AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON MARCH 14, 2000

REGISTRATION NO. 333-30134

SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

AMENDMENT NO. 2

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FORM S-1
REGISTRATION STATEMENT
UNDER

THE SECURITIES ACT OF 1933

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

DELAWARE
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)

8731
(PRIMARY STANDARD INDUSTRIAL
CLASSIFICATION CODE NUMBER)

68-0359556 (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)

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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.

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 MARCH 14, 2000

PROSPECTUS

5,000,000 Shares

[SANGAMO LOGO]

SANGAMO BIOSCIENCES, INC.

Common Stock

.

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

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

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

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

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

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

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

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LEHMAN BROTHERS

CHASE H&Q

ING BARINGS

WILLIAM BLAIR & COMPANY

, 2000

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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.

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.

Enormous scientific and financial resources are being dedicated to the identification of all human genes, referred to as the sequencing of the human genome. 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

Use of proceeds...... For research and development, capital

equipment and general corporate purposes. See "Use of Proceeds" for more information regarding our planned use of the proceeds from this offering.

Proposed Nasdaq National Market

ymbol..... SGMO

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

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

SUMMARY FINANCIAL DATA

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

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

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

	AS	OF DI	ECEMBER 3	1, 19	99
	ACTUAL	O FORMA		RO FORMA ADJUSTED	
		(IN	THOUSAND	S)	
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	9,287		23,287		96,487
Long-term debt	250		250		250
Accumulated deficit	(8,785)		(8,918)		(8,918)
Total stockholders' equity	8,007		22,007		95, 207

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, 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 are continuing 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 are continuing 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 have been initially developed 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.

IF WE FAIL TO OBTAIN THE CAPITAL NECESSARY TO FUND OUR OPERATIONS, WE WILL BE UNABLE TO SUCCESSFULLY DEVELOP OUR TECHNOLOGY AND PRODUCTS.

Significant additional financing may be required to fund future operations. We do not know whether additional financing will be available when needed, or that, if available, 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.

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 can be expected to 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 strateoic 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, our revenues will be negatively impacted and our research initiatives may be slowed or halted.

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. Since 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, we must enter into additional strategic partnerships to develop and commercialize products.

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

Our existing strategic partnering agreement is, and we would expect any future arrangement to be based on the achievement of milestones. Under the strategic partnering agreements, we expect to receive revenue for the research and development of a therapeutic product based on achievement of specific milestones. Achieving these milestones will depend, in part, on the efforts of our strategic

partner as well as our own. In contrast, our current Universal GeneTools collaboration agreements only pay us to supply ZFP transcription factors for the collaborator's independent use, rather than for future results of the collaborator's efforts. If we or any strategic partner fails to meet specific milestones, then the strategic partnership can be terminated which could decrease our revenues.

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

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

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

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

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

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

Our commercial success will depend in part on obtaining patent protection of our technology and successfully defending these patents against third party challenges. The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and

factual questions. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date. Accordingly, we cannot predict the breadth of claims allowed in patents we own or license.

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

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 our ability to receive patent protection or protect our proprietary information will be imperiled. 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, delays or rejections may be encountered 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 is obtained, a marketed product and its manufacturer are subject to continual review, and 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 will be limited to those specific states and conditions for which the product is useful, demonstrated through clinical trials to be safe and effective. 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 statements concerning our operations, economic performance and financial condition. Forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, 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.

These statements involve risks and uncertainties. Various terms and expressions similar to them are intended to identify forward-looking 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."

USE OF PROCEEDS

Our net proceeds from the sale of the 5,000,000 shares of common stock we are offering are estimated to be \$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.

CAPITAL TZATION

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 AS ADJUSTED			
		OS)			
Long-term debt, less current portion	\$ 250	\$ 250	\$ 250		
Stockholders' equity: Preferred stock, \$0.01 par value, 6,000,000 shares authorized, actual and pro forma, 5,000,000 shares authorized, as adjusted; 4,855,917 shares issued and outstanding, actual, no shares issued and outstanding, pro forma and pro forma as adjusted Common stock, \$0.01 par value, 15,000,000 authorized, actual, 80,000,000 shares authorized, pro forma and pro forma as adjusted; 6,132,060 shares issued and outstanding, actual, 17,300,417 shares issued and outstanding, pro forma and 22,300,417 shares issued and	15,187				
outstanding, pro forma as adjusted Deferred stock compensationAccumulated deficit	(1,736) (8,785)	(8,918)	(1,736) (8,918)		
Accumulated other comprehensive income Total stockholders' equity		22,007	95,207		
Total capitalization	\$ 8,257 ======				

The number of shares of common stock outstanding excludes:

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

DTIUTTON

Our pro forma net tangible book value at December 31, 1999 was \$8.0 million, or \$0.51 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 proforma 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 \$95.2 million, or \$4.27 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 \$11.73 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 Pro forma net tangible book value per share at December		\$16.00
31, 1999	\$ 0.51	
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		4.27
Dilution per share to new investors		\$11.73
		=====

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 CONSID			
	NUMBER	PERCENT	AMOUNT	PERCENT		AGE PRICE R SHARE
Existing stockholders	, ,	78% 22	\$ 29,478,000 80,000,000	27% 73	\$	1.70 16.00
Totals	22,300,417	100% ===	\$109,478,000 =======	100% ===		

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

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

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

SELECTED FINANCIAL DATA

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

	YEAR ENDED DECEMBER 31,								
	1995 1996		1997 1998			1999			
		(IN			EXCEPT			DATA)	
STATEMENT OF OPERATIONS DATA: Total revenues	\$	183	\$	632	\$ 1,152	\$	2,038	\$ 2,182	
Operating expenses: Research and development General and administrative				322	,		,	4,266 1,822	
Total operating expenses		200							
Loss from operations		(17)		(318) 10	(55)		173	131)
Net loss		(17)	\$. ,	\$(1,400)	\$((3,285) =====)
Basic and diluted net loss per share	\$(0	.00)	\$(0.06)	\$ (0.26)	\$	(0.56)	\$ (0.63))
Shares used in computing basic and diluted net loss per share	5,		5	, 143				5,991	
Pro forma basic and diluted net loss per share (unaudited)								\$ (0.29) ======)
Shares used in computing pro forma basic and diluted net loss per share (unaudited)								13,102 ======	

	AS OF DECEMBER 31,						
	1995	1996	1997	1998	1999		
		NDS)					
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	4,219	9,287		
Long-term debt				250	250		
Accumulated deficit	(17)	(325)	(1,725)	(5,010)	(8,785)		
Total stockholders' equity	308	434	6,409	3,591	8,007		

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 our retrospective review of the primary business factors underlying the value of its common stock on the date such option grants were made, viewed in light of this offering and the expected initial public offering price per share. We recorded amortization of deferred stock compensation of \$46,000, \$410,000 and \$519,000, for the years ended December 31, 1997, 1998 and 1999, respectively. At December 31, 1999, we had a total of \$1.7 million remaining to be amortized over the vesting periods of the stock options. Through March 13, 2000 we recorded additional deferred stock compensation of \$5.8 million in connection with grants of stock options subsequent to December 31, 1999 and we may record additional deferred stock compensation for options granted prior to the closing of this offering. You should read Note 4 of Notes to Financial Statements for more information.

RESULTS OF OPERATIONS

Years Ended December 31, 1999 and 1998

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

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

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

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

Years Ended December 31, 1998 and 1997

Total revenues. Federal government research grant revenues increased by \$736,000 from \$1.2 million in 1997 to \$1.9 million in 1998. This increase was principally attributable to revenue

from new federal government research grants, including a grant from the Department of Commerce under the Advanced Technology Program initiated in late 1997.

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

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

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

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

LIQUIDITY AND CAPITAL RESOURCES

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

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

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

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

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

As of December 31, 1999, we had federal and state net operating loss carryforwards of approximately \$7.9 million to offset future taxable income. We also had federal research and

development tax credit carryforwards of approximately \$100,000. If not used, net operating loss and credit carryforwards will begin to expire in 2010. Use of the net operating losses and credits may be subject to a substantial annual limitation due to ownership change limitations provided by the Internal Revenue Code of 1986. The annual limitation may result in the expiration of our net operating losses and credits before they can be used. Also, if we do not become profitable, we will not be able to use these net operating losses and credits.

DISCLOSURE ABOUT MARKET RISK

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

YEAR 2000 ISSUES

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

BUSTNESS

OVERVIEW

We are 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 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.

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;
- 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. 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. 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 can cause a target gene to be activated. Alternatively, a repression domain can cause 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 permits a gene to be temporarily activated or repressed. 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 in pharmaceutical discovery, therapeutics for the treatment of human diseases, clinical diagnostics, and agricultural and industrial biotechnology. 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 including 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. These collaborators are applying our ZFP transcription factors to the validation of human gene targets for drug discovery. ZFP transcription factors are being incorporated into both cells and animals for this purpose. We are working with many of these companies to lay the basis for additional and expanded collaborations and increased market acceptance of our Universal GeneTools. See "Corporate Collaborations -- Universal GeneTools Collaborations."

ZFP-Engineered Cells for Identification of Drug Candidates

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

We intend to commercialize ZFP-engineered cell lines for identification of drug product candidates by developing relationships with strategic partners in our Universal GeneTools business.

Cell lines will be engineered and optimized by Sangamo scientists and transferred to our partners for use in their drug screening operations.

ZFP Libraries for Target Discovery

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

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

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

ZFP-Therapeutics

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

Cardiovascular Disease

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

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

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

Hepatitis B Viral Disease

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

In 1998, we initiated a research collaboration with Dr. Alan McLachlan of The Scripps Research Institute. The purpose of the collaboration is to evaluate our ZFP transcription factors designed to repress the expression of HBV genes and viral replication in liver cells. Dr. McLachlan is an expert in the regulation of HBV gene expression and has developed several biological assays for the measurement of HBV gene expression and viral replication. Preliminary data suggest that our ZFP transcription factors can repress the expression of HBV genes in liver cells. We are continuing these studies to confirm and extend these results.

HIV Disease

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

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

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

Repression of Angiogenesis for Diabetic Retinopathy and Cancer

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

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

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

Commercialization of ZFP-Therapeutics

We plan to develop and commercialize ZFP-Therapeutics in partnership with pharmaceutical and biotechnology companies. We intend to negotiate partnerships with terms that will provide partners with exclusive rights to the regulation of specific genes, delineating in exact terms the clinical indications and geographic areas covered under the agreement. We intend to commence additional therapeutic programs and may retain commercial rights to some of these products.

ZFP-Engineered Cell Lines for the Production of Protein Pharmaceuticals

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

ZFPs for Pharmacogenomics and Clinical Diagnostics

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

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

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

ZFP Transcription Factors for Agricultural and Industrial Biotechnology

Agricultural Biotechnology

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

ascertain gene function, identify important gene and agrochemical targets and regulate those genes through improved transgenic plants.

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

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

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

Industrial Biotechnology

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

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

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

CORPORATE COLLABORATIONS

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

Baxter CardioVascular Group Strategic Partnership

In January 2000, we announced the initiation of a multiyear, therapeutic product development collaboration with Edwards LifeScience, Inc., formerly the CardioVascular Group of Baxter Healthcare Corporation. Under the agreement, we have licensed to Baxter on a worldwide, exclusive basis our ZFP-Therapeutics for the activation of VEGFs and VEGF receptors in cardiovascular and peripheral vascular diseases. In addition, Baxter has purchased a \$5 million convertible note which will convert, together with accrued interest, into common stock upon consummation of this offering, and we have received \$1 million in initial research funding from Baxter. We will be responsible for advancing product candidates into preclinical animal testing. Baxter will be responsible for preclinical development, regulatory affairs, clinical development and the sales and marketing of the ZFP-Therapeutic products. In March 2000, Baxter exercised an option by purchasing a \$7.5 million convertible note which will convert into common stock, together with accrued interest, upon consummation of this offering for a right of first refusal for three years to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. In the future, we may receive option fees, milestone payments, royalties and additional research funding from this agreement. Baxter has the right to terminate the agreement at any time upon 90 days written notice. In the event of termination, we retain all payments previously received.

Universal GeneTools Collaborations

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

Our Universal GeneTools agreements generally contain the following terms:

- ZFP transcription factors are provided for the collaborator's internal research purposes only;
- we retain all ZFP intellectual property rights, including the rights to make, use, develop and sell any product or service utilizing ZFPs, ZFP transcription factors and the genes that encode them; and
- we do not disclose to any third party a specific collaborator's confidential gene target.
- typically, our collaborators are obligated to pay 50% of the agreed amount for the ZFP transcription factors within 20 days after execution of the agreement, and the balance 20 days after delivery of the ZFP transcription factors.

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. 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 18 Universal GeneTools collaborations with the following pharmaceutical or biotechnology companies or their subsidiaries including: 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.

RESEARCH GRANTS

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

SUMMARY OF MAJOR U.S. GOVERNMENT GRANTS

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

INTELLECTUAL PROPERTY AND TECHNOLOGY LICENSES

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

Although we have filed for patents on some aspects of our technology, we cannot assure you that patents will issue as a result of these pending applications or that any patent that has or may be issued will be upheld. Despite our efforts to protect our proprietary rights, existing patent, copyright, trademark and trade secret laws afford only limited protection, and we cannot assure you that our intellectual property rights, if challenged, will be upheld as valid or will be adequate to protect our proprietary technology and information. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as do the laws of the United States. Attempts may be made to copy or reverse engineer aspects of our technology or to obtain and use information that we regard as proprietary. Our patent filings may be subject to interferences. Litigation or opposition

proceedings may be necessary in the future to enforce or uphold our intellectual property rights, to determine the scope of our licenses, or determine the validity and scope of the proprietary rights of others. The defense and prosecution of intellectual property suits, United States Patent and Trademark Office interference proceedings and related legal and administrative proceedings in the United States and internationally involve complex legal and factual questions. As a result, these proceedings are costly and time-consuming to pursue, and result in diversion of resources. The outcome of these proceedings is uncertain and could significantly harm our business.

We have received unsolicited invitations to license existing patented technology from a number of third parties, at least one of which contained an allegation of infringement. No litigation is being threatened and no license fees are being proposed. Upon careful analysis of each of these technologies, we have determined that we already own rights to these technologies or that our scientific and commercial interests would not benefit from the acquisition of rights to these technologies. Further, we believe that the making, using or selling of our products and processes need not infringe any claims in the proffered patents. Accordingly, we have declined to enter into license negotiations with these parties. We cannot assure you, however, that these parties will not bring future actions against us, our collaborators or strategic partners alleging infringement of their patents. As detailed above, the outcome of any litigation, particularly lawsuits involving biotechnology patents, is difficult to predict and likely to be costly regardless of the outcome. In these circumstances, litigation, the risks of a negative impact on our business can neither be clearly defined nor entirely eliminated.

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

COMPETITION

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

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

Accordingly, our competitors may succeed in obtaining patent protection, receiving FDA approval or commercializing ZFP transcription factors or other competitive products before us. If we

commence commercial product sales, we will be competing against companies with greater marketing and manufacturing capabilities, areas in which we have limited or no experience. In addition, any product candidate that we successfully develop may compete with existing products that have long histories of safe and effective use.

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

We expect to face intense competition from other companies for collaborative arrangements with pharmaceutical, biotechnology, agricultural and chemical companies, for establishing relationships with academic and research institutions, and for licenses to proprietary technology. These competitors, either alone or with their collaborative partners, may succeed in developing technologies or products that are more effective or less costly than ours.

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

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

GOVERNMENT REGULATION

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

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

Clinical testing must meet requirements for:

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

Before receiving FDA clearance to market a product, we must demonstrate that the product is safe and effective on the patient population that will be treated. If regulatory clearance of a product is granted, this clearance will be 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

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 satisfied that adequate evidence of safety, quality and efficacy has been presented, a marketing authorization will be granted. 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		President, Chief Executive Officer and Director 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

				LONG-TERM COMPENSATION AWARDS		
	FISCAL	ANNUAL COMF		SECURITIES UNDERLYING	(THER
NAME AND PRINCIPAL POSITION	YEAR	SALARY	BONUS	OPTIONS	COME	PENSATION
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

					VALU	
					ASSUMED	ANNUAL
					RATE	S OF
	NUMBER OF	PERCENTAGE OF			STOCK	PRICE
	SECURITIES	TOTAL OPTIONS			APPRECIA	TION FOR
	UNDERLYING	GRANTED TO			OPTIO	N TERM
	OPTIONS	EMPLOYEES IN	EXERCISE PRICE	EXPIRATION		
NAME	GRANTED	FISCAL 1999	(PER SHARE)	DATE	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

POTENTIAL REALIZABLE VALUE AT

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		VALUE OF UNEXERCISED			ISED
			IN-THE-MONEY OPTIONS AT			
	DECEMBER	CEMBER 31, 1999		DECEMBER 31, 199		99
NAME	EXERCISABLE	UNEXERCISABLE	EXE	RCISABLE	UNEXE	RCISABLE
Edward O. Lanphier II	400,000		\$	24,000	\$	
Casey C. Case, Ph.D	210,000			13,500		
Peter Bluford	260,000			31,500		

STOCK PLANS

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

Authorized shares

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

Stock Options

Our 2000 Stock Incentive Plan has five separate programs:

- the discretionary option grant program, under which eligible individuals in our employ may be granted options to purchase shares of our common stock at an exercise price not less than the fair market value of those shares on the grant date;
- the stock issuance program, under which eligible individuals may be issued shares of common stock directly through the purchase of such shares at a price not less than 100% of the then fair market value at time of issuance or as a bonus tied to the attainment of performance milestones or the completion of a specified period of services;
- the salary investment option grant program, under which our executive officers and other highly compensated employees may be given the opportunity to apply a portion of their base salary each year to the acquisition of special below market stock option grants;
- the automatic option grant program, under which option grants will automatically be made at periodic intervals to eligible non-employee members of our board of directors to purchase shares of common stock at an exercise price equal to the fair market value of those shares on the grant date; and
- the director fee option grant program, under which non-employee members of our board of directors may be given the opportunity to apply a portion of any retainer fee otherwise payable to them in cash each year to the acquisition of special below-market option grants.

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

Plan Administration

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

Our 2000 Stock Incentive Plan will include the following features:

- The exercise price for any options granted under the 2000 Stock Incentive Plan may be paid in cash or in shares of our common stock valued at fair market value on the exercise date. The option may also be exercised through a same-day sale program without any cash outlay by the optionees. The compensation committee may provide financial assistance to one or more optionees in the exercise of their options by allowing such individuals to deliver full-recourse interest-bearing promissory notes in payment of the exercise price and any associated withholding taxes.
- The compensation committee will have the authority to cancel outstanding options under the discretionary option grant program, including any transferred options from our 1995 Stock Option Plan, in return for the grant of new options for the same or a different number of option shares with an exercise price per share based upon the fair market value of our common stock on the new grant date.

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

Changes in Control

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

- If we are acquired by merger or asset sale, each outstanding option under the discretionary option grant program which is not to be assumed by the successor corporation will immediately become exercisable for all the option shares, and all outstanding unvested shares will immediately vest, except to the extent our repurchase rights with respect to those shares are to be assigned to the successor corporation.
- The compensation committee will have complete discretion to grant one or more options that will become exercisable for all the option shares if those options are assumed in the acquisition but the optionee's service with us or the acquiring entity is subsequently terminated. The vesting of any outstanding shares under the stock issuance programs may be accelerated upon similar terms and conditions. The compensation committee will also have the authority to grant options which will immediately vest in the event we are acquired, whether or not those options are assumed.
- The compensation committee may grant options and structure repurchase rights so that the shares subject to those options or repurchase rights will immediately vest in connection with a successful tender offer for more than 50% of our outstanding voting stock or a change in the majority of our board through one or more contested elections. This accelerated vesting may occur either at the time of this type of transaction or upon the subsequent termination of the individual's service.
- If we are acquired by merger or asset sale, the options currently outstanding under the 1995 Stock Option Plan will accelerate in full if the options are not assumed by the acquiring entity and the optionee's employment with us is involuntarily terminated within 12 months following the acquisition. If the options are not so assumed, they will accelerate and become exercisable for fully vested shares immediately before the acquisition and will terminate upon the completion of the acquisition.

Salary Investment Option Grant Program

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

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

Automatic Option Grant Program

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

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 plan will terminate no later than the last business day of January 2010.
- The board may at any time amend, suspend or discontinue the Employee Stock Purchase Plan. Some amendments may require stockholder approval.

TERMINATION OF EMPLOYMENT ARRANGEMENT AND CHANGE IN CONTROL ARRANGEMENTS

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

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

LIMITATION OF LIABILITY AND INDEMNIFICATION

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

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

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

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

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

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

RELATED PARTY TRANSACTIONS

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

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

AGREEMENTS WITH OFFICERS AND DIRECTORS

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

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

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

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, 1999. 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.

	NUMBER OF SHARES BENEFICIALLY	PERCENTAGE OF SHARES BENEFICIALLY OWNED		
NAME AND ADDRESS OF BENEFICIAL OWNER	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	2,444,444	14.2	10.6	
Stephens-Sangamo BioSciences LLC	2,000,000	11.6	8.7	
Edward O. Lanphier II(2)	3,820,000	21.6	16.3	
Casey C. Case, Ph.D.(3)	210,000	1.2	*	
Peter Bluford(4)	260,000	1.5	*	
Herbert W. Boyer, Ph.D.(5)	100,000	*	*	
William G. Gerber, M.D.(6)	100,000	*	*	
John W. Larson(7)	474,460	2.7	2.1	
William J. Rutter, Ph.D.(8)	766,666	4.4	3.3	
Michael C. Wood(9)	1,460,000	8.4	6.3	
All directors and executive officers as a group (12 persons)(10)	7,591,126	41.0%	31.3%	

^{*} Less than one percent.

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

- (2) Includes 400,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes 400,000 shares held by Mr. Lanphier's minor children.
- (3) Includes 210,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.
- (4) Includes 260,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.
- (5) Includes 62,624 shares of common stock which are subject to repurchase.
- (6) Includes 64,583 shares of common stock which are subject to repurchase.
- (7) Includes 50,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes warrants to purchase 25,364 shares of common stock.
- (8) Includes 100,000 shares of common stock which are subject to repurchase.
- (9) Includes 50,000 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000.
- (10) Includes 1,206,364 shares of common stock issuable upon exercise of immediately exercisable options within 60 days of February 29, 2000. Also includes 35,790 shares which are subject to repurchase.

DESCRIPTION OF CAPITAL STOCK

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

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

COMMON STOCK

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

PREFERRED STOCK

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

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

WARRANTS

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

REGISTRATION RIGHTS

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

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

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

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

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

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

- prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned by:
- (i) persons who are directors and also officers; and
- (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to 2000 Employee Stock Purchase Plan will be tendered in a tender or exchange offer; or

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

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

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to some exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

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

Our amended and restated certificate of incorporation:

- provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not by written consent;
- provides that the authorized number of directors may be changed only by our board of directors; and
- authorizes our board of directors to issue blank check preferred stock to increase the amount of outstanding shares.

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

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

TRANSFER AGENT AND REGISTRAR

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

SHARES ELIGIBLE FOR FUTURE SALE

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

Upon completion of this offering, we will have outstanding an aggregate of 22,300,417 shares of common stock, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options or warrants issued after December 31, 1999. Of these shares, all of the shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, unless these shares are purchased by affiliates. The remaining 17,300,147 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	
Total	5,000,000

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

LEGAL MATTERS

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

EXPERTS

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

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

WHERE YOU CAN FIND ADDITIONAL INFORMATION

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

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

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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 , 2000.

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The foregoing opinion is in the form that will be signed upon the completion of the stock split described in Note 7 to the financial statements.

/s/ Ernst & Young LLP

Palo Alto, California February 24, 2000

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

		PRO FC STOCKHOL DECEMBER 31, EQUIT		
	1998	1999 	1999 (UNAUDITED)	
ASSETS Current assets: Cash and cash equivalents	\$ 1,250 1,808	\$ 251 7,252		
Accounts receivable Prepaid expenses	384 97	562 171		
Total current assets	3,539 436 244	8,236 612 439		
Total assets		\$ 9,287 ======		
LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities:	4.00			
Accounts payable and accrued liabilities	\$ 182 196 	\$ 348 182 500		
Total current liabilities Note payable Commitments Stockholders' equity:	378 250	1,030 250		
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	\$	
amount paid in Deferred stock compensation Accumulated deficit Accumulated other comprehensive income	1,576 (773) (5,010) 55	3,258 (1,736) (8,785) 83	18,445 (1,736) (8,785) 83	
Total stockholders' equity	3,591	8,007	\$ 8,007	
Total liabilities and stockholders' equity	\$ 4,219 ======	\$ 9,287 ======	=====	

See accompanying notes.

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

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

See accompanying notes.

STATEMENT OF STOCKHOLDERS' EQUITY

(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

	CONVER PREFEI STO	RRED	COMMON		DEFERRED	ACCUMUM - ===-	ACCUMULATED OTHER	TOTAL
	SHARES	AMOUNT	SHARES	AMOUNT	STOCK COMPENSATION	ACCUMULATED DEFICIT	COMPREHENSIVE INCOME	STOCKHOLDERS' EQUITY
Balances at December 31, 1996 Issuance of common stock for services rendered	750,000	\$ 750	5,472,500	\$ 9	\$	\$ (325)	\$	\$ 434
at \$0.01 per share Issuance of common stock upon exercise of options at \$0.05 per			303,800	331				331
share			100,000	5				5
\$180 Issuance of Series B preferred stock	2,358,000	6,894						6,894
warrants Deferred stock		99						99
compensationAmortization of deferred				449	(449)			
stock compensation					46			46
comprehensive loss						(1,400)		(1,400)
Balances at December 31, 1997 Issuance of common stock upon exercise of	3,108,000	7,743	5,876,300	794	(403)	(1,725)		6,409
options at \$0.01 and \$0.05 per share, net of repurchases			54,718	2				2
related to the issuance of preferred stock at \$0.01 per share	40,000							
Deferred stock compensation Amortization of deferred				780	(780)			
stock compensation Unrealized gain on					410			410
investments	 	 			 	(3,285)	55 	55 (3,285)
Comprehensive loss						(=,===,		(3,230)
Balances at December 31, 1998	3,148,000	7,743	5,931,018	1,576	(773)	(5,010)	55	3,591
Issuance of common stock upon exercise of options at \$0.01 to	3,140,000	7,743	3,931,010	1,370	(113)	(3,010)	33	3,331
\$0.15 per share Issuance of common stock and options to purchase common stock for			191,042	12				12
services rendered Issuance of Series A convertible preferred stock upon exercise of warrants at \$0.01 per			10,000	188				188
share	41,250							
\$56 Deferred stock	1,666,667	7,444						7,444
compensation Amortization of deferred				1,482	(1,482)			
stock compensation Unrealized gain on					519			519
investments						(3,775)	28 	28 (3,775)
Comprehensive loss								(3,747)

See accompanying notes.

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)	
Depreciation and amortization	2 46	86 410	164	
Amortization of deferred stock compensation Issuance of common stock and options to purchase		410	519	
common stock for technology and services rendered	331		188	
Non-cash interest expense	99			
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 activitiesINVESTING ACTIVITIES:	(818)	(3,162)	(2,444)	
Purchases of short-term investments		(2,921)	(8,242)	
investments		1,166	2,571	
Purchases of property and equipment	(124)	(400)	(340)	
Net cash used in investing activities FINANCING ACTIVITIES:		(2,155)	(6,011)	
Proceeds from issuance of convertible preferred stock	5,934		7,444	
Proceeds from issuance of common stock	5, 354	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		(5,064)	(999)	
Cash and cash equivalents, beginning of period	357	6,314	1,250	
Cash and cash equivalents, end of period	\$ 6,314	\$ 1,250 ======	\$ 251 ======	
SUPPLEMENTAL DISCLOSURES:				
Cash paid for interest	\$ ======	\$ 12 ======	\$ 17 ======	
NONCASH INVESTING AND FINANCING ACTIVITIES:				
Deferred compensation related to stock options	\$ 449 ======	\$ 780 =====	\$ 1,482 ======	
Conversion of convertible promissory notes to convertible	-	_	_	
preferred stock	\$ 960 =====	\$ ======	\$ ======	

See accompanying notes.

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 halance sheet.

USE OF ESTIMATES

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

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

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.

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.

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

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

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 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

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED) above that will automatically convert to common shares upon completion of the Company's initial public offering, using the if-converted method.

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

	YEAR ENDED DECEMBER 31,		
	1997	1998	1999
Historical: Net loss		\$(3,285) ======	
Basic and diluted: Weighted-average shares of common stock outstanding Less: weighted-average shares subject to repurchase	(34)	5,919 (76)	(62)
Shares used in computing basic and diluted net loss per share		5,843 ======	
Basic and diluted net loss per share			\$ (0.63)
Pro forma: Net loss			\$(3,775) ======
Weighted-average shares of common stock outstanding (from above)			5,991
the date of issuance (unaudited)			7,111
Shares used in computing pro forma basic and diluted net loss per share (unaudited)			13,102
Pro forma basic and diluted net loss per share (unaudited)			\$ (0.29) ======

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

SEGMENT REPORTING

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

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

	DECEME	DER SI,
	1998	1999
	(IN THO	OUSANDS)
Laboratory equipment	\$137 209 178	\$ 436 227 201
Less accumulated depreciation and amortization	524 (88)	864 (252)
	\$436 ====	\$ 612 =====

DECEMBER 31

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 2001 2002 2003	\$ 304 304 306 308	
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:

		OUTSTA	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		
	=======	=======	=======		

CHAREC TOCHER AND

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

4. STOCKHOLDERS' EQUITY (CONTINUED)

converted into common stock immediately upon the closing of an underwritten public offering that is at a price to the public of at least \$6.00 per share and that results in aggregate proceeds to Sangamo of at least \$7,500,000. All convertible preferred shares have voting rights equal to common stock on an as-if-converted basis.

COMMON STOCK

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

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

WARRANTS

At December 31, 1999, warrants to purchase 65,000 shares of Series A convertible preferred stock were outstanding at an exercise price of \$1.00 per share, which are exercisable through September 2000, and warrants to purchase 64,981 shares of Series B convertible preferred stock were outstanding at an exercise price of \$3.00 per share, which are exercisable through August 2002. The warrants to purchase Series B preferred stock were issued in connection with a 1997 bridge loan transaction. Such warrants were assigned a value of \$99,000 using the Black Scholes method which 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	
Balance at December 31, 1996 Options granted Options exercised Options canceled	785,500	392,000	\$0.04
	(816,000)	816,000	\$0.08
		(100,000)	\$0.05
	125,000	(125,000)	\$0.04
Balance at December 31, 1997. Additional shares authorized. Options granted. Options exercised. Shares repurchased. Options canceled.	94,500	983,000	\$0.08
	1,200,000		
	(828,000)	828,000	\$0.16
		(101,750)	\$0.03
	47,032		\$0.01
	35,250	(35,250)	\$0.08
Balance at December 31, 1998	548,782	1,674,000	\$0.12
	1,000,000		
	(459,500)	459,500	\$0.22
		(191,042)	\$0.06
	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 Company's retrospective review of the primary business factors underlying the value of its 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 E	NDED DECEMB	ER 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 in other assets 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 Research and development credit carryforwards Other reserves and accruals	\$ 1,600 	\$ 2,500 100 100
Valuation allowance	1,600 (1,600)	2,700 (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.

7. SUBSEQUENT EVENTS

CONVERTIBLE PREFERRED STOCK SALE

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

GRANT OF STOCK OPTIONS

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

7. SUBSEQUENT EVENTS (CONTINUED) 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, Sangamo's Board of Directors approved a two-for-one stock split of its common stock, effected as a common stock dividend, that will be effective prior to the completion of its initial public offering. 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

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PART TT

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
	===	======

^{*} To be provided by amendment

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

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

TTEM 15. RECENT SALES OF UNREGISTERED SECURITIES

- 1. Since inception through December 31, 1999, we have granted a total of 2,818,000 options and stock purchase rights to purchase our common stock, excluding options returned to our stock plans, with a weighted average price of \$0.11 to a number of our employees, directors and consultants.
- 2. From October 31, 1995 to June 28, 1996, we issued warrants to purchase 106,250 shares of Series A Preferred Stock, 41,250 at an exercise price of \$0.01 per share and 65,000 at an exercise price of \$1.00 per share to several investors.
- 3. From October 1995 to August 1999, we issued 791,250 shares of Series A Preferred Stock to several investors for a total cash consideration of \$750,413.
- 4. In March 1996, we issued 38,000 shares of Common Stock to Colorado Bio/Medical Venture Center, Inc. in connection with a sublease of space.
- 5. In June 1996, we issued 75,000 shares of Common Stock to The Johns Hopkins University in connection with the License Agreement with us.
- $6.\ \mbox{In July 1996, we issued 35,000 shares of Common Stock to Frederick Frank as compensation for consulting services.$
- 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 0. Lanphier II pursuant to the terms of his employment agreement with us.
- 11. In February 1998, we issued 40,000 shares of Series B Preferred Stock to Lehman Brothers, Inc. as compensation for a finder's fee.
- 12. From August 1999 to January 2000, we issued 2,000,000 shares of Series C Preferred Stock to several investors for a total cash consideration of \$9,000,000.

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

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

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) EXHIBITS

EXHIBIT

NUMBER	DESCRIPTION OF DOCUMENT
1.1 * 3.1 * 3.2 * 4.1 * 5.1	Form of Underwriting Agreement. Amended and Restated Certificate of Incorporation. Amended and Restated Bylaws. Form of Specimen Common Stock Certificate. Opinion of Brobeck, Phleger & Harrison LLP regarding the
10.1++	legality of the common stock being registered. 2000 Stock Incentive Plan.
10.2++	2000 Employee Stock Purchase Plan.
10.3 *	Second Amended and Restated Investors' Rights Agreement, among Sangamo and certain of its stockholders, dated January 20, 2000.
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 10.17	1995 Stock Option Plan. Research Funding Agreement, by and between Sangamo and Baxter Healthcare Corporation, dated January 11, 2000.
23.1 23.2 *	Consent of Ernst & Young LLP, Independent Auditors. 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.

FXHTRTT NUMBER

DESCRIPTION OF DOCUMENT

27.1

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

- * To be filed by amendment.
- + Confidential treatment requested as to portions of this exhibit.
- ++ Previously filed.
- (b) FINANCIAL STATEMENT SCHEDULE

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

ITEM 17. UNDERTAKINGS

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

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. 2 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 March 14, 2000.

SANGAMO BIOSCIENCES, INC.

/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)	March 14, 20	100
/s/ SHAWN K. JOHNSON Shawn K. Johnson	Director of Finance - (Principal Accounting Officer)	March 14, 20	100
	Director	March 14, 20	000
Herbert W. Boyer, Ph.D.	-		
*	Director	March 14, 20	000
William G. Gerber, M.D.	-		
*	Director	March 14, 20	000
John W. Larson	-		
*	Director	March 14, 20	000
William J. Rutter, Ph.D.	-		
*	Director	March 14, 20	000
Michael C. Wood	-		

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

EXHIBIT INDEX

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10.1++	2000 Stock Incentive Plan.
10.2++	2000 Employee Stock Purchase Plan.
10.3 *	Second Amended and Restated Investors' Rights Agreement, among Sangamo and certain of its stockholders, dated January 20, 2000.
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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.

* To be filed by amendment.

+ Confidential treatment requested as to portions of this exhibit.

++ Previously filed.

[BROBECK, PHLEGER & HARRISON LLP LETTERHEAD]

March 14, 2000

Sangamo BioSciences, Inc. Point Richmond Tech Center 501 Canal Boulevard Suite A-100 Richmond, CA 94804

Ladies and Gentlemen:

We have acted as counsel to Sangamo BioSciences, Inc., a Delaware corporation (the "Company"), in connection with the proposed issuance and sale by the Company of up to Five Million Seven Hundred Fifty Thousand (5,750,000) shares of the Company's Common Stock (the "Shares") pursuant to the Company's Registration Statement on Form S-1 (the "Registration Statement") filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act").

This opinion is being furnished in accordance with the requirements of Item 16(a) of Form S-1 and Item 601(b)(5)(i) of Regulation S-K.

We have reviewed the Company's charter documents and the corporate proceedings taken by the Company in connection with the issuance and sale of the Shares. Based on such review, we are of the opinion that the Shares have been duly authorized, and if, as and when issued in accordance with the Registration Statement and the related prospectus (as amended and supplemented through the date of issuance) will be legally issued, fully paid and nonassessable.

We consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the prospectus which is part of the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Act, the rules and regulations of the Securities and Exchange Commission promulgated thereunder, or Item 509 of Regulation S-K.

This opinion letter is rendered as of the date first written above and we disclaim any obligation to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and which may alter, affect or modify the opinion expressed herein. Our opinion is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Shares.

Very truly yours,

1

EXHIBIT 10.12

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

and

SANGAMO BIOSCIENCES, INC.

PATENT LICENSE AGREEMENT

TLO: LLN:jbw.sangamo.lic.ag41796 April 17, 1996

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MASSACHUSETTS INSTITUTE OF TECHNOLOGY

and

SANGAMO BIOSCIENCES, INC.

PATENT LICENSE AGREEMENT

This Agreement is made and entered into this 9 day of MAY, 1996, (the "EFFECTIVE DATE") by and between the MASSACHUSETTS INSTITUTE OF TECHNOLOGY, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having its principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, U.S.A. (hereinafter referred to as "M.I.T."), and Sangamo BioSciences, Inc. a corporation duly organized under the laws of DELAWARE and having its principal office at 950 MARINA VILLAGE PKWY, SUITE 100, ALAMEDA, CA 94501 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, M.I.T. is the owner of certain PATENT RIGHTS (as later defined herein) relating to $\ \ ^*$

and

has the right to grant licenses under said PATENT RIGHTS, subject only to a royalty-free, nonexclusive license heretofore granted to the United States Government:

WHEREAS, M.I.T. desires to have the PATENT RIGHTS developed and commercialized to benefit the public and is willing to grant a license thereunder:

WHEREAS, LICENSEE has represented to M.I.T., to induce M.I.T. to enter into this Agreement, that LICENSEE is experienced in the development, production, manufacture, marketing and sale of products similar to the LICENSED PRODUCT(s) (as later defined herein) and/or the use of the LICENSED PROCESS(es) (as later defined herein) and that it shall commit itself to a thorough, vigorous and diligent program of exploiting the PATENT RIGHTS so that public utilization shall result therefrom; and

WHEREAS, LICENSEE desires to obtain a license under the PATENT RIGHTS upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

-1

* 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.

1-DEFINITIONS

For the purposes of this Agreement, the following words and phrases shall have the the following meanings:

- 1.1 "LICENSEE" shall include a related company of Sangamo BioSciences, Inc. the voting stock of which is directly or indirectly at least Fifty Percent (50%) owned or controlled by Sangamo BioSciences, Inc., an organization which directly or indirectly controls more than Fifty Percent (50%) of the voting stock of Sangamo BioSciences, Inc. and an organization, the majority ownership of which is directly or indirectly common to the ownership of Sangamo BioSciences, Inc.
- 1.2 "PATENT RIGHTS" shall mean all of the following M.I.T. intellectual property:
 - a. the United States patents listed in Appendix A;
 - the United States patent applications listed in Appendix A, and divisionals, continuations and claims of continuation-in-part applications which shall be directed to subject matter specifically described in such patent applications, and the resulting patents;
 - any patents resulting from reissues or reexaminations of the United States patents described in a. and b. above;
 - 1.3 A "LICENSED PRODUCT" shall mean any product or part thereof which:
 - is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS in the country in which any such product or part thereof is made, used or sold; or
 - b. is manufactured by using a process or is employed to practice a process which is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS in the country in which any LICENSED PROCESS is used or in which such product or part thereof is used or sold.
- 1.4 A "LICENSED PROCESS" shall mean any process which is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS.
- 1.5 "NET SALES" shall mean LICENSEE's and its sublicensees' billings for LICENSED PRODUCTS and LICENSED PROCESSES less the sum of the following:
 - a. discounts allowed in amounts customary in the trade for quantity purchases, cash payments, prompt payments, wholesalers and distributors:
 - sales, tariff duties and/or use taxes directly imposed and with reference to particular sales;
 - c. outbound transportation prepaid or allowed; and
 - d. amounts allowed or credited on returns.

No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by LICENSEE and on its payroll, or for cost of collections. NET SALES shall occur when a LICENSED PRODUCT or LICENSED PROCESS shall be invoiced. If a LICENSED PRODUCT or LICENSED PROCESS shall be distributed or invoiced for a discounted price substantially lower than customary in the trade or distributed at no cost to affiliates or otherwise, NET SALES shall be based on the customary amount billed for such LICENSED PRODUCTS or LICENSED PROCESSES.

- 1.6 "TERRITORY" shall mean worldwide.
- 1.7 "FIELDS OF USE" shall mean *
 of LICENSED PRODUCTS or LICENSED PROCESSES

Note: LICENSEE's rights to practice under the PATENT RIGHTS shall be in all FIELDS OF USE. The purpose of this FIELDS OF USE definition is to define the fields in which exclusivity is granted under this license under P. 2.3 below and in which LICENSEE may grant sublicenses under P. 2.6 helow.

2 - GRANT

- 2.1 M.I.T. hereby grants to LICENSEE the right and license in the TERRITORY to practice under the PATENT RIGHTS and, to the extent not prohibited by other patents, to * LICENSED PRODUCTS and to * the LICENSED PROCESSES, until the expiration of the last to expire of the PATENT RIGHTS, unless this Agreement shall be sooner terminated according to the terms hereof.
- 2.2 LICENSEE agrees that LICENSED PRODUCTS * in the United States shall be * substantially in the United States.
- 2.3 In order to establish exclusivity in the FIELDS OF USE for LICENSEE, M.I.T. hereby agrees that it shall not grant any other license to * LICENSED PRODUCTS or to utilize LICENSED PROCESSES subject to the royalty-free, nonexclusive license rights of the United States Government per FAR 52.227-11, in the TERRITORY for the FIELDS OF USF.
- 2.4 M.I.T. agrees that prior to granting a license to any third party outside the defined FIELDS OF USE, it shall notify LICENSEE of its intent to grant such a license and LICENSEE shall have sixty (60) days in which to present to M.I.T. reasons for widening LICENSEE's exclusive FIELD OF USE beyond that defined in P.1.7 above. M.I.T. shall consider granting such widening to LICENSEE, for suitable consideration, depending upon LICENSEE's scientific progress, development plans and financial resources to develop the widened FIELD OF USE.

-3-

* 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.

- Any decision to widen the exclusive FIELD OF USE granted to LICENSEE shall be at M.I.T.'s sole discretion.
- 2.5 M.I.T. reserves the right to practice under the PATENT RIGHTS and to allow third parties to practice under the PATENT RIGHTS in all fields of use for noncommercial research purposes.
- 2.6 LICENSEE shall have the right to enter into * agreements for the rights, privileges and licenses granted hereunder only in the FIELDS OF USE. Upon any termination of this Agreement, * rights shall also terminate, subject to Paragraph 13.6 hereof.
- 2.7 LICENSEE agrees to incorporate Articles 2, 5, 7, 8, 9, 10, 12, 13 and 15 of this Agreement into its $^*$ agreements, so that these Articles shall be binding upon such $^*$ as if they were parties to this Agreement.
- 2.8 LICENSEE agrees to forward to M.I.T. a copy of any and all $*$ agreements promptly upon execution by the parties.
- 2.9 Nothing in this Agreement shall be construed to confer any rights upon LICENSEE by implication, estoppel or otherwise as to any technology or patent rights of M.I.T. or any other entity other than the PATENT RIGHTS, regardless of whether such patent rights shall be dominant or subordinate to any PATENT RIGHTS.

3 - DILIGENCE

- 3.1 LICENSEE shall use its best efforts to bring one or more LICENSED PRODUCTS or LICENSED PROCESSES to market through a thorough, vigorous and diligent program for exploitation of the PATENT RIGHTS and to continue active, diligent marketing efforts for one or more LICENSED PRODUCTS or LICENSED PROCESSES throughout the life of this Agreement.
- 3.2 LICENSEE shall deliver to M.I.T. on or before December 31, 1996 a business plan showing the amount of money, number and kind of personnel and time budgeted and planned for each phase of development of the LICENSED PRODUCTS and LICENSED PROCESSES and shall provide similar reports to M.I.T. on or before December 31 of each year.
- 3.3 LICENSEE's failure to perform in accordance with either Paragraph 3.1 or 3.2 above shall be grounds for M.I.T. to terminate this Agreement pursuant to Paragraph 13.3 hereof.

4 - ROYALTIES

- 4.1 For the rights, privileges and license granted hereunder, LICENSEE shall pay royalties to M.I.T. in the manner hereinafter provided to the end of the term of the PATENT RIGHTS or until this Agreement shall be terminated:
- * 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.

License Issue Fee of * , which said License Issue Fee shall be deemed earned and due immediately upon * .

b. License Maintenance Fees of
per year payable on January 1, 1997 and on January 1 of each year thereafter; provided, however, License Maintenance Fees may be credited to Running Royalties subsequently due on NET SALES for each said year, if any. License Maintenance Fees paid in excess of Running Royalties shall not be creditable to Running Royalties for future years.

- c. Running Royalties in an amount equal to * of NET SALES of the LICENSED PRODUCTS and LICENSED PROCESSES * LICENSEE and/or its * .
- e. A milestone payment of * a LICENSED PRODUCT or LICENSED PROCESS outside the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.
- f. A milestone payment of upon * a LICENSED PRODUCT or LICENSED PROCESS in the FIELDS OF USE which falls under the claims of the PATENT RIGHTS.

- 4.2 All payments due hereunder shall be paid in full, without deduction of taxes or other fees which may be imposed by any government, except as otherwise provided in Paragraph 1.5(b).
- 4.3 No multiple royalties shall be payable because any LICENSED PRODUCT, its * are or shall be covered by more than one PATENT RIGHTS patent application or PATENT RIGHTS patent licensed under this Agreement.
- 4.4 Royalty payments shall be paid in United States dollars in Cambridge, Massachusetts, or at such other place as M.I.T. may reasonably designate consistent with the laws and regulations controlling in any foreign country. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate

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* 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. prevailing at the Chase Manhattan Bank (N.A.) on the last business day of the calendar quarterly reporting period to which such royalty payments relate.

5 - REPORTS AND RECORDS

- 5.1 LICENSEE shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to M.I.T. hereunder. Said books of account shall be kept at LICENSEE's principal place of business or the principal place of business of the appropriate division of LICENSEE to which this Agreement relates. Said books and the supporting data shall be open at all reasonable times for five (5) years following the end of the calendar year to which they pertain, to the inspection of M.I.T. or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement. Should such inspection lead to the discovery of a greater than Ten Percent (10%) discrepancy in reporting to M.I.T.'s detriment, LICENSEE agrees to pay the full cost of such inspection.
- 5.2 LICENSEE shall deliver to M.I.T. true and accurate reports, giving such particulars of the business conducted by LICENSEE and its sublicensees under this Agreement as shall be pertinent to diligence under Article 3 and royalty accounting hereunder:
 - before the first commercial sale of a LICENSED PRODUCT or LICENSED PROCESS, annually, on January 31 of each year; and
 - b. after the first commercial sale of a LICENSED PRODUCT or LICENSED PROCESS, quarterly, within sixty (60) days after March 31, June 30, September 30 and December 31, of each year.

These reports shall include at least the following:

- number of LICENSED PRODUCTS manufactured, leased and sold by and/or for LICENSEE and all sublicensees;
- accounting for all LICENSED PROCESSES used or sold by and/or for LICENSEE and all sublicensees;
- accounting for NET SALES, noting the deductions applicable as provided in Paragraph 1.5;
- d. Running Royalties due under Paragraph 4.1(c);
- e. royalties due on other payments from sublicensees under paragraph 4.1(d);
- f. total royalties due; and
- g. names and addresses of all sublicensees of LICENSEE.
- 5.3 With each such report submitted, LICENSEE shall pay to M.I.T. the royalties due and payable under this Agreement. If no royalties shall be due, LICENSEE shall so report.

- 5.4 On or before the ninetieth (90th) day following the close of LICENSEE's fiscal year, LICENSEE shall provide M.I.T. with LICENSEE's certified financial statements for the preceding fiscal year including, at a minimum, a balance sheet and an income statement.
- 5.5 The amounts due under Articles 4 and 6 shall, if overdue, bear interest until payment at a per annum rate * the prime rate in effect at the Chase Manhattan Bank (N.A.) on the due date. The payment of such interest shall not foreclose M.I.T. from exercising any other rights it may have as a consequence of the lateness of any payment.

6 - PATENT PROSECUTION

- 6.1 M.I.T. shall apply for, seek prompt issuance of, and maintain the PATENT RIGHTS during the term of this Agreement. The filing, prosecution and maintenance of all PATENT RIGHTS applications and patents shall be the primary responsibility of M.I.T.; provided, however, LICENSEE shall have reasonable opportunities to advise M.I.T. and shall cooperate with M.I.T. in such filing, prosecution and maintenance.
- 6.2 Payment of all fees and costs relating to the filing, prosecution and maintenance of the PATENT RIGHTS after the EFFECTIVE DATE shall be the responsibility of LICENSEE, whether such fees and costs were incurred before or after the EFFECTIVE DATE. LICENSEE shall pay such fees and costs to M.I.T. within thirty (30) days of invoicing; late payments shall accrue interest and shall be subject to Paragraph 5.5.

7 - INFRINGEMENT

- 7.1 LICENSEE shall inform M.I.T. promptly in writing of any alleged infringement of the PATENT RIGHTS by a third party and of any available evidence thereof.
- 7.2 M.I.T. shall have the right, but shall not be obligated, to prosecute at its own expense all infringements of the PATENT RIGHTS and, in furtherance of such right, LICENSEE hereby agrees that M.I.T. may include LICENSEE as a party plaintiff in any such suit, without expense to LICENSEE. The total cost of any such infringement action commenced or defended solely by M.I.T. shall be borne by M.I.T., and M.I.T. shall keep any recovery or damages for past infringement derived therefrom.
- 7.3 If within six (6) months after having been notified of an alleged infringement, M.I.T. shall have been unsuccessful in persuading the alleged infringer to desist and shall not have brought and shall not be diligently prosecuting an infringement action, or if M.I.T. shall notify LICENSEE at any time prior thereto of its intention not to bring suit against any alleged infringer in the TERRITORY for the FIELDS OF USE, then, and in those events only, LICENSEE shall have the right, but shall not be obligated, to prosecute at its own expense any infringement of the PATENT RIGHTS in the TERRITORY for the FIELDS OF USE, and LICENSEE may, for such

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purposes, use the name of M.I.T. as party plaintiff; provided, however, that such right to bring such an infringement action shall remain in effect only during the EXCLUSIVE PERIOD. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of M.I.T., which consent shall not unreasonably be withheld. LICENSEE shall indemnify M.I.T. against any order for costs that may be made against M.I.T. in such proceedings.

- 7.4 In the event that LICENSEE shall undertake litigation for the enforcement of the PATENT RIGHTS, or the defense of the PATENT RIGHTS under Paragraph 7.5, LICENSEE may withhold up to * of the payments otherwise thereafter due M.I.T. under Article 4 hereunder and apply the same toward reimbursement of up to * of LICENSEE's expenses, including reasonable attorneys' fees, in connection therewith. Any recovery of damages by LICENSEE for such suit shall be applied first in satisfaction of any unreimbursed expenses and legal fees of LICENSEE relating to such suit, and next toward reimbursement of M.I.T. for any payments under Article 4 past due or withheld and applied pursuant to this Article 7. The balance remaining from any such recovery shall be divided equally between LICENSEE and M.I.T.
- 7.5 In the event that a declaratory judgment action alleging invalidity or noninfringement of any of the PATENT RIGHTS shall be brought against M.I.T. or LICENSEE, M.I.T., at its option, shall have the right, within thirty (30) days after commencement of such action, to take over the sole defense of the action at its own expense. If M.I.T. shall not exercise this right, LICENSEE may take over the sole defense at LICENSEE's sole expense, subject to Paragraph 7.4.
- 7.6 In any infringement suit as either party may institute to enforce the PATENT RIGHTS pursuant to this Agreement, the other party hereto shall, at the request and expense of the party initiating such suit, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the
- 7.7 LICENSEE shall have the sole right in accordance with the terms and conditions herein to sublicense any alleged infringer in the TERRITORY for the FIELDS OF USE for future use of the PATENT RIGHTS.

8 - PRODUCT LIABILITY

8.1 LICENSEE shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold M.I.T., its trustees, directors, officers, employees and affiliates,

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harmless against all claims, proceedings, demands and liabilities of any kind whatsoever, including legal expenses and reasonable attorneys' fees, arising out of the death of or injury to any person or persons or out of any damage to property, resulting from

of the LICENSED PRODUCTS(s) and/or LICENSED PROCESS(es) or arising from any obligation of LICENSEE hereunder.

- 8.2 LICENSEE shall obtain and carry in full force and effect commercial, general liability insurance which shall protect LICENSEE and M.I.T. with respect to events covered by Paragraph 8.1 above. Such insurance shall be written by a reputable insurance company authorized to do business in the Commonwealth of Massachusetts, shall list M.I.T. as an additional named insured thereunder, shall be endorsed to include product liability coverage and shall require thirty (30) days written notice to be given to M.I.T. prior to any cancellation or material change thereof. The limits of such insurance shall not be less than One Million Dollars (\$1,000,000) per occurrence with an aggregate of Three Million Dollars (\$3,000,000) for personal injury or death, and One Million Dollars (\$1,000,000) per occurrence with an aggregate of Three Million Dollars (\$3,000,000) for property damage. LICENSEE shall provide M.I.T. with Certificates of Insurance evidencing the same.
- 8.3 EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, M.I.T., ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES, AND AFFILIATES MAKE NO REPRESENTATIONS AND EXTEND NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS CLAIMS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY M.I.T. THAT THE PRACTICE BY LICENSEE OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY. IN NO EVENT SHALL M.I.T., ITS TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER M.I.T. SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

9 - EXPORT CONTROLS

LICENSEE acknowledges that it is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other

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commodities (including the Arms Export Control Act, as amended and the United States Department of Commerce Export Administration Regulations). The transfer of such items may require a license from the cognizant agency of the United States Government and/or written assurances by LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. M.I.T. neither represents that a license shall not be required nor that, if required, it shall be issued.

10 - NON-USE OF NAMES

LICENSEE shall not use the names or trademarks of the Massachusetts Institute of Technology or Lincoln Laboratory, nor any adaptation thereof, nor the names of any of their employees, in any advertising, promotional or sales literature without prior written consent obtained from M.I.T., or said employee, in each case, except that LICENSEE may state that it is licensed by M.I.T. under one or more of the patents and/or applications comprising the PATENT RIGHTS.

11 - ASSIGNMENT

This Agreement is not assignable and any attempt to do so shall be void.

12 - DISPUTE RESOLUTION

12.1 Except for the right of either party to apply to a court of competent jurisdiction for a temporary restraining order, a preliminary injunction, or other equitable relief to preserve the status quo or prevent irreparable harm, any and all claims, disputes or controversies arising under, out of, or in connection with the Agreement, including any dispute relating to patent validity or infringement, which the parties shall be unable to resolve within sixty (60) days shall be mediated in good faith. The party raising such dispute shall promptly advise the other party of such claim, dispute or controversy in a writing which describes in reasonable detail the nature of such dispute. By not later than five (5) business days after the recipient has received such notice of dispute, each party shall have selected for itself a representative who shall have the authority to bind such party, and shall additionally have advised the other party in writing of the name and title of such representative. By not later than ten (10) business days after the date of such notice of dispute, the party against whom the dispute shall be raised shall select a mediation firm in the Boston area and such representatives shall schedule a date with such firm for a mediation hearing. The parties shall enter into good faith mediation and shall share the costs equally. If the representatives of the parties have not been able to resolve the dispute within fifteen (15) business days after such mediation hearing, then any and all claims, disputes or controversies arising under, out of, or in connection with this Agreement, including any dispute relating to patent validity or infringement,

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shall be resolved by final and binding arbitration in Boston, Massachusetts under the rules of the American Arbitration Association, or the Patent Arbitration Rules if applicable, then obtaining. The arbitrators shall have no power to add to, subtract from or modify any of the terms or conditions of this Agreement, nor to award punitive damages. Any award rendered in such arbitration may be enforced by either party in either the courts of the Commonwealth of Massachusetts or in the United States District Court for the District of Massachusetts, to whose jurisdiction for such purposes M.I.T. and LICENSEE each hereby irrevocably consents and submits.

12.2 Notwithstanding the foregoing, nothing in this Article shall be construed to waive any rights or timely performance of any obligations existing under this Agreement.

13 - TERMINATION

- 13.1 If LICENSEE shall cease to carry on its business, this Agreement shall terminate upon notice by M.I.T.
- 13.2 Should LICENSEE fail to make any payment whatsoever due and payable to M.I.T. hereunder, M.I.T. shall have the right to terminate this Agreement effective on thirty (30) days' notice, unless LICENSEE shall make all such payments to M.I.T. within said thirty (30) day period. Upon the expiration of the thirty (30) day period, if LICENSEE shall not have made all such payments to M.I.T., the rights, privileges and license granted hereunder shall automatically terminate.
- 13.3 Upon any material breach or default of this Agreement by LICENSEE (including, but not limited to, breach or default under Paragraph 3.3), other than those occurrences set out in Paragraphs 13.1 and 13.2 hereinabove, which shall always take precedence in that order over any material breach or default referred to in this Paragraph 13.3, M.I.T. shall have the right to terminate this Agreement and the rights, privileges and license granted hereunder effective on ninety (90) days' notice to LICENSEE. Such termination shall become automatically effective unless LICENSEE shall have cured any such material breach or default prior to the expiration of the ninety (90) day period.
- 13.4 LICENSEE shall have the right to terminate this Agreement at any time on six (6) months' notice to M.I.T., and upon payment of all amounts due M.I.T. through the effective date of the termination.
- 13.5 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination; and Articles 1,8,9,10,12,13.5,13.6 and 15 shall survive any such termination. LICENSEE and any sublicensee thereof may, however, after the effective date of such termination, sell all LICENSED PRODUCTS, and complete LICENSED PRODUCTS in the process of manufacture at the time of such termination and sell the same, provided that LICENSEE shall make

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the payments to M.I.T. as required by Article 4 of this Agreement and shall submit the reports required by Article 5 hereof.

13.6 Upon termination of this Agreement for any reason, any sublicensee not then in default shall have the right to seek a license from M.I.T. M.I.T. agrees to negotiate such licenses in good faith under reasonable terms and conditions.

14 - PAYMENTS, NOTICES AND OTHER COMMUNICATIONS

Any payments, notice or other communication pursuant to this Agreement shall be sufficiently made or given on the date of mailing if sent to such party by certified first class mail, return receipt requested, postage prepaid, addressed to it at its address below or as it shall designate by written notice given to the other party:

In the case of M.I.T.:

Director Technology Licensing Office Massachusetts Institute of Technology 77 Massachusetts Avenue, Room E32-300 Cambridge, Massachusetts 02139

In the case of LICENSEE:

15 - MISCELLANEOUS PROVISIONS

- 15.1 All disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, shall be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent shall have been granted.
- 15.2 The parties hereto acknowledge that this Agreement sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument signed by the parties.
- 15.3 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.
- 15.4 LICENSEE agrees to mark the LICENSED PRODUCTS sold in the United States with all applicable United States patent numbers. ALL LICENSED PRODUCTS shipped to or sold

in other countries shall be marked in such a manner as to conform with the patent laws and practice of the country of manufacture or sale.

15.5 The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

IN WITNESS WHEREOF, the parties have duly executed this Agreement the day and year set forth below.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By /s/ Lita Nelsen

Name LITA L. NELSEN, DIRECTOR

Title TECHNOLOGY LICENSING OFFICE

Date April 17, 1996

Date May 9, 1996

This Amendment, with the effective date of 12/10/97, is to the License Agreement dated May 9, 1996, between Sangamo Biosciences, Inc. and Massachusetts Institute of Technology.

The parties thereto now further agree as follows:

- - 1.7 "FIELDS OF USE" shall mean *
- 2. Paragraph 2.4 shall be deleted and replaced with:
 - 2.4 LICENSEE and M.I.T. agree that neither party shall assert the Patent Rights against not-for-profit institutions in their conduct of research, provided, however, that if a not-for-profit institution practices under the Patent Rights to conduct high throughput drug screening on behalf of a commercial entity, then the Patent Rights may be asserted against that institution.
- 3. The following shall be inserted as Paragraph 3.4:
 - 3.4 After January 1, 2002, if M.I.T. notifies LICENSEE of a request by a third party for a license to the Patent Rights for an application or product (such as drug screening for a particular disease state, or development of a Licensed Product for a particular disease state) not currently under development by LICENSEE (or its sublicensee), and no such application or product (nor any directly competing application or product) is then currently under development or being sold by LICENSEE or a sublicensee, then LICENSEE shall either:
 - (a) within three months of the request submit to M.I.T. plans to begin development of the application or product within six months of the original request, at a level of effort appropriate to success of the development in a commercially reasonable time; or
 - (b) begin good faith negotiations with the third party toward granting a sublicense to the Patent Rights for the application or product.

If LICENSEE does not begin (or abandons) efforts under (a) above, and does not reach a sublicense agreement with the third party within 6 months thereafter, M.I.T. shall have the right to grant a nonexclusive license to the Patent Rights to the third party for the particular application or product, under terms no more favorable to the third party than are granted hereunder to LICENSEE, and including diligent development milestones.
M.I.T. shall share with LICENSEE * of any revenue it derives from such license.

4. Royalties:

(a) LICENSEE shall pay to M.I.T. a First Amendment Issue Fee of due upon

- (b) The License Maintenance Fees due under P. 4.1b shall be increased to * on January 1, 1998 and * per year beginning January 1, 1999 and beyond.
- (c) Subparagraphs 4.1e and 4.1g shall be deleted.
- (d) The sublicense fees of P. 4.1h shall be increased to per sublicense granted plus $^*$ per year per $^*$.
- (e) The following subparagraph shall be added to P. 4.1, and shall be designated as subparagraph P. 4.1i
- 4.11: * OF ANY MILESTONE FEES OR ROYALTIES PAID TO LICENSEE FROM * OR OTHER THIRD PARTIES FOR PRODUCTS DISCOVERED OR DEVELOPED THROUGH THE USE OF LICENSED PRODUCTS OR LICENSED PROCESSES. HOWEVER, IF THESE MILESTONE FEES AND ROYALTIES ARE ON PRODUCTS WHOSE COMPOSITION AND/OR PRODUCTION ARE COVERED BY OTHER PATENTS OWNED OR CONTROLLED BY LICENSEE, AND IF THESE FEES AND ROYALTIES ARE ALSO INTENDED TO COMPRISE COMPENSATION FOR PRACTICE UNDER SUCH LICENSEE PATENTS, THEN THE PAYMENTS DUE TO M.I.T. SHALL BE * OF THE MILESTONE FEES AND ROYALTIES.

Agreed to for:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SANGAMO BIOSCIENCES, INC.

By /s/ Lita Nelsen

By /s/ Edward O. Lanphier

Name LITA L. NELSEN, DIRECTOR

Name EDWARD LANPHIER

valle LITA E. NELSEN, DIRECTOR

Title TECHNOLOGY LICENSING OFFICE

Title PRESIDENT & CEO

Date Dec 1, 1997

Date 12/10/97

LICENSE AGREEMENT

This Agreement, made and entered into as of this 29th day of June 1995 (the "Effective Date") by and between THE JOHNS HOPKINS UNIVERSITY, a corporation duly organized and existing under the laws of the State of Maryland and having its principal place of business at Charles and 34th Streets, Baltimore, Maryland 21218, U.S.A. (hereinafter referred to as "JOHNS HOPKINS") and SANGAMO BIOSCIENCES, INC. a corporation duly organized under the laws of Delaware and having its principal office at P.O. Box 334, Ross, California 94957 (hereinafter referred to as "LICENSEE").

WITNESSETH

WHEREAS, JOHNS HOPKINS desires to have the Patent Rights utilized in the public interest and is willing to grant a license thereunder;

WHEREAS, JOHNS HOPKINS and LICENSEE are parties to a Research Agreement having even date herewith (Appendix D);

WHEREAS, JOHNS HOPKINS is acting herein for itself;

WHEREAS, LICENSEE has represented JOHNS HOPKINS to induce JOHNS

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HOPKINS to enter into this Agreement that LICENSEE shall commit itself to a thorough, vigorous and diligent program of exploiting the Patent Rights so that public utilization shall result therefrom;

WHEREAS, $\,$ * $\,$ will continue to have full academic freedom to continue his scientific investigations and interactions with his colleagues; and

WHEREAS, LICENSEE desires to obtain a license under the Patent Rights upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

ARTICLE I - DEFINITIONS

For the purposes of this Agreement, in addition to other terms defined herein, the following words and phrases shall have the following meanings:

- 1.1 "LICENSEE" shall mean SANGAMO BIOSCIENCES and any Subsidiary of SANGAMO BIOSCIENCES.
- 1.2 "Subsidiary" shall mean any corporation, company or other entity more than fifty percent (50%) of whose voting stock is owned or controlled directly or indirectly by SANGAMO BIOSCIENCES; any parent corporation, company or other entity which owns, directly or indirectly, more than fifty percent (50%) of the voting stock of SANGAMO BIOSCIENCES; and any corporation, company or other entity in which such parent corporation, company or other entity owns, directly or indirectly, more than fifty percent (50%) of the voting stock.
- 1.3 "Patent Rights" shall mean the inventions disclosed and claimed in the United States and foreign patents and/or patent applications listed in Appendix A.
- * 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.

- 1.4 A "Licensed Product" shall mean any product or part thereof which:
 - (a) is covered in whole or in part by an issued, valid, enforceable, unexpired claim or a pending claim contained in the Patent Rights in the country in which any Licensed Product is made, used or sold;
 - (b) is manufactured by using a process which is covered in whole or in part by a valid, enforceable, issued, unexpired claim or a pending claim contained in the Patent Rights in the country in which any Licensed Process is used or in which the Licensed Product is used or sold.
- 1.5 A "Licensed Process" shall mean any process which is covered in whole or in part by a valid, enforceable, issued, unexpired claim or a pending claim contained in the Patent Rights.
- 1.6 "Net Sales" shall mean the invoiced sales price of Licensed Products to an end-user that is not a Subsidiary or a sublicensee in a country in which such sales would infringe a valid claim contained in the Patent Rights in such country after deducting:
 - (a) Discounts allowed in amounts customary in the trade;
 - (b) Sales taxes, tariffs, duties, use taxes and/or other governmental levies directly imposed and with reference to particular sales;
 - (c) Outbound transportation prepaid or allowed; and
 - (d) Amounts allowed or credited on returns.

No deductions shall be made for commissions paid to individuals whether they be with independent sales agencies or regularly employed by LICENSEE and on its payroll, or for cost of collections. Licensed Products shall be considered "sold" when billed out or invoiced.

l 1.7 "Invention" shall mean custom designed novel DNA-binding proteins.

ARTICLE II - GRANT

- 2.1 JOHNS HOPKINS hereby grants to LICENSEE the * right and license to * the Licensed Products, and to practice the Licensed Processes, subject to 35USC200-211 and the regulations promulgated thereunder, to the end of the term for which the Patent Rights are granted by the applicable governmental authority, unless sooner terminated as hereinafter provided (the "Term"). JOHNS HOPKINS reserves the non-transferable royalty-free right to practice the subject matter of any claim within the Patent Rights for its own internal purposes. If * leaves JOHNS HOPKINS, he shall have the non-transferable, royalty-free right to practice any claim within the Patent Rights for his own academic purposes.
- 2.2 In order to establish a period of exclusivity for LICENSEE, JOHNS HOPKINS hereby agrees that it shall not grant any other license to * Licensed Products or to * Licensed Processes except for its internal research activities during the period of time (the "Exclusive Period") commencing with the Effective Date of this Agreement and terminating with expiration of the last-to-expire patent licensed under this Agreement, unless converted earlier to a nonexclusive license pursuant to Paragraph 4.4 hereof or pursuant to a requirement by the United States Government in accordance with 35USC200-211.
- 2.3 LICENSEE shall have the right to $\,$ * all or any part of this license. LICENSEE agrees that any $\,$ * granted by it shall provide that the obligations to JOHNS HOPKINS of Articles II, VIII, IX, X, XIII, XV, and Paragraphs 5.1 and 5.2 of this
- * Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

- 2.4 LICENSEE agrees to forward to JOHNS HOPKINS a copy of any and all fully executed * agreements, and further agrees to forward to JOHNS HOPKINS, quarterly, pursuant to Paragraph 5.2 a copy of such reports received by LICENSEE from its * during the preceding twelve (12) month period under the * as shall be pertinent to a royalty accounting under said * agreements.
- 2.5 Subject to Sections 2.6, 2.7 and 15.7 below, the license granted hereunder shall not be construed to confer any rights upon LICENSEE by implication, estoppel or otherwise as to any technology not specifically set forth in Appendix A, Appendix B, Appendix C, and Appendix D hereof.
- 2.6 JOHNS HOPKINS hereby also grants to LICENSEE a right of first negotiation at then commercially reasonable terms, to obtain an exclusive license to any Inventions, as previously defined, developed during the term of this Agreement and any extension thereof and pursuant to any Research Agreement between the parties hereto (Appendix D). JOHNS HOPKINS shall promptly give LICENSEE written notice of any such Inventions, as defined, and LICENSEE shall have one hundred and twenty (120) days from the date of receipt of such notice to give JOHNS HOPKINS written notice of its intent to exercise such option and complete negotiations. JOHNS HOPKINS shall not negotiate with any third party regarding these Inventions during the period of LICENSEE's right to negotiate. During the term of this Agreement and any extension thereof, * shall be free to pursue any scientific investigations of his choice through collaboration with colleagues. Should any such collaboration involve a Licensed Product or Licensed Process, JOHNS HOPKINS will take the initiative of promptly communicating
- * 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.

with these colleagues for the purpose of using its reasonable best efforts to have such colleagues agree to be bound by the terms of this Agreement with regard to Licensed Products and Licensed Processes.

* shall give written notice of any Invention resulting under the Advanced Technology Program within sixty (60) days of the completion of the funding of such program. Any Invention resulting in whole or in part from said ideas which are made pursuant to an award under the Advanced Technology Program where a grant application was filed on March 29, 1995 (Appendix C) shall be assigned to LICENSEE pursuant to Section 15.7 below and * will be named as sole inventor unless another individual makes a creative input to said Invention. LICENSEE shall have the first right of negotiation, under then commercially reasonable terms, to obtain an exclusive, royalty-bearing license under any Invention resulting from said ideas in Appendix B made by

* with funding from a source other than the Advanced Technology

ARTICLE III - DUE DILIGENCE

- 3.1 In order to assure the diligent development of the Licensed Products and Licensed Processes, LICENSEE shall either fulfill the due diligence milestones set forth in Paragraph 3.2 below or make the minimum royalty payments set forth in Paragraph 3.3 below.
 - 3.2 LICENSEE's due diligence milestones shall be a follows:

Program grant.

- (a) Within six (6) months from the date of this Agreement, LICENSEE shall deliver a business plan describing a program for the development of the Patent Rights.
- * Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

- (b) Within four (4) years from the Effective Date of this Agreement, LICENSEE shall have spent or caused to be spent, either directly by LICENSEE or indirectly pursuant to agreements entered into by LICENSEE (including Research Agreement funding and grant funding provided by or associated with LICENSEE to JOHNS HOPKINS), a total of One Million Dollars (\$1,000,000) on activities relating to the
 - of Licensed Products and Licensed Processes. All amounts expended on Licensed Products and Licensed Processes shall be credited toward the above indicated amounts, including but not limited to salaries, overhead salaries, overhead, capital, equipment, consulting fees and cost of materials.
- (c) Within four (4) years from the Effective Date of this Agreement, LICENSEE shall submit an Experimental Plan for, and begin experimental work on, an appropriate testing program for at least one (1) Licensed Product. Such Experimental Plan shall be sufficiently detailed and comprehensive that, in the good faith opinion of LICENSEE and its counselors, the Plan shall, if successful, be reasonably adequate to support a credible and potentially successful Investigative New Drug (IND) application to the U.S. Food and Drug Administration within seven (7) years from the Effective Date of this Agreement.
- (d) Within seven (7) years of the Effective Date of this Agreement, LICENSEE shall have submitted a complete Investigative New Drug application to the U.S. FDA, such IND to be supported with appropriate studies and other toxicity and safety tests as may be required by the FDA.
- (e) Within three (3) years of the Effective Date of this Agreement, LICENSEE shall have made a first commercial sale of at least one (1) Licensed Product.
- 3.3 In the event that LICENSEE has failed to meet any particular due diligence milestone set forth in Paragraph 3.2 above on or before the date set forth therein with respect to each such milestone, JOHNS HOPKINS shall notify LICENSEE thereof and LICENSEE shall have ninety (90) days following such notification either to establish to the

reasonable satisfaction of JOHNS HOPKINS that it has met such milestone or to make the initial penalty payment referred to in Paragraph 3.4 below.

- 3.4 In the event that LICENSEE shall have failed to establish its achievement of any particular milestone to the reasonable satisfaction of JOHNS HOPKINS as set forth in Paragraph 3.3 above, JOHNS HOPKINS shall have the right to terminate this Agreement, unless LICENSEE shall make to JOHNS HOPKINS the following penalty payments:
 - (a) To maintain the exclusive rights granted herein on an exclusive basis as set forth in Paragraph 2.2, the amount of in the year of the breach and annually thereafter until the breach is cured; with such amount increasing to annually commencing the eighth year following the Effective Date of this Agreement.
 - (b) To maintain its rights granted herein without the exclusivity provisions of Paragraph 2.2, the sum of * in the year of the breach and * per year thereafter until cured.

The penalty payments described in (a) and (b) above shall only be due within thirty (30) days following the failure of LICENSEE to achieve a milestone or cure such failure within the ninety (90) days set forth in Paragraph 3.3 above. LICENSEE's obligation to make such penalty payments shall terminate when the applicable milestone has been met.

ARTICLE IV - ROYALTIES

4.1 For the rights, privileges and license granted hereunder, LICENSEE shall pay to JOHNS HOPKINS in the manner hereinafter provided for so long as LICENSEE by its activities would, but for the licenses granted herein, infringe a valid, enforceable claim of an unexpired Patent Right or until this Agreement shall be terminated as hereinafter

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- (a) At the time that LICENSEE closes financing equal to a total cumulative equity investment of at least Five Hundred Thousand Dollars (\$500,000) ("Initial Financing"), LICENSEE shall issue to JOHNS HOPKINS that number of common units equal to that portion of the total number of common and preferred units issued with respect to the first

 equity capital invested in the LICENSEE multiplied by * . If the preferred units issued in any financing have antidilution protection, JOHNS HOPKINS shall be entitled to equivalent protection for its common units. JOHNS HOPKINS shall also be entitled, at its sole option, to invest its own funds in the second and any subsequent round of investment funding at a price per unit which is the same price as is offered to other second round investors, for up to a total number of shares such that JOHNS HOPKINS' share of equity in the Company would remain at
- (b) At the time that the cumulative equity capital invested in the Company is equal to Two Million Dollars (\$2,000,000), LICENSEE shall pay to JOHNS HOPKINS:

 - (ii) shall commence annual maintenance fees of $*$ due on January 1 of each year following the financing date.
- (c) LICENSEE shall also pay to JOHNS HOPKINS a running royalty on Licensed Products during the Exclusive Period for such products as follows:
 - (i) For sales by LICENSEE and it Subsidiaries:

^{*} Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

- (2) for ******* ******.
- (ii) for sales by $\,^*\,$:
 - (1) for ****** ******, the greater of * of Net Sales or * royalties received to
 - (2) for ******* *******, the greater of * of Net Sales or * of * royalties received by LICENSEE; and
 - (3) for ******* ********, the greater of * of Net Sales or * of * royalties received by LICENSEE.
- (d) LICENSEE shall pay to JOHNS HOPKINS * of initial License Fees (excluding all other forms of payment including, but not limited to, research funding) LICENSEE receives from all *
- (e) During the nonexclusive period for any Licensed Product, LICENSEE shall pay to JOHNS HOPKINS a running royalty on the Net Sales of such Licensed Products sold by LICENSEE, its Subsidiaries and its * equal to * the royalty set forth in (c) above for sales during the Exclusive Period.
- 4.2 No multiple royalties shall be payable because any Licensed Product, its

* are or shall be covered by more than one patent application or patent licensed under this Agreement or acquired under a license pursuant to Paragraph 2.6 or 2.7. If a Licensed Product is covered by this Agreement and a License Agreement pursuant to Paragraph 2.6 and/or 2.7 the highest applicable royalty rate will apply. If, as to any Licensed Product, LICENSEE is required to pay a royalty to any third party, the royalty rates set forth in Paragraph 4.1 shall be reduced by * of the royalty rates paid to the third party, but in no event shall the rates in Paragraph 4.1 be reduced by more than *

- 4.3 Royalty payments shall be paid in United States dollars in Baltimore, Maryland, at the time and in the manner provided in Article V below. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate prevailing at the Bank of America Corporation on the last business day of the calendar quarterly reporting period to which such royalty payments relate.
- 4.4 At the end of the first calendar year beginning after the first commercial sale of a Licensed Product by LICENSEE, a subsidiary, or a

 * , and each calendar year thereafter (hereinafter "Royalty Year"),
 LICENSEE shall pay JOHNS HOPKINS the greater of royalties payable pursuant to
 Paragraph 4.1(c) or a minimum annual royalty according to the following schedule:

At the End of the First Royalty Year
At the End of the Second Royalty Year
At the End of the Third and Through
the Ninth Royalty Year
At the End of the Tenth and Each

Subsequent Royalty Years

Said minimum annual royalty shall be paid to JOHNS HOPKINS within thirty (30) days of $\,$

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the end of each Royalty Year. Failure by LICENSEE to pay the minimum annual royalty required by this Paragraph 4.4 shall give JOHNS HOPKINS the right to convert the * license granted by this Agreement to * license.

ARTICLE V - REPORTS AND RECORDS

- 5.1 LICENSEE shall keep full, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to JOHNS HOPKINS hereunder. Said books of account shall be kept at LICENSEE's principal place of business or the principal place of business of the appropriate Division of LICENSEE to which this Agreement relates. Said books and the supporting data shall be open at all reasonable times for five (5) years following the end of the calendar year to which they pertain, to the inspection of JOHNS HOPKINS or its agents for the purpose of verifying LICENSEE's royalty statement or compliance in other respects with this Agreement.
- 5.2 Commencing with the first commercial sale of a Licensed Product, LICENSEE, within sixty (60) days after March 31, June 30, September 30 and December 31, of each year, shall deliver to JOHNS HOPKINS true and accurate reports, giving such particulars of the business conducted by LICENSEE, its Subsidiaries and its sublicensees during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. These shall include at least the following:
 - (a) All Licensed Products manufactured and sold.
 - (b) Total billings for Licensed Products sold.
 - (c) Accounting for all Licensed Processes used or sold.

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- (d) Deductions applicable as provided in Paragraph 1.6.
- (e) Total royalties due.
- (f) Names and addresses of all sublicensees of LICENSEE.

Where reasonably practical, LICENSEE shall, to the best of its knowledge, subcategorize the Licensed Products sold so as to assign the royalties paid to individual patent(s) of Appendix A. Such subcategorization shall be for JOHNS HOPKINS administrative purposes only and shall in no way affect any obligations of any part or the amounts of royalties to be paid under this Agreement. Until there has been a first commercial sale of a Licensed Product, the LICENSEE shall give an annual report of LICENSEE's efforts to achieve a first commercial sale.

- $5.3\,$ With each such report submitted, LICENSEE shall pay to JOHNS HOPKINS the royalties due and payable under this Agreement. If no royalties shall be due, LICENSEE shall so report.
- 5.4 The royalty payments set forth in this Agreement shall, if overdue, bear interest until payment at a per annum rate * the prime rate in effect at Bank of America on the due date. The payment of such interest shall not foreclose JOHNS HOPKINS from exercising any other rights it may have as a consequence of the lateness of any payments.

ARTICLE VI - PATENT PROSECUTION

6.1 JOHNS HOPKINS represents that Appendix A, as amended from time-to-time, contains an accurate and complete listing of the patent applications and issued patents included within the Patent Rights. JOHNS HOPKINS agrees to promptly amend Appendix A within thirty (30) days of any new Invention made pursuant to the ATP.

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- 6.2 JOHNS HOPKINS warrants that it has the right to grant the rights and licenses granted herein to LICENSEE free and clear of all liens and encumbrances, except to the extent set forth in Article XII.
- 6.3 Within ninety (90) days of the completion of the financing set forth in Paragraph 4.1(b), LICENSEE shall reimburse JOHNS HOPKINS for previously-incurred as well as future expenses paid to third parties relating to drafting, filing, prosecuting and maintaining U.S. and foreign patent applications and patents included in the Patent Rights; provided, however, if such reimbursement amount exceeds Fifty Thousand Dollars (\$50,000), then the amount above \$50,000 shall be due twenty-four (24) months from the date of the initial payment, JOHNS HOPKINS shall, on LICENSEE's request and expense, file, prosecute, and maintain appropriate additional foreign patent applications and patents directed to the inventions which will be included in the Patent Rights and LICENSEE shall be licensed thereunder. If LICENSEE elects not to pay expenses associated with filing, prosecuting, and maintaining U.S. and foreign patent applications and patents directed to the inventions, JOHNS HOPKINS may file, prosecute, and maintain such U.S. and foreign patent applications and patents at its own expense and LICENSEE shall not be licensed thereunder.
- 6.4 With regard to substantive correspondence, patent applications and patents included in the Patent Rights, JOHNS HOPKINS shall in a timely manner send LICENSEE (a) copies of all proposed patent applications and correspondence to the respective patent office, give LICENSEE an opportunity to comment thereon, and incorporate such changes as reasonably requested by LICENSEE; and (b) copies of correspondence from the patent office.
 - 6.5 JOHNS HOPKINS shall reasonably respond to LICENSEE's request for

ARTICLE VII - INFRINGEMENT

- 7.1 Each party to this Agreement shall promptly notify the other party in writing of any alleged infringement and of any available evidence of infringement by a third party of any patents within the Patent Rights of which it becomes aware.
- 7.2 During the term of this Agreement, LICENSEE shall have the right, but shall not be obligated, to prosecute at its own expense any such infringements of the Patent Rights and, in furtherance of such right, LICENSEE hereby agrees that JOHNS HOPKINS may join LICENSEE as a party plaintiff in any such suit, without expense to JOHNS HOPKINS, provided, however, that such right to bring an infringement action shall remain in effect only for so long as the license granted herein remains exclusive. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of JOHNS HOPKINS, which consent shall not unreasonably be withheld. LICENSEE shall indemnify JOHNS HOPKINS against any order for costs or other expenses that may be made against JOHNS HOPKINS in such proceedings. The total cost of any such infringement action commenced or defended solely by LICENSEE shall be borne by LICENSEE, and LICENSEE shall keep any recovery damages for past infringement derived therefrom, after payments to JOHNS HOPKINS of the royalty rate set forth in Paragraph 4.1(c)(i) applied to the sum of the recovery, damages or any other amount received in any form of disputation and/or in settlement of any infringement or alleged infringement of the Patent Rights remaining after LICENSEE has reimbursed itself for all costs, including legal costs, associated with the prosecution.
- 7.3 If within six (6) months after having been notified of any alleged infringement, $\ensuremath{\text{c}}$

LICENSEE shall have been unsuccessful in persuading the alleged infringer to desist and shall not have brought and shall not be diligently prosecuting any infringement action, or if LICENSEE shall notify JOHNS HOPKINS at any time prior thereto of its intention not to bring suit against any alleged infringer, then, JOHNS HOPKINS shall have the right, but shall not be obligated to prosecute at its own expense any infringement of the Patent Rights, and JOHNS HOPKINS may, for such purposes, use the name of LICENSEE as party plaintiff without expense to LICENSEE, and JOHNS HOPKINS shall keep any recovery or damages derived therefrom.

- 7.4 In the event that a declaratory judgment action alleging invalidity or noninfringement of any of the Patent Rights shall be brought against LICENSEE, JOHNS HOPKINS at its option, shall have the right, within thirty (30) days after commencement of such action, to intervene and participate in the defense of the action at their own expense.
- 7.5 In any infringement suit that any party hereto may institute to enforce the Patent Rights pursuant to this Agreement, the other party hereto shall, at the request and expense of the party initiating such suit, cooperate in all respects and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.
- 7.6 LICENSEE, during the Exclusive Period of this Agreement, shall have the sole right in accordance with the terms and conditions herein to sublicense any alleged infringer under the Patent Rights to avoid future infringements. Amounts received from any such * constituting retroactive royalties shall be considered amounts received in settlement and accounted for under Paragraph 7.2 above. Otherwise, amounts received from such sublicensee shall be treated in accordance with Paragraph
- * 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.

ARTICLE VIII - LIABILITY

- 8.1 Inasmuch as JOHNS HOPKINS will not, under the provisions of this Agreement or otherwise, have control over the manner in which LICENSEE, or its Subsidiaries or its agents or its sublicensees or those operating for its account, or third parties who purchase Licensed Products from any of the foregoing entities, practice any invention encompassed by the license granted herein, LICENSEE shall defend and hold JOHNS HOPKINS, it trustees, officers, employees, students, and affiliates harmless as against any judgments, fees, expenses or other costs (including reasonable attorneys' fees) arising from or incidental to any product liability or other lawsuit brought as a consequence of the practice of said invention by any of the foregoing entities, whether or not JOHNS HOPKINS is named as party defendant in any such lawsuit. LICENSEE shall have the right to defend such a product liability lawsuit with counsel of its own choosing and JOHNS HOPKINS will cooperate in the defense of such action at LICENSEE's expense. Practice of the Invention encompassed by the license granted herein by a Subsidiary or an agent or a , or a third party on behalf of or for the account of LICENSEE or by a third party who purchases Licensed Products from any of the foregoing shall be considered LICENSEE's practice of said invention for purposes of this Paragraph 8.1. The provisions of this Paragraph 8.1 shall survive termination of this Agreement.
- 8.2 LICENSEE shall maintain or cause to be maintained, prior to the first planned use of Licensed Products or Licensed Processes in humans, product liability insurance or other protection reasonably acceptable to JOHNS HOPKINS which shall

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protect LICENSEE and JOHNS HOPKINS in regard to events covered by Paragraph 8.1 above. LICENSEE will disclose to JOHNS HOPKINS the amount and kind of product liability insurance it obtains, will give JOHNS HOPKINS a copy of the certificate of insurance, and will increase or change the kind of insurance at the reasonable request of JOHNS HOPKINS, provided such insurance is available to LICENSEE at commercially reasonable rates.

- 8.3 Except as otherwise expressly set forth in this Agreement, JOHNS HOPKINS makes no representations and extend no warranties of any kind, either express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, and validity of Patent Rights claims, issued or pending.
- 8.4 No liability under this Agreement shall result to a party from delay in performance caused by force majeure, that is, circumstances beyond the reasonable control of the party affected thereby, including, without limitation, acts of God, earthquake, fire, flood, war, government regulations, labor unrest, or shortage of or an inability to obtain material or equipment.

ARTICLE IX - EXPORT CONTROLS

It is understood that JOHNS HOPKINS is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities (including the Arms Export Control Act, as amended and the Export Administration Act of 1979), and that their obligations hereunder are contingent on compliance with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by

LICENSEE that LICENSEE shall not export data or commodities to certain foreign countries without prior approval of such agency. JOHNS HOPKINS neither represents that a license shall not be required nor that, if required, it shall be issued.

ARTICLE X - NON-USE OF NAMES

LICENSEE shall not use the name of JOHNS HOPKINS, nor any of its employees, or any adaptation thereof, in any advertising, promotional or sales literature without prior written consent obtained from JOHNS HOPKINS in each case, except that LICENSEE may state that it is licensed by JOHNS HOPKINS under one or more of the patents and/or applications comprising the Patent Rights.

ARTICLE XI - ASSIGNMENT

This Agreement may not be assigned, in whole or in part, except in conjunction with the sale of the entire business, or an operating business division, of LICENSEE to which the Patent Rights relate, without the prior consent of JOHNS HOPKINS, which consent shall not be unreasonably withheld.

ARTICLE XII - GOVERNMENT RIGHTS

- 12.1 Pursuant to 35USC202, JOHNS HOPKINS has elected to take all rights, title and interest in the inventions forming the basis of the Patent Rights.
- 12.2 LICENSEE hereby specifically agrees to cooperate with JOHNS HOPKINS in abiding by the terms and conditions imposed on JOHNS HOPKINS pursuant to 35 USC 200 211 and the regulations promulgated thereunder.

- 12.3 JOHNS HOPKINS warrants that it has compiled with and will continue to comply with all duties and obligations running from JOHNS HOPKINS to the Government pursuant to 35 USC 200-211 and the regulations promulgated thereunder.
- 12.4 LICENSEE agrees to $*$ in the United States those Licensed Products which are $*$ in the United States.

ARTICLE XIII - TERMINATION

- 13.1 This Agreement shall terminate if LICENSEE dissolves, unless this Agreement has been assigned prior to the date of dissolution.
- 13.2 Should LICENSEE fail to pay JOHNS HOPKINS royalties due and payable hereunder, JOHNS HOPKINS shall have the right to terminate this Agreement on sixty (60) days' written notice, unless LICENSEE shall pay JOHNS HOPKINS within the sixty (60) day period, all such royalties and interest due and payable. Upon the expiration of the sixty (60) day period, if LICENSEE shall not have paid all such royalties and interest due and payable, the rights, privileges and license granted hereunder shall terminate.
- 13.3 Upon any material breach or default of this Agreement by LICENSEE other than those occurrences set out in Paragraphs 13.1 and 13.2 hereinabove, which shall always take precedence in that order over any material breach or default referred to in this Paragraph 13.3, JOHNS HOPKINS shall have the right to terminate this Agreement and the rights, privileges and license granted hereunder by giving ninety (90) days' notice to LICENSEE. Such termination shall become effective unless LICENSEE shall have cured any such breach or default prior to the expiration of the ninety (90) day period.
- 13.4 LICENSEE shall have the right to terminate this Agreement at any time on six (6) months' notice to JOHNS HOPKINS and upon payment of all amounts due JOHNS

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21 HOPKINS.

- 13.5 Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination. LICENSEE and any Subsidiary and sublicensee thereof may, however, after the effective date of such termination, * all Licensed Products, and complete Licensed Products in the process of * at the time of such termination and * the same, provided that LICENSEE shall pay to JOHNS HOPKINS the royalties thereon as required by Article IV of this Agreement and shall submit the reports required by Article V hereof on the sales of Licensed Products.
- 13.6 Upon termination of this Agreement for any reason during the Exclusive Period, any * not then in default shall have the right to seek a license from JOHNS HOPKINS under the same terms and conditions as set forth hereunder.
- 13.7 The provisions of Paragraph 8.1, Article IX, and Article X shall survive termination of this Agreement.

ARTICLE XIV - PAYMENTS, NOTICES AND OTHER COMMUNICATIONS

Any payment, notice or other communication pursuant to this Agreement shall be sufficiently made or given on the date of mailing if sent to such party by certified first class mail, postage prepaid, addressed to it at its address below or as it shall designate by written notice given to the other party:

In the case of JOHNS HOPKINS:

Johns Hopkins University 300 Whitehead Hall Charles and 34th Streets Baltimore, Maryland 21218 Attention: Edwin T. Yates, Ph.D.

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23 With a copy to:

> Associate Dean for Corporate Affairs Johns Hopkins University School of Hygiene and Public Health 111 Market Place, Suite 840 Baltimore, Maryland 21202-6709 Attention: Alan M. Goldberg, Ph.D.

In the case of LICENSEE:

Edward Lanphier Sangamo BioSciences, Inc. P.O. Box 334 Ross, California 94957

With a copy to:

Stephan Dolezalek, Esq. Brobeck, Phleger & Harrison Two Embarcadero Place 2200 Geng Road Palo Alto, California 94303

ARTICLE XV - MISCELLANEOUS PROVISIONS

- 15.1 This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of the State of Maryland, U.S.A., except that questions affecting the validity, construction and effect of any patent licensed hereunder, shall be determined by the law of the country in which the patent was granted.
- 15.2 The parties hereto acknowledge that this Agreement sets forth the entire Agreement and understanding of the parties hereto as to the subject matter hereof, and shall not be subject to any change or modification except by the execution of a written instrument subscribed to by the parties hereto.

- 15.3 The provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.
- 15.4 LICENSEE agrees to mark the Licensed Products sold in the United States with all applicable United States patent numbers. All Licensed Products shipped to or sold in other countries shall be marked in such a manner as to conform with the patent laws and practice of the country of manufacture or sale.
- 15.5 The failure of any party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.
- 15.6 Claims, disputes, or controversies concerning the validity, construction, or effect of any patent licensed hereunder shall be resolved in any court having jurisdiction thereof.
- 15.7 A grant application under the Advanced Technology Program was filed on March 29, 1995 (Appendix C). If a grant is awarded, any Invention made pursuant thereto where an investigator at JOHNS HOPKINS is the sole inventor or a coinventor shall be assigned to LICENSEE. Such Invention shall be assigned hereunder and shall thereafter fall within the definition of Patent Rights and therefore shall be subject to Sections 3.2, 3.3 and 3.4 hereof and to the royalty payments required by Sections 4.1(c)(i), 4.1(d) and 4.4 hereof as part of the rights licensed hereunder.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals and duly executed this Agreement the day and year set forth below.

JOHNS HOPKINS UNIVERSITY

By:	
	Herbert R. Hansen, Jr., MBA, CPA
	Senior Associate Dean, Finance and Administration
Date	2:

ΩR

By: /s/ Alan M. Goldberg

Alan M. Goldberg, Ph.D.

Associate Dean, Corporate Affairs

Date: July 10th, 1995

AND

By: /s/ John Groopman

John Groopman, Ph.D.

Chairman, Environmental Health Sciences

Date: 7/10/95

SANGAMO BIOSCIENCES, INC.

By: /s/ Edward O. Lanphier II

Edward O. Lanphier II

President

Date: June 30, 1995

26	APPENDIX A
PATENTS:	
INVENTION DISCLOSURES:	APPENDIX B
	APPENDIX C
ADVANCED TECHNOLOGY PROGRAM GRAM	IT PROPOSAL:

APPENDIX D

RESEARCH AGREEMENT:

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THE JOHNS HOPKINS UNIVERSITY BALTIMORE, MD 21218-2696

Nina M. Siegler, C.F.A. Director

Office of Technology Transfer 708 N Wyman Park Center 3400 N. Charles Street (410) 516-8137 Fax (410) 516-7811

AMENDMENT NO. 1

TO THE LICENSE AGREEMENT between

Johns Hopkins University and Sangamo Biosciences, Inc.

This Amendment No. 1, dated June 1, 1998 ("Effective Date") to the License Agreement dated June 29, 1995 concerning the licensing and other matters of patent properties referred to in the License Agreement as

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and other Patent Rights, is entered into between Johns Hopkins University, a not-for-profit educational institution having an address at 3400 N. Charles Street, Baltimore, MD ("JOHNS HOPKINS" or "JHU") and Sangamo Biosciences, Inc., a corporation of the State of Delaware and having a principal place of business at Point Richmond Tech Center, 501 Canal Blvd, Suite A-100, Richmond, CA ("LICENSEE").

This document amends the License Agreement by the following:

- In Paragraph 4.1, delete in its entirety paragraph 4.1.(c). Replace with new Paragraph 4.1.(c):
 - 4.1.(c) LICENSEE shall also pay to JOHNS HOPKINS a running royalty on Licensed Products as follows:
 - (i) for the rapeutic products, $*$ of Net Sales

 - (iii) for reagent products, * of Net Sales
- Delete in its entirety Paragraph 4.4, and replace with the following new Paragraph 4.4:
 - 4.4 LICENSEE shall pay to JOHNS HOPKINS a minimum annual royalty according to the following schedule and within thirty (30) days of the end of the calendar year:
- * Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

28 Amendment No. 1 Sangamo License Agreement page 2

> 1999,2000 * per year 2001-2005 * per year 2006 and until termination * per year

Failure by LICENSEE to pay the minimum annual royalty required by this Paragraph 4.4 shall give JOHNS HOPKINS the right to convert the exclusive license granted by this Agreement to a nonexclusive license.

- Add new Paragraph 4.5 as follows:
 - 4.5 For the rights, privileges and license granted by Amendment No. 1, dated _____, LICENSEE agrees to pay to JOHNS HOPKINS the sum of $$^{\prime}$$, payable in equal installments within eighteen months of the Effective Date of Amendment No. 1.
- 4. Add new Paragraph 6.6 as follows:

6.6 LICENSEE shall have the right, but not the obligation, to assume primary responsibility for patent prosecution. JOHNS HOPKINS hereby agrees to reasonably cooperate with the transfer of case files, execution of appropriate documents and any other matters needed for LICENSEE to assume such responsibility. In such case, LICENSEE shall provide to JHU copies of all correspondence from and to the US PTO and international equivalents with sufficient time to allow for comment by JHU. LICENSEE shall endeavor to accommodate JHU's comments into a reasonable patent prosecution strategy. In no case shall LICENSEE abandon any application or patent in any country without prior approval from JHU. In any country where the LICENSEE elects not to have a patent application filed or to pay expenses associated with filing, prosecuting, or maintaining a patent application or patent, LICENSEE shall notify JHU allowing at least thirty (30) days for JHU to assume such responsibilities. JHU may file, prosecute, and/or maintain a patent application or patent at its own expense and for its own exclusive benefit and the LICENSEE thereafter shall not be licensed under such patent or patent application. Upon termination of this Agreement, LICENSEE shall immediately transfer all case files, execute any appropriate documents related to patent matters and cooperate in any other matters needed for JHU to assume responsibility for patent prosecution.

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29 Amendment No. 1 Sangamo License Agreement page 3

- 5. In Paragraph 13.7, add after "Article X", insert, "Paragraph 4.5 and Paragraph 6.6".
- 6. Add new Paragraph 15.8 as follows:

15.8 With respect to

, LICENSEE hereby acknowledges and agrees that * is the sole inventor of this property.

7. In Appendix A, add:

- Except as expressly modified by this Amendment No. 1, the License Agreement shall remain in full force and effect.
- 9. In Paragraph 3.2(e) change it to read, "Within seven (7) years of the Effective Date of this Agreement, LICENSEE shall have made a commercial sale of at least one (1) Licensed Product."

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30 Amendment No. 1 Sangamo License Agreement page 4

For Sangamo Biosciences, Inc.:

/s/ Edward O. Lanphier II 7/16/98 -Edward O. Lanphier II Date

President

For Johns Hopkins University:

/s/ Herbert R. Hansen, J. 7/8/98 Herbert R. Hansen, J., MBA, CPA Senior Associate Dean, Finance and Date

Administration

Sangamo Amendment #1 (6/29/98)

1 EXHIBIT 10.14

MEDICAL RESEARCH COUNCIL

-AND-

SANGAMO BIOSCIENCES

LICENCE

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ZINC FINGERS PATENT

THIS AGREEMENT is made the 1 day of September One thousand nine hundred and ninety six between MEDICAL RESEARCH COUNCIL of 20 Park Crescent, London W1N 4AL (hereinafter called "MRC" which expression includes its successors and assigns) of the one part and Sangamo Biosciences of 950 Marina Village Parkway, Alameda, CA 94501, U.S.A. (hereinafter called "the Licensee" which expression includes its successors and permitted assigns) of the other part.

WHEREAS: -

- (A) MRC is the proprietor of certain applications for patent rights in respect of $\ensuremath{^{\ast}}$
- (B) The Licensee wishes to obtain a licence to the applications from MRC, and MRC is willing to grant such licence on the terms, and subject to the conditions, which follow.

NOW IT IS HEREBY AGREED as follows:-

Definitions

(1) In this Agreement the following words and expression shall be construed as follows:-

"Affiliate" shall mean any corporation, company, partnership or other entity which directly or indirectly controls, is controlled by or is under common control with either party to this Agreement.

"Control" means the ownership of more than 50% of issued share capital or the legal power to direct or cause the direction of the general management and policies of the party in question.

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"THE EFFECTIVE DATE" shall mean the date of execution above written.

"NET INVOICE PRICE" shall mean in relation to a Product sold by Licensee or sub-licensee of Licensee, the price invoiced by Licensee (or sub-licensee as appropriate) to the relevant purchaser (or in the case of a sale or other disposal otherwise than at arm's length, the price which would have been invoiced in a bona fide arm's length contract of sale), but deducting the costs of packing, transport and insurance, customer duties, any credits actually given for returned or defective Products, normal trade discounts actually given, and sales taxes, VAT or other similar tax charged on and included in the invoice price to the purchaser.

"THE PATENT RIGHTS" shall mean:-

- (a) the patent applications short particulars of which are set out in Schedule 1;
- (b) all patents which may be granted pursuant to any of the foregoing applications;
- (c) any patents which derive from the foregoing patent applications including any divisions, renewals, continuations, continuations-in-part, extensions or reissues thereof.

"THE PRODUCTS" shall mean products whose development (including use of the methods claimed in the Patent Rights), manufacture use or sale would, but for this licence, infringe the Patent Rights.

(2) In this Agreement the singular shall where the context so permits include the plural and vice versa.

2. Commencement

This Agreement shall be deemed to have come into force on the Effective Date and shall be read and construed accordingly.

3. Grant of Rights

- (1) MRC agrees to grant to the Licensee a * licence under the Patent Rights to * Products.
- (2) The Licensee shall have the right to * of the rights granted to it under this Agreement but only in conjunction with a licence of Licensee's complementary technology and in a defined field equivalent to that licensed technology. Any such * shall be granted on and shall contain substantially similar terms and conditions as the clauses of this Agreement including, but without limitation, the terms herein relating to indemnity.
- (3) Prior to the first anniversary of the Effective Date MRC shall review the scope and desirability for entering negotiations with Licensee for conversion of this agreement to * licence in whole or in part, and MRC shall inform Licensee on or about the first anniversary of the Effective Date whether it wishes to enter such negotiations. For the avoidance of doubt, neither party is under any obligation to enter such negotiations, or committed to accept specific terms for conversion of * licence.

4. Payments

- (1) In consideration for the non-exclusive licence granted pursuant to Clause 3.1 hereof the Licensee shall pay to MRC the following sums:
 - (i) * to be paid upon *
 - (ii) $\ \ ^*$ to be paid on the 1st anniversary of the Effective Date.
 - (iii) $\ \ ^{\star}$ to be paid on the 2nd anniversary of the Effective Date.
 - (iv) $\ \ ^{\star}$ to be paid on the 3rd anniversary of the Effective Date.

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^{*} Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

(i) * to be paid on

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

(ii) * to be paid on

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

(iii) * to be paid on

*

relating to products derived in whole or in part from the technology described and claimed in the Patent Rights.

- (3) In further consideration of the licence granted by MRC to Licensee under Clause 3(1), Licensee shall pay to MRC a royalty of * of the Net Invoice Price on all sales of Products by Licensee or any Affiliate or any * where the Products are either manufactured and/or sold in a country where a patent under the Patent Rights is granted valid and subsisting at the date of such sale.
- (4) If the Licensee is required to pay total royalties in excess of * of Net Invoice Price to parties other than MRC the royalty payable to MRC may be reduced by the amount of royalty in excess of * payable to such other parties but in no event shall the royalty payable to the MRC be reduced by * from the royalty rate specified in Clause 4(3). If the Licensee avails itself of the provision of this paragraph, the Licensee agrees to provide the MRC with proof of such royalties paid to other parties.

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^{*} Certain information on this page has been omitted and filed separately with the Commission. Confidential treatment has been requested with respect to the omitted portions.

- (5) Licensee agrees to keep true and accurate records and books of account containing all data necessary for the calculation of the milestone payments and royalties payable to MRC under Clause 4(2) and 4(3). Such records and books of account shall upon reasonable notice having been given by MRC be open at all reasonable times during business hours for inspection by MRC or its duly authorised representative.
- (6) Licensee shall prepare a statement in respect of each calendar quarter of this Agreement which shall show for the calendar quarter in question the quantity of Products by the Licensee and in each country and the Net Invoice Price of each Product so sold and the royalty due to MRC thereon pursuant to Clause 4(3) above. Such statement shall be submitted to MRC within 60 days following the end of the calendar quarter or part thereof to which it relates together with a remittance for the royalties due to MRC. If MRC shall give notice to Licensee within 60 days of the receipt of any such statement that it does not accept the same such statement shall be certified by an independent chartered accountant appointed by agreement between the parties or, in default of agreement within 14 days, by the President for the time being of the Institute of Chartered Accountants of England and Wales in London. Licensee shall make available all books and records required for the purpose of such certification at reasonable times during normal business hours and the statement so certified shall be binding between the parties. The costs of such certification shall be the responsibility of MRC if the certification shows the original statement to have been accurate and otherwise shall be the responsibility of Licensee. Following any such certification the parties shall make any adjustments necessary in respect of the royalties already paid to MRC in relation to the period in question.
- (7) The Licensee shall pay royalties to MRC free and clear of and without deduction or deferment in respect of any demand, set-off, counterclaim or other dispute and so far as is legally possible such payment shall be made free and clear of any taxes imposed by or under the authority of any government or public authority and in particular but

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without limitation where any sums due to be paid to MRC hereunder are subject to any withholding or similar tax, the Licensee shall pay such additional amount as shall be required to ensure that the net amount received by MRC hereunder will equal the full amount which would have been received by it had not such tax been imposed or withheld. The Licensee and, without prejudice to the foregoing, MRC shall use their best endeavors to do all such lawful acts and things and to sign all such lawful deeds and documents as will enable the Licensee to take advantage of any applicable legal provision or any double taxation treaties with the object of paying the sums due to MRC without imposing or withholding any tax.

Sums are expressed in this agreement as exclusive of any value added tax (VAT) which might be applicable. MRC agrees to provide Licensee with a VAT invoice in respect of every payment affected by VAT.

- (8) Where MRC does not receive payment of any sums due to it within the period specified hereunder in respect thereof interest shall accrue on the sum outstanding at the rate of * per month calculated on a daily basis without prejudice to MRC right to receive payment on the due date therefor.
- 5. Patent Prosecution and Infringement
 - (1) MRC shall be responsible for seeking issuance and maintenance of the Patent Rights.
 - (2) If the Licensee becomes aware of a suspected infringement of the Patent Rights it shall notify MRC giving full particulars thereof. If the alleged infringement consists of any act which (if done by the Licensee) would be within the scope of the licences granted under this Agreement MRC and the Licensee shall (within a reasonable time of the said notification) consult together with a view to agreeing upon a course of action to be pursued.

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- Term and Termination
 - (1)Subject as hereinafter provided this Agreement and the licence granted pursuant thereto shall continue in force in each territory during the subsistence of the last to expire of the Patent Rights.
 - (2) MRC may terminate this Agreement and the said licences forthwith by notice to the Licensee to that effect upon the happening of any of the following events:
 - if the Licensee fails to perform or observe any of the obligations on its part to be performed or observed and if the breach is one capable of remedy has not been remedied within three (3) months of the giving of a notice informing the Licensee of such breach;
 - (ii) if the Licensee files a voluntary petition in bankruptcy or applies to any Tribunal for a Receiver Trustee or similar officer to be appointed by any Court or Executive Department to liquidate or conserve the Licensee or any substantial part of its property or assets due to insolvency or to the threat thereof or if the Licensee suffers any trusteeship or receivership to continue undischarged for a period of sixty days or suffers any similar procedure for the relief of distressed debtors entered into by the Licensee voluntarily or involuntarily or if the Licensee is otherwise divested of its assets for a period of sixty days or makes a general assignment for the benefit of its creditors;
 - (3) The Licensee may terminate this Agreement and the Licences granted pursuant hereto by giving to MRC 6 months notice to that effect. Such termination shall be without prejudice to the right of MRC to enforce the Patent Rights in the event of subsequent by the Licensee.
 - (4) Termination of this Agreement or of the said Licences shall be without prejudice to any rights of either party against the other which may have accrued up to the date of

such termination and the licensee shall pay to MRC the appropriate royalties hereunder on all stocks of the Products (on which royalties have not already been paid) held at the date of termination by the Licensee or any person engaged by the same to * the Products and shall thereafter be free to * such products on which royalty has been paid.

7. Warranties

- (1) MRC hereby represents and warrants that MRC owns the Patent Rights or is otherwise authorised to licence the Patent Rights to the Licensee.
- (2) Nothing in this Agreement or in any licences to be granted pursuant thereto shall be construed as a representation or warranty that any of the said Patent Rights are valid or that any * of the Products is not an infringement of any patents or other rights not vested in the MRC.
- (3) The Licensee shall promote the sale of the Products of good marketable quality and shall use reasonable endeavours to meet the market demand therefore.

8. Liability and Indemnity

Licensee hereby undertakes and agrees to be solely responsible at its own cost and expense for dealing with and for any liability arising from any contractual tortious or other claims or proceedings concerning the Products or their development production marketing distribution or sale and in particular product liability claims or proceedings. Further, Licensee hereby grants MRC an indemnity against any loss damage costs or expense incurred or suffered by MRC arising out of any such claims or proceedings.

Waiver

The waiver by MRC of any breach default or omission in the performance or observance of

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any of the terms of this Agreement by the Licensee shall not be deemed to be a waiver of any other such breach default or omission.

10. Notices

Any notice consent or other communication authorised or required to be given hereunder or for the purposes hereof shall be in writing and be deemed to be duly given to MRC if left at or sent by recorded delivery or registered post addressed to its principal office and to the Licensee if left at or sent by recorded delivery or registered post to its principal place of business. Any such notice consent or other communication if served by post shall be deemed to have been given at the time when it would have been received in due course of the post.

11. Non-assignability

Save for an assignment to an Affiliate of the Licensee, the Licensee shall not be entitled to assign the benefit of this Agreement or any rights granted or to be granted under the Agreement.

12. Non-Use of Names

Licensee shall not use the name of MRC nor of any of its employees or agents in any advertising promotional or sales literature without obtaining the prior written consent of MRC in each case, except that Licensee may state that it is licensed by MRC under one or more patents and/or applications comprising the Patent Rights.

13. Law and Jurisdiction

This Agreement is to be read and construed in accordance with and governed by the Laws of England so far as the subject matter allows and the parties hereby submit to the jurisdiction of the English courts in relation to any dispute arising out of this Agreement.

11 In witness whereof the parties hereto have caused this Agreement to be executed in the matter legally binding upon them by causing authorised representatives to sign this Agreement.

Signed by: /s/ Martin R. Wood, 21 August 1996

For and on behalf of MEDICAL RESEARCH COUNCIL Martin R. Wood Ph.D. Head of Technology Transfer Group

Signed by: /s/ Edward O. Lanphier For and on behalf of SANGAMO BIOSCIENCES EDWARD O. LANPHIER PRESIDENT

June 1, 1997

Edward O. Lanphier II 16 Oak Way Ross, CA 94957

Re: Employment Agreement

Dear Edward:

Sangamo BioSciences, Inc. proposes to enter into the following employment agreement ("Agreement") with you.

I have incorporated the terms we have discussed regarding your employment into this agreement and the proposed terms and conditions are set forth below. If the terms of the Agreement are satisfactory, please indicate your acceptance of the Agreement by executing this letter and returning it to me.

- 1. Definitions. The terms defined in this section shall have the meanings set forth below for purposes of this Agreement.
 - a. "Board of Directors" shall mean the Board of Sangamo BioSciences, Inc.
 - "Sangamo" or "Company" shall mean Sangamo BioSciences, Inc.
 - c. "Employee" shall refer to you, Edward O. Lanphier II.
 - d. "Without Cause" shall mean that Sangamo has without "Cause," as defined below, and without the Employee's written consent:
 - (1) terminated the Employee's services with the Company;
 - (2) materially reduced the Employee's duties, responsibilities and status with Sangamo;

- (3) reduced the Employee's base salary by more than five percent (except pursuant to Company mandated pay cuts or pay reductions which are uniformly applied to the Company's management); or
- (4) required that the Employee be based at a location more than 40 miles from the Employee's home location.
- e. "Cause" shall mean misconduct, including but not limited to the following:
 - (1) embezzlement, theft, misuse of confidential information or any other illegal or improper act by the Employee against Sangamo;
 - (2) conduct that constitutes a material breach of Sangamo policy, after thirty (30) days' notice and failure to cure;
 - (3) unauthorized conduct that causes, or could potentially cause, harm to the health or safety of other Employees; and/or
 - (4) any other unauthorized conduct that causes, or could potentially cause, material harm to the business or reputation of Sangamo, after thirty (30) days' notice and failure to cure.
- f. "Change of Control" solely for purposes of this Agreement shall mean any transaction or series of related transactions in which (i) substantially all of the assets of the Company are sold; or (ii) any merger, reorganization or acquisition in which the stockholders of the Company immediately prior to such transaction or series of related transactions hold less than 51% of the equity securities of the surviving entity (or any parent thereof) immediately after such transaction, unless, such surviving entity elects in writing to assume this Agreement and the obligations of the Company hereunder in its entirety.
- 2. Duties and Obligations.
 - a. The Employee shall serve as the Company's President and Chief Executive Officer which title was approved at the Company's Board of Directors (the "Board") meeting on April 5, 1997. Employee's duties shall include overseeing all corporate functions and directing the organization to ensure the attainment of the goals and objectives set forth from time to time by the Board of Directors.

- b. Employee agrees to abide by the terms and conditions of the Company's standard Proprietary Information and Inventions Agreement between Employee and the Company. Employee further agrees that at all times both during his employment by the Company and after his Termination (hereinafter as defined in Section 6(a)), he will keep in confidence and trust, and will not use or disclose, except as directed by the Company, any confidential or proprietary information of the Company.
- c. Employee agrees to indemnify and hold the Company harmless against any liability, damage, claims, or suits and related costs and expenses that may arise directly or indirectly out of Employee's Termination of any prior employment relationship or agreement. Further, Employee represents that he has not entered into, and agrees not to enter into, any agreement in conflict with the terms of this Agreement or his employment with the Company.
- 3. Devotion of Time to the Company's Business.
 - a. Employee shall devote substantially all of his business time, attention, knowledge, skills and interests to the business of the Company and the Company shall be entitled to all of the benefits and profits arising from or incident to such work, services and advice of Employee.
 - b. During the term of this Agreement, Employee shall not, whether directly or indirectly, render any services of a commercial or professional nature to any other person or organization, whether for compensation or otherwise, without the prior consent of the Board of Directors.
 - c. During the term of this Agreement, Employee shall not, directly or indirectly, engage or participate in any business that is in competition with the business of the Company.
- 4. Compensation and Benefits.
 - a. Base Compensation. Beginning June 1, 1997, the Company shall pay to Employee an annual salary of one hundred seventy-five thousand dollars (\$175,000), less all applicable withholdings, prorated for any partial employment period and payable in equal monthly installments in accordance with the Company's payroll schedule. The Compensation Committee of the Board shall annually review the then-current level of Employee's salary to determine the amount, if any, of salary change, provided that the foregoing shall not serve to exempt Employee from any Company mandated pay cuts or pay reductions which are uniformly applied to the Company's management, any pay increase or pay cut will be effective as of December 31 of the year such adjustment is made and the Board shall advise Employee of such adjustment, if any.

- b. Bonus. The Employee will be eligible to receive a cash bonus in addition to the Employee's current base salary. The Compensation Committee of the Board shall annually review the contributions of the Employee to the Company and determine the appropriate bonus, with the initial bonus target being 50% of the Employee's base salary. The actual bonus may be more or less than the target amount based upon the Employee's achievements over the year, provided that in no event shall the actual bonus be less than \$43,750 during the first year of this Agreement.
- c. Long Term Loan. In lieu of any relocation or recruiting expenses, the Employee will receive a loan of two hundred fifty thousand dollars (\$250,000). This loan shall be forgiven annually on a pro-rated basis over a four-year period beginning January 1, 1999 and shall bear interest at the minimum rate otherwise imputed thereto by the Internal Revenue Service. Upon any Termination of Employee other than for Cause, the Company agrees to forgive any remaining amount of the loan payoff made as part of this Agreement. Should the Employee resign without cause, the remaining balance will be due and payable within ninety (90) days.
- d. Benefits. At the time of this Agreement or for such time as otherwise provided in this Agreement, Employee shall be entitled to participate in such fringe benefits that are available to employees of the Company at that time, including: family health insurance, dental insurance, group term life insurance, short-term disability insurance, long-term disability insurance, vacation pay, sick pay, 401(k) and other benefits that may be added to the Company's benefit program from time to time.
 - (1) Life Insurance. In addition to the group term life insurance coverage provided to all employees of the Company, the Company will assist you in providing additional life insurance protection through the establishment of a split-dollar life insurance program, as detailed in the Split-Dollar Life Insurance Agreement included as Attachment A.
 - (2) Disability Insurance. In addition to the short-term and long-term disability insurance coverage provided to all employees of the Company, the Company will assist you in providing additional long-term disability insurance protection through the purchase of an individual policy that will, without offsets for social security, workers' compensation or other disability benefits, provide insurance coverage in the amount of \$3,500 per year. Upon your resignation or Termination from employment, this disability insurance policy and any dividends accrued thereon shall be released to you or your successor employer upon written request.
- e. Stock Options. Upon entering this Agreement, the Employee shall receive stock options totalling Two Hundred Thousand (200,000) shares of the Company's Common Stock (the "Option Shares") under the Company's 1996 Stock Option Plan (the "Plan"), which options shall have an exercise price of \$0.10 per share,

and from time to time may be granted additional stock options. If there is a Change of Control all unvested stock options will vest and Employee will have up to three years to exercise the stock options.

- f. Stock Bonus. Upon completion of a financing or financings totalling at least \$7,000,000 on terms and conditions acceptable to the Board of Directors, the Employee shall receive a one-time stock bonus of One Hundred Fifty Thousand (150,000) shares of the Company's Common Stock.
- 5. Eligibility for Severance Benefits.
 - a. General Rule. Except as otherwise provided in this Agreement, should the employment of the Employee be terminated Without Cause, the Employee shall be entitled to Severance Benefits as set forth in Section 6. A Change of Control shall be deemed to be a Termination Without
 - b. Death or Disability. If the Employee dies after he has ceased to be an Employee but prior to receiving full payment of his Severance Benefits (as defined in Section 6(a)(i), if any, any portion of the Severance Benefits that remains to be paid shall be paid to the surviving spouse of the Employee, or, if there is no surviving spouse, to the Employee's estate.
- 6. Termination of Employment.
 - a. The Company may terminate Employee's employment under this Agreement at any time, for any reason, with or Without Cause by giving written notice of its intent to terminate the employment (a "Termination").
 - (1) Should the Employee be terminated Without Cause, the Company will thereafter pay twelve (12) months base salary and a pro-rated bonus to the Employee (the "Severance Benefits").
 - b. Continue Insurance Coverage. Sangamo shall continue to provide the Employee and his family with medical and dental insurance coverage by paying the COBRA payments for a period equal to twelve (12) months. Notwithstanding the foregoing, to the maximum extent permitted by law, the number of months of continued insurance coverage provided to the Employee under this section shall reduce the number of months of continued coverage that must be made available to the Employee (and his dependents, if applicable) under COBRA.
 - c. Time and Form of Payment. The Employee shall not be entitled to receive Severance Benefits during any period in which he remains an Employee. The Employee must elect to have his Severance Benefits paid in one of the following ways:

- (1) A single lump sum distribution paid upon, or as soon as reasonably practicable after the Termination of his employment; or
- (2) A deferred lump sum distribution paid in January of the year following the year his employment terminates: or
- (3) Two installments, which do not have to be of equal amounts, with the first paid upon, or as soon as reasonably practicable after, the Termination of his employment and the second paid in January of the year following the year his employment terminates.

Election of one of the above methods is accomplished by providing written notice to the Company of such election within fifteen calendar days of the Employee's Termination. If no election is made within that period, the Severance Benefits will automatically be paid pursuant to Section 6(e)(1). Without regard to the payment method elected, no interest shall accrue or be paid with respect to the amount of the Employee's Severance Benefits.

d. Reductions. The Severance Benefits paid to the Employee shall be reduced to the extent legally permissible by any amount that the Employee owes to the he Company on the date he ceases to be an Employee.

Except for any payments for earned salary, accrued but unused vacation, 401(k) Plan distributions, and the above mentioned Severance Benefits, if applicable, neither party will be obligated to pay the other any payment as a result of, or in connection with, the Termination of Employee's employment with Sangamo (including but not limited to any salary or benefits following the date of Termination).

7. Miscellaneous.

- a. Governing Law. This Agreement shall be interpreted, construed, governed and enforced according to the laws of the State of California.
- b. Attorneys' Fees. In the event of any controversy, claim or dispute between the parties, arising out of or relating to this Agreement or the breach hereof, or the interpretation hereof, each party shall bear its own legal fees and expenses. Notwithstanding the foregoing, in the event of a finding by any court having jurisdiction over such matter that any party initiating an action under this Agreement failed to have a reasonable prospect of prevailing on its claim, the court shall have discretion to award the prevailing party attorneys' fees and costs incurred by it with respect to such claim or action. The "prevailing party" means the party determined by the court to have most nearly prevailed, even if such party did not prevail in all matters, not necessarily the one in whose favor a judgment is rendered.

- c. Amendments. No amendment or modification of the terms or conditions of this Agreement shall be valid unless in writing and signed by the parties hereto.
- d. Severability. All agreements and covenants contained herein are severable, and in the event any of the above shall be held to be invalid or unenforceable, this Agreement shall be interpreted as if such invalid agreements or covenants were not contained herein.
- e. Successors and Assigns. The rights and obligations of the Company under this Agreement shall inure to the benefit of and shall be binding upon the successors and assigns of the Company. The Employee shall not be entitled to assign any of his rights or obligations under this Agreement.
- f. Entire Agreement. This Agreement, along with any other Agreements set forth herein, including without limitation, the Proprietary Information and Inventions Agreement, constitutes the entire agreement between the parties with respect to the employment of Employee.

If you have any questions, please do not hesitate to call me at (415) 442-1123.

Very truly yours,

SANGAMO BIOSCIENCES, INC.

By: /s/ JOHN W. LARSON

John W. Larson Board of Directors

AGREED TO AND ACCEPTED BY:

/s/ EDWARD O. LANPHIER II

Edward O. Lanphier II

Employee
Date:

ATTACHMENT A

SPLIT-DOLLAR LIFE INSURANCE AGREEMENT

This agreement, made and entered into this 1st day of June, 1997 by and between Sangamo BioSciences, Inc., a Delaware corporation, hereinafter referred to as the "Company," and Edward O. Lanphier II, hereinafter referred to as the "Executive" and "Insured."

Whereas the Executive has been a trusted and valued employee of the Company for a number of years and the Company highly values the efforts, abilities and accomplishments of the Executive; and

Whereas the Company is concerned with the welfare of its employees and their families and believes it is meritorious to assist them in providing for their financial security; and

Whereas the Board of Directors of the Company has determined that it would be in the Company's best interest to participate in a Split-Dollar Insurance Plan with the Executive; and

Whereas the Executive has acquired a life insurance policy with a face amount of \$2,000,000; and

Whereas, the Company and the Executive desire to make said insurance policy subject to a Split-Dollar arrangement;

Now therefore, the parties hereto mutually agree as follows:

I. Title to Policy and Incidents of Ownership

The Executive shall be the owner of the policy and shall have all incidents of ownership except those assigned pursuant to the provisions of Article III for security purposes only, including but not limited to:

- A. The right to designate and to change the beneficiary.
- B. The right to receive and to have his successor or assigns receive any amount in excess of the amount payable to the Company as hereinafter provided in Article IV at the time of the death of the insured; and
- C. The right, at any time, to repay the amounts hereinafter described in Article II, thereby releasing any claim which the Company might have against such contract.

The intention of the parties is that the Company possess no policy rights or incidents of ownership, other than those assigned as security for the indebtedness, which will permit the Company to unilaterally impair the right or interests of the Executive, or his designee or assignee in any way.

The Executive hereby agrees, however, that while this agreement is in effect, he shall notify the Company of any intent to exercise any right of ownership in the policy other than the right to change the beneficiary at least thirty (30) days prior to the exercise of such right of ownership.

II. Premium Payments

- A. The Company will pay the premium of the policy. The Company's portion for this premium will be a minimum of \$12,000 annually for split-dollar life. Such premium may be paid annually or more frequently as the Company may elect. The Company's premium payments shall be remitted to the insurer before the expiration of the grace period for premium payments. The Executive may repay any amount of such premiums advanced for his benefit at any time.
- B. The total amount of such payments by the Company, less the total amount of any repayments by the Executive shall constitute an indebtedness to the Company.

III. Security

- A. In order to secure the repayment of the indebtedness, the Executive agrees to execute a Collateral Assignment of the insurance policy in a form approved by the insurance company and shall deliver physical custody of the policy to the Company.
- B. In the event of the termination of this agreement, pursuant to the provisions of Article V hereof, the Company shall, upon receipt of an amount equal to the total amount of the indebtedness then due to the Company, cancel and release the Collateral Assignment of the insurance policy and redeliver physical custody thereof to the Executive.

In the event the Executive does not satisfy the indebtedness to the Company within thirty (30) of the termination of this agreement, the Company shall have the right, without further notice to the Executive, to exercise its right as Collateral Assignee to obtain a cash loan from the Insurer in accordance with the loan provisions of the policy, provided, however, that the total amount of any cash loan or loans so obtained shall not exceed the total amount of the indebtedness of the Executive then due under the terms of this agreement.

IV. Death Benefits

- A. The portion of the death benefit to be paid to the Company shall be the amount equal to the net cash surrender value of the policy up to, but not exceeding, the then remaining balance of any indebtedness incurred for the purposes of paying premiums under the policy. Such value shall be determined as of the end of the period for which premiums have been paid.
- B. The portion of the death benefit payable to the beneficiary or beneficiaries designated by the Executive shall be the balance of the proceeds, if any as provided in the policy.

V. Term

This agreement shall be effective as of the date of this agreement and shall continue until terminated by the death of the insured or mutual agreement of the parties hereto.

VI. Amendment

This agreement may be amended at any time by the mutual consent of the parties hereto.

VII. Applicable Law

 $\,$ This agreement shall be governed by the laws of the State of California.

VIII. Benefit

This agreement shall be binding upon the parties hereto, the Executive's heirs, executors and administrators, and either party's successors or assigns. The parties hereto hereby agree for themselves, their heirs, executors, administrators, successors or assigns to execute any and all instruments and to perform all acts which may be necessary and proper to carry out the purposes of this agreement.

IX. Administrator

Cameron M. Lanphier shall serve as the administrator of this plan.

	IN	WITNESS	WHEREOF,	the	parties	have	executed	this	agreement	on	the
date	indicated										

Company

SANGAMO BIOSCIENCES, INC.

	By:
Witness	s
	Executive
	Edward O. Lanphier II
Witness	s

4.

ATTACHMENT B

PREMIUM SCHEDULE FOR SPLIT-DOLLAR LIFE INSURANCE POLICY

Royal Maccabees Life Insurance Company

Diplomat MFC FPAL-892 AN ILLUSTRATION OF PROJECTED VALUES AND BENEFITS

Edward O. Lanphier II Male, Age 40 Insured: Agent: Brian L. Dunn

Rating Class: Preferred Non-Smoker

Mode of Premium Payment: Annual

End Year	Age	Premium	Death Benefit
1	41	12,000	2,000,000
2	42	12,000	2,000,000
3	43	12,000	2,000,000
4	44	12,000	2,000,000
5	45	12,000	2,000,000
6	46	12,000	2,000,000
7	47	12,000	2,000,000
8	48	12,000	2,000,000
9	49	12,000	2,000,000
10	50	12,000	2,000,000

SANGAMO BIOSCIENCES, INC. 1995 STOCK OPTION PLAN

(As Amended on December 8, 1999)

ARTICLE ONE

GENERAL PROVISIONS

I. PURPOSE OF THE PLAN

This 1995 Stock Option Plan is intended to promote the interests of Sangamo BioSciences, Inc., a Delaware corporation, by providing eligible persons with the opportunity to acquire a proprietary interest, or otherwise increase their proprietary interest, in the Corporation as an incentive for them to remain in the service of the Corporation.

Capitalized terms herein shall have the meanings assigned to such terms in the attached $\mbox{\sc Appendix}.$

II. ADMINISTRATION OF THE PLAN

- A. The Plan shall be administered by the Board. However, any or all administrative functions otherwise exercisable by the Board may be delegated to the Committee. Members of the Committee shall serve for such period of time as the Board may determine and shall be subject to removal by the Board at any time. The Board may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.
- B. The Plan Administrator shall have full power and authority (subject to the provisions of the Plan) to establish such rules and regulations as it may deem appropriate for proper administration of the Plan and to make such determinations under, and issue such interpretations of, the Plan and any outstanding options as it may deem necessary or advisable. Decisions of the Plan Administrator shall be final and binding on all parties who have an interest in the Plan or any option or shares issued thereunder.

III. ELIGIBILITY

- $\mbox{\ \ A.}$ The persons eligible to receive option grants under the Plan are as follows:
 - (i) Employees,
- (ii) non-employee members of the Board or the non-employee members of the board of directors of any Parent or Subsidiary, and

B. The Plan Administrator shall have full authority to determine which eligible persons are to receive option grants under the Plan, the time or times when such option grants are to be made, the number of shares to be covered by each such grant, the status of the granted option as either an Incentive Option or a Non-Statutory Option, the time or times at which each option is to become exercisable, the vesting schedule (if any) applicable to the option shares and the maximum term for which the option is to remain outstanding.

IV. STOCK SUBJECT TO THE PLAN

- A. The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock. The maximum number of shares of Common Stock which may be issued over the term of the Plan shall not exceed 1,850,000(1) shares.
- B. Shares of Common Stock subject to outstanding options shall be available for subsequent issuance under the Plan to the extent (i) the options expire or terminate for any reason prior to exercise in full or (ii) the options are cancelled in accordance with the cancellation-regrant provisions of Article Two. Unvested shares issued under the Plan and subsequently repurchased by the Corporation, at the original exercise or issue price paid per share, pursuant to the Corporation's repurchase rights under the Plan shall be added back to the number of shares of Common Stock reserved for issuance under the Plan and shall accordingly be available for reissuance through one or more subsequent option grants or direct stock issuances under the Plan.
- C. Should any change be made to the Common Stock by reason of any stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding Common Stock as a class without the Corporation's receipt of consideration, appropriate adjustments shall be made to (i) the maximum number and/or class of securities issuable under the Plan and (ii) the number and/or class of securities and the exercise price per share in effect under each outstanding option in order to prevent the dilution or enlargement of benefits thereunder. The adjustments determined by the Plan Administrator shall be final, binding and conclusive. In no event shall any such adjustments be made in connection with the conversion of one or more outstanding shares of the Corporation's preferred stock into shares of Common Stock.

⁽¹⁾ Includes the 500,000 share increase approved by the Board on December 8, 1999, subject to approval of the Stockholders.

ARTICLE TWO

OPTION GRANT PROGRAM

I. OPTION TERMS

Each option shall be evidenced by one or more documents in the form approved by the Plan Administrator; provided, however, that each such document shall comply with the terms specified below. Each document evidencing an Incentive Option shall, in addition, be subject to the provisions of the Plan applicable to such options.

A. EXERCISE PRICE.

- - (i) The exercise price per share shall not be less than eighty-five percent (85%) of the Fair Market Value per share of Common Stock on the option grant date.
 - (ii) If the person to whom the option is granted is a 10% Stockholder, then the exercise price per share shall not be less than one hundred ten percent (110%) of the Fair Market Value per share of Common Stock on the option grant date.
- 2. The exercise price shall become immediately due upon exercise of the option and shall, subject to the provisions of Section I of Article Three and the documents evidencing the option, be payable in cash or check made payable to the Corporation. Should the Common Stock be registered under Section 12(g) of the 1934 Act at the time the option is exercised, then the exercise price may also be paid as follows:
 - (i) in shares of Common Stock held for the requisite period necessary to avoid a charge to the Corporation's earnings for financial reporting purposes and valued at Fair Market Value on the Exercise Date, or
 - (ii) to the extent the option is exercised for vested shares, through a special sale and remittance procedure pursuant to which the Optionee shall concurrently provide irrevocable written instructions (a) to a Corporation-designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Corporation, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate exercise price payable for the purchased shares plus all applicable Federal, state and local income and employment taxes required to be withheld by the Corporation by reason of such exercise and (b) to the Corporation to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale.

Except to the extent such sale and remittance procedure is utilized, payment of the exercise price for the purchased shares must be made on the Exercise Date.

- B. EXERCISE AND TERM OF OPTIONS. Each option shall be exercisable at such time or times, during such period and for such number of shares as shall be determined by the Plan Administrator and set forth in the documents evidencing the option. However, no option shall have a term in excess of ten (10) years measured from the option grant date.
- C. EFFECT OF TERMINATION OF SERVICE. The following provisions shall govern the exercise of any options held by the Optionee at the time of cessation of Service or death:
 - (i) Should the Optionee cease to remain in Service for any reason other than Disability, death or Misconduct, then the Optionee shall have a period of three (3) months following the date of such cessation of Service during which to exercise each outstanding option held by such Optionee.
 - (ii) Should such Service terminate by reason of Disability, then the Optionee shall have a period of six (6) months following the date of such cessation of Service during which to exercise each outstanding option held by such Optionee. However, should such Disability be deemed to constitute Permanent Disability, then the period during which each outstanding option held by the Optionee is to remain exercisable shall be extended by an additional six (6) months so that the exercise period shall be the twelve (12)-month period following the date of the Optionee's cessation of Service by reason of such Permanent Disability.
 - (iii) Should the Optionee die while holding one or more outstanding options, then the personal representative of the Optionee's estate or the person or persons to whom the option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution shall have a period of twelve (12) months following the date of the Optionee's death during which to exercise each such option.

 - (v) During the applicable post-Service exercise period, the option may not be exercised in the aggregate for more than the number of vested shares for which the option is exercisable on the date of the Optionee's cessation of Service. Upon the expiration of the applicable exercise period or (if earlier) upon the expiration of the option term, the option shall terminate and cease to be outstanding for any vested shares for which the option has not been exercised. However, the option shall, immediately upon the Optionee's cessation of Service, terminate and cease to be outstanding to the extent it is not exercisable for vested shares on the date of such cessation of Service.
 - (vi) Should the Optionee's Service be terminated for Misconduct, then all outstanding options at the time held by the Optionee shall immediately terminate and cease to be outstanding.

- D. STOCKHOLDER RIGHTS. The holder of an option shall have no stockholder rights with respect to the shares subject to the option until such person shall have exercised the option, paid the exercise price and become a holder of record of the purchased shares.
- E. UNVESTED SHARES. The Plan Administrator shall have the discretion to grant options which are exercisable for unvested shares of Common Stock under the Plan. Should the Optionee cease Service while holding such unvested shares, the Corporation shall have the right to repurchase, at the exercise price paid per share, all or (at the discretion of the Corporation and with the consent of the Optionee) any of those unvested shares. The terms upon which such repurchase right shall be exercisable (including the period and procedure for exercise and the appropriate vesting schedule for the purchased shares) shall be established by the Plan Administrator and set forth in the document evidencing such repurchase right. The Plan Administrator may not impose a vesting schedule upon any option grant or any shares of Common Stock subject to the option which is more restrictive than twenty percent (20%) per year vesting, with the initial vesting to occur one (1) year after the option grant date. However, this minimum vesting requirement shall not be applicable with respect to any option granted to a director, officer or consultant. All of the outstanding repurchase rights under the Plan shall be assignable to the successor corporation in any Corporate Transaction and shall terminate upon the occurrence of such Corporate Transaction to the extent the successor corporation does not accept such assignment.
- F. FIRST REFUSAL RIGHTS. Until such time as the Common Stock is first registered under Section 12(g) of the 1934 Act, the Corporation shall have the right of first refusal with respect to any proposed disposition by the Optionee (or any successor in interest) of any shares of Common Stock issued under the Plan. Such right of first refusal shall be exercisable in accordance with the terms established by the Plan Administrator and set forth in the document evidencing such right.
- G. LIMITED TRANSFERABILITY OF OPTIONS. During the lifetime of the Optionee, the option shall be exercisable only by the Optionee and shall not be assignable or transferable other than by will or by the laws of descent and distribution following the Optionee's death.
- H. WITHHOLDING. The Corporation's obligation to deliver shares of Common Stock upon the exercise of any options granted under the Plan shall be subject to the satisfaction of all applicable Federal, state and local income and employment tax withholding requirements.

II. INCENTIVE OPTIONS

The terms specified below shall be applicable to all Incentive Options. Except as modified by the provisions of this Section II, all the provisions of the Plan shall be applicable to Incentive Options. Options which are specifically designated as Non-Statutory Options shall not be subject to the terms of Section II.

- A. ELIGIBILITY. Incentive Options may only be granted to Employees.
- B. EXERCISE PRICE. The exercise price per share shall not be less than one hundred percent (100%) of the Fair Market Value per share of Common Stock on the option grant date.

- C. DOLLAR LIMITATION. The aggregate Fair Market Value of the shares of Common Stock (determined as of the respective date or dates of grant) for which one or more options granted to any Employee under the Plan (or any other option plan of the Corporation or any Parent or Subsidiary) may for the first time become exercisable as Incentive Options during any one (1) calendar year shall not exceed the sum of One Hundred Thousand Dollars (\$100,000). To the extent the Employee holds two (2) or more such options which become exercisable for the first time in the same calendar year, the foregoing limitation on the exercisability of such options as Incentive Options shall be applied on the basis of the order in which such options are granted.
- D. 10% STOCKHOLDER. If any Employee to whom an Incentive Option is granted is a 10% Stockholder, then the option term shall not exceed five (5) years measured from the option grant date.

III. CORPORATE TRANSACTION

- A. Each outstanding option shall be assumable by the successor corporation (or parent thereof) in any Corporate Transaction and shall, to the extent not so assumed, terminate and cease to be outstanding on the effective date of such Corporate Transaction.
- B. Each option which is assumed in connection with a Corporate Transaction shall be appropriately adjusted, immediately after such Corporate Transaction, to apply to the number and class of securities which would have been issuable to the Optionee in the consummation of such Corporate Transaction, had the option been exercised immediately prior to such Corporate Transaction. Appropriate adjustments shall also be made to (i) the number and class of securities available for issuance under the Plan following the consummation of such Corporate Transaction and (ii) the exercise price payable per share under each outstanding option, provided the aggregate exercise price payable for such securities shall remain the same.
- C. The grant of options under the Plan shall in no way affect the right of the Corporation to adjust, reclassify, reorganize or otherwise change its capital or business structure or to merge, consolidate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

IV. CANCELLATION AND REGRANT OF OPTIONS

The Plan Administrator shall have the authority to effect, at any time and from time to time, with the consent of the affected option holders, the cancellation of any or all outstanding options under the Plan and to grant in substitution therefor new options covering the same or different number of shares of Common Stock but with an exercise price per share based on the Fair Market Value per share of Common Stock on the new option grant date.

ARTICLE Three

MISCELLANEOUS

T. FINANCING

The Plan Administrator may permit any Optionee to pay the option exercise price by delivering a promissory note payable in one or more installments. The terms of any such promissory note (including the interest rate and the terms of repayment) shall be established by the Plan Administrator in its sole discretion. Promissory notes may be authorized with or without security or collateral. In all events, the maximum credit available to the Optionee may not exceed the sum of (i) the aggregate option exercise price payable for the purchased shares (less the par value of such shares) plus (ii) any Federal, state and local income and employment tax liability incurred by the Optionee in connection with the option exercise.

II. ADDITIONAL AUTHORITY

The Plan Administrator shall have the discretion, exercisable either at the time an option is granted or at any time while the option remains outstanding, to (i) extend the period of time for which the option is to remain exercisable following the Optionee's cessation of Service or death from the limited period otherwise in effect for that option to such greater period of time as the Plan Administrator shall deem appropriate, but in no event beyond the expiration of the option term, and (ii) permit the option to be exercised, during the applicable post-Service exercise period, not only with respect to the number of vested shares of Common Stock for which such option is exercisable at the time of the Optionee's cessation of Service but also with respect to one or more additional installments in which the Optionee would have vested had the Optionee continued in Service.

III. EFFECTIVE DATE AND TERM OF THE PLAN

A. The Plan became effective when adopted by the Board on June 30, 1995 and was approved by the Corporation's stockholders on June 30, 1995. The Plan was restated and amended on February 10, 1998 to increase the number of shares issuable thereunder (the "1998 Restatement"). The 1998 Restatement was adopted by the Board of February 10, 1998 and approved by the Corporation's stockholders on July 13, 1998. The Plan was amended on December 8, 1999 to increase the number of shares issuable thereunder by an additional 500,000 shares of Common Stock (the "1999 Amendment"), but no option granted under the Plan on the basis of any such increase shall become exercisable unless and until such increase shall have been approved by the Corporation's stockholders. If such stockholder approval is not obtained within twelve (12) months after the date of the adoption of the increase, then all options previously granted under the Plan on the basis of such increase shall terminate and cease to be outstanding, and no further options shall be granted. Subject to such limitation, the Plan Administrator may grant options under the Plan at any time after the effective date of the Plan and before the date fixed herein for termination of the Plan.

B. The Plan shall terminate upon the earliest of (i) June 29, 2005, (ii) the date on which all shares available for issuance under the Plan shall have been issued or (iii) the

termination of all outstanding options in connection with a Corporate Transaction. Upon such Plan termination, all options and unvested stock issuances outstanding under the Plan shall continue to have full force and effect in accordance with the provisions of the documents evidencing such options or issuances.

IV. AMENDMENT OF THE PLAN

A. The Board shall have complete and exclusive power and authority to amend or modify the Plan in any or all respects. However, no such amendment or modification shall, without the consent of the Optionees, adversely affect their rights and obligations under their outstanding options. In addition, the Board shall not, without the approval of the Corporation's stockholders, (i) increase the maximum number of shares issuable under the Plan, except for permissible adjustments in the event of certain changes in the Corporation's capitalization, (ii) materially modify the eligibility requirements for Plan participation or (iii) materially increase the benefits accruing to Plan participants.

B. Options may be granted under the Plan to purchase shares of Common Stock in excess of the number of shares then available for issuance under the Plan, provided any such options actually granted may not be exercised until there is obtained stockholder approval of an amendment sufficiently increasing the number of shares of Common Stock available for issuance under the Plan. If such stockholder approval is not obtained within twelve (12) months after the date the excess grants are first made, then any options granted on the basis of such excess shares shall terminate and cease to be outstanding.

V. USE OF PROCEEDS

VI. REGULATORY APPROVALS

The implementation of the Plan, the granting of any options under the Plan and the issuance of any shares of Common Stock upon the exercise of any option shall be subject to the Corporation's procurement of all approvals and permits required by regulatory authorities having jurisdiction over the Plan, the options granted under it and the shares of Common Stock issued pursuant to it.

VII. NO EMPLOYMENT OR SERVICE RIGHTS

Nothing in the Plan shall confer upon the Optionee any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Corporation (or any Parent or Subsidiary employing or retaining Optionee) or of the Optionee, which rights are hereby expressly reserved by each, to terminate the Optionee's Service at any time for any reason, with or without cause.

VIII. FINANCIAL REPORTS

The Corporation shall deliver a balance sheet and an income statement at least annually to each individual holding an outstanding option under the Plan, unless such individual is a key Employee whose duties in connection with the Corporation (or any Parent or Subsidiary) assure such individual access to equivalent information.

APPENDIX

The following definitions shall be in effect under the Plan:

- A. BOARD shall mean the Corporation's Board of Directors.
- B. CODE shall mean the Internal Revenue Code of 1986, as amended.
- C. COMMITTEE shall mean a committee of two (2) or more Board members appointed by the Board to exercise one or more administrative functions under the Plan.
 - D. COMMON STOCK shall mean the Corporation's common stock.
- E. CORPORATE TRANSACTION shall mean either of the following stockholder-approved transactions to which the Corporation is a party:
 - (i) a merger or consolidation in which securities possessing more than fifty percent (50%) of the total combined voting power of the Corporation's outstanding securities are transferred to a person or persons different from the persons holding those securities immediately prior to such transaction, or
 - (ii) the sale, transfer or other disposition of all or substantially all of the Corporation's assets in complete liquidation or dissolution of the Corporation.
- F. CORPORATION shall mean Sangamo BioSciences, Inc., a Delaware corporation.
- G. DISABILITY shall mean the inability of the Optionee to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment and shall be determined by the Plan Administrator on the basis of such medical evidence as the Plan Administrator deems warranted under the circumstances. Disability shall be deemed to constitute PERMANENT DISABILITY in the event that such Disability is expected to result in death or has lasted or can be expected to last for a continuous period of twelve (12) months or more.
- H. EMPLOYEE shall mean an individual who is in the employ of the Corporation (or any Parent or Subsidiary), subject to the control and direction of the employer entity as to both the work to be performed and the manner and method of performance.
- I. EXERCISE DATE shall mean the date on which the Corporation shall have received written notice of the option exercise.
- $\,$ J. FAIR MARKET VALUE per share of Common Stock on any relevant date shall be determined in accordance with the following provisions:
 - (i) If the Common Stock is at the time traded on the Nasdaq National Market, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date in question, as such price is reported by the National

Association of Securities Dealers on the Nasdaq National Market or any successor system. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.

- (ii) If the Common Stock is at the time listed on any Stock Exchange, then the Fair Market Value shall be the closing selling price per share of Common Stock on the date in question on the Stock Exchange determined by the Plan Administrator to be the primary market for the Common Stock, as such price is officially quoted in the composite tape of transactions on such exchange. If there is no closing selling price for the Common Stock on the date in question, then the Fair Market Value shall be the closing selling price on the last preceding date for which such quotation exists.
- (iii) If the Common Stock is at the time neither listed on any Stock Exchange nor traded on the Nasdaq National Market, then the Fair Market Value shall be determined by the Plan Administrator after taking into account such factors as the Plan Administrator shall deem appropriate.
- K. INCENTIVE OPTION shall mean an option which satisfies the requirements of Code Section 422.
- L. MISCONDUCT shall mean the commission of any act of fraud, embezzlement or dishonesty by the Optionee, any unauthorized use or disclosure by Optionee of confidential information or trade secrets of the Corporation (or any Parent or Subsidiary), or any other intentional misconduct by Optionee adversely affecting the business or affairs of the Corporation (or any Parent or Subsidiary) in a material manner. The foregoing definition shall not be deemed to be inclusive of all the acts or omissions which the Corporation (or any Parent or Subsidiary) may consider as grounds for the dismissal or discharge of Optionee or any other person in the Service of the Corporation (or any Parent or Subsidiary).
 - M. 1934 ACT shall mean the Securities Exchange Act of 1934, as amended.
- N. NON-STATUTORY OPTION shall mean an option not intended to satisfy the requirements of Code Section 422.
- 0. OPTIONEE shall mean any person to whom an option is granted under the $\ensuremath{\mathsf{Plan}}\xspace.$
- P. PARENT shall mean any corporation (other than the Corporation) in an unbroken chain of corporations ending with the Corporation, provided each corporation in the unbroken chain (other than the Corporation) owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.
- $\,$ Q. PLAN shall mean the Corporation's 1995 Stock Option Plan, as set forth in this document.
- R. PLAN ADMINISTRATOR shall mean either the Board or the Committee, to the extent the Committee is at the time responsible for the administration of the Plan.

- S. SERVICE shall mean the provision of services to the Corporation (or any Parent or Subsidiary) by a person in the capacity of an Employee, a non-employee member of the board of directors or a consultant, except to the extent otherwise specifically provided in the documents evidencing the option grant.
- T. STOCK EXCHANGE shall mean either the American Stock Exchange or the New York Stock Exchange.
- U. SUBSIDIARY shall mean any corporation (other than the Corporation) in an unbroken chain of corporations beginning with the Corporation, provided each corporation (other than the last corporation) in the unbroken chain owns, at the time of the determination, stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.
- V. 10% STOCKHOLDER shall mean the owner of stock (as determined under Code Section 424(d)) possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Corporation (or any Parent or Subsidiary).

RESEARCH FUNDING AGREEMENT

This Agreement is effective as of January 11, 2000, by and between Baxter Healthcare Corporation, a Delaware corporation, acting through its CardioVascular Group, having offices at 17221 Red Hill Avenue, Irvine, California 92614 (hereinafter referred to as "BAXTER") and Sangamo Biosciences, Inc., a Delaware corporation, having an office at Point Richmond Tech Center, 501 Canal Blvd., Suite A100, Richmond, California 94840 (hereinafter referred to as "SANGAMO").

RECITALS

WHEREAS, BAXTER and SANGAMO have entered into a License Agreement, contemporaneously herewith (the "License Agreement"); and

WHEREAS, SANGAMO wishes to undertake research relating to the further development of its proprietary zinc finger binding protein and gene therapy technology and BAXTER wishes to fund such research to facilitate SANGAMO's ability to license such technology to BAXTER under the License Agreement;

NOW, THEREFORE, the parties hereto agree as follows:

ARTICLE 1. Definitions

All terms used in this agreement (other than names of the parties and Article headings) which are set forth in upper case letters, but not defined herein, shall have the respective meanings set forth in the License Agreement.

ARTICLE 2. Research Activity

- 2.1 Research Program. The research program which is contemplated by this Agreement is set forth in the research plan (the "Research Plan") attached as Exhibit A. The Research Plan sets forth the research tasks and objectives to be performed by SANGAMO. SANGAMO agrees to use its commercially reasonable efforts consistent with international practice in the biotechnology industry, SANGAMO's sound business judgment, and research, regulatory and market conditions, to conduct the SPONSORED RESEARCH in accordance with the Research Plan in consideration for the funding provided in Section 2.2.
- 2.2 Funding. BAXTER agrees to fund the SPONSORED RESEARCH as follows: (i) One Million Dollars (\$1,000,000) on or before January 21, 2000; and (ii) One Million Dollars (\$1,000,000) on the earlier of April 1, 2001, or the date on which SANGAMO has fulfilled its obligations set forth in Clause 5.1(b) of the License Agreement. If the parties mutually agree to extend the term of this Agreement for additional research projects, the parties shall amend this

Agreement to establish a mutually acceptable research plan, budget and payment schedule for such extension; provided, however, that the budget and payment schedule therefor shall be calculated on the basis of the reasonably anticipated fully burdened cost to SANGAMO to perform the additional research projects under the new research plan at rates not to exceed SANGAMO's then standard FTE rate for performing similar research programs.

- 2.3 Evaluation of Research Plan. Within thirty (30) days after the end of each calendar quarter during the term of the SPONSORED RESEARCH, SANGAMO shall submit to BAXTER a written report describing any INVENTIONS conceived or reduced to practice, and the progress of the SPONSORED RESEARCH, including without limitation, a written report and analysis of all experimentation conducted pursuant to performing the SPONSORED RESEARCH during such calendar quarter. If the STEERING COMMITTEE determines pursuant to the LICENSE AGREEMENT that modifications of the existing Research Plan are required, the Research Plan will be amended as mutually agreed to in writing by the parties.
- 2.4 Exclusivity of Research. SANGAMO agrees that during the term of the License Agreement it will not perform any research in the FIELD OF RESEARCH similar to the SPONSORED RESEARCH for any other entity, nor assist any other entity, in pursuing any work in the FIELD OF RESEARCH, without the written approval of BAXTER.
- 2.5 Personnel Agreements. SANGAMO represents and warrants that it has agreements with any individual employed to perform the SPONSORED RESEARCH under this Agreement sufficient to procure and implement the rights and restrictions granted and imposed by this Research Funding Agreement.
- 2.6 Access to Records. SANGAMO agrees to maintain and preserve the documents, laboratory notebooks, graphs and charts and other original records and data that result from the SPONSORED RESEARCH, and agrees to provide BAXTER access to such records upon reasonable notice during normal business hours during the term of this Agreement and the License Agreement solely for the purpose of exercising its rights under the LICENSE AGREEMENT.
- 2.7 Compliance with Laws. SANGAMO agrees to comply in all material respects with all applicable national and local laws of the jurisdiction wherein it conducts business, including compliance at all times with applicable Good Laboratory Practice guidelines as established by the FDA. SANGAMO further agrees that any compensation it receives under this Agreement shall not be disbursed for any purpose which is unlawful or unethical under those laws.

ARTICLE 3. Property Rights

3.1 Property Rights. Any and all INVENTIONS shall be owned by or otherwise assigned to SANGAMO and licensed back to BAXTER pursuant to the terms of the License Agreement. BAXTER agrees to assign to SANGAMO and hereby assigns any and all of its rights to BAXTER INVENTIONS and to JOINT INVENTIONS, including rights under the patent, copyright and other intellectual property laws of the United States or any other country.

3.2 Disclosure of INVENTIONS. SANGAMO and BAXTER shall disclose promptly to each other such INVENTIONS within thirty (30) days of conceiving and/or reducing to practice such INVENTIONS.

ARTICLE 4. Term and Termination

- 4.1 The term of this Agreement shall be three (3) years commencing on its effective date and shall expire automatically unless sooner terminated in accordance with this Article 4.
- 4.2 In addition to any rights it may have hereunder, a party may terminate this Agreement upon (30) days prior written notice following the occurrence of any of the following:
- the bankruptcy, insolvency, dissolution or winding up of the other party (other than dissolution or winding up for the purposes of a solvent reconstruction or amalgamation); or
- (b) the failure of the other party to cure the breach of any provision of this Agreement for the payment of funds within thirty (30) days after written notice thereof by the non-breaching party; or
- (c) the failure of the other party to cure the breach of any material provision of this Agreement, except nonpayment of funds, within sixty (60) days after written notice thereof by the non-breaching party.
- 4.3 Performance under this Agreement may be terminated by BAXTER upon one hundred eighty (180) days prior written notice to SANGAMO. If circumstances beyond SANGAMO's control preclude continuation of the SPONSORED RESEARCH, SANGAMO may terminate this Agreement upon one hundred eighty (180) days prior written notice to BAXTER, provided that SANGAMO explains its reasons for terminating.
- 4.4 This Agreement automatically shall terminate upon termination of the LICENSE AGREEMENT.
- 4.5 Upon termination of this Agreement pursuant to Section 4.2, SANGAMO agrees that BAXTER's only obligation is to reimburse SANGAMO for all costs and non-cancelable commitments incurred to date in the performance of the SPONSORED RESEARCH, such reimbursements not to exceed the total amount specified in this Agreement for the SPONSORED RESEARCH. SANGAMO acknowledges and agrees that it will have no recourse against BAXTER for such termination beyond the described reimbursements. Furthermore, SANGAMO agrees to be bound by the terms of Articles 3, 5, 6 and 7 in the event of the termination of this Agreement.

ARTICLE 5. Confidentiality

5.1 This Article 5 applies, except as otherwise provided in this Article 5, during the term of this Agreement, and thereafter for a period of five (5) years. Both SANGAMO and BAXTER shall maintain in confidence, not disclose to any Third Party and use only for the purposes of this Agreement information and data which is not generally known and which (a) results from the use or development of the Technology and Inventions pursuant to this Agreement or the License

- Agreement, or (b) is supplied by SANGAMO or BAXTER after April 13, 1999 in connection with this Agreement or the License Agreement (or discussions leading up to them) and is marked, identified or otherwise acknowledged to be confidential ("Information").
- To the extent it is reasonably necessary to fulfill their obligations or exercise their rights pursuant to this Agreement, BAXTER and SANGAMO may disclose Information they are otherwise obligated pursuant to this Article 5 not to disclose, to its Affiliates, its bona fide proposed sublicensees and its permitted sublicensees, and shall limit disclosure of such Information to its and their respective officers, directors, employees and consultants on a need-to-know basis, in each case provided that such persons and entities agree to keep the Information confidential for the same time periods and to the same extent as the disclosing party is required to keep the Information confidential. BAXTER and SANGAMO may also disclose such information to government or other regulatory authorities to the extent that such disclosure is required to be disclosed to obtain a patent or authorization to conduct a clinical trial or to commercially market any product arising out of the Technology or is otherwise required by applicable law, regulation or court order, in each case provided that the disclosing party shall provide written notice to the other party and sufficient opportunity to object to such disclosure or to request confidential treatment thereof. The obligation not to disclose Information shall not apply to any part of such Information that:
- (a) is or becomes patented, published or otherwise part of the public domain other than by acts of the person obligated not to disclose such Information in contravention of this Agreement;
- (b) is disclosed to the receiving party by a Third Party, provided such Information was not obtained from such Third Party directly or indirectly from SANGAMO or BAXTER (as the case may be);
- (c) prior to disclosure pursuant to this Agreement, was already in the possession of the receiving party, provided such Information was not obtained directly or indirectly from SANGAMO or BAXTER (as the case may be);
- (d) is developed independently of the Information obtained from SANGAMO or BAXTER (as the case may be), by persons without access to or use of the Information, as demonstrated by written evidence; or
- (e) $\,$ is disclosed by either SANGAMO or BAXTER with the prior written consent of the other.
- 5.3 SANGAMO and BAXTER agree to not disclose the existence of or the financial terms or conditions of this Agreement or the License Agreement to any Third Party without the prior written consent of the other, except as required by applicable law or regulatory authority.
- 5.4 Notwithstanding the provisions of Article 5, neither BAXTER nor SANGAMO shall release any media release or other oral or written announcement for dissemination to the media concerning or arising from this Agreement or the License Agreement without the written consent of the other party.

ARTICLE 6. Limitation of Liability and Indemnity

- 6.1 SANGAMO agrees to indemnify, hold harmless and defend BAXTER, its directors, trustees, officers, employees and agents against any and all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) incurred as a result of any Third Party claims, suits, demands, causes of action or other proceedings to the extent arising out of SANGAMO's performance of the Sponsored Research, except to the extent arising from the negligence or willful misconduct of BAXTER, or its directors, officers, employees, and agents.
- 6.2 BAXTER agrees to indemnify, hold harmless and defend SANGAMO, its directors, trustees, officers, employees and agents, against any and all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) incurred as a result of any Third Party claims, suits, demands, causes of action or other proceedings to the extent arising out of the negligence or willful misconduct of BAXTER, or its directors, officers, employees and agents.
- 6.3 This Article 6 survives the termination of this Agreement.

ARTICLE 7. Insurance

- 7.1 SANGAMO shall maintain insurance, including product liability insurance, with respect to its performance of the SPONSORED RESEARCH in such amount as is customarily maintained in accordance with good practice for the biopharmaceutical industry. SANGAMO shall maintain such insurance for so long as it continues to conduct the SPONSORED RESEARCH, and thereafter for so long as SANGAMO maintains insurance for itself covering such activities. The liability insurance requirement of this Section may be satisfied through self-insurance with reserves consistent with industry practices.
- 7.2 SANGAMO shall, upon the request of BAXTER:
 - (a) produce evidence of the currency of such insurance; and
- (b) note the interest of $\ensuremath{\mathsf{BAXTER}}$ on the policy in respect of such insurance.

ARTICLE 8. Miscellaneous

- 8.1 Any notice, demand, consent or other communication ("Notice") given or made under this Agreement:
- (a) must be in writing and signed by a person duly authorized by the sender;
 - (b) must either be delivered to the intended recipient as follows:
 - (i) to Sangamo Biosciences, Inc.:

Point Richmond Tech Center 501 Canal Blvd., Suite A 100 Richmond, California 94840 Attention: President Fax No.: (510) 236-8951

(ii) to Baxter Healthcare Corporation:

17221 Red Hill Avenue Irvine, California, 92614-5686 Attention: Group Vice President CardioVascular Group

Fax No.: (949) 250-6850

- (c) will be effective upon receipt by the intended recipient.
- 8.2 This Agreement and the License Agreement contain the entire agreement between the parties with respect to its subject matter and supersede all prior agreements and understandings between the parties in connection with them.
- 8.3 No amendment or variation of this Agreement is valid or binding on a party unless made in writing executed by all parties.
- 8.4 Except as provided in this Section 8.4, neither BAXTER nor SANGAMO may assign or otherwise transfer this Agreement or any of its rights or obligations herein without the prior written consent of the other party, which consent shall not be unreasonably withheld.
- (a) Either party may assign this Agreement together with the License Agreement, the Convertible Debenture Purchase Agreement and the Convertible Debenture, without the prior written consent of the other party in connection with the sale or transfer of all or substantially all of its stock or assets to which this Agreement relates, by merger, divestiture, spin-off or similar transaction, provided that such assignee undertakes in writing to be bound by all the terms and conditions in this Agreement and the other party is notified within thirty (30) days of such assignment taking place; and
- (b) SANGAMO and BAXTER may assign this Agreement together with the License Agreement, the Convertible Debenture Purchase Agreement and the Convertible Debenture to an Affiliate provided that such Affiliate undertakes to be bound by the terms and conditions of this Agreement.
- 8.5 No failure to exercise nor any delay in exercising an right, power or remedy by a party operates as a continuing waiver. A single or partial exercise of any right, power or remedy does not preclude any other or further exercise of that or any other right, power or remedy. A waiver is not valid or binding on the party granting the waiver unless made in writing.
- 8.6 Each party agrees to do all things and execute all deeds, instruments, transfers or other documents as may be necessary or desirable to give full effect to the provisions of this Agreement and the transactions contemplated by
- 8.7 This Agreement does not constitute an employer/employee relationship, partnership of any kind, an association or trust between the parties, each party being individually responsible only for its obligations as set out in this Agreement and in addition the parties agree that their

relationship is one of independent contractors. BAXTER is not authorized or empowered to act as agent on behalf of SANGAMO and BAXTER shall not on behalf of SANGAMO enter into any contract, warranty or representation as to any matter. SANGAMO shall not be bound by the acts or conduct of BAXTER. SANGAMO is not authorized or empowered to act as agent on behalf of BAXTER and SANGAMO shall not enter any contract, warranty or representations as to any matter on behalf of BAXTER. BAXTER shall not be bound by the acts or conduct of SANGAMO.

- 8.8 This Agreement is governed by the laws of the State of California, USA.
- 8.9 This Agreement may be executed in any number of counterparts. All counterparts together will be taken to constitute one instrument.

8.10 In the event of any delay in performance by either party of any of its obligations or liabilities pursuant to this Agreement to the extent due to any cause arising from or attributable to acts, events, non-happenings, omissions, accidents or acts of God beyond the reasonable control of the party to perform (including but not limited to strikes, lock-outs, shortage of labor, civil commotion, riot, war, threat of or preparation for war, breaking off of diplomatic relations, fire, explosion, sabotage, storm, flood, earthquake, fog, subsidence, pestilence, epidemics, computer system or machinery breakdown, failure of plant, collapse of structures, voluntary or mandatory compliance with any direction, request or order of any person having or appearing to have authority whether for defense or other governmental or national purposes, or any requisition for materials or services apparently or stated to be used for the purposes of defense, inability to obtain suitable raw material, equipment, fuel, power, components or transportation), the party so delayed or prevented will be under no liability for loss or injury suffered by the other party and any such delay or failure to perform will not constitute a breach of this Agreement to the extent due to such cause, provided that the party so delayed uses commercially reasonable efforts to remedy the effect of such cause.

IN WITNESS THEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives as of the day and year first above

	HEALTHCARE CORPORATION ASCULAR GROUP	SANGAMO BIOSCIENCES, INC.			
By: /s/	J. H. Kehl, Jr.	By: /s/ Edward O. Lanphier			
Title: -	VP Business Development Cardiovascular Group	Title: President & CEO			
Date:	1/10/2000	Date: 1/7/2000			

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 , 2000, in Amendment No. 2 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.

ERNST & YOUNG LLP

Palo Alto, California

March , 2000

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The foregoing consent is in the form that will be signed upon completion of the stock split described in Note 7 to the financial statements.

/s/ ERNST & YOUNG LLP

Palo Alto, California

March 14, 2000

