

SANGAMO BIOSCIENCES INC  
Form 10-K405  
March 29, 2002

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## SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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### FORM 10-K

ý **Annual Report Pursuant to Section 13 or 15 (d) of the Securities Exchange Act of 1934**  
**For the Fiscal Year Ended December 31, 2001**

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### 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  
Identification Number)  
**501 Canal Boulevard, Suite A100**  
**Richmond, CA 94804**  
**(510) 970-6000**

**68-0359556**  
(I.R.S. Employer  
Classification Code Number)

(Address, including zip code, and telephone number, including area code,  
of the registrant's principal executive offices)

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Securities registered pursuant to Section 12(b) of the act: **None**

Securities registered pursuant to Section 12(g) of the act:

**Common stock \$.01 par value**  
(Title of Class)

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ý

The aggregate market value of the voting stock held by non-affiliates of the Registrant of the Common Stock listed on the NASDAQ Stock Market was \$142,773,135 based on a closing stock price of \$9.24 per share on March 15, 2002.

The total number of shares outstanding of the Registrant's Common Stock was 24,489,140 as of March 15, 2002.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of Registrant's Definitive Proxy Statement filed with the Commission pursuant to Regulation 14A in connection with the Annual Meeting are incorporated herein by reference into Part III of this Report.

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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

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

our strategy;

sufficiency of our cash resources;

revenues from existing and new collaborations;

product development;

our research and development and other expenses;

our operational and legal risks; and

our plans, objectives, expectations and intentions and any other statements that are not historical facts.

Various terms and expressions similar to them are intended to identify these cautionary statements. These terms include: "anticipates," "believes," "continues," "could," "estimates," "expects," "intends," "may," "plans," "seeks," "should" and "will." Actual results may differ materially from those expressed or implied in those statements. Factors that could cause these differences include, but are not limited to, those discussed under "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Sangamo undertakes no obligation to publicly release any revisions to forward-looking statements to reflect events or circumstances arising after the date of this report. Readers are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K.

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## BUSINESS

### Overview

Sangamo is the worldwide leader in the research, development and commercialization of engineered transcription factors for the regulation of gene expression. We are developing a proprietary technology platform based on the engineering of a naturally occurring class of transcription factors referred to as zinc finger DNA-binding proteins, or ZFPs. We believe that ZFP transcription factors, or ZFP TFs, represent a fundamentally enabling technology capable of activating or repressing a targeted gene that may be widely applicable to pharmaceutical discovery, development of human therapeutics, plant agriculture, industrial biotechnology and clinical diagnostics. We intend to commercialize our technology broadly over its many applications.

### Background

*Genes and Gene Expression.* Deoxyribonucleic acid, or DNA, is present in all 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 many of the molecular targets for pharmaceutical drug discovery and therapeutic intervention.

The human body is composed of specialized cells that perform different functions and are thus organized into tissues and organs. All cells in an individual's body contain the same set of genes. However, only a fraction of these genes are turned on, or expressed, in an individual human cell at any given time. Genes are turned on or turned off (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 aberrant expression of certain genes can lead to disease.

*Transcription Factors.* Regulation of gene expression is controlled by proteins, called transcription factors, which bind to DNA. 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 higher organisms, transcription factors typically consist of two principal 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 at that location is activated or repressed.

*Chromatin Architecture.* In order to efficiently organize the massive amounts of genetic information present in every cell, DNA is packaged within a structure known as chromatin, which renders certain areas of DNA less accessible than others. One way that cells are able to control chromatin structure, and make certain DNA sequences accessible, is through the action of specific enzymes that target regulatory regions within chromatin. It is through the action of these enzymes that the chromatin structure within the nucleus is altered, and DNA is made more or less accessible to transcriptional machinery. Our process for the identification of ZFP TFs that regulate a target gene frequently involves examining the chromatin structure of the gene to identify regions that are accessible for binding to ZFP TFs.

*The Genomics Revolution.* Genomics refers to the sequencing and functional analysis of the complete set of genes of diverse organisms throughout the animal, plant, and microbial world. Enormous scientific and financial resources have been dedicated to the sequencing of all human genes, including the Human Genome Project and other publicly and privately funded genomics initiatives. The sequence of a large percentage of the human genome was published in 2001.

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Over the past decade, genomics research has produced a significant quantity of information on the location, sequence and structure of thousands of genes. The number of genes in the human genome is currently believed to be approximately 30,000 to 40,000 unique genes. A challenge facing the pharmaceutical and other life science industries lies in deriving medically and commercially valuable knowledge about the function of these genes from this large accumulation of new genomic sequence information.

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

accelerate the identification of drug targets from thousands of newly discovered genes whose functions are unknown or poorly understood;

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 may have therapeutic activity, known as compound screening; and

discover and develop new therapeutics that can control disease through the regulation of genes.

The genomics revolution is also providing the sequences of plant genomes. Likewise, this poses a similar set of challenges and opportunities to agricultural biotechnology researchers, including identification of agriculturally important genes, the assessment of which genes may provide commercially important traits, and the development of improved agrochemicals and crops. In yet another application of genomics research, bacteria, yeast and plants may be engineered and used for the biological production of industrial chemicals.

Our ZFP TF technology, which enables the design of transcription factors to regulate genes, could have significant commercial utility in each of the applications listed above.

### **Sangamo's Technology Platform**

The Sangamo technology platform combines our ability to engineer ZFP TFs with our knowledge of the chromatin structure of individual target genes. ZFP TFs 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 TFs is modeled on the structure of naturally occurring transcription factors in higher organisms.

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

The ZFP DNA recognition domain is coupled to a functional domain, creating a ZFP TF capable of controlling or regulating the target gene in a desired manner. For instance, an activation domain causes a target gene to be turned on. Alternatively, a repression domain causes the gene to be turned off. It is also possible to use a ZFP TF in a way that temporarily activates or represses a gene. This conditional regulation of a gene allows the effects of gene expression to be controlled in a reversible fashion.

An important variable influencing the expression of a specific gene in an individual cell is the surrounding chromosomal environment. Though every gene exists within every cell in the human body, only a fraction of our genes are activated in any given cell. To manage this

genetic information efficiently, nature has evolved a sophisticated system that facilitates access to specific genes. This system relies on a DNA-protein complex called chromatin to efficiently package the genetic information that exists within each cell, thereby making certain genes in certain cells more readily accessible to transcription factors. By evaluating the chromatin structure of a target gene, Sangamo scientists have been able to more effectively access and regulate specific genes. Complementing this understanding of chromosomal architecture is a growing appreciation of the role that regulatory DNA sequences play in gene regulation. Regulatory DNA determines when and how a gene is regulated. By applying our knowledge of this specialized regulatory machinery, we believe we can more efficiently and predictably control gene function.

In order to regulate a gene, the ZFP TF must be delivered to a cell, typically in the form of a gene encoding the ZFP TF. We have licensed gene transfer technology from Targeted Genetics, Inc. for use with our ZFP TFs in pharmaceutical discovery. We are evaluating this gene transfer technology and other technologies for the delivery of ZFP TFs into cells for *in vitro* and *in vivo* applications.

To date, we have generated thousands of ZFPs and have tested their affinity, or tightness of binding, to their DNA target, as well as their specificity, or preference, for their intended DNA target. We have developed standardized methods for the design, selection and assembly of ZFPs capable of binding to a wide spectrum of DNA sequences. We have linked these ZFPs to functional domains to create ZFP TFs and have demonstrated the ability of these ZFP TFs to regulate several hundred genes many of which may be commercially important. We have also shown that engineered ZFPs can detect single nucleotide polymorphisms, or SNPs, in medically important genes, and have demonstrated that our methods of manipulating chromatin structure can reveal medically important changes in regulatory DNA.

### **The Sangamo Advantage**

We believe that the features of our ZFP TF technology platform will result in certain technical advantages as compared to other technologies. Among the advantages of our ZFP TF-based approach to gene regulation are:

ZFPs normally and naturally regulate genes in all higher organisms;

ZFPs can be designed to recognize unique DNA sequences;

ZFP TFs can activate or repress genes, enhancing their versatility;

ZFP TFs can be used to regulate the genes of humans, animals, plants, microbes and viruses; and

ZFP TFs can themselves be regulated, allowing conditional and reversible regulation of a gene.

We believe that the technical advantages of ZFP TFs create leverage across multiple applications, products, markets and commercial partners. While there are multiple market opportunities for our technology, we are concentrating our internal resources on human therapeutics and pharmaceutical discovery research. While we also intend to leverage our technology in the areas of plant agriculture, diagnostics and industrial biotechnology, we plan to pursue these applications in conjunction with corporate partners who have an established commercial focus in those areas.

#### *Human Therapeutics*

**ZFP-Therapeutics** . ZFP TFs have the potential to be developed as pharmaceutical products to treat a broad spectrum of diseases through the regulation of disease-related genes in patients.

**Drug Screening and Antibody Development.** The targeted regulation of genes with ZFP TFs may be an effective approach to engineering proprietary cell lines for screening and identification of new small molecule drug candidates and for the generation of human monoclonal antibodies.

**Manufacturing of Protein Pharmaceuticals.** ZFP TF-engineered cell lines can be developed to enhance production yields of protein pharmaceuticals and monoclonal antibodies.

*Pharmaceutical Discovery Research*

**Validation of Gene Targets.** ZFP TFs can be engineered to target a specific gene which is important to researchers trying to confirm the validity of gene targets in genomics-based drug discovery.

**Discovery of New Genes and Targets.** ZFP TFs can be used to change patterns of gene expression in cells to determine the consequences associated with these changes, and to thereby discover gene function and identify new targets for drug discovery.

*Agricultural and Industrial Biotechnology*

**Agricultural Biotechnology.** ZFP TFs can be used to regulate genes in plants, leading to potential applications in the identification of plant genes, agrochemical discovery, and the development of new crops with enhanced nutritional properties.

**Industrial Biotechnology.** ZFP TFs may be used to regulate genes in yeast, other microorganisms and plants which may permit the expanded use of engineered organisms for the manufacture of industrial chemicals.

*Clinical Diagnostics*

**Regulatory DNA.** Our ability to identify regulatory DNA, and changes in regulatory DNA associated with diseases, may provide the basis for novel approaches to genome-based clinical diagnosis.

**SNP Detection.** The specificity of ZFPs permits the detection of single base pair differences 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.

**Commercial Applications**

We are actively pursuing commercial applications of our ZFP TF technology in human therapeutics, pharmaceutical discovery and plant agriculture, and may, in the future, pursue applications in industrial biotechnology and clinical diagnostics.

**Sangamo's Business Platform**

*Human Therapeutics*

We believe our ZFP TF technology has applicability in the treatment of human diseases both through the development of ZFP TF-based therapeutics and through the use of our technology to identify new small molecule drugs and human monoclonal antibodies. In addition, we are applying our platform to the development of methods to enhance the production yield of protein pharmaceuticals.

*ZFP-Therapeutics*

The promise of genome-based drug discovery includes expansion of the supply of new drug targets, some of which are not amenable to current drug development approaches. ZFP TFs may offer a highly specific approach to regulation of disease-related genes. Due to alternative gene splicing, human genes make many more and different proteins per gene than lower organisms. Because our ZFP TFs act directly on an endogenous gene, they potentially allow us to control this important variable. In addition, the regulatory patterns governing human genes are more complex than those for lower organisms. Understanding this regulatory DNA is potentially important, and Sangamo has developed

methods to analyze and utilize the regulatory genome. We are developing ZFP-Therapeutics for the treatment of human diseases including cardiovascular diseases and cancer.

*Cardiovascular Disease.* Cardiovascular disease is the leading cause of death in the United States with nearly one million deaths annually. Approximately 700,000 Americans undergo angioplasty (a procedure designed to open 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. We have developed ZFP TFs designed to activate the expression of angiogenic factors called VEGFs for this purpose.

We believe an advantage of the ZFP-Therapeutic approach is the ability to activate therapeutically relevant endogenous genes with their natural variants. If successful, this may provide a more effective biological stimulation of angiogenesis compared to other approaches in which only a single form of VEGF is administered. This is a critical difference as VEGF, in its natural state, has multiple splice variants that are involved in the normal physiologic response.

To date we have seen initial preclinical results demonstrating that our ZFP TFs can induce the growth of blood vessels in rodent models. Other studies further demonstrated that ZFP TFs stimulated the production of all the major VEGF splice variants in the same proportion normally observed when tissues are oxygen-deprived. These results were presented at the annual meeting of the American Society of Gene Therapy in May 2001 by Frank Giordano, M.D., assistant professor of internal medicine and cardiology at Yale University School of Medicine, who directed many of these experiments.

We have a collaborative agreement with Edwards Lifesciences Corporation for the exclusive worldwide development of ZFP TFs for the activation of VEGF and VEGF receptors in cardiovascular and peripheral vascular disease. We are responsible for advancing product candidates into preclinical animal testing. Edwards will be responsible for preclinical development, regulatory affairs, clinical development and the sales and marketing of ZFP-Therapeutic products covered under the agreement. In October 2001, we received a \$1.4 million milestone payment from Edwards following the delivery of a lead ZFP TF VEGF product candidate. We have retained rights to use our technology for other applications in VEGF activation and repression, including wound healing, ophthalmic indications and cancer.

*Cancer.* Through the mapping of the human genome, an increasing number of genes are being identified that appear to be important to the development and spread of many forms of cancer. We believe our ZFP TF technology has potential applications in cancer therapy, both in regulating endogenous genes and in activating the body's natural mechanisms for fighting disease.

Through a strategic alliance with Onyx Pharmaceuticals, Inc., we are jointly developing novel cancer therapeutics using our ZFP TFs and Onyx's selectively replicating adenovirus technology, known as Therapeutic Viruses. Onyx is testing Therapeutic Viruses capable of delivering a therapeutic payload,

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such as an engineered ZFP TF, into cells. Under this agreement, Onyx's Therapeutic Virus will be engineered to deliver a ZFP TF whose protein product has been shown to augment anti-tumor immune responses, thereby creating an Armed Therapeutic Virus that may treat cancer both at the tumor site and systemically. When product candidates meet certain mutually determined criteria, the companies will equally share research and clinical development costs and jointly commercialize products resulting from the alliance.

*Commercialization of ZFP-Therapeutics .* We plan to develop and commercialize ZFP-Therapeutics in partnership with pharmaceutical and biotechnology companies. For certain ZFP-Therapeutics we intend to negotiate partnerships with terms that will provide partners with exclusive rights to the regulation of specific genes for certain clinical indications and geographic areas covered under the agreement. For other ZFP-Therapeutics, we intend to retain commercial product rights or outlicense such products after substantial internal development.

#### *Drug Screening and Antibody Development*

Through several collaborations, we are applying our ZFP technology to assist in the identification of new small molecule drugs active against genomics-based targets and to develop fully human monoclonal antibodies.

#### *ZFP-Engineered Cell Lines for Identification of Small Molecule Drug Candidates*

We are incorporating ZFP TFs into appropriate cell lines for the purpose of screening chemical compounds for drug discovery. In particular, we are engineering 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 and 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. To date, we have entered into agreements with the R.W. Johnson Pharmaceutical Research Institute and Pharmacia Corporation to create engineered cell lines for high-throughput small molecule screening.

#### *Human Antibody Development*

We have a collaboration with Medarex, Inc., a developer of human monoclonal antibodies, to use our ZFP TF technology to create cell lines that overexpress selected G-protein coupled receptors, or GPCRs. The GPCRs are a family of cell surface receptors that are critical to intercellular communication. Many current treatments for diseases of the cardiovascular, respiratory, gastrointestinal, neurologic and other physiologic systems act by influencing GPCR signaling pathways. However, since a number of GPCRs have yet to be identified, a significant amount of drug discovery research is focused on increasing the understanding of these important proteins. Under the terms of the agreement, we will work exclusively with Medarex on human antibodies developed using our technology and will share costs and commercialization rights to such products.

#### *ZFP-Engineered Cell Lines for the Production of Pharmaceuticals*

Protein pharmaceuticals manufactured with genetically modified cells accounted for more than \$13.3 billion in annual worldwide sales in 2001. Of this total, monoclonal antibodies accounted for approximately \$2.6 billion. Industry experts believe that the introduction of new protein pharmaceuticals and growth in demand for current protein pharmaceuticals could lead to a significant shortfall in capacity over the next five years. We are actively engaged in the research and development of ZFP TF-engineered mammalian cells for the enhanced production of pharmaceutical proteins.

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In collaboration with Medarex, Inc. we are developing ZFP TF-engineered cell lines to enhance the production yields of monoclonal antibodies. Under this agreement, Medarex is providing research funding to us and we will be entitled to milestone payments and, potentially, royalties on sales of Medarex antibodies manufactured using our technology.

#### *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 challenges that researchers must address are identifying disease-related genes, and 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. We believe our Universal GeneTools can accelerate the pace and quality of genome-based drug discovery at these critical steps.

To date, we have entered into Universal GeneTools agreements with more than 20 leading pharmaceutical and biotechnology companies or their subsidiaries. These collaborators have used our ZFP TFs to validate gene targets from several organisms for drug discovery. ZFP TFs are being incorporated into both cells and animals for this purpose.

#### *In Vivo Research Models*

A key attribute of our ZFP TF technology is its potential applicability in multiple species. To leverage this attribute, we have entered into a technology partnership agreement with Charles River Laboratories, Inc. to apply our ZFP TF technology to the creation of a novel rat model for use in developing new drugs and therapies for cancer. Rats may offer practical advantages over mouse models, principally due to their physiology and larger size. Under this agreement, Charles River is funding the development at Sangamo of ZFP TFs for novel transgenic, or gene-altered, rat models in exchange for a royalty-bearing license to breed and sell these new models. We will also be entitled to milestone payments based on the progress of the collaboration.

#### *ZFP Transcription Factors for Plant Agriculture*

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.

Natural ZFP TFs also regulate genes in plants. The ability to identify and subsequently regulate the expression of genes with ZFP TFs 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 TFs may be used to confirm the role of newly discovered genes in plant growth, metabolism and resistance to pathogens.

In January 2001, we signed our first partnership in the area of plant agriculture with Renessen LLC, a joint venture between Monsanto Corporation and Cargill. Sangamo and Renessen scientists have achieved significant results in the first year of this collaboration, including the regulation of a gene target in model systems and a commercial crop.

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#### *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. Some SNPs are 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 our proprietary methods for probing chromosomal structure can be applied to the large-scale identification of regulatory DNA short DNA sequences that are interspersed throughout the genome and which provide the binding sites for endogenous transcription factors. We believe that these regulatory DNA sequences may be a key to understanding the role of "non-coding" SNPs, which are those SNPs that fall outside the structural region of genes that may play a critical role in the disease-related misregulation of certain genes.

In addition, we believe that changes in regulatory DNA can be correlated with the onset of disease, and therefore potentially used as a molecular diagnostic tool in the clinic. Finally, regulatory DNA sequences may be a valuable addition to the human genome database.

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.

#### *ZFPs for 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 to provide the raw materials for the production of many chemical intermediates 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. ZFP TFs may be applicable for this task.

ZFP TFs may 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 ZFP TFs in industrial biotechnology.

#### **Gendaq Acquisition**

In July 2001, we acquired Gendaq Limited, a privately held biotechnology company located in London, U.K. Among its scientific founders is Professor Sir Aaron Klug, O.M., P.R.S., recipient of the Nobel Prize for Chemistry. The acquisition provided us with new intellectual property in the field of ZFP and ZFP TFs, as well as the expertise of the Gendaq scientific group. In connection with the acquisition, we issued approximately 2.1 million shares of Sangamo stock in exchange for all of the outstanding Gendaq shares, and have reserved approximately 125,000 shares of our common stock for options granted to former Gendaq employees that we assumed in the acquisition. In addition, Stephen Reeders, M.D., Chief Executive Officer at MVM Limited, a venture capital firm, was appointed to our Board of Directors.

In February 2002, we made the decision to begin consolidation of our Gendaq operations from the United Kingdom to our Richmond, California headquarters. The decision followed a post-acquisition review that was initiated in October 2001 where we evaluated technology, personnel, costs, and various alternatives to maximize the synergy between Sangamo and Gendaq. As this review was initiated after

the acquisition was completed, and the final decision to consolidate was not made until February 2002, the decision had no impact on our accounting for the acquisition, and we recorded no restructuring liability during 2001. We anticipate the consolidation will take approximately eight months to complete, and the associated costs which will all be incurred during 2002, will be minimal (see "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" included elsewhere in this Annual Report on Form 10-K).

### **Corporate Collaborations**

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

#### *Edwards Lifesciences Strategic Partnership*

In January 2000, we announced the initiation of a therapeutic product development collaboration with Edwards Lifesciences Corporation. Under the agreement, we have licensed to Edwards on a worldwide, exclusive basis, ZFP-Therapeutics for use in the activation of VEGFs and VEGF receptors in cardiovascular and peripheral vascular diseases. Edwards purchased a \$5 million note that converted, together with accrued interest, into common stock at the time of our initial public offering at the IPO price. We have received \$2 million in research funding from Edwards, and a \$1.4 million milestone payment for delivery of a lead ZFP therapeutic product candidate. In March 2000, Edwards purchased a \$7.5 million convertible note in exchange for a right of first refusal for three years to negotiate a license for additional ZFP-Therapeutics in cardiovascular and peripheral vascular diseases. Together with accrued interest, this note converted into common stock at the time of our initial public offering at the IPO price. We will be responsible for advancing product candidates into preclinical animal testing. Edwards will be responsible for preclinical development, regulatory affairs, clinical development and the sales and marketing of the ZFP-Therapeutic products. In the future, we may receive up to \$26 million in milestone payments in connection with the development and commercialization of the first product under this agreement. Sangamo will also receive royalties on product sales. There is no assurance that the companies will achieve our development and commercialization milestones. Edwards 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 TF which is capable of regulating the expression of a gene for which it is specifically designed and targeted. Since 1998, we have entered into Universal GeneTools collaborations with more than 20 leading pharmaceutical or biotechnology companies or their subsidiaries.

Our Universal GeneTools agreements generally contain the following terms:

collaborators provide us with the gene target they wish to study and we design and deliver ZFP TFs designed specifically for that collaborator's gene target;

collaborators retain all their rights in confidential gene targets and any data they generate with our ZFP TFs;

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

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

many of our agreements provide that collaborators make a partial payment for ZFP TFs during the design stage, and complete their payment after receipt of the ZFP TFs. The agreements generally do not provide for milestone or royalty payments.

To date, we have not licensed any intellectual property rights to our current Universal GeneTools collaborators that we believe are material to our business. Our Universal GeneTools collaborators are under no obligation to pursue product development programs with us, to use our technology, or to purchase any additional product from us. We have recently begun shifting our commercial development focus from Universal GeneTools collaborations to higher value strategic partnerships with selected pharmaceutical and biotechnology companies. 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," and " Initial evaluations of our engineered ZFP TFs delivered to our Universal GeneTools collaborators have produced mixed results."

#### *Plant Agriculture Collaboration*

To commercialize ZFP TFs in agricultural biotechnology, we intend to seek strategic relationships with corporate partners having capabilities in the research, development and commercialization of agricultural products. In January 2001, we announced our first plant agriculture collaboration with Renessen LLC, a joint venture between Cargill and Monsanto Company. Under the terms of the agreement, Sangamo has received certain payments, including research funding and milestone payments, and will receive royalties on product sales. In return, Renessen will receive the right to commercialize ZFP-engineered seeds for specific applications in the animal feed and processing industries.

#### **Intellectual Property and Technology Licenses**

Our success and ability to compete is dependent in part on the protection of our proprietary technology and information. We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality agreements and licensing agreements, to establish and protect our proprietary rights.

We have licensed intellectual property directed to the design, selection and use of ZFPs and ZFP TFs for gene regulation from the Massachusetts Institute of Technology, Johnson and Johnson, The Scripps Research Institute, and Harvard University. These licenses grant us rights to make, use and sell ZFPs and ZFP TFs under nine families of patent filings. All of these patent families have been filed in the United States and four have been filed internationally in selected countries. These patent filings have resulted in eleven issued U.S. patents to date. We believe these licensed patents and patent applications include several of the early and important patent filings directed to design, selection and use of ZFPs and ZFP TFs.

We have forty families of U.S. patent filings, including two U.S. and seven foreign issued patents, based on Sangamo and Gendaq internal research. Thirty-six of these have been filed internationally in selected countries to date. These patent filings are directed to improvements in the design and use of ZFPs and ZFP TFs. In the aggregate, we believe that our licensed patents and patent applications, as well as the issued Sangamo patents and pending Sangamo patent applications, will protect the commercial development of ZFPs and ZFP TFs. If we are successful in the development and commercialization of our products, we will be obligated by our license agreements to make milestone and royalty payments to some or all of the licensors mentioned above. We believe that total payments

under these agreements over the next three years should not exceed \$1 million. For risks associated with our intellectual property, see "Risk Factors Because it is difficult and costly to protect our proprietary rights, and third parties have filed patent applications that are similar to ours, we cannot ensure the proprietary protection of our technologies and products." We plan to continue to license and to internally generate intellectual property covering the design, selection, generation and composition of ZFPs, the genes encoding these proteins and the application of ZFPs and ZFP TFs 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 lawsuits, 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 would be 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 have been 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, i.e. 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 TF gene regulation. We are aware of 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, agricultural and biotechnology companies, academic and research institutions, and government agencies that will seek to develop technologies that will compete with our ZFP TF technology platform.

In July 2001, we strengthened our competitive position by completing our acquisition of Gendaq. Gendaq scientists have also focused their research efforts on regulating genes through the engineering of ZFPs. Despite the Gendaq acquisition, any products that we develop using our ZFP TF 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 TFs 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

formulate, 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

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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 ZFP TF technology.

Clinical testing must meet requirements for:

institutional review board oversight;

informed consent;

good clinical practices; and

FDA oversight.

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Before receiving FDA clearance to market a product, we must demonstrate that the product is safe and effective on the patient population that will be treated. If regulatory clearance of a product is granted, this clearance is limited to those specific states and conditions for which the product is useful, as demonstrated through clinical studies. Marketing or promoting a drug for an unapproved indication is generally prohibited. Furthermore, clearance may entail ongoing requirements for post-marketing studies. Even if this regulatory clearance is obtained, a marketed product, its manufacturer and its manufacturing facilities are subject to continual review and periodic inspections by the FDA. Discovery of previously unknown problems with a product, manufacturer or facility may result in restrictions on this product or manufacturer, including costly recalls or withdrawal of the product from the market.

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

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

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

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

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

lack of sufficient supplies of the product candidate;

adverse medical events or side effects in treated patients; and

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

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

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

## Employees

As of February 28, 2002, we had 90 full-time employees, 42 of whom hold Ph.D. degrees and 41 of whom hold other graduate or technical degrees. Of our total workforce, 78 are engaged in research and development activities and 12 are engaged in business development, finance and administration. 74 of our employees are located in the United States, and 16 are located in the United Kingdom. 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.

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## 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 report. 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 new and if we are unable to use this technology in all our intended applications, it would limit our revenue opportunities.**

Our technology involves a new approach to gene regulation. Although we have generated some ZFP TFs for some gene sequences, we have not created ZFP TFs for all gene sequences and we may not be able to create ZFP TFs for all gene sequences which could limit the usefulness of our technology. In addition, while we have demonstrated the function of engineered ZFP TFs in mammalian cell culture, yeast, insects, plants and animals, we have not done so in 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 GeneTools 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 TFs 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 TFs 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 TFs, 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.

**Our quarterly results will fluctuate.**

We believe that period-to-period comparisons of our results of operations are not necessarily meaningful and should not be relied upon as indicators of future performance. The variability of receipt of funds from corporate partners, as well as revenue recognition accounting rules, including the SEC staff accounting bulletin No. 101, will lead to quarterly fluctuations in our revenue. We generally operate with limited backlog in our Universal GeneTools business because our ZFP TFs are typically designed and engineered as orders are received. As a result, product sales in any quarter are generally

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dependent on orders received and shipped in that quarter. Universal GeneTools sales are also difficult to forecast because demand varies substantially from customer to customer and from period to period. We have recently begun shifting our commercial development focus from Universal GeneTools collaborations to higher value strategic partnerships with selected pharmaceutical and biotechnology companies. While strategic partnerships may provide us with committed quarterly research funding, the signing of such deals, and the subsequently initiation of revenue recognition, is also uncertain.

Due to all of the foregoing factors, it is likely that in one or more future quarters our results may fall below the expectations of public market analysts and investors. In such event, the trading price of our common stock would likely be adversely impacted.

**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 permit us to introduce our technology to many companies by supplying them with a specified ZFP TF for a payment without licensing 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 TFs for gene targets specified by the companies. These companies are not obligated to make continuing payments to us in connection with their research efforts or to pursue any product development program with us. As a result, we may not develop long-term relationships with these companies that could lead to additional revenues. If we are not able to expand the scope of our existing collaborations or enter into new ones, we may have reduced revenues and be forced to slow or halt research initiatives.

**Initial evaluations of our engineered ZFP TFs delivered to our Universal GeneTools collaborators have produced mixed results.**

Some of our Universal GeneTools collaborators were unable to substantiate the effects of our gene regulation technology. Generally, failures were re-evaluated at Sangamo using our current approach of examining the local chromatin structure for accessible sites and then targeting ZFP TFs to these areas. In most cases, additional ZFP TFs were designed and tested for these targets, and data was generated at Sangamo, or by our partners, confirming the ability to regulate these targets. Sangamo now performs this more extensive validation on all Universal GeneTools targets prior to use by external parties. However, there can be no assurances that we will be able to regulate all gene targets, and repression of a gene is generally more difficult than activation. Although we have been able to achieve repression in numerous genes, the degree of repression may not be sufficient to allow our collaborators to realize their objectives. For example, one of our collaborators has advised us that while some of our ZFP TFs delivered to them repressed certain target gene sequences to a significant extent, the repression was not complete enough to warrant proceeding to develop revised ZFP TFs for this purpose. However this collaborator has advised us that positive results were achieved using our ZFP TFs to regulate other target gene sequences. In addition, some of our collaborators have not yet generated the final results of their testing, and no assurances can be given that our collaborators will be able to achieve satisfactory results. These ZFP TFs, or ones engineered in the future, may not function as intended. If we are unsuccessful in engineering ZFP TFs 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 ZFP TF technology platform will participate in highly competitive markets. Even if we are able to generate ZFP

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TFs 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. ZFP TFs have 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 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.

**We may be unable to license gene transfer technologies that we may need to commercialize our ZFP TF technology.**

In order to regulate an endogenous gene, the ZFP TF must be delivered to a cell. We have licensed certain gene transfer technology for use with our Universal GeneTools in pharmaceutical discovery. We are evaluating this and other technologies which may need to be used in the delivery of ZFP TFs into cells for *in vitro* and *in vivo* applications. However, we may not be able to license the gene transfer technologies required to develop and commercialize our ZFP TF technology. We have not developed our own gene transfer technologies and rely on our ability to enter into license agreements to provide us with rights to the necessary gene transfer technology. The inability to obtain a license to use gene transfer technologies with entities which own such technology on reasonable commercial terms, if at all, could delay or prevent the preclinical evaluation, clinical testing and/or commercialization of our therapeutic product candidates.

**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 90 employees as of February 28, 2002, 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 TFs 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 generated from Universal GeneTools collaborators, strategic partners and federal government research grants. Our Universal GeneTools collaborators are evaluating our ZFP TFs. If the ZFP TFs 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 and expand existing relationships;

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 TF design and testing procedures take place on a relatively small scale. In the future, we intend to apply ZFP TF 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 TF 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 the next several years. If material losses continue for a significant 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 ZFP TF technology since inception, which has and will continue to require significant research and development expenditures. To date, we have generated our revenues

from Universal GeneTools collaboration agreements, strategic partnership agreements and federal government research grants. As of December 31, 2001, we had an accumulated deficit of approximately \$43.1 million. Even if we succeed in increasing our current product and research revenue or developing additional commercial products, we expect to incur losses for the foreseeable future. These losses will increase as we expand our research and development activities. If the time required to generate significant product revenues and achieve profitability is longer than we currently anticipate, we may not be able to sustain our operations.

**We may be unable to raise additional capital should it become necessary, which would harm our ability to develop our technology and products.**

We have incurred significant operating losses and negative operating cash flows since inception and have not achieved profitability. We expect capital outlays and operating expenditures to increase over the next several years as we expand our infrastructure and research and development activities. While we believe our financial resources will be adequate to sustain our current operations for the next 24 months, if we are unable to generate adequate operating cash flows thereafter we may need to seek additional sources of capital through equity or debt financing or by entering into additional Universal GeneTools collaborations, strategic partnerships or licensing arrangements. In addition, if we decide to focus our efforts on proprietary human therapeutics, we may need to seek FDA approval of potential products, a process which would cost in excess of \$100 million per product. We cannot be certain that we will be able to obtain financing on terms acceptable to us, or at all. If adequate funds are not available, our business and our ability to develop our technology and products would be harmed.

**Our stock price has been volatile and may continue to be volatile, which could result in substantial losses for investors.**

Volatility in the market for biotechnology stocks could cause you to incur substantial losses. An active public market for our common stock may not be sustained and the market price of our common stock may become 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;

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.

**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.

**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. Our technology is broad based and we do not currently possess the resources necessary to develop and commercialize potential products that may result from our technologies, or the resources or capabilities to complete any approval processes that may be required for the products, therefore we must enter into additional strategic partnerships to develop and commercialize products.

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

If we do not enter into additional strategic partnering agreements, we will experience reduced revenues and may not develop or commercialize our products. The loss of our current or any future strategic partnering agreement would not only delay or terminate the potential development or commercialization of any products we may derive from our technologies but also delay or terminate our ability to test ZFP TFs 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.

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Our existing strategic partnering agreements are, 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 TFs 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 alternative technologies 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. Our current licenses, and our future licenses will, contain performance obligations. If we fail to meet those obligations, the licenses could be terminated. If we are unable to continue to license these technologies on commercially reasonable terms, or at all, we may be forced to delay or terminate our product development and research activities.

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

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

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

we or our licensors were the first to make the inventions covered by each of our pending patent applications;

we or our licensors were the first to file patent applications for these inventions;

others will not independently develop similar or alternative technologies or reverse engineer any of our products, processes or technologies;

any of our pending patent applications will result in issued patents;

any patents issued or licensed to us or our Universal GeneTools collaborators or strategic partners will provide a basis for commercially viable products or will provide us with any competitive advantages or will not be challenged and invalidated by third parties;

we will develop additional products, processes or technologies that are patentable; or

the patents of others will not have an adverse effect on our ability to do business.

Others have filed and in the future are likely to file patent applications that are similar to ours. We are aware that there are academic groups and other companies that are attempting to develop technology which is based on the use of zinc finger and other DNA-binding proteins, and that these groups and companies have filed patent applications. Several patents have been issued, although Sangamo has no current plans to use

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

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

**Our potential therapeutic products are subject to a lengthy and uncertain regulatory process, and if these potential products are not approved, we will not be able to commercialize those products.**

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

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

must be conducted in conformance with the FDA's good clinical practice regulations;

must meet requirements for institutional review board oversight;

must meet requirements for informed consent;

are subject to continuing FDA oversight;

may require large numbers of test subjects; and

may be suspended by us or the FDA at any time if it is believed that the subjects participating in these trials are being exposed to unacceptable health risks or if the FDA finds deficiencies in the Investigational New Drug application or the conduct of these trials.

We must also demonstrate that the product is safe and effective in the patient population that will be treated. Data obtained from preclinical and clinical activities are susceptible to varying interpretations that could delay, limit or prevent regulatory clearances. In addition, we may encounter delays or rejections based upon additional government regulation from future legislation or administrative action or changes in FDA

policy during the period of product development, clinical trials and FDA regulatory review. Failure to comply with applicable FDA or other applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production or injunction, as well as other regulatory action against our potential

products or us. Additionally, we have no experience in conducting and managing the clinical trials necessary to obtain regulatory approval.

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

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

**Regulatory approval, if granted, may be limited to specific uses or geographic areas which could limit our ability to generate revenues.**

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

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

Outside the United States, our ability to market a product is contingent upon receiving a marketing authorization from the appropriate regulatory authorities so we cannot predict whether or when we would be permitted to commercialize our product. These foreign regulatory approval processes include all of the risks associated with FDA clearance described above.

**Laws or public sentiment may limit our production of genetically engineered agricultural products in the future, and these laws could reduce our ability to sell these products.**

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

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

Even if we are able to obtain regulatory approval of genetically engineered products, our success will also depend on public acceptance of the use of genetically engineered products including drugs, plants and plant products. Claims that genetically engineered products are unsafe for consumption or pose a danger to the environment may influence public attitudes. Our genetically engineered products

may not gain public acceptance. The subject of genetically modified organisms has received negative publicity in the United States and 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. Similar adverse public reaction in the United States on genetic research and its resulting products could result in greater domestic regulation and could decrease the demand for our technology and products.

**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.

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**Insiders have substantial control over Sangamo and could delay or prevent a change in corporate control.**

The interest of management could conflict with the interest of our other stockholders. Our executive officers, directors and principal stockholders beneficially own, in the aggregate, sixty-three percent of our outstanding common stock. As a result, these stockholders, if they choose to act together, will be able to have a material impact on 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.

**Item 2. Properties**



## Edgar Filing: SANGAMO BIOSCIENCES INC - Form 10-K405

We currently lease approximately 22,000 square feet of research and office space located at 501 Canal Boulevard in Richmond, California. The leases expire in 2004. Our Gendaq subsidiary occupies laboratory space under a month-to-month lease in London, England. We believe that the facilities we currently lease are sufficient for approximately the next 12 months and that sufficient space is available locally for the next 24-36 months.

### Item 3. Legal Proceedings

We are not a party to any material litigation.

### Item 4. Submission of Matters to a Vote of Security Holders

Not Applicable.

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## PART II

### Item 5. Market for the Registrant's Common Stock and Related Stockholder Matters

Our common stock has traded on the NASDAQ National Market under the symbol "SGMO" since April 6, 2000. The following table sets forth, for the period indicated, the high and low closing prices for the common stock as reported by the NASDAQ National Market.

#### Common Stock

	Price	
	High	Low
Year ended December 31, 2000		
Second Quarter (commencing April 6, 2000)	\$ 27.63	\$ 7.13
Third Quarter	\$ 49.63	\$ 26.88
Fourth Quarter	\$ 36.25	\$ 11.13
Year ended December 31, 2001		
First Quarter	\$ 25.50	\$ 9.88
Second Quarter	\$ 18.64	\$ 6.63
Third Quarter	\$ 15.50	\$ 5.52
Fourth Quarter	\$ 9.75	\$ 6.00

#### Holders

As of February 28, 2002 there were approximately 124 stockholders of record of Sangamo's common stock.

#### Dividends

Sangamo has not paid dividends on its common stock, and currently does not plan to pay any cash dividends in the foreseeable future.

#### Stock Trading Plans

From time to time our directors, executive officers and other insiders may adopt stock trading plans pursuant to Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. These plans are established to allow individuals to diversify their investment portfolio while avoiding conflicts of interest or the appearance of any such conflict that might arise from their positions with the company. Starting in the first quarter of 2002, two officers, Edward O. Lanphier II, President and CEO, and Peter Bluford, Vice President of Corporate Development, have

made periodic sales of the Company's stock pursuant to such plans.

### Use of Proceeds from the Sale of Registered Securities

Sangamo's Registration Statement on Form S-1 with respect to our initial public offering was declared effective on April 6, 2000. In a public offering managed by Lehman Brothers, Chase H&Q (now JP Morgan H&Q), ING Barings (now ABN AMRO), and William Blair & Company, Sangamo registered and sold an aggregate of 3.5 million shares of our common stock at a public offering price of \$15.00 per share for an aggregate offering of \$52.5 million.

Sangamo received net proceeds of approximately \$47.4 million, after deducting offering expenses of \$5.1 million. Offering expenses included underwriting discounts and commissions of \$3.7 million and other offering expenses of \$1.4 million. None of the offering expenses represented direct or indirect payments to directors, officers or general partners of the Sangamo or their associates, to persons owning 10 percent or more of any class of equity securities of Sangamo or to affiliates of the Sangamo.

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As of March 15, 2002, Sangamo has used the net proceeds from its public offering of common stock to invest in short-term and long-term, interest bearing, investment grade securities and to fund the general operations of the company. Sangamo intends to use the net proceeds of the offering for research and development and general corporate purposes. A portion of the net proceeds may also be used to acquire or invest in complementary business or products or to obtain the right to use complementary technologies. Sangamo has no agreements or commitments with respect to any such acquisition or investments and Sangamo is not currently engaged in any material negotiations with respect to any such transaction. None of the net proceeds of the offering is expected to be paid directly or indirectly to directors, officers or general partners of the company or their associates, to persons owning 10 percent or more of any class of equity securities of the company or to affiliates of the company.

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### Item 6. Selected Consolidated Financial Data

The following Selected Financial Data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" included elsewhere in this Annual Report on Form 10-K.

#### SELECTED FINANCIAL DATA

	Year Ended December 31,				
	2001	2000	1999	1998	1997
	(in thousands, except per share data)				
<b>Statement of Operations Data:</b>					
Total revenues	\$ 4,885	\$ 3,433	\$ 2,182	\$ 2,038	\$ 1,152
Operating expenses:					
Research and development*	15,514	11,347	4,266	4,259	1,700
General and administrative*	4,750	4,569	1,822	1,237	797
In-process research and development	13,062				
Total operating expenses	33,326	15,916	6,088	5,496	2,497
Loss from operations	(28,441)	(12,483)	(3,906)	(3,458)	(1,345)
Interest income (expense), net	3,192	3,417	131	173	(55)



## Overview

We were incorporated in June 1995. From our inception through December 31, 2001, our activities related primarily to establishing a research and development organization and developing relationships with our corporate collaborators. We have incurred net losses since inception and expect to incur losses in the future as we expand our research and development activities. To date, we have funded our operations primarily through the issuance of equity securities, borrowings, payments from federal government research grants and from corporate collaborators and strategic partners. As of December 31, 2001, we had an accumulated deficit of \$43.1 million.

Our revenues consist primarily of revenues from our corporate partners for ZFP TFs, contractual payments from strategic partners for research programs and research milestones, and Federal government research grant funding.

Research and development expenses consist primarily of salaries and related personnel expenses, subcontracted research expenses, and technology license expenses. Research and development costs incurred in connection with company collaborator funded activities are 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 ZFP TF 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.

## Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Sangamo believes the following critical accounting policies have significant effect in the preparation of our consolidated financial statements.

*Revenue Recognition.* Accounting for revenue from funding of research activities, sale of ZFP TFs, payment of upfront fees, and achievement of contract-specific milestones involves management making assessments of business conditions and estimates regarding timing and cost of work associated with the revenue. Over time, these estimates may be adjusted based on then-current circumstances, resulting in adjustment to revenues.

*Stock-Based Compensation.* We utilize stock and stock options as one means of compensating employees, consultants, and others. Although this practice has no cash consequence, the accounting for stock-based compensation can, under certain circumstances, result in a significant charge to our financial statements.

*Consolidation.* Our consolidated financial statements include the results of Sangamo in the United States and our wholly owned subsidiary, Gendaq Limited, a United Kingdom company. Transactions and accounts between Sangamo and Gendaq have been eliminated. We translate the assets and liabilities of Gendaq from British pounds Sterling into United States dollars using foreign exchange

rates as of the balance sheet date. We translate the revenues and expenses of Gendaq using average monthly foreign exchange rates. Translation gains and losses can vary over time based on economic conditions in both countries. We include translation adjustments on the balance sheet under accumulated other comprehensive income (loss), a separate component of stockholders' equity.

*Concentration of Credit Risk.* We maintain cash, cash equivalents and investments with major financial institutions. Financial institutions and financial instruments subject us to credit risk. We perform both periodic evaluation of our investments and evaluation of the credit standing of the financial institutions to limit the amount of credit exposure with any one institution or type of instrument. If there is an adverse change in credit risk with the financial institutions we use, or other than temporary decline in market value, we may be required to record impairment charges in the future.

*Valuation of Intangible Assets.* We have significant amounts of intangible assets on our balance sheet. We review these assets for impairment on an annual basis. Should such review find that these assets are impaired, it may result in a significant charge to our financial statements.

### **Acquisition of Gendaq**

On July 4, 2001, we completed our acquisition of Gendaq Limited, a privately held biotechnology company located in the United Kingdom, in an acquisition more fully described in "Item 8. Financial Statements and Supplementary Data," included elsewhere in this Annual Report on Form 10-K. We issued 2,124,638 shares of common stock in exchange for 100% of the outstanding shares of Gendaq's common stock. We also reserved a total of 125,366 shares for issuance upon exercise of outstanding Gendaq stock options, which were assumed in the transaction. Gendaq is a research and development organization with a focus similar to ours.

In February 2002, we made the decision to begin consolidation of our Gendaq operations from the United Kingdom to our Richmond, California headquarters. The decision followed a post-acquisition review that was initiated in October 2001 where we evaluated technology, personnel, costs, and various alternatives to maximize the synergy between Sangamo and Gendaq. As this review was initiated after the acquisition was completed, and the final decision to consolidate was not made until February 2002, the decision had no impact on our accounting for the acquisition, and we have recorded no restructuring liability during 2001. We anticipate the consolidation will take approximately eight months to complete, and that the associated costs, which will all be incurred during 2002, will be minimal.

### **Deferred Stock Compensation**

In connection with the acquisition of Gendaq, we recorded \$684,000 of deferred stock compensation, representing the difference between the exercise price of unvested Gendaq stock options that were previously granted to Gendaq employees and the fair value of common stock on the date that the options were granted. During the years ended December 31, 2000 and 1999, Sangamo recorded deferred stock compensation totaling \$6.8 million and \$1.5 million, respectively, representing the difference between the exercise price of Sangamo stock options granted to Sangamo employees and directors and the fair value of common stock on the date that the options were granted.

Deferred stock compensation 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 an accelerated vesting method. The accelerated vesting method provides for the expensing of portions of the overall award at interim dates and results in higher expense in earlier years than straight-line amortization. The fair value of common stock for purposes of this calculation was determined based on the business factors underlying the value of common stock on the date such option grants were made.

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Sangamo recorded amortization of deferred stock compensation of \$3.7 million, \$3.8 million, and \$519,000 for the years ended December 31, 2001, 2000 and 1999, respectively. At December 31, 2001, Sangamo had a total of \$2.1 million remaining to be amortized over the vesting periods of the employee stock options. During the year ended December 31, 2001, Sangamo also recognized compensation expense related to options granted to consultants. Such options are valued based on the fair value of Sangamo's common stock as the options vest over the performance period. During the year ended December 31, 2001, compensation charges of \$596,000 were recorded for options granted to consultants.

### **Deemed Dividend Upon Issuance of Convertible Preferred Stock**

In November 1999, we sold 1,000,000 shares of Series C convertible preferred stock to an investor for net proceeds of \$4.5 million. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the fair value of its common stock as of November 1999 and determined it to be \$6.00 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received of \$4.5 million, is deemed to be the equivalent of a preferred stock dividend. Sangamo recorded the deemed dividend at the date of issuance by offsetting charges and credits to preferred stock, without any effect on total stockholders' equity. The preferred stock dividend increases the loss applicable to common stockholders in the calculation of basic net loss per share for the year ended December 31, 1999.

In January 2000, we sold an additional 333,333 shares of its Series C convertible preferred stock for net proceeds of \$1.5 million and similarly recorded a deemed dividend of \$1.5 million. The preferred stock dividend increases the loss applicable to common stockholders in the calculation of basic net loss per share for the year ended December 31, 2000.

### **Results of Operations**

*Years Ended December 31, 2001, 2000 and 1999*

*Total revenues.* Total revenues consisted of revenues from collaboration agreements, strategic partnerships and federal government research grants. Revenues from our corporate collaboration and strategic partnering agreements were \$4.7 million in 2001, compared to

\$2.7 million in 2000, and \$1.0 million in 1999. The increases in 2001 and 2000 were principally attributable to revenues recognized from a therapeutics partnership signed with Edwards Lifesciences Corporation in January 2000, particularly milestone revenue recognized in the fourth quarter, as well as incremental Universal GeneTools agreements signed during both years. We expect revenues from strategic partnerships to continue to increase as additional agreements are signed or existing agreements are expanded. Federal government research grant revenues were \$155,000 in 2001, \$688,000 in 2000, and \$1.2 million in 1999. The decrease in 2001 and 2000 was principally due to an increased focus on corporate collaborations as 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 \$15.5 million in 2001, compared to \$11.3 million in 2000, and \$4.3 million in 1999. The increase in 2001 and 2000 was primarily due to increased research and development staffing, from 25 persons at the end of 1999 to 58 at the end of 2000 and 78 at the end of 2001, resulting in higher personnel and associated laboratory supply costs. Included in research and development expenses was \$2.6 million, \$2.9 million and \$275,000 in 2001, 2000 and 1999, respectively, in stock-based compensation expense.

Our current research and development programs are focused on the advancement of our ZFP TF technology for several potential applications. Among these are ZFP-Therapeutics for cardiovascular disease and cancer, ZFP TF-engineered cell lines for drug screening, antibody development and to

enhance the production yields of protein pharmaceuticals, ZFP TFs for the discovery and validation of genes and drug targets, and ZFP TFs for applications in agricultural biotechnology.

Biopharmaceutical products generally take 10 to 15 years to research, develop and bring to market as a new prescription medicine in the United States. Drug development in the U.S. is a process that includes several steps defined by the FDA. The process begins with the filing of an Initial Drug Application (or IND), which, if successful, allows opportunity for clinical study of the potential new medicine. Clinical development typically involves three phases of study: Phase I, II, and III, which accounts for an average of seven years of a drug's total development time. The most significant costs associated with clinical development are the Phase III trials as they tend to be the longest and largest studies conducted during the drug development process. An estimation of product completion dates and completion costs are difficult to predict and successful development of our products is highly uncertain. Various statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of each product. The lengthy process of seeking these approvals, and the subsequent compliance with applicable statutes and regulations, require the expenditure of substantial resources. We cannot assure you that any approval required by the FDA will be obtained on a timely basis, if at all. For additional discussion of the risks and uncertainties associated with completing development of potential 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."

*General and administrative expenses.* General and administrative expenses were \$4.8 million in 2001, as compared to \$4.6 million in 2000 and \$1.8 million in 1999. Included in general and administrative expenses was \$1.1 million, \$2.0 million and \$244,000 in 2001, 2000 and 1999, respectively, in stock-based compensation expense. The increase in general and administrative expenses from 1999 to 2000 and 2001 was due to additional costs associated with being a public company, as well as incremental personnel costs to support our expanded research and development activities and development of our ZFP TF technology. We expect that general and administrative expenses will increase in the future to support continued growth of our research and development efforts.

*In-process research and development expenses.* As a part of Sangamo's \$36.7 million cost to acquire Gendaq, \$13.1 million was expensed as research and development in the third quarter of 2001. In-process research and development represents that portion of the purchase price of the acquisition related to the research and development activities which: (i) have not demonstrated their technological feasibility, and (ii) have no alternative future uses. Sangamo recognized an expense of \$13.1 million upon consummation of the transaction.

The amount of in-process research and development was determined based on an analysis using the risk-adjusted cash flows expected to be generated by the products that result from the in-process projects. The analysis included forecasted future cash flows that were expected to result from the progress made on each of the in-process projects prior to the purchase dates. These cash flows were estimated by first forecasting, on a product-by-product basis, total revenues expected from sales of the first generation of each in-process product, as well as expected expenses to complete in process research and development for each project. Appropriate operating expenses and cash flow adjustments were deducted from the forecast to establish projected net cash flows for the in process technology. Finally, these net returns were discounted to a present value at discount rates that incorporate both the weighted average cost of capital (relative to the biotechnology industry and the Company) as well as the product-specific risk associated with the purchased in-process research and development products. The product-specific risk factors included each product in each phase of development, type of molecule under development, likelihood of regulatory approval, manufacturing process capability, scientific rationale, pre-clinical safety and efficacy data, target product profile and development plan. The overall discount rate used

for the purchase valuation ranged from 35% to 50% depending upon the stage of

completion of each product and the risks associated with each, which represents a significant risk premium to our weighted average cost of capital.

The forecast data in the analysis was based on internal product level forecast information maintained by management in the ordinary course of managing the business. The inputs used in analyzing in-process research and development were based on assumptions, which management believed to be reasonable but which were inherently uncertain and unpredictable. These assumptions may be incomplete or inaccurate, and no assurance can be given that unanticipated events and circumstances will not occur.

A brief description of projects that were included in the in-process research and development charge is set forth below. Projects subsequently added to the research and development pipeline are not included. Since the acquisition date, there have been no significant changes to the phase of development for the projects listed. Management estimated that research and development expenditures of at least \$30 to \$35 million will be required to complete the in-process projects.

<b>Project</b>	<b>Description / Indication</b>	<b>Phase of Development</b>	<b>Estimated Substantial Completion Date</b>	<b>Fair Value (in millions)</b>
HIV	Therapeutic product candidate	Pre-clinical	2008	\$ 1.9
Anti-Inflammatory	Therapeutic product candidate	Pre-clinical	2007	3.4
EPO	Therapeutic product candidate	Pre-clinical	2007	0.9
Insulin	Therapeutic product candidate	Pre-clinical	2009	1.2
Functional Genomics	Gene regulation product	Pre-marketing	2002	3.2
Agriculture	Gene regulation product	Pre-marketing	2005	2.5
				\$ 13.1

*Interest income (expense), net.* Interest income (expense), net was \$3.2 million in 2001, as compared to \$3.4 million in 2000 and \$131,000 in 1999. The change in net interest income in 2001 and 2000 reflects the higher cash balances resulting from our initial public offering. The decline from 2000 to 2001 represents subsequent utilization of cash to fund operations and declining interest rates in 2001.

We incurred net operating losses in 2001, 2000, 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 sale of equity securities, federal government research grants, payments from corporate collaborators and financing activities such as a bank line of credit. As of December 31, 2001, we had cash, cash equivalents, investments and interest receivable totaling \$62.6 million.

Net cash used in operating activities was \$6.1 million in 2001, \$3.6 million in 2000, and \$2.4 million in 1999. In all periods, net cash used in operating activities was primarily due to funding of net operating losses.

Net cash provided by (used in) investing activities was \$2.8 million in 2001, (\$47.8) million in 2000, and (\$6.1) million in 1999. Included in 2001 was \$4.7 million of net cash acquired in the Gendaq acquisition. Cash was used during these periods to purchase investments and property and equipment.

Net cash provided by financing activities during 2001 was \$0.7 million, primarily from proceeds from issuance of common stock. Net cash provided by financing activities during 2000 was \$61.3 million, primarily as a result of the company's initial public offering as well as proceeds received

from its strategic partnership with Edwards Lifesciences Corporation. Net cash provided by financing activities in 1999 was \$7.5 million as a result of the private placement of preferred stock.

We believe that the available cash resources, funds received from corporate collaborators, strategic partners and federal government research grants will be sufficient to finance our operations for at least two years. We will need to raise substantial additional capital to fund subsequent operations and there can be no assurance that such funds will be available on acceptable terms, if at all.

As of December 31, 2001, we had federal and state net operating loss carryforwards of approximately \$21 million and \$1 million, respectively, to offset future taxable income. We also had federal research and development tax credit carryforwards of approximately \$612,000. If not used, net operating loss and credit carryforwards will begin to expire in 2011. 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.

As of December 31, 2001 we had contractual obligations as follows (in thousands):

<b>Contractual Obligations</b>	<i>Payments Due by Period</i>		
	<b>Total</b>	<b>Less than 1 year</b>	<b>1-3 years</b>
Operating leases	\$ 1,175	\$ 436	\$ 1,175
Unconditional purchase obligations	50	50	
License obligations	175	175	
Other contractual obligations	196	196	
<b>Total contractual obligations</b>	<b>\$ 1,596</b>	<b>\$ 857</b>	<b>\$ 1,175</b>

As of December 31, 2001 we had no other types of commercial commitments.

#### **Quantitative and Qualitative Disclosures about Market Risk**

Our exposure to market risk for changes in interest rates relates primarily to our cash equivalents and investments. The 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 investments have a fixed interest rate and are carried at market value, which approximates cost. If market interest rates were to increase by 1 percent from December 31, 2001, the fair value of our portfolio would decline by less than \$100,000. 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.

#### **Item 8. Financial Statements and Supplementary Data**



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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 consolidated balance sheets of Sangamo BioSciences, Inc. as of December 31, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2001. 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 consolidated financial position of Sangamo BioSciences, Inc. at December 31, 2001 and 2000, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

Ernst & Young LLP

Palo Alto, California  
January 29, 2002,  
except for Note 8, as to which the date is  
March 27, 2002.

### SANGAMO BIOSCIENCES, INC. CONSOLIDATED BALANCE SHEETS (In thousands, except share and per share amounts)

	December 31,	
	2001	2000
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 7,644	\$ 10,151
Marketable securities	53,950	53,359
Interest receivable	966	1,171
Accounts receivable	763	1,506
Prepaid expenses	447	325

	December 31,	
	2001	2000
Total current assets	63,770	66,512
Property and equipment, net	2,799	1,982
Patents	3,120	
Goodwill	15,250	
Other assets	78	431
<b>Total assets</b>	<b>\$ 85,017</b>	<b>\$ 68,925</b>
<b>Liabilities and stockholders' equity</b>		
<b>Current liabilities:</b>		
Accounts payable and accrued liabilities	\$ 1,261	\$ 634
Accrued compensation and employee benefits	671	696
Equipment loan	285	
Deferred revenue	451	705
<b>Total liabilities</b>	<b>2,668</b>	<b>2,035</b>
<b>Commitments and contingencies</b>		
<b>Stockholders' equity:</b>		
Common stock, \$0.01 par value; 80,000,000 shares authorized, 24,482,050 and 22,147,391 shares issued and outstanding at December 31, 2001 and 2000, respectively	127,161	89,764
Note receivable from stockholder		(463)
Deferred stock compensation	(2,125)	(4,697)
Accumulated deficit	(43,100)	(17,851)
Accumulated other comprehensive income	413	137
<b>Total stockholders' equity</b>	<b>82,349</b>	<b>66,890</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 85,017</b>	<b>\$ 68,925</b>

*See accompanying Notes to Consolidated Financial Statements.*

**SANGAMO BIOSCIENCES, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(In thousands, except per share amounts)

	Year ended December 31,		
	2001	2000	1999
<b>Revenues:</b>			
Collaboration agreements	\$ 4,730	\$ 2,745	\$ 1,000
Federal government research grants	155	688	1,182
<b>Total revenues</b>	<b>4,885</b>	<b>3,433</b>	<b>2,182</b>

	Year ended December 31,		
<b>Operating expenses:</b>			
Research and development (includes stock-based compensation expense of \$2,562, \$2,885, and \$275 for 2001, 2000 and 1999, respectively)	15,514	11,347	4,266
General and administrative (includes stock-based compensation expense of \$1,112, \$1,967, and \$244 for 2001, 2000 and 1999, respectively)	4,750	4,569	1,822
Acquired in-process research and development	13,062		
<b>Total operating expenses</b>	<b>33,326</b>	<b>15,916</b>	<b>6,088</b>
Loss from operations	(28,441)	(12,483)	(3,906)
Interest income	3,192	3,556	148
Interest expense		(139)	(17)
Net loss	(25,249)	(9,066)	(3,775)
Deemed dividend upon issuance of convertible preferred stock		(1,500)	(4,500)
<b>Net loss attributable to common stockholders</b>	<b>\$ (25,249)</b>	<b>\$ (10,566)</b>	<b>\$ (8,275)</b>
Basic and diluted net loss per common share	\$ (1.09)	\$ (0.61)	\$ (1.38)
Shares used in computing basic and diluted net loss per common share	23,120	17,383	5,991

*See accompanying Notes to Consolidated Financial Statements.*

**SANGAMO BIOSCIENCES, INC.**  
**CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**  
(In thousands, except share and per share amounts)

	Convertible Preferred Stock		Common Stock		Note Receivable from Stockholder	Deferred Stock Compensation	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balances at December 31, 1998	3,148,000	\$ 7,743	5,931,018	\$ 1,576	\$ (187)	\$ (773)	\$ (5,010)	\$ 55	\$ 3,404
Issuance of common stock upon exercise of options			191,042	12					12
Issuance of common stock and options to purchase common stock for services rendered			10,000	188					188
Issuance of preferred stock upon exercise of warrants	41,250								
Issuance of preferred stock, net of issuance costs of \$56	1,666,667	7,444							7,444
Forgiveness of note receivable to stockholder					62				62
Deferred stock compensation				1,482		(1,482)			
Amortization of deferred stock compensation						519			519
Comprehensive loss:									

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	Convertible Preferred Stock								
Unrealized gain on investments								28	28
Net loss								(3,775)	(3,775)
Comprehensive loss									(3,747)
Balances at December 31, 1999	4,855,917	15,187	6,132,060	3,258	(125)	(1,736)	(8,785)	83	7,882
Issuance of common stock upon exercise of options and warrants, net of repurchases			1,156,192	706					706
Issuance of common stock for services rendered			72,062	1,081					1,081
Issuance of preferred stock upon exercise of warrants	28,158	61							61
Issuance of preferred stock net of issuance costs	333,333	1,500							1,500
Conversion of preferred stock into common stock	(5,217,408)	(16,748)	10,434,816	16,748					
Conversion of notes payable and interest into common stock			842,454	12,637					12,637
Issuance of common stock in initial public offering, net of issuance costs of \$5,104			3,500,000	47,396					47,396
Issuance of common stock under employee stock purchase plan			9,807	125					125
Forgiveness of note receivable to stockholder					62				62
Issuance of note receivable to stockholder					(400)				(400)
Deferred stock compensation				6,778		(6,778)			
Amortization of deferred stock compensation and vesting of non-qualified stock options				1,035		3,817			4,852
Comprehensive loss:									
Unrealized gain on investments		\$	\$	\$	\$	\$	\$	54	\$ 54
Net loss								(9,066)	(9,066)
Comprehensive loss									(9,012)
Balances at December 31, 2000			22,147,391	89,764	(463)	(4,697)	(17,851)	137	66,890
Issuance of common stock upon exercise of options and warrants, net of repurchases			195,842	369					369
Issuance of common stock under employee stock purchase plan			35,679	321					321
Issuance of common stock for purchase of Gendaq			2,124,638	34,874					34,874
Assumption of Gendaq common stock options, less intrinsic value of unvested options				1,734		(684)			1,050
Repayment of note receivable from stockholder			(17,900)	(267)	267				
Repayment of note receivable from employee			(3,600)	(53)					(53)
Forgiveness of notes receivable from stockholder					196				196
Amortization of deferred stock compensation and vesting of non-qualified stock options				596		3,079			3,675
Reversal of deferred compensation due to employee terminations				(177)		177			
Comprehensive loss:									
Unrealized gain on investments								129	129
Translation adjustment								147	147
Net loss								(25,249)	(25,249)

Comprehensive loss	<b>Convertible Preferred Stock</b>							(24,973)
Balances at December 31, 2001	\$	24,482,050	\$ 127,161	\$	(2,125)	\$ (43,100)	\$ 413	\$ 82,349

See accompanying Notes to Consolidated Financial Statements.

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**SANGAMO BIOSCIENCES, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**Increase (Decrease) in Cash and Cash Equivalents (In thousands)**

	Year ended December 31,		
	2001	2000	1999
<b>Operating activities:</b>			
Net loss	\$ (25,249)	\$ (9,066)	\$ (3,775)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,231	380	164
Non-cash interest expense		137	
Amortization of deferred stock compensation	3,079	4,852	519
Other stock-based compensation	596	1,081	188
Forgiveness of notes receivable	196		
Acquired in-process research and development	13,062		
Changes in operating assets and liabilities:			
Interest receivable	205	(1,171)	55
Accounts receivable	789	(944)	(178)
Prepaid expenses and other assets	201	101	(14)
Accounts payable and accrued liabilities	73	286	166
Accrued compensation and employee benefits	(25)	514	(14)
Deferred revenue	(265)	205	500
Net cash used in operating activities	(6,107)	(3,625)	(2,389)
<b>Investing activities:</b>			
Purchases of investments	(55,353)	(53,359)	(8,297)
Maturities of investments	54,891	7,306	2,571
Purchases of property and equipment	(1,403)	(1,750)	(340)
Net cash acquired in Gendaq acquisition	4,656		
Net cash provided by (used in) investing activities	2,791	(47,803)	(6,066)
<b>Financing activities:</b>			
Proceeds from issuance of convertible preferred stock		1,561	7,444
Proceeds from issuance of common stock	690	48,227	12
Repayment of note payable		(250)	
Payments on equipment loan	(28)		
Proceeds from issuance of convertible notes		12,500	
Note receivable from stockholder		(710)	

	Year ended December 31,		
	2017	2016	2015
Net cash provided by financing activities	662	61,328	7,456
Foreign currency translation adjustment	147		
Net increase in cash and cash equivalents	(2,507)	9,900	(999)
Cash and cash equivalents, beginning of period	10,151	251	1,250
Cash and cash equivalents, end of period	\$ 7,644	\$ 10,151	\$ 251
<b>Noncash investing and financing activities:</b>			
Deferred compensation related to stock options	\$ 507	\$ 6,778	\$ 1,482
Deemed dividend upon issuance of convertible preferred stock	\$	\$ 1,500	\$ 4,500
Shares tendered as repayment of note receivable from shareholder	\$ 320	\$	\$
Conversion of convertible notes payable and accrued interest into common stock	\$	\$ 12,637	\$
<b>Supplemental disclosures:</b>			
Cash paid for interest	\$	\$ 2	\$ 17
<b>Non-cash disclosure related to the acquisition of Gendaq:</b>			
Tangible assets acquired	475		
Acquired in-process technology	13,062		
Goodwill and other intangible assets acquired	18,609		
Liabilities assumed	(878)		
Deferred stock compensation	684		
Common stock and options issued	(36,608)		
Cash received in acquisition, net of \$781 transaction costs paid	(4,656)		

*See accompanying Notes to Consolidated Financial Statements.*

**SANGAMO BIOSCIENCES, INC.  
NOTES TO CONSOLIDATED 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 gene regulation technology platform is enabled by the engineering of a class of transcription factors known as zinc finger DNA-binding proteins ("ZFPs"). Potential applications of Sangamo's technology include pharmaceutical discovery, development of human therapeutics, plant agriculture, industrial biotechnology and clinical diagnostics. 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, and from the issuance of equity or debt securities. Sangamo believes that its available cash, cash equivalents and investments as of December 31, 2001, along with expected revenues from Universal GeneTools collaborations and strategic partnerships, will be adequate to fund its operations for the next two years. Sangamo will need to raise substantial additional capital to fund subsequent operations and complete the development and commercialization of its products. Sangamo intends to seek funding through the issuance of equity securities, additional Universal GeneTools collaborations, strategic partnerships, and federal government research grants. Sangamo may seek to raise additional capital when conditions permit, however there is no assurance funding will be available on favorable terms, if at all.

The consolidated financial statements include the accounts of Sangamo and its wholly owned subsidiary, Gendaq Limited, after elimination of all material intercompany balances and transactions. 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.

### Cash and Cash Equivalents

Sangamo considers all highly liquid investments purchased with original maturities of three months or less at the purchase date to be cash equivalents. Sangamo's cash and cash equivalents are maintained with three financial institutions. Cash equivalents of \$7.6 million and \$10.2 million at December 31, 2001 and 2000, respectively, consist of deposits in money market investment accounts.

### Marketable Securities

Sangamo classifies its marketable securities as available-for-sale and records its investments at fair 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 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, which is determined using the specific identification method. Through December 31, 2001, Sangamo has not recorded any other than temporary losses on its investments.

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The table below summarizes our available-for-sale securities (in thousands):

	Amortized Cost	Gross Unrealized Gains	Estimated Fair Value
	<u>          </u>	<u>          </u>	<u>          </u>
<b>December 31, 2001</b>			
US government investments:			
Maturing within 1 year	\$ 23,210	\$ 60	\$ 23,270
Maturing between 1 and 2 years	2,843	21	2,864
	<u>          </u>	<u>          </u>	<u>          </u>
Total government investments	26,053	81	26,134
Corporate debt investments:			
Maturing within 1 year	9,893	26	9,919
Maturing between 1 and 2 years	17,741	156	17,897
	<u>          </u>	<u>          </u>	<u>          </u>
Total corporate investments	27,634	182	27,816
	<u>          </u>	<u>          </u>	<u>          </u>
Total available-for-sale investments	\$ 53,687	\$ 263	\$ 53,950
	<u>          </u>	<u>          </u>	<u>          </u>
<b>December 31, 2000</b>			
US government investments:			

	Amortized Cost	Gross Unrealized Gains	Estimated Fair Value
Maturing within 1 year	\$ 2,021	\$ 2	\$ 2,023
Maturing between 1 and 2 years	4,510	5	4,515
<b>Total government investments</b>	<b>6,531</b>	<b>7</b>	<b>6,538</b>
Corporate debt investments:			
Maturing within 1 year	33,331	42	33,373
Maturing between 1 and 2 years	13,363	85	13,448
<b>Total corporate investments</b>	<b>46,694</b>	<b>127</b>	<b>46,821</b>
<b>Total available-for-sale investments</b>	<b>\$ 53,225</b>	<b>\$ 134</b>	<b>\$ 53,359</b>

### 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.

### Goodwill and Other Intangible Assets

Goodwill represents the difference between the purchase price and the fair value of the net assets acquired in connection with our Gendaq acquisition. Goodwill is not amortized and is reviewed, at least annually, for impairment. There were no impairment charges recorded during 2001. See also "Recent Accounting Pronouncements" below.

Other intangible assets represent the fair value of patents purchased in connection with the Gendaq acquisition. This intangible asset is being amortized on a straight-line basis over its estimated useful life of seven years, and is periodically reviewed for impairment.

### Reclassifications

Certain reclassifications of prior years balances have been made to conform to the current year presentation. These reclassifications had no effect on prior years net loss or stockholders equity.

### Recent Accounting Pronouncements

In June, July, and August 2001, respectively, the Financial Accounting Standards Board issued SFAS No. 141, "Business Combinations," SFAS No. 142, "Goodwill and Other Intangible Assets" and SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS 141 prohibits the use of the pooling-of-interests method for business combinations initiated after June 30, 2001, and includes criteria for the recognition of intangible assets separately from goodwill. SFAS 142, which will be effective for fiscal years beginning after December 15, 2001, includes requirements to test goodwill and indefinite lived intangible assets for impairment, rather than amortizing them. SFAS 144 supersedes SFAS 121 in modifying the methods and scope of impairment estimation, but retains the fundamental provisions of SFAS 121 for recognition and measurement of the impairment of long-lived assets. The primary objectives of SFAS 144 are to develop one accounting model based on the framework established in SFAS 121 for long-lived assets, and to address significant implementation issues.

For business combinations completed between June 30, 2001 and December 15, 2001, transition rules of SFAS 142 state that goodwill and certain intangible assets acquired will not be amortized, and will immediately be subject to periodic impairment review provisions of SFAS 142. Accordingly, as of July 4, 2001, the closing date of Sangamo's acquisition of Gendaq, goodwill resulting from the purchase price allocation will not be amortized. Sangamo will review enterprise level goodwill on an annual basis to determine whether its carrying value exceeds its fair value. To the extent that carrying value exceeds fair value, an indication exists that goodwill may be impaired. In this case, a detailed asset



valuation will be performed, and any impairment loss will be recorded as a part of operations. Sangamo recorded no impairment charges in 2001, and believes that the implementation of the impairment provisions of SFAS 144 will not have a material effect on our results of operations and financial position.

### **Foreign Currency Translation**

Sangamo translates the assets and liabilities of its foreign subsidiary stated in local functional currencies to U.S. dollars at the rates of exchange in effect at the end of the period. Revenues and expenses are translated using rates of exchange in effect during the period. Gains and losses from translation of financial statements denominated in foreign currencies, if material, are included as a separate component of other comprehensive income (loss) in the statement of stockholders' equity.

The Company records foreign currency transactions at the exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currency are retranslated at the exchange rates in effect at the balance sheet data. All translation differences arising from foreign currency transactions are recorded through profit and loss and was not material during 2001.

### **Comprehensive Income**

Comprehensive income (loss) is comprised of net income (loss) and other comprehensive income (loss). Comprehensive loss for the years ended December 31, 2001, 2000 and 1999 is included in the Statement of Stockholders' equity. Comprehensive loss includes all changes in equity during a period

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from non-owner sources. These items include unrealized gains and losses on investments and foreign currency translations.

### **Revenue Recognition**

Sangamo recognizes revenue from its Universal GeneTools agreements when ZFP Transcription Factors ("ZFP TFs") are delivered to the Universal GeneTools collaborators, persuasive evidence of an agreement exists, there are no unfulfilled obligations, the price is fixed and determinable, and collectibility is reasonably assured. Generally, Sangamo receives partial payments from these collaborations prior to the delivery of ZFP TFs and the recognition of these revenues is deferred until the ZFP TFs are delivered. The risk of ownership has passed to the collaborator and all performance obligations have been satisfied at the time revenue is recognized.

Payments to fund research activities made under strategic partnering agreements are recognized over the period that Sangamo performs research services. Amounts paid in advance under such agreements are deferred until the research services are performed. 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.

Milestone payments under research, partnering, or licensing agreements are recognized as revenue upon the achievement of mutually agreed upon milestones, provided that (i) the milestone event is substantive and its achievement is not reasonably assured at the inception of the agreement, and (ii) there are no performance obligations associated with the milestone payment.

### **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." 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 measured and compensation expenses to be recorded as they vest over a performance period. The fair value of such options is determined using the

Black-Scholes model.

## Income Taxes

Sangamo accounts 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

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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 Common Share

Basic and diluted net loss per common share information for all periods is presented under the requirements of SFAS No. 128, "Earnings per Share." Basic net loss per common share has been computed using the weighted-average number of shares of common stock outstanding during the period, less shares subject to repurchase. The following table presents the calculation of historical basic and diluted net loss per common share (in thousands, except per share data):

	Year ended December 31,		
	2001	2000	1999
Net loss attributable to common stockholders	\$ (25,249)	\$ (10,566)	\$ (8,275)
Basic and diluted:			
Weighted-average shares of common stock outstanding	23,342	17,877	6,053
Less: weighted-average shares subject to repurchase	(222)	(494)	(62)
Shares used in computing basic and diluted net loss per common share	23,120	17,383	5,991
Basic and diluted net loss per common share	\$ (1.09)	\$ (0.61)	\$ (1.38)

## Major Customers, Partnerships and Strategic Alliances

During 2001, Sangamo entered into Universal GeneTools agreements with four pharmaceutical and biotechnology companies, bringing the total number of Universal GeneTools partnerships to twenty-five. Sangamo earned revenues of \$1.7 million under five of these agreements during the year. At December 31, 2001, Sangamo's accounts receivable consisted of amounts due from two of these companies. These agreements generally require Sangamo to apply its research expertise and technology to develop unique ZFP transcription factors, which are delivered to the companies for use in their research.

In January 2000, Sangamo entered into a strategic partner agreement with Edwards Lifesciences Corporation, formerly the CardioVascular Group of Baxter Healthcare Corporation, for the development of VEGF ZFP TFs in cardiovascular and peripheral vascular diseases. Under this agreement, Edwards purchased a \$5 million convertible note which converted into common stock at the time of the company's initial public offering at the IPO price, and Sangamo has received \$2 million in research funding from Edwards and a \$1.4 million milestone payment for delivery of a lead VEGF ZFP TF therapeutic product candidate. In March 2000, Edwards purchased a \$7.5 million convertible note in exchange 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 also converted into common stock upon consummation of the Company's initial public offering at the IPO price. In the future, Sangamo may receive option fees, milestone payments, royalties and additional research funding from this agreement.

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Sangamo has also entered a strategic alliance with Onyx Pharmaceuticals, Inc. in which the companies are jointly developing novel cancer therapeutics using Sangamo's ZFP TFs and Onyx's selectively replicating adenovirus technology, known as Therapeutic Viruses. Under this agreement, Onyx's Therapeutic Virus will be engineered to deliver a ZFP TF whose protein product has been shown to augment anti-tumor immune responses, thereby creating an Armed Therapeutic Virus that may treat cancer both at the tumor site and systemically. When product candidates meet certain mutually determined criteria, the companies will equally share research and clinical development costs and jointly commercialize products resulting from the alliance. No revenue has yet been recognized under this agreement.

In January 2002, Sangamo signed a collaboration agreement with Medarex, Inc. to use ZFP TF technology to create cell lines that overexpress selected G-protein coupled receptors, or GPCRs. Under the terms of the agreement, Sangamo will work exclusively with Medarex on human antibodies developed using Sangamo technology and will share costs and commercialization rights to such products. Also in collaboration with Medarex, Sangamo is developing ZFP TF-engineered cell lines to enhance the production yields of monoclonal antibodies. Under the agreements, Medarex is providing research funding and Sangamo will be entitled to milestone payments and, potentially, royalties on sales of Medarex antibodies manufactured using Sangamo technology.

Sangamo has entered into a technology partnership agreement with Charles River Laboratories, Inc. to apply ZFP TF technology to the creation of a novel rat model for use in developing new drugs and therapies for cancer. Rats may offer practical advantages over mouse models, principally due to their physiology and larger size. Under this agreement, Charles River is funding the development at Sangamo of ZFP TFs for novel transgenic, or gene-altered, rat models in exchange for a royalty-bearing license to breed and sell these new models. Sangamo will also be entitled to milestone payments based on the progress of the collaboration. During 2001, Sangamo recognized approximately \$350,000 revenue under this agreement.

In January 2001, Sangamo signed a partnership in the area of plant agriculture with Renessen LLC, a joint venture between Monsanto Corporation and Cargill. Sangamo and Renessen scientists have achieved regulation of a gene target in model systems and a commercial crop, and Sangamo has recognized approximately \$500,000 in 2001 revenue under the agreement.

## 2. Acquisition of Gendaq Limited

On July 4, 2001, Sangamo completed the acquisition of the outstanding shares of Gendaq Limited, a privately held biotechnology company located in the United Kingdom, in a purchase transaction. Sangamo issued 2,124,638 shares of common stock in exchange for 100% of the outstanding shares of Gendaq's common stock. Sangamo also reserved a total of 125,366 shares for issuance upon exercise of outstanding Gendaq stock options, which were assumed in the transaction. Gendaq is a research and development organization focused on regulating genes through the engineering of transcription factors known as zinc finger DNA-binding proteins (ZFP's).

Sangamo's total cost to acquire Gendaq was approximately \$36.7 million based on the fair market value of \$16.41 per share of Sangamo's common stock. The stock price used to value the securities issued was based on an average price during the few days before and after May 30, 2001, the day Sangamo and Gendaq announced an agreement under which Sangamo received an option to purchase

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all of the outstanding stock of Gendaq. The purchase price also includes the assumption of certain stock options and transaction costs.

The cost to acquire Gendaq has been allocated to the assets acquired and liabilities assumed according to their respective fair values, with the excess purchase price being allocated to goodwill. The allocation of the aggregate purchase price is based in part on an independent valuation analysis, which was obtained for purposes of assisting management with the allocation of the purchase price to the fair value of purchased assets and assumed liabilities.

The purchase cost of Gendaq is as follows (in thousands):

Value of securities issued	\$ 34,874
Assumption of Gendaq's common stock options	1,734
Less intrinsic value of unvested options	(684)
Transaction costs and expenses	781
	<hr/>
Total	<u>\$ 36,705</u>

The purchase price allocation is as follows (in thousands):

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	Amount	Useful Life (In years)	Annual Amortization of Intangibles
Net tangible assets of Gendaq	\$ 5,034		
Intangible assets acquired:			
Patents	3,359	7	\$ 480
In-process research and development	13,062		
Goodwill	15,250		
	<u>          </u>		<u>          </u>
Total purchase price allocation	\$ 36,705		\$ 480
	<u>          </u>		<u>          </u>

In-process research and development represents that portion of the purchase price related to the research and development activities which: (i) have not demonstrated their technological feasibility, and (ii) have no alternative future uses. Sangamo recognized an expense of \$13.1 million upon consummation of the transaction.

The amount of in-process research and development was determined based on an analysis using the risk-adjusted cash flows expected to be generated by the products that result from the in-process projects. The analysis included forecasted future cash flows that were expected to result from the progress made on each of the in-process projects prior to the purchase dates. These cash flows were estimated by first forecasting, on a product-by-product basis, total revenues expected from sales of the first generation of each in-process product, as well as expected expenses to complete in process research and development for each project. Appropriate operating expenses and cash flow adjustments were deducted from the forecast to establish projected net cash flows for the in process technology. Finally, these net returns were discounted to a present value at discount rates that incorporate both the weighted average cost of capital (relative to the biotechnology industry and the Company) as well as the product-specific risk associated with the purchased in-process research and development products. The product-specific risk factors included each product in each phase of development, type of molecule under development, likelihood of regulatory approval, manufacturing process capability, scientific

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rationale, pre-clinical safety and efficacy data, target product profile and development plan. The discount rates used to determine the fair value of the in-process projects ranged from 35% to 50%, depending upon the stage of completion of each product and the risks associated with each, which represents a significant risk premium to our weighted average cost of capital.

The forecast data in the analysis was based on internal product level forecast information maintained by management in the ordinary course of managing the business. The inputs used in analyzing in-process research and development were based on assumptions, which management believed to be reasonable but which were inherently uncertain and unpredictable. These assumptions may be incomplete or inaccurate, and no assurance can be given that unanticipated events and circumstances will not occur.

A brief description of projects that were included in the in-process research and development charge is set forth below. Projects subsequently added to the research and development pipeline are not included. Since the acquisition date, there have been no significant changes to the phase of development for the projects listed. Management estimated that research and development expenditures of at least \$30 to \$35 million will be required to complete the in-process projects.

Project	Description / Indication	Phase of Development	Estimated Substantial Completion Date	Fair Value (in millions)
HIV	Therapeutic product candidate	Pre-clinical	2008	\$ 1.9
Anti-Inflammatory	Therapeutic product candidate	Pre-clinical	2007	3.4
EPO	Therapeutic product candidate	Pre-clinical	2007	0.9
Insulin	Therapeutic product candidate	Pre-clinical	2009	1.2
Functional Genomics	Gene regulation product	Pre-marketing	2002	3.2
Agriculture	Gene regulation product	Pre-marketing	2005	2.5
				<u>          </u>
				\$ 13.1

Project	Description / Indication	Phase of Development	Estimated Substantial Completion Date	Fair Value (in millions)
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The following table represents unaudited pro forma results of operations as if the Gendaq acquisition had occurred at the beginning of each period presented.

Gendaq's financial information included in these pro forma results is derived from its year ended December 31, 2001 unaudited and December 31, 2000 audited financial statements. Gendaq's financial information as of all dates and for all periods presented have been adjusted, where appropriate, to present Gendaq's financial position and results of operations in accordance with accounting principles generally accepted in the United States.

The unaudited pro forma condensed combined financial information is presented for illustrative purposes only and is not necessarily indicative of the operating results or financial positions that would have occurred if the transaction had been consummated at the dates indicated, nor is it necessarily indicative of future operating results or financial position of the combined companies and should not be construed as representative of these amounts for any future dates or periods. In the opinion of management, this information is presented in conformity with accounting standards generally accepted in the United States. Loss from operations and net loss include amortization of acquired deferred compensation and intellectual property. The pro forma financial information excludes in-process

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research and development expense, due to its non-recurring nature, and excludes amortization of goodwill (in thousands, except per share amounts).

	Year ended December 31	
	Pro Forma 2001	Pro Forma 2000
Total revenues	\$ 5,040	\$ 3,453
Loss from operations	\$ (30,043)	\$ (16,106)
Net loss attributable to common stockholders	\$ (26,893)	\$ (12,663)
Basic and diluted net loss per share	\$ (1.11)	\$ (0.65)
Shares used to compute basic and diluted loss per share	24,191	19,508

### 3. Property and Equipment

Property and equipment consist of the following:

	December 31,	
	2001	2000
	(in thousands)	
Laboratory equipment	\$ 1,986	\$ 1,314
Furniture and fixtures	779	477
Leasehold improvements	1,658	823
	4,423	2,614
Less accumulated depreciation and amortization	(1,624)	(632)
	\$ 2,799	\$ 1,982

#### 4. Commitments and Notes Payable

Sangamo occupies office and laboratory space under operating leases in Richmond, California that expire in 2004. Rent expense for 2001, 2000 and 1999 was \$606,000, \$392,000, and \$336,000, respectively. Future minimum payments under non-cancelable operating leases at December 31, 2001 consist of the following (in thousands):

Year ending December 31,	
2002	\$ 436
2003	442
2004	297
	<hr/>
	\$ 1,175

Gendaq occupies laboratory space under a month-to-month operating lease in London, England. Rent expense for 2001 was \$27,000. As a part of the Gendaq acquisition, Sangamo assumed an equipment loan entered into in November 2000. The agreement provides for Sangamo to borrow up to \$435,000, at a rate of 4% per annum, to be repaid over a 36 month term. As amended, the balance outstanding at December 31, 2001 was \$285,000, and \$13,000 of financing is still available under the agreement.

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#### 5. Stockholders' Equity

##### Convertible Preferred Stock

All outstanding convertible preferred stock converted into common stock upon consummation of the initial public offering in April 2000. The Company has 5,000,000 preferred shares authorized which may be issued at the Board's discretion.

In November 1999, Sangamo sold 1,000,000 shares of its Series C convertible preferred stock to an investor for net proceeds of \$4.5 million. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the fair value of its common stock as of November 1999 and determined it to be \$6.00 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received of \$4.5 million, was 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 and diluted net loss per share for the year ended December 31, 1999.

In January 2000, Sangamo sold 333,333 shares of its Series C convertible preferred stock for net proceeds of approximately \$1.5 million. Subsequent to the commencement of the initial public offering process, Sangamo re-evaluated the fair value of its common stock as of January 2000 and determined it to be \$12 per share. Accordingly, the incremental fair value, limited to the amount of the proceeds received of \$1.5 million, was 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.

##### Common Stock

At December 31, 2001, 156,360 shares of outstanding common stock were subject to the company's contractual right of repurchase at a weighted average price of \$0.4475. These repurchase rights generally lapse over periods not exceeding four years.

##### Warrants

At December 31, 2001, warrants to purchase 74,570 shares of common stock were outstanding at an exercise price of \$1.50 per share, and are exercisable through August 2002. The warrants to purchase common stock were issued in connection with a 1997 bridge loan transaction. Sangamo has reserved common stock for issuance upon exercise of the warrants.

##### Stock Split

In February 2000, the Board of Directors adopted, subject to stockholder approval (which was received in March 2000), a change in the authorized number of shares of the common stock and preferred stock to 80,000,000 and 5,000,000, respectively. An Amended and Restated Certificate of Incorporation was filed following the effectiveness of the registration statement relating to the public offering. On March 28, 2000, Sangamo effected a two-for-one stock split of its common stock, in the form of a common stock dividend. As a result of the common stock split, the conversion ratio of Sangamo's convertible preferred stock was amended to two-to-one pursuant to Sangamo's Sixth

Amended and Restated Certificate of Incorporation. All common share and options and per share amounts in the accompanying financial statements have been adjusted to reflect the stock split.

### Stock Option Plan

Sangamo's 2000 Stock Option Plan (the "2000 Option Plan"), which supersedes the 1995 Stock 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 percent 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 percent stockholder, then the exercise price per share will not be less than 110 percent 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 2000 Option Plan generally vest over four years at a rate of 25 percent 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 2000 Option Plan may be exercised prior to vesting, with the related shares subject to Sangamo's right to repurchase the shares that have not vested 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 4.4 million shares are reserved for issuance pursuant to the 2000 Option Plan. The number of shares authorized for issuance automatically increases on the first trading day of the fiscal year by an amount equal to 3.5 percent of the total number of shares of our common stock outstanding on the last trading day of the preceding fiscal year.

As a part of Sangamo's acquisition of Gendaq, outstanding Gendaq stock options were replaced by options to purchase a designated number of shares of Sangamo Stock. The share reserve for replacement of Gendaq options was 125,366 shares, with the number of shares and exercise price per share adjusted to reflect application of the exchange ratio of the acquisition.

A summary of Sangamo's stock option activity follows:

	Shares available for grant of options	Options Outstanding	
		Number of shares	Weighted- average exercise per share price
Balance at December 31, 1998	548,782	1,674,000	\$ 0.12
Additional shares authorized	1,000,000		
Options granted	(463,500)	463,500	\$ 0.22
Options exercised		(191,042)	\$ 0.06
Options canceled	69,792	(69,792)	\$ 0.10
Balance at December 31, 1999	1,155,074	1,876,666	\$ 0.15
Additional shares authorized	1,603,926		
Options granted	(1,173,900)	1,173,900	\$ 8.18
Options exercised		(1,120,350)	\$ 0.59
Shares repurchased	10,734		\$ 0.63

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	<b>Options Outstanding</b>		
Options canceled	39,933	(39,933)	\$ 0.83
Balance at December 31, 2000	1,635,767	1,890,283	\$ 4.86
Additional shares authorized	775,158		
Options granted	(718,000)	718,000	\$ 10.20
Options exercised		(109,197)	\$ 12.85
Shares repurchased	10,767		\$ 0.20
Options canceled	124,603	(124,603)	\$ 9.34
Balance at December 31, 2001	1,828,295	2,374,483	\$ 6.33

Options outstanding at December 31, 2001 have a weighted average remaining contractual life of 7.44 years and may be immediately exercised; however, 1.4 million shares issued pursuant to the exercise of these options would be subject to Sangamo's right of repurchase. Vested options at December 31, 2001 total 1.0 million and have a weighted average remaining contractual life of approximately six years. The weighted-average fair value per share of options granted during 1999, 2000, and 2001 \$5.06 \$8.18, and \$10.20 respectively.

The following table summarizes information with respect to stock options outstanding at December 31, 2001:

<b>Options Outstanding and Exercisable</b>		
<b>Range of Exercise Price</b>	<b>Number of Shares</b>	<b>Weighted Average Remaining Contractual Life (In Years)</b>
\$0.05-\$0.23	926,209	5.71
\$2.25-\$9.60	827,874	9.21
\$10.25-\$17.65	588,900	9.93
\$23.00-\$38.00	31,500	8.57
	<b>2,374,483</b>	

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As permitted by SFAS 123, Sangamo accounts for its stock option and stock incentive plans in accordance with APB 25 and recognizes no 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 2000 and 1999, Sangamo granted options to employees with exercise prices below the fair value of Sangamo's common stock. Such fair value was determined based on the business factors underlying the value of the company's common stock on the date such option grants were made, viewed in light of the company's planned initial public offering and the expected initial public offering price per share. Accordingly, the Company recognized deferred stock compensation of \$-0-, \$6.8 million, and \$1.5 million in 2001, 2000 and 1999, respectively, which is being amortized to expense over the vesting term of the option using a graded vesting method.

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 and shares issued under its employee stock purchase plan 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.

	<b>Year ended December 31,</b>		
	<b>2001</b>	<b>2000</b>	<b>1999</b>
Pro forma net loss attributable to common stockholders (in thousands)	\$ (30,540)	\$ (11,123)	\$ (8,289)
Pro forma basic and diluted net loss per share	\$ (1.32)	\$ (0.64)	\$ (1.38)



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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 2001, 2000 and 1999 were estimated at the date of grant using the Black-Scholes method following the Company's initial public offering and using the minimum value method for periods prior to the initial public offering with the following weighted-average assumptions:

	Year ended December 31,		
	2001	2000	1999
Risk-free interest rate	5.0%	6.0%	6.0%
Expected life of option	5 yrs	5 yrs	5 yrs
Expected dividend yield of stock	0%	0%	0%
Expected volatility	0.8	0.8	n/a

In 2001, 2000 and 1999, respectively, Sangamo granted 32,500, 375,000 and 154,000 nonqualified common stock options to consultants at exercise prices that range from \$0.15 to \$15.03 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 percent one year from the grant date and one thirty-sixth per month thereafter and expire ten years after the grant date. Expense of \$58,000, \$1.0 million and \$15,000 was recognized in 2001, 2000 and 1999 related to these options. The fair value of these options was determined using the Black-Scholes model with the following assumptions: risk free interest rate 5 percent; term 10 years; dividend yield 0 percent; and expected volatility of the company's common stock 0.8.

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### Employee Stock Purchase Plan

The Board of Directors adopted the 2000 Employee Stock Purchase Plan in February 2000, effective upon the completion of Sangamo's initial public offering of its common stock. Sangamo reserved a total of 400,000 shares of common stock for issuance under the plan. Eligible employees may purchase common stock at 85 percent 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. The reserve for shares available under the plan will automatically increase on the first trading day of the second fiscal quarter each year, beginning in 2001, by an amount equal to 1 percent of the total number of outstanding shares of our common stock on the last trading day of the immediately preceding first fiscal quarter.

### 6. Loan to an Officer

On January 6, 1998, Sangamo advanced its President and Chief Executive Officer \$250,000 under a Note Receivable Agreement (the "Note"). The Note bears interest at 6.02 percent per annum and is being forgiven one forty-eighth each month beginning January 1, 1998. As of December 31, 2001 and 2000, \$0.00 and \$62,500, respectively, of this Note was outstanding, which is included as a component of stockholders' equity in the accompanying consolidated balance sheets. The loan is a full recourse loan secured by 500,000 shares of common stock owned by the officer.

On March 17, 2000 Sangamo entered into an agreement with an officer under which the Company loaned \$400,000 to enable purchase of up to 50,000 shares of common stock. The loan was full recourse, bore interest at 7.0 percent per annum, was payable in three years or when the stock was sold, whichever was earlier, and was secured by the stock being purchased. Under the agreement we also loaned \$250,000 as a housing allowance payable in four years from the date of the loan with interest at a rate of 7 percent. The housing loan provided that twenty-five percent of the principal and associated interest would be forgiven on each anniversary of the loan as long as the officer was full-time employee of Sangamo. Sangamo further loaned \$82,687 for payment of taxes associated with the exercise of stock options under terms similar to the stock purchase loan.

Following the officer's death in May 2001, Sangamo fully vested his stock options, permitted his estate to repay the stock purchase and tax payment loans and accrued interest with 21,500 shares of stock, and forgave the housing loan and accrued interest. The stock was valued at \$320,000, which represented the market value of the stock on the day the loan was repaid. The total amount of housing loan and accrued interest forgiven and charged to expense was \$443,000.

### 7. Income Taxes

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

Significant components of deferred tax assets are as follows:

	December 31,		
	2001	2000	1999
	(in thousands)		
<b>Deferred tax assets:</b>			
Net operating loss carryforwards	\$ 7,300	\$ 3,700	\$ 2,500
Research and development credit carryforwards	690	770	100
Other reserves and accruals	1,330	900	100
	9,320	5,370	2,700
Valuation allowance	(9,320)	(5,370)	(2,700)
<b>Net deferred tax assets</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

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. As of December 31, 2001, Sangamo had net operating loss carryforwards for federal and state income tax purposes of approximately \$21 million and \$1 million, respectively. Sangamo also had federal and state research and development credit carryforwards of approximately \$612,000 and \$476,000. The net operating loss and credit carryforwards will expire at various dates beginning in 2011 through 2020, if not used. Use of the net operating loss may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. The annual limitation could result in the expiration of the net operating loss before use. However, management has not determined if the use of the net operating loss carryforwards will be limited.

## 8. Subsequent Events

In February 2002, Sangamo made the decision to begin consolidation of its Gendaq operations from the United Kingdom to its Richmond, California headquarters. The decision followed a post-acquisition review that was initiated in October 2001 where the Company evaluated technology, personnel, costs, and various alternatives to maximize the synergy between Sangamo and Gendaq. As this review was initiated after the acquisition was completed, and the final decision to consolidate was not made until February 2002, the decision had no impact on the purchase accounting for the acquisition, and the Company has recorded no restructuring liability during 2001. Sangamo anticipates the consolidation will take approximately eight months to complete, and that the associated costs, which will all be incurred during 2002, will be minimal.

## Quarterly Financial Data (Unaudited)

The following table sets forth certain unaudited quarterly financial data for the eight quarters ending December 31, 2001. The unaudited information set forth below has been prepared on the same basis as the audited information and includes all adjustments necessary to present fairly the information

set forth herein. The operating results for any quarter are not indicative of results for any future period. All data is in thousands except per common share data.

Fiscal Year 2000

Fiscal Year 2001

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	Fiscal Year 2000				Fiscal Year 2001			
	Q1	Q2 (2)	Q3	Q4	Q1	Q2	Q3 (3)	Q4
Revenues	\$ 807	\$ 747	\$ 823	\$ 1,056	\$ 634	\$ 1,348	\$ 739	\$ 2,164(4)
Expenses	3,595	3,459	3,928	4,934	3,657	4,603	18,929	6,137
Net loss	(2,718)	(1,725)	(1,818)	(2,805)	(2,062)	(2,414)	(17,407)	(3,366)
Net loss attributable to common stockholders	(4,218)	(1,725)	(1,818)	(2,805)	(2,062)	(2,414)	(17,407)	(3,366)
Net loss per share attributable to common stockholders (1)	(0.71)	(0.08)	(0.08)	(0.13)	(0.09)	(0.11)	(0.72)	(0.14)

(1) Net loss per share is calculated based on the weighted average number of common shares outstanding during the quarter.

(2) The company completed its initial public offering on April 6, 2000, and converted all preferred shares to common on the same day. Accordingly, the net loss per share beginning in Q2 2000 reflects the additional shares outstanding as of that date.

(3) The company completed its acquisition of Gendaq Limited on July 4, 2001. Q3 2001 expenses include in-process research and development costs which were expensed as of the acquisition date.

(4) Q4 2001 revenues include milestone revenues associated with the Edwards agreement.

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**PART III**

**Item 10. Directors and Executive Officers of the Registrant**

The information required by this item with respect to our Annual Meeting of Stockholders will be contained in our definitive Proxy Statement, under the captions "Election of Directors Nominees," and "Security Ownership of Certain Beneficial Owners and Management Compliance with the Reporting Requirement of Section 16(a)," and is incorporated by reference.

The following table sets forth information regarding our executive officers, directors and key employees as of March 15, 2002:

Name	Age	Position
Edward O. Lanphier II	45	President, Chief Executive Officer and Director
Carl Pabo, Ph.D.	49	Sr. Vice President, Chief Scientific Officer, Chairman Scientific Advisory Board
Peter Bluford	47	Vice President, Corporate Development
Timothy Brears, Ph.D.	41	Vice President, Business Development
Casey C. Case, Ph.D.	46	Vice President, Research
Eric T. Rhodes	41	Senior Director, Commercial Development
Herbert W. Boyer, Ph.D.	65	Director
William G. Gerber, M.D.	55	Director
Jon E. M. Jacoby	63	Director
John W. Larson	66	Director

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Name	Age	Position
Stephen Reeders, M. D.	48	Director
William J. Rutter, Ph.D.	73	Director
Michael C. Wood	49	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 the company's inception. Mr. Lanphier has approximately twenty 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. He is also a director of GeneFormatics, Inc. and Cell ExYs, Inc. Mr. Lanphier holds a B.A. in biochemistry from Knox College.

*Carl Pabo, Ph.D.*, Senior Vice President and Chief Scientific Officer, joined Sangamo in October 2001 and has served as a member of Sangamo's Scientific Advisory Board since its inception. Prior to joining the company, he was 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 the American Academy of Arts and Sciences.

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*Peter Bluford* has served as Vice President, Corporate Development since December 1997 and has 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.

*Timothy Brears, Ph.D.*, Vice President of Business Development was a Founder, Director and Chief Executive Officer of Gendaq prior to its acquisition by Sangamo. He joined Gendaq from Novartis where he was Director of Licensing/Business Development in Research Triangle Park, North Carolina. Dr. Brears holds a Ph.D. in molecular biology from the University of Cambridge and subsequently undertook research at the Rockefeller University, New York. Additionally he holds an M.B.A. from Duke University's Fuqua School of Business.

*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.

*Eric T. Rhodes*, Senior Director, Commercial Development, joined the company in July 1998 and has primary responsibility for management of the 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 Anergene, 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.

*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 Professor Emeritus at the University of

California, San Francisco. He has served as a director of Genentech since 1976 and was Vice 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, and an Investigator for the Howard Hughes Medical Institute from 1976 to 1983. Dr. Boyer has been recognized with 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. A member of the National Academy of Sciences, 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 Biosciences, 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.

*Jon E. M. Jacoby* has served as a member of our board of directors since April 2000. Mr. Jacoby is a director and an executive vice president of Stephens Group, Inc. He is also a senior executive vice president of Stephens Inc., an affiliate of Stephens Group, Inc., where he has been employed since 1963. Mr. Jacoby also serves on the board of directors of Delta and Pine Land Company, Beverly Enterprises, Inc., and Power-One, Inc., as well as on the boards of several privately held companies. He received his B.S. degree in geology from the University of Notre Dame and his M.B.A. from Harvard Business School.

*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 serves on the Board of Directors of Versata, Inc., as well as on the boards of several privately held companies. Mr. Larson holds an L.L.B. and a B.A., with distinction, in Economics, from Stanford University.

*Stephen Reeders, M.D.*, has served as a member of our board of directors since July 2001. Previously he was a Director of Gendaq, Ltd. which was acquired by Sangamo in July 2001. Dr. Reeders is the Chief Executive Officer of MVM Ltd., a venture firm. He practiced as a clinician before taking up research at Oxford University and later at Yale University. He currently holds a faculty position at Harvard University. Dr Reeders has been involved in establishing numerous biotechnology companies and was responsible for early-stage health care investments at Saunders, Karp & Megrue in New York. He holds degrees in natural sciences from Cambridge University and in medicine from Oxford 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 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 from 1992 to 2000, on the Board of Trustees at the Carnegie Institution of Washington since 1995 and several private company boards. Dr. Rutter is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He 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 LeapFrog Enterprises, Inc., an educational company which he founded in

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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. Dr. Pabo chairs our Scientific Advisory Board. Generally, our scientific advisors have received options to purchase our common stock as compensation for their consulting services.

In addition to Dr. Pabo, the following individuals are members of our Scientific Advisory Board:

*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.

*Nam-Hai Chua, Ph.D.* is the Andrew W. Mellon Professor and Head of the Laboratory of Plant Molecular Biology at Rockefeller University, New York. Professor Chua received his Ph.D. from Harvard University and is a Fellow of the Royal Society. Professor Chua is preeminent in the field of plant molecular biology and has made significant contributions to many of the key developments in plant gene regulation. Additionally, he has consulted widely on the application of biotechnology in agriculture.

*Sir Aaron Klug, OM FRS* discovered the molecular switches used by Gendaq for gene regulation. He is the recipient of numerous honors and awards including the Nobel Prize for Chemistry. Sir Aaron was director of the MRC Laboratory of Molecular Biology from 1986-1996, and President of the Royal Society. He was a Founder and Director of Gendaq.

*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.

*Inder M. Verma, Ph.D.* is Professor in the Laboratory of Genetics at the Salk Institute, and at Adjunct Professor in the Department of Biology, University of California, San Diego. He is a Member of the US National Academy of Sciences and is President of the American Society for Gene Therapy.

His scientific interests include oncology and gene therapy in which he is recognized as one of the world's leading authorities.

### Items 11-13

Pursuant to General Instruction G to Form 10-K, the information required by Items 11, 12 and 13 of Part III is incorporated by reference to our definitive Proxy Statement with respect to our 2002 Annual Meeting of shareholders to be filed pursuant to Regulation 14A with the Securities and Exchange Commission no later than 120 days after December 31, 2001.



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Signature	Title	Date
<u>/s/ EDWARD O. LANPHIER II</u> Edward O. Lanphier II	President, Chief Executive Officer and Director (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	March 29, 2002
<u>/s/ HERBERT W. BOYER, PH.D.</u> Herbert W. Boyer, Ph.D.	Director	March 29, 2002
<u>/s/ WILLIAM G. GERBER, M.D.</u> William G. Gerber, M.D.	Director	March 29, 2002
<u>/s/ JON E. M. JACOBY</u> Jon E. M. Jacoby	Director	March 29, 2002
<u>/s/ JOHN W. LARSON</u> John W. Larson	Director	March 29, 2002

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<u>/s/ STEPHEN REEDERS, M.D.</u> Stephen Reeders, M.D.	Director	March 29, 2002
<u>/s/ WILLIAM J. RUTTER, PH.D.</u> William J. Rutter, Ph.D.	Director	March 29, 2002
<u>/s/ MICHAEL C. WOOD</u> Michael C. Wood	Director	March 29, 2002

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**Index to Exhibits**

Exhibit Number	Description of Document
2.1*	Agreement for the Sale and Purchase of all the Issued Share Capital of Gendaq Limited between Sangamo and Certain Shareholders of Gendaq Limited, dated June 28, 2001.
3.1	Amended and Restated Certificate of Incorporation.
3.2	Amended and Restated Bylaws.
4.1	Form of Specimen Common Stock Certificate.



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Exhibit Number	Description of Document
10.1 ^	2000 Stock Incentive Plan.
10.2 ^	2000 Employee Stock Purchase Plan.
10.3	[Intentionally left blank]
10.4	Form of Indemnification Agreement 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. Lanphier II, dated June 1, 1997.
10.16 ^	1995 Stock Option Plan.
10.17	Research Funding Agreement, by and between Sangamo and Baxter Healthcare Corporation, dated January 11, 2000.
10.18 ^	Employment Agreement, between Sangamo and Alan Wolffe, Ph.D., dated March 17, 2000.
10.19	License Agreement by and between The Scripps Research Institute and Sangamo, dated March 14, 2000.
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10.20^	Employment Agreement between Sangamo and Carl Pabo, Ph.D., dated September 12, 2001.
21.1	Subsidiaries of the Company.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
24.1	Power of Attorney. (See page 65)

Confidential treatment has been granted as to portions of this exhibit.

^

Indicates management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 14(c) of Form 10-K.

Incorporated by reference from Sangamo's Registration Statement on Form S-1 (Reg. No. 333-30314), as amended.

\*  
Incorporated by reference from Sangamo's Current Report on Form 8-K dated July 4, 2001.

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