February 2000 and approved by the stockholders in March 2000. The Employee Stock Purchase Plan will become effective immediately upon the signing of the underwriting agreement for this offering. The plan is designed to allow our eligible employees and the eligible employees in our participating subsidiaries, if any, to purchase shares of common stock, at semi-annual intervals, with their accumulated payroll deductions.

Authorized Shares

A total of 400,000 shares of our common stock will initially be reserved for issuance under our Employee Stock Purchase Plan. The reserve will automatically increase on the first trading day of the second fiscal quarter each year, beginning in the year 2001, by an amount equal to one percent of the total number of outstanding shares of our common stock on the last trading day of the immediately preceding first fiscal quarter. In no event will any annual reserve increase exceed 600,000 shares.

Plan Administration

The plan will have a series of successive overlapping offering periods, with a new offering period beginning on the first business day of May and November of each year. Each offering period will continue for a period of 24 months, unless otherwise determined by our compensation committee. The initial offering period, however, will start on the date the underwriting agreement for this offering is signed and will end on the last business day of April 2002. The next offering period will start on the first business day of November 2000.

Individuals scheduled to work more than 20 hours per week for more than five calendar months per year may join an offering period on the start date of that period. Employees may participate in only one offering period at any time.

A participant may contribute up to 15% of his or her cash earnings through payroll deductions, and the accumulated deductions will be applied to the purchase of shares on each semi-annual purchase date. Semi-annual purchase dates will occur on the last business day of April and October each year, with the first purchase to occur on the last business day of October 2000. The purchase price per share on each semi-annual purchase date will be equal to 85% of the fair market value per share on the start date of the offering period or, if lower, 85% of the fair market value per share on the semi-annual purchase date. A participant, however, may not purchase more than 2,000 shares on any purchase date, and not more than 200,000 shares may be purchased in total by all participants on any purchase date. Our compensation committee will have the authority to change these limitations for any subsequent offering period.

Changes in Control

If the fair market value per share of our common stock on any purchase date is less than the fair market value per share on the start date of the 24-month offering period, then that offering period

will automatically terminate, and all participants in the terminated offering will be transferred to the new offering period commencing immediately thereafter.

Should we be acquired by merger or sale of substantially all of our assets or more than 50% of our voting securities, then all outstanding purchase rights will automatically be exercised immediately prior to the effective date of the acquisition. The purchase price will be equal to 85% of the market value per share on the start date of the offering period in which the acquisition occurs or, if lower, 85% of the fair market value per share immediately prior to the acquisition.

The following provisions will also be in effect under the Employee Stock Purchase Plan:

- The plan will terminate no later than the last business day of January 2010.

- The board may at any time amend, suspend or discontinue the Employee Stock Purchase Plan. Some amendments may require stockholder approval.

TERMINATION OF EMPLOYMENT ARRANGEMENT AND CHANGE IN CONTROL ARRANGEMENTS

In May 1997, we entered into an agreement with Edward O. Lanphier II, our current President and Chief Executive Officer. Under the terms of the agreement, Mr. Lanphier will receive an annual salary, an optional bonus payment and common stock and stock options based on the achievement of some milestones. If Mr. Lanphier is terminated without cause, he will be entitled to his base salary for a period of twelve months plus customary benefits for that period. In the event of a change in control, the unvested portion of his options will vest.

On January 4, 1998, Mr. Lanphier received a loan from us in the principal amount of $250,000. The loan bears interest at a rate of 6% per year and will be forgiven in forty-eight equal monthly installments of principal together with all accrued interest upon his completion of each month of employment with us over the forty-eight month period measured from the date the loan was made. If Mr. Lanphier is terminated without cause, the balance of the loan will be forgiven. A change of control will be deemed a termination without cause.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Our certificate of incorporation eliminates, to the maximum extent allowed by the Delaware General Corporation Law, directors' personal liability to us or our stockholders for monetary damages or breaches of fiduciary duties. The certificate of incorporation of Sangamo does not, however, eliminate or limit the personal liability of a director for the following:

- any breach of the director's duty of loyalty to us or our stockholders;

- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

- unlawful payments of dividends or unlawful stock repurchases or redemptions; or

- any transaction from which the director derived an improper personal benefit.

Our bylaws provide that we shall indemnify our directors and executive officers to the fullest extent permitted under the Delaware General Corporation Law and may indemnify our other officers, employees and other agents as set forth in the Delaware General Corporation Law. In addition, we have entered into an indemnification agreement with each of our directors and executive officers. The indemnification agreements contain provisions that require us, among other things, to indemnify our directors and executive officers against liabilities (other than liabilities arising from intentional or knowing and culpable violations of law) that may arise by reason of their status or service as directors or executive officers of Sangamo or other entities to which they provide service at our request and to

advance expenses they may incur as a result of any proceeding against them as to which they could be indemnified. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified directors and officers.

Prior to the consummation of the offering, we will obtain additional insurance which covers directors and officers for claims they may otherwise be required to pay or for which we are required to indemnify them and which will become effective upon consummation of the offering.

At present, there is no pending litigation or proceeding involving any of our directors, officers, employees or agents where indemnification will be required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

RELATED PARTY TRANSACTIONS

Since October 23, 1995, we have issued shares of our preferred stock and warrants to purchase our preferred stock to investors in private placement transactions as follows: a total of 791,250 shares of Series A preferred stock at a price of $1.00 per share and warrants to purchase 65,000 shares of Series A preferred stock at a price of $1.00 from October 1995 to June 1996; a total of 2,398,000 shares of Series B preferred stock at a price of $3.00 per share and warrants to purchase 64,981 shares of Series B preferred stock at an exercise price of $3.00 per share from November 1997 to February 1998; and a total of 2,000,000 shares of Series C preferred stock at a price of $4.50 per share from August 1999 to January 2000. The following table summarizes the shares of preferred stock purchased by, and warrants to purchase shares of preferred stock issued to our executive officers, directors and 5% stockholders and persons and entities associated with them in these private placement transactions. Shares and warrants held by affiliated persons and entities have been aggregated. See "Principal Stockholders." In connection with the above transactions, we entered into and agreement with the investors providing for registration rights with respect to these shares. See "Description of Capital Stock -- Registration Rights."

	SERIES A PREFERRED STOCK	SERIES B PREFERRED STOCK	SERIES B PREFERRED STOCK WARRANTS	SERIES C PREFERRED STOCK
DIRECTORS				
John W. Larson	75,000	84,548	12,682	--
William J. Rutter, Ph.D.	--	--	--	333,333
5% STOCKHOLDERS				
Entities affiliated with JAFCO Co., Ltd.	--	1,000,000	--	222,223
Lombard Odier & Cie	--	1,000,000	--	222,222
Stephens-Sangamo BioSciences LLC	--	--	--	1,000,000

AGREEMENTS WITH OFFICERS AND DIRECTORS

In May 1997, we entered into an agreement with Edward O. Lanphier II, our current President and Chief Executive Officer. Under the terms of the agreement, Mr. Lanphier will receive an annual salary, an optional bonus payment, and forgiveness of twenty-five percent of an outstanding loan, and common stock and stock options based on the achievement of some milestones.

On January 4 , 1998, Mr. Lanphier received a loan from us in the principal amount of $250,000. The loan bears interest at a rate of 6% per year and will be forgiven in forty-eight equal monthly installments of principal, together with all accrued interest, upon his completion of each month of employment with us over the forty-eight month period measured from the date the loan was made. $73,788 of the loan was forgiven in 1999. The loan is secured by 500,000 shares of our common stock. If Mr. Lanphier is terminated without cause, the balance of the loan will be forgiven. A change of control will be deemed a termination without cause.

Mr. Larson, a Director, is also a partner at Brobeck, Phleger & Harrison LLP, Sangamo's legal counsel.

On March 17, 2000 we entered into an agreement with Alan Wolffe, our current Senior Vice President and Chief Scientific Officer under which he will receive an annual base salary of $250,000 and be eligible for an annual bonus plus a stock option covering 200,000 shares of our common stock and certain fringe benefits including payment of relocation expenses.

The agreement also provides that we will loan Dr. Wolffe up to $400,000 to enable him to purchase up to 50,000 shares of our common stock under this option. The loan bears interest at seven percent, per annum is payable in three years or when the stock is sold whichever is earlier and is secured by the stock being purchased.

Under the agreement we also loaned Dr. Wolffe $250,000 as a housing allowance payable in four years from the date of the loan with interest at a rate of seven percent. Twenty-five percent of the loan and associated interest will be forgiven on each anniversary of the loan as long as Dr. Wolffe is a full time employee of Sangamo at such time. We also are going to employ Elizabeth Wolffe, Dr. Wolffe's wife, formerly a scientist at National Institutes of Health as a scientist.

We believe that all of the transactions set forth above were made on terms no less favorable to us than could have been otherwise obtained from unaffiliated third parties. All future transactions, including loans, if any, between us and our officers, directors and principal stockholders and their affiliates and any transactions between us and any entity with which our officers, directors or 5% stockholders are affiliated, will be approved by a majority of the board of directors, including a majority of the independent and disinterested outside directors of the board of directors and will be on terms no less favorable to us than could be obtained from unaffiliated third parties.

PRINCIPAL STOCKHOLDERS

The table below sets forth information regarding the beneficial ownership of our common stock as of February 29, 2000, and as adjusted for this offering, by:

- each person or entity who is known by us to own beneficially more than 5% of our outstanding stock;
- our Chief Executive Officer and our other executive officers whose total annual compensation exceeded $100,000;
- each of our directors; and
- all directors and executive officers as a group.

Each stockholder's percentage ownership in the following table is based on 17,256,144 shares of common stock outstanding as of February 29, 2000. Unless otherwise indicated, the principal address of each of the stockholders below is c/o Sangamo BioSciences, Inc., 501 Canal Boulevard, Suite A100, Richmond, CA 94804. Except as otherwise indicated, and subject to applicable community property laws, except to the extent authority is shared by both spouses under applicable law, we believe the persons named in the table have sole voting and investment power with respect to all shares of common stock held by them.

NAME AND ADDRESS OF BENEFICIAL OWNER	NUMBER OF SHARES BENEFICIALLY OWNED	PERCENTAGE OF SHARES BENEFICIALLY OWNED	
		PRIOR TO OFFERING	AFTER THE OFFERING
Entities Affiliated with JAFCO Co., Ltd.(1)..... 1-8-2 Marunouchi, Chiyoda-ku Tokyo 100, Japan	2,444,446	14.2%	10.6%
Lombard Odier & Cie..... Toedistrasse 36, CH-8027 Zurich, Switzerland	2,444,444	14.2	10.6
Stephens-Sangamo BioSciences LLC.....	2,000,000	11.6	8.7
Edward O. Lanphier II(2).....	3,820,000	21.6	16.3
Casey C. Case, Ph.D.(3).....	210,000	1.2	*
Peter Bluford(4).....	260,000	1.5	*
Herbert W. Boyer, Ph.D.(5).....	100,000	*	*
William G. Gerber, M.D.(6).....	100,000	*	*
John W. Larson(7).....	474,460	2.7	2.1
William J. Rutter, Ph.D.(8).....	766,666	4.4	3.3
Michael C. Wood(9).....	1,460,000	8.4	6.3
All directors and executive officers as a group (12 persons)(10).....	7,591,126	41.0%	31.3%

- ---

* Less than one percent.

(1) Represents 844,446 shares held by JAFCO Co., Ltd; 246,574 shares held by JAFCO G-6(A) Investment Enterprise Partnership; 246,574 shares held by JAFCO G-6(B) Investment Enterprise Partnership; 334,246 shares held by JAFCO G-7(A) Investment Enterprise Partnership; 334,246 shares held by JAFCO G-7(B) Investment Enterprise Partnership; 164,388 shares held by JAFCO JS-3 Investment Enterprise Partnership; and 273,972 shares held by JAFCO R-3 Investment Enterprise Partnership.

(2) Includes 400,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes 400,000 shares held by Mr. Lanphier's minor children.

(3) Includes 210,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.

(4) Includes 260,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.

(5) Includes 62,624 shares of common stock which are subject to repurchase.

(6) Includes 64,583 shares of common stock which are subject to repurchase.

(7) Includes 50,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes warrants to purchase 25,364 shares of common stock.

(8) Includes 100,000 shares of common stock which are subject to repurchase.

(9) Includes 50,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.

(10) Includes 1,206,364 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes 35,790 shares which are subject to repurchase.

DESCRIPTION OF CAPITAL STOCK

At the closing of this offering, we will be authorized to issue 80,000,000 shares of common stock, $0.01 par value, and 5,000,000 shares of undesignated preferred stock, $0.01 par value, following the conversion of our existing preferred stock. The following description of capital stock gives effect to the amended and restated certificate of incorporation to be filed prior to the closing of this offering. Immediately following the completion of this offering, and assuming no exercise of the underwriters' over-allotment option, a total of 22,300,417 shares of common stock will be issued and outstanding, and no shares of preferred stock will be issued and outstanding. As of January 31, 2000, there were 88 stockholders.

The following description of our capital stock is subject to and qualified by our amended and restated certificate of incorporation and bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and by the provisions of the applicable Delaware law.

COMMON STOCK

The holders of our common stock are entitled to one vote per share on all matters to be voted upon by our stockholders. Subject to preferences that may apply to any outstanding preferred stock that we may issue, the holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of funds legally available for dividends. See "Dividend Policy." In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock, if any, then outstanding. Our common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock outstanding upon completion of this offering will be fully paid and nonassessable.

PREFERRED STOCK

Our board of directors is authorized to issue, from time-to-time, without stockholder authorization, in one or more designated series, any or all of our authorized but unissued shares of preferred stock with any dividend, redemption, conversion and exchange provisions as may be provided in the particular series. Any series of preferred stock may possess voting, dividend, liquidation and redemption rights superior to those of the common stock.

The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. Issuance of a new series of preferred stock, while providing desirable flexibility in connection with financing possible acquisitions and other corporate purposes, could have the effect of entrenching our board of directors and making it more difficult for a third-party to acquire, or discourage a third-party from acquiring, a majority of our outstanding voting stock. We have no present plans to issue any shares of or designate any series of preferred stock.

WARRANTS

At December 31, 1999, there were warrants outstanding to purchase a total of 259,962 shares of our common stock, all of which will remain outstanding after the completion of this offering and have various expiration dates. Some of these warrants have net exercise provisions under which the holder may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of our common stock at the time of exercise of the warrant after deduction of the total exercise price.

REGISTRATION RIGHTS

Pursuant to the Amended and Restated Investors Rights Agreement dated January 20, 2000, some of our current stockholders and warrantholders have registration rights for 5,697,948 shares of common stock held by them, or issuable upon exercise of their warrants. Six months after the effective date of this offering, the stockholders may demand that we file a registration statement under the Securities Act covering all or a portion of the investors' registrable securities. The stockholders demanding a registration must hold at least 40% of the then outstanding registrable securities with an aggregate offering price, net of underwriting discounts and commissions, of at least $7.5 million. These registration rights are subject to our right to delay the filing of a registration statement for a period not to exceed 120 days after receiving the registration demand, although we cannot delay more than once in a twelve-month period. In addition, the managing underwriter, if any, of the offering has the right to limit the number of the registrable securities proposed to be included in the registration. We are only obligated to effect one such demand registration. However, stockholders with registration rights may require us to file additional registration statements on Form S-3, subject to conditions and limitations.

These stockholders also have "piggyback" registration rights. Subject to exceptions, if we propose to register our securities under the Securities Act other than pursuant to the stockholders' demand registration rights noted above, the stockholders may require us to include all or a portion of their registrable securities in the registration. Again, the managing underwriter has the right to limit the number of the registrable securities proposed to be included in the registration.

We will bear all registration expenses incurred in connection with a registration effected pursuant to the rights described in the two foregoing paragraphs, though limited to two registrations on Form S-3. The expenses for all subsequent registrations on Form S-3 will be paid by the selling stockholders pro rata in proportion to the number of securities sold. In any registration, each selling stockholder will pay all underwriting discounts and selling commissions applicable to the sale of its registrable securities.

These registration rights terminate on the earlier of two years after the close of this offering or the date that all of its registrable securities may be sold during any 90-day period under Rule 144 of the Securities Act. The registration rights of each investor will also terminate when it owns less than 1% of our common stock.

ANTITAKEOVER EFFECTS OF PROVISIONS OF THE DELAWARE LAW AND FUTURE ISSUANCE OF PREFERRED STOCK

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by:

(i) persons who are directors and also officers; and

(ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to 2000 Employee Stock Purchase Plan will be tendered in a tender or exchange offer; or

- on or subsequent to that date, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;

- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

- subject to some exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

Our amended and restated certificate of incorporation:

- provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not by written consent;

- provides that the authorized number of directors may be changed only by our board of directors; and

- authorizes our board of directors to issue blank check preferred stock to increase the amount of outstanding shares.

Our amended and restated by-laws provide that candidates for director may be nominated, and proposals for business to be considered by the stockholders at an annual meeting may be made, only by our board of directors or by a stockholder who gives us written notice no later than 90 days or no earlier than 120 days prior to the first anniversary of the date of the preceding year's annual meeting, subject to certain adjustments.

Delaware law and the foregoing provisions of our amended and restated certificate of incorporation and by-laws and the issuance of preferred stock in certain circumstances may have the effect of deterring hostile takeovers or delaying changes in control of our management, which could depress the market price of our common stock.

TRANSFER AGENT AND REGISTRAR

Our transfer agent and registrar for our common stock is Equiserve L.P. Its telephone number is (781) 575-2469.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to the offering, there has been no public market for our common stock. Future sales of substantial amounts of our common stock in the public market could reduce prevailing market prices. Furthermore, since no shares will be available for sale shortly after this offering because of contractual and legal restrictions on resale as described below, sales of substantial amounts of our common stock in the public market after these restrictions lapse could adversely affect the prevailing market price and our ability to raise equity capital in the future.

Upon completion of this offering, we will have outstanding an aggregate of 22,300,417 shares of common stock, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options or warrants issued after December 31, 1999. Of these shares, all of the shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless these shares are purchased by affiliates. The remaining 17,300,417 shares of common stock held by existing stockholders are restricted securities. Restricted securities may be sold in the public market only if registered for resale or if they qualify for an exemption from registration described below under Rules 144, 144(k) or 701 promulgated under the Securities Act.

Pursuant to the contractual restrictions described below and the provisions of Rules 144, 144(k) and 701, the restricted shares will be available for sale in the public market as follows:

- unless held by affiliates, the 5,000,000 shares sold in the public offering will be freely tradable upon completion of this offering;

- no shares will be eligible for sale beginning 90 days after the date of this prospectus;

- 14,255,790 shares will be eligible for sale upon the expiration of the lock-up agreements, described below, beginning 180 days after the date of this prospectus.

Lock-Up Agreements. All of our executive officers and directors, and stockholders holding an aggregate of at least 90% of the shares of our capital stock, have agreed under lock-up agreements that, without the prior written consent of Lehman Brothers Inc., they will not, directly or indirectly, offer, sell or otherwise dispose of any shares of common stock or any securities which may be converted into or exchanged for any such shares for the period ending 180 days after the date of this prospectus. Transfers or dispositions can be made sooner only with the prior written consent of Lehman Brothers Inc. See "Underwriting".

Rule 144. In general, under Rule 144 as currently in effect, beginning 90 days after the date of this prospectus a person or persons whose shares are aggregated, who has beneficially owned restricted securities for at least one year, including the holding period of any prior owner except an affiliate, would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 223,001 shares immediately after the offering; or

- the average weekly trading volume of our common stock on the Nasdaq National Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about Sangamo.

Rule 144(k). Under Rule 144(k), a person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, including the holding period of any prior owner except an

affiliate, is entitled to sell these shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. 14,255,790 shares of our common stock will qualify as "144(k) shares" within 180 days after the date of this prospectus.

Rule 701. In general, under Rule 701 of the Securities Act as currently in effect, any of our employees, consultants or advisors, other than affiliates, who purchase or receive shares from us in connection with a compensatory stock purchase plan or option plan or other written agreement will be eligible to resell their shares beginning 90 days after the date of this prospectus, subject only to the manner of sale provisions of Rule 144, and by affiliates under Rule 144 without compliance with its holding period requirements.

Registration Rights. Upon completion of this offering, the holders of 15,035,896 shares of our common stock, or their transferees, will be entitled to rights with respect to the registration of their shares for resale under the Securities Act. Registration of their shares for resale under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, immediately upon the effectiveness of that registration statement.

Stock Options. Following the offerings, we intend to file a registration statement on Form S-8 under the Securities Act covering the shares of common stock reserved for issuance under our 1995 Stock Option Plan, 2000 Stock Incentive Plan and 2000 Employee Stock Purchase Plan that will become effective upon filing. Accordingly, shares registered under that registration statement will, subject to Rule 144 volume limitations applicable to affiliates, be available for sale in the open market after the filing, except those shares subject to lockup agreements and unvested shares.

UNDERWRITING

Under the underwriting agreement, which is filed as an exhibit to the registration statement relating to this prospectus, the underwriters named below, for whom Lehman Brothers Inc., Chase Securities Inc., ING Barings LLC, William Blair & Company, L.L.C. and Fidelity Capital Markets, a division of National Financial Services Corporation, are acting as representatives, have each agreed to purchase from us the respective number of shares of common stock shown opposite its name below:

UNDERWRITER	NUMBER OF SHARES
Lehman Brothers Inc.	
Chase Securities Inc.	
ING Barings LLC	
William Blair & Company, L.L.C.	
Fidelity Capital Markets, a division of National Financial Services Corporation	
Total	5,000,000

The underwriting agreement provides that the underwriters' obligations to purchase shares of common stock depend on the satisfaction of the conditions contained in the underwriting agreement. It also provides that, if any of the shares of common stock are purchased by the underwriters under the underwriting agreement, all of the shares of common stock that the underwriters have agreed to purchase under the underwriting agreement, must be purchased. The conditions contained in the underwriting agreement include the requirement that:

- the representations and warranties made by us to the underwriters are true;
- that there is no material change in the financial markets; and
- we deliver to the underwriters customary closing documents.

The representatives have advised us that the underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus, and to dealers, who may include the underwriters, at this public offering price less a selling concession not in excess of $ per share. The underwriters may allow, and the dealers may reallow, a concession not in excess of $ per share to brokers and dealers. After completion of the offering, the underwriters may change the offering price and other selling terms.

We have granted the underwriters an option to purchase up to 750,000 additional shares of common stock, exercisable solely to cover over-allotments, if any, at the public offering price less the underwriting discount shown on the cover page of this prospectus. The underwriters may exercise this option at any time until 30 days after the date of the underwriting agreement. If this option is exercised, each underwriter will be committed, so long as the conditions of the underwriting agreement are satisfied, to purchase a number of additional shares of common stock proportionate to the underwriter's initial commitment as indicated in the table above, and we will be obligated, under the over-allotment option, to sell the shares of common stock to the underwriters.

We have agreed not to, without the prior consent of Lehman Brothers Inc., directly or indirectly, offer, sell or otherwise dispose of any shares of common stock or any securities which may be

converted into or exchanged for any such shares of common stock for a period of 180 days from the date of this prospectus. All of our executive officers and directors, and some of our stockholders holding an aggregate of at least 90% of the shares of our capital stock, have agreed under lock-up agreements that, without the prior written consent of Lehman Brothers Inc., they will not, directly or indirectly, offer, sell or otherwise dispose of any shares of common stock or any securities which may be converted into or exchanged for any such shares for the period ending 180 days after the date of this prospectus. See "Shares Eligible for Future Sale."

The underwriting discount is equal to the public offering price per share of common stock less the amount paid by the Underwriters to us per share of common stock. The underwriting discount is expected to be approximately 7% of the public offering price. We have agreed to pay the underwriters the following total amount, assuming either no exercise or full exercise by the underwriters of their over-allotment option:

		TOTAL FEES	
	FEE PER SHARE	WITHOUT EXERCISE OF OVER-ALLOTMENT OPTION	WITH FULL EXERCISE OF OVER-ALLOTMENT OPTIONS
Underwriting discount paid by Sangamo.....	$	$	$

In addition, we estimate that our share of the total expenses of this offering, excluding the underwriting discount, will be approximately $1.2 million.

Before this offering, there has been no public market for the shares of common stock. The initial public offering price will be negotiated between the representatives and us. In determining the initial public offering price of the common stock, the representatives will consider, among other things and in addition to prevailing market conditions:

- our historical performance and capital structure;
- estimates of our business potential and earning prospects;
- an overall assessment of our management; and
- the consideration of the above factors in relation to market valuations of companies in related businesses.

We intend to apply to have our common stock approved for quotation on the Nasdaq National Market under the symbol "SGMO."

We have agreed to indemnify the underwriters against liabilities, including liabilities under the Securities Act and liabilities arising from breaches of the representations and warranties contained in the underwriting agreement, and to contribute to payments that the underwriters may be required to make for these liabilities.

Until the distribution of the common stock is completed, rules of the Securities and Exchange Commission may limit the ability of the underwriters and selling group members to bid for and purchase shares of common stock. As an exception to these rules, the representatives are permitted to engage in transactions that stabilize the price of the common stock. These transactions may consist of bids or purchases for the purposes of pegging, fixing or maintaining the price of the common stock.

The underwriters may create a short position in the common stock in connection with the offering, which means that they may sell more shares than are set forth on the cover page of this prospectus. If the underwriters create a short position, then the representatives may reduce that short position by purchasing common stock in the open market. The representatives also may elect to reduce any short position by exercising all or part of the over-allotment option. The underwriters have

informed us that they do not intend to confirm sales to discretionary accounts that exceed 5% of the total number of shares of common stock offered by them.

The representatives also may impose a penalty bid on underwriters and selling group members. This means that, if the representatives purchase shares of common stock in the open market to reduce the underwriters' short position or to stabilize the price of the common stock, they may reclaim the amount of the selling concession from the underwriters and selling group members who sold those shares as part of the offering.

In general, purchases of a security for the purpose of stabilization or to reduce a syndicate short position could cause the price of the security to be higher than it might otherwise be in the absence of these purchases. The imposition of a penalty bid might have an effect on the price of a security to the extent that it may discourage resales of the security by purchasers in an offering.

Neither we nor any of the underwriters makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters makes any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Any offers in Canada will be made only under an exemption from the requirements to file a prospectus in the relevant province of Canada in which the sale is made.

Purchasers of the shares of common stock offered in this prospectus may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover of this prospectus.

Fidelity Capital Markets, a division of National Financial Services Corporation, is acting as a selling group member in this offering and will be facilitating electronic distribution of information through the Internet, intranet and other proprietary electronic technology.

At our request, the underwriters have reserved up to 300,000 shares of the common stock offered by this prospectus for sale to our officers, directors, employees and their family members and to our business associates at the initial public offering price set forth on the cover page of this prospectus. These persons must commit to purchase no later than the close of business on the day following the date of this prospectus. The number of shares available for sale to the general public will be reduced to the extent these persons purchase the reserved shares.

Lehman Brothers Inc. and one of its affiliates are stockholders of Sangamo. Together they own an aggregate of less than one percent of the issued and outstanding shares of our common stock. In addition, we have entered into a consulting agreement with an affiliate of Lehman Brothers Inc. that provides for annual payments to the affiliate of $20,000.

LEGAL MATTERS

The validity of the common stock offered will be passed upon for us by Brobeck, Phleger & Harrison LLP, San Francisco, California. John W. Larson, one of our directors, is a senior partner of Brobeck, Phleger & Harrison LLP and beneficially owns an aggregate of 474,460 shares of our common stock. Latham & Watkins is acting as counsel for the underwriters in connection with selected legal matters relating to the shares of common stock offered by this prospectus.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our financial statements at December 31, 1998 and 1999, and for each of the three years in the period ended December 31, 1999, as set forth in their report. We have included our financial statements in this prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on the authority of such firm as experts in accounting and auditing.

The statements in this prospectus in the sections entitled "Risk Factors -- Because it is difficult and costly to protect our proprietary rights, and third parties have filed patent applications that are similar to ours, we cannot ensure the proprietary protection of our technologies and products" and "Business -- Intellectual Property and Technology Licenses" have been passed upon, as to patent matters, by Townsend and Townsend and Crew LLP, patent counsel to us, and experts on such matters, and are included in this prospectus in reliance upon its review and approval.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission, Washington, D.C. 20549, under the Securities Act a registration statement on Form S-1 relating to the common stock offered by this prospectus. This prospectus does not contain all of the information set forth in the registration statement and its exhibits and schedules. For further information with respect to us and the shares we are offering by this prospectus, you should refer to the registration statement and its exhibits and schedules. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete, and you should refer to the copy of that contract or other document filed as an exhibit to the registration statement. You may read or obtain a copy of the registration statement, including exhibits, at the commission's public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. You may obtain information on the operation of the public reference room by calling the commission at 1-800-SEC-0330. The commission maintains a Web site that contains reports, proxy information statements and other information regarding registrants that file electronically with the commission. The address of this Web site is http://www.sec.gov.

As a result of the offering, the information and reporting requirements of the Securities Exchange Act of 1934 will apply to us. We intend to furnish holders of our common stock with annual reports containing, among other information, audited financial statements certified by an independent public accounting firm and quarterly reports containing unaudited condensed financial information for the first three quarters of each fiscal year. We intend to furnish other reports as we may determine or as may be required by law.

SANGAMO BIOSCIENCES, INC.

INDEX TO FINANCIAL STATEMENTS

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders
Sangamo BioSciences, Inc.

We have audited the accompanying balance sheets of Sangamo BioSciences, Inc. as of December 31, 1998 and 1999, and the related statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1999. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Sangamo BioSciences, Inc. at December 31, 1998 and 1999, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 1999, in conformity with accounting principles generally accepted in the United States.

Ernst & Young LLP

Palo Alto, California
January 28, 2000,
except for Note 7, as to which the date is

March 28, 2000.

SANGAMO BIOSCIENCES, INC.

BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

	DECEMBER 31,		PRO FORMA STOCKHOLDERS' EQUITY DECEMBER 31,
	1998	1999	1999
			(UNAUDITED)
ASSETS			
Current assets:			
Cash and cash equivalents	$ 1,250	$ 251	
Short-term investments	1,808	7,252	
Accounts receivable	384	562	
Prepaid expenses	97	171	
Total current assets	3,539	8,236	
Property and equipment, net	436	612	
Other assets	57	314	
Total assets	$ 4,032	$ 9,162	
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable and accrued liabilities	$ 182	$ 348	
Accrued compensation and employee benefits	196	182	
Deferred revenue	--	500	
Total current liabilities	378	1,030	
Note payable	250	250	
Commitments			
Stockholders' equity:			
Convertible preferred stock, $0.01 par value; 6,000,000 shares authorized, issuable in series, 3,148,000 and 4,855,917 shares issued and outstanding at December 31, 1998 and 1999, respectively (none pro forma); aggregate liquidation preference of $15,485 at December 31, 1999, at amount paid in	7,743	15,187	$ --
Common stock, $0.01 par value; 15,000,000 shares authorized, 5,931,018 and 6,132,060 shares issued and outstanding at December 31, 1998 and 1999, respectively, at amount paid-in (15,843,894 shares issued and outstanding, pro forma), at amount paid in	1,576	3,258	18,445
Note receivable from stockholder	(187)	(125)	(125)
Deferred stock compensation	(773)	(1,736)	(1,736)
Accumulated deficit	(5,010)	(8,785)	(8,785)
Accumulated other comprehensive income	55	83	83
Total stockholders' equity	3,404	7,882	$ 7,882
Total liabilities and stockholders' equity	$ 4,032	$ 9,162	

See accompanying notes.

SANGAMO BIOSCIENCES, INC.

STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Revenues:			
Federal government research grants	$ 1,152	$ 1,888	$ 1,182
Collaboration agreements	--	150	1,000
Total revenues	1,152	2,038	2,182
Operating expenses:			
Research and development (including charges for stock compensation of $25, $202, and $275 for 1997, 1998 and 1999, respectively)	1,700	4,259	4,266
General and administrative (including charges for stock compensation of $352, $208, and $244 for 1997, 1998 and 1999, respectively)	797	1,237	1,822
Total operating expenses	2,497	5,496	6,088
Loss from operations	(1,345)	(3,458)	(3,906)
Interest income	44	185	148
Interest expense	(99)	(12)	(17)
Net loss	$(1,400)	$(3,285)	$(3,775)
Basic and diluted net loss per share	$ (0.26)	$ (0.56)	$ (0.63)
Shares used in computing basic and diluted net loss per share	5,485	5,843	5,991
Pro forma basic and diluted net loss per share (unaudited)			$ (0.29)
Shares used in computing pro forma basic and diluted net loss per share (unaudited)			13,102

See accompanying notes.

SANGAMO BIOSCIENCES, INC.

STATEMENT OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

	CONVERTIBLE PREFERRED STOCK		COMMON STOCK		NOTE RECEIVABLE FROM	DEFERRED STOCK	ACCUMULATED
	SHARES	AMOUNT	SHARES	AMOUNT	STOCKHOLDER	COMPENSATION	DEFICIT
Balances at December 31, 1996	750,000	$ 750	5,472,500	$ 9	$ --	$ --	$ (325)
Issuance of common stock for services rendered at $0.01 per share	--	--	303,800	331	--	--	--
Issuance of common stock upon exercise of options at $0.05 per share	--	--	100,000	5	--	--	--
Issuance of Series B convertible preferred stock for cash at $3.00 per share, net of issuance costs of $180	2,358,000	6,894	--	--	--	--	--
Issuance of Series B preferred stock warrants	--	99	--	--	--	--	--
Deferred stock compensation	--	--	--	449	--	(449)	--
Amortization of deferred stock compensation	--	--	--	--	--	46	--
Net loss and comprehensive loss	--	--	--	--	--	--	(1,400)
Balances at December 31, 1997	3,108,000	7,743	5,876,300	794	--	(403)	(1,725)
Issuance of common stock upon exercise of options at $0.01 and $0.05 per share, net of repurchases	--	--	54,718	2	--	--	--
Issuance of Series B convertible preferred stock for services related to the issuance of preferred stock at $0.01 per share	40,000	--	--	--	--	--	--
Issuance of note receivable to stockholder	--	--	--	--	(250)	--	--
Forgiveness of note receivable to stockholder	--	--	--	--	63	--	--
Deferred stock compensation	--	--	--	780	--	(780)	--
Amortization of deferred stock compensation	--	--	--	--	--	410	--
Unrealized gain on investments	--	--	--	--	--	--	--
Net loss	--	--	--	--	--	--	(3,285)
Comprehensive loss							
Balances at December 31, 1998	3,148,000	7,743	5,931,018	1,576	(187)	(773)	(5,010)
Issuance of common stock upon exercise of options at $0.01 to $0.15 per share	--	--	191,042	12	--	--	--
Issuance of common stock and options to purchase common stock for services rendered	--	--	10,000	188	--	--	--
Issuance of Series A convertible preferred stock upon exercise of warrants at $0.01 per share	41,250	--	--	--	--	--	--
Issuance of Series C convertible preferred stock for cash at $4.50 per share, net of issuance costs of $56	1,666,667	7,444	--	--	--	--	--
Forgiveness of note receivable to stockholder	--	--	--	--	62	--	--
Deferred stock compensation	--	--	--	1,482	--	(1,482)	--
Amortization of deferred stock compensation	--	--	--	--	--	519	--
Unrealized gain on investments	--	--	--	--	--	--	--
Net loss	--	--	--	--	--	--	(3,775)
Comprehensive loss							
Balances at December 31, 1999	4,855,917	$15,187	6,132,060	$3,258	$(125)	$(1,736)	$(8,785)

	ACCUMULATED OTHER COMPREHENSIVE INCOME	TOTAL STOCKHOLDERS' EQUITY
Balances at December 31, 1996	$--	$ 434
Issuance of common stock for services rendered at $0.01 per share	--	331
Issuance of common stock upon exercise of options at $0.05 per share	--	5
Issuance of Series B convertible preferred stock for cash at $3.00 per share, net of issuance costs of $180	--	6,894
Issuance of Series B preferred stock warrants	--	99
Deferred stock compensation	--	--
Amortization of deferred stock compensation	--	46
Net loss and comprehensive loss	--	(1,400)

Balances at December 31, 1997	--	6,409
Issuance of common stock upon exercise of options at $0.01 and $0.05 per share, net of repurchases	--	2
Issuance of Series B convertible preferred stock for services related to the issuance of preferred stock at $0.01 per share	--	--
Issuance of note receivable to stockholder	--	--
Forgiveness of note receivable to stockholder	--	--
Deferred stock compensation	--	--
Amortization of deferred stock compensation	--	410
Unrealized gain on investments	55	55
Net loss	--	(3,285)
Comprehensive loss		(3,230)
Balances at December 31, 1998	55	3,591
Issuance of common stock upon exercise of options at $0.01 to $0.15 per share	--	12
Issuance of common stock and options to purchase common stock for services rendered	--	188
Issuance of Series A convertible preferred stock upon exercise of warrants at $0.01 per share	--	--
Issuance of Series C convertible preferred stock for cash at $4.50 per share, net of issuance costs of $56	--	7,444
Forgiveness of note receivable to stockholder	--	--
Deferred stock compensation	--	--
Amortization of deferred stock compensation	--	519
Unrealized gain on investments	28	28
Net loss	--	(3,775)
Comprehensive loss		(3,747)
Balances at December 31, 1999	$83	$ 8,007

See accompanying notes.

SANGAMO BIOSCIENCES, INC.

STATEMENTS OF CASH FLOWS
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS
(IN THOUSANDS)

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
OPERATING ACTIVITIES:			
Net loss	$(1,400)	$(3,285)	$(3,775)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	2	86	164
Amortization of deferred stock compensation	46	410	519
Issuance of common stock and options to purchase common stock for technology and services rendered	331	--	188
Non-cash interest expense	99	--	--
Changes in operating assets and liabilities:			
Accounts receivable	(226)	20	(178)
Prepaid expenses and other assets	(53)	(284)	(14)
Accounts payable and accrued liabilities	383	(305)	166
Accrued compensation and employee benefits	--	196	(14)
Deferred revenue	--	--	500
Net cash used in operating activities	(818)	(3,162)	(2,444)
INVESTING ACTIVITIES:			
Purchases of short-term investments	--	(2,921)	(8,242)
Maturities to and other changes in short-term investments	--	1,166	2,571
Purchases of property and equipment	(124)	(400)	(340)
Net cash used in investing activities	(124)	(2,155)	(6,011)
FINANCING ACTIVITIES:			
Proceeds from issuance of convertible preferred stock	5,934	--	7,444
Proceeds from issuance of common stock	5	3	12
Borrowings under note payable	--	250	--
Proceeds from issuance of convertible promissory notes	960	--	--
Net cash provided by financing activities	6,899	253	7,456
Net increase in cash and cash equivalents	5,957	(5,064)	(999)
Cash and cash equivalents, beginning of period	357	6,314	1,250
Cash and cash equivalents, end of period	$ 6,314	$ 1,250	$ 251
SUPPLEMENTAL DISCLOSURES:			
Cash paid for interest	$ --	$ 12	$ 17
NONCASH INVESTING AND FINANCING ACTIVITIES:			
Deferred compensation related to stock options	$ 449	$ 780	$ 1,482
Conversion of convertible promissory notes to convertible preferred stock	$ 960	$ --	$ --

See accompanying notes.

SANGAMO BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

SANGAMO AND BASIS OF PRESENTATION

Sangamo BioSciences, Inc. ("Sangamo") was incorporated in the State of Delaware on June 22, 1995 and is focused on the development and commercialization of novel transcription factors for the regulation of gene expression. Sangamo's Universal Gene Recognition technology platform enables the engineering of a class of transcription factors known as zinc finger DNA binding proteins ("ZFPs"). Through December 31, 1998, Sangamo was considered to be in the development stage. During 1999, Sangamo entered into several Universal GeneTools collaborations and recognized revenues associated with these agreements, and expects to continue to receive revenues under these, similar and other agreements in the future. Consequently, Sangamo is no longer considered to be in the development stage. Sangamo will require additional financial resources to complete the development and commercialization of its products.

Sangamo anticipates working on a number of long-term development projects that will involve experimental and unproven technology. The projects may require several years and substantial expenditures to complete and ultimately may be unsuccessful. Sangamo plans to finance its operations with available cash resources, funds received under federal government research grants and Universal GeneTools collaborations and strategic partnerships (see Note 7), and from the issuance of equity or debt securities. To date, Sangamo has been awarded research grants from the National Institute of Standards and Technology and the National Institutes of Health amounting to approximately $5,600,000 of which approximately $5,000,000 has been used from inception of the Company through December 31, 1999. Sangamo believes that its available cash, cash equivalents and short-term investments of $7,503,000 as of December 31, 1999, along with expected federal government research grant reimbursements and revenues from Universal GeneTools collaborations and strategic partnerships, will be adequate to fund its operations through at least fiscal 2000. Sangamo will need to raise substantial additional capital to fund subsequent operations. Sangamo intends to seek funding through the issuance of equity securities, including this offering, through additional Universal GeneTools collaborations, strategic partnerships, and federal government research grants. Sangamo may seek to raise additional capital when conditions permit. We cannot assure you that funding will be available on favorable terms, if at all.

INITIAL PUBLIC OFFERING

In February 2000, the Board of Directors authorized the management of Sangamo to file a registration statement with the Securities and Exchange Commission permitting Sangamo to sell shares of its common stock to the public. If the initial public offering is closed under the terms presently anticipated, all of the convertible preferred stock outstanding will automatically convert into common stock (see Note 7). Unaudited pro forma stockholders' equity, as adjusted for the assumed conversion of the preferred stock, is set forth on the balance sheet.

USE OF ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the accompanying notes. Actual results could differ from those estimates.

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

CASH AND CASH EQUIVALENTS

Sangamo considers all highly liquid investments purchased with original maturities of three months or less at the purchase date to be cash equivalents. Sangamo's cash and cash equivalents are maintained with two financial institutions. Cash equivalents of $1,236,000 and $249,000 at December 31, 1998 and December 31, 1999, respectively, consist of a certificate of deposit and deposits in a money market investment account.

SHORT-TERM INVESTMENTS

Sangamo classifies its short-term investments as "available-for-sale" and records its investments at market value in accordance with Statement of Financial Accounting Standards ("SFAS") No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Available-for-sale securities are carried at amounts that approximate fair market value based on quoted market prices. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in interest income. Interest on securities classified as available-for-sale is also included in interest income. Through December 31, 1999, Sangamo has experienced no losses on its short-term investments.

At December 31, 1998 short-term investments consisted of US Treasury bills and commercial notes with an amortized cost of $1,753,000 and a fair value of $1,808,000. These investments matured during 1999. At December 31, 1999, short-term investments consisted of commercial notes and a certificate of deposit with an unamortized cost of $7,169,000 and fair value of $7,252,000 that mature at various dates through May 2000.

PROPERTY AND EQUIPMENT

Property and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation is calculated using the straight-line method based on the estimated useful lives of the related assets (generally three to five years). For leasehold improvements, amortization is calculated using the straight-line method based on the shorter of the useful life or the lease term. Sangamo has not internally developed any software for use in its research activities.

Through December 31, 1999, the Company has been reimbursed under government grants for approximately $441,000 of equipment purchased for use in grant-related research. The cost of such equipment has been charged to expense in the same periods in which the related grant revenue has been recognized.

COMPREHENSIVE INCOME

In 1998, Sangamo adopted SFAS No. 130, "Reporting Comprehensive Income," which established new rules for the reporting and display of comprehensive income and its components. Comprehensive income includes all changes in equity during a period from non-owner sources. These items include unrealized gains and losses on investments.

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

REVENUE RECOGNITION

Sangamo recognizes revenue from its Universal GeneTools agreements as earned when ZFPs are delivered to the Universal GeneTools collaborators. Generally, Sangamo receives up-front payments from these collaborations prior to the delivery of ZFPs and the revenues from these payments are deferred until the ZFPs are delivered. The risk of ownership has passed to the collaborator and all performance obligations have been satisfied at the time revenue is recognized.

Sangamo's federal government research grants provide for the reimbursement of qualified expenses for research and development as defined under the terms of the grant agreement. Revenue under grant agreements is recognized when the related research expenses are incurred. Grant reimbursements are received on a quarterly or monthly basis and are subject to the issuing agency's right of audit.

RESEARCH AND DEVELOPMENT COSTS

Research and development expenses consist of costs incurred for company-sponsored as well as collaborative research and development activities. These costs include direct and research-related overhead expenses and are expensed as incurred.

STOCK-BASED COMPENSATION

Sangamo accounts for employee and director stock options using the intrinsic value method in accordance with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and has adopted the disclosure-only alternative of SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"). Stock options granted to non-employees, including Scientific Advisory Board Members, are accounted for in accordance with Emerging Issues Task Force Issue No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring or in Conjunction with Selling, Goods or Services," which requires the value of such options to be remeasured as they vest over a performance period. The fair value of such options is determined using the Black-Scholes model.

INCOME TAXES

Sangamo uses the liability method to account for income taxes as required by SFAS No. 109, "Accounting for Income Taxes." Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted tax rates and laws that will be in effect when the differences are expected to reverse.

NET LOSS PER SHARE

Basic and diluted net loss per share information for all periods is presented under the requirements of SFAS No. 128, "Earnings per Share." Basic net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase, and excludes any dilutive effects of options, warrants, and convertible

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)
securities. Potential dilutive securities have also been excluded from the computation of diluted net loss per share as their inclusion would be antidilutive.

Pro forma net loss per share has been computed as described above and also gives effect, under Securities and Exchange Commission guidance, to the conversion of preferred shares not included above that will automatically convert to common shares upon completion of the Company's initial public offering, using the if-converted method.

The following table presents the calculation of historical basic and diluted net loss per share and pro forma basic and diluted net loss per share (in thousands, except per share data):

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Historical:			
Net loss	$(1,400)	$(3,285)	$(3,775)
Basic and diluted:			
Weighted-average shares of common stock outstanding	5,519	5,919	6,053
Less: weighted-average shares subject to repurchase	(34)	(76)	(62)
Shares used in computing basic and diluted net loss per share	5,485	5,843	5,991
Basic and diluted net loss per share	$ (0.26)	$ (0.56)	$ (0.63)
Pro forma:			
Net loss			$(3,775)
Weighted-average shares of common stock outstanding (from above)			5,991
Adjustment to reflect the weighted average effect of the assumed conversion of convertible preferred stock from the date of issuance (unaudited)			7,111
Shares used in computing pro forma basic and diluted net loss per share (unaudited)			13,102
Pro forma basic and diluted net loss per share (unaudited)			$ (0.29)

If Sangamo had reported net income, the calculation of historical and pro forma diluted earnings per share would have included approximately an additional 122,915, 284,994 and 927,652 common equivalent shares related to outstanding stock options and warrants not included above (determined using the treasury stock method) for 1997, 1998 and 1999, respectively.

SEGMENT REPORTING

As of January 1, 1998, Sangamo adopted SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." SFAS 131 establishes annual and interim reporting standards for an enterprise's operating segments and related disclosures about its products, services, geographic

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)
areas, and major customers. Sangamo has determined that it operates in only one segment. Accordingly, the adoption of this statement had no impact on its financial statements.

MAJOR CUSTOMERS

During 1999, Sangamo entered into Universal GeneTools agreements with 13 pharmaceutical and biotechnology companies and earned revenue of $1,000,000 under seven of these agreements. At December 31, 1999, Sangamo's accounts receivable consisted of amounts due from two of these pharmaceutical companies. These agreements generally require Sangamo to apply its research expertise and technology to develop unique transcription factors, which are delivered to the pharmaceutical companies for use in their research.

EFFECT OF NEW ACCOUNTING STANDARDS

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS 133"), as amended, which will be effective for fiscal 2001. SFAS 133 establishes accounting and reporting standards requiring that every derivative instrument, including derivative instruments imbedded in other contracts, be recorded in the balance sheet as either an asset or liability measured at its fair value. SFAS 133 also requires that changes in the derivative's fair value be recognized in earnings unless specific hedge accounting criteria are met. Sangamo believes the adoption of SFAS 133 will not have a material effect on the financial statements, since it currently does not hold derivative instruments or engage in hedging activities.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 101 summarizes the SEC's views in applying generally accepted accounting principles to revenue recognition, and specifically addresses revenue recognition for upfront, non-refundable fees earned in connection with research collaboration arrangements. It is the SEC's position that such fees should generally be recognized over the term of the agreement. Sangamo expects to apply this accounting to its future collaborations. Adoption of SAB 101 will not impact on the Company's historical revenue recognition policy.

2. PROPERTY AND EQUIPMENT

Property and equipment consist of the following:

	DECEMBER 31,	
	1998	1999
	(IN THOUSANDS)	
Laboratory equipment	$137	$ 436
Furniture and fixtures	209	227
Leasehold improvements	178	201
	524	864
Less accumulated depreciation and amortization	(88)	(252)
	$436	$ 612

3. COMMITMENTS AND NOTES PAYABLE

Sangamo occupies office and laboratory space under operating leases in Richmond, California that expire in 2004. Rent expense for 1997, 1998 and 1999 was $74,000, $314,000, and $336,000, respectively. Future minimum payments under non-cancelable operating leases at December 31, 1999 consist of the following:

	AMOUNT
	(IN THOUSANDS)
2000	$ 304
2001	304
2002	306
2003	308
2004	206
	$1,428

In May 1998, Sangamo entered into a Loan and Security Agreement with a financial institution that provides for notes payable totaling up to $500,000 for purchases of equipment. Outstanding notes payable bear interest at 6.5% per annum and interest payments are due monthly. The outstanding balance at December 31, 1998 and 1999 was $250,000. Principal under the notes are due on May 2003. Included in other assets in the accompanying balance sheets is $250,000 pledged in the form of a certificate of deposit used to collateralize the notes payable.

4. STOCKHOLDERS' EQUITY

CONVERTIBLE PREFERRED STOCK

Convertible preferred stock consists of the following, by series:

		SHARES ISSUED AND OUTSTANDING DECEMBER 31,	
	DESIGNATED	1998	1999
Series			
A	856,250	750,000	791,250
B	2,462,981	2,398,000	2,398,000
C	2,000,000	--	1,666,667
	5,319,231	3,148,000	4,855,917

The holders of Series A, B and C convertible preferred stock are entitled to receive noncumulative dividends at the rate of 8% per share per year, if declared, prior to and in preference to the payment of dividends to holders of common stock. As of December 31, 1999, no dividends had been declared. Holders of Series A, B and C convertible preferred stock are entitled to a liquidation preference equal to $1.00, $3.00 and $4.50 per share, respectively, plus all declared but unpaid dividends. In a liquidation, any assets remaining following the payment of these amounts would be distributed to common stockholders.

Convertible preferred stock is convertible into common stock at the option of the holder, initially at an exchange ratio of one-to-one (see Note 7). Convertible preferred shares are automatically converted into common stock immediately upon the closing of an underwritten public offering that is at a price to the public of at least $6.00 per share and that results in aggregate proceeds to Sangamo of at least $7,500,000. All convertible preferred shares have voting rights equal to common stock on an as-if-converted basis.

COMMON STOCK

At December 31, 1999, 45,500 shares of outstanding common stock were subject to the Company's contractual right of repurchase at a weighted average price of $0.05 which rights generally lapse over periods not exceeding four years.

In 1997, the Company sold a total of 303,800 shares to a consultant and an officer for services rendered at $0.01 per share, which was below the fair value of the Company's stock on the date of grant. As a result, the Company recognized a charge of $331,000.

WARRANTS

At December 31, 1999, warrants to purchase 65,000 shares of Series A convertible preferred stock were outstanding at an exercise price of $1.00 per share, which are exercisable through September 2000, and warrants to purchase 64,981 shares of Series B convertible preferred stock were outstanding at an exercise price of $3.00 per share, which are exercisable through August 2002. The warrants to purchase Series B preferred stock were issued in connection with a 1997 bridge loan transaction. Such warrants were assigned a value of $99,000 using the Black Scholes method which

4. STOCKHOLDERS' EQUITY (CONTINUED)
was charged to interest expense in 1997. The valuation was determined using the following assumptions: risk free interest rate -- 6%; term -- 5 years, dividend yield -- 0%; and volatility of the Company's stock -- .5. Sangamo has reserved both preferred and common stock for issuance upon exercise of the warrants.

STOCK OPTION PLAN

Sangamo's 1995 Stock Option Plan (the "1995 Option Plan") provides for the issuance of common stock and grants of options for common stock to employees, officers, directors and consultants. The exercise price per share will be no less than 85% of the fair value per share of common stock on the option grant date, and the option term will not exceed ten years. If the person to whom the option is granted is a 10% stockholder, then the exercise price per share will not be less than 110% of the fair value per share of common stock on the option grant date, and the option term will not exceed five years. Options granted under the 1995 Option Plan generally vest over four years at a rate of 25% one year from the grant date and one thirty-sixth per month thereafter and expire ten years after the grant, or earlier upon employment termination. Options granted pursuant to the 1995 Option Plan may be exercised prior to vesting, with the related shares subject to Sangamo's right to repurchase the shares at the issue price if the option holder terminates employment. The right of repurchase lapses over the original option vesting period, as described above. A total of 3,700,000 shares were reserved for issuance pursuant to the 1995 Option Plan. A summary of Sangamo's stock option activity follows:

		OPTIONS OUTSTANDING	
	SHARES AVAILABLE FOR GRANT OF OPTIONS	NUMBER OF SHARES	WEIGHTED-AVERAGE EXERCISE PER SHARE PRICE
Balance at December 31, 1996	785,500	392,000	$0.04
Options granted	(816,000)	816,000	$0.08
Options exercised	--	(100,000)	$0.05
Options canceled	125,000	(125,000)	$0.04
Balance at December 31, 1997	94,500	983,000	$0.08
Additional shares authorized	1,200,000	--	--
Options granted	(828,000)	828,000	$0.16
Options exercised	--	(101,750)	$0.03
Shares repurchased	47,032	--	$0.01
Options canceled	35,250	(35,250)	$0.08
Balance at December 31, 1998	548,782	1,674,000	$0.12
Additional shares authorized	1,000,000	--	--
Options granted	(459,500)	459,500	$0.22
Options exercised	--	(191,042)	$0.06
Options canceled	69,792	(69,792)	$0.10
Balance at December 31, 1999	1,159,074	1,872,666	$0.15

Options outstanding at December 31, 1999 have a weighted average remaining contractual life of 7.4 years and may be immediately exercised; however, 1,061,472 shares issued pursuant to these

4. STOCKHOLDERS' EQUITY (CONTINUED)
options would be subject to Sangamo's right of repurchase. Vested options at December 31, 1999 total 811,194 and have a weighted average remaining contractual life of 6.3 years. The weighted-average fair value per share of options granted during 1997, 1998 and 1999 was $0.44, $1.08 and $5.06, respectively. All such options were granted with exercise prices below the fair value of the Company's common stock at the date of grant, as determined in accordance with the procedure described below.

As permitted by SFAS 123, Sangamo accounts for its stock option and stock incentive plans in accordance with APB 25 and recognizes no deferred stock compensation expense for options granted with exercise prices equal to the fair market value of Sangamo's common stock at the date of grant. In 1997, 1998 and 1999, Sangamo granted options to employees with exercise prices below the fair value of Sangamo's common stock. Such fair value was determined based on the business factors underlying the value of the Company's common stock on the date such option grants were made, viewed in light of the Company's planned initial public offering and the expected initial public offering price per share. Accordingly, the Company recognized deferred stock compensation of $449,000, $780,000 and $1,482,000, in 1997, 1998 and 1999, respectively, which is being amortized to expense over the vesting term of the option.

SFAS 123 requires the disclosure of pro forma information regarding net loss and net loss per share determined as if Sangamo had accounted for its stock options under the fair value method. For purposes of this pro forma disclosure, the estimated fair value of the options is amortized to expense over the options' vesting period.

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Pro forma net loss (in thousands).....	$(1,404)	$(3,296)	$(3,789)
Pro forma basic and diluted net loss per share....	$ (0.26)	$ (0.56)	$ (0.63)

The above pro forma effect may not be representative of that to be expected in future years, due to subsequent years including additional grants and related vesting. The fair value for all options granted in 1997, 1998 and 1999 were estimated at the date of grant using the minimum value method with the following weighted-average assumptions:

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Risk-free interest rate.....	5.8%	5.0%	6.0%
Expected life of option.....	5 yrs	5 yrs	5 yrs
Expected dividend yield of stock.....	0%	0%	0%

In 1998 and 1999, respectively, Sangamo granted 80,000 and 154,000, nonqualified common stock options to consultants at exercise prices that range from $0.15 to $0.23 per share for services rendered. Such options are included in the option tables disclosed above. The options generally vest over four years at a rate of 25% one year from the grant date and one thirty-sixth per month thereafter and expire ten years after the grant date. Expense of $128,000 was recognized in 1999 related to these transactions. The related expense for 1998 was not material. The fair value of these options was determined using the Black Scholes model with the following assumptions: risk free

4. STOCKHOLDERS' EQUITY (CONTINUED)
interest rate -- 6%; term -- 10 years; dividend yield -- 0%; and expected volatility of the Company's common stock -- .6.

5. LOAN TO AN OFFICER

Sangamo advanced its President and Chief Executive Officer $250,000 under a Note Receivable Agreement (the "Note"). The Note bears interest at 6.02% per annum and is being forgiven one forty-eighth each month beginning January 1, 1998. As of December 31, 1998 and 1999, $187,000 and $125,000, respectively, of this Note was outstanding, which is included as a component of stockholders' equity in the accompanying balance sheets. The loan is secured on 500,000 shares of common stock owned by the Officer.

6. INCOME TAXES

There has been no provision for U.S. federal, U.S. state, or foreign income taxes for any period because Sangamo has incurred operating losses in all periods and for all jurisdictions. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of deferred tax assets are as follows:

	DECEMBER 31,	
	1998	1999
	(IN THOUSANDS)	
Deferred tax assets:		
Net operating loss carryforwards	$ 1,600	$ 2,500
Research and development credit carryforwards	--	100
Other reserves and accruals	--	100
	1,600	2,700
Valuation allowance	(1,600)	(2,700)
Net deferred tax assets	$ --	$ --

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $1,100,000 each in 1998 and 1999. As of December 31, 1999, Sangamo had net operating loss carryforwards for federal and state income tax purposes of approximately $7,900,000. Sangamo also had federal research and development credit carryforwards of approximately $100,000. The net operating loss and credit carryforwards will expire at various dates beginning in 2010 through 2019, if not used. Use of the net operating loss may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. The annual limitation could result in the expiration of the net operating loss before use. However, management has not determined if the use of the net operating loss carryforwards will be limited.

7. SUBSEQUENT EVENTS

CONVERTIBLE PREFERRED STOCK SALE

In January 2000, Sangamo sold 333,333 shares of its Series C convertible preferred stock to a member of its Board of Directors for net proceeds of approximately $1,500,000. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the deemed fair value of its common stock as of January 2000 and determined it to be $12 per share. Accordingly, the incremental fair value of $1,500,000 is deemed to be the equivalent of a preferred stock dividend. Sangamo recorded the deemed dividend at the date of issuance by offsetting charges and credits to preferred stock, without any effect on total stockholders' equity. The preferred stock dividend increases the loss applicable to common stockholders in the calculation of basic net loss per share for the year ended December 31, 2000.

GRANT OF STOCK OPTIONS

During January through March 2000, Sangamo granted to directors and employees options to purchase a total of 650,000 shares of common stock at an exercise prices ranging from $0.625 to $8.00 per share. Sangamo will record additional deferred stock compensation of $5,790,000 with regard to these grants.

STRATEGIC PARTNERSHIP

In January 2000, Sangamo announced that it had entered into a strategic partner agreement with Edwards LifeScience, Inc., formerly the CardioVascular Group of Baxter Healthcare Corporation for the development of ZFPs in cardiovascular and peripheral vascular diseases. Under this agreement, Baxter has purchased a $5,000,000 convertible note which will convert into common stock upon consummation of this offering, and Sangamo has received $1,000,000 in initial research funding from Baxter which was recorded as deferred revenue and will be recognized as revenue as related research services are performed. In March 2000, Baxter purchased a $7,500,000 convertible note upon exercise of an option for a right of first refusal for three years to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. This note will convert into common stock upon consummation of this offering. In the future, Sangamo may receive option fees, milestone payments, royalties and additional research funding from this agreement.

EMPLOYEE STOCK PURCHASE PLAN

The Board of Directors adopted the 2000 Employee Stock Purchase Plan in February 2000, pending stockholder approval, to be effective upon the completion of Sangamo's initial public offering of its common stock. Sangamo has reserved a total of 400,000 shares of common stock for issuance under the plan. Eligible employees may purchase common stock at 85% of the lesser of the fair market value of Sangamo's common stock on the first day of the applicable two-year offering period or the last day of the applicable six-month purchase period.

STOCK INCENTIVE PLAN

In February 2000, the Board of Directors adopted the 2000 Stock Incentive Plan (the "2000 Plan") and reserved 2,000,000 shares for future grant thereunder, which shares include any shares remaining for future grant under the 1995 Option Plan. The terms of the 2000 Plan are substantially

7. SUBSEQUENT EVENTS (CONTINUED)
similar to the 1995 Option Plan. The 2000 Plan also provides for automatic grants to non-employee directors.

STOCK SPLIT

On March 28, 2000, Sangamo effected a two-for-one stock split of its common stock, in the form of a common stock dividend. As a result of the common stock split, the conversion ratio of Sangamo's convertible preferred stock was automatically amended to two-to-one in accordance with the Company's articles of incorporation. All common share and options and per share amounts in the accompanying financial statements have been adjusted retroactively to reflect the stock split.

5,000,000 Shares

[SANGAMO LOGO]

SANGAMO BIOSCIENCES, INC.

Common Stock

PROSPECTUS

, 2000

LEHMAN BROTHERS

CHASE H&Q

ING BARINGS

WILLIAM BLAIR & COMPANY

LOGO

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable by us in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee, the NASD filing fees and the Nasdaq National Market listing fee.

SEC Registration Fee	$ 27,800
NASD Filing Fee	12,000
Nasdaq National Market Listing Fee	95,000
Printing and Engraving Expenses	200,000
Legal Fees and Expenses	500,000
Accounting Fees and Expenses	300,000
Blue Sky Fees and Expenses	10,000
Transfer Agent Fees	25,000
Miscellaneous	30,200
Total	$1,200,000

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* To be provided by amendment

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law authorizes a court to award or a corporation's board of directors to grant indemnification to directors and officers in terms sufficiently broad to permit the indemnification under certain circumstances for liabilities (including reimbursement for expenses incurred) arising under the Securities Act of 1933, as amended (the "Securities Act"). Article VII, Section 6 of our bylaws provides for mandatory indemnification of our directors and officers and permissible indemnification of employees and other agents to the maximum extent permitted by the Delaware General Corporation Law. Our certificate of incorporation provides that, subject to Delaware law, our directors will not be personally liable for monetary damages for breach of the directors' fiduciary duty as directors to Sangamo BioSciences, Inc. and its stockholders. This provision in the certificate of incorporation does not eliminate the directors' fiduciary duty, and in appropriate circumstances equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty to Sangamo or our stockholders for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for actions leading to improper personal benefit to the director, and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provision also does not affect a director's responsibilities under any other law, such as the federal securities laws or state or federal environmental laws. We have entered into indemnification agreements with our officers and directors, a form of which will be filed with the Securities and Exchange Commission as an exhibit to our registration statement on Form S-1. The indemnification agreements provide our officers and directors with further indemnification to the maximum extent permitted by the Delaware General Corporation Law. Reference is also made to the underwriting agreement contained in exhibit 1.1 hereto, indemnifying our officers and directors against specific liabilities, and our Second Amended and Restated Registration Rights Agreement contained in Exhibit 10.4 hereto, indemnifying the parties thereto, including controlling stockholders, against liabilities.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

During the past three years, the registrant has issued unregistered securities to a limited number of persons as described below:

1. Since inception through December 31, 1999, we have granted a total of 2,818,000 options and stock purchase rights to purchase our common stock, excluding options returned to our stock plans, with a weighted average price of $0.11 to a number of our employees, directors and consultants.

2. From October 31, 1995 to June 28, 1996, we issued warrants to purchase 106,250 shares of Series A Preferred Stock, 41,250 at an exercise price of $0.01 per share and 65,000 at an exercise price of $1.00 per share to several investors.

3. From October 1995 to August 1999, we issued 791,250 shares of Series A Preferred Stock to several investors for a total cash consideration of $750,413.

4. In March 1996, we issued 38,000 shares of Common Stock to Colorado Bio/Medical Venture Center, Inc. in connection with a sublease of space.

5. In June 1996, we issued 75,000 shares of Common Stock to The Johns Hopkins University in connection with the License Agreement with us.

6. In July 1996, we issued 35,000 shares of Common Stock to Frederick Frank as compensation for consulting services.

7. In August 1997, we issued convertible promissory notes in the principal amount of $960,000 and warrants to purchase 64,981 shares of Series B Preferred Stock at an exercise price of $3.00 per share to several investors. The notes were cancelled and converted into shares of Series B Preferred Stock on November 6, 1997.

8. In September 1997, we issued 3,800 shares of common stock to John Colin Cahill as compensation for consulting services.

9. From September 1997 to December 1997, we issued 2,358,000 shares of Series B Preferred Stock to several investors for a total cash consideration of $7,074,000, which includes conversion of the convertible promissory notes and accrued interest thereon described in Item 7 above into a total of 324,666 shares of Series B Preferred Stock.

10. In December 1997, we issued 300,000 shares of Common Stock to Edward O. Lanphier II pursuant to the terms of his employment agreement with us.

11. In February 1998, we issued 40,000 shares of Series B Preferred Stock to Lehman Brothers, Inc. as compensation for a finder's fee.

12. From August 1999 to January 2000, we issued 2,000,000 shares of Series C Preferred Stock to several investors for a total cash consideration of $9,000,000.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and we believe that each transaction was exempt from the registration requirements of the Securities Act by virtue of Section 4(2) thereof, Regulation D promulgated thereunder or Rule 701 with respect to compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The recipients in each transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the share certificates and

instruments issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) EXHIBITS

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
1.1	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation.
3.2	Amended and Restated Bylaws.
4.1	Form of Specimen Common Stock Certificate.
4.2	Second Amended and Restated Investors' Rights Agreement, among Sangamo and certain of its stockholders, dated March, 2000.
5.1++	Opinion of Brobeck, Phleger & Harrison LLP regarding the legality of the common stock being registered.
10.1++	2000 Stock Incentive Plan.
10.2++	2000 Employee Stock Purchase Plan.
10.3	[Intentionally left blank]
10.4++	Form of Indemnification Agreement to be entered into between Sangamo and each of its directors and executive officers.
10.5++	Triple Net Laboratory Lease, between Sangamo and Point Richmond R&D Associates II, LLC, dated May 23, 1997.
10.6++	Form of collaboration agreement.
10.7+	License Agreement, between Sangamo and Baxter Healthcare Corporation, dated January 11, 2000.
10.8+	Sublicense Agreement, by and between Sangamo and Johnson & Johnson, dated May 9, 1996.
10.9+	ZFP Material Transfer Agreement, between Sangamo and Japan Tobacco Inc., dated March 8, 1999.
10.10++	Financial Assistance Award from U.S. Department of Commerce, dated March 31, 1997.
10.11++	Notice of Grant Award from National Institute of Allergy and Infectious Diseases, dated August 9, 1999.
10.12+	Patent License Agreement between Sangamo and Massachusetts Institute of Technology dated May 9, 1996.
10.13+	License Agreement between Sangamo and the Johns Hopkins University dated July 16, 1998.
10.14+	License Agreement between Sangamo and the Medical Research Council dated September 1, 1996.
10.15++	Employment Agreement, between Sangamo and Edward O. Lanpher II, dated June 1, 1997.
10.16++	1995 Stock Option Plan.
10.17++	Research Funding Agreement, by and between Sangamo and Baxter Healthcare Corporation, dated January 11, 2000.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2++	Consent of Brobeck, Phleger & Harrison LLP (contained in their opinion filed as Exhibit 5.1).
23.3++	Consent of Townsend and Townsend and Crew LLP.

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
24.1++	Power of Attorney. (see Page II-5)
27.1++	Financial Data Schedule.

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* To be filed by amendment.

+ Confidential treatment requested as to portions of this exhibit.

++ Previously filed.

(b) FINANCIAL STATEMENT SCHEDULE

Schedules not listed have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements on the notes thereto.

ITEM 17. UNDERTAKINGS

We undertake to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

To the extent indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons according to the Delaware General Corporation Law, our certificate of incorporation or our bylaws, indemnification agreements entered into between us and our officers and directors, the underwriting agreement, or otherwise, we have been advised that in the opinion of the commission this indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. If a claim for indemnification against these liabilities (other than the payment by us of expenses incurred or paid by any of our directors, officers or controlling persons in the successful defense of any action, suit or proceeding) is asserted by a director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether this indemnification by us is against public policy as expressed in the Securities Act and will be governed by the final adjudication of the issue.

The undersigned registrant hereby undertakes:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of Prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of Prospectus filed by us under Rule 424(b)(1) or (4) or 497(h) of the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective;

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of those securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Under the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Francisco, State of California, on April 4, 2000.

SANGAMO BIOSCIENCES, INC.

By: /s/ SHAWN K. JOHNSON
Shawn K. Johnson
Director of Finance

Under the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

SIGNATURE	TITLE	DATE
*	President, Chief Executive Officer and Director (Principal Executive Officer)	April 4, 2000
Edward O. Lanphier II		
/s/ SHAWN K. JOHNSON	Director of Finance (Principal Accounting Officer)	April 4, 2000
Shawn K. Johnson		
	Director	April 4, 2000
Herbert W. Boyer, Ph.D.		
*	Director	April 4, 2000
William G. Gerber, M.D.		
*	Director	April 4, 2000
John W. Larson		
*	Director	April 4, 2000
William J. Rutter, Ph.D.		
*	Director	April 4, 2000
Michael C. Wood		

*By: /s/ Shawn K. Johnson
Shawn K. Johnson
Attorney-in-Fact

EXHIBIT INDEX

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24.1++	Power of Attorney. (see Page II-5)
27.1++	Financial Data Schedule.

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* To be filed by amendment.

\+ Confidential treatment requested as to portions of this exhibit.

++ Previously filed.

EXHIBIT 1.1

5,000,000 SHARES

SANGAMO BIOSCIENCES, INC.

COMMON STOCK

UNDERWRITING AGREEMENT

_____ __, 2000

LEHMAN BROTHERS INC.
CHASE SECURITIES INC.
ING BARINGS LLC
WILLIAM BLAIR & COMPANY, L.L.C.
NATIONAL FINANCIAL SERVICES CORPORATION
As Representatives of the several
Underwriters named in Schedule 1,
c/o Lehman Brothers Inc.
Three World Financial Center
New York, New York 10285

Dear Sirs:

Sangamo BioSciences, Inc., a Delaware corporation (the "Company"), proposes to sell 5,000,000 shares (the "Firm Stock") of the Company's common stock, par value $0.01 per share (the "Common Stock"). In addition, the Company proposes to grant to the Underwriters named in Schedule 1 hereto (the "Underwriters") an option to purchase up to an additional 750,000 shares of the Common Stock on the terms and for the purposes set forth in Section 3 (the "Option Stock"). The Firm Stock and the Option Stock, if purchased, are hereinafter collectively called the "Stock." This is to confirm the agreement concerning the purchase of the Stock from the Company by the Underwriters.

1. Representations, Warranties and Agreements of the Company. The Company represents, warrants and agrees that:

(a) A registration statement on Form S-1 with respect to the Stock has (i) been prepared by the Company in conformity with the requirements of the United States Securities Act of 1933, as amended (the "Securities Act"), and the rules and regulations of the Commission (the "Rules and Regulations") of the United States Securities and Exchange Commission (the "Commission") thereunder, (ii) been filed with the Commission under the Securities Act and (iii) become effective under the Securities Act. Copies of such registration statement have been delivered by the Company to you as the representatives (the "Representatives") of the Underwriters. As used in this Agreement, "Effective Time" means the date and the time as of which such registration statement, or the

most recent post-effective amendment thereto, if any, was declared effective by the Commission; "Effective Date" means the date of the Effective Time; "Preliminary Prospectus" means each prospectus included in such registration statement, or amendments thereof, before it became effective under the Securities Act and any prospectus filed with the Commission by the Company with the consent of the Representatives pursuant to Rule 424(a) of the Rules and Regulations; "Registration Statement" means such registration statement, as amended at the Effective Time, including all information contained in the final prospectus filed with the Commission pursuant to Rule 424(b) of the Rules and Regulations in accordance with Section 5 hereof and deemed to be a part of the registration statement as of the Effective Time pursuant to paragraph (b) of Rule 430A of the Rules and Regulations; and "Prospectus" means such final prospectus, as first filed with the Commission pursuant to paragraph (1) or (4) of Rule 424(b) of the Rules and Regulations. The Commission has not issued any order preventing or suspending the use of any Preliminary Prospectus.

(b) The Registration Statement conforms, and the Prospectus and any further amendments or supplements to the Registration Statement or the Prospectus will, when they become effective or are filed with the Commission, as the case may be, conform in all respects to the requirements of the Securities Act and the Rules and Regulations and do not and will not, as of the applicable effective date (as to the Registration Statement and any amendment thereto) and as of the applicable filing date (as to the Prospectus and any amendment or supplement thereto) contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided that no representation or warranty is made as to information contained in or omitted from the Registration Statement or the Prospectus in reliance upon and in conformity with written information furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein.

(c) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of Delaware, is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction in which its ownership or lease of property or the conduct of its business requires such qualification, and has all power and authority necessary to own or hold its properties and to conduct the business in which it is engaged, except where the failure to so qualify would not in the aggregate have a material adverse effect; and the Company has no subsidiaries.

(d) The Company has an authorized capitalization as set forth in the Prospectus, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and conform to the description thereof contained in the Prospectus.

(e) The shares of the Stock to be issued and sold by the Company to the Underwriters hereunder have been duly and validly authorized and when issued and delivered against payment therefor as provided herein, will be duly and validly issued, fully paid and non-assessable; and the Stock will conform to the descriptions thereof contained in the Prospectus.

(f) This Agreement has been duly authorized, executed and delivered by the Company.

(g) The execution, delivery and performance of this Agreement by the Company and the consummation of the transactions contemplated hereby will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, nor will such actions result in any violation of the provisions of the charter or bylaws of the Company or any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties or assets; and except for the registration of the Stock under the Securities Act and such consents, approvals, authorizations, registrations or qualifications as may be required under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and applicable state securities laws in connection with the purchase and distribution of the Stock by the Underwriters, no consent, approval, authorization or order of, or filing or registration with, any such court or governmental agency or body is required for the execution, delivery and performance of this Agreement by the Company and the consummation of the transactions contemplated hereby.

(h) There are no contracts, agreements or understandings between the Company and any person granting such person the right (other than rights which have been waived or satisfied) to require the Company, with respect to any securities of the Company owned or to be owned by such person, to include such securities in the securities registered pursuant to the Registration Statement. Except as described in the Prospectus, there are no contracts, agreements, or understandings between the Company and any person granting such person the right to require the Company to register securities or include such securities in any other registration statement filed by the Company under the Securities Act.

(i) Except as described in the Prospectus, the Company has not sold or issued any shares of Common Stock during the six-month period preceding the date of the Prospectus, including any sales pursuant to Rule 144A under, or Regulations D or S of, the Securities Act, other than shares issued pursuant to employee benefit plans, qualified stock options plans or other employee compensation plans or pursuant to outstanding options, rights or warrants.

(j) The Company has not sustained, since the date of the latest audited financial statements included in the Prospectus, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus; and, since such date, there has not been any change in the capital stock or long-term debt of the Company or any material adverse change, or any development involving a prospective material adverse change, in or affecting the general affairs, management, financial position, stockholders' equity or results of operations of the Company, otherwise than as set forth or contemplated in the Prospectus.

(k) The financial statements (including the related notes and supporting schedules) filed as part of the Registration Statement or included in the Prospectus present fairly the financial condition and results of operations of the Company, at the dates and for the periods indicated, and have been prepared in conformity with generally accepted accounting principles applied on a consistent basis throughout the periods involved.

(l) Ernst & Young LLP, who have certified certain financial statements of the Company, whose report appears in the Prospectus and who have delivered the initial letter referred to in Section 7(h) hereof, are independent public accountants as required by the Securities Act and the Rules and Regulations.

(m) The Company has good and marketable title to all personal property owned by it, in each case free and clear of all liens, encumbrances and defects except such as are described in the Prospectus or such as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company; and all real property and buildings held under lease by the Company are held by it under valid, subsisting and enforceable leases, with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company.

(n) The Company carries, or is covered by, insurance in such amounts and covering such risks as is adequate for the conduct of its respective businesses and the value of their respective properties and as is customary for companies engaged in similar businesses in similar industries.

(o) The Company owns or possesses adequate rights to use all material patents, patent applications, trademarks, service marks, trade names, trademark registrations, service mark registrations, copyrights, know-how, manufacturing processes, formulae, trade secrets, licenses and rights in any thereof and any other intangible property and assets (herein called the "Proprietary Rights") necessary to conduct its business in the manner described in the Prospectus. The Company

takes security measures to provide adequate trade secret protection in its non-patented technology. Except as disclosed in the Prospectus, the Company has not received any notice of infringement or conflict with asserted rights of others with respect to any Proprietary Rights which could result in any material adverse effect on the Company, and except as described in the Prospectus, no action, suit, arbitration, or legal, administrative or other proceeding, or investigation is pending, or, to the knowledge of the Company, is threatened, which involves any Proprietary Rights. The Proprietary Rights of the Company referred to in the Prospectus do not, to the best knowledge of the Company, infringe or conflict with any right or valid and enforceable patent of any third party, or any discovery, invention, product or process which is the subject of a patent application filed by any third party, known to the Company which could have a material adverse effect on the Company. The Company is not subject to any judgment, order, writ, injunction or decree of any court or any Federal, state, local, foreign or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any arbitrator, nor, except as described in the Prospectus, has it entered into or is a party to any contract which restricts or impairs the use of any such Proprietary Rights in a manner which would have a material adverse effect on the use of any of the Proprietary Rights. The Company has complied, in all material respects, with its respective contractual obligations relating to the protection of the Proprietary Rights used pursuant to licenses. To the best knowledge of the Company, no person is infringing on or violating the Proprietary Rights owned or used by the Company.

(p) There are no legal or governmental proceedings pending to which the Company is a party or of which any property or assets of the Company is the subject which, if determined adversely to the Company, might have a material adverse effect on the financial position, stockholders' equity, results of operations, business or prospects of the Company; and to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(q) There are no contracts or other documents which are required to be described in the Prospectus or filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations which have not been described in the Prospectus or filed as exhibits to the Registration Statement or incorporated therein by reference as permitted by the Rules and Regulations.

(r) No relationship, direct or indirect, exists between or among the Company on the one hand, and the directors, officers, stockholders, customers or suppliers of the Company on the other hand, which is required to be described in the Prospectus which is not so described.

(s) No labor disturbance by the employees of the Company exists or, to the knowledge of the Company, is imminent which would reasonably be

expected to have a material adverse effect on the financial position, stockholders' equity, results of operations, business or prospects of the Company.

(t) The Company is in compliance in all material respects with all presently applicable provisions of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder ("ERISA"); no "reportable event" (as defined in ERISA) has occurred with respect to any "pension plan" (as defined in ERISA) for which the Company would have any liability; the Company has not incurred and does not expect to incur liability under (i) Title IV of ERISA with respect to termination of, or withdrawal from, any "pension plan" or (ii) Sections 412 or 4971 of the Internal Revenue Code of 1986, as amended, including the regulations and published interpretations thereunder (the "Code"); and each "pension plan" for which the Company would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified in all material respects and nothing has occurred, whether by action or by failure to act, which would cause the loss of such qualification.

(u) The Company has filed all federal, state and local income and franchise tax returns required to be filed through the date hereof and has paid all taxes due thereon, and no tax deficiency has been determined adversely to the Company which has had (nor does the Company have any knowledge of any tax deficiency which, if determined adversely to the Company, might have) a material adverse effect on the financial position, stockholders' equity, results of operations, business or prospects of the Company.

(v) Since the date as of which information is given in the Prospectus through the date hereof, and except as may otherwise be disclosed in the Prospectus, the Company has not (i) issued or granted any securities, (ii) incurred any liability or obligation, direct or contingent, other than liabilities and obligations which were incurred in the ordinary course of business, (iii) entered into any transaction not in the ordinary course of business or (iv) declared or paid any dividend on its capital stock.

(w) The Company (i) makes and keeps accurate books and records and (ii) maintains internal accounting controls which provide reasonable assurance that (A) transactions are executed in accordance with management's authorization, (B) transactions are recorded as necessary to permit preparation of its financial statements and to maintain accountability for its assets, (C) access to its assets is permitted only in accordance with management's authorization and (D) the reported accountability for its assets is compared with existing assets at reasonable intervals.

(x) The Company is not (i) in violation of its charter or bylaws, (ii) in default in any material respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or

observance of any term, covenant or condition contained in any material indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which it is a party or by which it is bound or to which any of its properties or assets is subject or (iii) in violation in any material respect of any law, ordinance, governmental rule, regulation or court decree to which it or its property or assets may be subject. The Company has not failed to obtain any material license, permit, certificate, franchise or other governmental authorization or permit necessary to the ownership of its property or to the conduct of its business where the failure to do so would have a material adverse effect on the Company's business, financial condition, or results of operations.

(y) Neither the Company, nor any director, officer, agent, employee or other person associated with or acting on behalf of the Company, has used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977; or made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment.

(z) There has been no storage, disposal, generation, manufacture, refinement, transportation, handling or treatment of toxic wastes, medical wastes, hazardous wastes or hazardous substances by the Company (or, to the knowledge of the Company, any of its predecessors in interest) at, upon or from any of the property now or previously owned or leased by the Company in violation of any applicable law, ordinance, rule, regulation, order, judgment, decree or permit or which would require remedial action under any applicable law, ordinance, rule, regulation, order, judgment, decree or permit, except for any violation or remedial action which would not have, or could not be reasonably likely to have, singularly or in the aggregate with all such violations and remedial actions, a material adverse effect on the general affairs, management, financial position, stockholders' equity, results of operations or prospects of the Company; there has been no material spill, discharge, leak, emission, injection, escape, dumping or release of any kind onto such property or into the environment surrounding such property of any toxic wastes, medical wastes, solid wastes, hazardous wastes or hazardous substances due to or caused by the Company or with respect to which the Company has knowledge, except for any such spill, discharge, leak, emission, injection, escape, dumping or release which would not have or would not be reasonably likely to have, singularly or in the aggregate with all such spills, discharges, leaks, emissions, injections, escapes, dumpings and releases, a material adverse effect on the general affairs, management, financial position, stockholders' equity, results of operations or prospects of the Company; and the terms "hazardous wastes", "toxic wastes", "hazardous substances" and "medical wastes" shall have the meanings specified in any applicable local, state, federal and foreign laws or regulations with respect to environmental protection.

(aa) The Company is not an "investment company" or "controlled by investment company" within the meaning of such terms under the Investment Company Act of 1940 and the Rules and Regulations thereunder.

(bb) No consent, approval, authorization or order of, or qualification with, any governmental body or agency, other than those obtained, is required in connection with the offering of up to _____ shares of the Stock, which Lehman has agreed to reserve for sale to the Company's employees and persons having business relationships with the Company.

2. Purchase of the Stock by the Underwriters. On the basis of the representations and warranties contained in, and subject to the terms and conditions of, this Agreement, the Company agrees to sell 5,000,000 shares of the Firm Stock to the several Underwriters and each of the Underwriters, severally and not jointly, agrees to purchase the number of shares of the Firm Stock set opposite that Underwriter's name in Schedule 1 hereto. The respective purchase obligations of the Underwriters with respect to the Firm Stock shall be rounded among the Underwriters to avoid fractional shares, as the Representatives may determine.

In addition, the Company grants to the Underwriters an option to purchase up to 750,000 shares of Option Stock. Such option is granted for the purpose of covering over-allotments in the sale of Firm Stock and is exercisable as provided in Section 4 hereof. Shares of Option Stock shall be purchased severally for the account of the Underwriters in proportion to the number of shares of Firm Stock set opposite the name of such Underwriters in Schedule 1 hereto. The respective purchase obligations of each Underwriter with respect to the Option Stock shall be adjusted by the Representatives so that no Underwriter shall be obligated to purchase Option Stock other than in 100 share amounts. The price of both the Firm Stock and any Option Stock shall be $_____ per share.

The Company shall not be obligated to deliver any of the Stock to be delivered on any Delivery Date (as hereinafter defined), as the case may be, except upon payment for all the Stock to be purchased on such Delivery Date as provided herein.

3. Offering of Stock by the Underwriters. Upon authorization by the Representatives of the release of the Firm Stock, the several Underwriters propose to offer the Firm Stock for sale upon the terms and conditions set forth in the Prospectus.

It is understood that _____ shares of the Firm Stock will initially be reserved by the several Underwriters for offer and sale upon the terms and conditions set forth in the Prospectus and in accordance with the rules and regulations of the National Association of Securities Dealers, Inc. to employees and persons having business relationships with the Company who have heretofore delivered to the Representatives offers to purchase shares of Firm Stock in form satisfactory to the Representatives, and that any allocation of such Firm Stock among such persons will be made in accordance with timely directions received by the Representatives from the Company; provided, that under no circumstances will the Representatives or any Underwriter be liable to the Company or to any such person for any action

taken or omitted in good faith in connection with such offering to employees and persons having business relationships with the Company. It is further understood that any shares of such Firm Stock which are not purchased by such persons will be offered by the Underwriters to the public upon the terms and conditions set forth in the Prospectus.

4. Delivery of and Payment for the Stock. Delivery of and payment for the Firm Stock shall be made at the office of Brobeck, Phleger & Harrison LLP, One Market-Spear Street Tower, San Francisco, California 94105 at 10:00 A.M., New York City time, on the [3rd or 4th] full business day following the date of this Agreement or at such other date or place as shall be determined by agreement between the Representatives and the Company. This date and time are sometimes referred to as the "First Delivery Date." On the First Delivery Date, the Company shall deliver or cause to be delivered certificates representing the Firm Stock to the Representatives for the account of each Underwriter against payment to or upon the order of the Company of the purchase price by wire transfer in immediately available funds. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. Upon delivery, the Firm Stock shall be registered in such names and in such denominations as the Representatives shall request in writing not less than two full business days prior to the First Delivery Date. For the purpose of expediting the checking and packaging of the certificates for the Firm Stock, the Company shall make the certificates representing the Firm Stock available for inspection by the Representatives in New York, New York, not later than 2:00 P.M., New York City time, on the business day prior to the First Delivery Date.

The option granted in Section 2 will expire 30 days after the date of this Agreement and may be exercised in whole or in part from time to time by written notice being given to the Company by the Representatives. Such notice shall set forth the aggregate number of shares of Option Stock as to which the option is being exercised, the names in which the shares of Option Stock are to be registered, the denominations in which the shares of Option Stock are to be issued and the date and time, as determined by the Representatives, when the shares of Option Stock are to be delivered; provided, however, that this date and time shall not be earlier than the First Delivery Date nor earlier than the second business day after the date on which the option shall have been exercised nor later than the fifth business day after the date on which the option shall have been exercised. The date and time the shares of Option Stock are delivered are sometimes referred to as a "Second Delivery Date" and the First Delivery Date and any Second Delivery Date are sometimes each referred to as a "Delivery Date."

Delivery of and payment for the Option Stock shall be made at the place specified in the first sentence of the first paragraph of this Section 4 (or at such other place as shall be determined by agreement between the Representatives and the Company) at 10:00 A.M., New York City time, on such Second Delivery Date. On such Second Delivery Date, the Company shall deliver or cause to be delivered the certificates representing the Option Stock to the Representatives for the account of each Underwriter against payment to or upon the order of the Company of the purchase price by wire transfer in immediately available funds. Time shall be of the essence, and delivery at the time and place specified pursuant to this Agreement is a further condition of the obligation of each Underwriter hereunder. Upon delivery, the Option Stock shall be registered in such names and in such denominations as the Representatives shall request

in the aforesaid written notice. For the purpose of expediting the checking and packaging of the certificates for the Option Stock, the Company shall make the certificates representing the Option Stock available for inspection by the Representatives in New York, New York, not later than 2:00 P.M., New York City time, on the business day prior to such Second Delivery Date.

5. Further Agreements of the Company. The Company agrees:

(a) To prepare the Prospectus in a form approved by the Representatives and to file such Prospectus pursuant to Rule 424(b) under the Securities Act not later than Commission's close of business on the second business day following the execution and delivery of this Agreement or, if applicable, such earlier time as may be required by Rule 430A(a)(3) under the Securities Act; to make no further amendment or any supplement to the Registration Statement or to the Prospectus except as permitted herein; to advise the Representatives, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Prospectus or any amended Prospectus has been filed and to furnish the Representatives with copies thereof; to advise the Representatives, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus, of the suspension of the qualification of the Stock for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or the Prospectus or suspending any such qualification, to use promptly its best efforts to obtain its withdrawal;

(b) To furnish promptly to each of the Representatives and to counsel for the Underwriters a signed copy of the Registration Statement as originally filed with the Commission, and each amendment thereto filed with the Commission, including all consents and exhibits filed therewith;

(c) To deliver promptly to the Representatives such number of the following documents as the Representatives shall reasonably request: (i) conformed copies of the Registration Statement as originally filed with the Commission and each amendment thereto (in each case including exhibits other than this Agreement and the computation of per share earnings) and (ii) each Preliminary Prospectus, the Prospectus and any amended or supplemented Prospectus; and, if the delivery of a prospectus is required at any time after the Effective Time in connection with the offering or sale of the Stock or any other securities relating thereto and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which

they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary to amend or supplement the Prospectus in order to comply with the Securities Act, to notify the Representatives and, upon their request, to file such amended or supplemental prospectus and to prepare and furnish without charge to each Underwriter and to any dealer in securities as many copies as the Representatives may from time to time reasonably request of an amended or supplemented Prospectus which will correct such statement or omission or effect such compliance;

(d) To file promptly with the Commission any amendment to the Registration Statement or the Prospectus or any supplement to the Prospectus that may, in the judgment of the Company or the Representatives, be required by the Securities Act or requested by the Commission;

(e) Prior to filing with the Commission any amendment to the Registration Statement or supplement to the Prospectus or any Prospectus pursuant to Rule 424 of the Rules and Regulations, to furnish a copy thereof to the Representatives and counsel for the Underwriters and obtain the consent of the Representatives to the filing;

(f) As soon as practicable after the Effective Date to make generally available to the Company's security holders and to deliver to the Representatives an earnings statement of the Company (which need not be audited) complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the option of the Company, Rule 158);

(g) For a period of five years following the Effective Date, to furnish to the Representatives copies of all materials furnished by the Company to its stockholders and all public reports and all reports and financial statements furnished by the Company to the principal national securities exchange upon which the Common Stock may be listed pursuant to requirements of or agreements with such exchange or to the Commission pursuant to the Exchange Act or any rule or regulation of the Commission thereunder;

(h) Promptly from time to time to take such action as the Representatives may reasonably request to qualify the Stock for offering and sale under the securities laws of such jurisdictions as the Representatives may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Stock, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;

(i) For a period of 180 days from the date of the Prospectus, not to, directly or indirectly, (1) offer for sale, sell, pledge or otherwise dispose of (or enter into any transaction or device which is designed to, or could be expected to,

result in the disposition by any person at any time in the future of) any shares of Common Stock or securities convertible into or exchangeable for Common Stock (other than the Stock and shares issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans existing on the date hereof or pursuant to currently outstanding options, warrants or rights), or sell or grant options, rights or warrants with respect to any shares of Common Stock or securities convertible into or exchangeable for Common Stock (other than the grant of options pursuant to option plans existing on the date hereof), or (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, in each case without the prior written consent of Lehman Brothers Inc. and to cause each officer and director of the Company and specified stockholders of the Company to furnish to the Representatives, prior to the First Delivery Date, a letter or letters, in form and substance satisfactory to counsel for the Underwriters, pursuant to which each such person shall agree not to, directly or indirectly, (1) offer for sale, sell, pledge or otherwise dispose of (or enter into any transaction or device which is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of Common Stock or securities convertible into or exchangeable for Common Stock or (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of such shares of Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise, in each case for a period of 180 days from the date of the Prospectus, without the prior written consent of Lehman Brothers Inc. Notwithstanding the foregoing, each person may transfer the Common Stock (i) as a bona fide gift or gifts, provided that the donee or donees thereof agree to be bound by the restrictions set forth herein or (ii) to any trust for the direct or indirect benefit of each person or the immediate family, provided that the trustee of the trust agrees to be bound by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value.

(j) Prior to the Effective Date, to apply for the inclusion of the Stock on the National Market System and to use its best efforts to complete that listing, subject only to official notice of issuance and evidence of satisfactory distribution, prior to the First Delivery Date;

(k) To take such steps as shall be necessary to ensure that the Company shall not become an "investment company" or "controlled by" an investment company" within the meaning of such terms under the Investment Company Act of 1940 and the Rules and Regulations thereunder.

6. Expenses. The Company agrees to pay (a) the costs incident to the authorization, issuance, sale and delivery of the Stock and any taxes payable in that connection;

(b) the costs incident to the preparation, printing and filing under the Securities Act of the Registration Statement and any amendments and exhibits thereto; (c) the costs of distributing the Registration Statement as originally filed and each amendment thereto and any post-effective amendments thereof (including, in each case, exhibits), any Preliminary Prospectus, the Prospectus and any amendment or supplement to the Prospectus, all as provided in this Agreement; (d) the costs of producing and distributing this Agreement and any other related documents in connection with the offering, purchase, sale and delivery of the stock; (e) the filing fees incident to securing any required review by the National Association of Securities Dealers, Inc. of the terms of sale of the Stock; (f) any applicable listing or other fees; (g) the fees and expenses of qualifying the Stock under the securities laws of the several jurisdictions as provided in Section 5 and of preparing, printing and distributing a Blue Sky Memorandum, which expenses shall not exceed $10,000 (including related fees and expenses of counsel to the Underwriters); (h) all costs and expenses of the Underwriters, including the fees and disbursements of counsel for the Underwriters, incident to the offer and sale of shares of the Stock by the Underwriters to employees and persons having business relationships with the Company, as described in Section 3; and (i) all other costs and expenses incident to the performance of the obligations of the Company under this Agreement; provided that, except as provided in this Section 6 and in Section 11 the Underwriters shall pay their own costs and expenses, including the costs and expenses of their counsel, any transfer taxes on the Stock which they may sell and the expenses of advertising any offering of the Stock made by the Underwriters.

7. Conditions of Underwriters' Obligations. The respective obligations of the Underwriters hereunder are subject to the accuracy, when made and on each Delivery Date, of the representations and warranties of the Company contained herein, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) The Prospectus shall have been timely filed with the Commission in accordance with Section 5(a); no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; and any request of the Commission for inclusion of additional information in the Registration Statement or the Prospectus or otherwise shall have been complied with.

(b) No Underwriter shall have discovered and disclosed to the Company on or prior to such Delivery Date that the Registration Statement or the Prospectus or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of Latham & Watkins, counsel for the Underwriters, is material or omits to state a fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of this Agreement, the Stock, the Registration

Statement and the Prospectus, and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Underwriters, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) Brobeck, Phleger & Harrison LLP shall have furnished to the Representatives its written opinion, as counsel to the Company, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representatives, to the effect that:

(i) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of Delaware, is duly qualified to do business and is in good standing as a foreign corporation in each jurisdiction in which its ownership or lease of property or the conduct of its business requires such qualification, except where the failure to so qualify would not in the aggregate have a material adverse effect on the Company, and has all power and authority necessary to own or hold its properties and to conduct the business in which it is engaged; and the Company has no subsidiaries;

(ii) The Company has an authorized capitalization as set forth in the section entitled "Capitalization" in the Prospectus, and all of the issued shares of capital stock of the Company (including the shares of Stock being delivered on such Delivery Date) have been duly and validly authorized and issued, are fully paid and non-assessable and conform to the description thereof contained in the Prospectus;

(iii) There are no preemptive or other rights to subscribe for or to purchase, nor any restriction upon the voting or transfer of, any shares of the Stock pursuant to the Company's Amended and Restated Articles of Incorporation or Bylaws, or, to such counsel's knowledge, in any agreement or other instrument;

(iv) To such counsel's knowledge and other than as set forth in the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property or assets of the Company is the subject which are required to be described in the Prospectus by the Securities Act or the Rules and Regulations and, to such counsel's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others;

(v) The Registration Statement was declared effective under the Securities Act as of the date and time specified in such opinion, the Prospectus was filed with the Commission pursuant to the subparagraph of Rule 424(b) of the Rules and Regulations specified in such opinion on the

date specified therein and, to such counsel's knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued and, to such counsel's knowledge, no proceeding for that purpose is pending or threatened by the Commission;

(vi) The Registration Statement and the Prospectus and any further amendments or supplements thereto made by the Company prior to such Delivery Date (other than the financial statements and related schedules therein, as to which such counsel need express no opinion) comply as to form in all material respects with the requirements of the Securities Act and the Rules and Regulations;

(vii) To such counsel's knowledge, there are no contracts or other documents which are required to be described in the Prospectus or filed as exhibits to the Registration Statement by the Securities Act or by the Rules and Regulations which have not been described or filed as exhibits to the Registration Statement or incorporated therein by reference as permitted by the Rules and Regulations;

(viii) This Agreement has been duly authorized, executed and delivered by the Company;

(ix) The issue and sale of the shares of Stock being delivered on such Delivery Date by the Company, the execution, delivery and compliance by the Company with all of the provisions of this Agreement will not, whether with or without the giving of notice or passage of time or both, conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement, which done in the aggregate, are material to the Company's business as described in the Prospectus, or instrument known to such counsel to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, nor will such actions result in any violation of the provisions of the charter or bylaws of the Company or any statute or any order, rule or regulation known to such counsel of any court or governmental agency or body having jurisdiction over the Company or any of their properties or assets except the securities or Blue Sky laws of the various U.S. states; and, except for the registration of the Stock under the Securities Act and such consents, approvals, authorizations, registrations or qualifications as may be required under the Exchange Act and applicable state securities laws in connection with the purchase and distribution of the Stock by the Underwriters, no consent, approval, authorization or order of, or filing or registration with, any such court or governmental agency or body is required for the execution, delivery and performance of this Agreement, by the Company and the consummation of the transactions contemplated hereby; and

(x) To such counsel's knowledge, there are no contracts, agreements or understandings between the Company and any person granting such person the right (other than rights which have been waived or satisfied) to require the Company to include such securities in the securities registered pursuant to the Registration Statement with respect to any securities of the Company owned or to be owned by such person. To such counsel's knowledge, except as described in the Prospectus, there are no contracts, agreements, or understandings between the Company and any person granting such person the right to require the Company to register or include securities pursuant to any other registration statement filed by the Company under the Securities Act.

(xi) The statements set forth in the Prospectus under the headings "Description of Capital Stock", and "Shares Eligible for Future Sale" and in the Registration Statement under Item 14, to the extent such statements constitute summaries of legal matters are accurate in all material respects.

(xii) The statements contained in the Prospectus under the captions "Management--Stock Plans," "Related Party Transactions--Agreements with Officers and Directors," insofar as they purport to constitute summaries of contracts or other agreements, are accurate in all material respects.

In addition, such counsel may state that it has participated in conferences with certain officers and other representatives of the Company, its independent public accountants and the Underwriters at which the contents of the Registration Statement, the Prospectus and related matters were discussed. Such counsel may further specify that it is not, however, passing upon, and does not assume any responsibility for, and has not independently checked or verified, the accuracy, completeness or fairness of the information contained in the Registration Statement and the Prospectus (other than with respect to opinions (xi) and (xii) above). Such counsel shall state, however, that based upon its participation as described in the foregoing and its capacity as counsel to the Company, (i) it confirms that it has no reason to believe that (other than the consolidated financial statements, including the notes and schedules thereto and the other financial data included therein, as to which it need express no belief) at the time the Registration Statement became effective, the Registration Statement contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading; and (ii) it shall confirm that it has not reason to believe that (except as to financial statements, including the notes and schedules thereto, and the other financial data included therein, as to which it need express no belief) the Prospectus, as of its date of issue or on the date hereof, contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. In

addition, such counsel may state that it is not an expert on patent issues and they are not passing upon, and do not assume any responsibility for, and they have not independently checked or verified, the accuracy, completeness or fairness of the information contained in the Prospectus with respect to such issues.

(e) Townsend and Townsend and Crew LLP, shall have furnished to the Representatives a written opinion, as intellectual property counsel to the Company, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representatives, to the effect that they serve as intellectual property counsel to the Company with respect to the Proprietary Rights, and that:

(i) Such counsel is familiar with the technology used by the Company in its business and the manner of its use thereof and has read the Registration Statement and the Prospectus, including particularly the portions of the Registration Statement and the Prospectus under the captions "Risk Factors--Because it is difficult and costly to protect our proprietary rights, we cannot ensure their protection," "Business--Intellectual Property and Technology Licenses," and "Business-- Corporate Collaborations-- Universal GeneTools Collaborations," (the "Patent Information"). Such counsel has considered the statements contained therein, although such counsel has not independently verified the accuracy, completeness or fairness of such statements. Based upon and subject to the foregoing, nothing has come to such counsel's attention, as of the date of the Prospectus and the date hereof, that leads such counsel to believe that the "Patent Information" contains an untrue statement of a material fact or omits to state a material fact in light of the circumstances in which they are made. As of the date of the Prospectus and the date hereof, such counsel has no reason to believe that the "Patent Information" is not in all material respects a fair and accurate summary of the legal matters, documents and proceedings relating thereto.

(ii) Attached as Schedule A to such opinion is a list of the Company's U.S. patents and pending U.S. patent applications (the "U.S. Patent Rights") which, to the best of such counsel's knowledge, are owned by the Company, as indicated on such Schedule A. To the best of such counsel's knowledge, where the Company is listed on Schedule A to such opinion as the owner of any U.S. Patent Right, either (a) an assignment from the inventor(s) to the Company has been recorded in the United States Patent and Trademark Office, or (b) the inventor(s) are under obligation of assignment to the Company, and an assignment will be recorded in the United States Patent and Trademark Office. To the best of such counsel's knowledge, there are no claims to any ownership interests or liens on any of the U.S. Patent Rights by any party other than the Company.

(iii) Attached as Schedule B to such opinion is a list of the Company's non-U.S. patents and pending non-U.S. patent applications (the "Non-U.S. Patent Rights") which, to the best of such counsel's knowledge, are owned by the Company, as indicated on such Schedule B. To the best of such counsel's knowledge, where the Company is listed on Schedule B to such opinion as the owner or co-owner(s) of any Non-U.S. Patent Right, the named inventors of the Non-U.S. Patent Rights have either (a) executed an assignment to the Company, or (b) are under an obligation to execute an assignment to the Company. To the best of such counsel's knowledge, there are no claims to any ownership interests or liens on any of the Non-U.S. Patent Rights by any party other than the Company.

(iv) Attached as Schedule C to such opinion is a list of the U.S. and non-U.S. patents and pending patent applications which, to the best of such counsel's knowledge, the Company has licensed the rights to use (the "Licensed Patent Rights"). To the best of such counsel's knowledge, the Licensed Patent Rights cover fields of use necessary to conduct business in the manner described in the Registration Statement and the Prospectus, as indicated on such Schedule C except that licensed patent rights from Scripps do not include Agricultural Biotechnology. To the best of such counsel's knowledge, other than as set forth in the Prospectus, there are no claims by any third parties that the Company lacks adequate rights in any of the Licensed Patent Rights.

(v) Such counsel has reviewed portions of certain patent estates, as set forth in Schedules A, B and C of such opinion, and is unaware of any facts that would lead it to believe that: (a) any of the patents are invalid, (b) any patent issued in respect of a patent application would be invalid, or (c) any material defects exist in respect of form in the preparation of filing of any of the patent applications.

(vi) To the best of such counsel's knowledge, for each of the U.S. patents applications filed and prosecuted by such counsel reflected in Schedule D to such opinion, the Company has disclosed or intends to disclose to the United States Patent and Trademark Office all information know and believed to be material to patentability under the extant 37 C.F.R. Section 1.56.

(vii) Other than the disclosures set forth in the Prospectus, to the best of such counsel's knowledge, the Company has not received any claim of infringement of any patents held by others, and to the best of such counsel's knowledge, there is no pending or threatened action, suit, proceeding or claim by others that the Company is infringing a patent. Except as generally described in the Prospectus, nothing has come to such counsel's attention that has led such counsel to believe that any patents of

others are infringed by the present or future business of the Company as described in the Prospectus under the caption "Business."

(viii) To the best of our knowledge, there are no pending or threatened legal or governmental proceedings relating to the U.S. patents and pending U.S. patent applications reflected in Schedule A, other than proceedings before the United States Patent and Trademark Office that are carried out during the course of prosecution.

With respect to the opinions expressed herein, such counsel has assumed the genuineness of all signatures on original, certified or facsimile copies, the authenticity of all items submitted to such counsel as originals and the conformity with originals of all items submitted to us as reproduction or certified copies. In examining documents executed by entities other than the Company, such counsel has assumed that each other entity has the power and authority to execute and deliver, and to perform and observe the provisions of such documents, and the due authorization by each such entity of all requisite action and the due execution and delivery of such documents by each such entity. Such counsel expresses no opinion with regard to the enforceability of any license agreements or assignments nor with regard to intervening assignments.

(f) Gray Cary Ware & Freidenrich LLP, shall have furnished to the Representatives a written opinion, as special intellectual property counsel to the Company, addressed to the Underwriters and dated such Delivery Date, in form and substance reasonably satisfactory to the Representatives regarding the section of the Prospectus entitled "Business-- Corporate Collaborations--Baxter CardioVascular Group Strategic Partnership.

(g) The Representatives shall have received from Latham & Watkins, counsel for the Underwriters, such opinion or opinions, dated such Delivery Date, with respect to the issuance and sale of the Stock, the Registration Statement, the Prospectus and other related matters as the Representatives may reasonably require, and the Company shall have furnished to such counsel such documents as they reasonably request for the purpose of enabling them to pass upon such matters.

(h) At the time of execution of this Agreement, the Representatives shall have received from Ernst & Young LLP a letter, in form and substance satisfactory to the Representatives, addressed to the Underwriters and dated the date hereof (i) confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X of the Commission, (ii) stating, as of the date hereof (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Prospectus, as of a date

not more than five days prior to the date hereof), the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants' "comfort letters" to underwriters in connection with registered public offerings.

(i) With respect to the letter of Ernst & Young referred to in the preceding paragraph and delivered to the Representatives concurrently with the execution of this Agreement (the "initial letter"), the Company shall have furnished to the Representatives a letter (the "bring-down letter") of such accountants, addressed to the Underwriters and dated such Delivery Date (i) confirming that they are independent public accountants within the meaning of the Securities Act and are in compliance with the applicable requirements relating to the qualification of accountants under Rule 2-01 of Regulation S-X of the Commission, (ii) stating, as of the date of the bring-down letter (or, with respect to matters involving changes or developments since the respective dates as of which specified financial information is given in the Prospectus, as of a date not more than five days prior to the date of the bring-down letter), the conclusions and findings of such firm with respect to the financial information and other matters covered by the initial letter and (iii) confirming in all material respects the conclusions and findings set forth in the initial letter.

(j) The Company shall have furnished to the Representatives a certificate, dated such Delivery Date, of its Chairman of the Board, its President or a Vice President and its chief financial officer stating that:

(i) The representations, warranties and agreements of the Company in Section 1 are true and correct as of such Delivery Date; the Company has complied with all its agreements contained herein; and the conditions set forth in Sections 7(a) and 7(l) have been fulfilled; and

(ii) They have carefully examined the Registration Statement and the Prospectus and, in their opinion (A) as of the Effective Date, the Registration Statement and Prospectus did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and (B) since the Effective Date no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement or the Prospectus.

(k) The Company shall not have sustained since the date of the latest audited financial statements included in the Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus or (ii) since such date there shall not have been any change in the capital stock or long-term debt of the Company or any change, or any development involving a

prospective change, in or affecting the general affairs, management, financial position, stockholders' equity, results of operations or prospects of the Company, otherwise than as set forth or contemplated in the Prospectus, the effect of which, in any such case described in clause (i) or (ii), is, in the judgment of the Representatives, so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Stock being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(l) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange or the American Stock Exchange or in the over-the-counter market, shall have been suspended or minimum prices shall have been established on any such exchange or such market by the Commission, by such exchange or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by Federal or state authorities, (iii) the United States shall have become engaged in hostilities, there shall have been an escalation in hostilities involving the United States or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions (or the effect of international conditions on the financial markets in the United States shall be such) as to make it, in the judgment of a majority in interest of the several Underwriters, impracticable or inadvisable to proceed with the public offering or delivery of the Stock being delivered on such Delivery Date on the terms and in the manner contemplated in the Prospectus.

(m) The National Market System shall have approved the Stock for inclusion, subject only to official notice of issuance and evidence of satisfactory distribution.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to Latham & Watkins, counsel for the Underwriters.

8. Indemnification and Contribution.

(a) The Company shall indemnify and hold harmless each Underwriter, its officers and employees and each person, if any, who controls any Underwriter within the meaning of the Securities Act, from and against any loss, claim, damage or liability, joint or several, or any action in respect thereof (including, but not limited to, any loss, claim, damage, liability or action relating to purchases and sales of Stock), to which that Underwriter, officer, employee or controlling person may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, liability or action arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact

contained (A) in any Preliminary Prospectus, the Registration Statement or the Prospectus or in any amendment or supplement thereto, (B) in any blue sky application or other document prepared or executed by the Company (or based on any written information furnished by the Company) specifically for the purpose of qualifying any or all of the Stock under the securities laws of any state or other jurisdiction (any such application, document, or information being hereinafter called a "Blue Sky Application"), or (C) in any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Stock ("Marketing Materials"), including any roadshow or investor presentations made to investors by the Company (whether in person or electronically), (ii) the omission or alleged omission to state in any Preliminary Prospectus, the Registration Statement or the Prospectus, or in any amendment or supplement thereto, or in any Blue Sky Application or Marketing Materials any material fact required to be stated therein or necessary to make the statements therein not misleading or (iii) any act or failure to act or any alleged act or failure to act by any Underwriter in connection with, or relating in any manner to, the Stock or the offering contemplated hereby, and which is included as part of or referred to in any loss, claim, damage, liability or action arising out of or based upon matters covered by clause (i) or (ii) above (provided that the Company shall not be liable under this clause (iii) to the extent that it is determined in a final judgment by a court of competent jurisdiction that such loss, claim, damage, liability or action resulted directly from any such acts or failures to act undertaken or omitted to be taken by such Underwriter through its gross negligence or willful misconduct), and shall reimburse each Underwriter and each such officer, employee or controlling person promptly upon demand for any legal or other expenses reasonably incurred by that Underwriter, officer, employee or controlling person in connection with investigating or defending or preparing to defend against any such loss, claim, damage, liability or action as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, liability or action arises out of, or is based upon, any untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement or the Prospectus, or in any such amendment or supplement, in reliance upon and in conformity with written information concerning such Underwriter furnished to the Company through the Representatives by or on behalf of any Underwriter specifically for inclusion therein which information consists solely of the information specified in Section 8(e). The foregoing indemnity agreement is in addition to any liability which the Company may otherwise have to any Underwriter or to any officer, employee or controlling person of that Underwriter.

(b) Each Underwriter, severally and not jointly, shall indemnify and hold harmless the Company, its officers and employees, each of its directors and each person, if any, who controls the Company within the meaning of the Securities Act, from and against any loss, claim, damage or liability, joint or several, or any action in respect thereof, to which the Company or any such

director, officer or controlling person may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, liability or action arises out of, or is based upon, (i) any untrue statement or alleged untrue statement of a material fact contained (A) in any Preliminary Prospectus, the Registration Statement or the Prospectus or in any amendment or supplement thereto, or (B) in any Blue Sky Application or (ii) the omission or alleged omission to state in any Preliminary Prospectus, the Registration Statement or the Prospectus, or in any amendment or supplement thereto, or in any Blue Sky Application any material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information concerning such Underwriter furnished to the Company through the Representatives by or on behalf of that Underwriter specifically for inclusion therein, and shall reimburse the Company and any such director, officer or controlling person for any legal or other expenses reasonably incurred by the Company or any such director, officer or controlling person in connection with investigating or defending or preparing to defend against any such loss, claim, damage, liability or action as such expenses are incurred. The foregoing indemnity agreement is in addition to any liability which any Underwriter may otherwise have to the Company or any such director, officer, employee or controlling person.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of any claim or the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under this Section 8, notify the indemnifying party in writing of the claim or the commencement of that action; provided, however, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have under this Section 8 except to the extent it has been materially prejudiced by such failure and, provided further, that the failure to notify the indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 8. If any such claim or action shall be brought against an indemnified party, and it shall notify the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense thereof with counsel reasonably satisfactory to the indemnified party. After notice from the indemnifying party to the indemnified party of its election to assume the defense of such claim or action, the indemnifying party shall not be liable to the indemnified party under this Section 8 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense thereof other than reasonable costs of investigation; provided, however, that the Representatives shall have the right to employ counsel to represent jointly the Representatives and those other Underwriters and their respective officers, employees and controlling persons who may be subject to liability arising out of any claim in respect of which indemnity may be sought by the Underwriters

against the Company under this Section 8 if, in the reasonable judgment of the Representatives, it is advisable for the Representatives and those Underwriters, officers, employees and controlling persons to be jointly represented by separate counsel, and in that event the fees and expenses of such separate counsel shall be paid by the Company. No indemnifying party shall (i) without the prior written consent of the indemnified parties (which consent shall not be unreasonably withheld), settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising out of such claim, action, suit or proceeding, or (ii) be liable for any settlement of any such action effected without its written consent (which consent shall not be unreasonably withheld), but if settled with the consent of the indemnifying party or if there be a final judgment of the plaintiff in any such action, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment.

(d) If the indemnification provided for in this Section 8 shall for any reason be unavailable to or insufficient to hold harmless an indemnified party under Section 8(a) or 8(b) in respect of any loss, claim, damage or liability, or any action in respect thereof, referred to therein, then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability, or action in respect thereof, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Stock or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company on the one hand and the Underwriters on the other with respect to the statements or omissions which resulted in such loss, claim, damage or liability, or action in respect thereof, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other with respect to such offering shall be deemed to be in the same proportion as the total net proceeds from the offering of the Stock purchased under this Agreement (before deducting expenses) received by the Company, on the one hand, and the total underwriting discounts and commissions received by the Underwriters with respect to the shares of the Stock purchased under this Agreement, on the other hand, bear to the total gross proceeds from the offering of the shares of the Stock under this Agreement, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company

or the Underwriters, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this Section were to be determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage or liability, or action in respect thereof, referred to above in this Section shall be deemed to include, for purposes of this Section 8(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8(d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Stock underwritten by it and distributed to the public was offered to the public exceeds the amount of any damages which such Underwriter has otherwise paid or become liable to pay by reason of any untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute as provided in this Section 8(d) are several in proportion to their respective underwriting obligations and not joint.

(e) The Underwriters severally confirm and the Company acknowledges that the statements with respect to the public offering of the Stock by the Underwriters set forth on the cover page of, the legend concerning over-allotments on the inside front cover page of and the concession and reallowance figures appearing under the caption "Underwriting" in, the Prospectus are correct and constitute the only information concerning such Underwriters furnished in writing to the Company by or on behalf of the Underwriters specifically for inclusion in the Registration Statement and the Prospectus.

9. Defaulting Underwriters. If, on either Delivery Date, any Underwriter defaults in the performance of its obligations under this Agreement, the remaining non-defaulting Underwriters shall be obligated to purchase the Stock which the defaulting Underwriter agreed but failed to purchase on such Delivery Date in the respective proportions which the number of shares of the Firm Stock set forth opposite the name of each remaining non-defaulting Underwriter in Schedule 1 hereto bears to the total number of shares of the Firm Stock set forth opposite the names of all the remaining non-defaulting Underwriters in Schedule 1 hereto; provided, however, that the remaining non-defaulting Underwriters shall not be obligated to purchase any of the Stock on such Delivery Date if the total number of shares of the Stock which the defaulting Underwriter or Underwriters agreed but failed to purchase on such date exceeds 9.09% of the total number of shares of the Stock to be purchased on such Delivery Date, and any remaining non-defaulting Underwriter shall not be obligated to purchase more than 110% of the number of shares of the Stock which it agreed to purchase on such Delivery Date pursuant to the terms of Section 3. If the

foregoing maximums are exceeded, the remaining non-defaulting Underwriters, or those other Underwriters satisfactory to the Representatives who so agree, shall have the right, but shall not be obligated, to purchase, in such proportion as may be agreed upon among them, all the Stock to be purchased on such Delivery Date. If the remaining Underwriters or other underwriters satisfactory to the Representatives do not elect to purchase the shares which the defaulting Underwriter or Underwriters agreed but failed to purchase on such Delivery Date, this Agreement (or, with respect to the Second Delivery Date, the obligation of the Underwriters to purchase, and of the Company to sell, the Option Stock) shall terminate without liability on the part of any non-defaulting Underwriter or the Company, except that the Company will continue to be liable for the payment of expenses to the extent set forth in Sections 6 and 11. As used in this Agreement, the term "Underwriter" includes, for all purposes of this Agreement unless the context requires otherwise, any party not listed in Schedule 1 hereto who, pursuant to this Section 9, purchases Firm Stock which a defaulting Underwriter agreed but failed to purchase.

Nothing contained herein shall relieve a defaulting Underwriter of any liability it may have to the Company for damages caused by its default. If other underwriters are obligated or agree to purchase the Stock of a defaulting or withdrawing Underwriter, either the Representatives or the Company may postpone the Delivery Date for up to seven full business days in order to effect any changes that in the opinion of counsel for the Company or counsel for the Underwriters may be necessary in the Registration Statement, the Prospectus or in any other document or arrangement.

10. Termination. The obligations of the Underwriters hereunder may be terminated by the Representatives by notice given to and received by the Company prior to delivery of and payment for the Firm Stock if, prior to that time, any of the events described in Sections 7(k) or 7(l), shall have occurred or if the Underwriters shall decline to purchase the Stock for any reason permitted under this Agreement.

11. Reimbursement of Underwriters' Expenses. If (a) the Company shall fail to tender the Stock for delivery to the Underwriters by reason of any failure, refusal or inability on the part of the Company to perform any agreement on its part to be performed, or because any other condition of the Underwriters' obligations hereunder required to be fulfilled by the Company is not fulfilled, the Company will reimburse the Underwriters for all reasonable out-of-pocket expenses (including fees and disbursements of counsel) incurred by the Underwriters in connection with this Agreement and the proposed purchase of the Stock, and upon demand the Company shall pay the full amount thereof to the Representatives. If this Agreement is terminated pursuant to Section 9 by reason of the default of one or more Underwriters, the Company shall not be obligated to reimburse any defaulting Underwriter on account of those expenses.

12. Notices, etc. All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Underwriters, shall be delivered or sent by mail, telex or facsimile transmission to Lehman Brothers Inc., Three World Financial Center, New York, New York 10285, Attention: Syndicate Department (Fax: 212-526-

6588), with a copy to Latham & Watkins, 650 Town Center Drive, Costa Mesa, CA 92626, Attention: William J. Cernius (Fax: 714-755-8290), and, in the case of any notice pursuant to Section 8(d), to the Director of Litigation, Office of the General Counsel, Lehman Brothers Inc., 3 World Financial Center, 10th Floor, New York, NY 10285;

(b) if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Edward O. Lanphier II (Fax: 510-236-8951);

provided, however, that any notice to an Underwriter pursuant to Section 8(d) shall be delivered or sent by mail, telex or facsimile transmission to such Underwriter at its address set forth in its acceptance telex to the Representatives, which address will be supplied to any other party hereto by the Representatives upon request. Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof. The Company shall be entitled to act and rely upon any request, consent, notice or agreement given or made on behalf of the Underwriters by Lehman Brothers Inc. on behalf of the Representatives.

13. Persons Entitled to Benefit of Agreement. This Agreement shall inure to the benefit of and be binding upon the Underwriters, the Company and their respective successors. This Agreement and the terms and provisions hereof are for the sole benefit of only those persons, except that (A) the representations, warranties, indemnities and agreements of the Company contained in this Agreement shall also be deemed to be for the benefit of the person or persons, if any, who control any Underwriter within the meaning of Section 15 of the Securities Act and (B) the indemnity agreement of the Underwriters contained in Section 8(b) of this Agreement shall be deemed to be for the benefit of directors of the Company, officers of the Company who have signed the Registration Statement and any person controlling the Company within the meaning of Section 15 of the Securities Act. Nothing in this Agreement is intended or shall be construed to give any person, other than the persons referred to in this Section 13, any legal or equitable right, remedy or claim under or in respect of this Agreement or any provision contained herein.

14. Survival. The respective indemnities, representations, warranties and agreements of the Company and the Underwriters contained in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall survive the delivery of and payment for the Stock and shall remain in full force and effect, regardless of any investigation made by or on behalf of any of them or any person controlling any of them.

15. Definition of the Terms "Business Day" and "Subsidiary". For purposes of this Agreement, (a) "business day" means each Monday, Tuesday, Wednesday, Thursday or Friday which is not a day on which banking institutions in New York are generally authorized or obligated by law or executive order to close and (b) "subsidiary" has the meaning set forth in Rule 405 of the Rules and Regulations .

16. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF NEW YORK WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAWS.

Each party irrevocably agrees that any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby ("Related Proceedings") may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the "Specified Courts"), and irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a "Related Judgment"), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. The parties further agree that service of any process, summons, notice or document by mail to such party's address set forth above shall be effective service of process for any lawsuit, action or other proceeding brought in any such court. The parties hereby irrevocably and unconditionally waive any objection to the laying of venue of any lawsuit, action or other proceeding in the Specified Courts, and hereby further irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such lawsuit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

17. Counterparts. This Agreement may be executed in one or more counterparts and, if executed in more than one counterpart, the executed counterparts shall each be deemed to be an original but all such counterparts shall together constitute one and the same instrument.

18. Headings. The headings herein are inserted for convenience of reference only and are not intended to be part of, or to affect the meaning or interpretation of, this Agreement.

If the foregoing correctly sets forth the agreement the Company and the Underwriters, please indicate your acceptance in the space provided for that purpose below.

Very truly yours,

SANGAMO BIOSCIENCES, INC.,

By

Edward O. Lanphier
President and Chief Executive Officer

Accepted:

LEHMAN BROTHERS INC.
CHASE SECURITIES INC.
ING BARINGS LLC
WILLIAM BLAIR & COMPANY, LLC
NATIONAL FINANCIAL SERVICES CORPORATION
For themselves and as Representatives
of the several Underwriters named
in Schedule 1 hereto

By LEHMAN BROTHERS INC.

By

Authorized Representative

SCHEDULE 1

Underwriters	Number of Shares
Lehman Brothers Inc.	
Chase Securities Inc.	
ING Barings LLC	
William Blair & Company, L.L.C.	
Fidelity Capital Markets, a division of National Financial Services Corporation	
Total	

EXHIBIT 3.1

SEVENTH AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF SANGAMO BIOSCIENCES, INC. A DELAWARE CORPORATION

Sangamo BioSciences, Inc., a corporation organized and existing under the General Corporation law of the State of Delaware (the "Corporation") does hereby certify:

FIRST: The name of the Corporation is Sangamo BioSciences, Inc.

SECOND: The Original Certificate of Incorporation of said Corporation was filed with the Secretary of State of Delaware on June 22, 1995.

THIRD: The Second Amended and Restated Certificate of Incorporation of said Corporation was filed with the Secretary of State of Delaware on June 21, 1996. The Third Amended and Restated Certificate of Incorporation of said Corporation was filed with the Secretary of State of Delaware on October 31, 1997. The Fourth Amended and Restated Certificate of Incorporation of said Corporation was filed with the Secretary of State of Delaware on December 11, 1997. The Fifth Amended and Restated Certificate of Incorporation of said Corporation was filed with the Secretary of State of Delaware on August 19, 1999. The Certificate of Amendment of the Fifth Amended and Restated Certificate of Incorporation was filed with the Secretary of State of Delaware on November 4, 1999. The Sixth Amended and Restated Certificate of said Corporation was filed with the Secretary of State of Delaware on March ___, 2000.

FOURTH: The Seventh Amended and Restated Certificate of Incorporation of said Corporation has been duly adopted in accordance with Sections 245 and 242 of the General Corporation Law of the State of Delaware by the directors and stockholders of the Corporation.

FIFTH: The Sixth Amended and Restated Certificate of Incorporation of said corporation shall be amended and restated to read in full as follows:

ARTICLE I

NAME

The name of the Corporation is Sangamo BioSciences, Inc.

ARTICLE II

REGISTERED OFFICE

The address of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801 and the name of the registered agent at that address is the Corporation Trust Company.

ARTICLE III

POWERS/TERM

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law. The Corporation is to have perpetual existence.

ARTICLE IV

CAPITAL STOCK

A. Classes of Stock. The total number of shares of stock which the Corporation shall have authority to issue is eighty-five million (85,000,000), consisting of five million (5,000,000) shares of Preferred Stock, par value $.001 per share (the "Preferred Stock"), and eighty million (80,000,000) shares of Common Stock, par value $.001 per share (the "Common Stock").

B. Preferred Stock. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby authorized to provide for the issuance of shares of Preferred Stock in one or more series and, by filing a certificate pursuant to the applicable law of the State of Delaware (the "Preferred Stock Designation"), to establish from time to time the number of shares to be included in each such series, and to fix the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations and restrictions thereof. The authority of the Board of Directors with respect to each series shall include, but not be limited to, determination of the following:

(1) The designation of the series, which may be by distinguishing number, letter or title.

(2) The number of shares of the series, which number the Board of Directors may thereafter (except where otherwise provided in the Preferred Stock Designation) increase or decrease (but not below the number of shares thereof then outstanding).

(3) The amounts payable on, and the preferences, if any, of shares of the series in respect of dividends, and whether such dividends, if any, shall be cumulative or noncumulative.

(4) Dates at which dividends, if any, shall be payable.

(5) The redemption rights and price or prices, if any, for shares of the series.

(6) The terms and amount of any sinking funds provided for the purchase or redemption of shares of the series.

(7) The amounts payable on, and the preferences, if any, of shares of the series in the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation.

(8) Whether the shares of the series shall be convertible into or exchangeable for shares of any other class or series, or any other security, of the Corporation or any other corporation, and, if so, the specification of such other class or series or such other security, the conversion or exchange price or prices or rate or rates, any adjustments thereof, the date or dates at which such shares shall be convertible or exchangeable and all other terms and conditions upon which such conversion or change may be made.

(9) Restrictions on the issuance of shares of the same series or of any other class or series.

(10) The voting rights, if any, of the holders of shares of the series.

C. Common Stock; Voting. The Common Stock shall be subject to the express terms of the Preferred Stock and any series thereof. Except as may otherwise be provided in this Certificate of Incorporation, in a Preferred Stock Designation or by applicable law, the holders of shares of Common Stock shall be entitled to one vote for each such share upon all questions presented to the stockholders, the Common Stock shall have the exclusive right to vote for the election of directors and for all other purposes, and holders of Preferred Stock shall not be entitled to vote at or receive notice of any meeting of stockholders.

The number of shares of authorized Common Stock may be increased or decreased (but not below the number then outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon, voting together as a single class notwithstanding the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

The Corporation shall be entitled to treat the person in whose name any share of its stock is registered as the owner thereof for all purposes and shall not be bound to recognize any equitable or other claim to, or interest in, such share on the part of any other person whether or not the Corporation shall have notice thereof, except as expressly provided by applicable law.

ARTICLE V

DIRECTORS

The number of directors of the Corporation shall be determined by resolution of the Board of Directors.

Elections of directors not be by written ballot unless the Bylaws of the Corporation shall so provide. Advance notice of stockholders nominations for the election of directors and of any other business to be brought before any meeting of the stockholders shall be given in the manner provided in the Bylaws of this Corporation.

At each annual meeting of stockholders, directors of the Corporation shall be elected to hold office until the expiration of the term for which they are elected, or until their successors have been duly elected and qualified; except that if any such election shall not be so held, such election shall take place at stockholder's meeting called and held in accordance with General Corporation Law of the State of Delaware.

Vacancies occurring on the Board of Directors for any reason may be filled by vote of a majority of the remaining members of the Board of Directors, even if less than a quorum, at any meeting of the Board of Directors. A person so elected by the Board of Directors to fill a vacancy shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been duly elected and qualified. A director or the entire Board of Directors may be removed from office at any time only for cause by the affirmative vote of the holders of a majority of the outstanding shares of voting stock of the Corporation entitled to vote in an election of directors.

ARTICLE VI

STOCKHOLDER MEETINGS

Meetings of stockholders may be held within or without the State of Delaware, as the bylaws may provide. Special meetings of stockholders for any purpose may be called only by the Board of Directors. The books of the Corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the bylaws of the Corporation. The stockholders of the Corporation may not take any action by written consent in lieu of a meeting.

ARTICLE VII

LIMITATION OF DIRECTORS' LIABILITY

A director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the General

Corporation Law of the State of Delaware as the same exists or may hereafter be amended. Any amendment, modification or repeal of the foregoing sentence shall not adversely affect any right or protection of a director of the Corporation hereunder in respect of any act or omission occurring prior to the time of such amendment, modification or repeal. If the General Corporation Law of the State of Delaware is amended after approval by the stockholders of this ARTICLE VII to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

ARTICLE VIII

INDEMNIFICATION

A. Right to Indemnification. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he is or was or has agreed to become, or a person for whom he is the legal representative, is or was or has agreed to become a director of the Corporation or, while a director of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in this Article VIII, the Corporation shall be required to indemnify a Covered Person in connection with a proceeding (or part thereof) commenced by such Covered Person only if the commencement of such proceeding (or part thereof) by the Covered Person was authorized by the Board of Directors of the Corporation. The rights to indemnification provided herein shall continue with respect to a Covered Person notwithstanding that such Covered Person ceases to be a director, officer or other employee or agent of the Corporation.

B. Prepayment of Expenses. The Corporation shall pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article VIII or otherwise.

C. Claims. If a claim for indemnification or advancement of expenses under this Article VIII is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the Corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of

proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

D. Nonexclusivity of Rights. The rights conferred on any Covered Person by this Article VIII shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, provision of the certificate of incorporation, the bylaws, agreement, vote of stockholders or disinterested directors or otherwise. The Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those provided herein.

E. Other Sources. The Corporation's obligation, if any, to indemnify or to advance expenses to any Covered person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise. The Corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against and incurred by such person in any such capacity, or arising out of such person's status as such.

F. Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article VIII shall not adversely affect any right or protection hereunder of any Covered Person in respect of any act or omission occurring prior to the time of such repeal or modification.

G. Other Indemnification and Prepayment of Expenses. This Article VIII shall not limit the right to the Corporation to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

ARTICLE IX

AMENDMENT OF BYLAWS

In furtherance of and not in limitation of powers conferred by statute, the Board of Directors of the Corporation is expressly authorized to adopt, repeal, alter, amend and rescind the bylaws of the Corporation by vote of a majority of the Board of Directors.

ARTICLE X

AMENDMENT OF CERTIFICATE OF INCORPORATION

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute and this Amended and Restated Certificate of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

* * *

FOURTH: That said amendments were duly adopted in accordance with the provisions of Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed this _____ day of March, 2000.

_____
Edward O. Lanphier II
President, Chief Executive Officer
and Chief Financial Officer

EXHIBIT 3.2

AMENDED AND RESTATED BY-LAWS
OF
SANGAMO BIOSCIENCES, INC.

ARTICLE I

CERTIFICATE OF INCORPORATION AND BYLAWS

Section 1. These By-Laws are subject to the Certificate of Incorporation of the Corporation, as amended to date. In these By-Laws, references to law, the Certificate of Incorporation and By-Laws mean the law, the provisions of the Certificate of Incorporation and the By-Laws as from time to time in effect.

ARTICLE II

OFFICES

Section 1. The registered office of the Corporation in the State of Delaware shall be Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801 and the name of the registered agent at that address is The Corporation Trust Company.

Section 2. The Corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE III

MEETINGS OF STOCKHOLDERS

Section 1. All meetings of the stockholders for the election of directors shall be held at such place as may be fixed from time to time by the Board of Directors, or at such other place either within or without the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting. Meetings of stockholders for any other purpose may be held at such time and place, within or without the State of Delaware, as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof.

Section 2. Annual meetings of stockholders shall be held at such date and time as shall be designated from time to time by the Board of Directors and stated in the notice

of the meeting, at which they shall elect by a plurality vote the directors to be elected at such meeting, and transact such other business as may properly be brought before the meeting.

Section 3. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to each stockholder entitled to vote at such meeting not fewer than ten (10) nor more than sixty (60) days before the date of the meeting.

Section 4. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 5. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the Certificate of Incorporation, may be called by the Chairman of the Board or President and shall be called by the Chairman of the Board, the President or Secretary at the request in writing of a majority of the Board of Directors.

Section 6. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not fewer than ten (10) nor more than sixty (60) days before the date of the meeting, to each stockholder entitled to vote at such meeting.

Section 7. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 8. The holders of fifty percent (50%) of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented any business may be transacted which might have been transacted at the meeting as originally notified. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 9. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by

express provision of the statutes or of the Certificate of Incorporation, a different vote is required, in which case such express provision shall govern and control the decision of such question.

Section 10. Unless otherwise provided in the Certificate of Incorporation, each stockholder shall at every meeting of the stockholders be entitled to one vote in person or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless the proxy provides for a longer period.

Section 11. Unless otherwise provided in the Certificate of Incorporation, the Chairman of the Board may adjourn a meeting of stockholders from time to time, without notice other than announcement at the meeting. No notice of the time and place of an adjourned meeting need be given except as required by law.

Section 12.

A. Annual Meetings of Stockholders

1. Nominations of persons for election to the Board of Directors and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the Corporation's notice of meeting (or any supplement thereto), (b) by or at the direction of the Board of Directors or (c) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this Section 12, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 12.

2. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (a)(1) of this Section 12, the stockholder must have given timely notice thereof in writing to the Secretary of the Corporation and such other business must otherwise be a proper matter for stockholder action. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the date of the preceding year's annual meeting; provided, however, that if either the date of the annual meeting is more than thirty (30) days before or more than seventy (70) days after such anniversary date, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the Corporation. Such stockholder's notice shall set forth (a) as to each person whom the stockholder proposes to nominate for election or reelection as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Rule 14a-11 thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director it elected); (b) as to any

other business that the stockholder proposes to bring before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the By-laws of the Corporation, the language of the proposed amendment), the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner, (ii) the class and number of shares of capital stock of the Corporation which are owned beneficially and of record by such stockholder and such beneficial owner, (iii) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, and (iv) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group which intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies from stockholders in support of such proposal or nomination. The Corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the Corporation.

3. Notwithstanding anything in the second sentence of paragraph (a)(2) of this Section 12 to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement by the Corporation naming all of the nominees for director or specifying the size of the increased Board of Directors at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 12 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive office of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

B. Special Meetings of Stockholders. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (a) by or at the direction of the Board of Directors or (b) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time notice provided for in this Section 12 is delivered to the Secretary of the Corporation, who is entitled to vote at the meeting and upon such election, who complies with the notice procedures set forth in this Section 12. If the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by paragraph (A)(2) of this Section 12 shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the one hundred twentieth (120) day prior to such special meeting and not later than the later of (x) the close of

business of the ninetieth (90th) day prior to such special meeting or (y) the close of business of the tenth (10th) day following the day on which public announcement is first made of the date of such special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

C. General.

1. Only such persons who are nominated in accordance with the procedures set forth in this Section 12 shall be eligible to be elected at an annual or special meeting of stockholders of the Corporation to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 12. Except as otherwise provided by law, the Certificate of Incorporation or these By-Laws, the chairman of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 12 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies in support of such stockholder's nominee or proposal in compliance with such stockholder's representation as required by clause (A)(2)(c)(iv) of this Section 12) and (b) if any proposed nomination or business was not made or proposed in compliance with this Section 12, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted.

2. For purposes of this Section 12, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 and 15(d) of the Exchange Act.

3. Notwithstanding the foregoing provisions of this Section 12, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth herein. Nothing in this Section 12 shall be deemed to affect any rights (i) of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act or (ii) of the holders of any series of Preferred Stock to elect directors pursuant to any applicable provisions of the Certificate of Incorporation.

ARTICLE IV

DIRECTORS

Section 1. The number of directors which shall constitute the whole Board shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting of the stockholders, except as provided in Section 2 of this Article. Directors need not be stockholders.

Section 2. Vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election at which such director's class is to be elected and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. If, at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office.

Section 3. The business of the Corporation shall be managed by or under the direction of its Board of Directors which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation or by these By-Laws directed or required to be exercised or done by the stockholders.

Meetings of the Board of Directors

Section 4. The Board of Directors of the Corporation may hold meetings, both regular and special, either within or without the State of Delaware.

Section 5. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board. Members of the Board of Directors may participate in regular or special meetings by means of conference telephone or similar communications equipment by which all persons participating in the meeting can hear each other. Such participation shall constitute presence in person.

Section 6. Special meetings of the Board may be called by the chairman of the board or president on two (2) days' notice to each director by mail or forty-eight (48) hours notice to each director either personally or by facsimile; special meetings shall be called by the president or secretary or chairman of the board in like manner and on like notice on the written request of two directors unless the Board consists of only one director, in which case special

meetings shall be called by the chairman of the board or the president or secretary in like manner and on like notice on the written request of the sole director.

Section 7. At all meetings of the Board a majority of the directors fixed by Section 1 shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by statute or by the Certificate of Incorporation. If a quorum shall not be present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 8. Unless otherwise restricted by the Certificate of Incorporation of these By-Laws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board or committee.

Section 9. Unless otherwise restricted by the Certificate of Incorporation or these By-Laws, members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting of the Board of Directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Committees of Directors

Section 10. The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee.

In the absence of disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending the By-Laws of the Corporation; and, unless the resolution or the Certificate of Incorporation

expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors.

Section 11. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

Compensation of Directors

Section 12. Unless otherwise restricted by the Certificate of Incorporation or these By-Laws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Director and may be paid a fixed sum for attendance at each meeting of the Board of Directors and a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

Removal of Directors

Section 13. Any director or the entire Board of Directors may be removed only in accordance with the provisions of the Corporation's Certificate of Incorporation.

ARTICLE V

NOTICES

Section 1. Whenever, under the provisions of the statutes or of the Certificate of Incorporation or of these By-Laws, notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at his address as it appears on the records of the Corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by facsimile.

Section 2. Whenever any notice is required to be given under the provisions of the statutes or of the Certificate of Incorporation or of these By-Laws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

ARTICLE VI

OFFICERS

Section 1. The officers of the Corporation shall be chosen by the Board of Directors and shall consist of a Chief Executive Officer, Chief Financial Officer, Treasurer and a Secretary. The Board of Directors may elect from among its members a Chairman of the Board and a Vice Chairman of the Board. The Board of Directors may also choose one or more Vice Presidents, Assistant Secretaries and Assistant Treasurers. Any number of offices may be held by the same person, unless the Certificate of Incorporation or these By-Laws otherwise provide.

Section 2. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a President, Chief Executive Officer, a Treasurer, and a Secretary and may choose Vice Presidents.

Section 3. The Board of Directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board.

Section 4. The salaries of all officers and agents of the Corporation shall be fixed by the Board of Directors.

Section 5. The officers of the Corporation shall hold office until their successors are chosen and qualify. Any officer elected or appointed by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors.

The Chairman of the Board and Vice Chairman of the Board

Section 6. The Board of Directors may appoint a Chairman of the Board and may, but is not obligated to, designate the Chairman of the Board as chief executive officer. If the Board of Directors appoints a Chairman of the Board, he shall perform such duties and possess such powers as are assigned to him by the Board of Directors. Unless otherwise provided by the Board of Directors, the Chairman of the Board shall preside at all meetings of the stockholders and at all meetings of the Board of Directors. If the Board of Directors appoints a Vice Chairman of the Board, he shall, in the absence or disability of the Chairman of the Board, perform the duties and exercise the powers of the Chairman of the Board and shall perform such other duties and possess such other powers as may from time to time be vested in him by the Board of Directors.

Chief Executive Officer or President

Section 7.

The Chief Executive Officer or President shall conduct general and active management of the business of the Corporation and shall see that all orders and resolutions of the Board are carried into effect, subject, however, to the right of the directors to delegate any specific powers, except such as may be by statute exclusively conferred on the Chief Executive Officer or President, to any other officer or officers of the Corporation. The Chief Executive Officer or President shall have the general power and duties of supervision and management usually vested in the office of President of a corporation. In the absence of the Chairman and Vice Chairman of the Board, the Chief Executive Officer or President shall preside at all meetings of the stockholders and the Board of Directors.

Such individual shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the Corporation.

The Vice-Presidents

Section 8.

In the absence of the President or in the event of his inability or refusal to act, the Vice President, if any, (or in the event there be more than one Vice President, the Vice Presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The Vice Presidents shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

The Secretary and Assistant Secretary

Section 9.

The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the Corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. Such individual shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or president, under whose supervision such individual shall be. Such individual shall have custody of the corporate seal of the Corporation and he, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by his signature or by the signature of such assistant secretary. The Board of Directors may give general authority to any other officer to affix the seal of the Corporation and to attest the affixing by his signature.

Section 10. The Assistant Secretary, or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the Secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the Board of directors may from time to time prescribe.

The Chief Financial Officer, Treasurer and Assistant Treasurers

Section 11. The Board of Directors shall have the authority to appoint a Chief Financial Officer who may also be the Treasurer or a Chief Financial Officer and a Treasurer and any Assistant Treasurers which the Board of Directors deems necessary to the operation of the Company. The Chief Financial Officer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer, if there be one separate from the Chief Financial Officer, shall have the duties prescribed by the Board of Directors.

Section 12. The Chief Financial Officer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his transactions as Chief Financial Officer and of the financial condition of the Corporation.

Section 13. If required by the Board of Directors, the Chief Financial Officer or Treasurer shall give the Corporation a bond (which shall be renewed every six years) in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the Corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the Corporation.

Section 14. The Assistant Treasurer, or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the Chief Financial Officer or Treasurer or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Chief Financial Officer or Treasurer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

ARTICLE VII

CERTIFICATE OF STOCK

Section 1. Every holder of stock in the Corporation shall be entitled to have a certificate, signed by, or in the name of the Corporation by, the Chairman or Vice Chairman of the Board of Directors, or the President or a Vice President and the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation, certifying the number of shares owned by him in the Corporation.

If the Corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualification, limitations or restrictions or such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Section 2. Any of or all the signatures on the certificate may be facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such individual were such officer, transfer agent or registrar at the date of issue.

Lost Certificates

Section 3. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and/or give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

Transfer of Stock

Section 4. Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Fixing Record Date

Section 5. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting unless expressly disallowed by the Certificate of Incorporation, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

Registered Stockholders

Section 6. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

GENERAL PROVISIONS

Dividends

Section 1. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation.

Section 2. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for such other purposes as the directors shall think conducive to the interest of the Corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

Checks

Section 3. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

Fiscal Year

Section 4. The fiscal year of the Corporation shall end on December 31, unless otherwise fixed by resolution of the Board of Directors.

Seal

Section 5. The Board of Directors may adopt a corporate seal having inscribed thereon the name of the Corporation, the year of its organization and the words "Corporate Seal, Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

Section 6. No contract or transaction between the Corporation and one or more of the directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of the directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because such director or officer is present at or participates in the meeting of the Board of Directors or a committee of the Board of Directors which authorizes the contract or transaction or solely because his, her or their votes are counted for such purpose, if:

(1) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;

(2) The material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

(3) The contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee of the Board of Directors, or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IX

AMENDMENTS

These By-Laws may be repealed, altered, amended or rescinded by the stockholders of the Corporation by vote of not less than a majority of the outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class) cast at a meeting of the stockholders called for that purpose (provided that notice of such proposed repeal, alteration, amendment or rescission is included in the notice of such meeting). In addition, in accordance with the Corporation's Certificate of Incorporation, the Board of Directors may repeal, alter, amend or rescind these By-Laws by vote of a majority of the Board of Directors.

SANGAMO BIOSCIENCES, INC.

INCORPORATED IN THE STATE OF DELAWARE

COMMON SHARES COMMON SHARES

THIS CERTIFICATE IS TRANSFERABLE IN BOSTON, MA AND NEW YORK, NY

CUSIP 80677 10 6

SEE REVERSE FOR CERTAIN DEFINITIONS

This certifies that

is the recordholder of

FULLY PAID AND NONASSESSABLE SHARES OF THE COMMON STOCK,
PAR VALUE $0.01 PER SHARE of

Sangamo BioSciences, Inc. transferable on the books of the Corporation by the holder hereof in person or by duly authorized Attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.

/s/ Shawn Johnson
Secretary

/s/ Edward O. Lanphier
President and Chief Executive Officer

Countersigned and Registered
EQUISERVE TRUST COMPANY, N.A.

By: [illegible]

Authorized Signature

SANGAMO BIOSCIENCES, INC.

Upon request the Corporation will furnish any holder of shares of Common Stock of the Corporation, without charge, with a full statement of the powers, designations, preferences, and relative, participating, optional or other special rights of any class or series of capital stock of this Corporation, and the qualifications, limitations or restrictions of such preferences and/or rights.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM -- as tenants in common
TEN ENT -- as tenants by the entireties
JT TEN -- as joint tenants with right of survivorship and not as tenants in common

UNIF GIT MIN ACT -- Custodian
---------- ----------
(cust) (minor)
under Uniform Gift to Minor Act

(state)

Additional abbreviations may also be used although not in the above item.

For Value received, _____ hereby sell, assign and transfer unto
PLEASE INSERT SOCIAL SECURITY OR OTHER
IDENTIFYING NUMBER OF ASSIGNEE
_____

_____
(PLEASE PRINT OR TYPEWRITE THE NAME AND ADDRESS, INCLUDING ZIP CODE OF ASSIGNEE)
_____

_____

_____ Shares

of Common Stock represented by the within Certificate, and to hereby irrevocably constitute and appoint
_____ Attorney
to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____

In presence of

X _____ X _____

THE SIGNATURE TO THE ASSIGMENT MUST CORRESPOND WITH THE NAME AS
NOTICE: WRITTEN UPON THE FACE OF THE CERTIFICATE IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT OR ANY CHANGE WHATEVER.

Signature(s) Guaranteed

By _____
THE SIGNATURE(S) MUST BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (BANK, STOCKBROKER, SAVINGS AND LOAN ASSOCIATION AND CREDIT UNION WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM), PURSUANT TO SEC RULE 17 AND 18.

EXHIBIT 4.2

SANGAMO BIOSCIENCES, INC.

AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

MARCH ___, 2000

TABLE OF CONTENTS

INVESTORS' RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT is made as of March ___, 2000, by and between Sangamo BioSciences, Inc., a Delaware corporation (the "Company"), and the investors listed on Schedule A hereto and the Stockholders listed on Schedule B hereto, each of which is herein referred to as an "Investor."

RECITALS

WHEREAS, the Company and certain Investors (the "Series A Investors") are parties to that certain Series A Preferred Stock Purchase Agreement dated June 28, 1996 (the "Series A Agreement");

WHEREAS, the Company and certain other Investors (the "Series B Investors") are parties to that certain Series B Preferred Stock Purchase Agreement dated November 6, 1997 (the "Series B Agreement");

WHEREAS, the Company and certain Investors (the "Series C Investors") are parties to that certain Series C Preferred Stock Purchase Agreement dated as of August 24, 1999;

WHEREAS, the Company and an Investor (the "Additional Series C Investor") are parties to that certain Series C Preferred Stock Purchase Agreement dated as of November 5, 1999;

WHEREAS, the Company and an Investor (the "Final Series C Investor") are parties to that certain Series C Preferred Stock Purchase Agreement dated as of January 20, 2000;

WHEREAS, the Company has granted the Series A, Series B and Series C Investors and the Stockholders registration rights, information rights, rights of first offer and other rights (collectively, the "Prior Rights") pursuant to that certain Investor Rights Agreement dated November 5, 1999 (the "Prior Rights Agreement");

WHEREAS, in order to update certain information in Section 3.3(d), the Company, the Series A Investors, the Series B Investors, the Series C Investors and the Stockholders hereby agree to terminate the Prior Rights Agreement in its entirety and to accept in lieu of the Prior Rights Agreement, the registration rights, information rights, rights of first offer and other rights and obligations provided for herein.

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Definitions. For purposes of this Investor Rights Agreement:

(a) The term "Act" means the Securities Act of 1933, as amended.

(b) The term "Form S-3" means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the SEC which

permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(c) The term "Holder" means any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 2.12 hereof.

(d) The term "Major Holder" means any person owning of having the right to acquire at least, (i) in the case of a holder of Series A Preferred Shares, twenty-five thousand (25,000) shares (as adjusted for any stock dividends, combinations or splits), or, (ii) in the case of a holder of Series B Preferred Shares, one hundred thousand (100,000) shares (as adjusted for any stock dividends, combinations or splits), or (iii) in the case of a holder of Series C Preferred Shares, fifty thousand (50,000) shares (as adjusted for any stock dividends, combinations or splits), of Registrable Securities or any assignee thereof in accordance with Section 2.12 hereof.

(e) The term "1934 Act" shall mean the Securities Exchange Act of 1934, as amended.

(f) The term "Preferred Stock" shall mean collectively the Company's Series A Preferred Stock, par value $0.01 per share, and the Company's Series B Preferred Stock, par value $0.01 per share.

(g) The term "register", "registered" and "registration" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Act, and the declaration or ordering of effectiveness of such registration statement or document.

(h) The term "Registrable Securities" means (i) the Common Stock issued and outstanding as of this date (as identified on Schedule B hereto), (ii) the Common Stock issuable or issued upon conversion of the Preferred Stock, and (iii) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in (i) and (ii) above, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which his rights under Section 2 are not assigned.

(i) The number of shares of "Registrable Securities then outstanding" shall be determined by the number of shares of Common Stock outstanding which are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are, Registrable Securities.

(j) The term "SEC" shall mean the Securities and Exchange Commission.

2. Registration Rights. The Company covenants and agrees as follows:

2.1. Request for Registration.

(a) If the Company shall receive at any time six (6) months after the effective date of the first registration statement for a public offering of securities of the Company

(other than a registration statement relating either to the sale of securities to employees of the Company pursuant to a stock option, stock purchase or similar plan or a SEC Rule 145 transaction), a written request from the Holders of at least 40% of the outstanding Series A Preferred Stock and Series B Preferred Stock and Series C Preferred Stock (collectively, the "Preferred Stock"), or the Common Stock into which such Preferred Stock is convertible, that the Company file a registration statement under the Act covering the registration of all or a part of the Registrable Securities having a reasonably anticipated aggregate offering price, net of underwriting discounts and commissions that exceeds $7,500,000, then the Company shall:

(i) within ten (10) days of the receipt thereof, give written notice of such request to all Holders; and

(ii) effect, as soon as practicable, the registration under the Act of all Registrable Securities which the Holders request to be registered, subject to the limitations of subsection 2.1(b), within twenty (20) days of the mailing of such notice by the Company in accordance with Section 4.5.

(b) If the Holders initiating the registration request hereunder ("Initiating Holders") intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to subsection 2.1(a) and the Company shall include such information in the written notice referred to in subsection 2.1(a). The underwriter will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include his Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in subsection 2.3(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 2.1, if either the underwriter or the Company advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities which would otherwise be underwritten pursuant hereto, and the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Holders thereof, including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each Holder.

(c) Notwithstanding the foregoing, if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.1, a certificate signed by the Chief Executive Officer of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such registration statement to be filed and it is therefore essential to defer the filing of such registration statement, the Company shall have the right to defer taking action with respect to such filing for a period of not more than 120 days after receipt of the request of the Initiating Holders; provided, however, that the Company may not utilize this right more than once in any twelve-month period.

(d) In addition, the Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to this Section 2.1:

(i) After the Company has effected one registration pursuant to this Section 2.1 and such registration has been declared or ordered effective;

(ii) During the period starting with the date sixty (60) days prior to the Company's good faith estimate of the date of filing of, and ending on a date one hundred eighty (180) days after the effective date of, a registration subject to Section 2.2 hereof; provided that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to become effective; or

(iii) If the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.11 below.

2.2. Company Registration.

(a) If (but without any obligation to do so) the Company proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Act in connection with the public offering of such securities solely for cash (other than a registration relating solely to the sale of securities to participants in a Company stock plan, a registration on any form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities which are also being registered), the Company shall, at such time, promptly give each Major Holder written notice of such registration. Upon the written request of each Major Holder given within twenty (20) days after mailing of such notice by the Company in accordance with Section 4.5, the Company shall, subject to the provisions of Section 2.7, cause to be registered under the Act all of the Registrable Securities that each such Major Holder has requested to be registered.

(b) If the Company intends to distribute the Registrable Securities by means of an underwriting, it shall so advise the Major Holders in the written notice referred to in subsection 2.2(a). The underwriter will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Major Holders. In such event, the right of any Major Holder to include his Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Major Holders and such Holder) to the extent provided herein. All Major Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in subsection 2.3(e)) enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting. Notwithstanding any other provision of this Section 2.2, if either the underwriter or the Company advises the Major Holders in writing that, in the good faith determination of the underwriter, marketing factors require a limitation of the number of shares to be underwritten, then the number of shares of Registrable Securities that may be included in the underwriting shall be allocated among all Major Holders thereof, in

proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each Major Holder; provided, however, that the number of shares of Registrable Securities held by the Company to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. In the event that the underwriting set forth in this Section 2.2(b) is the initial public offering of the Company's securities, the Major Holders may be excluded entirely if either the underwriters or the Company make the determination set forth above.

2.3. Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or until the distribution contemplated in the Registration Statement has been completed; provided, however, that (i) such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of the Company; and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, such 120-day period shall be extended, if necessary, to keep the registration statement effective until all such Registrable Securities are sold, provided that Rule 415, or any successor rule under the Act, permits an offering on a continuous or delayed basis, and provided further that applicable rules under the Act governing the obligation to file a post-effective amendment permit, in lieu of filing a post-effective amendment which (I) includes any prospectus required by Section 10(a)(3) of the Act or (II) reflects facts or events representing a material or fundamental change in the information set forth in the registration statement, the incorporation by reference of information required to be included in (I) and (II) above to be contained in periodic reports filed pursuant to Section 13 or 15(d) of the 1934 Act in the registration statement.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders such numbers of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general

consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Act.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange on which similar securities issued by the Company are then listed.

(h) Provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(i) Use its best efforts to furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 2, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 2, if such securities are being sold through underwriters, or, if such securities are not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities and (ii) a letter dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities.

2.4. Furnish Information.

(a) It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be required to effect the registration of such Holder's Registrable Securities.

(b) The Company shall have no obligation with respect to any registration requested pursuant to Section 2.1 or Section 2.11 if, due to the operation of subsection 2.4(a), the number of shares or the anticipated aggregate offering price of the

Registrable Securities to be included in the registration does not equal or exceed the number of shares or the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in subsection 2.1(a) or subsection 2.11(b)(2), whichever is applicable.

2.5. Expenses of Demand Registration. All expenses other than underwriting discounts and commissions incurred in connection with registrations, filings or qualifications pursuant to Section 2.1, including (without limitation) all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for the Company (including fees and disbursements of counsel for the Company in its capacity as counsel to the selling Holders hereunder; if Company counsel does not make itself available for this purpose, the Company will pay the reasonable fees and disbursements of one counsel for the selling Holders) shall be borne by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating holders shall bear such expenses), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 2.1; provided further, however, that if at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness following disclosure by the Company of such material adverse change, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Section 2.1.

2.6. Expenses of Company Registration. The Company shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to the registrations pursuant to Section 2.2 for each Holder (which right may be assigned as provided in Section 2.12), including (without limitation) all registration, filing, and qualification fees, printers and accounting fees relating or apportionable thereto and the fees and disbursements of counsel for the Company in its capacity as counsel to the selling Holders hereunder; if Company counsel does not make itself available for this purpose, the Company will pay the reasonable fees and disbursements of one counsel for the selling Holders selected by them, but excluding underwriting discounts and commissions relating to Registrable Securities.

2.7. Underwriting Requirements. In connection with any offering involving an underwriting of shares of the Company's capital stock, the Company shall not be required under Section 2.2 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and the underwriters selected by it (or by other persons entitled to select the underwriters), and then only in such quantity as the underwriters and Company determine in their sole discretion will not, jeopardize the success of the offering by the Company. If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by the Company that the underwriters and Company determine in their sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and Company determine in their sole discretion will not jeopardize the success of

the offering (the securities so included to be apportioned pro rata among the selling stockholders according to the total amount of securities entitled to be included therein owned by each selling Stockholder. For purposes of the preceding parenthetical concerning apportionment, for any selling stockholder which is a holder of Registrable Securities and which is a partnership or corporation, the partners, retired partners and stockholders of such holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling stockholder," and any pro-rata reduction with respect to such "selling stockholder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling stockholder," as defined in this sentence.

2.8. Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.9. Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, any underwriter (as defined in the Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Act or the 1934 Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Act, the 1934 Act, any state securities law or any rule or regulation promulgated under the Act, the 1934 Act or any state securities law; and the Company will pay to each such Holder, underwriter or controlling person, as incurred, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 2.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder, underwriter or controlling person.

(b) To the extent permitted by law, each selling Holder will indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each person, if any, who controls the Company within the meaning of the Act, any underwriter, any other Holder selling securities in such registration statement and any controlling person of any such underwriter or other Holder, against any losses, claims, damages,

or liabilities (joint or several) to which any of the foregoing persons may become subject, under the Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will pay, as incurred, any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to this subsection 2.9(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 2.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, that, in no event shall any indemnity under this subsection 2.9(b) exceed the gross proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 1.10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

(d) If the indemnification provided for in this Section 2.9 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) The obligations of the Company and Holders under this Section 2.9 shall survive the completion of any offering of Registrable Securities in a registration statement, whether or not the registration was pursuant to this Section 2.

2.10. Reports Under Securities Exchange Act of 1934. With a view to making available to the Holders the benefits of Rule 144 promulgated under the Act and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in SEC Rule 144, at all times after ninety (90) days after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public;

(b) take such action, including the voluntary registration of its Common Stock under Section 12 of the 1934 Act, as is necessary to enable the Holders to utilize Form S-3 for the sale of their Registrable Securities, such action to be taken as soon as practicable after the end of the fiscal year in which the first registration statement filed by the Company for the offering of its securities to the general public is declared effective;

(c) file with the SEC in a timely manner all reports and other documents required of the Company under the Act and the 1934 Act; and

(d) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the first registration statement filed by the Company), the Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration or pursuant to such form.

2.11. Form S-3 Registration. In case the Company shall receive from a Major Holder or Major Holders of the Registrable Securities a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Major Holder or Major Holders, the Company will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Major Holders; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Major Holder's or Major Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Major Holder or Major Holders joining in such request as are specified in a written request given within fifteen (15) days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 2.11: (1) if Form S-3 is not available for such offering by the Major Holders; (2) if the Major Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than $1,000,000; (3) if the Company shall furnish to the Major Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 Registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than one hundred fifty (150) days after receipt of the request of the Major Holder or Major Holders under this Section 2.11; provided, however, that the Company shall not utilize this right more than once in any twelve month period; (4) if the Company has, within the twelve (12) month period preceding the date of such request, already effected one registration on Form S-3 for the Major Holders pursuant to this Section 2.11; or (5) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, the Company shall file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Major Holders. All expenses incurred in connection with two (2) registrations requested pursuant to Section 2.11, including (without limitation) all registration, filing, qualification, printer's and accounting fees and the reasonable fees and disbursements of counsel for the selling Major Holder or Major Holders and counsel for the Company, but excluding any underwriters' discounts or commissions associated with Registrable Securities, shall be borne by the Company. Thereafter, all expenses incurred in connection with a registration requested pursuant to Section 2.11, including (without limitation) all registration, filing, qualification, printer's and accounting fees and the reasonable fees and disbursements of counsel for the selling Major Holder or Major Holders and counsel for the Company, but excluding any underwriters' discounts or commissions associated with Registrable Securities, shall be borne pro rata by the Major Holder or Major Holders participating in the Form S-3 Registration. Registrations effected pursuant to this Section 2.11 shall not be counted as demands for registration or registrations effected pursuant to Sections 2.1 or 2.2, respectively.

2.12. Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned (but only with all related obligations) by a Holder to a transferee or assignee of such securities who, after such assignment or transfer, holds at least (i) in the case of Series A Preferred Shares, twenty-five thousand (25,000) shares, (ii) in the case of Series B Preferred Shares, one hundred thousand (100,000) shares, or (iii) in the case of Series C Preferred Shares, fifty thousand (50,000) shares,

of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations and other recapitalizations), provided: (a) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; (b) such transferee or assignee agrees in writing to be bound by and subject to the terms and conditions of this Agreement, including without limitation the provisions of Section 2.14 below; and (c) such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the Act. For the purposes of determining the number of shares of Registrable Securities held by a transferee or assignee, the holdings of transferees and assignees of a partnership who are partners or retired partners of such partnership (including spouses and ancestors, lineal descendants and siblings of such partners or spouses who acquire Registrable Securities by gift, will or intestate succession) shall be aggregated together and with the partnership; provided that all assignees and transferees who would not qualify individually for assignment of registration rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices or taking any action under this Section 2.

2.13. Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the outstanding Registrable Securities, enter into any agreement with any holder or prospective holder of any securities of the Company which would allow such holder or prospective holder (a) to include such securities in any registration filed under Section 2.1 hereof, unless under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of his securities will not reduce the amount of the Registrable Securities of the Holders which is included or (b) to make a demand registration which could result in such registration statement being declared effective prior to the earlier of either of the dates set forth in subsection 2.1(a) or within one hundred twenty (120) days of the effective date of any registration effected pursuant to Section 2.1.

2.14. "Market Stand-Off" Agreement. Each Holder hereby agrees that, during the period of duration specified by the Company and an underwriter of common stock or other securities of the Company, following the effective date of a registration statement of the Company filed under the Act, it shall not, to the extent requested by the Company and such underwriter, directly or indirectly sell, offer to sell, contract to sell (including, without limitation, any short sale), grant any option to purchase or otherwise transfer or dispose of (other than to donees who agree to be similarly bound) any securities of the Company held by it at any time during such period except common stock included in such registration; provided, however, that such market stand-off time period shall not exceed one hundred eighty (180) days.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other person subject to the foregoing restriction) until the end of such period.

Notwithstanding the foregoing, the obligations described in this Section 1.15 shall not apply to a registration solely to employee benefit plans on Form S-1 or Form S-8 or similar forms which may be promulgated in the future, or a registration relating solely to a Commission

Rule 145 transaction on Form S-14 or Form S-15 or similar forms which may be promulgated in the future.

2.15. Termination of Registration Rights.

(a) The right of any Holder to request registration or inclusion in registration pursuant to this Section 1 shall terminate on the earlier of (i) two years after the closing of an initial public offering of Common Stock of the Company; or (ii) such date as all shares of Registrable Securities held or entitled to be held upon conversion by such Holder may immediately be sold under Rule 144 during any ninety (90) day period.

(b) No Holder shall be entitled to exercise any right provided for in this Section 2 while such Holder owns less than one percent (1%) of the Company's Common Stock and would continue to hold less than one percent (1%) of the Company's Common Stock following conversion of all of such Holder's Preferred Stock to Common Stock.

3. Covenants of the Company.

3.1. Delivery of Financial Statements. The Company shall automatically deliver to each Major Holder copies of its quarterly and annual unaudited or audited, as the case may be, financial statements, prepared in accordance with generally accepted accounting principles ("GAAP").

3.2. Termination of Information Covenant. The covenant set forth in Section 3.1 shall terminate and shall be of no further force or effect when the sale of securities pursuant to a registration statement filed by the Company under the Act in connection with the firm commitment underwritten offering of its securities to the general public is consummated or when the Company first becomes subject to the periodic requirements of Sections 12(g) or 15(d) of the 1934 Act, whichever event shall first occur.

3.3. Right of First Offer. Subject to the terms and conditions specified in this paragraph 3.3, the Company hereby grants to each Major Investor a right of first offer with respect to future sales by the Company of its Shares (as hereinafter defined). For purposes of this Section 3.3 a "Major Investor" shall mean any person who holds at least, (i) in the case of Series A Preferred Stock, twenty-five thousand (25,000) shares (as adjusted for any stock dividends, combinations or splits) of Series A Preferred Stock (or the Common Stock issued upon the conversion thereof) or, (ii) in the case of Series B and Series C Preferred Stock, sixteen thousand (16,000) shares (as adjusted for any stock dividends, combinations or splits) of Series B and Series C Preferred Stock (or the Common Stock issued upon conversion thereof) of the Company. For purposes of this Section 3.3, Major Investor includes any general partners and affiliates of a Major Investor. An investor shall be entitled to apportion the right of first offer hereby granted it among itself and its partners and affiliates as it deems appropriate.

Each time the Company proposes to offer any shares of, or securities convertible into or exercisable for any shares of, any class of its capital stock ("Shares"), the Company shall first make an offering of such Shares to each Major Investor in accordance with the following provisions:

(a) The Company shall deliver a notice by certified mail ("Notice") to the Major Investors stating (i) its bona fide intention to offer such Shares, (ii) the number of such Shares to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such Shares.

(b) By written notification received by the Company, within twenty (20) calendar days after giving of the Notice, the Major Investor may elect to purchase or obtain, at the price and on the terms specified in the Notice, up to that portion of such Shares which equals the proportion that the number of shares of common stock issued and held, or issuable upon conversion of the Preferred Stock then held, by such Major Investor bears to the total number of shares of Common Stock of the Company then outstanding (assuming full conversion of all convertible securities issued or held, or issuable upon conversion of the Series A Preferred Stock and Series B Preferred Stock and Series C Preferred Stock then held, by all the Major Investors). The Company shall promptly, in writing, inform each Major Investor which purchases all the shares available to it ("Fully-Exercising Holder") of any other Major Investor's failure to do likewise. During the ten-day period commencing after such information is given, each Fully-Exercising Holder shall be entitled to obtain that portion of the Shares for which Major Investors were entitled to subscribe but which were not subscribed for by the Major Investors which is equal to the proportion that the number of shares of common stock issued and held, or issuable upon conversion of the Preferred Stock then held, by such Fully-Exercising Holder bears to the total number of shares of common stock issued and held, or issuable upon conversion of the Preferred Stock then held, by all Fully-Exercising Holders who wish to purchase some of the unsubscribed shares.

(c) If all Shares referred to in the Notice which Major Investors are entitled to obtain pursuant to subsection 3.3(b) hereof are not purchased by such Major Investors, the Company may, during the thirty (30) day period following the expiration of the period provided in subsection 3.3(b) hereof, offer the remaining unsubscribed portion of such Shares to any person or persons at a price not less than, and upon terms no more favorable to the offeree than those specified in the Notice. If the Company does not enter into an agreement for the sale of the Shares within such period, or is such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Shares shall not be offered unless first reoffered to the Major Investors in accordance herewith.

(d) The right of first offer in this paragraph 3.3 shall not be applicable (i) to the issuance or sale of not to exceed One Million Eight Hundred Fifty Thousand (1,850,000) shares of common stock (or options therefor) to employees for the primary purpose of soliciting or retaining their employment, (ii) to or after consummation of a bone fide, firmly underwritten public offering of shares of common stock, registered under the Act pursuant to a registration statement on Form S-1, at an offering price of at least $12.00 per share (appropriately adjusted for any stock split, dividend, combination or other recapitalization) and $7,500,000 in the aggregate, (iii) the issuance of securities pursuant to the conversion or exercise of convertible or exercisable securities, (iv) the issuance of securities in connection with a bona fide business acquisition of or by the Company, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise or (v) the issuance of stock, warrants or other securities or

rights to persons or entities with which the Company has business relationships provided such issuances are for other than primary equity financing purposes.

(e) The right of first refusal set forth in this Section 3.3 may not be assigned or transferred, except that (i) such right is assignable by each Major Investor to any wholly owned subsidiary or parent of, or to any corporation or entity that is, within the meaning of the Act, controlling, controlled by or under common control with, any such Major Investor, and (ii) such right is assignable between and among any of the Holders.

3.4. Board Representation and Observer Rights.

(a) Board Representation. The Board of Directors shall be, immediately following the Closing (as defined in the Stock Purchase Agreement), made up of Edward O. Lanphier II, John W. Larson, Michael Wood, William Gerber, Herbert Boyer, and one member to be chosen by the holders of a majority of Series B and Series C Preferred Stock (the "Series B/C Director"), who shall be reasonably acceptable to the holders of a majority of the Common Stock. With respect to the Series B/C Director, if requested, Lombard Odier & Cie hereby agrees to vote its shares of Series B and Series C Preferred Stock to elect as the Series B/C Director one person designated by Stephens Group, Inc. as long as Stephens Group, Inc. owns not less than fifty percent (50%) of the shares of the Series C Preferred Stock it holds upon the closing of its purchase of Series C Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof). Any vacancy occurring because of the death, resignation or removal of the Series B/C Director shall be filled according to this Section 3.4(a).

(b) Observer Rights. So long as Stephens Group, Inc. (i) owns not less than fifty percent (50%) of the shares of the Series C Preferred Stock it holds upon the closing of its purchase of Series C Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof) and (ii) does not appoint the Series C Director, the Company shall invite a representative of Stephens Group, Inc. to attend, either personally or telephonically, all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its directors; provided, however, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any portion of any meeting if access to such information or attendance thereat could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of confidential or proprietary information to such representative of if such Investor or its representative is a direct competitor of the Company.

3.5. Termination of Covenants. The covenants set forth in this Section 3 shall terminate and be of no further force or effect upon the consummation of the sale of securities pursuant to a registration statement filed by the Company under the Act in connection with the firm commitment underwritten offering of its securities to the general public.

4. Miscellaneous.

4.1. Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties (including transferees of any shares of Registrable Securities). Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

4.2. Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California.

4.3. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

4.4. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.5. Notices. All notices or other communications hereunder shall be in writing (including by facsimile transmission) and mailed, sent or delivered to the respective parties hereto at or to their respective addresses or facsimile numbers set forth below their names on the signature pages hereof, or at or to such other address or facsimile number as shall be designated by any party in a written notice to the other parties hereto. All such notices and other communications shall be effective (i) if delivered by hand, when delivered; (ii) if sent by mail, upon the earlier of the date of receipt or five business days after deposit in the mail, first class (or, if to international addresses, by express courier); and (iii) if sent by facsimile transmission, when sent.

4.6. Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

4.7. Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any Registrable Securities then outstanding, each future holder of all such Registrable Securities, and the Company.

4.8. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and

the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

4.9. Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

4.10. Entire Agreement; Amendment; Waiver. This Agreement (including the Schedules hereto) constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SANGAMO BIOSCIENCES, INC.

By:

Edward O. Lanphier II, President

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMMON STOCKHOLDER

Edward O. Lanphier II

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMMON STOCKHOLDER

Michael C. Wood

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES A PREFERRED STOCKHOLDER

John W. Larson

SANGAMO BIOSCIENCES, INC.
SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES B AND SERIES C PREFERRED
STOCKHOLDER

JAFCO CO., LTD

By:

Mitsumasa Murase, President

JAFCO R-3 INVESTMENT ENTERPRISE PARTNERSHIP
JAFCO JS-3 INVESTMENT ENTERPRISE PARTNERSHIP
JAFCO G-6 (A) INVESTMENT ENTERPRISE PARTNERSHIP
JAFCO G-6 (B) INVESTMENT ENTERPRISE PARTNERSHIP
JAFCO G-7 (A) INVESTMENT ENTERPRISE PARTNERSHIP
JAFCO G-7 (B) INVESTMENT ENTERPRISE PARTNERSHIP

By:

Mitsumasa Murase, President
JAFCO Co., Ltd.
Executive Partner

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES B AND SERIES C PREFERRED
STOCKHOLDER

LOMBARD ODIER & CIE

By:
Name: _____
Title: _____

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES C PREFERRED STOCKHOLDER

HALIFAX FUND LP

By: The Palladin Group L.P.
as Investment Manager

By:

Robert L. Chender

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES C PREFERRED STOCKHOLDER

STEPHENS-SANGAMO BIOSCIENCES LLC

By:

SANGAMO BIOSCIENCES, INC.
SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

SERIES C PREFERRED STOCKHOLDER

WILLIAM J. RUTTER

By:

SANGAMO BIOSCIENCES, INC.
SIGNATURE PAGE TO INVESTORS' RIGHTS AGREEMENT

SCHEDULE A

SCHEDULE OF HOLDERS

SERIES A PREFERRED STOCK

Holders	Shares of Series A Preferred Stock
Alan J. Cohen	25,000
Kenneth R. Kaszerman and Greg Moore	25,000
Robert W. Pittman	50,000
Joseph Abrams Family Partnership, ID #22-3191401	75,000
Peter Graf	100,000
Steven Richman	100,000
Peter M. Waldschutz	50,000
Barry M. Weintraub, M.D., Profit Sharing Plan DLJSC Cust fbo Barry M. Weintraub TTEE	25,000
Bart M. Pasternak	50,000
Altschul Investment Group	75,000
Arthur G. Altschul	25,000
John W. Larson	75,000
Thomas J. Marron	25,000
von Reis/Altschul Family Partnership	50,000

SERIES B PREFERRED STOCK

Holders	Shares of Series B Preferred Stock
JAFCO Co, Ltd.	200,000
JAFCO R-3 Investment Enterprise Partnership	136,986
JAFCO JS-3 Investment Enterprise Partnership	82,194
JAFCO G-6 (A) Investment Enterprise Partnership	123,287
JAFCO G-6 (B) Investment Enterprise Partnership	123,287
JAFCO G-7 (A) Investment Enterprise Partnership	167,123
JAFCO G-7 (B) Investment Enterprise Partnership	167,123
W. Patrick McMullan	16,667
Lawrence N. Lavine	16,667
Tusher Family Limited Partnership	33,820
Robert and Jill Greenman	84,548
UMB Bank, N.A. Trustee of the Brobeck, Phleger & Harrison LLP Retirement Savings Plan fbo John W. Larson	84,548
Jon D. and Linda Gruber	42,274
J. Wyatt Gruber	8,455
Lindsay D. Gruber	8,455
J. Patterson McBaine	16,910
Overbrook Fund I, LLC	45,656
Lombard, Odier & Cie	1,000,000
Lehman Brothers, Inc.	40,000

SERIES C PREFERRED STOCK

Holders	Shares of Series C Preferred Stock
JAFCO Co, Ltd.	222,223
Lombard, Odier & Cie	222,222
Halifax Fund L.P.	222,222
Stephens - Sangamo BioSciences LLC	1,000,000
William J. Rutter	333,333

SCHEDULE B

SCHEDULE OF STOCKHOLDERS

Name of Purchaser	Shares of Common Stock
Edward O. Lanphier II	1,645,000
Michael C. Wood	750,000

EXHIBIT 10.7

LICENSE AGREEMENT

THIS AGREEMENT is made as of January 11, 2000 between:

1. SANGAMO BIOSCIENCES, INC. incorporated in Delaware, United States of America, having an office at Point Richmond Tech Center, 501 Canal Blvd. Suite A100, Richmond, California 94840 (SANGAMO); and

2. BAXTER HEALTHCARE CORPORATION incorporated in Delaware, United States of America, having an office at 17221 Red Hill Avenue, Irvine, California, 92614-5686 (BAXTER).

RECITALS

A. SANGAMO is the owner or licensee of the Technology and Patent Rights (as defined in Clause 1.1. herein).

B. BAXTER wishes to received an exclusive license to use and exploit the Technology and Patent Rights to develop and commercialize zinc finger DNA binding protein and gene therapy products for activation of all vascular endothelial growth factors ("VEGF") and VEGF receptors for the treatment of ischemic cardiovascular and vascular disease in humans, and SANGAMO is willing to grant BAXTER such a license on the terms and conditions contained in this Agreement.

C. SANGAMO wishes to undertake research relating to the further development of its proprietary zinc finger binding protein and gene therapy technology and BAXTER wishes to fund such research to facilitate SANGAMO's ability to license such technology to BAXTER under the License Agreement. Therefore, BAXTER and SANGAMO have entered into a Research Funding Agreement, contemporaneously herewith.

IT IS AGREED as follows.

1. DEFINITIONS

The following definitions apply unless the context requires otherwise.

1.1 AFFILIATE with respect to an entity, means a person or entity which owns, is owned by or is under common ownership with the first-named entity. For the purposes of this definition, the term "owns" as used with respect to any person or entity means ownership (directly or indirectly) of at least fifty percent (50%) of the outstanding voting securities of a corporation or a comparable equity interest in another form of entity.

1.2 AGREEMENT means this License Agreement.

1.3 BAXTER INVENTIONS shall mean those Inventions independently conceived and/or reduced to practice, or written (as determined by United States patent or copyright law) solely by BAXTER or by an employee, consultant, agent or representative of BAXTER or by some other person obligated to assign their rights to such Invention to BAXTER or otherwise owned by BAXTER.

1.4 CONVERTIBLE DEBENTURES means a debenture issued by SANGAMO, substantially in the form of Schedule 3 hereto, accruing interest at the Prime Rate as published in the United States Western Edition of The Wall Street Journal under the heading "Money Rates" on the date of issuance, maturing on the fifth anniversary of the date of issuance, and convertible in accordance with its terms into capital stock of SANGAMO.

1.5 CROSS LICENSED PRODUCT shall mean product or device for which BAXTER or its Affiliate receives a (sub)license or other rights to commercialize in connection with the grant of a sublicense or other rights to commercialize a Licensed Product.

1.6 DEVELOPMENT COSTS shall mean, with respect to a Licensed Product, the sum of (a) the aggregate cash consideration actually paid by BAXTER to Third Parties to acquire licenses under pending patent applications or issued patents necessary in order to manufacture, having manufactured, import, use, sell and offer for sale such Licensed Product, plus (b) the aggregate out-of-pocket amounts (if any) actually paid by BAXTER to Third Parties to research and develop such Licensed Product for commercial sale, or to

acquire or develop the facilities, equipment, materials and processes needed for GMP manufacture of such Licensed Product. Whether or not a pending patent application, issued patent, facility, equipment, materials or process is needed for purposes of this Clause 1.5 shall be determined by the Steering Committee: provided, however, if the Steering Committee cannot reach agreement, the disagreement shall be resolved pursuant to Clause 12.

1.7 EFFECTIVE DATE means the date set forth on page 1, line 1 of this Agreement.

1.8 ELA means Establishment License Approval to manufacture any Licensed Product by USFDA, or its foreign equivalent in a Major Country.

1.9 FIELD means the use of zinc finger DNA binding proteins and nucleic acids that encode zinc finger DNA binding proteins for the activation of VEGF and VEGF receptors for the treatment and prevention of ischemic cardiovascular and vascular disease in humans.

1.10 FIELD OF RESEARCH shall mean the development of zinc finger DNA binding proteins and nucleic acids that encode zinc finger DNA binding proteins for the activation of VEGF and VEGF receptors for the treatment and prevention of ischemic cardiovascular and vascular disease in humans.

1.11 FIRST COMMERCIAL SALE means the initial arms length transfer in a Major Country by BAXTER or BAXTER'S sub-licensee of a Licensed Product to a purchaser that is not an Affiliate after the date of receiving the applicable regulatory approval to market the Licensed Product in such Major Country, in exchange for cash or some equivalent to which value can be assigned for the purpose of determining Net Sales.

1.12 GROSS PROFITS means the Net Sales of Licensed Products, less the sum of (a) the actual cost of raw materials and (b) the other production costs (allocated in accordance with generally accepted accounting principles consistently applied to all products produced by the producer) incurred in bringing the Licensed Products to the point of sale.

1.13 IND means Investigational New Drug application in the United States or its foreign equivalent in a Major Country, and a reference to the submission thereof is a reference to

the submission of such application with the USFDA or the equivalent submission with the applicable foreign regulatory authority of a Major Country.

1.14 INVENTION(S) as used herein shall include, without restriction or limitation, any and all devices, products, compositions or matter, chemical formulations, computer software, or processes (including without limitation processes for making or using devices or compositions of matter), whether patentable or unpatentable, and any and all written materials or other works which may be subject to copyright, which are reduced to practice, conceived or written during the term of the Research Funding Agreement and for ninety (90) days after it expires, and result from the performance of the Sponsored Research.

1.15 INVENTION PATENTS as used herein shall include any patent or patent application covering an Invention in any country (including any additions, divisions, continuations, continuations-in-part, reissues, re-examinations, inventors' certificates, registrations or extensions of the said patents or patent applications and any supplementary protection certificates issued in connection with any of the said patents or patent applications).

1.16 JOINT INVENTIONS shall mean those Inventions jointly conceived and/or reduced to practice, or written (as determined by United States patent or copyright law) by, on the one hand, either an employee, consultant, agent, or representative of SANGAMO or some other person obligated to assign their rights to such invention to SANGAMO, and, on the other hand, BAXTER or an employee, consultant, agent, or representative of BAXTER or by some other person obligated to assign their rights to such Invention to BAXTER, or otherwise jointly owned by SANGAMO and BAXTER.

1.17 JOINTLY INVENTED LICENSED PRODUCT shall mean a pharmaceutical product (in final dosage, packaged and labeled form) comprising a ZFP, the manufacture, use, offer for sale, sale or import of which falls within the scope of one or more claims of a pending patent application or issued and unexpired patent within the Inventions Patents covering Joint Inventions which has not been permanently revoked, held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and which has not been

admitted to be invalid or unenforceable through reissue or disclaimer or otherwise, provided that such product is not otherwise a Licensed Product.

1.18 JOINTLY INVENTED LICENSE COMBINATION PRODUCT shall mean any pharmaceutical product (in final dosage, packaged and labeled form) that consists of a Jointly Invented Licensed Product and parts of other products such as, for example, biological or mechanical drug delivery systems or vehicles, including but not limited to devices or biological systems for enhancing the performance of the Jointly Invented Licensed Product, the local delivery of the Jointly Invented Licensed Product, or the sustained expression of the Jointly Invented Licensed Product.

1.19 LICENSE FEE means any amount payable by BAXTER to SANGAMO pursuant to this Agreement.

1.20 LICENSED PRODUCT means any of a Jointly Invented Licensed ZFP Product, Jointly Invented Licensed ZFP Combination Product, Licensed ZFP Product or Licensed ZFP Combination Product. For clarification purposes, a Subsequent Licensed Product shall be a Licensed Product.

1.21 LICENSED ZFP PRODUCT means any pharmaceutical product (in final dosage, packaged and labeled form) comprising a ZFP, the manufacture, use, offer for sale, sale or import of which falls within the scope of one or more claims of a pending patent application or issued and unexpired patent within the Patent Rights, which has not been permanently revoked, held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and which has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise.

1.22 LICENSED ZFP COMBINATION PRODUCT means any pharmaceutical product (in final dosage, packaged and labeled form) that consists of the Licensed ZFP Product and parts of other products such as, for example, biological or mechanical drug delivery systems or vehicles, including but not limited to devices or biological systems for enhancing the

performance of the Licensed ZFP Product, the local delivery of the Licensed ZFP Product, or the sustained expression of the Licensed ZFP Product.

1.23 MAJOR COUNTRY means either the United States of American or any three countries of the European Union.

1.24 MARKETING APPROVAL means the granting of marketing approval for any Licensed Product by the USFDA or the applicable foreign regulatory authority in a Major Country.

1.25 NET SALES means gross invoiced sales price from sales of any Licensed Product by BAXTER, its Affiliate or sub-licensee of BAXTER to a purchaser that is not an Affiliate (other than to an Affiliate that is an end user), less reasonable and customary deductions for (a) transportation charges, including insurance relating thereto; (b) sales and excise taxes or customs duties paid by the party selling or distributing such Licensed Product or any other governmental charges imposed upon the sale or distribution of such Licensed Product; and (c) returns, or allowances in lieu of returns, quantity discounts, cash discounts or chargebacks actually granted, allowed or incurred in the ordinary course of business in connection with the sale or distribution of such Licensed Product. Notwithstanding the foregoing, if BAXTER does not receive in the ordinary course of business, from an Affiliate to whom BAXTER sells or otherwise transfers a Licensed Product for resale in any country, the foregoing itemized gross sales and deductions data regarding a Licensed Product, then "Net Sales" shall mean, with respect to such Affiliate and such Licensed Product (on a per unit basis) sold in such country, the average per unit sales price, less the above types of deductions (the "average net sales price"), by such Affiliate of such Licensed Product in such country (if reported) or otherwise in the geographic region in which such country is located; provided, however, that the average net sales price shall be calculated in accordance with generally accepted accounting principles consistently applied in the United States, shall be the same as the average net sales price by such Affiliate in such country or region (as applicable) used for purposes of preparing BAXTER's consolidated financial statements, and shall not materially differ from the calculation of Net Sales by BAXTER itemized above.

1.26 NET SUBLICENSE REVENUES shall mean, with respect to a Licensed Product, the Sublicense Revenues for such Licensed Product, less the sum of (a) fifty percent (50%) of the aggregate milestone payments actually paid to SANGAMO pursuant to Clauses 4.2.1(b) and 4.2.1(c) for such Licensed Product, (b) two hundred percent (200%) of the aggregate royalties actually paid to SANGAMO pursuant to Clause 4.3.1 for such Licensed Product, and (c) fifty percent (50%) of the Development Costs for such Licensed Product.

1.27 PATENT RIGHTS means (i) the SANGAMO Patent Applications, (ii) any patent or patent application owned by or licensed to SANGAMO which discloses or claims a ZFP or methods of producing or using ZFP in the Field, and (iii) any patent subsequently issued on any or all of (i) or (ii) in any country (including any additions, divisions, continuations, continuations-in-part, reissues, re-examinations, inventors' certificates, registrations or extensions of the said patents or patent applications and any supplementary protection certificates issued in connection with any of the said patents or patent applications), in each case that are owned by SANGAMO or licensed to SANGAMO with the right to grant sublicenses during the term of this Agreement.

1.28 PHASE 1 CLINICAL TRIALS has the same meaning as the term has in the United States Code of Federal Regulations or its foreign equivalent in a Major Country.

1.29 PHASE 2 CLINICAL TRIALS has the same meaning as that term in the United States Code of Federal Regulations or its foreign equivalent in a Major Country.

1.30 PHASE 3 CLINICAL TRIALS has the same meaning as that term has in the United States Code of Federal Regulations or its foreign equivalent in a Major Country.

1.31 RESEARCH FUNDING AGREEMENT shall mean the Research Funding Agreement entered into between BAXTER and SANGAMO contemporaneously herewith (as amended or restated from time to time).

1.32 SANGAMO INVENTIONS shall mean those Inventions independently conceived and/or reduced to practice, or written (as determined by United States patent or copyright law) solely by SANGAMO or by an employee, consultant, agent or representative of

SANGAMO or by some other person obligated to assign their rights so such Inventions to SANGAMO or otherwise owned by SANGAMO.

1.33 SANGAMO PATENT APPLICATIONS means any patents and patent applications described in Schedule 1.

1.34 SPONSORED RESEARCH shall mean those research activities to be performed within the Field Of Research, and in accordance with a Research Plan specifically set forth in Exhibit A to the Research Funding Agreement.

1.35 STEERING COMMITTEE means the Committee appointed pursuant to clause 7.2.1.

1.36 SUBLICENSE REVENUES shall mean, with respect to a Licensed Product, the aggregate cash consideration, plus the fair market value of the aggregate cash equivalents and securities, owing to BAXTER and its Affiliates in connection with the grant of such sublicense or other rights to commercialize such Licensed Product. If the parties fail to reach mutually acceptable agreement on the fair market value of any such cash equivalents or securities, the disagreement shall be resolved in accordance with Clause 12.

1.37 SUBSEQUENT LICENSED PRODUCT shall mean a Licensed Product that comprises a ZFP intended for use in the treatment or prevention of a clinical indication in the Field, other than coronary or peripheral vascular disease, and that is different than any Licensed Product which previously reached the point of First Commercial Sale.

1.38 TECHNOLOGY means any and all technical data, information, materials, know-how and trade secrets (including but not limited to, the biological materials and other materials used by SANGAMO for purifying or producing ZFPs), regarding ZFPs or methods of purifying, producing, or using ZFPs in the Field, which is owned by SANGAMO or licensed to SANGAMO with the right to grant sublicenses during the term of this Agreement.

1.39 TERRITORY means the entire world.

1.40 THIRD PARTY means any party other than SANGAMO or BAXTER.

1.41 USFDA means the Food and Drug Administration of the United States of America.

1.42 ZFP means any zinc finger DNA binding protein, or any nucleic acid that encodes for a zinc finger DNA binding protein, that is developed, licensed or acquired by SANGAMO for use in the Field pursuant to the Research Funding Agreement or this Agreement.

2. REPRESENTATIONS AND WARRANTIES

2.1 PATENT MATTERS

(a) As of the Effective Date:

(i) SANGAMO warrants and represents that, except as SANGAMO otherwise has advised BAXTER in writing prior to the Effective Date, it has not received written notice from any Third Party that any composition, process or use claimed by the Patent Rights infringes an issued patent of such Third Party;

(ii) SANGAMO warrants and represents that (A) it has conducted searches of public databases for issued patents and published Third Party patent applications that contain the words "zinc finger" or "nucleic acid binding proteins" in the title or abstract, and (B) that it has disclosed to BAXTER all issued patents and published Third Party patent applications that have been disclosed to SANGAMO in the results of such searches.

(iii) SANGAMO warrants and represents that it has no actual knowledge (without any duty of inquiry) of any current action conducted by a Third Party which is or would constitute an infringement of the Patent Rights in the Field;

(iv) BAXTER has had the opportunity to review such materials and to ask such questions of SANGAMO and its advisors, as BAXTER deems necessary or appropriate, regarding the Patent Rights. SANGAMO warrants and represents that such materials provided to BAXTER and responses to such inquiries did not contain any untrue statement of a

material fact or omit to state any material fact necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading; and

(v) SANGAMO warrants and represents that it has reviewed its intellectual property portfolio and believes that there are no other patents or patent applications owned by SANGAMO or licensed to SANGAMO with the right to grant sublicenses which would be infringed in the practice of the Patent Rights in the Field in the Territory. Should it later eventuate that any patent or patent application, that as of the Effective Date is owned by SANGAMO or licensed to SANGAMO with the right to grant sublicenses, would be infringed in the practice of the Patent Rights in the Field in the Territory, then that patent or patent application shall be deemed to be licensed to BAXTER as part of the Patent Rights under this Agreement but only to the extent necessary for BAXTER to exercise the license rights granted to it under this Agreement.

2.2 OTHER SANGAMO REPRESENTATIONS AND WARRANTS

(a) SANGAMO warrants and represents regarding the Patent Rights and Technology, that it owns or has a license to the Patent Rights and Technology, that it has the legal power to extend the rights granted to BAXTER under this Agreement, that this Agreement constitutes a binding agreement enforceable against SANGAMO in accordance with its terms, and that it has not made any commitments to others regarding ZFP in respect of the Patent Rights and/or Technology in the Field that would conflict with such rights.

(b) SANGAMO warrants and represents that it has disclosed to BAXTER all technical data and other information owned or known by SANGAMO as of the Effective Date regarding the safety and efficacy of zinc finger DNA binding proteins in the Field.

2.3 BAXTER REPRESENTATIONS AND WARRANTIES

BAXTER warrants and represents that it has the legal power to enter into this Agreement, that this Agreement constitutes a binding agreement enforceable against BAXTER in accordance with its terms, and that is has not made any commitments to others that would conflict with its obligations under this Agreement.

3. LICENSE AND OPTION

3.1 GRANT OF LICENSE AND OPTION

(a) The parties hereby acknowledge that, pursuant to the Research Funding Agreement, BAXTER has assigned to SANGAMO any and all of its rights to BAXTER Inventions and to Joint Inventions, including all rights under the patent, copyright and other intellectual property laws of the United States or any other country.

(b) SANGAMO hereby grants to BAXTER an exclusive license including the right to sub-license pursuant to Clause 3.2 under the Patent Rights, the Technology, and under Invention Patents and Inventions (other than Inventions Patents to the extent they claim BAXTER Inventions, and other than BAXTER Inventions) to manufacture, have manufactured, import, use, sell and offer for sale Licensed Products for use in the Field throughout the Territory for the term of this Agreement. During the term of this Agreement, SANGAMO shall not grant to any Third Party any license under the Patent Rights, technology, Invention Patents or Inventions for use in the Field in the Territory.

(c) SANGAMO hereby grants to BAXTER an exclusive, perpetual, royalty-free license, including the exclusive right to sub-license, under the Invention Patents to the extent they claim BAXTER Inventions and under BAXTER Inventions for all purposes throughout the Territory; provided, however, that SANGAMO reserves the right thereunder to conduct its obligations and exercise its rights under this Agreement.

(d) SANGAMO hereby grants to BAXTER a non-exclusive, perpetual, royalty-free license, including the right to sub-license, under the Invention Patents to the extent they claim Joint Inventions and under Joint Inventions for all purposes throughout the Territory for the term of this Agreement, other than to manufacture, have manufactured, import, use, sell and offer for sale Licensed Products for use in the Field throughout the Territory for the term of this Agreement.

(e) SANGAMO hereby grants to BAXTER the exclusive option, exercisable for a period of eighteen (18) months after the Effective Date, to purchase a Convertible Debenture having a face amount of Seven Million Five Hundred Thousand Dollars ($7,500,000) pursuant to a Convertible Debenture Purchase Agreement substantially in the form of the similar agreement between the parties entered into concurrently herewith. Such option is exercisable by BAXTER giving express written notice to SANGAMO of its desire to exercise such option, and paying to SANGAMO the sum of Seven Million Five Hundred Thousand Dollars ($7,500,000) prior to the expiration of such option. If BAXTER timely exercises such option and purchases such Convertible Debenture, SANGAMO shall grant to BAXTER a right of first refusal, for a period of three (3) years after the date of the issuance of such Convertible Debenture, to obtain an exclusive license under the Patent Rights and the Technology for use throughout the Territory in the field of treatment and prevention of any and all cardiovascular and vascular disease in humans, including, but not limited to, pro-angiogenic therapies, anti-restenosis and congestive heart failure.

(f) BAXTER shall not use the Patent Rights, Technology, Invention Patents or Inventions for any purpose for which it is not expressly licensed hereunder.

(g) Except as otherwise expressly set forth in this Agreement, neither party grants to the other party any license, immunity or other right under the such party's patent rights, other intellectual property rights or technology, whether by implication or otherwise, for any purpose.

(h) If BAXTER becomes aware of any pending patent applications or issued patents of a Third Party that claim ZFPs or their use in the Field, BAXTER promptly shall advise SANGAMO thereof. As between BAXTER and SANGAMO, SANGAMO shall have the first right, but not the obligation (at its option in its sole discretion), to obtain a license from such Third Party under such pending patent applications and issued patents, and shall use its commercially reasonable efforts to obtain a license (with the right to grant a sublicense to BAXTER) for use in the Field, in each case on terms and conditions acceptable to SANGAMO. If SANGAMO obtains such a license (with the right to grant a sublicense to BAXTER) for use in the Field, then such pending patent applications and issued patents shall be subject to this Agreement. If SANGAMO elects not to seek, or fails to obtain, such a license (with the right to grant a sublicense to BAXTER) for use in the Field, then BAXTER shall have the right, but not the obligation (at its option in its sole discretion), to obtain a license from such Third Party under such pending patent applications and issued patents on terms and conditions acceptable to BAXTER.

3.2 CERTAIN RESTRICTIONS ON SUB-LICENSES

BAXTER's right to sublicense the rights granted under Clauses 3.1 to a Third Party shall be subject to the following:

(a) BAXTER shall inform SANGAMO of any sublicense under Clauses 3.1 and shall provide SANGAMO, after the grant of such sublicense, a copy of such sublicense subject to the confidentiality provisions of this Agreement; and

(b) Any sublicense granted under Clauses 3.1 shall be subject to the terms and conditions of this Agreement and shall have terms and conditions which are consistent with the terms and conditions of this Agreement.

3.3 DESIGN OF ZFPS AFTER THE SPONSORED RESEARCH

(a) At any time during the term of this Agreement after the termination of the Research Funding Agreement, upon the reasonable request of BAXTER,

SANGAMO shall design, assemble and characterize (or cause to be designed, assembled or characterized) one or more zinc finger DNA binding proteins for the activation of VEGF or VEGF receptors for the treatment or prevention of ischemic cardiovascular and vascular disease in humans, in addition to those developed under the Sponsored Research, and shall deliver to BAXTER such zinc finger DNA binding protein and/or the nucleic acid that encodes therefor. On or after delivery of such zinc finger DNA binding protein and/or the nucleic acid, SANGAMO shall invoice BAXTER an amount not to exceed * * * * * * of the fully-burdened cost to SANGAMO therefor, and BAXTER shall pay such invoice promptly following receipt of such invoice.

(b) The parties hereto expressly acknowledge and agree that the intellectual property licensed to BAXTER by this Agreement is unique and unavailable from any source other than SANGAMO and that in the event of SANGAMO's breach of its obligations under Paragraph 3.3 or of the exclusivity of the rights granted to BAXTER hereunder, money damages will not adequately compensate BAXTER for the losses that it would sustain due to BAXTER's inability to then realize the benefit of this Agreement. Therefore, the parties expressly acknowledge and agree that, in the event of such uncured breach, BAXTER shall be entitled to equitable relief in the form of specific performance or other mandatory or prohibitory injunction in order to allow BAXTER to enforce such terms of this Agreement to either require SANGAMO to design, assemble and characterize (or cause to be designed, assembled or characterized) one or more zinc finger DNA binding proteins for the activation of VEGF or VEGF receptors for the treatment or prevention of ischemic cardiovascular and vascular disease in humans, or, at BAXTER's option, the right of BAXTER itself to design, assemble and characterize one or more zinc finger DNA binding proteins for the activation of VEGF or VEGF receptors for the treatment or prevention of ischemic cardiovascular and vascular disease in humans; provided, however, that the subsequent making, using, offering for sale, selling or importing of such zinc finger DNA binding proteins shall be limited to the scope of the license granted hereunder. If the event of such uncured breach, upon the written request of

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

BAXTER, SANGAMO shall promptly deliver to BAXTER any intellectual property and/or know-how or any other information which is in the control of SANGAMO and which BAXTER reasonably needs or requires to allow BAXTER itself to design, assemble and characterize zinc finger DNA binding proteins and/or the nucleic acid that encodes therefor; provided, however, that the subsequent making, using, offering for sale, selling or importing of such zinc finger DNA binding proteins shall be limited to the scope of the licenses granted hereunder. BAXTER shall be relieved from any payment obligation to SANGAMO under Paragraph 3.3 for zinc finger DNA binding proteins which BAXTER designs, assembles or characterizes after such uncured breach.

3.4 TRANSFER OF CERTAIN MATERIALS

Upon request, SANGAMO shall deliver to BAXTER the materials (including but not limited to biological materials such as cell lines, master cell banks, transformed vectors and antibodies) and information that (a) are owned by SANGAMO or licensed to SANGAMO with the right to grant sublicenses, and (b) are needed for GMP production and/or purification of ZFP, or improve the yield of production, increase the purity or decrease the cost of production of ZFP (based on SANGAMO's then current state of the art). Such materials and information shall be included within the definition of Technology and shall be subject to the licenses granted by SANGAMO to BAXTER hereunder.

4. PAYMENTS BY BAXTER

4.1 METHOD OF PAYMENT

All payments due by BAXTER to SANGAMO pursuant to this Agreement shall be payable in the currency of the United States of America and shall be paid by wire transfer into such accounts as SANGAMO may direct.

4.2 CONVERTIBLE DEBENTURE AND MILESTONE PAYMENTS

4.2.1 In consideration for the rights acquired under this Agreement:

(a) On or before January 21, 2000, BAXTER shall pay to SANGAMO the sum of Five Million Dollars ($5,000,000) in consideration for the purchase of a Convertible Debenture having a face amount of Five Million Dollars ($5,000,000).

(b) Within thirty (30) days of the first achievement of each of the following events or the respective date described, BAXTER shall pay SANGAMO the following milestone payments:

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* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

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(c) With respect to each Subsequent Licensed Product, within thirty (30) days of achievement of each of the following events or the respective date described, BAXTER shall pay to SANGAMO the following milestone payments:

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4.2.2 For purposes of this Agreement, * * * * *
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4.2.3 In the event that BAXTER must license from a Third Party one or more pending patent applications or issued patents in order to manufacture, have manufactured, import, use, sell and offer for sale a Licensed Product in any country for use in the Field, BAXTER shall have the right to credit all up-front license payments and milestone payments actually paid to such Third Party against up to * * * * of each milestone payment owing to SANGAMO under Clause 4.2.1(b)(iv), (v) and (vi) and Clause 4.2.1(c) with respect to such Licensed Product. If the parties disagree whether or not a pending patent application or issued patent is consistent with the requirement set forth in this Clause 4.2.3, the disagreement shall be resolved pursuant to Clause 12.

4.2.4 The calendar dates described in Clauses 4.2.1(b)(i), (ii), (iii) and (iv) will be subject to review, and revision if appropriate, by the Steering Committee as follows. The Steering Committee shall determine the appropriateness of such

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calendar dates for the achievement of the applicable milestone events in light of the technical and commercial feasibility of the particular ZFP molecule being pursued at the time, and if appropriate, shall adjust such calendar dates as agreed by the Steering Committee.

4.3 LICENSE FEE - ROYALTY

4.3.1 In addition to the payments set out in Clause 4.2, and subject to Clause 4.4, BAXTER shall pay to SANGAMO the following royalties based on Net Sales:

(a) A royalty equal to * * * of Net Sales of Licensed ZFP Product, and a royalty equal to * * * of Net Sales of Licensed ZFP Combination Product.

(b) A royalty equal to * * * of Net Sales of Jointly Invented Licensed Product and a royalty equal * * * of Net Sales of Jointly Invented Licensed Combination Product.

(c) In addition to the royalties set out in Clauses 4.2.1(a) and (b), for a period of five (5) years after the First Commercial Sale of each Subsequent Licensed Product, an additional royalty equal * * * * of Net Sales of such Subsequent Licensed Product.

4.3.2 In addition to the payments set out in Clauses 4.2 and 4.3.1, if BAXTER grants to a Third Party a sublicense or other rights to commercialize a Licensed Product prior to the first administration of such Licensed Product to the first enrolled and evaluable patient in the first Phase 3 Clinical Trial for such Licensed Product, BAXTER shall pay to SANGAMO the following royalties:

(a) A royalty equal to * * * of Net Sublicense Revenues of such Licensed Product.

(b) A royalty equal to * * * of Net Sales of any Cross Licensed Product for which BAXTER or its Affiliate receives any (sub)license or other rights to commercialize in connection with the grant of such sublicense or other rights to

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commercialize such Licensed Product. Baxter shall calculate, report and pay the royalties for such Cross Licensed Product hereunder in the same manner as if such Cross Licensed Product were a Licensed Product hereunder.

4.3.3 The payments due by BAXTER to SANGAMO pursuant to Clauses 4.3.1 and 4.3.2 shall be made to SANGAMO within sixty (60) days of the end of each calendar quarter, and each such payment shall be accompanied by a reasonably detailed written report containing the calculation of the payment due to SANGAMO for said calendar quarter. With respect to sales of Licensed Products invoiced in United States dollars, the Net Sales, Net Sublicense Revenues and royalties payable shall be expressed in United States dollars. With respect to sales of Licensed Products invoiced in a currency other than United States dollars, the Net Sales, Net Sublicense Revenues and royalties payable shall be expressed in the domestic currency of the party making the sale together with the United States dollar equivalent of the royalty payable, calculated using the average closing buying rate for such currency quoted in the United States Western Edition of The Wall Street Journal under the heading "Currency Trading -- Exchange Rates" on last day of each month during said calendar quarter.

4.4 ROYALTY ADJUSTMENTS

(a) In the event that BAXTER must license from a Third Party one or more pending patent applications or issued patents that claim a ZFP or the method of making or using a ZFP in any country in the Field, BAXTER shall have the right to credit one hundred percent (100%) of such Third Party royalty payments based upon sales of such Licensed Product in such country against the royalties owing to SANGAMO under Clause 4.3.1(a) above with respect to sales of such Licensed Product in such country; provided, however, that BAXTER shall not reduce, pursuant to Clauses 4.4(a) and (b), the amount of the royalties paid to SANGAMO under Clause 4.3.1(a) above, with respect to sales of such Licensed Product in such country, to less than * * * of Net Sales of such Licensed Product in such country.

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(b) In the event that BAXTER must license from a Third Party one or more pending patent applications or issued patents (other than those described in Clause 4.4(a)) in order to manufacture, have manufactured, import, use, sell and offer for sale a Licensed Product in any country for use in the Field. BAXTER shall have the right to credit fifty percent (50%) of such Third Party royalty payments based upon sales of such Licensed Product in such country against the royalties owing to SANGAMO under Clause 4.3.1(a) above with respect to sales of such Licensed Product in such country; provided, however, that BAXTER shall not reduce, pursuant to Clauses 4.4(a) and (b), the amount of the royalties paid to SANGAMO under Clause 4.3.1(a) above, with respect to sales of such Licensed Product in such country, to less than * * * of Net Sales of such Licensed Product in such country.

(c) BAXTER shall allow representatives of SANGAMO to examine any licenses that BAXTER asserts justify the adjustment of royalties to verify that any adjustments made pursuant to this Clause 4.4 are consistent with the requirement set forth in this Clause 4.4. SANGAMO's representatives shall not copy the license or licenses and must keep confidential all information, including royalty rates, pertaining to the license or licenses. If the parties disagree whether or not a pending patent application or issued patent is consistent with the requirement set forth in this Clause 4.4, the disagreement shall be resolved pursuant to Clause 12.

(d) If the manufacture, use, offer for sale, sale or import of any Licensed Product does not fall within the scope of one or more claims of an issued and unexpired patent within the Patent Rights or Inventions Patents (other than Inventions Patents to the extent they claim only BAXTER Inventions), then the royalties owing under Clause 4.3.1 shall be reduced by one-half and shall be payable only for a period of five (5) years after the First Commercial Sale of such Licensed Product; provided, however, at such later time as the manufacture, use, offer for sale, sale or import of any Licensed Product falls within the scope of one or more claims of an issued and unexpired patent within the Patent Rights or Inventions Patents that was pending on the date of the First Commercial Sale thereof (other

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than Inventions Patents to the extent they claim only BAXTER Inventions), then the royalties owing under Clause 4.3.1 shall resume in full.

4.5 Records

(a) BAXTER shall keep, and shall cause any person to whom it has granted a sublicense pursuant to Clause 3.2 to keep, for a minimum of five (5) years, complete records of all matters which are relevant for determining the License Fees which are to be paid to SANGAMO pursuant to this Agreement.

(b) Upon the written request of SANGAMO and not more than once in each calendar year, BAXTER shall permit an independent certified public accounting firm of nationally recognized standing, selected by SANGAMO and reasonably acceptable to BAXTER, at SANGAMO's expense, to have access during normal business hours to such of the records of BAXTER as may be reasonably necessary to verify the accuracy of the royalty reports hereunder for any year ending nor more than thirty-six (36) months prior to the date of such request. The accounting firm shall disclose to SANGAMO only whether the records are correct or not and the specific details concerning any discrepancies. No other information shall be shared. If such accounting firm concludes that additional royalties were owed during such period, BAXTER shall pay the additional royalties within thirty (30) days of the date SANGAMO delivers to BAXTER such accounting firm's written report so concluding. The fees charged by such accounting firm shall be paid by SANGAMO; provided, however, if the audit discloses that the royalties payable by BAXTER for the audited period are more than one hundred five percent (105%) of the royalties actually paid for such period, then BAXTER shall pay the reasonable fees and expenses charged by such accounting firm.

5. OBLIGATIONS OF SANGAMO AND BAXTER

5.1 SANGAMO OBLIGATIONS

SANGAMO undertakes the following obligations as part of entering this Agreement:

(a) To enter into a Research Funding Agreement with BAXTER, which will be executed contemporaneously with this Agreement and undertake the activities described therein in a timely manner;

(b) To deliver to BAXTER the ZFP product, molecule design, and package design (as described in Schedule 2) and complete pre-clinical testing to demonstrate the performance and activity of ZFP (as described in Schedule 2), and to use its commercially reasonable efforts to do so on or before April 1, 2001;

(c) To disclose to BAXTER all technical data and other information owned or known by SANGAMO, that was not previously disclosed to BAXTER, regarding the safety and efficacy of the ZFPs in the Field.

(d) To assist BAXTER in assessing as to competency and price, and recommend to the Steering Committee, the preferred manufacturer of GMP grade ZFP for clinical trial and commercial purposes;

(e) To develop and deliver to BAXTER processes for preclinical production of ZFPs and procedures for the testing of ZFPs comprising Licensed Products as are reasonably necessary for the clinical development, the regulatory approval to manufacture and sell and the commercial sale of Licensed Products hereunder.

(f) If requested by BAXTER, (i) to transfer to a manufacturer, who is acceptable to the Steering Committee, has the expertise to produce GMP grade material and has been granted a manufacturing sublicense from BAXTER hereunder, such Technology as reasonably necessary for the manufacture of GMP grade ZFP for clinical trial and commercial purposes, and (ii) to provide such reasonable technical assistance to such manufacturer regarding the use of such Technology to permit such manufacturer to develop appropriate processes for the manufacture of GMP grade ZFP for clinical trial and commercial purposes;

(g) To produce and supply to BAXTER ZFPs of appropriate quality and in reasonably requested quantities sufficient to support BAXTER's preclinical testing activities required by the appropriate regulatory authorities; and

(h) If requested by BAXTER, to reasonably assist BAXTER in the preparation, filing and prosecution of all filings and submissions to obtain Marketing Approval and ELA for Licensed Products.

5.2 BAXTER OBLIGATIONS

BAXTER undertakes the following obligations as part of entering this Agreement:

(a) To enter into a Research Funding Agreement with SANGAMO, which will be executed contemporaneously with this Agreement and to undertake the activities described therein in a timely manner;

(b) To consult and collaborate with SANGAMO to determine the clinical and regulatory requirements and strategy;

(c) To consult and collaborate with SANGAMO on the production and manufacture of ZFP;

(d) To undertake, at its sole cost, the performance of all animal pre-clinical testing, clinical development, regulatory activities and manufacture as are required for the commercialization of Licensed Products in the Territory for use in the Field in accordance with the provisions of Clause 7.1; and

(e) To be primarily responsible, with the reasonable assistance of SANGAMO, for the preparation, filing and prosecution of all filings and submissions to obtain Marketing Approval and ELA for Licensed Products.

6. INTELLECTUAL PROPERTY

6.1 INFRINGEMENT BY THIRD PARTIES

(a) A party shall promptly notify the other party in writing of any alleged or threatened substantial and continuing infringement within the Field of any patent included within the Patent Rights or Invention Patents of which such party becomes aware.

(b) BAXTER shall have the right to bring and control any action or proceeding with respect to such alleged or threatened infringement of patents covering BAXTER Inventions or Joint Inventions within the Field, where such infringement does not also constitute infringement of the Patent Rights (BAXTER PROCEEDING) at its own expense and represented by legal advisers of its own choice.

(i) In the event BAXTER brings a BAXTER Proceeding or in the event an action is brought by a Third Party for a declaratory judgment that any of the patents covering BAXTER Inventions or Joint Inventions are not infringed or invalid (BAXTER ACTION), SANGAMO shall co-operate reasonably with BAXTER including, if required, undertaking any action or agreeing to be joined as a party to such BAXTER Proceeding or BAXTER Action, the reasonable costs of which shall be at BAXTER's expense;

(A) SANGAMO shall retain the right to be represented by legal advisers of its own choice at its expense.

(B) BAXTER shall keep SANGAMO fully informed of the status of such BAXTER Proceeding or BAXTER Action on a regular basis or, as reasonably requested by SANGAMO, from time to time.

(C) In the event BAXTER brings a BAXTER Proceeding pursuant to Clause 6.1(b), BAXTER shall be entitled to retain * * * * of the balance of any recovery, after reimbursement of reasonable attorneys' fees and costs incurred by BAXTER (or for which BAXTER is required to reimburse SANGAMO) in such BAXTER Proceeding, realized as a result of such BAXTER Proceeding, and shall remit to SANGAMO the other * * * * .

(ii) In the event SANGAMO notifies BAXTER in writing of any infringement of patents covering Joint Inventions within the Field referred to in

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Clause 6.1(b) and BAXTER fails to commence a BAXTER Proceeding within a reasonable time of being so notified by SANGAMO, provided that such time shall not, in any event, exceed one hundred and eighty (180) days, SANGAMO may commence a proceeding at its own expense and may be represented by legal advisers of its own choice. In the event SANGAMO brings such a proceeding, BAXTER shall provide all reasonable assistance to SANGAMO, at SANGAMO's expense, in relation to such proceeding and the terms set out in Clause 6.1(b) shall apply as if BAXTER were SANGAMO and SANGAMO were BAXTER.

(iii) In the event SANGAMO brings a proceeding pursuant to Clause 6.1(b)(ii), SANGAMO shall be entitled to retain * * * * * * of the balance of any recovery, after reimbursement of reasonable attorneys' fees and costs incurred by SANGAMO (or for which SANGAMO is required to reimburse BAXTER) in such proceeding, realized as a result of such proceeding, and shall remit to BAXTER the other * * * * * .

(c) SANGAMO shall have the right to bring and control any action or proceeding with respect to such alleged or threatened infringement of Patent Rights or patents covering SANGAMO Inventions within the Field (SANGAMO PROCEEDING) at its own expense and represented by legal advisers of its own choice.

(i) In the event SANGAMO brings a SANGAMO Proceeding or in the event an action is brought by a Third Party for a declaratory judgment that any of the Patent Rights or patents covering SANGAMO Inventions are not infringed or invalid (SANGAMO ACTION), BAXTER shall co-operate reasonably with SANGAMO including, if required, undertaking any action or agreeing to be joined as a party to such SANGAMO Proceeding or SANGAMO Action, the reasonable costs of which shall be at SANGAMO's expense;

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(A) BAXTER shall retain the right to be represented by legal advisers of its own choice at its own expense.

(B) SANGAMO shall keep BAXTER fully informed of the status of such SANGAMO Proceeding or SANGAMO Action on a regular basis or, as reasonably requested by BAXTER, from time to time.

(C) In the event SANGAMO brings a SANGAMO Proceeding pursuant to Clause 6.1(c), SANGAMO shall be entitled to retain * * * * of the balance of any recovery, after reimbursement of reasonable attorneys' fees and costs incurred by SANGAMO (or for which SANGAMO is required to reimburse BAXTER) in such SANGAMO Proceeding, realized as a result of such SANGAMO Proceeding, and shall remit to BAXTER the other * * * * *.

(ii) In the event BAXTER notifies SANGAMO in writing of any infringement referred to in Clause 6.1(c) and SANGAMO fails to commence a SANGAMO Proceeding within a reasonable time of being so notified by BAXTER, provided that such time shall not, in any event, exceed one hundred and eighty (180) days, BAXTER may commence a proceeding at its own expense and may be represented by legal advisers of its own choice. In the event BAXTER brings such a proceeding, SANGAMO shall provide all reasonable assistance to BAXTER, at BAXTER's expense, in relation to such proceeding and the terms set out in Clause 6.1(c) shall apply as if SANGAMO were BAXTER and BAXTER were SANGAMO.

(iii) In the event BAXTER brings a proceeding pursuant to Clause 6.1(c)(ii), BAXTER shall be entitled to retain * * * of the balance of any recovery, after reimbursement of reasonable attorneys' fees and costs incurred by BAXTER (or for which BAXTER is required to reimburse SANGAMO) in such proceeding, realized as a result of such

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proceeding, and shall remit to SANGAMO the other * * * * .

6.2 INFRINGEMENT OF THIRD PARTY RIGHTS

6.2.1 Each party shall promptly notify the other parties in writing in the event that any allegation of infringement of any Third Party patent is raised by reason of the exercise by BAXTER or any of its sublicensees of any rights pursuant to Clause 3.1 or 3.2 (ALLEGED THIRD PARTY PATENT RIGHTS). In the event that such an action is brought by a Third Party against BAXTER or any of its sublicensees of any rights pursuant to Clause 3.1 or 3.2, BAXTER, or any sub-licensee of BAXTER, as may be determined by BAXTER, shall have the right to control any defense of any such action, at its own expense, and to be represented by legal advisers of its own choice, and SANGAMO shall have the right, at its own expense, to be represented in any such action by legal advisers of its own choice. In the event of any infringement or alleged infringement of any Alleged Third Party Patent Rights, SANGAMO shall co-operate in good faith with BAXTER or any sublicensee of BAXTER (as the case may be) on a reasonable basis to negotiate and settle any dispute with a Third Party in relation to such infringement or alleged infringement of any Alleged Third Party Patent Rights, and to otherwise resolve any such infringement or alleged infringement and secure BAXTER's continued rights to the Alleged Third Party Patent Rights, if necessary or desirable.

6.2.2 In the event that such an action is brought by a Third Party against BAXTER alleging the infringement by BAXTER, its Affiliate or sublicensee of any Third Party patent by reason of the manufacture, import, use, sale or offer for sale of a Licensed Product in any country for use in the Field, BAXTER shall be entitled to retain up to * * * of the license fees to be paid to SANGAMO pursuant to Clauses 4.2.1(b)(iv), (v) and (vi) and Clause 4.2.1(c) with respect to such Licensed Product, and up to * * * of the royalties to be paid to SANGAMO pursuant to Clause 4.3.1(a) with respect to

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such Licensed Product, and to use such monies to pay for, or defray, the costs of defending such action for alleged infringement of such Third Party patents and to pay damages, reasonable attorneys' fees, or other costs resulting from such litigation until BAXTER has recovered all of its costs. During the pendency of such action for alleged infringement of such Third Party patents, BAXTER shall submit quarterly written reports showing royalties accruing to SANGAMO and the expenses of defending itself against such claims of alleged infringement. Upon termination of all proceedings or actions involving such defense, BAXTER shall remit the unused balance, if any, of the license fees and royalties accrued but not yet paid to SANGAMO. Notwithstanding anything to the contrary in this Agreement, (a) BAXTER shall not be entitled to reduce the amount of any license fee owing to SANGAMO under Clauses 4.2.1(b)(iv), (v) and (vi) or Clause 4.2.1(c) with respect to such Licensed Product by more than * * * in the aggregate under this Clause 6.2.2 and Clause 4.2.3, and (b) BAXTER shall not be entitled to reduce the amount of any royalties owing to SANGAMO under Clause 4.3.1(a) with respect to such Licensed Product to less than * * * of Net Sales of such Licensed Product after giving effect to this Clause 6.2.2 and Clause 4.4.

6.3 PROSECUTION AND MAINTENANCE OF PATENT RIGHTS AND INVENTION PATENTS

(a) Except as further provided herein, SANGAMO shall be responsible, at its sole cost, for filing and prosecuting to issuance patent applications, for filing and prosecuting all patent re-issues and re-examinations, for applying for and obtaining any patent term extensions, and for paying all maintenance fees on all patents, relating to the Patent Rights and the Inventions Patents (other than Inventions Patents that claim BAXTER Inventions). SANGAMO shall promptly make available to BAXTER copies of all relevant patent-related documents, including all documents received from or filed with a national or international patent office, and shall consult with BAXTER regarding the preparation and prosecution of applications. BAXTER shall have the right to comment upon preparation and prosecution strategies and to request desired claims. SANGAMO

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shall consider in good faith all reasonable suggestions of BAXTER. SANGAMO shall provide BAXTER a written update of the status of the Patent Rights and such Inventions Patents, in the same form as the Schedules hereto on at least an annual basis. If SANGAMO chooses not to file, prosecute or maintain any patent applications within the Patent Rights or Inventions Patents, then SANGAMO shall notify BAXTER prior to taking any action which would jeopardize such patent rights. BAXTER will then have the right (i) to file, prosecute or maintain any patent applications within the Inventions Patents that claim solely Joint Inventions at its own expense, and (ii) to pay SANGAMO's reasonable expenses for SANGAMO's continued filing, prosecution or maintenance of such Patent Rights or other Inventions Patents (if SANGAMO determines in good faith that such continued filing, prosecution or maintenance is strategically desirable for the Licensed Products and is consistent with its patent prosecution practices).

(b) BAXTER shall be responsible, at its sole cost, for filing and prosecuting to issuance patent applications, for filing and prosecuting all patent re-issues and re-examinations, for applying for and obtaining any patent term extensions, and for paying all maintenance fees on all patents, relating to the Inventions Patents that claim BAXTER Inventions.

7. OBLIGATIONS OF THE PARTIES

7.1 DILIGENCE OBLIGATIONS

(a) SANGAMO shall use commercially reasonable efforts consistent with international practice in the biotechnology industry, SANGAMO's sound business judgment, and research, regulatory and market conditions, to perform its obligations under this Agreement, including, but not limited to, its obligations under Clause 5.1.

(b) BAXTER and/or its sub-licensees shall use commercially reasonable efforts consistent with international practice in the human-use pharmaceutical industry, BAXTER's sound business judgment, and clinical, regulatory and market

conditions, to develop and commercialize Licensed Products in the Territory for use in the Field.

(c) Notwithstanding the foregoing, BAXTER shall be deemed to have satisfied its diligence obligations under this Clause 7.1 upon timely payment of the license fees under Clauses 4.2.1(b) and (c).

7.2 STEERING COMMITTEE

7.2.1 SANGAMO and BAXTER will appoint a Steering Committee comprising up to three (3) named representatives from each party and up to four (4) ex-officio members from each party as required to meet at least four (4) times per year or with less frequency if mutually agreed by the Steering Committee at mutually agreed locations. SANGAMO and BAXTER shall have the right to approve the other Party's nominated Steering Committee members, which approval shall not be unreasonably withheld, with the sole objective of avoiding the appearance of conflict among nominated representatives. Where matters of conflict of interest arise subsequent to a member joining the Steering Committee, the Steering Committee shall have the right to remove such member and the Party who such member represents will nominate a replacement.

7.2.2 The Steering Committee shall design, manage, review and direct the status and operation of the scientific and technical activities and obligations to be performed under this Agreement and the Research Funding Agreement, including, but not limited to, (i) the selection of the appropriate ZFP molecule to be pursued for pre-clinical testing, and (ii) reviewing and approving entry into each phase of clinical development. The Steering Committee may be further called upon to assist in establishing or revising the workplans associated with and/or the requirements for the preclinical testing needed for the IND submission or the manufacturing process development to be performed under this Agreement and the Research Funding Agreement. The Steering Committee shall also provide a forum for the parties to disclose any additional research data relating to improvements,

modifications, enhancements or variations to the ZFP arising under this Agreement or the Research Funding Agreement.

7.2.3 Decisions, recommendations, or approval of the Steering Committee shall require an affirmative vote of two-thirds of the seated members (i.e., four of six). Meetings or convenings of the Steering Committee shall require the participation or attendance of at least five (5) members of the Steering Committee.

7.2.4 Each party will be responsible for the costs of their representative's attendance, unless otherwise agreed. The Steering Committee shall appoint a secretary who shall keep written records of its meetings.

7.2.5 At any time after the date of First Commercial Sale of a Licensed Product, the Steering Committee may disband by mutual agreement.

7.3 APPOINTMENT OF PROJECT MANAGER

In addition to the appointment of the Steering Committee above, SANGAMO and BAXTER shall each appoint a designated project manager who will be responsible for keeping the other party informed of activities under this Agreement.

8. CONFIDENTIALITY

8.1 OBLIGATIONS

This Clause 8 applies, except as otherwise provided in this Clause 8, during the term of this Agreement, and thereafter for a period of five (5) years. Both SANGAMO and BAXTER shall maintain in confidence, not disclose to any Third Party and use only for the purposes of this Agreement information and data which is not generally known and which (a) results from the use or development of the Technology and Inventions pursuant to this Agreement or the Research Funding Agreement, or (b) is supplied by SANGAMO or BAXTER after April 13, 1999 in connection with this Agreement or the Research Funding Agreement (or discussions leading up to them) and is marked, identified or otherwise acknowledged to be confidential (INFORMATION).

8.2 PERMITTED DISCLOSURES

To the extent it is reasonably necessary to fulfill their obligations or exercise their rights pursuant to this Agreement, BAXTER and SANGAMO may disclose Information they are otherwise obligated pursuant to this Clause 8 not to disclose, to its Affiliates, its bona fide proposed sublicensees and its permitted sublicensees, and shall limit disclosure of such Information to its and their respective officers, directors, employees and consultants on a need-to-know basis, in each case provided that such persons and entities agree to keep the Information confidential for the same time periods and to the same extent as the disclosing party is required to keep the Information confidential. BAXTER and SANGAMO may also disclose such information to government or other regulatory authorities to the extent that such disclosure is required to be disclosed to obtain a patent or authorization to conduct a clinical trial or to commercially market any product arising out of the Technology or is otherwise required by applicable law, regulation or court order, in each case provided that the disclosing party shall provide written notice to the other party and sufficient opportunity to object to such disclosure or to request confidential treatment thereof. The obligation not to disclose Information shall not apply to any part of such Information that:

(a) is or becomes patented, published or otherwise part of the public domain other than by acts of the person obligated not to disclose such Information in contravention of this Agreement;

(b) is disclosed to the receiving party by a Third Party, provided such Information was not obtained from such Third Party directly or indirectly from SANGAMO or BAXTER (as the case may be);

(c) prior to disclosure pursuant to this Agreement, was already in the possession of the receiving party, provided such Information was not obtained directly or indirectly from SANGAMO or BAXTER (as the case may be);

(d) is developed independently of the Information obtained from SANGAMO or BAXTER (as the case may be), by persons without access to or use of the Information, as demonstrated by written evidence; or

(e) is disclosed by either SANGAMO or BAXTER with the prior written consent of the other.

8.3 TERMS OF THIS AGREEMENT

SANGAMO and BAXTER agree to not disclose the existence of or the financial terms or conditions of this Agreement or the Research Funding Agreement to any Third Party without the prior written consent of the other, except as required by applicable law or regulatory authority.

8.4 PUBLIC ANNOUNCEMENTS

Notwithstanding the provisions of Clause 8, neither BAXTER nor SANGAMO shall release any media release or other oral or written announcement for dissemination to the media concerning or arising from this Agreement or the Research Funding Agreement without the written consent of the other party.

8.5 SURVIVAL OF OBLIGATIONS

This Clause 8 survives the termination of this Agreement.

9. LIMITATION OF LIABILITY AND INDEMNITY

9.1 BAXTER agrees to indemnify, hold harmless and defend SANGAMO, its directors, trustees, officers, employees and agents, and the inventors of the patent and patent applications included in the Patent Rights or in SANGAMO Inventions or Joint Inventions against any and all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) incurred as a result of any Third Party claims, suits, demands, causes of action or other proceedings to the extent arising out of BAXTER's and its sublicensees' use of the Patent Rights, Technology, Inventions Patents or Inventions or the manufacture, use, offer for sale or sale of Licensed Products (without

regard to culpable conduct), except to the extent arising from the negligence or willful misconduct of SANGAMO, or its directors, officers, employees, and agents, or the failure of SANGAMO (as the case may be) to disclose relevant information pursuant to Section 2.1, 2.2 or 5.1(c) of this Agreement.

9.2 SANGAMO agrees to indemnify, hold harmless and defend BAXTER, its directors, trustees, officers, employees and agents, against any and all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) incurred as a result of any Third Party claims, suits, demands, causes of action or other proceedings to the extent arising out of the negligence or willful misconduct of SANGAMO, or its directors, officers, employees and agents, or the failure of SANGAMO to disclose relevant information pursuant to Section 2.1, 2.2 or 5.1(c) of this Agreement.

9.3 This Clause 9 survives the termination of this Agreement.

10. INSURANCE

(a) BAXTER shall maintain insurance, including product liability insurance, with respect to the use and exploitation of the Patent Rights, Technology, Inventions Patents and Inventions, and the research, development, production, distribution and use of Licensed Products in such amount as is customarily maintained in accordance with good practice for the pharmaceutical industry. BAXTER shall maintain such insurance for so long as it continues to use and exploit any of the Patent Rights, Technology, Inventions Patents or Inventions, or to conduct the research, development, production, distribution or use of Licensed Products, and thereafter for so long as BAXTER maintains insurance for itself covering supply of Licensed Products. The liability insurance requirement of this Section may be satisfied through self-insurance with reserves consistent with industry practices.

(b) BAXTER shall, upon the request of SANGAMO:

(i) produce evidence of the currency of such insurance; and

(ii) note the interest of SANGAMO on the policy in respect of such insurance.

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11. TERM AND TERMINATION

11.1 TERM

Unless terminated earlier pursuant to Clause 11.2, this Agreement shall continue in force in each country of the Territory until the date of expiration of the last to expire of any patent within the Patent Rights or the Invention Patents in such country, at which time BAXTER will have a fully paid up license, including the right to sublicense, to the ZFPs, Inventions and the Technology as provided herein.

11.2 EARLY TERMINATION

(a) In addition to any rights it may have hereunder, a party may terminate this Agreement upon (30) days prior written notice following the occurrence of any of the following:

(1) the bankruptcy, insolvency, dissolution or winding up of the other party (other than dissolution or winding up for the purposes of a solvent reconstruction or amalgamation);

(2) the failure of the other party to cure the breach of any provision of this Agreement for the payment of funds within thirty (30) days after written notice thereof by the non-breaching party; or

(3) the failure of the other party to cure the breach of any material provision of this Agreement, except nonpayment of funds, within sixty (60) days after written notice thereof by the non-breaching party.

(b) BAXTER has the right to terminate this Agreement at any time by giving ninety (90) days prior written notice without cause.

(c) Upon early termination of this Agreement for any of the reasons set forth in this Clause 11.2(a) and (b), BAXTER shall have no obligation to make any license fee payments that come due after the effective date of termination.

11.3 SURVIVAL

(a) Expiration or termination of this Agreement shall not relieve the parties of any obligation accruing prior to such expiration or termination.

(b) The provisions of Clause 3.1(d) shall survive the expiration or termination of this Agreement.

(c) Upon expiration or termination of this Agreement, SANGAMO shall assign to BAXTER all right, title and interest in the BAXTER Inventions and all patent rights and other intellectual property rights therein.

12. RESOLUTION OF DISPUTES

12.1 DISPUTES COMMITTEE

Disputes arising between the Parties to this Agreement shall be referred to a disputes committee which shall consist of the respective chief executive of SANGAMO and the highest official of the CardioVascular Group of BAXTER or their delegates (DISPUTES COMMITTEE). The Disputes Committee shall confer together in an endeavor to settle the dispute on some fair and equitable commercial basis with regard to the basic legal rights of SANGAMO and BAXTER. Any discussions or proceedings of the Disputes Committee shall be on a without prejudice basis.

12.2 USE OF EXPERT

Subject to agreement of all members of the Disputes Committee, the Disputes Committee may, at its option, refer any dispute or difference to an independent Third Party, who shall act as an expert and not as an arbitrator in settling the same, on terms that the decision of such independent Third Party shall be binding on SANGAMO and BAXTER.

12.3 OTHER RIGHTS AND REMEDIES

If the parties are unable to resolve a dispute under this Clause 12 within thirty (30) days after written notice from one party to the other of such dispute, either party shall have the

right to pursue all rights and remedies to which it is entitled at law, in equity or otherwise. Nothing in this Agreement shall preclude either party from seeking appropriate injunctive relief in any court of competent jurisdiction, whether or not the applicable dispute has been submitted to resolution under this Clause 12.

13. NOTICES

Any notice, demand, consent or other communication (NOTICE) given or made under this Agreement:

(a) must be in writing and signed by a person duly authorized by the sender;

(b) must either be delivered to the intended recipient as follows:

(i) to SANGAMO BIOSCIENCES, INC.:
Point Richmond Tech Center
501 Canal Blvd., Suite A100
Richmond, California 94840
Attention: President
Fax No: (510) 236-8951

(ii) to Baxter Healthcare Corporation:
17221 Red Hill Avenue
Irvine, California, 92614-5686
Attention: Group Vice President, CardioVascular Group
Fax No: (949) 250-6850

(c) will be effective upon receipt by the intended recipient.

14. ENTIRE AGREEMENT

This Agreement and the Research Funding Agreement contain the entire agreement between the parties with respect to its subject matter and supersede all prior agreements and understandings between the parties in connection with them.

15. AMENDMENT

No amendment or variation of this Agreement is valid or binding on a party unless made in writing executed by all parties.

16. ASSIGNMENT

16.1 NO ASSIGNMENT WITHOUT CONSENT

Except as provided in clause 16.2, neither BAXTER nor SANGAMO may assign or otherwise transfer this Agreement or any of its rights or obligations herein without the prior written consent of the other party, which consent shall not be unreasonably withheld.

16.2 PERMITTED ASSIGNMENTS

(a) Either party may assign this Agreement together with the Research Funding Agreement, the Convertible Debenture Purchase Agreement and the Convertible Debenture, without the prior written consent of the other party in connection with the sale or transfer of all or substantially all of its stock or assets to which this Agreement relates, by merger, divestiture, spin-off or similar transaction, provided that such assignee undertakes in writing to be bound by all the terms and conditions in this Agreement and the other party is notified within thirty (30) days of such assignment taking place; and

(b) SANGAMO or BAXTER may assign this Agreement together with the Research Funding Agreement, the Convertible Debenture Purchase Agreement and the Convertible Debenture, to an Affiliate provided that such Affiliate undertakes to be bound by the terms and conditions of this Agreement.

17. NO WAIVER

No failure to exercise nor any delay in exercising any right, power or remedy by a party operates as a continuing waiver. A single or partial exercise of any right, power or remedy does not preclude any other or further exercise of that or any other right, power or remedy. A waiver is not valid or binding on the party granting that waiver unless made in writing.

18. FURTHER ASSURANCES

Each party agrees to do all things and execute all deeds, instruments, transfers or other documents as may be necessary or desirable to give full effect to the provisions of this Agreement and the transactions contemplated by it.

19. RELATIONSHIP OF THE PARTIES

This Agreement does not constitute an employer/employee relationship, partnership of any kind, an association or trust between the parties, each party being individually responsible only for its obligations as set out in this Agreement and in addition the parties agree that their relationship is one of independent contractors. BAXTER is not authorized or empowered to act as agent on behalf of SANGAMO and BAXTER shall not on behalf of SANGAMO enter into any contract, warranty or representation as to any matter. SANGAMO shall not be bound by the acts or conduct of BAXTER. SANGAMO is not authorized or empowered to act as agent on behalf of BAXTER and SANGAMO shall not enter any contract, warranty or representations as to any matter on behalf of BAXTER. BAXTER shall not be bound by the acts or conduct of SANGAMO.

20. GOVERNING LAW AND JURISDICTION

This Agreement is governed by the laws of the State of California, USA.

21. COUNTERPARTS

This Agreement may be executed in any number of counterparts. All counterparts together will be taken to constitute one instrument.

22. INSOLVENCY

(a) All rights and licenses granted under or pursuant to this Agreement by SANGAMO to BAXTER are, for all purposes of Section 365(n) of Title 11 of the United Sates Code (together with its foreign equivalents, the "Insolvency Statute"), licenses of rights to "intellectual property" as defined in the Insolvency Statute. If an Insolvency Statute case is commenced by or against SANGAMO,

and this Agreement is rejected by SANGAMO (in any capacity, including debtor-in-possession, its successors, assigns, or an Insolvency Statute trustee), then notwithstanding such rejection BAXTER shall retain all of its rights, benefits, licenses, protections and privileges under this Agreement and shall be entitled to all of the rights, benefits and protections of a licensee under the Insolvency Statute. BAXTER will have the right and ability to cure any and all defaults by SANGAMO under this Agreement and to take any other actions to oppose a rejection pursuant to the Insolvency Statute of this Agreement, and to contract directly with third parties, if any, involved in contracted arrangements with SANGAMO with respect to performance of this Agreement. SANGAMO shall, upon written request of BAXTER, provide BAXTER with complete access to all Patent Rights, Technology, Inventions Patents and Inventions solely to the extent necessary for BAXTER to perform SANGAMO's obligations under this Agreement; provided, however, that such rights of access shall only be exercisable if SANGAMO fails to perform its obligations under this Agreement substantially as contemplated herein. All rights, powers and remedies of BAXTER provided herein are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at law or in equity (including, without limitation, the Insolvency Statute) in the event of the commencement of an Insolvency Statute case by or against SANGAMO, and BAXTER shall be entitled to exercise all other such rights and powers and resort to all other such remedies as may now or hereafter exist at law or in equity in such event.

(b) In the event of a rejection in bankruptcy of this Agreement by SANGAMO pursuant to the Insolvency Statute, then, in place of SANGAMO, Baxter shall itself have the right to design, assemble and characterize (or cause to be designed, assembled or characterized) one or more zinc finger DNA binding proteins for the activation of VEGF or VEGF receptors for the treatment or prevention of ischemic cardiovascular and vascular disease in humans, in addition to those developed under the Sponsored Research, and any zinc finger DNA binding protein and/or the nucleic acid that encodes therefor; provided, however, that the

subsequent making, using, offering for sale, selling or importing of such zinc finger DNA binding proteins shall be limited to the scope of the licenses granted hereunder. If this Agreement is rejected by SANGAMO in bankruptcy then, upon the written request of BAXTER, and as required by the Insolvency Statute, SANGAMO shall promptly deliver to BAXTER any intellectual property and/or know-how or any other information which is in the control of SANGAMO and which BAXTER reasonably needs or requires to allow BAXTER itself to design, assemble and characterize (or cause to be designed, assembled or characterized) zinc finger DNA binding proteins and/or the nucleic acid that encodes therefor; provided, however, that the subsequent making, using, offering for sale, selling or importing of such zinc finger DNA binding proteins shall be limited to the scope of the licenses granted hereunder. BAXTER shall be relieved from any payment obligation to SANGAMO under Paragraph 3.3 above for zinc finger DNA binding proteins which BAXTER designs, assembles or characterizes (or causes to be designed, assembled or characterized) after the rejection of this Agreement by SANGAMO.

23. FORCE MAJEURE

In the event of any delay in performance by either party of any of its obligations or liabilities pursuant to this Agreement to the extent due to any cause arising from or attributable to acts, events, non-happenings, omissions, accidents or acts of God beyond the reasonable control of the party to perform (including but not limited to strikes, lock-outs, shortage of labor, civil commotion, riot, war, threat of or preparation for war, breaking off of diplomatic relations, fire, explosion, sabotage, storm, flood, earthquake, fog, subsidence, pestilence, epidemics, computer system or machinery breakdown, failure of plant, collapse of structures, voluntary or mandatory compliance with any direction, request or order of any person having or appearing to have authority whether for defense or other governmental or national purposes, or any requisition for materials or services apparently or stated to be used for the purposes of defense, inability to obtain suitable raw material, equipment, fuel, power, components or transportation), the party so delayed or prevented will be under no liability for loss or injury suffered by the other party and any

such delay or failure to perform will not constitute a breach of this agreement to the extent due to such cause, provided that the party so delayed uses commercially reasonable efforts to remedy the effect of such cause.

EXECUTED as an agreement.

SIGNED by /s/ EDWARD LANPHIER)		
)		
a duly authorized officer of SANGAMO)		
BIOSCIENCES, INC. in the presence of:)		
Witness	/s/ PETER BLUFORD	PRESIDENT & CEO
		Duly Authorized Officer
Print Name	Peter Bluford	Edward Lanphier
	VP, Corporate Development	Print Name
SIGNED by)		
)		
a duly authorized officer of BAXTER)		
HEALTHCARE CORPORATION in the presence)		
of:		
Witness	/s/ ANN M. SMALL	/s/ J. H. KEHL, JR.
		Duly Authorized Officer
Print Name	Ann M. Small	J. H. Kehl, Jr.
		Print Name
		VP, Business Development
		CardioVascular Group

Exhibit 10.8

SUBLICENSE AGREEMENT

AGREEMENT made effective this 9th day of May, 1996

BY AND BETWEEN:

JOHNSON & JOHNSON, a company organized under the laws of the State of New Jersey, U.S.A., and having executive offices at One Johnson & Johnson Plaza, New Brunswick, New Jersey 08933-5501 (hereinafter called "LICENSOR")

ON THE ONE HAND,

AND:

SANGAMO BIOSCIENCES, INCORPORATED, a company organized under Delaware law, having an address at 950 Marina Village Parkway, Suite 100, Alameda, CA 94501 (hereinafter called "LICENSEE")

ON THE OTHER HAND,

WITNESSETH:

A. WHEREAS, pursuant to * * * * * * * * * * * * * * * * * * between LICENSOR and * * * * * * * * * * * granted LICENSOR an exclusive option to obtain an exclusive worldwide license (including the right to grant sublicenses) to certain technology, including certain technology in the field of Zinc Finger Protein Derivatives (hereinafter the "INVENTIONS"), and LICENSOR has exercised its option thereunder;

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

B. WHEREAS, patent applications have been filed in the United States and other territories in the name of * for the granting of letters patent relating to the said INVENTIONS, further described in Appendix 1 hereto; and

C. WHEREAS, LICENSOR desires that the INVENTIONS be developed and made available to the public; and

D. WHEREAS, LICENSEE represents that it is presently engaged, or intends to be engaged in the business of research, development, manufacturing and selling products in fields related to the INVENTIONS; and

E. WHEREAS, LICENSEE wishes to make use of the INVENTIONS for the research, development, manufacturing and selling of products and wishes to obtain certain rights to the INVENTIONS under the terms and conditions hereinafter set forth;

F. WHEREAS, LICENSOR is willing and able to grant such rights to LICENSEE;

NOW, THEREFORE, in consideration of the premises and the performance of the covenants herein contained, IT IS AGREED AS FOLLOWS:

1. DEFINITIONS

For the purposes of this agreement (hereinafter called the "SUBLICENSE AGREEMENT"), and solely for such purposes, the terms hereinafter set forth shall have the following respective meanings:

(a) "AFFILIATE" or "AFFILIATES" shall mean any corporation(s) or organization(s) which CONTROLS, is(are) directly or indirectly CONTROLLED by, or under common control with LICENSEE.

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(b) "CONTROL", "CONTROL(S)" or "CONTROLLED" shall refer to direct or indirect beneficial ownership of at least fifty percent (50%) of the voting stock of a corporation or other business entity, or a fifty percent (50%) or greater interest in the income of such corporation or other business entity, or the power to direct or cause the direction of the management or policies of such corporation or other business entity or policies of such corporation or other business entity whether by ownership of voting securities by contract or otherwise, or such other relationship as, in fact, constitutes actual control.

(c) "EFFECTIVE DATE" shall mean the date at the head of this SUBLICENSE AGREEMENT.

(d) "FDA" shall mean the United States Food and Drug Administration.

(e) "FIELD" shall mean the diagnoses, therapy or preventive treatment of diseases in humans or animals.

(f) "IND" shall mean an Investigational New Drug Application filed pursuant to the requirements of the FDA as more fully defined in 21 C.F.R. Section 312.3 or its equivalent in any country of the European Economic Community.

(g) "LICENSED PRODUCT" shall mean any product the manufacture, USE or SALE of which is covered by a VALID CLAIM of the PATENT RIGHTS or that is SOLD by LICENSEE or an AFFILIATE under conditions or circumstances which, if unlicensed, would amount to infringement or contributory infringement or inducement of infringement of the PATENT RIGHTS.

(h) "NDA" shall mean a New Drug Application filed with the United States Food and Drug Administration under 21 USC 355(b)(FDCA Section 505(b)) or its equivalent filed with the Health Regulatory Authorities in other countries or jurisdictions.

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(i) "NET SALES VALUE" shall mean that sum determined by deducting from the gross amount billed and collected by the SELLER (LICENSEE, SUBLICENSEE or AFFILIATE) in an arms length transaction to customers that are not AFFILIATES of the SELLER;

(i) transportation charges or allowances, including freight pickup allowances, and packaging costs, if any;

(ii) trade, quantity or cash discounts, service allowances and independent broker's or agent's commissions, if any, allowed or paid;

(iii) credits or allowances for the LICENSED PRODUCT, if any, given or made on account of price adjustments, returns, bad debts, off-invoice promotional discounts, rebates, chargebacks, any and all federal, state or local government rebates or discounts whether in existence now or enacted at any time during the term of this SUBLICENSE AGREEMENT, volume reimbursements, the gross amount billed and collected for rejected LICENSED PRODUCT or LICENSED PRODUCT subject to recall or destruction (voluntarily made or requested or made by an appropriate government agency, sub-division or department); and

(iv) any tax, excise or other governmental charge upon or measured by the production, sale, transportation, delivery or use of the LICENSED PRODUCT;

in each case determined in accordance with generally accepted accounting practices.

(j) "PATENT RIGHTS" shall mean the patents and patent applications identified in Appendix 1 hereof, and in respect of such letters patent, and patent applications, all corresponding national patents and patent applications, European Patent Convention applications or applications under similar administrative international conventions, patent applications in the listed or designated countries, together with any divisional, continuation, continuation-in-part, substitution, reissue, extension, supplementary protection certificate or other application based thereon.

(k) "SELLER" shall mean one who SELLS.

(l) "SOLD", "SALE", "SALES", "SELL", "SELLING", and "SELLS" shall refer to the act of selling or disposing of for value.

(m) "SUBLICENSEE" shall mean a third party other than an AFFILIATE to whom LICENSEE has extended a further sublicense in accordance with Article 2(b) hereunder.

(n) "USE", "USES" and "USED" shall refer to the act of using for any commercial purposes whatsoever.

(o) "VALID CLAIM" shall mean a claim of an unexpired patent within the PATENT RIGHTS which has matured into an issued patent or a claim being prosecuted in a pending application within the PATENT RIGHTS. In each case a claim shall be presumed to be valid unless and until it has been held to be invalid by a final judgement of a court of competent jurisdiction from which no appeal can be or is taken. For the purposes of royalty determination and payment under Article 4 hereof, any claim being prosecuted in a pending patent application, including applications involved in interference or opposition proceedings, shall be deemed to be the equivalent of a valid claim of an issued, unexpired patent.

2. LICENSE

(a) LICENSOR hereby grants to LICENSEE, and LICENSEE hereby accepts from LICENSOR, upon the terms and conditions herein specified, a worldwide exclusive sublicense under the PATENT RIGHTS to make, to have made, to USE and to SELL LICENSED PRODUCTS in the FIELD.

(b) LICENSEE acknowledges and agrees that the exclusive rights granted pursuant to this Agreement shall be subject to:

(i) * rights pursuant to the * * to use the LICENSED PATENTS for educational and research purposes; and

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(ii) the rights of the United States Government pursuant to 35 U.S.C. 202 et seq. and 37 C.F.R. 401.1 et seq. which may have arisen or resulted form federal funding of * research relating to the LICENSED PATENTS, including the non-exclusive right of the United States Government to practice the inventions covered by the LICENSED PATENTS. Subject to the foregoing, J&J intends to grant to LICENSEE the maximum rights allowable under 35 U.S.C. Sec. 202 et seq. and 37 C.F.R. 401.1 et seq.

(c) Each party hereunder represents and warrants that it will make good faith efforts to comply in all respects with the applicable provisions of any applicable law, regulation, or requirement by any Government relating to the LICENSED PATENTS. Each party agrees that it will make good faith efforts to ensure that all necessary steps are taken to comply with the requirements of 35 U.S.C. 202 et seq. and 37 C.F.R. 401.1 et seq. to retain the maximum rights under the LICENSED PATENTS allowable by law. LICENSEE agrees that it will provide * with the necessary reports and information required for * to comply with 35 U.S.C. Sec. 202 et seq. and 37 C.F.R. 401.1 et seq., including periodic reports on utilization or efforts at utilization of the inventions covered by the LICENSED PATENTS.

(d) The sublicenses granted hereunder shall include the right to grant further sub-licenses to AFFILIATES or third party SUBLICENSEES, provided that LICENSEE agrees to be responsible for the performance hereunder by its AFFILIATES and SUBLICENSEES to which the license and rights shall have been extended.

(e) For the purposes of reporting and making payments of earned royalties under this SUBLICENSE AGREEMENT, the manufacture, SALE or USE of LICENSED PRODUCTS by any AFFILIATE or SUBLICENSEE to which the license and rights shall have been extended shall be considered the manufacture, SALE or USE of such LICENSED PRODUCT by LICENSEE and any such AFFILIATE or SUBLICENSEE may make the pertinent reports and royalty payments specified in Article 4 hereof directly to LICENSOR

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on behalf of LICENSEE; otherwise, such reports and payments on account of SALES or USE of LICENSED PRODUCTS by each AFFILIATE or SUBLICENSEE shall be made by LICENSEE; and, in any event, the SALES and USES of LICENSED PRODUCT by each such AFFILIATE or SUBLICENSEE shall be separately shown in the reports to LICENSOR if such information is readily available to LICENSEE.

(f) The LICENSEE shall be responsible to the LICENSOR for the enforcement of the terms of the sub-license and for inspecting the accounts and records kept by the SUBLICENSEE. The LICENSEE shall at the request of the LICENSOR appoint a qualified person jointly with the LICENSOR to inspect the records of the SUBLICENSEE on behalf of both and both shall be entitled to a full report thereon.

(g) No other, further or different license or right and, except as expressly provided in Article 2 hereof, is hereby granted or implied.

3. LICENSE FEES

(a) In consideration of the Licenses granted hereunder, LICENSEE shall pay to LICENSOR License Fees of * * * * * at times and amounts as follows:

(i) * * * * * within ten days of execution of this LICENSE AGREEMENT by both parties;

(ii) * * * * * per year for * years, due on each of the first * anniversary dates of the EFFECTIVE DATE.

The obligation to pay the foregoing License Fees shall be a non-cancelable commitment by LICENSEE and such payments shall be due and payable at the times specified regardless of whether this LICENSE AGREEMENT is still in effect.

(b) In addition, LICENSEE shall pay LICENSOR the following Milestone License Fees at times and amounts as follows as long as this LICENSE AGREEMENT is still in effect:

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(i) * upon * * for a LICENSED PRODUCT, due thirty (30) calendar days after said event; and

(ii) * upon * * for a LICENSED PRODUCT, due thirty (30) calendar days after said event.

4. ROYALTIES, RECORDS AND REPORTS

(a) For the rights and privileges granted under this SUBLICENSE AGREEMENT, LICENSEE shall pay to LICENSOR earned royalties equal to * of the NET SALES VALUE of LICENSED PRODUCT sold by LICENSEE, AFFILIATES or SUBLICENSEES.

(b) Earned royalty shall be paid in the manner provided herein, to the end of the term or terms of the last to expire of the issued patents within the PATENT RIGHTS, or until this SUBLICENSE AGREEMENT is terminated as hereinafter provided. Earned royalty shall be paid in respect of pending patent applications within the PATENT RIGHTS during such time as the application is actively being prosecuted and has not been abandoned or finally rejected and appellate procedures are unsuccessfully exhausted or the time for perfecting any further appeals has expired.

(c) Earned royalty shall be paid pursuant to Article 4(a) hereof on all LICENSED PRODUCTS SOLD under this SUBLICENSE AGREEMENT; however, earned royalty shall be payable hereunder as to a given LICENSED PRODUCT only when a license or an immunity granted under Article 2 hereof is utilized in the manufacture or SALE thereof, and the earned royalty payable on a given LICENSED PRODUCT made hereunder shall not become due and owing until such LICENSED PRODUCT is SOLD.

Any LICENSED PRODUCT made under a license granted pursuant to this SUBLICENSE AGREEMENT prior to the termination or expiration of the applicable PATENT RIGHTS and not SOLD prior to the termination or expiration of such PATENT RIGHTS shall be

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subject to the payment of royalties hereunder when SOLD, even though such SALE occurs after the termination or expiration of all pertinent licenses or rights granted hereunder.

The earned royalty for any particular LICENSED PRODUCT shall be due upon the first bona fide arm's length SALE thereof by LICENSEE, AFFILIATE or SUBLICENSEE, and any subsequent SALE of such LICENSED PRODUCT by other than LICENSEE, AFFILIATE, or SUBLICENSEE shall be royalty free.

(d) Notwithstanding the provisions of Article 4(b) hereof, in the case of transfers or SALES of any LICENSED PRODUCT between LICENSEE and an AFFILIATE, between AFFILIATES, or between LICENSEE or AFFILIATE and SUBLICENSEES, one and only one royalty shall be payable thereon and such royalty shall become payable upon the final SALE thereof to a third party other than LICENSEE, AFFILIATE or SUBLICENSEE.

(e) LICENSEE shall keep full, true and accurate books of account containing all particulars which may be necessary for the purpose of showing the amount payable to LICENSOR by way of royalty as aforesaid or by way of any other provision hereunder. Said books of account shall be kept at LICENSEE's principal place of business. Said books and the supporting data shall be maintained and kept open at all reasonable times, for three (3) years following the end of the calendar year to which they pertain (and access shall not be denied thereafter, if reasonably available), to the inspection of an independent certified public accountant retained by LICENSOR and reasonably acceptable to LICENSEE for the purpose of verifying LICENSEE's royalty statements, or LICENSEE's compliance in other respects with this SUBLICENSE AGREEMENT. Names of customers and other confidential information shall not be disclosed to LICENSOR by such independent accountant. Such accountant shall be retained at LICENSOR's sole expense, unless during any such inspection a deficiency in payments to LICENSOR of one percent (1%) or more is determined to exist in which event LICENSEE shall within thirty (30) days reimburse LICENSOR for the full expense of retaining such accountant, including but not limited to professional and administrative fees, travel and subsistence costs.

(f) LICENSEE, within sixty (60) days after the first day of January, April, July and October of each year (the "Reporting Date"), shall deliver to LICENSOR a true and accurate report, giving such particulars of the LICENSED PRODUCTS SOLD by LICENSEE, AFFILIATES and SUBLICENSEES during the preceding three (3) months ("Accounting Period") under this SUBLICENSE AGREEMENT as are pertinent to an accounting for royalty under this SUBLICENSE AGREEMENT. These shall include at least the following, separately stated as to the LICENSED PRODUCTS:

(i) the quantity of LICENSED PRODUCTS invoiced by LICENSEE, AFFILIATES and SUBLICENSEES during those three (3) months and the billings therefor;

(ii) the allowable deductions therefrom;

(iii) the calculation of royalties thereon;

Simultaneously with the delivery of each such report, LICENSEE shall pay to LICENSOR the royalty and any other payments due under this SUBLICENSE AGREEMENT for the period covered by such report. If no royalties are due, it shall be so reported. Royalties shall be paid to LICENSOR in United States Dollars at LICENSOR's office specified for the purposes of giving notice in Article 14(b) hereof.

(g) All amounts payable hereunder by LICENSEE to LICENSOR shall be payable in United States Dollars. In the event any LICENSED PRODUCT shall be SOLD by LICENSEE, SUBLICENSEE or an AFFILIATE for currency other than United States Dollars, the earned royalty payable as to such LICENSED PRODUCT under Article 4(a) hereof shall first be determined in the currency for which the LICENSED PRODUCT was SOLD and then converted into its equivalent in United States Dollars at the official rate of exchange of the currency of the country from which royalties are payable as quoted by the Wall Street Journal, New York Edition, for the last business day prior to the Reporting Date for which the royalty payment is made.

(h) In the event that any taxes, withholding or otherwise, are levied by any taking authority in connection with accrual or payment of any royalties payable to LICENSOR under this SUBLICENSE AGREEMENT, LICENSEE or its AFFILIATES and/or SUBLICENSEES shall have the right to pay such taxes to the local tax authorities on behalf of LICENSOR (or, in the case of SUBLICENSEE SALES, on behalf of LICENSEE), and the payment to LICENSOR of the net amount due after reduction by the amount of such taxes, together with evidence of payment of such taxes, shall fully satisfy LICENSEE's royalty obligations under this SUBLICENSE AGREEMENT. LICENSEE agrees to make a good faith effort to obtain a refund of any such taxes for LICENSOR if LICENSOR informs LICENSEE that it believes such taxes have been improperly levied.

(i) In the event that any payment required under this SUBLICENSE AGREEMENT shall be overdue, LICENSEE shall pay interest thereon at an annual rate of * over the United States Clearing Bank Base Lending Rate computed from the date when the payment became due; provided that if such rate shall be in excess of that allowed by applicable law, then the highest rate allowable shall apply. Payment shall be deemed to have been made when received by LICENSOR.

5. CONFIDENTIALITY

Disclosures of confidential and proprietary information hereunder by either party to the other shall be made in writing (or promptly confirmed in writing if made in another form), and shall be clearly marked "Confidential". Such confidential information shall be safeguarded by the recipient, shall not be disclosed to third parties and shall be made available only to recipient's employees or independent contractors who agree in writing to equivalent conditions and who have a need to know the information for the purposes specified under this Agreement. All confidential information shall remain the property of and be returned to the disclosing party within thirty (30) days of receipt of a written request by the disclosing party, or within thirty (30) days of termination of this Agreement. These mutual obligations of confidentiality shall apply for a period of 3 (three) years after the termination of this Agreement, but such obligations shall not apply to any information that:

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(i) is or hereafter becomes generally available to the public other than by reason of any default with respect to a confidentiality obligation under this Agreement; or

(ii) was already known to the recipient as evidenced by prior written documents in its possession; or

(iii) is disclosed to the recipient by a third party who is not in default of any confidentiality obligation to the disclosing party hereunder; or

(iv) is developed by or on behalf of the receiving party, without reliance on confidential information received hereunder; or

(v) is provided to third parties under appropriate terms and conditions including confidentiality provisions equivalent to those in this Agreement for consulting, manufacturing development, manufacturing, external testing and marketing trials with respect to the products covered by this Agreement; or

(vi) is used with the consent of the disclosing party (which consent shall not be reasonably withheld) in applications for patents or copyrights under the terms of this Agreement; or

(vii) has been approved in writing for publication by each of the parties; or

(viii) is required to be disclosed in compliance with applicable laws or regulations in connection with the manufacture or sale of products covered by this Agreement; or

(ix) is otherwise required to be disclosed in compliance with applicable laws or regulations or order by a court or other regulatory body having competent jurisdiction; or

(x) is product-related information which is reasonably required to be disclosed in connection with marketing of products covered by this Agreement.

6. DEVELOPMENT and COMMERCIALIZATION

(a) LICENSEE agrees to diligently attempt to exploit the LICENSED PATENTS and will diligently exert efforts to create a demand for the LICENSED PRODUCTS in at least those countries where PATENT RIGHTS exist. Within sixty (60) days after the end of each semi-annual period (June 30 and December 31) prior to first commercial sale of LICENSED PRODUCT, LICENSEE shall submit a summary report to LICENSOR reporting the progress it, or its SUBLICENSEES, have made towards commercialization in the preceding semi-annual period. This report will include a summary of the work done in the development of LICENSED PRODUCTS. Non-performance of this Article 7 shall be a breach or default under this SUBLICENSE AGREEMENT, entitling the LICENSOR, in addition to other remedies LICENSOR may have, to terminate this SUBLICENSE AGREEMENT under Article 7(c) hereunder.

(b) Promptly following Health Regulatory Approval to market LICENSED PRODUCTS in such countries where approval is sought, LICENSEE agrees to use diligent efforts to promote and sell LICENSED PRODUCTS at a level which is consistent with those marketing efforts normally used for similar products in the pharmaceutical industry.

7. TERMINATION

(a) LICENSEE may terminate this LICENSE AGREEMENT at any time upon sixty (60) days written notice to LICENSOR, but such termination shall not relieve LICENSEE of its obligation to pay the license fees due under Article 3(a) hereunder.

(b) If LICENSEE shall become bankrupt or insolvent and/or if the business of LICENSEE shall be place in the hands of a Receiver, Assignee, or Trustee, whether by the voluntary act of LICENSEE or otherwise, this SUBLICENSE AGREEMENT shall immediately terminate.

(c) Upon any breach of or default under this SUBLICENSE AGREEMENT by LICENSEE, LICENSOR may terminate this SUBLICENSE AGREEMENT by forty-five (45) days written notice to LICENSEE. Said notice shall become effective at the end of said period, unless during said period LICENSEE shall cure such breach or default.

(d) Upon termination of this SUBLICENSE AGREEMENT for any reason, other then by expiry of the PATENT RIGHTS, all rights granted hereunder shall revert to LICENSOR for the benefit of LICENSOR.

(e) LICENSEE's obligations to report to LICENSOR and to pay royalties to LICENSOR as to any LICENSED PRODUCT made or USED under a license or an immunity granted pursuant to this SUBLICENSE AGREEMENT prior to termination or expiration of this SUBLICENSE AGREEMENT shall survive such termination or expiration and any termination of this SUBLICENSE AGREEMENT shall be subject to this Article 7(d).

(f) Upon any termination of this SUBLICENSE AGREEMENT its provisions shall continue in force and effect to the extent necessary to effectuate any provision which by its terms clearly shall continue beyond such termination.

(g) Upon termination of this SUBLICENSE AGREEMENT other than by expiry of the PATENT RIGHTS, LICENSEE shall have no right under the PATENT RIGHTS to make, have made, USE or SELL LICENSED PRODUCTS.

8. ASSIGNMENT

This Agreement or any interest herein shall not be assigned or transferred, in whole of in part, by either party hereto without the prior written consent of the other party hereto. However, without securing such prior written consent, either party may assign this Agreement to an AFFILIATE or a successor of all or substantially all of its business to which this Agreement relates (except a successor under a reorganization pursuant to 11 U.S.C. Sec. 365) provided, that no such assignment shall be binding and valid until and unless the assignee shall have assumed in a writing, delivered to the non-assigning party, all of the duties and obligations of the assignor, and, provided, further, that the assignor shall remain liable and responsible to the non-assigning party hereto for the performance and observance of all such duties and obligations.

9. INFRINGEMENT

(a) LICENSOR agrees to enforce its patents within the PATENT RIGHTS from infringement and sue infringers when in its sole judgement such action may be reasonably necessary, proper and justified.

(b) Notwithstanding the provisions of Article 9(a) above, provided LICENSEE shall have supplied LICENSOR with evidence comprising a prima facie case of infringement of the PATENT RIGHTS by a third party hereto SELLING significant quantities of products in competition with LICENSEE's, an AFFILIATE's, or SUBLICENSEE's SALE of LICENSED PRODUCTS hereunder, LICENSEE shall be entitled to notify LICENSOR in writing requesting LICENSOR to take steps to enforce the PATENT RIGHTS and LICENSOR shall within three (3) months of the receipt of such written request either:

(i) cause said infringement to terminate (including termination for whatever cause); or

(ii) initiate legal proceedings against the infringer; or

(iii) grant LICENSEE the right, at LICENSEE's sole expense, to bring suit against the infringer for infringement of the PATENT RIGHTS.

(c) In no event shall LICENSEE be entitled to invoke Article 9(b) above with respect to more than one alleged infringer in any one country listed with the PATENT RIGHTS at any given time even though there be more than one such infringer in such country and the provisions of Article 9(b) hereof shall not come into effect or continue in effect as to such country while LICENSOR is carrying on any such legal proceeding therein.

(d) In the event either party hereto shall initiate or carry on legal proceedings to enforce the PATENT RIGHTS against an alleged infringer, as provided herein, the other party hereto shall fully co-operate with the party initiating or carrying on such proceedings.

(e) In the event LICENSOR shall institute suit or other legal proceedings to enforce the PATENT RIGHTS, it shall have sole control of such suit.

(f) In the event LICENSEE shall institute suite or other legal proceedings under Article 9(b) above to enforce the PATENT RIGHTS, LICENSOR shall be entitled to be represented by counsel of its choosing, at its sole expense, and LICENSEE shall be entitled to retain for it as damages, an amount corresponding to its actual out-of-pocket legal expenses paid to third parties for conducting such suit or other legal proceedings and shall pay to LICENSOR TWENTY-FIVE PERCENT (25%) of the balance of such recovery. LICENSEE shall not discontinue or settle any such proceedings brought by it without obtaining the concurrence of LICENSOR and giving LICENSOR a timely opportunity to continue such proceedings in its own name, under its sole control, and at its sole expense. In the event LICENSOR does not concur in such settlement, it must continue such proceeding in its own name, under its sole control and expense

within three (3) months of being given notice by LICENSEE of its desire to settle or LICENSEE shall be entitled to settle without LICENSOR's concurrence.

10. STATUS OF THE PATENT RIGHTS

(a) Pursuant to the * * * * agreed, with the advice of LICENSOR, to diligently prepare, file and prosecute the patent applications filed within the PATENT RIGHTS and LICENSOR agreed to reimburse * for the reasonable expenses associated therewith. Upon execution of this SUBLICENSE AGREEMENT, LICENSEE agrees to assume LICENSOR's obligation to reimburse * for patent expenses under the * * for patent expenses incurred after the EFFECTIVE DATE. LICENSOR shall instruct * to forward invoices for such patent expenses directly to LICENSEE and LICENSEE agrees to promptly pay such expenses. LICENSOR agrees to assure that * performs its obligations to maintain and prosecute the PATENT RIGHTS under the * * and LICENSOR agrees to enforce its rights vis-a-vis * in this regard on LICENSEE's behalf if necessary. LICENSOR does not however represent or warrant that any patent within the PATENT RIGHTS will be obtained or that any such patent so obtained will be valid and enforceable.

(b) LICENSEE shall also be responsible for expenses associated with maintaining the patents obtained on the patent applications referred to in Article 10(a) hereof.

(c) Upon request by LICENSEE, LICENSOR will advise, or ensure that * advises, LICENSEE of the status of all patent applications and patents within the PATENT RIGHTS.

(d) Should LICENSEE elect not to continue paying the expenses for the maintenance or prosecution of any patent or patent application under the PATENT RIGHTS, it shall give LICENSOR thirty (30) days written notice thereof and LICENSOR may thereafter

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assume payment of such expenses at its own cost. In the event LICENSEE ceases to pay the expenses of prosecution of maintenance of any particular patent application or patent, then LICENSEE shall cease to have license rights with respect to such patent application or patent and LICENSOR shall be free to license such rights to a third party.

11. NON-USE OF NAMES

(a) LICENSEE shall not use the name of any inventor of the PATENT RIGHTS, or of any institution with which he has been or is connected, or of LICENSOR, or any adaptation of any of them, in any advertising, promotional or sales literature, without prior written consent obtained from LICENSOR in each case. LICENSEE shall require its AFFILIATES to comply with this Article 11 to the same extent that it applies to LICENSEE.

(b) LICENSOR shall not use the name of LICENSEE or its AFFILIATES or any adaptation thereof, in any advertising, promotional or sales literature or in any press release without prior written consent of LICENSEE in each case.

12. WARRANTIES AND REPRESENTATIONS

(a) LICENSOR warrants that it has exclusive rights by agreement, assignment or license to the PATENT RIGHTS, except with respect to the United States Government, and that it has full power and authority to execute, deliver and perform this SUBLICENSE AGREEMENT and the obligations hereunder.

(b) Each party hereby warrants that the execution, delivery and performance of this SUBLICENSE AGREEMENT has been duly approved and authorized by all necessary corporate actions of both parties; do not require any shareholder approval which has not been obtained or the approval and consent of any trustee or the holders of any

indebtedness of either party; do not contravene any law, regulation, rules or order binding on either Party, and do not contravene the provisions of or constitute a default under any indenture, mortgage contract or other agreement or instrument to which either party is a signatory.

(c) Nothing in this SUBLICENSE AGREEMENT shall be construed as a representation or a warranty by LICENSOR as to the validity or scope of any patent within the PATENT RIGHTS or that any process practiced or anything made, USED or SOLD under any license or immunity granted under this SUBLICENSE AGREEMENT is or will be free from infringement of patents of third parties.

13. INDEMNITY

LICENSEE agrees to indemnify and hold harmless INVENTORS, * , LICENSOR, its AFFILIATES and their respective officers, directors, employees and agents from and against any and all claims, damages and liabilities, including reasonable attorney's fees and expenses, asserted by third parties, both government and private, arising from LICENSEE's and AFFILIATES' manufacture, USE or SALE of LICENSED PRODUCTS or the USE thereof by others including ultimate consumers. LICENSEE hereby agrees to maintain in full force and effect general liability and product liability insurance with a commercial insurance carrier, which policy shall have individual and aggregate limits appropriate to the conduct of LICENSEE's business covering the sale and distribution of LICENSED PRODUCTS. LICENSOR shall be named as an additional insured in such insurance policy. LICENSEE shall provide a certificate of insurance to LICENSOR evidencing such insurance policy and providing that such insurance will not be cancelled, modified or subject to non-renewal without thirty (30) days' written notice to LICENSOR. This insurance will remain in effect until three (3) years from termination of this Agreement.

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14. GENERAL

(a) This SUBLICENSE AGREEMENT, including the Appendix hereto attached, constitutes the entire agreement and understanding between the parties as to the PATENT RIGHTS. All prior negotiations, representations, agreements, contracts, offers and earlier understandings of whatsoever kind, whether written or oral between LICENSOR and LICENSEE in respect of the PATENT RIGHTS, are superseded by, merged into, extinguished by and completely expressed by this SUBLICENSE AGREEMENT.

No aspect, part or wording of this SUBLICENSE AGREEMENT may be modified except by mutual agreement between the LICENSOR and LICENSEE taking the form of an instrument in writing signed and dated by duly authorized representatives of both LICENSOR and LICENSEE.

(b) Any notice required or permitted to be given by this SUBLICENSE AGREEMENT shall be given by post-paid, first class, registered or certified mail addressed to:

General Counsel

Johnson & Johnson

One Johnson & Johnson Plaza

New Brunswick, New Jersey 08903-5501

and

Chairman

R.W. Johnson Pharmaceutical Research Institute

Route 202

Raritan, New Jersey 08869

or

SANGAMO BIOSCIENCES, INCORPORATED

950 MARINA VILLAGE PARKWAY

SUITE 100

ALAMEDA, CA 94501

Such addresses may be altered by notice so given. If no time limit is specified for a notice required or permitted to be given by this SUBLICENSE AGREEMENT, the time limit therefor shall be ten (10) full business days, not including the day of mailing. Notice shall be considered made as of the date of deposit with the United States Post Office.

(c) This SUBLICENSE AGREEMENT and its effect are subject to and shall be construed and enforced in accordance with the laws of the State of New Jersey, United States, except as to any issue which depends upon the validity, scope or enforceability of any patent within the PATENT RIGHTS, which issue shall be determined in accordance with the applicable patent laws of the country of such patent.

(d) Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, including any dispute relating to patent validity or infringement arising under this agreement, shall be settled by arbitration. Such arbitration shall be conducted at New York, New York, in accordance with the rules then pertaining to the American Arbitration Association with a panel of three (3) arbitrators. One arbitrator shall be appointed by LICENSOR; one shall be appointed by LICENSEE; and the third shall be appointed by the American Arbitration Association. The law of the State of New York shall apply to the arbitration proceedings. The arbitrators shall have the authority to grant specific performance. The judgment and award of the arbitrators shall be final and binding and may be entered in any court having jurisdiction thereof, or application may be made to such court for judicial acceptance of any award or an order of enforcement, as the case may be. Each party shall bear its own costs and expenses, including attorney's fees and fees and expenses of the arbitrator it selects, and shall

share equally the fees and expenses of the arbitrator selected by the American Arbitration Association.

(e) Nothing in this SUBLICENSE AGREEMENT shall be construed so as to require the commission of any act contrary to law, and wherever there is any conflict between any provision of this SUBLICENSE AGREEMENT or concerning the legal right of the parties to contract and any statute, law, ordinance or treaty, the latter shall prevail, but in such event the affected provisions of this SUBLICENSE AGREEMENT shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements.

(f) LICENSEE shall take all reasonable and necessary steps to register this SUBLICENSE AGREEMENT in any country where such is required to permit the transfer of funds and/or payment of royalties to LICENSOR hereunder or is otherwise required by the government or law of such country to effectuate or carry out this SUBLICENSE AGREEMENT. Notwithstanding anything contained herein, but subject to Article 13(e) hereof, LICENSEE shall not be relieved of any of its obligations under this SUBLICENSE AGREEMENT by any failure to register this SUBLICENSE AGREEMENT in any country, and, specifically, LICENSEE shall not be relieved of its obligation to make any payment due to LICENSOR hereunder at LICENSOR's address specified in Article 14(b) hereof, where such payment is blocked due to any failure to register this SUBLICENSE AGREEMENT.

(g) As used in this SUBLICENSE AGREEMENT, singular includes the plural and plural includes the singular, wherever so required by the context. The headings appearing at the beginning of the numbered Articles hereof have been inserted for convenience only and do not constitute a part of this SUBLICENSE AGREEMENT.

(h) Nothing herein shall be deemed to create an agency, joint venture or partnership between the parties hereto.

(i) Notwithstanding any other provisions of this SUBLICENSE AGREEMENT, neither of the parties hereto shall be liable in damages or have the right to terminate this SUBLICENSE AGREEMENT for any delay or default in performing hereunder if such delay or default is caused by conditions beyond its control including, but not limited to acts of God, governmental restrictions, wars, or insurrections, strikes, floods, work stoppages and/or lack of materials; provided, however, that the party suffering such delay or default shall notify the other party in writing of the reasons for the delay or default. If such reasons for delay or default continuously exist for six (6) months, this SUBLICENSE AGREEMENT may be terminated by either party.

15. EFFECTIVE DATE AND TERM

This SUBLICENSE AGREEMENT shall become effective on the day and year first above written and shall, unless terminated earlier by one of the parties in accord with its terms, expire concurrently with the expiration, invalidation or lapsing of all issued patents within the PATENT RIGHTS and/or the abandonment of all pending patent applications within the PATENT RIGHTS.

16. GOVERNMENT RIGHTS

(a) LICENSEE acknowledges and agrees that its respective rights and obligations pursuant to this SUBLICENSE AGREEMENT shall be subject to * * rights and * obligations and the rights of the United States Government, if any, which arose or resulted from * receipt of research support from the United States Government.

(b) LICENSEE shall comply in all respects with the applicable provisions of any applicable law, requirement, regulation or determination by any Government relating to the PATENT RIGHTS and shall provide LICENSOR with any information or report required to comply with any such law, requirement, regulation or determination.

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(c) Any inconsistency between this SUBLICENSE AGREEMENT and the pertinent provisions of any law, requirement, regulation or determination by a Government shall be resolved by conforming this SUBLICENSE AGREEMENT to such provisions of any such law, requirement, regulation or determination.

(d) Any agreement or arrangement relating to the PATENT RIGHTS between LICENSEE and any third party hereto shall be made expressly subject to the terms and conditions of this Article 16 and LICENSEE shall require such other party to comply therewith to the same extent that LICENSEE is required to comply.

(e) Any license or other right granted or to be granted pursuant to this SUBLICENSE AGREEMENT shall be subject to any and all applicable governmental laws and regulations relating to compulsory licensing.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and duly executed this SUBLICENSE AGREEMENT on the date(s) indicated below, to be effective the day and year first above written.

For and on Behalf of LICENSOR, JOHNSON & JOHNSON

By: /s/ RONALD G. GELBMAN

Name: Ronald G. Gelbman

Title: Worldwide Chairman

Pharmaceuticals & Diagnostics Group

Date: April 15, 1996

For and on Behalf of LICENSEE, SANGAMO BIOSCIENCES, INCORPORATED

By: /s/ EDWARD LANPHIER

Name: Edward Lanphier

Title: President

EXHIBIT 10.9

ZFP MATERIAL TRANSFER AGREEMENT

THIS ZFP CUSTOM SYNTHESIS AGREEMENT (the "Agreement") dated as of March 8, 1999 ("Effective Date"), is entered into between SANGAMO BIOSCIENCES, INC., a Delaware corporation ("Sangamo"), having a place of business at Point Richmond Tech Center, 501 Canal Boulevard, Suite A100, Richmond, California 94804, and Japan Tobacco Inc., a Japanese corporation (the "Customer"), having a place of business at * * * * * * * * * *.

WHEREAS, Sangamo has rights and expertise regarding the design and synthesis of certain zinc finger DNA recognition proteins and genes encoding such proteins.

WHEREAS, the Customer desires to have Sangamo design, assemble, characterize and deliver to Customer certain of these materials solely for the Customer's own internal research (except as otherwise expressly provided herein) and preclinical development purposes on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants set forth below, the parties agree as follows:

I. Definitions. For purposes of this Agreement, the terms defined in this Section 1 shall have the respective meanings set forth below:

1.1 "Affiliate" shall mean, with respect to any Person, any other Person which directly or indirectly controls, is controlled by, or is under common control with, such Person. A Person shall be in control of another Person if it owns, or directly or indirectly controls, at least fifty percent (50%) of the voting stock or other ownership interest of the other Person, or if it directly or indirectly possesses the power to direct or cause the direction of the management and policies of the other Person by any means. Notwithstanding the foregoing, the government of Japan shall not be deemed an Affiliate.

1.2 "Confidential Information" shall mean, with respect to a party, all information (and all tangible and intangible embodiments thereof) which is disclosed by such party to the other party and is marked as "Confidential" by each party, identified as or otherwise acknowledged to be confidential at the time of disclosure to the other party. Each party shall also confirm in writing within thirty (30) days any Confidential Information that it discloses orally. Notwithstanding the foregoing, Confidential Information of a party shall not include information which the other party can establish by written documentation (a) to have been publicly known prior to disclosure of such information by the disclosing party to the other party, (b) to have become publicly known, without the fault of the other party, subsequent to disclosure of such information by the disclosing party to the other party, (c) to have been received by the other party at any time from a source, other than the disclosing party, rightfully having possession of and the right to disclose such information, (d) to have been otherwise known by the other party prior to disclosure of such information by the disclosing party to the other party, or (e) to have been

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independently developed by employees or agents of the other party without access to or use of such information disclosed by the disclosing party to the other party.

1.3 "Derivative" shall mean any protein or conjugate (including a conjugate to a functional domain other than the Functional Domain) derived from a ZFP, provided that the contiguous amino acid sequence of such ZFP has not been altered, and the amino acid sequence of such protein or conjugate, except for progeny.

1.4 "Functional Domain" shall mean the functional domain set forth on Schedule A, to which each ZFP shall be conjugated by Sangamo hereunder.

1.5 "Genetic Material" shall mean, with respect to any ZFP or Derivative, the nucleotide sequence encoding such ZFP or Derivative and all fragments of such gene sequence.

1.6 "Person" shall mean an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, pool, syndicate, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

1.7 "Progeny" shall mean any biological progeny which contains the ZFP Materials originated by the Customer including but not limited to cells and animals.

1.8 "Research Field" shall mean the research and preclinical development of products and services for use in the diagnosis, prevention or treatment of any disease, state or condition in humans (excluding the sale or provision of, to any third parties, products and services that incorporate, contain or use zinc finger DNA recognition proteins, genes that encode such proteins, or fragments or derivatives of such proteins or genes).

1.9 "Target(s)" shall mean the nucleotide sequence(s) set forth on Schedule A.

1.10 "ZFP" shall mean a zinc finger DNA recognition protein binding to the Target which is designed by Sangamo and for which the Genetic Material is delivered to the Customer hereunder, and the amino acid sequence of such protein.

1.11 "ZFP Materials" shall mean, collectively, the ZFPs, any Derivatives, the Genetic Materials which encode any ZFP or Derivative, and all fragments and derivatives of the foregoing.

2. Design and Delivery of ZFP Materials.

2.1 Promptly after the date of this Agreement, the Customer shall deliver to Sangamo the nucleotide sequence for * Target(s) and such other information as the parties mutually agree is reasonably necessary to assist Sangamo in designing the ZFPs. Notwithstanding the foregoing, the Customer shall have final discretion with respect to the provision of such information.

2.2 Sangamo shall design, assemble and characterize two (2) zinc finger DNA recognition proteins binding to each Target.

2.3 Within * weeks after receipt of the information described in Section 2.1 above, Sangamo shall deliver to the Customer certain information regarding the characterization of each ZFP (including data and specifications regarding the binding sites, affinities, and in vivo co-transfection reporter activation assays) that is reasonably necessary for the Customer to use the ZFP Materials in the Research Field. Sangamo will consult by telephone or facsimile or visits at mutually agreeable times at no additional cost to Customer with Customer's employees to answer questions related to the ZFP Materials.

2.4 Within * days after delivery of the * Target to Sangamo, the Customer shall pay Sangamo * * * * * * * * Within * * days after delivery of the second Target to Sangamo, the Customer shall pay Sangamo * * * * * * Such payment shall be in United States Dollars in immediately available funds and shall be made by wire transfer from a United States bank located in the United States to such bank account as designated by Sangamo to the Customer.

Within * * days after the Customer receives the materials and information described in Section 2.3 above, the Customer shall make diligent and good faith efforts to confirm the activity of the relevant Target ZFPs in the same assays that Sangamo has used pursuant to section 2.3. The Customer shall then pay Sangamo * * * * * * * for the first Target * for the second Target. If the Customer is unable to confirm the activity of a ZFP in the same assays as used by Sangamo, then Sangamo, shall redesign and deliver redesigned ZFP Materials to the Customer within 8 weeks after the Customer so notifies Sangamo. In the event that the Customer is unable to confirm activity of the re-designed ZFP Materials then the Customer shall have no obligation to make any additional payments. Payment shall be in United States Dollars in immediately available funds and shall be made by wire transfer from a United States bank located in the United States to such bank account as designated by Sangamo to the Customer.

Sangamo shall issue signed invoices in advance for each payment due hereunder. Withholding tax shall be deducted from the payments made by the Customer to the proper tax authority and a receipt of payments of the tax secured and promptly delivered to Sangamo.

2.5 In connection with the shipping of Materials, Sangamo agrees to pay for all shipping, handling, and customs duty related costs.

3. Use of ZFP Materials.

3.1 The Customer shall use the ZFP Materials (and all results of its activities in the Research Field hereunder) solely in the Research Field, and not for any other purpose.

3.2 The Customer shall not alter the nucleotide sequence or amino acid sequence of, or reverse engineer, the ZFP Materials; provided, however, that the Customer may make Derivatives of the ZFPs.

3.3 The Customer shall use the ZFP Materials under commercially and scientifically reasonable containment conditions. The Customer shall not transfer or provide access to the ZFP Materials to any other Person. Notwithstanding the foregoing, the Customer

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may transfer the ZFP Materials to an Affiliate (without the further right to transfer), provided (a) the Customer shall give prior express written notice thereof to Sangamo, and (b) such Affiliate agrees to be bound by the terms and conditions set forth in this Agreement binding on the Customer. The Customer may also transfer ZFP Materials to its research partners without any additional charges or fees, subject to agreement by such partners of the terms and conditions set forth in this Agreement and with the prior written consent of Sangamo, such consent not to be unreasonably withheld. The Customer shall limit access to the ZFP Materials to those of its employees and consultants working on its premises to the extent such access is reasonably necessary to the conduct of its activities in the Research Field.

3.4 The Customer shall not (and shall not attempt or purport to) sell, license or otherwise transfer title to or an interest in, or otherwise commercially use the ZFP Materials without the prior express written consent of Sangamo.

3.5 The Customer acknowledges that the ZFP Materials are experimental in nature, may have unknown characteristics and have not been approved for use in humans. The Customer shall use prudence and reasonable care in the use, handling, storage, transportation, disposition and containment of the ZFP Materials, and shall comply with all applicable laws, regulations and guidelines applicable to the ZFP Materials or the use thereof and with any safety precautions accompanying the ZFP Materials. The Customer shall not (and shall not attempt or purport to) administer the ZFP Materials to humans, or file or submit any regulatory application or other submission to obtain approval therefor.

4. Non-Assertion. Neither the Customer nor its Affiliates (nor their respective successors, assigns, licensees or other transferees) shall enforce (or attempt or purport to enforce) against Sangamo or its Affiliates, licensees (of rights in zinc finger DNA recognition proteins) or manufacturers, distributors or other purchasers (of zinc finger DNA recognition proteins) any patent that claims zinc finger DNA recognition proteins, Genetic Materials encoding such proteins, fragments of such proteins or Genetic Materials, or the use of any of the foregoing, subject, expressly, to section 10.

5. No Prohibition on Sangamo. Nothing in this Agreement shall prohibit Sangamo from making, using, offering for sale, selling to others or importing zinc finger DNA recognition proteins, genetic materials encoding such proteins, fragments of such proteins or genetic materials or from licensing others to do the same; provided, however, that Sangamo shall not design, assemble, characterize and deliver to any other Person any zinc finger DNA recognition protein binding to the Target (or genetic material encoding such protein) in less time than the time frame published by Sangamo * for its custom design, assembly, characterization and delivery of a zinc finger DNA recognition protein (or genetic material encoding such protein) generally.

*

THE CUSTOMER ACKNOWLEDGES THAT THE ZFP MATERIALS ARE PROVIDED "AS IS" AND THAT SANGAMO MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR NONINFRINGEMENT OF THE PATENT RIGHTS OR OTHER INTELLECTUAL PROPERTY RIGHTS OF ANY OTHER PERSON.

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7. Confidentiality.

7.1 For a period of five (5) years following the date of this Agreement, subject to the Confidential Disclosure Agreement between Sangamo and the Customer as of March 8, 1999, and January 12, 1999, each party shall maintain in confidence all Confidential Information disclosed by the other party, and shall not use, disclose or grant the use of the Confidential Information except on a need-to-know basis to its directors, officers, employees and consultants to the extent such disclosure is reasonably necessary in connection with such party's activities expressly authorized by this Agreement and ordinary business operations. Each party shall notify the other promptly upon discovery of any unauthorized use or disclosure of the other party's Confidential Information.

7.2 Sangamo shall not disclose the identity of the Target and the information relating to the Target to any other Person without the prior consent of the Customer. Neither party shall disclose any terms or conditions set forth in this Agreement to any other Person without the prior consent of the other party; provided, however, that a party may disclose the terms or conditions set forth in this Agreement, (a) on a need-to-know basis to its legal and financial advisors to the extent such disclosure is reasonably necessary in connection with such party's activities as expressly permitted by this Agreement, and (b) to a third party in connection with (i) an equity investment in such party, (ii) a merger, consolidation or similar transaction by such party, or (iii) the sale of all or substantially all of the assets of such party.

7.3 The confidentiality obligations contained in this Section 7 shall not apply to the extent information is required to be disclosed to a governmental agency or is necessary to file or prosecute patent applications or to the extent that a party is required to disclose information by applicable law, regulation or order of a court of competent jurisdiction, provided that such party shall provide written notice to the other party and sufficient opportunity to object to any such disclosure or to request confidential treatment. The Customer may disclose Confidential Information of Sangamo relating to the results of the Customer's research and evaluation hereunder to any Affiliate.

7.4 To the extent that a party is authorized by this Agreement to disclose Confidential Information of the other party to any other Person, prior to disclosure, such party shall obtain agreement of any such Person to hold in confidence and not use the Confidential Information of the other party for any purpose other than those permitted by this Agreement.

8. Indemnification and Insurance.

8.1 The Customer shall indemnify and hold harmless Sangamo from and against all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) resulting from all claims, demands, actions and other proceedings by any other Person to

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the extent arising from (a) the use by Sangamo of the Target under this Agreement, unless due to reasons relating to Sangamo's ZFP Materials, (b) the breach by the Customer of any covenant under this Agreement, or (c) the use by the Customer or its Affiliates of the ZFP Materials or the results of their respective activities hereunder, except in each case to the extent any such loss, liability, damage or expense results from the negligence or willful misconduct of Sangamo.

8.2 EXCEPT AS OTHERWISE SET FORTH IN THIS SECTION 8, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR LOSS OF PROFITS OR INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES OF THE OTHER PARTY DIRECTLY OR INDIRECTLY ARISING OUT OF THIS AGREEMENT.

9. Miscellaneous.

9.1 This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to the conflicts of law principles thereof.

9.2 This Agreement does not grant to the Customer any license or other right in the patent rights or other intellectual property rights of Sangamo except and only to the extent necessary to enable the Customer to conduct its internal research and preclinical development permitted hereby.

9.3 For the period from the date of this Agreement through the date that is one (1) year after the date Sangamo delivers to the Customer the ZFP Materials and information under Section 2.3 above, neither the Customer nor its Affiliates shall directly or indirectly solicit or in any manner encourage any employee of Sangamo to leave its employ.

9.4 Neither party shall assign or otherwise transfer (whether voluntarily, by operation of law or otherwise) this Agreement or any right or obligation hereunder, without the prior express written consent of the other; provided, however, that either party may, without such consent, assign this Agreement and its rights and obligations hereunder in connection with the transfer or sale of all or substantially all of its business, or in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all obligations of its assignor under this Agreement. Any purported assignment or transfer in violation of this Section 9.4 shall be void.

9.5 This Agreement contains the entire understanding of the parties regarding the subject matter hereof. All express or implied representations, agreements and understandings, either oral or written, heretofore made are expressly superseded by this Agreement.

10. Ownership. All data and results of experiments obtained by the Customer through the use of the ZFP Materials (the "Results") and inventions from the use of the ZFP Materials shall be exclusively owned by the Customer and the Customer shall have the right to use them for whatever purposes as it desires, provided, however, that the use of the Progeny shall be limited to the Research Field. For the avoidance of doubt, Sangamo shall not have the right to use, commercialize, or otherwise exploit for whatever purpose the Results or any of the Customer's inventions from the use of the ZFP Materials.

11. Publication. Customer may publish the Results at its sole discretion provided

that Sangamo Confidential Information shall be removed from such publications or written permission obtained from Sangamo prior to the use of such Information, such permission not to be unreasonably withheld.

12. Term and Termination

12.1 This Agreement shall commence on the Effective Date and unless sooner terminated as provided below, shall remain until the conclusion of the evaluation stated in Section 3. At the conclusion of this term, this Agreement may be amended or extended by mutual written consent of the parties.

12.2 Upon termination of this Agreement, for any reason, Customer shall return or destroy all unused Genetic Materials to Sangamo if so requested by Sangamo, and shall provide written certification within thirty (30) days in case of such destruction.

12.3 The provisions of Sections 4, 6, 7, 8, 9, 10, and 11 shall survive any termination of this Agreement.

IN WITNESS WHEREOF, the parties have entered into the Agreement effective as of the date first written above.

SANGAMO BIOSCIENCES, INC.

By:

Title:

JAPAN TOBACCO INC.

By:

Title:

[JT LETTERHEAD]

June 18, 1999

Sangamo BioSciences, Inc.
Point Richmond Tech Center II
501 Canal Blvd., Suite A 100
Richmond, CA 94804

Attention: Dr. Eric Rhodes
Director, Commercial Development

RE: Amendment of ZFP Material Transfer Agreement dated March 9, 1999.

Gentlemen:

The purpose of this letter is to hereby confirm our mutual understanding that, with respect to the March 9, 1999 ZFP Material Transfer Agreement, as set forth below;

1. Section 7.1 shall be amended as follows:

"For a period of five (5) years following the date of this Agreement, subject to the Confidential Disclosure Agreements between Sangamo and the Customer as of June 15, 1999, and March 8, 1999 and January 12, 1999, each party shall maintain in confidence all Confidential Information disclosed by the other party, and shall not use, disclose or grant the use of the Confidential Information except on a need-to-know basis to its directors, officers, employees and consultants to the extent such disclosure is reasonably necessary in connection with such party's activities expressly authorized by this Agreement and ordinary business operations. Each party shall notify the other promptly upon discovery of any unauthorized use or disclosure of the other party's Confidential Information."

2. Schedule A shall be amended as set forth in the attachment hereto.

Please confirm your acknowledgement of and agreement with the above, by duly signing and dating in the spaces provided below.

Sincerely yours,

/s/ *
- ----------
*
Vice President

Sangamo BioSciences Inc.

By: /s/ PETER BLUFORD

Name: Peter Bluford

Title: VP, Corp. Div.

Date: 7-1-99

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

EXHIBIT 10.12

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

and

SANGAMO BIOSCIENCES,INC.

PATENT LICENSE AGREEMENT

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

and

SANGAMO BIOSCIENCES, INC.

PATENT LICENSE AGREEMENT

This Agreement is made and entered into this 9 day of MAY, 1996, (the "EFFECTIVE DATE") by and between the MASSACHUSETTS INSTITUTE OF TECHNOLOGY, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having its principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, U.S.A. (hereinafter referred to as "M.I.T."), and Sangamo BioSciences, Inc. a corporation duly organized under the laws of DELAWARE and having its principal office at 950 MARINA VILLAGE PKWY, SUITE 100, ALAMEDA, CA 94501 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, M.I.T. is the owner of certain PATENT RIGHTS (as later defined herein) relating to M.I.T. Case No. 6929, "Zinc Finger Proteins With High Affinity New DNA Binding Specificities" by Carl O. Pabo and Edward J. Rebar and has the right to grant licenses under said PATENT RIGHTS, subject only to a royalty-free, nonexclusive license heretofore granted to the United States Government;

WHEREAS, M.I.T. desires to have the PATENT RIGHTS developed and commercialized to benefit the public and is willing to grant a license thereunder;

WHEREAS, LICENSEE has represented to M.I.T., to induce M.I.T. to enter into this Agreement, that LICENSEE is experienced in the development, production, manufacture, marketing and sale of products similar to the LICENSED PRODUCT(s) (as later defined herein) and/or the use of the LICENSED PROCESS(es) (as later defined herein) and that it shall commit itself to a thorough, vigorous and diligent program of exploiting the PATENT RIGHTS so that public utilization shall result therefrom; and

WHEREAS, LICENSEE desires to obtain a license under the PATENT RIGHTS upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

1-DEFINITIONS

For the purposes of this Agreement, the following words and phrases shall have the the following meanings:

1.1 "LICENSEE" shall include a related company of Sangamo BioSciences, Inc. the voting stock of which is directly or indirectly at least Fifty Percent (50%) owned or controlled by Sangamo BioSciences, Inc., an organization which directly or indirectly controls more than Fifty Percent (50%) of the voting stock of Sangamo BioSciences, Inc. and an organization, the majority ownership of which is directly or indirectly common to the ownership of Sangamo BioSciences, Inc.

1.2 "PATENT RIGHTS" shall mean all of the following M.I.T. intellectual property:

a. the United States patents listed in Appendix A;

b. the United States patent applications listed in Appendix A, and divisionals, continuations and claims of continuation-in-part applications which shall be directed to subject matter specifically described in such patent applications, and the resulting patents;

c. any patents resulting from reissues or reexaminations of the United States patents described in a. and b. above;

1.3 A "LICENSED PRODUCT" shall mean any product or part thereof which:

a. is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS in the country in which any such product or part thereof is made, used or sold; or

b. is manufactured by using a process or is employed to practice a process which is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS in the country in which any LICENSED PROCESS is used or in which such product or part thereof is used or sold.

1.4 A "LICENSED PROCESS" shall mean any process which is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS.

1.5 "NET SALES" shall mean LICENSEE's and its sublicensees' billings for LICENSED PRODUCTS and LICENSED PROCESSES less the sum of the following:

a. discounts allowed in amounts customary in the trade for quantity purchases, cash payments, prompt payments, wholesalers and distributors;

b. sales, tariff duties and/or use taxes directly imposed and with reference to particular sales;

c. outbound transportation prepaid or allowed; and

d. amounts allowed or credited on returns.

No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by LICENSEE and on its payroll, or for cost of collections. NET SALES shall occur when a LICENSED PRODUCT or LICENSED PROCESS shall be invoiced. If a LICENSED PRODUCT or LICENSED PROCESS shall be distributed or invoiced for a discounted price substantially lower than customary in the trade or distributed at no cost to affiliates or otherwise, NET SALES shall be based on the customary amount billed for such LICENSED PRODUCTS or LICENSED PROCESSES.

1.6 "TERRITORY" shall mean worldwide.

1.7 "FIELDS OF USE" shall mean commercial research and development, manufacture, and sales of LICENSED PRODUCTS or LICENSED PROCESSES which contain, use or act on restriction enzymes and integrases/recombinases.

Note: LICENSEE's rights to practice under the PATENT RIGHTS shall be in all FIELDS OF USE. The purpose of this FIELDS OF USE definition is to define the fields in which exclusivity is granted under this license under P. 2.3 below and in which LICENSEE may grant sublicenses under P. 2.6 below.

2 - GRANT

2.1 M.I.T. hereby grants to LICENSEE the right and license in the TERRITORY to practice under the PATENT RIGHTS and, to the extent not prohibited by other patents, to make, have made, use, lease, sell and import LICENSED PRODUCTS and to practice the LICENSED PROCESSES, until the expiration of the last to expire of the PATENT RIGHTS, unless this Agreement shall be sooner terminated according to the terms hereof.

2.2 LICENSEE agrees that LICENSED PRODUCTS leased or sold in the United States shall be manufactured substantially in the United States.

2.3 In order to establish exclusivity in the FIELDS OF USE for LICENSEE, M.I.T. hereby agrees that it shall not grant any other license to make, have made, use, lease, sell and import LICENSED PRODUCTS or to utilize LICENSED PROCESSES subject to the royalty-free, nonexclusive license rights of the United States Government per FAR 52.227-11, in the TERRITORY for the FIELDS OF USE.

2.4 M.I.T. agrees that prior to granting a license to any third party outside the defined FIELDS OF USE, it shall notify LICENSEE of its intent to grant such a license and LICENSEE shall have sixty (60) days in which to present to M.I.T. reasons for widening LICENSEE's exclusive FIELD OF USE beyond that defined in P.1.7 above. M.I.T. shall consider granting such widening to LICENSEE, for suitable consideration, depending upon LICENSEE's scientific progress, development plans and financial resources to develop the widened FIELD OF USE.

Any decision to widen the exclusive FIELD OF USE granted to LICENSEE shall be at M.I.T.'s sole discretion.

2.5 M.I.T. reserves the right to practice under the PATENT RIGHTS and to allow third parties to practice under the PATENT RIGHTS in all fields of use for noncommercial research purposes.

2.6 LICENSEE shall have the right to enter into sublicensing agreements for the rights, privileges and licenses granted hereunder only in the FIELDS OF USE. Upon any termination of this Agreement, sublicensees' rights shall also terminate, subject to Paragraph 13.6 hereof.

2.7 LICENSEE agrees to incorporate Articles 2, 5, 7, 8, 9, 10, 12, 13 and 15 of this Agreement into its sublicense agreements, so that these Articles shall be binding upon such sublicensees as if they were parties to this Agreement.

2.8 LICENSEE agrees to forward to M.I.T. a copy of any and all sublicense agreements promptly upon execution by the parties.

2.9 Nothing in this Agreement shall be construed to confer any rights upon LICENSEE by implication, estoppel or otherwise as to any technology or patent rights of M.I.T. or any other entity other than the PATENT RIGHTS, regardless of whether such patent rights shall be dominant or subordinate to any PATENT RIGHTS.

3 - DILIGENCE

3.1 LICENSEE shall use its best efforts to bring one or more LICENSED PRODUCTS or LICENSED PROCESSES to market through a thorough, vigorous and diligent program for exploitation of the PATENT RIGHTS and to continue active, diligent marketing efforts for one or more LICENSED PRODUCTS or LICENSED PROCESSES throughout the life of this Agreement.

3.2 LICENSEE shall deliver to M.I.T. on or before December 31, 1996 a business plan showing the amount of money, number and kind of personnel and time budgeted and planned for each phase of development of the LICENSED PRODUCTS and LICENSED PROCESSES and shall provide similar reports to M.I.T. on or before December 31 of each year.

3.3 LICENSEE's failure to perform in accordance with either Paragraph 3.1 or 3.2 above shall be grounds for M.I.T. to terminate this Agreement pursuant to Paragraph 13.3 hereof.

4 - ROYALTIES

4.1 For the rights, privileges and license granted hereunder, LICENSEE shall pay royalties to M.I.T. in the manner hereinafter provided to the end of the term of the PATENT RIGHTS or until this Agreement shall be terminated:

a. License Issue Fee of * , which said License Issue Fee shall be deemed earned and due immediately upon * .

b. License Maintenance Fees of * * per year payable on January 1, 1997 and on January 1 of each year thereafter; provided, however, License Maintenance Fees may be credited to Running Royalties subsequently due on NET SALES for each said year, if any. License Maintenance Fees paid in excess of Running Royalties shall not be creditable to Running Royalties for future years.

c. Running Royalties in an amount equal to * of NET SALES of the LICENSED PRODUCTS and LICENSED PROCESSES used, leased or sold by and/or for LICENSEE and/or its Sublicensees.

d. A milestone payment of * * upon * a LICENSED PRODUCT or LICENSED PROCESS in the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.

e. A milestone payment of *) upon the * a LICENSED PRODUCT or LICENSED PROCESS outside the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.

f. A milestone payment of * upon * a LICENSED PRODUCT or LICENSED PROCESS in the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.

g. A milestone payment of * upon * a LICENSED PRODUCT or LICENSED PROCESS outside the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.

h. * per sublicense granted, plus * per year sublicense maintenance fees.

4.2 All payments due hereunder shall be paid in full, without deduction of taxes or other fees which may be imposed by any government, except as otherwise provided in Paragraph 1.5(b).

4.3 No multiple royalties shall be payable because any LICENSED PRODUCT, its manufacture, use, lease or sale are or shall be covered by more than one PATENT RIGHTS patent application or PATENT RIGHTS patent licensed under this Agreement.

4.4 Royalty payments shall be paid in United States dollars in Cambridge, Massachusetts, or at such other place as M.I.T. may reasonably designate consistent with the laws and regulations controlling in any foreign country. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate

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prevailing at the Chase Manhattan Bank (N.A.) on the last business day of the calendar quarterly reporting period to which such royalty payments relate.

5 - REPORTS AND RECORDS

5.1 LICENSEE shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to M.I.T. hereunder. Said books of account shall be kept at LICENSEE's principal place of business or the principal place of business of the appropriate division of LICENSEE to which this Agreement relates. Said books and the supporting data shall be open at all reasonable times for five (5) years following the end of the calendar year to which they pertain, to the inspection of M.I.T. or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement. Should such inspection lead to the discovery of a greater than Ten Percent (10%) discrepancy in reporting to M.I.T.'s detriment, LICENSEE agrees to pay the full cost of such inspection.

5.2 LICENSEE shall deliver to M.I.T. true and accurate reports, giving such particulars of the business conducted by LICENSEE and its sublicensees under this Agreement as shall be pertinent to diligence under Article 3 and royalty accounting hereunder:

a. before the first commercial sale of a LICENSED PRODUCT or LICENSED PROCESS, annually, on January 31 of each year; and

b. after the first commercial sale of a LICENSED PRODUCT or LICENSED PROCESS, quarterly, within sixty (60) days after March 31, June 30, September 30 and December 31, of each year.

These reports shall include at least the following:

a. number of LICENSED PRODUCTS manufactured, leased and sold by and/or for LICENSEE and all sublicensees;

b. accounting for all LICENSED PROCESSES used or sold by and/or for LICENSEE and all sublicensees;

c. accounting for NET SALES, noting the deductions applicable as provided in Paragraph 1.5;

d. Running Royalties due under Paragraph 4.1(c);

e. royalties due on other payments from sublicensees under paragraph 4.1(d);

f. total royalties due; and

g. names and addresses of all sublicensees of LICENSEE.

5.3 With each such report submitted, LICENSEE shall pay to M.I.T. the royalties due and payable under this Agreement. If no royalties shall be due, LICENSEE shall so report.

5.4 On or before the ninetieth (90th) day following the close of LICENSEE's fiscal year, LICENSEE shall provide M.I.T. with LICENSEE's certified financial statements for the preceding fiscal year including, at a minimum, a balance sheet and an income statement.

5.5 The amounts due under Articles 4 and 6 shall, if overdue, bear interest until payment at a per annum rate * the prime rate in effect at the Chase Manhattan Bank (N.A.) on the due date. The payment of such interest shall not foreclose M.I.T. from exercising any other rights it may have as a consequence of the lateness of any payment.

6 - PATENT PROSECUTION

6.1 M.I.T. shall apply for, seek prompt issuance of, and maintain the PATENT RIGHTS during the term of this Agreement. The filing, prosecution and maintenance of all PATENT RIGHTS applications and patents shall be the primary responsibility of M.I.T.; provided, however, LICENSEE shall have reasonable opportunities to advise M.I.T. and shall cooperate with M.I.T. in such filing, prosecution and maintenance.

6.2 Payment of all fees and costs relating to the filing, prosecution and maintenance of the PATENT RIGHTS after the EFFECTIVE DATE shall be the responsibility of LICENSEE, whether such fees and costs were incurred before or after the EFFECTIVE DATE. LICENSEE shall pay such fees and costs to M.I.T. within thirty (30) days of invoicing; late payments shall accrue interest and shall be subject to Paragraph 5.5.

7 - INFRINGEMENT

7.1 LICENSEE shall inform M.I.T. promptly in writing of any alleged infringement of the PATENT RIGHTS by a third party and of any available evidence thereof.

7.2 M.I.T. shall have the right, but shall not be obligated, to prosecute at its own expense all infringements of the PATENT RIGHTS and, in furtherance of such right, LICENSEE hereby agrees that M.I.T. may include LICENSEE as a party plaintiff in any such suit, without expense to LICENSEE. The total cost of any such infringement action commenced or defended solely by M.I.T. shall be borne by M.I.T., and M.I.T. shall keep any recovery or damages for past infringement derived therefrom.

7.3 If within six (6) months after having been notified of an alleged infringement, M.I.T. shall have been unsuccessful in persuading the alleged infringer to desist and shall not have brought and shall not be diligently prosecuting an infringement action, or if M.I.T. shall notify LICENSEE at any time prior thereto of its intention not to bring suit against any alleged infringer in the TERRITORY for the FIELDS OF USE, then, and in those events only, LICENSEE shall have the right, but shall not be obligated, to prosecute at its own expense any infringement of the PATENT RIGHTS in the TERRITORY for the FIELDS OF USE, and LICENSEE may, for such

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purposes, use the name of M.I.T. as party plaintiff; provided, however, that such right to bring such an infringement action shall remain in effect only during the EXCLUSIVE PERIOD. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of M.I.T., which consent shall not unreasonably be withheld. LICENSEE shall indemnify M.I.T. against any order for costs that may be made against M.I.T. in such proceedings.

7.4 In the event that LICENSEE shall undertake litigation for the enforcement of the PATENT RIGHTS, or the defense of the PATENT RIGHTS under Paragraph 7.5, LICENSEE may withhold up to * of the payments otherwise thereafter due M.I.T. under Article 4 hereunder and apply the same toward reimbursement of up to * of LICENSEE's expenses, including reasonable attorneys' fees, in connection therewith. Any recovery of damages by LICENSEE for such suit shall be applied first in satisfaction of any unreimbursed expenses and legal fees of LICENSEE relating to such suit, and next toward reimbursement of M.I.T. for any payments under Article 4 past due or withheld and applied pursuant to this Article 7. The balance remaining from any such recovery shall be divided equally between LICENSEE and M.I.T.

7.5 In the event that a declaratory judgment action alleging invalidity or noninfringement of any of the PATENT RIGHTS shall be brought against M.I.T. or LICENSEE, M.I.T., at its option, shall have the right, within thirty (30) days after commencement of such action, to take over the sole defense of the action at its own expense. If M.I.T. shall not exercise this right, LICENSEE may take over the sole defense at LICENSEE's sole expense, subject to Paragraph 7.4.

7.6 In any infringement suit as either party may institute to enforce the PATENT RIGHTS pursuant to this Agreement, the other party hereto shall, at the request and expense of the party initiating such suit, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

7.7 LICENSEE shall have the sole right in accordance with the terms and conditions herein to sublicense any alleged infringer in the TERRITORY for the FIELDS OF USE for future use of the PATENT RIGHTS.

8 - PRODUCT LIABILITY

8.1 LICENSEE shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold M.I.T., its trustees, directors, officers, employees and affiliates,

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harmless against all claims, proceedings, demands and liabilities of any kind whatsoever, including legal expenses and reasonable attorneys' fees, arising out of the death of or injury to any person or persons or out of any damage to property, resulting from the production, manufacture, sale, use, lease, consumption or advertisement of the LICENSED PRODUCTS(s) and/or LICENSED PROCESS(es) or arising from any obligation of LICENSEE hereunder.

8.2 LICENSEE shall obtain and carry in full force and effect commercial, general liability insurance which shall protect LICENSEE and M.I.T. with respect to events covered by Paragraph 8.1 above. Such insurance shall be written by a reputable insurance company authorized to do business in the Commonwealth of Massachusetts, shall list M.I.T. as an additional named insured thereunder, shall be endorsed to include product liability coverage and shall require thirty (30) days written notice to be given to M.I.T. prior to any cancellation or material change thereof. The limits of such insurance shall not be less than One Million Dollars ($1,000,000) per occurrence with an aggregate of Three Million Dollars ($3,000,000) for personal injury or death, and One Million Dollars ($1,000,000) per occurrence with an aggregate of Three Million Dollars ($3,000,000) for property damage. LICENSEE shall provide M.I.T. with Certificates of Insurance evidencing the same.

8.3 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, M.I.T., ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES, AND AFFILIATES MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY M.I.T. THAT THE PRACTICE BY LICENSEE OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY. IN NO EVENT SHALL M.I.T., ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER M.I.T. SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

9 - EXPORT CONTROLS

LICENSEE acknowledges that it is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other

commodities (including the Arms Export Control Act, as amended and the United States Department of Commerce Export Administration Regulations). The transfer of such items may require a license from the cognizant agency of the United States Government and/or written assurances by LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. M.I.T. neither represents that a license shall not be required nor that, if required, it shall be issued.

10 - NON-USE OF NAMES

LICENSEE shall not use the names or trademarks of the Massachusetts Institute of Technology or Lincoln Laboratory, nor any adaptation thereof, nor the names of any of their employees, in any advertising, promotional or sales literature without prior written consent obtained from M.I.T., or said employee, in each case, except that LICENSEE may state that it is licensed by M.I.T. under one or more of the patents and/or applications comprising the PATENT RIGHTS.

11 - ASSIGNMENT

This Agreement is not assignable and any attempt to do so shall be void.

12 - DISPUTE RESOLUTION

12.1 Except for the right of either party to apply to a court of competent jurisdiction for a temporary restraining order, a preliminary injunction, or other equitable relief to preserve the status quo or prevent irreparable harm, any and all claims, disputes or controversies arising under, out of, or in connection with the Agreement, including any dispute relating to patent validity or infringement, which the parties shall be unable to resolve within sixty (60) days shall be mediated in good faith. The party raising such dispute shall promptly advise the other party of such claim, dispute or controversy in a writing which describes in reasonable detail the nature of such dispute. By not later than five (5) business days after the recipient has received such notice of dispute, each party shall have selected for itself a representative who shall have the authority to bind such party, and shall additionally have advised the other party in writing of the name and title of such representative. By not later than ten (10) business days after the date of such notice of dispute, the party against whom the dispute shall be raised shall select a mediation firm in the Boston area and such representatives shall schedule a date with such firm for a mediation hearing. The parties shall enter into good faith mediation and shall share the costs equally. If the representatives of the parties have not been able to resolve the dispute within fifteen (15) business days after such mediation hearing, then any and all claims, disputes or controversies arising under, out of, or in connection with this Agreement, including any dispute relating to patent validity or infringement,

shall be resolved by final and binding arbitration in Boston, Massachusetts under the rules of the American Arbitration Association, or the Patent Arbitration Rules if applicable, then obtaining. The arbitrators shall have no power to add to, subtract from or modify any of the terms or conditions of this Agreement, nor to award punitive damages. Any award rendered in such arbitration may be enforced by either party in either the courts of the Commonwealth of Massachusetts or in the United States District Court for the District of Massachusetts, to whose jurisdiction for such purposes M.I.T. and LICENSEE each hereby irrevocably consents and submits.

12.2 Notwithstanding the foregoing, nothing in this Article shall be construed to waive any rights or timely performance of any obligations existing under this Agreement.

13 - TERMINATION

13.1 If LICENSEE shall cease to carry on its business, this Agreement shall terminate upon notice by M.I.T.

13.2 Should LICENSEE fail to make any payment whatsoever due and payable to M.I.T. hereunder, M.I.T. shall have the right to terminate this Agreement effective on thirty (30) days' notice, unless LICENSEE shall make all such payments to M.I.T. within said thirty (30) day period. Upon the expiration of the thirty (30) day period, if LICENSEE shall not have made all such payments to M.I.T., the rights, privileges and license granted hereunder shall automatically terminate.

13.3 Upon any material breach or default of this Agreement by LICENSEE (including, but not limited to, breach or default under Paragraph 3.3), other than those occurrences set out in Paragraphs 13.1 and 13.2 hereinabove, which shall always take precedence in that order over any material breach or default referred to in this Paragraph 13.3, M.I.T. shall have the right to terminate this Agreement and the rights, privileges and license granted hereunder effective on ninety (90) days' notice to LICENSEE. Such termination shall become automatically effective unless LICENSEE shall have cured any such material breach or default prior to the expiration of the ninety (90) day period.

13.4 LICENSEE shall have the right to terminate this Agreement at any time on six (6) months' notice to M.I.T., and upon payment of all amounts due M.I.T. through the effective date of the termination.

13.5 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination; and Articles 1,8,9,10,12,13.5,13.6 and 15 shall survive any such termination. LICENSEE and any sublicensee thereof may, however, after the effective date of such termination, sell all LICENSED PRODUCTS, and complete LICENSED PRODUCTS in the process of manufacture at the time of such termination and sell the same, provided that LICENSEE shall make

the payments to M.I.T. as required by Article 4 of this Agreement and shall submit the reports required by Article 5 hereof.

13.6 Upon termination of this Agreement for any reason, any sublicensee not then in default shall have the right to seek a license from M.I.T. M.I.T. agrees to negotiate such licenses in good faith under reasonable terms and conditions.

14 - PAYMENTS, NOTICES AND OTHER COMMUNICATIONS

Any payments, notice or other communication pursuant to this Agreement shall be sufficiently made or given on the date of mailing if sent to such party by certified first class mail, return receipt requested, postage prepaid, addressed to it at its address below or as it shall designate by written notice given to the other party:

In the case of M.I.T.:

Director
Technology Licensing Office
Massachusetts Institute of Technology
77 Massachusetts Avenue, Room E32-300
Cambridge, Massachusetts 02139

In the case of LICENSEE:

15 - MISCELLANEOUS PROVISIONS

15.1 All disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, shall be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent shall have been granted.

15.2 The parties hereto acknowledge that this Agreement sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument signed by the parties.

15.3 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

15.4 LICENSEE agrees to mark the LICENSED PRODUCTS sold in the United States with all applicable United States patent numbers. ALL LICENSED PRODUCTS shipped to or sold

in other countries shall be marked in such a manner as to conform with the patent laws and practice of the country of manufacture or sale.

15.5 The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

IN WITNESS WHEREOF, the parties have duly executed this Agreement the day and year set forth below.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY	SANGAMO BIOSCIENCES, INC.
By /s/ Lita Nelsen	By /s/ Edward O. Lanphier
Name LITA L. NELSEN, DIRECTOR	Name EDWARD LANPHIER
Title TECHNOLOGY LICENSING OFFICE	Title PRESIDENT
Date April 17, 1996	Date May 9, 1996

FIRST AMENDMENT

This Amendment, with the effective date of 12/10/97, is to the License Agreement dated May 9, 1996, between Sangamo Biosciences, Inc. and Massachusetts Institute of Technology.

The parties thereto now further agree as follows:

1. Paragraph 1.7 shall be deleted, including the "Note", and replaced with the following:

1.7 "FIELDS OF USE" shall mean all fields of use.

2. Paragraph 2.4 shall be deleted and replaced with:

2.4 LICENSEE and M.I.T. agree that neither party shall assert the Patent Rights against not-for-profit institutions in their conduct of research, provided, however, that if a not-for-profit institution practices under the Patent Rights to conduct high throughput drug screening on behalf of a commercial entity, then the Patent Rights may be asserted against that institution.

3. The following shall be inserted as Paragraph 3.4:

3.4 After January 1, 2002, if M.I.T. notifies LICENSEE of a request by a third party for a license to the Patent Rights for an application or product (such as drug screening for a particular disease state, or development of a Licensed Product for a particular disease state) not currently under development by LICENSEE (or its sublicensee), and no such application or product (nor any directly competing application or product) is then currently under development or being sold by LICENSEE or a sublicensee, then LICENSEE shall either:

(a) within three months of the request submit to M.I.T. plans to begin development of the application or product within six months of the original request, at a level of effort appropriate to success of the development in a commercially reasonable time; or

(b) begin good faith negotiations with the third party toward granting a sublicense to the Patent Rights for the application or product.

If LICENSEE does not begin (or abandons) efforts under (a) above, and does not reach a sublicense agreement with the third party within 6 months thereafter, M.I.T. shall have the right to grant a nonexclusive license to the Patent Rights to the third party for the particular application or product, under terms no more favorable to the third party than are granted hereunder to LICENSEE, and including diligent development milestones. M.I.T. shall share with LICENSEE two-thirds (66.7%) of any revenue it derives from such license.

4. Royalties:

(a) LICENSEE shall pay to M.I.T. a First Amendment Issue Fee of * due upon * .

(b) The License Maintenance Fees due under P. 4.1b shall be increased to * on January 1, 1998 and * per year beginning January 1, 1999 and beyond.

(c) Subparagraphs 4.1e and 4.1g shall be deleted.

(d) The sublicense fees of P. 4.1h shall be increased to * per sublicense granted plus * per year per sublicense.

(e) The following subparagraph shall be added to P. 4.1, and shall be designated as subparagraph P. 4.1i

4.1i: * OF ANY MILESTONE FEES OR ROYALTIES PAID TO LICENSEE FROM SUBLICENSEES OR OTHER THIRD PARTIES FOR PRODUCTS DISCOVERED OR DEVELOPED THROUGH THE USE OF LICENSED PRODUCTS OR LICENSED PROCESSES. HOWEVER, IF THESE MILESTONE FEES AND ROYALTIES ARE ON PRODUCTS WHOSE COMPOSITION AND/OR PRODUCTION ARE COVERED BY OTHER PATENTS OWNED OR CONTROLLED BY LICENSEE, AND IF THESE FEES AND ROYALTIES ARE ALSO INTENDED TO COMPRISE COMPENSATION FOR PRACTICE UNDER SUCH LICENSEE PATENTS, THEN THE PAYMENTS DUE TO M.I.T. SHALL BE * OF THE MILESTONE FEES AND ROYALTIES.

Agreed to for:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY	SANGAMO BIOSCIENCES, INC.
By /s/ Lita Nelsen	By /s/ Edward O. Lanphier
Name LITA L. NELSEN, DIRECTOR	Name EDWARD LANPHIER
Title TECHNOLOGY LICENSING OFFICE	Title PRESIDENT & CEO
Date Dec 1, 1997	Date 12/10/97

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EXHIBIT 10.13

LICENSE AGREEMENT

This Agreement, made and entered into as of this 29th day of June 1995 (the "Effective Date") by and between THE JOHNS HOPKINS UNIVERSITY, a corporation duly organized and existing under the laws of the State of Maryland and having its principal place of business at Charles and 34th Streets, Baltimore, Maryland 21218, U.S.A. (hereinafter referred to as "JOHNS HOPKINS") and SANGAMO BIOSCIENCES, INC. a corporation duly organized under the laws of Delaware and having its principal office at P.O. Box 334, Ross, California 94957 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, JOHNS HOPKINS is the owner of certain Patent Rights (as later defined herein) relating to inventions from its laboratories directed by Srinivasan Chandrasegaran, Ph.D. concerning custom design and development of novel DNA-binding proteins for uses, including but not limited to laboratory reagents, clinical diagnostics and therapeutics and has the right to grant licenses under said Patent Rights, subject only to certain march-in-rights retained by the United States Government, including royalty-free, nonexclusive licenses;

WHEREAS, JOHNS HOPKINS desires to have the Patent Rights utilized in the public interest and is willing to grant a license thereunder;

WHEREAS, JOHNS HOPKINS and LICENSEE are parties to a Research Agreement having even date herewith (Appendix D);

WHEREAS, JOHNS HOPKINS is acting herein for itself;

WHEREAS, LICENSEE has represented JOHNS HOPKINS to induce JOHNS

HOPKINS to enter into this Agreement that LICENSEE shall commit itself to a thorough, vigorous and diligent program of exploiting the Patent Rights so that public utilization shall result therefrom;

WHEREAS, Dr. Chandrasegaran will continue to have full academic freedom to continue his scientific investigations and interactions with his colleagues; and

WHEREAS, LICENSEE desires to obtain a license under the Patent Rights upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

ARTICLE I - DEFINITIONS

For the purposes of this Agreement, in addition to other terms defined herein, the following words and phrases shall have the following meanings:

1.1 "LICENSEE" shall mean SANGAMO BIOSCIENCES and any Subsidiary of SANGAMO BIOSCIENCES.

1.2 "Subsidiary" shall mean any corporation, company or other entity more than fifty percent (50%) of whose voting stock is owned or controlled directly or indirectly by SANGAMO BIOSCIENCES; any parent corporation, company or other entity which owns, directly or indirectly, more than fifty percent (50%) of the voting stock of SANGAMO BIOSCIENCES; and any corporation, company or other entity in which such parent corporation, company or other entity owns, directly or indirectly, more than fifty percent (50%) of the voting stock.

1.3 "Patent Rights" shall mean the inventions disclosed and claimed in the United States and foreign patents and/or patent applications listed in Appendix A.

1.4 A "Licensed Product" shall mean any product or part thereof which:

(a) is covered in whole or in part by an issued, valid, enforceable, unexpired claim or a pending claim contained in the Patent Rights in the country in which any Licensed Product is made, used or sold;

(b) is manufactured by using a process which is covered in whole or in part by a valid, enforceable, issued, unexpired claim or a pending claim contained in the Patent Rights in the country in which any Licensed Process is used or in which the Licensed Product is used or sold.

1.5 A "Licensed Process" shall mean any process which is covered in whole or in part by a valid, enforceable, issued, unexpired claim or a pending claim contained in the Patent Rights.

1.6 "Net Sales" shall mean the invoiced sales price of Licensed Products to an end-user that is not a Subsidiary or a sublicensee in a country in which such sales would infringe a valid claim contained in the Patent Rights in such country after deducting:

(a) Discounts allowed in amounts customary in the trade;

(b) Sales taxes, tariffs, duties, use taxes and/or other governmental levies directly imposed and with reference to particular sales;

(c) Outbound transportation prepaid or allowed; and

(d) Amounts allowed or credited on returns.

No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by LICENSEE and on its payroll, or for cost of collections. Licensed Products shall be considered "sold" when billed out or invoiced.

1.7 "Invention" shall mean custom designed novel DNA-binding proteins.

ARTICLE II - GRANT

2.1 JOHNS HOPKINS hereby grants to LICENSEE the exclusive worldwide right and license to make, have made, use, lease and sell the Licensed Products, and to practice the Licensed Processes, including the right to grant sublicenses, subject to 35USC200-211 and the regulations promulgated thereunder, to the end of the term for which the Patent Rights are granted by the applicable governmental authority, unless sooner terminated as hereinafter provided (the "Term"). JOHNS HOPKINS reserves the non-transferable royalty-free right to practice the subject matter of any claim within the Patent Rights for its own internal purposes. If Dr. Chandrasegaran leaves JOHNS HOPKINS, he shall have the non-transferable, royalty-free right to practice any claim within the Patent Rights for his own academic purposes.

2.2 In order to establish a period of exclusivity for LICENSEE, JOHNS HOPKINS hereby agrees that it shall not grant any other license to make, have made, use, lease or sell Licensed Products or to practice Licensed Processes except for its internal research activities during the period of time (the "Exclusive Period") commencing with the Effective Date of this Agreement and terminating with expiration of the last-to-expire patent licensed under this Agreement, unless converted earlier to a nonexclusive license pursuant to Paragraph 4.4 hereof or pursuant to a requirement by the United States Government in accordance with 35USC200-211.

2.3 LICENSEE shall have the right to sublicense all or any part of this license. LICENSEE agrees that any sublicenses granted by it shall provide that the obligations to JOHNS HOPKINS of Articles II, VIII, IX, X, XIII, XV, and Paragraphs 5.1 and 5.2 of this

Agreement shall be binding upon the sublicensees as if it were a party to this Agreement. LICENSEE further agrees to attach copies of these Articles to sublicense agreements.

2.4 LICENSEE agrees to forward to JOHNS HOPKINS a copy of any and all fully executed sublicense agreements, and further agrees to forward to JOHNS HOPKINS, quarterly, pursuant to Paragraph 5.2 a copy of such reports received by LICENSEE from its sublicensees during the preceding twelve (12) month period under the sublicense as shall be pertinent to a royalty accounting under said sublicense agreements.

2.5 Subject to Sections 2.6, 2.7 and 15.7 below, the license granted hereunder shall not be construed to confer any rights upon LICENSEE by implication, estoppel or otherwise as to any technology not specifically set forth in Appendix A, Appendix B, Appendix C, and Appendix D hereof.

2.6 JOHNS HOPKINS hereby also grants to LICENSEE a right of first negotiation at then commercially reasonable terms, to obtain an exclusive license to any Inventions, as previously defined, developed during the term of this Agreement and any extension thereof and pursuant to any Research Agreement between the parties hereto (Appendix D). JOHNS HOPKINS shall promptly give LICENSEE written notice of any such Inventions, as defined, and LICENSEE shall have one hundred and twenty (120) days from the date of receipt of such notice to give JOHNS HOPKINS written notice of its intent to exercise such option and complete negotiations. JOHNS HOPKINS shall not negotiate with any third party regarding these Inventions during the period of LICENSEE's right to negotiate. During the term of this Agreement and any extension thereof, Dr. Chandrasegaran shall be free to pursue any scientific investigations of his choice through collaboration with colleagues. Should any such collaboration involve a Licensed Product or Licensed Process, JOHNS HOPKINS will take the initiative of promptly communicating

with these colleagues for the purpose of using its reasonable best efforts to have such colleagues agree to be bound by the terms of this Agreement with regard to Licensed Products and Licensed Processes.

2.7 Appendix B attached hereto contains ideas conceived by Dr. Chandrasegaran for developing laboratory reagents, diagnostics, and pharmaceuticals relating to chimeric restriction endonucleases. Dr. Chandrasegaran shall give written notice of any Invention resulting under the Advanced Technology Program within sixty (60) days of the completion of the funding of such program. Any Invention resulting in whole or in part from said ideas which are made pursuant to an award under the Advanced Technology Program where a grant application was filed on March 29, 1995 (Appendix C) shall be assigned to LICENSEE pursuant to Section 15.7 below and Dr. Chandrasegaran will be named as sole inventor unless another individual makes a creative input to said Invention. LICENSEE shall have the first right of negotiation, under then commercially reasonable terms, to obtain an exclusive, royalty-bearing license under any Invention resulting from said ideas in Appendix B made by Dr. Chandrasegaran with funding from a source other than the Advanced Technology Program grant.

ARTICLE III - DUE DILIGENCE

3.1 In order to assure the diligent development of the Licensed Products and Licensed Processes, LICENSEE shall either fulfill the due diligence milestones set forth in Paragraph 3.2 below or make the minimum royalty payments set forth in Paragraph 3.3 below.

3.2 LICENSEE's due diligence milestones shall be a follows:

(a) Within six (6) months from the date of this Agreement, LICENSEE shall deliver a business plan describing a program for the development of the Patent Rights.

(b) Within four (4) years from the Effective Date of this Agreement, LICENSEE shall have spent or caused to be spent, either directly by LICENSEE or indirectly pursuant to agreements entered into by LICENSEE (including Research Agreement funding and grant funding provided by or associated with LICENSEE to JOHNS HOPKINS), a total of One Million Dollars ($1,000,000) on activities relating to the research and development, marketing, sale, manufacture, lease and use of Licensed Products and Licensed Processes. All amounts expended on Licensed Products and Licensed Processes shall be credited toward the above indicated amounts, including but not limited to salaries, overhead salaries, overhead, capital, equipment, consulting fees and cost of materials.

(c) Within four (4) years from the Effective Date of this Agreement, LICENSEE shall submit an Experimental Plan for, and begin experimental work on, an appropriate testing program for at least one (1) Licensed Product. Such Experimental Plan shall be sufficiently detailed and comprehensive that, in the good faith opinion of LICENSEE and its counselors, the Plan shall, if successful, be reasonably adequate to support a credible and potentially successful Investigative New Drug (IND) application to the U.S. Food and Drug Administration within seven (7) years from the Effective Date of this Agreement.

(d) Within seven (7) years of the Effective Date of this Agreement, LICENSEE shall have submitted a complete Investigative New Drug application to the U.S. FDA, such IND to be supported with appropriate studies and other toxicity and safety tests as may be required by the FDA.

(e) Within three (3) years of the Effective Date of this Agreement, LICENSEE shall have made a first commercial sale of at least one (1) Licensed Product.

3.3 In the event that LICENSEE has failed to meet any particular due diligence milestone set forth in Paragraph 3.2 above on or before the date set forth therein with respect to each such milestone, JOHNS HOPKINS shall notify LICENSEE thereof and LICENSEE shall have ninety (90) days following such notification either to establish to the

reasonable satisfaction of JOHNS HOPKINS that it has met such milestone or to make the initial penalty payment referred to in Paragraph 3.4 below.

3.4 In the event that LICENSEE shall have failed to establish its achievement of any particular milestone to the reasonable satisfaction of JOHNS HOPKINS as set forth in Paragraph 3.3 above, JOHNS HOPKINS shall have the right to terminate this Agreement, unless LICENSEE shall make to JOHNS HOPKINS the following penalty payments:

(a) To maintain the exclusive rights granted herein on an exclusive basis as set forth in Paragraph 2.2, the amount of * in the year of the breach and * annually thereafter until the breach is cured; with such amount increasing to * annually commencing the eighth year following the Effective Date of this Agreement.

(b) To maintain its rights granted herein without the exclusivity provisions of Paragraph 2.2, the sum of * in the year of the breach and * per year thereafter until cured.

The penalty payments described in (a) and (b) above shall only be due within thirty (30) days following the failure of LICENSEE to achieve a milestone or cure such failure within the ninety (90) days set forth in Paragraph 3.3 above. LICENSEE's obligation to make such penalty payments shall terminate when the applicable milestone has been met.

ARTICLE IV - ROYALTIES

4.1 For the rights, privileges and license granted hereunder, LICENSEE shall pay to JOHNS HOPKINS in the manner hereinafter provided for so long as LICENSEE by its activities would, but for the licenses granted herein, infringe a valid, enforceable claim of an unexpired Patent Right or until this Agreement shall be terminated as hereinafter

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provided:

(a) At the time that LICENSEE closes financing equal to a total cumulative equity investment of at least Five Hundred Thousand Dollars ($500,000) ("Initial Financing"), LICENSEE shall issue to JOHNS HOPKINS that number of common units equal to that portion of the total number of common and preferred units issued with respect to the first Five Hundred Thousand Dollars ($500,000) in equity capital invested in the LICENSEE multiplied by 0.075. If the preferred units issued in any financing have antidilution protection, JOHNS HOPKINS shall be entitled to equivalent protection for its common units. JOHNS HOPKINS shall also be entitled, at its sole option, to invest its own funds in the second and any subsequent round of investment funding at a price per unit which is the same price as is offered to other second round investors, for up to a total number of shares such that JOHNS HOPKINS' share of equity in the Company would remain at seven-and-one-half percent (7.5%).

(b) At the time that the cumulative equity capital invested in the Company is equal to Two Million Dollars ($2,000,000), LICENSEE shall pay to JOHNS HOPKINS:

(i) a License Issue Fee of * * of said License Issue Fee shall be considered an Administrative Signing Fee); and

(ii) shall commence annual maintenance fees of * * due on January 1 of each year following the financing date.

(c) LICENSEE shall also pay to JOHNS HOPKINS a running royalty on Licensed Products during the Exclusive Period for such products as follows:

(i) For sales by LICENSEE and it Subsidiaries:

(1) for reagent products, * * of Net Sales; * * of Net Sales; and *

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* ;

(2) for diagnostic products, * of Net Sales; * of Net Sales; and * * of Net Sales in excess of * * ; and

(3) for therapeutic products, * * of Net Sales; * of Net Sales; and * of Net Sales in excess of * * .

(ii) for sales by sublicensees:

(1) for reagents products, the greater of * of Net Sales or * sublicense royalties received by LICENSEE;

(2) for diagnostic products, the greater of * of Net Sales or * of * sublicense royalties received by LICENSEE; and

(3) for therapeutic products, the greater of * of Net Sales or * of sublicense royalties received by LICENSEE.

(d) LICENSEE shall pay to JOHNS HOPKINS * of initial License Fees (excluding all other forms of payment including, but not limited to, research funding) LICENSEE receives from all sublicensees.

(e) During the nonexclusive period for any Licensed Product, LICENSEE shall pay to JOHNS HOPKINS a running royalty on the Net Sales of such Licensed Products sold by LICENSEE, its Subsidiaries and its sublicensees equal to * the royalty set forth in (c) above for sales during the Exclusive Period.

4.2 No multiple royalties shall be payable because any Licensed Product, its

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manufacture, lease or sale are or shall be covered by more than one patent application or patent licensed under this Agreement or acquired under a license pursuant to Paragraph 2.6 or 2.7. If a Licensed Product is covered by this Agreement and a License Agreement pursuant to Paragraph 2.6 and/or 2.7 the highest applicable royalty rate will apply. If, as to any Licensed Product, LICENSEE is required to pay a royalty to any third party, the royalty rates set forth in Paragraph 4.1 shall be reduced by * of the royalty rates paid to the third party, but in no event shall the rates in Paragraph 4.1 be reduced by more than * .

4.3 Royalty payments shall be paid in United States dollars in Baltimore, Maryland, at the time and in the manner provided in Article V below. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate prevailing at the Bank of America Corporation on the last business day of the calendar quarterly reporting period to which such royalty payments relate.

4.4 At the end of the first calendar year beginning after the first commercial sale of a Licensed Product by LICENSEE, a subsidiary, or a * , and each calendar year thereafter (hereinafter "Royalty Year"), LICENSEE shall pay JOHNS HOPKINS the greater of royalties payable pursuant to Paragraph 4.1(c) or a minimum annual royalty according to the following schedule:

At the End of the First Royalty Year	-	*
At the End of the Second Royalty Year	-	*
At the End of the Third and Through the Ninth Royalty Year	-	*
At the End of the Tenth and Each Subsequent Royalty Years	-	*

Said minimum annual royalty shall be paid to JOHNS HOPKINS within thirty (30) days of

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the end of each Royalty Year. Failure by LICENSEE to pay the minimum annual royalty required by this Paragraph 4.4 shall give JOHNS HOPKINS the right to convert the exclusive license granted by this Agreement to a nonexclusive license.

ARTICLE V - REPORTS AND RECORDS

5.1 LICENSEE shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to JOHNS HOPKINS hereunder. Said books of account shall be kept at LICENSEE's principal place of business or the principal place of business of the appropriate Division of LICENSEE to which this Agreement relates. Said books and the supporting data shall be open at all reasonable times for five (5) years following the end of the calendar year to which they pertain, to the inspection of JOHNS HOPKINS or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement.

5.2 Commencing with the first commercial sale of a Licensed Product, LICENSEE, within sixty (60) days after March 31, June 30, September 30 and December 31, of each year, shall deliver to JOHNS HOPKINS true and accurate reports, giving such particulars of the business conducted by LICENSEE, its Subsidiaries and its sublicensees during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. These shall include at least the following:

(a) All Licensed Products manufactured and sold.

(b) Total billings for Licensed Products sold.

(c) Accounting for all Licensed Processes used or sold.

(d) Deductions applicable as provided in Paragraph 1.6.

(e) Total royalties due.

(f) Names and addresses of all sublicensees of LICENSEE.

Where reasonably practical, LICENSEE shall, to the best of its knowledge, subcategorize the Licensed Products sold so as to assign the royalties paid to individual patent(s) of Appendix A. Such subcategorization shall be for JOHNS HOPKINS administrative purposes only and shall in no way affect any obligations of any part or the amounts of royalties to be paid under this Agreement. Until there has been a first commercial sale of a Licensed Product, the LICENSEE shall give an annual report of LICENSEE's efforts to achieve a first commercial sale.

5.3 With each such report submitted, LICENSEE shall pay to JOHNS HOPKINS the royalties due and payable under this Agreement. If no royalties shall be due, LICENSEE shall so report.

5.4 The royalty payments set forth in this Agreement shall, if overdue, bear interest until payment at a per annum rate * the prime rate in effect at Bank of America on the due date. The payment of such interest shall not foreclose JOHNS HOPKINS from exercising any other rights it may have as a consequence of the lateness of any payments.

ARTICLE VI - PATENT PROSECUTION

6.1 JOHNS HOPKINS represents that Appendix A, as amended from time-to-time, contains an accurate and complete listing of the patent applications and issued patents included within the Patent Rights. JOHNS HOPKINS agrees to promptly amend Appendix A within thirty (30) days of any new Invention made pursuant to the ATP.

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6.2 JOHNS HOPKINS warrants that it has the right to grant the rights and licenses granted herein to LICENSEE free and clear of all liens and encumbrances, except to the extent set forth in Article XII.

6.3 Within ninety (90) days of the completion of the financing set forth in Paragraph 4.1(b), LICENSEE shall reimburse JOHNS HOPKINS for previously-incurred as well as future expenses paid to third parties relating to drafting, filing, prosecuting and maintaining U.S. and foreign patent applications and patents included in the Patent Rights; provided, however, if such reimbursement amount exceeds Fifty Thousand Dollars ($50,000), then the amount above $50,000 shall be due twenty-four (24) months from the date of the initial payment, JOHNS HOPKINS shall, on LICENSEE's request and expense, file, prosecute, and maintain appropriate additional foreign patent applications and patents directed to the inventions which will be included in the Patent Rights and LICENSEE shall be licensed thereunder. If LICENSEE elects not to pay expenses associated with filing, prosecuting, and maintaining U.S. and foreign patent applications and patents directed to the inventions, JOHNS HOPKINS may file, prosecute, and maintain such U.S. and foreign patent applications and patents at its own expense and LICENSEE shall not be licensed thereunder.

6.4 With regard to substantive correspondence, patent applications and patents included in the Patent Rights, JOHNS HOPKINS shall in a timely manner send LICENSEE (a) copies of all proposed patent applications and correspondence to the respective patent office, give LICENSEE an opportunity to comment thereon, and incorporate such changes as reasonably requested by LICENSEE; and (b) copies of correspondence from the patent office.

6.5 JOHNS HOPKINS shall reasonably respond to LICENSEE's request for

change in outside patent counsel.

ARTICLE VII - INFRINGEMENT

7.1 Each party to this Agreement shall promptly notify the other party in writing of any alleged infringement and of any available evidence of infringement by a third party of any patents within the Patent Rights of which it becomes aware.

7.2 During the term of this Agreement, LICENSEE shall have the right, but shall not be obligated, to prosecute at its own expense any such infringements of the Patent Rights and, in furtherance of such right, LICENSEE hereby agrees that JOHNS HOPKINS may join LICENSEE as a party plaintiff in any such suit, without expense to JOHNS HOPKINS, provided, however, that such right to bring an infringement action shall remain in effect only for so long as the license granted herein remains exclusive. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of JOHNS HOPKINS, which consent shall not unreasonably be withheld. LICENSEE shall indemnify JOHNS HOPKINS against any order for costs or other expenses that may be made against JOHNS HOPKINS in such proceedings. The total cost of any such infringement action commenced or defended solely by LICENSEE shall be borne by LICENSEE, and LICENSEE shall keep any recovery damages for past infringement derived therefrom, after payments to JOHNS HOPKINS of the royalty rate set forth in Paragraph 4.1(c)(i) applied to the sum of the recovery, damages or any other amount received in any form of disputation and/or in settlement of any infringement or alleged infringement of the Patent Rights remaining after LICENSEE has reimbursed itself for all costs, including legal costs, associated with the prosecution.

7.3 If within six (6) months after having been notified of any alleged infringement,

LICENSEE shall have been unsuccessful in persuading the alleged infringer to desist and shall not have brought and shall not be diligently prosecuting any infringement action, or if LICENSEE shall notify JOHNS HOPKINS at any time prior thereto of its intention not to bring suit against any alleged infringer, then, JOHNS HOPKINS shall have the right, but shall not be obligated to prosecute at its own expense any infringement of the Patent Rights, and JOHNS HOPKINS may, for such purposes, use the name of LICENSEE as party plaintiff without expense to LICENSEE, and JOHNS HOPKINS shall keep any recovery or damages derived therefrom.

7.4 In the event that a declaratory judgment action alleging invalidity or noninfringement of any of the Patent Rights shall be brought against LICENSEE, JOHNS HOPKINS at its option, shall have the right, within thirty (30) days after commencement of such action, to intervene and participate in the defense of the action at their own expense.

7.5 In any infringement suit that any party hereto may institute to enforce the Patent Rights pursuant to this Agreement, the other party hereto shall, at the request and expense of the party initiating such suit, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

7.6 LICENSEE, during the Exclusive Period of this Agreement, shall have the sole right in accordance with the terms and conditions herein to sublicense any alleged infringer under the Patent Rights to avoid future infringements. Amounts received from any such sublicensee constituting retroactive royalties shall be considered amounts received in settlement and accounted for under Paragraph 7.2 above. Otherwise, amounts received from such sublicensee shall be treated in accordance with Paragraph

4.1(c) above.

ARTICLE VIII - LIABILITY

8.1 Inasmuch as JOHNS HOPKINS will not, under the provisions of this Agreement or otherwise, have control over the manner in which LICENSEE, or its Subsidiaries or its agents or its sublicensees or those operating for its account, or third parties who purchase Licensed Products from any of the foregoing entities, practice any invention encompassed by the license granted herein, LICENSEE shall defend and hold JOHNS HOPKINS, it trustees, officers, employees, students, and affiliates harmless as against any judgments, fees, expenses or other costs (including reasonable attorneys' fees) arising from or incidental to any product liability or other lawsuit brought as a consequence of the practice of said invention by any of the foregoing entities, whether or not JOHNS HOPKINS is named as party defendant in any such lawsuit. LICENSEE shall have the right to defend such a product liability lawsuit with counsel of its own choosing and JOHNS HOPKINS will cooperate in the defense of such action at LICENSEE's expense. Practice of the Invention encompassed by the license granted herein by a Subsidiary or an agent or a sublicensee, or a third party on behalf of or for the account of LICENSEE or by a third party who purchases Licensed Products from any of the foregoing shall be considered LICENSEE's practice of said invention for purposes of this Paragraph 8.1. The provisions of this Paragraph 8.1 shall survive termination of this Agreement.

8.2 LICENSEE shall maintain or cause to be maintained, prior to the first planned use of Licensed Products or Licensed Processes in humans, product liability insurance or other protection reasonably acceptable to JOHNS HOPKINS which shall

protect LICENSEE and JOHNS HOPKINS in regard to events covered by Paragraph 8.1 above. LICENSEE will disclose to JOHNS HOPKINS the amount and kind of product liability insurance it obtains, will give JOHNS HOPKINS a copy of the certificate of insurance, and will increase or change the kind of insurance at the reasonable request of JOHNS HOPKINS, provided such insurance is available to LICENSEE at commercially reasonable rates.

8.3 Except as otherwise expressly set forth in this Agreement, JOHNS HOPKINS makes no representations and extend no warranties of any kind, either express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, and validity of Patent Rights claims, issued or pending.

8.4 No liability under this Agreement shall result to a party from delay in performance caused by force majeure, that is, circumstances beyond the reasonable control of the party affected thereby, including, without limitation, acts of God, earthquake, fire, flood, war, government regulations, labor unrest, or shortage of or an inability to obtain material or equipment.

ARTICLE IX - EXPORT CONTROLS

It is understood that JOHNS HOPKINS is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities (including the Arms Export Control Act, as amended and the Export Administration Act of 1979), and that their obligations hereunder are contingent on compliance with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by

LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. JOHNS HOPKINS neither represents that a license shall not be required nor that, if required, it shall be issued.

ARTICLE X - NON-USE OF NAMES

LICENSEE shall not use the name of JOHNS HOPKINS, nor any of its employees, or any adaptation thereof, in any advertising, promotional or sales literature without prior written consent obtained from JOHNS HOPKINS in each case, except that LICENSEE may state that it is licensed by JOHNS HOPKINS under one or more of the patents and/or applications comprising the Patent Rights.

ARTICLE XI - ASSIGNMENT

This Agreement may not be assigned, in whole or in part, except in conjunction with the sale of the entire business, or an operating business division, of LICENSEE to which the Patent Rights relate, without the prior consent of JOHNS HOPKINS, which consent shall not be unreasonably withheld.

ARTICLE XII - GOVERNMENT RIGHTS

12.1 Pursuant to 35USC202, JOHNS HOPKINS has elected to take all rights, title and interest in the inventions forming the basis of the Patent Rights.

12.2 LICENSEE hereby specifically agrees to cooperate with JOHNS HOPKINS in abiding by the terms and conditions imposed on JOHNS HOPKINS pursuant to 35USC200-211 and the regulations promulgated thereunder.

12.3 JOHNS HOPKINS warrants that it has compiled with and will continue to comply with all duties and obligations running from JOHNS HOPKINS to the Government pursuant to 35USC200-211 and the regulations promulgated thereunder.

12.4 LICENSEE agrees to manufacture in the United States those Licensed Products which are sold and used in the United States.

ARTICLE XIII - TERMINATION

13.1 This Agreement shall terminate if LICENSEE dissolves, unless this Agreement has been assigned prior to the date of dissolution.

13.2 Should LICENSEE fail to pay JOHNS HOPKINS royalties due and payable hereunder, JOHNS HOPKINS shall have the right to terminate this Agreement on sixty (60) days' written notice, unless LICENSEE shall pay JOHNS HOPKINS within the sixty (60) day period, all such royalties and interest due and payable. Upon the expiration of the sixty (60) day period, if LICENSEE shall not have paid all such royalties and interest due and payable, the rights, privileges and license granted hereunder shall terminate.

13.3 Upon any material breach or default of this Agreement by LICENSEE other than those occurrences set out in Paragraphs 13.1 and 13.2 hereinabove, which shall always take precedence in that order over any material breach or default referred to in this Paragraph 13.3, JOHNS HOPKINS shall have the right to terminate this Agreement and the rights, privileges and license granted hereunder by giving ninety (90) days' notice to LICENSEE. Such termination shall become effective unless LICENSEE shall have cured any such breach or default prior to the expiration of the ninety (90) day period.

13.4 LICENSEE shall have the right to terminate this Agreement at any time on six (6) months' notice to JOHNS HOPKINS and upon payment of all amounts due JOHNS

HOPKINS.

13.5 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination. LICENSEE and any Subsidiary and sublicensee thereof may, however, after the effective date of such termination, sell all Licensed Products, and complete Licensed Products in the process of manufacture at the time of such termination and sell the same, provided that LICENSEE shall pay to JOHNS HOPKINS the royalties thereon as required by Article IV of this Agreement and shall submit the reports required by Article V hereof on the sales of Licensed Products.

13.6 Upon termination of this Agreement for any reason during the Exclusive Period, any sublicensee not then in default shall have the right to seek a license from JOHNS HOPKINS under the same terms and conditions as set forth hereunder.

13.7 The provisions of Paragraph 8.1, Article IX, and Article X shall survive termination of this Agreement.

ARTICLE XIV - PAYMENTS, NOTICES AND OTHER COMMUNICATIONS

Any payment, notice or other communication pursuant to this Agreement shall be sufficiently made or given on the date of mailing if sent to such party by certified first class mail, postage prepaid, addressed to it at its address below or as it shall designate by written notice given to the other party:

In the case of JOHNS HOPKINS:

Johns Hopkins University
300 Whitehead Hall
Charles and 34th Streets
Baltimore, Maryland 21218
Attention: Edwin T. Yates, Ph.D.

[Blank]

With a copy to:

Associate Dean for Corporate Affairs
Johns Hopkins University
School of Hygiene and Public Health
111 Market Place, Suite 840
Baltimore, Maryland 21202-6709
Attention: Alan M. Goldberg, Ph.D.

In the case of LICENSEE:

Edward Lanphier
Sangamo BioSciences, Inc.
P.O. Box 334
Ross, California 94957

With a copy to:

Stephan Dolezalek, Esq.
Brobeck, Phleger & Harrison
Two Embarcadero Place
2200 Geng Road
Palo Alto, California 94303

ARTICLE XV - MISCELLANEOUS PROVISIONS

15.1 This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of the State of Maryland, U.S.A., except that questions affecting the validity, construction and effect of any patent licensed hereunder, shall be determined by the law of the country in which the patent was granted.

15.2 The parties hereto acknowledge that this Agreement sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.

15.3 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

15.4 LICENSEE agrees to mark the Licensed Products sold in the United States with all applicable United States patent numbers. All Licensed Products shipped to or sold in other countries shall be marked in such a manner as to conform with the patent laws and practice of the country of manufacture or sale.

15.5 The failure of any party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

15.6 Claims, disputes, or controversies concerning the validity, construction, or effect of any patent licensed hereunder shall be resolved in any court having jurisdiction thereof.

15.7 A grant application under the Advanced Technology Program was filed on March 29, 1995 (Appendix C). If a grant is awarded, any Invention made pursuant thereto where an investigator at JOHNS HOPKINS is the sole inventor or a coinventor shall be assigned to LICENSEE. Such Invention shall be assigned hereunder and shall thereafter fall within the definition of Patent Rights and therefore shall be subject to Sections 3.2, 3.3 and 3.4 hereof and to the royalty payments required by Sections 4.1(c)(i), 4.1(d) and 4.4 hereof as part of the rights licensed hereunder.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals and duly executed this Agreement the day and year set forth below.

JOHNS HOPKINS UNIVERSITY

By:

Herbert R. Hansen, Jr., MBA, CPA
Senior Associate Dean, Finance and Administration

Date:

OR

By: /s/ Alan M. Goldberg

Alan M. Goldberg, Ph.D.
Associate Dean, Corporate Affairs

Date: July 10th, 1995

AND

By: /s/ John Groopman

John Groopman, Ph.D.
Chairman, Environmental Health Sciences

Date: 7/10/95

SANGAMO BIOSCIENCES, INC.

By: /s/ Edward O. Lanphier II

Edward O. Lanphier II
President

Date: June 30, 1995

APPENDIX A

PATENTS:

APPENDIX B

INVENTION DISCLOSURES:

APPENDIX C

ADVANCED TECHNOLOGY PROGRAM GRANT PROPOSAL:

APPENDIX D

RESEARCH AGREEMENT:

THE JOHNS HOPKINS UNIVERSITY
BALTIMORE, MD 21218-2696

Nina M. Siegler, C.F.A.
Director

Office of Technology Transfer
708 N Wyman Park Center
3400 N. Charles Street
(410) 516-8137
Fax (410) 516-7811

AMENDMENT NO. 1

TO THE LICENSE AGREEMENT between

Johns Hopkins University and Sangamo Biosciences, Inc.

This Amendment No. 1, dated June 1, 1998 ("Effective Date") to the License Agreement dated June 29, 1995 concerning the licensing and other matters of patent properties referred to in the License Agreement as "Functional Domains in Flavobacterium Okeanokoites (FOK1) Restriction Endonuclease", US Patent Application Serial Number 07/862,831, filed April 3, 1992, JHU Reference C-1191, (Dr. Srinivasan Chandrasegaran, Inventor) and other Patent Rights, is entered into between Johns Hopkins University, a not-for-profit educational institution having an address at 3400 N. Charles Street, Baltimore, MD ("JOHNS HOPKINS" or "JHU") and Sangamo Biosciences, Inc., a corporation of the State of Delaware and having a principal place of business at Point Richmond Tech Center, 501 Canal Blvd, Suite A-100, Richmond, CA ("LICENSEE").

This document amends the License Agreement by the following:

1. In Paragraph 4.1, delete in its entirety paragraph 4.1.(c). Replace with new Paragraph 4.1.(c):

   4.1.(c) LICENSEE shall also pay to JOHNS HOPKINS a running royalty on Licensed Products as follows:

   (i) for therapeutic products, * of Net Sales
   (ii) for diagnostic products, * of Net Sales
   (iii) for reagent products, * of Net Sales

2. Delete in its entirety Paragraph 4.4, and replace with the following new Paragraph 4.4:

   4.4 LICENSEE shall pay to JOHNS HOPKINS a minimum annual royalty according to the following schedule and within thirty (30) days of the end of the calendar year:

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

1999,2000	*	per year
2001-2005	*	per year
2006 and until termination	*	per year

Failure by LICENSEE to pay the minimum annual royalty required by this Paragraph 4.4 shall give JOHNS HOPKINS the right to convert the exclusive license granted by this Agreement to a nonexclusive license.

3. Add new Paragraph 4.5 as follows:

4.5 For the rights, privileges and license granted by Amendment No. 1, dated _____, LICENSEE agrees to pay to JOHNS HOPKINS the sum of * , payable in equal installments within eighteen months of the Effective Date of Amendment No. 1.

4. Add new Paragraph 6.6 as follows:

6.6 LICENSEE shall have the right, but not the obligation, to assume primary responsibility for patent prosecution. JOHNS HOPKINS hereby agrees to reasonably cooperate with the transfer of case files, execution of appropriate documents and any other matters needed for LICENSEE to assume such responsibility. In such case, LICENSEE shall provide to JHU copies of all correspondence from and to the US PTO and international equivalents with sufficient time to allow for comment by JHU. LICENSEE shall endeavor to accommodate JHU's comments into a reasonable patent prosecution strategy. In no case shall LICENSEE abandon any application or patent in any country without prior approval from JHU. In any country where the LICENSEE elects not to have a patent application filed or to pay expenses associated with filing, prosecuting, or maintaining a patent application or patent, LICENSEE shall notify JHU allowing at least thirty (30) days for JHU to assume such responsibilities. JHU may file, prosecute, and/or maintain a patent application or patent at its own expense and for its own exclusive benefit and the LICENSEE thereafter shall not be licensed under such patent or patent application. Upon termination of this Agreement, LICENSEE shall immediately transfer all case files, execute any appropriate documents related to patent matters and cooperate in any other matters needed for JHU to assume responsibility for patent prosecution.

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

5. In Paragraph 13.7, add after "Article X", insert, "Paragraph 4.5 and Paragraph 6.6".

6. Add new Paragraph 15.8 as follows:

15.8 With respect to "Methods for Inactivating Target DNA and For Detecting Conformation Change in a Nucleic Acid", Inventor, Srinivasan Chandrasegaran, US Patent Application SN 08/647,449, Filed 5/7/96 (JHU Docket: C-1288), LICENSEE hereby acknowledges and agrees that Dr. Chandrasegaran is the sole inventor of this property.

7. In Appendix A, add:

5. "General Method to Clone Hybrid Restriction Endonucleases Using lig Gene"
Srinivasan Chandrasegaran,
US Patent Application SN 08/575,361 Filed 12/24/95
JHU Docket: C-1274

6. "Methods for Inactivating Target DNA and For Detecting Conformation Change in a Nucleic Acid"
Srinivasan Chandrasegaran,
US Patent Application SN 08/647,449 Filed 5/7/96
JHU Docket: C-1288

8. Except as expressly modified by this Amendment No. 1, the License Agreement shall remain in full force and effect.

9. In Paragraph 3.2(e) change it to read, "Within seven (7) years of the Effective Date of this Agreement, LICENSEE shall have made a commercial sale of at least one (1) Licensed Product."

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed and delivered as of the date first written above.

For Sangamo Biosciences, Inc.:

/s/ Edward O. Lanphier II — 7/16/98

Edward O. Lanphier II — Date
President

For Johns Hopkins University:

/s/ Herbert R. Hansen, J. — 7/8/98

Herbert R. Hansen, J., MBA, CPA — Date
Senior Associate Dean, Finance and
Administration

Sangamo Amendment #1 (6/29/98)

Ms. Nina M. Siegler
Director, Office of Technology Transfer
Johns Hopkins University
708N Wyman Park Center
3400 N. Charles Street
Baltimore, MD 21218-2695

Dear Nina:

As you know, the License Agreement between Johns Hopkins University ("JHU") and Sangamo BioSciences, Inc. dated June 29, 1995, in Article IV(a) at page 9, grants JHU certain rights to invest its own funds in investment funding of Sangamo.

Sangamo has filed a Registration Statement with the SEC for an initial public offering ("IPO") which we expect will take place in late March or April 2000. While we understand that Article IV(a) was intended to apply to private financings prior to our IPO, Lehman Bros., our lead underwriter, has asked us to have you confirm that paragraph (a) of Article IV will terminate upon our IPO. In accordance with our telephone conversation on March 9, 2000, in order to make it completely clear that Article IV(a) will not apply to our IPO and thereafter Sangamo will pay JHU $25,000 upon receipt of a signed copy of this letter and an additional $25,000 on September 15, 2000 in consideration for the following amendment to the License Agreement and Agreement:

> Article IV(a) is hereby amended by adding the following sentence at the end of paragraph (a): "THE PROVISIONS OF THIS PARAGRAPH (a) WILL TERMINATE UPON THE SALE BY THE COMPANY OF ITS COMMON STOCK IN ITS INITIAL PUBLIC OFFERING MADE PURSUANT TO A REGISTRATION STATEMENT DECLARED EFFECTIVE BY THE SECURITIES AND EXCHANGE COMMISSION."

JHU acknowledges that Sangamo has complied with all of the provisions of Article IV(a).

Please sign a copy of this letter and return it to me at your earliest convenience. We appreciate your cooperation in helping us become a public company.

Sincerely,

Edward Lanphier

THE FOREGOING IS AGREED TO:
JOHNS HOPKINS UNIVERSITY

By: ---

Dated: , 2000

EXHIBIT 10.14

MEDICAL RESEARCH COUNCIL

-AND-

SANGAMO BIOSCIENCES

L I C E N C E

FOR

ZINC FINGERS PATENT

EXHIBIT 10.14

THIS AGREEMENT is made the 1 day of September One thousand nine hundred and ninety six between MEDICAL RESEARCH COUNCIL of 20 Park Crescent, London W1N 4AL (hereinafter called "MRC" which expression includes its successors and assigns) of the one part and Sangamo Biosciences of 950 Marina Village Parkway, Alameda, CA 94501, U.S.A. (hereinafter called "the Licensee" which expression includes its successors and permitted assigns) of the other part.

WHEREAS:-

(A) MRC is the proprietor of certain applications for patent rights in respect of methods of selecting and designing polypeptides comprising zinc finger binding motifs and polypeptides made by these methods.

(B) The Licensee wishes to obtain a licence to the applications from MRC, and MRC is willing to grant such licence on the terms, and subject to the conditions, which follow.

NOW IT IS HEREBY AGREED as follows:-

1. Definitions

(1) In this Agreement the following words and expression shall be construed as follows:-

"Affiliate" shall mean any corporation, company, partnership or other entity which directly or indirectly controls, is controlled by or is under common control with either party to this Agreement.

"Control" means the ownership of more than 50% of issued share capital or the legal power to direct or cause the direction of the general management and policies of the party in question.

3

"THE EFFECTIVE DATE" shall mean the date of execution above written.

"NET INVOICE PRICE" shall mean in relation to a Product sold by Licensee or sub-licensee of Licensee, the price invoiced by Licensee (or sub-licensee as appropriate) to the relevant purchaser (or in the case of a sale or other disposal otherwise than at arm's length, the price which would have been invoiced in a bona fide arm's length contract of sale), but deducting the costs of packing, transport and insurance, customer duties, any credits actually given for returned or defective Products, normal trade discounts actually given, and sales taxes, VAT or other similar tax charged on and included in the invoice price to the purchaser.

"THE PATENT RIGHTS" shall mean:-

(a) the patent applications short particulars of which are set out in Schedule 1;
(b) all patents which may be granted pursuant to any of the foregoing applications;
(c) any patents which derive from the foregoing patent applications including any divisions, renewals, continuations, continuations-in-part, extensions or reissues thereof.

"THE PRODUCTS" shall mean products whose development (including use of the methods claimed in the Patent Rights), manufacture use or sale would, but for this licence, infringe the Patent Rights.

(2) In this Agreement the singular shall where the context so permits include the plural and vice versa.

2. Commencement

This Agreement shall be deemed to have come into force on the Effective Date and shall be read and construed accordingly.

3. Grant of Rights

(1) MRC agrees to grant to the Licensee a non-exclusive worldwide licence under the Patent Rights to develop manufacture use and sell Products.

(2) The Licensee shall have the right to grant sub-licenses of the rights granted to it under this Agreement but only in conjunction with a licence of Licensee's complementary technology and in a defined field equivalent to that licensed technology. Any such sub-license shall be granted on and shall contain substantially similar terms and conditions as the clauses of this Agreement including, but without limitation, the terms herein relating to indemnity.

(3) Prior to the first anniversary of the Effective Date MRC shall review the scope and desirability for entering negotiations with Licensee for conversion of this agreement to an exclusive licence in whole or in part, and MRC shall inform Licensee on or about the first anniversary of the Effective Date whether it wishes to enter such negotiations. For the avoidance of doubt, neither party is under any obligation to enter such negotiations, or committed to accept specific terms for conversion of an exclusive or partially exclusive licence.

4. Payments

(1) In consideration for the non-exclusive licence granted pursuant to Clause 3.1 hereof the Licensee shall pay to MRC the following sums:

(i) * to be paid upon * .

(ii) * to be paid on the 1st anniversary of the Effective Date.

(iii) * to be paid on the 2nd anniversary of the Effective Date.

(iv) * to be paid on the 3rd anniversary of the Effective Date.

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

(2) In further consideration for the licence granted pursuant to Clause 3.1 hereof the Licensee shall pay to MRC the following milestone payments:-

(i) * to be paid on

*

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

(ii) * to be paid on

*

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

(iii) * to be paid on

*

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

(3) In further consideration of the licence granted by MRC to Licensee under Clause 3(1), Licensee shall pay to MRC a royalty of * of the Net Invoice Price on all sales of Products by Licensee or any Affiliate or any sub-licensee where the Products are either manufactured and/or sold in a country where a patent under the Patent Rights is granted valid and subsisting at the date of such sale.

(4) If the Licensee is required to pay total royalties in excess of * of Net Invoice Price to parties other than MRC the royalty payable to MRC may be reduced by the amount of royalty in excess of * payable to such other parties but in no event shall the royalty payable to the MRC be reduced by * from the royalty rate specified in Clause 4(3). If the Licensee avails itself of the provision of this paragraph, the Licensee agrees to provide the MRC with proof of such royalties paid to other parties.

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

(5) Licensee agrees to keep true and accurate records and books of account containing all data necessary for the calculation of the milestone payments and royalties payable to MRC under Clause 4(2) and 4(3). Such records and books of account shall upon reasonable notice having been given by MRC be open at all reasonable times during business hours for inspection by MRC or its duly authorised representative.

(6) Licensee shall prepare a statement in respect of each calendar quarter of this Agreement which shall show for the calendar quarter in question the quantity of Products manufactured and sold by the Licensee and sub-licensees in each country and the Net Invoice Price of each Product so sold and the royalty due to MRC thereon pursuant to Clause 4(3) above. Such statement shall be submitted to MRC within 60 days following the end of the calendar quarter or part thereof to which it relates together with a remittance for the royalties due to MRC. If MRC shall give notice to Licensee within 60 days of the receipt of any such statement that it does not accept the same such statement shall be certified by an independent chartered accountant appointed by agreement between the parties or, in default of agreement within 14 days, by the President for the time being of the Institute of Chartered Accountants of England and Wales in London. Licensee shall make available all books and records required for the purpose of such certification at reasonable times during normal business hours and the statement so certified shall be binding between the parties. The costs of such certification shall be the responsibility of MRC if the certification shows the original statement to have been accurate and otherwise shall be the responsibility of Licensee. Following any such certification the parties shall make any adjustments necessary in respect of the royalties already paid to MRC in relation to the period in question.

(7) The Licensee shall pay royalties to MRC free and clear of and without deduction or deferment in respect of any demand, set-off, counterclaim or other dispute and so far as is legally possible such payment shall be made free and clear of any taxes imposed by or under the authority of any government or public authority and in particular but

without limitation where any sums due to be paid to MRC hereunder are subject to any withholding or similar tax, the Licensee shall pay such additional amount as shall be required to ensure that the net amount received by MRC hereunder will equal the full amount which would have been received by it had not such tax been imposed or withheld. The Licensee and, without prejudice to the foregoing, MRC shall use their best endeavors to do all such lawful acts and things and to sign all such lawful deeds and documents as will enable the Licensee to take advantage of any applicable legal provision or any double taxation treaties with the object of paying the sums due to MRC without imposing or withholding any tax.

Sums are expressed in this agreement as exclusive of any value added tax (VAT) which might be applicable. MRC agrees to provide Licensee with a VAT invoice in respect of every payment affected by VAT.

(8) Where MRC does not receive payment of any sums due to it within the period specified hereunder in respect thereof interest shall accrue on the sum outstanding at the rate of * per month calculated on a daily basis without prejudice to MRC right to receive payment on the due date therefor.

5. Patent Prosecution and Infringement

(1) MRC shall be responsible for seeking issuance and maintenance of the Patent Rights.

(2) If the Licensee becomes aware of a suspected infringement of the Patent Rights it shall notify MRC giving full particulars thereof. If the alleged infringement consists of any act which (if done by the Licensee) would be within the scope of the licences granted under this Agreement MRC and the Licensee shall (within a reasonable time of the said notification) consult together with a view to agreeing upon a course of action to be pursued.

* Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

6. Term and Termination

(1) Subject as hereinafter provided this Agreement and the licence granted pursuant thereto shall continue in force in each territory during the subsistence of the last to expire of the Patent Rights.

(2) MRC may terminate this Agreement and the said licences forthwith by notice to the Licensee to that effect upon the happening of any of the following events:-

(i) if the Licensee fails to perform or observe any of the obligations on its part to be performed or observed and if the breach is one capable of remedy has not been remedied within three (3) months of the giving of a notice informing the Licensee of such breach;

(ii) if the Licensee files a voluntary petition in bankruptcy or applies to any Tribunal for a Receiver Trustee or similar officer to be appointed by any Court or Executive Department to liquidate or conserve the Licensee or any substantial part of its property or assets due to insolvency or to the threat thereof or if the Licensee suffers any trusteeship or receivership to continue undischarged for a period of sixty days or suffers any similar procedure for the relief of distressed debtors entered into by the Licensee voluntarily or involuntarily or if the Licensee is otherwise divested of its assets for a period of sixty days or makes a general assignment for the benefit of its creditors;

(3) The Licensee may terminate this Agreement and the Licences granted pursuant hereto by giving to MRC 6 months notice to that effect. Such termination shall be without prejudice to the right of MRC to enforce the Patent Rights in the event of subsequent manufacture of Products by the Licensee.

(4) Termination of this Agreement or of the said Licences shall be without prejudice to any rights of either party against the other which may have accrued up to the date of

such termination and the licensee shall pay to MRC the appropriate royalties hereunder on all stocks of the Products (on which royalties have not already been paid) held at the date of termination by the Licensee or any person engaged by the same to manufacture the Products and shall thereafter be free to sell such products on which royalty has been paid.

7. Warranties

(1) MRC hereby represents and warrants that MRC owns the Patent Rights or is otherwise authorised to licence the Patent Rights to the Licensee.

(2) Nothing in this Agreement or in any licences to be granted pursuant thereto shall be construed as a representation or warranty that any of the said Patent Rights are valid or that any development manufacture use sale or other disposal of the Products is not an infringement of any patents or other rights not vested in the MRC.

(3) The Licensee shall promote the sale of the Products of good marketable quality and shall use reasonable endeavours to meet the market demand therefore.

8. Liability and Indemnity

Licensee hereby undertakes and agrees to be solely responsible at its own cost and expense for dealing with and for any liability arising from any contractual tortious or other claims or proceedings concerning the Products or their development production marketing distribution or sale and in particular product liability claims or proceedings. Further, Licensee hereby grants MRC an indemnity against any loss damage costs or expense incurred or suffered by MRC arising out of any such claims or proceedings.

9. Waiver

The waiver by MRC of any breach default or omission in the performance or observance of

any of the terms of this Agreement by the Licensee shall not be deemed to be a waiver of any other such breach default or omission.

10. Notices

Any notice consent or other communication authorised or required to be given hereunder or for the purposes hereof shall be in writing and be deemed to be duly given to MRC if left at or sent by recorded delivery or registered post addressed to its principal office and to the Licensee if left at or sent by recorded delivery or registered post to its principal place of business. Any such notice consent or other communication if served by post shall be deemed to have been given at the time when it would have been received in due course of the post.

11. Non-assignability

Save for an assignment to an Affiliate of the Licensee, the Licensee shall not be entitled to assign the benefit of this Agreement or any rights granted or to be granted under the Agreement.

12. Non-Use of Names

Licensee shall not use the name of MRC nor of any of its employees or agents in any advertising promotional or sales literature without obtaining the prior written consent of MRC in each case, except that Licensee may state that it is licensed by MRC under one or more patents and/or applications comprising the Patent Rights.

13. Law and Jurisdiction

This Agreement is to be read and construed in accordance with and governed by the Laws of England so far as the subject matter allows and the parties hereby submit to the jurisdiction of the English courts in relation to any dispute arising out of this Agreement.

In witness whereof the parties hereto have caused this Agreement to be executed in the matter legally binding upon them by causing authorised representatives to sign this Agreement.

Signed by: /s/ Martin R. Wood, 21 August 1996

For and on behalf of
MEDICAL RESEARCH COUNCIL

Martin R. Wood Ph.D.
Head of Technology Transfer Group

Signed by: /s/ Edward O. Lanphier

For and on behalf of
SANGAMO BIOSCIENCES

EDWARD O. LANPHIER
PRESIDENT

EXHIBIT 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the reference to our firm under the captions "Selected Financial Data" and "Experts" and to the use of our report dated January 28, 2000, except for Note 7, as to which the date is March 28, 2000, in Amendment No. 3 to Registration Statement (Form S-1 No. 333-30134) and related Prospectus of Sangamo BioSciences, Inc. for the registration of 5,750,000 shares of its common stock.

/s/ ERNST & YOUNG LLP

Palo Alto, California

April 3, 2000