AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON APRIL 5, 2000

REGISTRATION NO. 333-30134

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 4

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 5, 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.

Our common stock has been approved for quotation on the Nasdaq National Market under the symbol "SGMO."

INVESTING IN THE SHARES INVOLVES RISK. "RISK FACTORS" BEGIN ON PAGE 6.

	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.

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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.
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 $1.00 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)
Deemed dividend upon issuance of convertible preferred stock	--	--	(4,500)
Net loss attributable to common stockholders	$(1,400)	$(3,285)	$(8,275)
Basic and diluted net loss per common share	$ (0.26)	$ (0.56)	$ (1.38)
Shares used in computing basic and diluted net loss per common share	5,485	5,843	5,991
Pro forma basic and diluted net loss per common share (unaudited)			$ (0.63)
Shares used in computing pro forma basic and diluted net loss per common 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 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, pro forma 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, 17,300,147 shares issued and outstanding, pro forma and 22,300,147 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 $1.00 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 $7.9 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.....	17,300,147	78%	$ 29,478,000	27%	$ 1.70
New investors.....	5,000,000	22	80,000,000	73	16.00
Totals.....	22,300,147	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 $1.00 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)
Deemed dividend upon issuance of convertible preferred stock	--	--	--	--	(4,500)
Net loss attributable to common stockholders	$ (17)	$ (308)	$(1,400)	$(3,285)	$(8,275)
Basic and diluted net loss per common share	$(0.00)	$(0.06)	$ (0.26)	$ (0.56)	$ (1.38)
Shares used in computing basic and diluted net loss per common share	5,000	5,143	5,485	5,843	5,991
Pro forma basic and diluted net loss per common share (unaudited)					$ (0.63)
Shares used in computing pro forma basic and diluted net loss per common 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.

DEEMED DIVIDEND UPON ISSUANCE OF CONVERTIBLE PREFERRED STOCK

In November 1999, Sangamo sold 1,000,000 shares of its Series C convertible preferred stock to an investor for net proceeds of $4.5 million. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the fair value of its common stock as of November 1999 and determined it to be $6.00 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received of $4.5 million, 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, 1999.

Also, in January 2000, Sangamo sold an additional 333,333 shares of its Series C convertible preferred stock to a member of its Board of Directors for net proceeds of $1.5 million and similarly recorded a deemed dividend of $1.5 million. 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.

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 ZFP-Therapeutics developed under this agreement for use in 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. Also, we have received an initial $1 million, and may receive an additional $1 million, in 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, together with accrued interest, into common stock 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 up to $29 million in milestone payments in connection with the development and commercialization of the first product under this agreement, and up to an additional $15 million in milestone payments in connection with the commercialization of some subsequent licensed products. Sangamo will also receive royalties on product sales. There is no assurance that we and Baxter will achieve our development and commercialization milestones. 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 directed to design, composition and use of ZFPs and ZFP transcription factors for gene regulation from the Massachusetts Institute of Technology, Johnson and Johnson, The Scripps Research Institute and the Medical Research Council. These licenses grant us rights to make, use and sell many ZFPs and ZFP transcription factors under seven families of patent filings. All of these patent families have been filed in the United States and four have been filed internationally in selected countries. These patent filings have resulted in three issued U.S. patents to date. We believe these licensed patents and patent applications include several of the early and important patent filings directed to design, identification and use of ZFPs.

We also have pending eight families of U.S. patent filings assigned to us, three of which have been filed internationally in selected countries to date, directed to improvements in the design and use of ZFPs and ZFP transcription factors. We have also licensed five issued U.S. patents directed to hybrid DNA binding proteins in which a DNA binding domain is linked to a detection domain for diagnostic purposes. In the aggregate, we believe that our licensed patents and patent applications, as well as the pending Sangamo patent applications, will assist in the commercial development of ZFPs and ZFP transcription factors. If we are successful in the development and commercialization of our products, we will be obligated by our license agreements to make milestone and royalty payments to some or all of the licensors mentioned above. For risks associated with our intellectual property, 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." 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 3,629,666 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 1,599,760 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 750,413 shares of Series A preferred stock at a price of $1.00 per share, warrants to purchase 65,000 shares of Series A preferred stock at a price of $1.00 and warrants to purchase 41,250 shares at a price of $0.01 per share 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%

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* 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 22,300,147 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 22,300,147 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 17,300,147 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.

Our common stock has been 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, 1999
	1998	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)
Deemed dividend upon issuance of convertible preferred stock	--	--	(4,500)
Net loss attributable to common stockholders	$(1,400)	$(3,285)	$(8,275)
Basic and diluted net loss per common share	$ (0.26)	$ (0.56)	$ (1.38)
Shares used in computing basic and diluted net loss per common share	5,485	5,843	5,991
Pro forma basic and diluted net loss per common share (unaudited)			$ (0.63)
Shares used in computing pro forma basic and diluted net loss per common 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	--	(250)
Forgiveness of note receivable to stockholder	--	63
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	3,404
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	--	62
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	$ 7,882

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	$ --	$ --
Deemed dividend upon issuance of convertible preferred stock	$ --	$ --	$ 4,500

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.

SANGAMO BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

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.

SANGAMO BIOSCIENCES, INC.

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

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 common share and pro forma basic and diluted net loss per common share (in thousands, except per share data):

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Historical:			
Net loss attributable to common stockholders	$(1,400)	$(3,285)	$(8,275)
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 common share	5,485	5,843	5,991
Basic and diluted net loss per common share	$ (0.26)	$ (0.56)	$ (1.38)
Pro forma:			
Net loss			$(8,275)
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 common share (unaudited)			13,102
Pro forma basic and diluted net loss per common share (unaudited)			$ (0.63)

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

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

for an enterprise's operating segments and related disclosures about its products, services, geographic 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.

In November 1999, Sangamo sold 1,000,000 shares of its Series C convertible preferred stock to an investor for net proceeds of $4,500,000. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the fair value of its common stock as of November 1999 and determined it to by $6.00 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received of $4,500,000, 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, 1999.

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.

4. STOCKHOLDERS' EQUITY (CONTINUED)

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 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

4. STOCKHOLDERS' EQUITY (CONTINUED)

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 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.

4. STOCKHOLDERS' EQUITY (CONTINUED)

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 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

6. INCOME TAXES (CONTINUED)

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 fair value of its common stock as of January 2000 and determined it to be $12 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received 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

7. SUBSEQUENT EVENTS (CONTINUED)

$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 similar to the 1995 Option Plan. The 2000 Plan also provides for automatic grants to non-employee directors.

STOCK SPLIT

In February 2000, the Board of Directors adopted, subject to stockholder approval (which was received in March 2000), a change in the authorized number of shares of the common stock and preferred stock to 80,000,000 and 5,000,000, respectively. An Amended and Restated Certificate of Incorporation will be filed following the effectiveness of the registration statement relating to the public offering.

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

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 April 3, 2000, we have granted a total of 3,552,000 options and stock purchase rights to purchase our common stock, excluding options returned to our stock plans, with a weighted average price of $0.21 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.

13. In January 2000 and March 2000, we issued $5.0 million and $7.5 million in principal amount of promissory notes, respectively, which will convert into approximately 789,587 shares of Common Stock upon consummation of our initial public offering.

14. On March 13, 2000, we issued 70,000 shares of Common Stock to The Scripps Research Institute pursuant to a license agreement.

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.

EXHIBIT NUMBER	DESCRIPTION OF DOCUMENT
10.18	Employment Agreement, between Sangamo and Alan Wolffe, Ph.D., dated March 17, 2000.
10.19	License Agreement by and between The Scripps Research Institute and Sangamo, dated March 14, 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.
24.1++	Power of Attorney. (see Page II-5)
27.1++	Financial Data Schedule.

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+ 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. 4 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 5, 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
* Edward O. Lanphier II	President, Chief Executive Officer and Director (Principal Executive Officer)	April 5, 2000
/s/ SHAWN K. JOHNSON Shawn K. Johnson	Director of Finance (Principal Accounting Officer)	April 5, 2000
Herbert W. Boyer, Ph.D.	Director	April 5, 2000
* William G. Gerber, M.D.	Director	April 5, 2000
* John W. Larson	Director	April 5, 2000
* William J. Rutter, Ph.D.	Director	April 5, 2000
* Michael C. Wood	Director	April 5, 2000

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

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27.1++	Financial Data Schedule.

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+ Confidential treatment requested as to portions of this exhibit.

++ Previously filed.

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 Research and License Agreements dated May 1, 1982 and January 1, 1987 (hereinafter collectively the "SCRIPPS AGREEMENTS") between LICENSOR and SCRIPPS CLINIC AND RESEARCH FOUNDATION (hereinafter "SCRIPPS"), SCRIPPS 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;

B. WHEREAS, patent applications have been filed in the United States and other territories in the name of SCRIPPS 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.

(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.

(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) SCRIPPS' rights pursuant to the SCRIPPS AGREEMENT to use the LICENSED PATENTS for educational and research purposes; and

(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 SCRIPPS 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 SCRIPPS with the necessary reports and information required for SCRIPPS 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

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:

* 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.

(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 SCRIPPS AGREEMENT, SCRIPPS 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 SCRIPPS for the reasonable expenses associated therewith. Upon execution of this SUBLICENSE AGREEMENT, LICENSEE agrees to assume LICENSOR's obligation to reimburse SCRIPPS for patent expenses under the SCRIPPS AGREEMENT for patent expenses incurred after the EFFECTIVE DATE. LICENSOR shall instruct SCRIPPS to forward invoices for such patent expenses directly to LICENSEE and LICENSEE agrees to promptly pay such expenses. LICENSOR agrees to assure that SCRIPPS performs its obligations to maintain and prosecute the PATENT RIGHTS under the SCRIPPS AGREEMENT and LICENSOR agrees to enforce its rights vis-a-vis SCRIPPS 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 SCRIPPS 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

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, SCRIPPS, 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.

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 SCRIPPS' rights and SCRIPPS' obligations and the rights of the United States Government, if any, which arose or resulted from SCRIPPS' 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.

(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 2-1, Toranomon 2-chome, Minato-ku, Tokyo 105-8422, Japan.

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

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 two 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

* 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.

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.

* 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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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

* 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.

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 10.18

[Sangamo letterhead]

March 17, 2000

Alan Wolffe, Ph.D.
10209 Summit Avenue
Kensington, MD 20895

Dear Alan:

This will constitute the employment agreement between you and Sangamo BioSciences, Inc. (the "Company") following your acceptance of our offer dated March 9, 2000.

1. You will serve as Senior Vice President and Chief Scientific Officer and will report directly to me as President and Chief Executive Officer. You will commence employment in such position on March 20, 2000, or as soon thereafter in March 2000 as possible, and your employment shall continue until terminated by you or the Company.

2. Your base salary will be at the annual rate of $250,000 and will be paid in accordance with the Company's payroll practices, subject to all applicable withholdings.

3. You will be eligible for an annual bonus of up to 33 percent of your base salary. The amount of the bonus will be determined by the Board of Directors based on our bonus plan as amended from time to time.

4. The Board of Directors has granted you a stock option for 200,000 shares of the Company's common stock under our 1995 Stock Option Plan. The effective date of the option will be the date of your actual commencement of employment with the Company. For purposes of your option grant, you will be deemed to have commenced employment with the Company once you have terminated employment with your current employer, accepted this agreement and become subject to the direction of the Company as to your job assignments and placed on the Company's payroll. The option will have an exercise price per share equal to the fair market value per share of the Company's common stock on the grant date as determined by the Board of Directors, which was $8.00 per share. The option will be an incentive stock option under the federal tax laws, to the maximum extent allowable, which is 12,500 shares, and the balance will be a non-statutory option. The option will have a maximum term of ten (10) years, subject to earlier termination upon your cessation of employment. The option will become exercisable 25 percent of the option shares upon your completion of one year of employment with the Company and will become exercisable for the balance of the option shares in a series of 36 successive equal monthly installments, upon your completion of each of the next 36 months of employment with the Company following the first anniversary of your start date. The

remaining terms of your option will be governed by the provisions of the Company's 1995 Stock Incentive Plan. No additional vesting will occur after your termination of employment.

The Board of Directors also approved a loan of up to $400,000 to you to enable you to exercise up to 50,000 shares covered by your option. If you wish to undertake the loan, you will be required to execute a promissory note and pledge agreement. The form of promissory note is attached and the pledge agreement will be in customary form. Under these documents you will pledge the shares of stock you purchase to secure the loan, and will repay the loan within three years or upon the sale of the pledged stock, whichever is sooner. The loan will bear interest at seven percent per year payable annually. Of course, it is entirely up to you whether you wish to avail yourself of this loan.

You will be entitled to the special protection provided by the attached addendum to your standard form of option agreement. This addendum in general provides for automatic acceleration of your options if your employment is involuntarily terminated (except for misconduct) within twelve (12) months after change in control of the Company.

5. You will be eligible to participate in all group life insurance plans, group health and dental plans, and long-term disability programs, a Section 125 flex plan, a 401(k) retirement plan and other executive perquisites which are made available to the Company's executives and for which you qualify. You will accrue paid vacation benefits at the rate of 15 days per year and will have available 10 sick days per year.

6. Upon your purchase of a house to move your family to the San Francisco Bay Area, the Company will loan you $250,000, with principal payable in 4 years from the date of the loan with interest at 7% per annum payable on each anniversary date of the loan. Twenty-five percent (25%) of principal and accrued interest on the loan will be forgiven on each anniversary date of the loan so long as you are a full time employee of the Company at such time. As an alternative, the Company will invest up to $250,000 in a home for which you will pay the balance and will occupy. The Company's equity interest in the home will decline by 25 percent at the end of each year following the date of investment so long as you are a full time employee of the Company at the end of such year. The other terms of the Company's investment in the home will be specified in an agreement between you and the Company to be signed at such time as you elect this alternative.

7. The Company will reimburse you for your relocation expenses from Maryland to the San Francisco Bay Area, including trips to the Bay Area for you and your wife to locate a home.

8. The Company will employ your wife as a scientist at an annual salary of $70,000 per year, for up to _____ months until she finds another position.

9. At the time you commence employment with the Company, you will be required to execute the Company's standard Proprietary Information and Inventions Agreement, a copy of which will be furnished to you prior to your start date.

10. Consistent with the other Vice Presidents of the Company, your employment with the Company is not for any specified period of time. As a result, either you or the Company are free to terminate your employment relationship at any time for any reason, with or without cause. In addition, your employment relationship will immediately terminate upon your death or disability. At the time your employment terminates, the Company will only be required to pay you (i) any unpaid base salary for services rendered through the date of such termination and (ii) the dollar value of all accrued and unused vacation benefits based upon the level of base salary in effect for you at the time of your termination. Of course, if applicable the life or disability insurance proceeds would be available.

11. Verification of your citizenship or right to work in the United States is required, and you will need to provide proof of this on your first day of employment.

12. This agreement shall be governed in all respects by California law applicable to agreements executed in California.

13. Arbitration. Any and all disputes between you and the Company which arise under the terms of this letter agreement shall be resolved through final and binding arbitration, including (without limitation) any disputes relating to this letter agreement, your employment by the Company or the termination of that employment, any claims for breach of contract or breach of the covenant of good faith and fair dealing, and any claims of discrimination or other claims under Title VII of the Civil Rights Act of 1964, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the California Fair Employment and Housing Act or any other federal, state or local law or regulation now in existence or hereinafter enacted and as amended from time to time concerning in any way the subject of your employment with the Company or the termination of that employment. The only claims not covered by this Paragraph 13 are claims for benefits under the workers' compensation or unemployment insurance laws, which are to be resolved pursuant to those laws. Binding arbitration shall be conducted in San Francisco City and County, California, in accordance with the rules and regulations of the American Arbitration Association. Each party shall split the cost of the arbitration filing and hearing fees, and the cost of the arbitrator; each party shall bear his or its own attorney fees, that is, the arbitrator shall not have authority to award attorney fees unless a statutory section at issue in the dispute authorizes the award of attorney fees to the prevailing party, in which case the arbitrator shall have authority to make such award as permitted by the statute in question. The arbitration shall be instead of any civil litigation, and you hereby waive your right to a jury trial as to such claims. The arbitrator's decision shall be final and binding to the fullest extent permitted by law and enforceable by any court having jurisdiction thereof.

We are delighted that you will have agreed to join Sangamo. We believe that you bring the skills and expertise to help us continue to build our Company into a leadership position. We look forward to working with you in developing the full potential of our Company.

To indicate your acceptance of the foregoing terms of your employment, please sign the duplicate original of this letter and return it to me.

Very truly yours,

Edward O. Lanphier, II
President and CEO

ACCEPTANCE

I hereby accept and agree to the terms of the foregoing employment agreement with Sangamo BioSciences, Inc.

ALLAN WOLFFE

DATED: MARCH ___, 2000

EXHIBIT 10.19

LICENSE AGREEMENT

by and between

THE SCRIPPS RESEARCH INSTITUTE,
a California nonprofit
public benefit corporation

and

Sangamo Biosciences, Incorporated
a Delaware corporation

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LICENSE AGREEMENT

This License Agreement is entered into and made effective as of this 14th day of March, 2000, by and between THE SCRIPPS RESEARCH INSTITUTE, a California nonprofit public benefit corporation ("Scripps") located at 10550 North Torrey Pines Road, La Jolla, California 92037, and Sangamo Biosciences, Incorporated, a Delaware corporation, located at 501 Canal Street, Richmond, CA 94804 ("Licensee"), with respect to the facts set forth below.

RECITALS

A. Scripps has been and is engaged in fundamental scientific biomedical and biochemical research including research relating to zinc finger proteins ("ZFP's").

B. Licensee has been and is engaged in research and development of ZFP's for use in various fields.

C. Licensee has previously exclusively sublicensed certain Scripps' ZFP-related technology from Johnson & Johnson in specified fields.

D. Scripps has previously exclusively licensed Norvartis Agricultural Discovery Institute, Inc. ("NADII") certain Scripps' ZFP-related technology in other fields, notably plant agricultural products.

E. Scripps has disclosed to Licensee certain technology and Scripps has the exclusive right to grant a license to the technology, subject to the above-noted agreements and certain rights of the U.S. Government to use such technology for its own purposes, resulting from the receipt by Scripps of certain funding from the U.S. Government.

F. Scripps desires to grant to Licensee, and Licensee wishes to acquire from Scripps, an exclusive worldwide right and license to all remaining licensable fields useful with the technology and to certain patent rights and know-how of Scripps with respect thereto, subject to the terms and conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth herein, Scripps and Licensee hereby agree as follows:

1. Definitions. Capitalized terms shall have the meaning set forth below.

1.1. Affiliate. The term "Affiliate" shall mean any entity which directly or indirectly controls, is controlled by or is under common control with Licensee. The term "control" as used herein means the possession of the power to direct or cause the direction of the management and the policies of an entity, whether through the ownership of a majority of the outstanding voting securities or by contract or otherwise.

1.2. Confidential Information. The term "Confidential Information" shall mean any and all proprietary or confidential information of Scripps or Licensee, which may be exchanged between the parties at any time and from time to time during the term of this Agreement. Information shall not be considered confidential to the extent that it:

a. Is publicly disclosed through no fault of any party hereto, either before or after it becomes known to the receiving party; or

b. Was known to the receiving party prior to the date of this Agreement, which knowledge was acquired independently and not from another party hereto (or such party's employees); or

c. Is subsequently disclosed to the receiving party in good faith by a third party who has a right to make such disclosure; or

d. Has been published by a third party as a matter of right.

1.3. Field. The term "Field" shall mean all fields of use except the Sublicensed J & J Product as defined in paragraph 1.10 herein or the Licensed TSRI Plan Product as defined in the NADII Agreement of paragraph 1.9 herein. It is understood by all Parties to this Agreement that NADII, under the NADII Agreement referred to in paragraph 1.9 herein, has a license for research tool use for the Field described in the NADII Agreement.

1.4. Licensed Product. The term "Licensed Product" shall mean any product that cannot be developed, manufactured, offered to sale, used, sold or imported without infringing one or more issued claims under Scripps Patent Rights.

1.5. Net Sales. The term "Net Sales" shall mean the gross amount invoiced by Licensee, or its Affiliates and sublicensees, or any of them, on all sales of Licensed Products, less (i) discounts actually allowed, (ii) credits for claims, allowances, retroactive price reductions or returned goods, (iii) prepaid freight and (iv) sales taxes or other governmental charges actually paid in connection with sales of Licensed Products (but excluding what are commonly known as income taxes and value-added taxes). For purposes of determining Net Sales, a sale shall be deemed to have occurred when an invoice therefor shall be generated or the Licensed Product shipped for delivery. Sales of Licensed Products by Licensee, or an Affiliate or sublicensee of Licensee to any affiliate or sublicensee which is a reseller thereof shall be excluded, and only the subsequent sale of such Licensed Products by Affiliates or sublicensees of Licensee to unrelated parties shall be deemed Net Sales hereunder.

1.6. Scripps Patent Rights. The term "Scripps Patent Rights" shall mean rights arising out of or resulting from (i) any and all U.S. and foreign patent applications and patents covering Scripps Technology (a list of which is attached as Exhibit A), (ii) the patents proceeding from such applications, (iii) all claims of continuations-in-part directed solely to subject matter specifically described in Scripps Technology, and (iv) divisionals, continuations, reissues, reexaminations, and extensions of any patent or application set forth in (i)-(iii) above, so long as said patents have not been held invalid and/or unenforceable by a court of competent jurisdiction from which there is no appeal or, if appealable, from which no appeal has been taken.

1.7. Scripps Technology. The term "Scripps Technology" shall mean so much of the technology as is proprietary to Scripps disclosed in PCT 95/00829, filed 18 January 1995, a copy of which is attached as Exhibit A hereto and incorporated herein by reference, together with materials, information and know-how related thereto whether or not the same is eligible for protection under the patent laws of the United States or elsewhere, and whether or not any such processes and technology, or information related thereto, would be enforceable as a trade secret or the copying of which would be enjoined or restrained by a court as constituting unfair competition.

1.8. Licensed TSRI Plant Product. The term "Licensed TSRI Plant Product" shall mean any product exclusively licensed by Scripps to NADII under the NADII Agreement.

1.9. NADII Agreement. The term "NADII Agreement" shall mean the Plant License Agreement entered into between Scripps and NADII on November 17, 1999; a redacted copy of which is attached hereto as Exhibit B and incorporated herein by reference.

1.10. Sub-Licensed J&J Product. The term "Sub-Licensed J&J Product" shall mean "Licensed Product" as defined in the Sub-License Agreement.

1.11. Sub-License Agreement. The term "Sub-License Agreement" shall mean the agreement entered into between Johnson and Johnson and Licensee on 9 May 1996; a redacted copy of which is attached hereto as Exhibit C and incorporated herein by reference.

1.12. ZFP Agreements. The term "ZFP Agreements" shall mean collectively this License Agreement, the NADII Agreement and the Sub-License Agreement.

2. License Terms and Conditions.

2.1. Grant of License. Scripps hereby grants to Licensee an exclusive, worldwide license, including the right to sublicense, to Scripps Technology and under Scripps Patent Rights, to make, to have made, to use, to offer for sale, to sell, and to import Licensed Products in the Field, subject to the terms of this Agreement.

2.2. Initial License Fee. In partial consideration for the exclusive license granted pursuant to Section 2.1 hereof, Licensee shall pay to Scripps a non-refundable license fee upon execution of this Agreement in the amount of 70,000 shares of Licensee common stock as specified in Exhibit D. The license fee described in this Section is consideration for the grant and continuation of the license hereunder, and Scripps shall have no obligation to return any portion of such license fee, notwithstanding any failure by Licensee to develop any Licensed Product or market any Licensed Product commercially, and notwithstanding the volume of sales of any such Licensed Product.

2.3. Royalties.

2.3.1. Percentage Royalty. As additional consideration for the exclusive license granted pursuant to Section 2.1 hereof, Licensee shall pay to Scripps a continuing royalty on a country-by-country basis in the amount of (i) two percent (2%) of Net Sales of Licensed Products which cannot be made, used or sold in such country without utilizing one or more valid

claims under Scripps Patent Rights. Only single royalty on any Licensed Product shall be payable to Scripps under the ZPF Agreements.

2.3.2. Minimum Royalty. From and after 1 January, 2001, in order to maintain the license granted hereunder in force, Licensee shall pay to Scripps no later than 90 days after commencement of January 1 of each year, a minimum annual royalty. The minimum annual royalty for the twelve (12) month period beginning with such date shall be Fifty Thousand Dollars ($50,000), and the amount of the minimum annual royalty payable for each subsequent twelve (12) month period during the term hereof shall be the greater of Fifty Thousand Dollars ($50,000) or two percent (2%) of the total royalties payable under this Agreement during the immediately preceding twelve (12) month period. Any percentage royalties earned and paid to Scripps pursuant to Section 2.3.1 hereof for any twelve (12) month period shall be credited against the minimum royalty payable for such period, and the payment of any shortfall between actual royalties paid and the minimum annual royalty applicable to such twelve (12) month period shall be payable to Scripps within sixty (60) days after the last day of such twelve (12) month period.

2.4 Combination Products.

2.4.1. Definition of Combination Product. As used herein, the term "Combination Product" shall mean a Licensed Product which cannot be manufactured, offered to sell, used or sold without infringing Scripps Patent Rights, utilizing Scripps Technology licensed hereunder, infringing or utilizing one or more patents or proprietary technology or know-how of (i) Licensee, (ii) a third party licensed pursuant to an agreement between Licensee and such third party, or (iii) Scripps under a license agreement other than this Agreement (referred to herein as "other licensed rights").

2.4.2. Royalty Payable on Combination Products. The royalty payable on Combination Products shall be the royalty rate set forth in Section 2.3.1 above based on a pro rata portion of Net Sales of Combination Products in accordance with the following formula:

$$X = A/B, \text{ where}$$

X = the pro rata portion of Net Sales attributable to Scripps Patent Rights or other Scripps Technology licensed herein (expressed as a percentage), and

A = the fair market value of the component in the Combination Product utilizing Scripps Technology licensed hereunder, and

B = A plus the fair market value of all other components in the Combination Product using other licensed rights.

The fair market values described above shall be determined by the parties hereto in good faith. In the absence of agreement as to the fair market value of all of the components contained in a

2.9. Reports. Licensee shall furnish to Scripps at the same time as each royalty payment is made by Licensee, a detailed written report of Net Sales of the Licensed Products and the royalty due and payable thereon, including a description of any offsets or credits deducted therefrom, on a product-by-product and country-by-country basis, for the calendar quarter upon which the royalty payment is based.

2.10. Records. Licensee shall keep, and cause its Affiliates and sublicensees to keep, full, complete and proper records and accounts of all sales of Licensed Products in sufficient detail to enable the royalties payable on Net Sales of each Licensed Product to be determined. Scripps shall have the right to appoint an independent certified public accounting firm approved by Licensee, which approval shall not be unreasonably withheld, to audit the records of Licensee, its Affiliates and sublicensees as necessary to verify the royalties payable pursuant to this Agreement. Licensee, its Affiliates and sublicensees shall pay to Scripps an amount equal to any additional royalties to which Scripps is entitled as disclosed by the audit, plus interest thereon at the rate of one-half percent (0.5%) per month. Such audit shall be at Scripps' expense; provided, however, that if the audit discloses that Scripps was underpaid royalties with respect to any Licensed Product by at least five percent (5%) for any calendar quarter, then Licensee, its Affiliates or sublicensee, as the case may be shall reimburse Scripps for any such audit costs. Scripps may exercise its right of audit as to each of Licensee, its Affiliates or sublicensees no more frequently than once in any calendar year. The accounting firm shall disclose to Scripps only information relating to the accuracy of the royalty payments. Licensee, its Affiliates and sublicensees shall preserve and maintain all such records required for audit for a period of three (3) years after the calendar quarter to which the record applies.

2.11. Foreign Sales. The remittance of royalties payable on sales outside the United States shall be payable to Scripps in United States Dollar equivalents at the official rate of exchange of the currency of the country from which the royalties are payable, as quoted in the Wall Street Journal for the last business day of the calendar quarter in which the royalties are payable. If the transfer of or the conversion into the United States Dollar equivalents of any such remittance in any such instance is not lawful or possible, the payment of such part of the royalties as is necessary shall be made by the deposit thereof, in the currency of the country where the sale was made on which the royalty was based to the credit and account of Scripps or its nominee in any commercial bank or trust company of Scripps' choice located in that country, prompt written notice of which shall be given by Licensee to Scripps.

2.12. Foreign Taxes. Any tax required to be withheld by Licensee under the laws of any foreign country for the accounts of Scripps shall be promptly paid by Licensee for and on behalf of Scripps to the appropriate governmental authority, and Licensee shall use its best efforts to furnish Scripps with proof of payment of such tax together with official or other appropriate evidence issued by the applicable governmental authority. Any such tax actually paid on Scripps' behalf shall be deducted from royalty payments due Scripps.

3. Patent Matters.

3.1. Patent Prosecution and Maintenance. From and after the date of this Agreement, the provisions of this Section 3 shall control the prosecution and maintenance of any patent included within Scripps Patent Rights. Subject to the requirements, limitations and

conditions set forth in this Agreement, Scripps shall direct and control (i) the preparation, filing and prosecution of the United States and foreign patent applications within Scripps Patent Rights (including any interferences and foreign oppositions) and (ii) maintain the patents issuing therefrom. Scripps shall select the patent attorney, subject to Licensee's written approval, which approval shall not be unreasonably withheld. Both parties hereto agree that Scripps may, at its sole discretion, utilize Scripps' Office of Patent Counsel in lieu of independent counsel for patent prosecution and maintenance described herein, and the fees and expenses incurred by Scripps with respect to work done by such Office of Patent Counsel shall be paid as set forth below. Licensee shall have full rights of consultation with the patent attorney so selected on all matters relating to Scripps Patent Rights. Scripps shall use its best efforts to implement all reasonable requests made by Licensee with regard to the preparation, filing, prosecution and/or maintenance of the patent applications and/or patents within Scripps Patent Rights. Scripps shall keep Licensee informed with regard to the patent application and maintenance processes. Scripps shall deliver to Licensee copies of all patent applications, amendments, related correspondence, and other related matters.

3.2. Patent Costs. Licensee acknowledges and agrees that Scripps does not have independent funding to cover patent costs, and that the license granted hereunder is in part in consideration for Licensee's assumption of a pro rata share of the patent costs and expenses as described herein subject to other licensee's patent prosecution payment obligations under the ZFP Agreements, sublicenses thereunder, or other such agreements. Licensee shall pay a pro rata share of all future reasonable expenses incurred by Scripps pursuant to Section 3.1 hereof. The pro rata share of Patent Costs shall be determined by the number of licensees. In the event one of the Licensees defaults under their license and those rights revert to Scripps, the other licensees shall have the right to bid on obtaining a license to those rights. Licensee agrees to pay all such future patent expenses directly or to reimburse Scripps for the payment of such expenses within sixty (60) days after Licensee receives an itemized invoice therefor. In the event Licensee elects to discontinue payment for the filing, prosecution and/or maintenance of any patent application and/or patent within Scripps Patent Rights, any such patent application or patent shall be excluded from the definition of Scripps Patent Rights and from the scope of the license granted under this Agreement, and all rights relating thereto shall revert to Scripps and may be freely licensed by Scripps. Licensee shall give Scripps at least sixty (60) days' prior written notice of such election. No such notice shall have any effect on Licensee's obligations to pay expenses incurred up to the effective date of such election.

3.3 Ownership. The patent applications filed and the patents obtained by Scripps pursuant to Section 3.1 hereof shall be owned solely by Scripps, assigned to Scripps and deemed a part of Scripps Patent Rights.

3.4 Scripps Right to Pursue Patent. If at any time during the term of this Agreement, Licensee's rights with respect to Scripps Patent Rights are terminated, Scripps shall have the right to take whatever action Scripps deems appropriate to obtain or maintain the corresponding patent protection at its own expense. If Scripps pursues patents under this Section 3.5, Licensee agrees to cooperate fully, including by providing, at no charge to Scripps, all appropriate technical data and executing all necessary legal documents.

3.5 Infringement Actions.

3.5.1. Prosecution and Defense of Infringements. In order to maintain the license granted hereunder in force, Licensee shall use reasonable business judgement to prosecute infringements in the Field of any Scripps Patent Rights and shall defend all charges of infringement arising as a result of the exercise of Scripps Patent Rights by Licensee, its Affiliates or sublicensees, unless otherwise agreed to between Scripps and Licensee. Licensee may enter into settlements, stipulated judgments or other arrangements respecting such infringement, at its own expense, but only with the prior written consent of Scripps, which consent shall not be unreasonably withheld. Scripps shall permit any action to be brought in its name if required by law, and Licensee shall hold Scripps harmless from any costs, expenses or liability respecting all such infringements or charges of infringement. Scripps agrees to provide reasonable assistance of a technical nature which Licensee may require in any litigation arising in accordance with the provisions of this Section 3.1, for which Licensee shall pay to Scripps a reasonable hourly rate of compensation. In the event Licensee fails to prosecute any such infringement, Licensee shall notify Scripps in writing promptly and Scripps shall have the right to prosecute such infringement on its own behalf. Failure on the part of Licensee to prosecute any such infringement shall be grounds for termination of the license granted to Licensee hereunder, with respect to the country in which such infringement occurs, at the option of Scripps.

3.5.2. Allocation of Recovery. Any damages or other recovery from an infringement action undertaken by Licensee pursuant to Section 3.5.1 shall first be used to reimburse the parties for the costs and expenses incurred in such action, and shall thereafter be allocated between the parties as follows: (i) thirty percent (30%) to Scripps and (ii) seventy percent (70%) to Licensee. If Licensee fails to prosecute any such action to completion, then any damages or other recovery net of the parties' costs and expenses incurred in such infringement action shall be the sole property of Scripps.

4. Obligations Related in Commercialization.

4.1. Commercial Development Obligation. In order to maintain the license granted hereunder in force, Licensee shall use reasonable efforts and due diligence to develop Scripps Technology and Scripps Patent Rights which are licensed hereunder into commercially viable Licensed Products, as promptly as is reasonably and commercially feasible, and thereafter to produce and sell reasonable quantities of Licensed Products. Licensee shall keep Scripps generally informed as to Licensee's progress in such development, production and sale, including its efforts, if any, to sublicense Scripps Technology and Scripps Patent Rights, and Licensee shall deliver to Scripps an annual written report and such other reports as Scripps may reasonably request. In the event Scripps has a reasonable basis to believe that Licensee is not using reasonable efforts and due diligence as required hereunder, upon notice by Scripps to Licensee which specifies the basis for such belief, Scripps and Licensee shall negotiate in good faith to attempt to mutually resolve the issue. In the event Scripps and Licensee cannot agree upon any matter related to Licensee's commercial development obligations, the parties agree to utilize arbitration pursuant to Section 10.2 hereof in order to resolve the matter. If the arbitrator determines that Licensee has not complied with its obligations hereunder, and such default is not fully cured within sixty (60) days after the arbitrator's decision, Scripps may terminate Licensee's rights under this Agreement.

4.2. Governmental Approvals and Marketing of Licensed Products. Licensee shall be responsible for obtaining all necessary governmental approvals for the development, production, distribution, sale and use of any Licensed Product, at Licensee's expense, including, without limitation, any safety studies. Licensee shall have sole responsibility for any warning labels, packaging and instructions as to the use of Licensed Products and for the quality control for any Licensed Product.

4.3. Indemnity. Licensee hereby agrees to indemnify, defend and hold harmless Scripps and any parent, subsidiary or other affiliated entity and their trustees, officers, employees, scientists and agents from and against any liability or expense arising from any product liability claim asserted by any party as to any Licensed Product or any claims arising from the use of any Scripps Patent Rights or Scripps Technology pursuant to this Agreement. Such indemnity and defense obligation shall apply to any product liability or other claims, including without limitation, personal injury, death or property damage, made by employees, subcontractors, sublicensees, or agents of Licensee, as well as any member of the general public Licensee shall use its best efforts to have Scripps and any parent, subsidiary or other affiliated entity and their trustees, officers, employees, scientists and agents named as additional insured parties on any product liability insurance policies maintained by Licensee, its Affiliates and sublicensees applicable to Licensed Products.

4.4. Patent Marking. To the extent required by applicable law, Licensee shall mark all Licensed Products or their containers in accordance with the applicable patent marking laws.

4.5. No Use of Name. The use of the name "The Scripps Research Institute", "Scripps", or any variation thereof in connection with the advertising or sale of Licensed Products is expressly prohibited.

4.6. U.S. Manufacture. To the extent required by applicable United States laws, if at all, Licensee agrees that Licensed Products will be manufactured in the United States, or its territories, subject to such waivers as may be required, or obtained, if at all, from the United States Department of Health and Human Services, or its designee.

4.7. Foreign Registration. Licensee agrees to register this Agreement with any foreign governmental agency which requires such registration, and Licensee shall pay all costs and legal fees in connection therewith. In addition, Licensee shall assure that all foreign laws affecting this Agreement or the sale of Licensed Products are fully satisfied.

5. Limited Warranty. Scripps hereby represents and warrants that it has full right and power to enter into this Agreement. SCRIPPS MAKES NO OTHER WARRANTIES CONCERNING SCRIPPS PATENT RIGHTS OR SCRIPPS TECHNOLOGY COVERED BY THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO SCRIPPS PATENT RIGHTS, SCRIPPS TECHNOLOGY OR ANY LICENSED PRODUCT. SCRIPPS MAKES NO WARRANTY OR REPRESENTATION AS TO THE VALIDITY OR SCOPE OF SCRIPPS PATENT RIGHTS, OR THAT ANY LICENSED PRODUCT WILL BE FREE FROM AN INFRINGEMENT ON PATENTS OR OTHER

INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES, OR THAT NO THIRD PARTIES ARE IN ANY WAY INFRINGING SCRIPPS PATENT RIGHTS OR SCRIPPS TECHNOLOGY COVERED BY THIS AGREEMENT.

6. Interests in Intellectual Property Rights.

6.1 Preservation of Title. Scripps shall retain full ownership and title to Scripps Technology, and Scripps Patent Rights licensed hereunder and shall use its reasonable best efforts to preserve and maintain such full ownership and title, subject to Licensee fully performing all of its obligations under this Agreement.

6.2 Governmental Interest. Licensee and Scripps acknowledge that Scripps has received, and expects to continue to receive, funding from the United States Government in support of Scripps' research activities. Licensee and Scripps acknowledge and agree that their respective rights and obligations pursuant to this Agreement shall be subject to Scripps' obligations and the rights of the United States Government, if any, which arise or result from Scripps' receipt of research support from the United States Government, including without limitation, the grant by Scripps to the United States a non-exclusive, irrevocable, royalty-free license to Scripps Technology and Scripps Patent Rights licensed hereunder for governmental purposes.

6.3 Reservation of Rights. Scripps reserves the right to use for any non-commercial research purposes and the right to allow other nonprofit institutions to use for any non-commercial research purposes any Scripps Technology and Scripps Patent Rights licensed hereunder, without Scripps or such other institutions being obligated to pay Licensee any royalties or other compensation.

7. Confidentiality and Publication.

7.1 Treatment of Confidential Information. The parties agree that during the term of this Agreement, and for a period of three (3) years after this Agreement terminates, a party receiving Confidential Information of the other party will (i) maintain in confidence such Confidential Information to the same extent such party maintains its own proprietary industrial information, (ii) not disclose such Confidential Information to any third party without prior written consent of the other party and (iii) not use such Confidential Information for any purpose except those permitted by this Agreement.

7.2 Publications. Licensee agrees that Scripps shall have a right to publish in accordance with its general policies.

7.3 Publicity. Except as otherwise provided herein or required by law, no party shall originate any publication, news release or other public announcement, written or oral, whether in the public press, stockholders' reports, or otherwise, relating to this Agreement or to any sublicense hereunder, or to the performance hereunder or any such agreements, without the prior written approval of the other party, which approval shall not be unreasonably withheld. Scientific publications published in accordance with Section 7.2 of this Agreement shall not be construed as publicity governed by this Section 7.3.

8. Term and Termination.

8.1. Term. Unless terminated sooner in accordance with the terms set forth herein, this Agreement, and the license granted hereunder, shall terminate as provided in Section 2.6 hereof.

8.2. Termination Upon Default. Any one or more of the following events shall constitute an event of default hereunder: (i) the failure of a party to pay any amounts when due hereunder and the expiration of fifteen (15) days after receipt of a written notice requesting the payment of such amount; (ii) the failure of a party to perform any obligation required of it to be performed hereunder, and the failure to cure within sixty (60) days after receipt of notice from the other party specifying in reasonable detail the nature of such default. Upon the occurrence of any event of default, the non-defaulting party may deliver to the defaulting party written notice of intent to terminate, such termination to be effective upon the date set forth in such notice.

Such termination rights shall be in addition to and not in substitution for any other remedies that may be available to the non-defaulting party. Termination pursuant to this Section 8.2 shall not relieve the defaulting party from liability and damages to the other party for breach of this Agreement. Waiver by either party of a single default or a succession of defaults shall not deprive such party of any right to terminate this Agreement arising by reason of any subsequent default.

8.3. Termination Upon Bankruptcy or Insolvency. This Agreement may be terminated by Scripps giving written notice of termination to Licensee upon the filing of bankruptcy or bankruptcy of Licensee or the appointment of a receiver of any of Licensee's assets, or the making by Licensee of any assignment for the benefit of creditors, or the institution of any proceedings against Licensee under any bankruptcy law. Termination shall be effective upon the date specified in such notice.

8.4. Rights Upon Expiration. Neither party shall have any further rights or obligations upon the expiration of this Agreement upon its regularly scheduled expiration date with respect to this Agreement, other than the obligation of Licensee to make any and all reports and payments for the final quarter period. Provided, however, that upon such expiration, each party shall be required to continue to abide by its non-disclosure obligations as described in Section 7.1, and Licensee shall continue to abide by its obligation to indemnify Scripps as described in Section 4.3.

8.5 Rights Upon Termination. Notwithstanding any other provision of this Agreement, upon any termination of this Agreement prior to the regularly scheduled expiration date of this Agreement, the license granted hereunder shall terminate. Except as otherwise provided in Section 8.6 of this Agreement with respect to work-in-progress, upon such termination, Licensee shall have no further right to develop, manufacture or market any Licensed Product, or to otherwise use any Scripps Patent Rights or any Scripps Technology not otherwise includable therein. Upon any such termination, Licensee shall promptly return all materials, samples, documents, information and other materials which embody or disclose Scripps Patent Rights or any Scripps Technology not otherwise includable therein; provided, however, that Licensee shall not be obligated to provide Scripps with proprietary information which Licensee

can show that it independently developed. Any such termination shall not relieve either party from any obligations accrued to the date of such termination. Upon such termination, each party shall be required to abide by its nondisclosure obligations as described in Section 7.1, and Licensee shall continue to abide by its obligations to indemnify Scripps as described in Section 4.3.

8.6. Work-in-Progress. Upon any such early termination of the license granted hereunder in accordance with this Agreement, Licensee shall be entitled to finish any work-in-progress and to sell any completed inventory of a Licensed Product covered by such license which remain on hand as of the date of the termination, so long as Licensee pays to Scripps the royalties applicable to said subsequent sales in accordance with the terms and conditions as set forth in this Agreement, provided that no such sales shall be permitted after the expiration of six (6) months after the date of termination.

9. Assignment; Successors.

9.1. Assignment. Neither this Agreement nor any rights granted hereunder may be assigned or transferred by Licensee except (i) to an Affiliate of Licensee or a successor in interest to all or substantially all of the business assets of Licensee, whether by way of merger, consolidation, sale of all or substantially all of Licensee's assets, change of control or a similar transaction, or (ii) as expressly permitted hereunder, without the prior written consent of Scripps (which consent shall not be unreasonably withheld).

9.2. Binding Upon Successors and Assigns. Subject to the limitations on assignment herein, this Agreement shall be binding upon and inure to the benefit of any successors in interest and assigns of Scripps and Licensee. Any such successor or assignee of Licensee's interest shall expressly assume in writing the performance of all the terms and conditions of this Agreement to be performed by Licensee.

10. General Provisions.

10.1. Independent Contractors. The relationship between Scripps and Licensee is that of independent contractors. Scripps and Licensee are not joint venturers, partners, principal and agent, master and servant, employer or employee, and have no other relationship other than independent contracting parties. Scripps and Licensee shall have no power to bind or obligate each other in any manner, other than as is expressly set forth in this Agreement.

10.2. Arbitration. Any controversy or claim arising out of or relating to this Agreement, or the breach thereof, shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"), and the procedures set forth below. In the event of any inconsistency between the Rules of AAA and the procedures set forth below, the procedures set forth below shall control. Judgment upon the award rendered by the arbitrators may be enforced in any court having jurisdiction thereof.

10.2.1. Location. The location of the arbitration shall be in the County of San Diego.

10.2.2. Selection of Arbitrators. The arbitration shall be conducted by a panel of three neutral arbitrators who are independent and disinterested with respect to the parties, this Agreement, and the outcome of the arbitration. Each party shall appoint one neutral arbitrator, and these two arbitrators so selected by the parties shall then select the third arbitrator. If one party has given written notice to the other party as to the identity of the arbitrator appointed by the party, and the party thereafter makes a written demand on the other party to appoint its designated arbitrator within the next ten days, and the other party fails to appoint its designated arbitrator within ten days after receiving said written demand, then the arbitrator who has already been designated shall appoint the other two arbitrators.

10.2.3. Discovery. Unless the parties mutually agree in writing to some additional and specific pre-hearing discovery, the only pre-hearing discovery shall be (a) reasonably limited production of relevant and non-privileged documents, and (b) the identification of witnesses to be called at the hearing, which identification shall give the witness's name, general qualifications and position, and a brief statement as to the general scope of the testimony to be given by the witness. The arbitrators shall decide any disputes and shall control the process concerning these pre-hearing discovery matters. Pursuant to the Rules of AAA, the parties may subpoena witnesses and documents for presentation at the hearing.

10.2.4. Case Management. Prompt resolution of any dispute is important to both parties; and the parties agree that the arbitration of any dispute shall be conducted expeditiously. The arbitrators are instructed and directed to assume case management initiative and control over the arbitration process (including scheduling of events, pre-hearing discovery and activities, and the conduct of the hearing), in order to complete the arbitration as expeditiously as is reasonably practical for obtaining a just resolution of the dispute.

10.2.5. Remedies. The arbitrators may grant any legal or equitable remedy or relief that the arbitrators deem just and equitable, to the same extent that remedies or relief could be granted by a state or federal court, provided however, that no punitive damages may be awarded. No court action may be maintained seeking punitive damages. The decision of any two of the three arbitrators appointed shall be binding upon the parties.

10.2.6. Expenses. The expenses of the arbitration, including the arbitrators' fees, expert witness fees, and attorneys' fees, may be awarded to the prevailing party, in the discretion of the arbitrators, or may be apportioned between the parties in any manner deemed appropriate by the arbitrators. Unless and until the arbitrators decide that one party is to pay for all (or a share) of such expenses, both parties shall share equally in the payment of the arbitrators' fees as and when billed by the arbitrators.

10.2.7. Confidentiality. Except as set forth below, the parties shall keep confidential the fact of the arbitration, the dispute being arbitrated, and the decision of the arbitrators. Notwithstanding the foregoing, the parties may disclose information about the arbitration to persons who have a need to know, such as directors, trustees, management employees, witnesses, experts, investors, attorneys, lenders, insurers, and others who may be directly affected. Additionally, if a party has stock which is publicly traded, the party may make such disclosures as are required by applicable securities laws. Further, if a party is expressly asked by a third party about the dispute or the arbitration, the party may disclose and

acknowledge in general and limited terms that there is a dispute with the other party which is being (or has been) arbitrated. Once the arbitration award has become final, if the arbitration award is not promptly satisfied, then these confidentiality provisions shall no longer be applicable.

10.3. Entire Agreement; Modification. This Agreement sets forth the entire agreement and understanding between the parties as to the subject matter hereof. There shall be no amendments or modifications to this Agreement, except by a written document which is signed by both parties.

10.4. California Law. This Agreement shall be construed and enforced in accordance with the laws of the State of California without regard to the conflicts of laws principles thereof.

10.5. Headings. The headings for each article and section in this Agreement have been inserted for convenience of reference only and are not intended to limit or expand on the meaning of the language contained in the particular article or section.

10.6. Severability. Should any one or more of the provisions of this Agreement be held invalid or unenforceable by a court of competent jurisdiction, it shall be considered severed from this Agreeement and shall not serve to invalidate the remaining provisions thereof. The parties shall make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by them when entering this Agreement may be realized.

10.7. No Waiver. Any delay in enforcing a party's rights under this Agreement or any waiver as to a particular default or other matter shall not constitute a waiver of such party's rights to the future enforcement of its rights under this Agreement, excepting only as to an express written and signed waiver as to a particular matter for a particular period of time.

10.8. Name. Whenever there has been an assignment or a sublicense by Licensee as permitted by this Agreement, the term "Licensee" as used in this Agreement shall also include and refer to, if appropriate, such assignee or sublicensee.

10.9. Attorneys' Fees. In the event of a dispute between the parties hereto or in the event of any default hereunder, the party prevailing in the resolution of any such dispute or default shall be entitled to recover its reasonable attorneys' fees and other costs incurred in connection with resolving such dispute or default.

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10.10.

10.11. Notices. Any notices required by this Agreement shall be in writing, shall specifically refer to this Agreement and shall be sent by registered or certified airmail, postage prepaid, or by telefax, telex or cable, charges prepaid, or by overnight courier, postage prepaid and shall be forwarded to the respective addresses set forth below unless subsequently changed by written notice to the other party:

For Scripps: The Scripps Research Institute

10550 North Torrey Pines Road, TPC-9

La Jolla, California 92037

Attention: Director, Technology Development

Fax No.: (858) 784-9910

and a copy to: The Scripps Research Institute

10550 North Torrey Pines Road, TPC-8

La Jolla, California 92037

Attention: General Counsel

Fax No.: (858) 784-9399

For Licensee: Sangamo Biosciences Incorporated

Point Richmond Tech Center

501 Canal Blvd., Suite A100

Richmond, CA 94804

Attention: President

Fax No.: (510) 236-8951

Notice shall be deemed delivered upon the earlier of (i) when received, (ii) three (3) days after deposit into the mail, or (iii) the date notice is sent via telefax, telex or cable, (iv) the day immediately following delivery to overnight courier (except Sunday and holidays).

10.12. Compliance with U.S. Laws. Nothing contained in this Agreement shall require or permit Scripps or Licensee to do any act inconsistent with the requirements of any United States law, regulation or executive order as the same may be in effect from time to time.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives as of the date set forth above.

SCRIPPS:	LICENSEE:
THE SCRIPPS RESEARCH INSTITUTE	SANGAMO BIOSCIENCES INCORPORATED
By: /s/ ARNOLD LAGUARDIA	By: /s/ PETER BLUFORD
Arnold LaGuardia	Peter Bluford
Title: Executive Vice President	Title: VP, Corporate Development

EXHIBIT B

NADII AGREEMENT

"Field" means use as a Licensed Bioremediation Product or Licensed Plant Product.

"Licensed Bioremediation Product(s)" means any Bioremediation Product that cannot be made, used, sold, offered for sale or imported without infringing TRSI Plan Patent Rights or which embodies or is produced using TSRI Proprietary Property.

"Licensed Plant Product(s)" means any Plant Product which cannot be made, used, sold, offered for sale or imported without infringing TSRI Plant Patent Rights or TSRI Plant Variety Protection Rights or which embodies or is produced using TSRI Proprietary Property.

"Licensed TSRI Plant Product(s)" means any one or more Licensed Plant Product and/or Licensed Bioremediation Product.

"Plant Products": As used in this Agreement, the term "Plant Product," individually, or "Plant Products," collectively, shall mean any one or more plant composition product, device, method, procedure, software, computer program, material, or element to be utilized by the agricultural and farming industry for the purpose of improving, restricting or otherwise modifying growth or productivity of plants; or preventing or treating disease or insect or fungal infestation in plants; or controlling or modifying certain traits of plants or producing improved or modified seeds and plants.

"Proprietary Property" means, with respect to any party hereto, any and all (i) technology or information, now existing or hereafter arising, in which such party shall have an exclusive proprietary interest, including, without limitation, any idea, data, compound, molecule, animal, virus, genome, genetic element, cell line, material, replicable biological material, know-how, technique, product, device, method, process, use, composition, skill, invention, discovery, trade secret, software, computer program, configuration or technology of any kind, whether or not any such information or technology would be enforceable as a trade secret, the copying of which would be enjoined or restrained by a court of competent jurisdiction as constituting copyright infringement or unfair competition, or the information or technology would be eligible for protection under the patent, trade secret or copyright laws of the United States or elsewhere and which has not been publicly disclosed and (ii) TSRI Plant Patent Rights, and (iii) TSRI Plant Variety Protection Rights.

"TSRI Plant Patent Rights" means the rights arising out of or resulting from (i) any and all U.S. and foreign patents covering TSRI Plant Technology and (ii) to the extent they cover TSRI Plant Technology, all continuations, divisions, continuations-in-part, reissues, reexaminations, and extentions thereof, so long as such patents have not been held invalid and/or unenforceable by a court of competent jurisdiction from which there is no appeal or, if appealable, from which no appeal has been taken.

"TSRI Plant Product(s)" means any one or more Plant Product or Bioremediation Product.

"TSRI Plant Technology" means any TSRI Proprietary Property disclosed in the United States Patent Applications set forth on Exhibit A hereto, and to the extent they cover TSRI Plant Technology, all continuations, divisions, continuations-in-part, reissues, reexaminations, and extentions thereof;

"TSRI Plant Variety Protection Rights" means the rights arising out of or resulting from any and all U.S. and foreign plant variety protection laws covering TSRI Plant Technology.

"TSRI Proprietary Property" means Proprietary Property in which TSRI has a proprietary interest.

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. 4 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 4, 2000