

LARGE  
SCALE  
BIOLOGY

# Large Scale Biology Corporation Annual Report 2001



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*Diagnosics*

*Pharmaceuticals*

Therapeutics

Genomics  
&  
Proteomics

Transforming technologies into commercial applications

- Stanford University: LSBC is working to discover new protein markers for NHL. This expands the Company's existing NHL collaboration with Ronald M. Levy, M.D., Professor and Chief, Division of Oncology at Stanford University School of Medicine (October 2001)
- Icon Genetics AG: LSBC has targeted up to 200 genes for direct introduction into commercial plant varieties, including genes for antibody and vaccine production (April 2001)
- ProdiGene, Inc.: LSBC is collaborating on the development and large-scale manufacture of therapeutic antibodies (February 2001)

*LSBC also has made significant scientific and technological progress,* and expects to continue to advance its science across many fronts in 2002.

- Human Transcript Collection: In March 2002, at the Transcriptome 2002 Conference, LSBC announced the successful discovery and collection of more than 16,000 distinct full-length cDNA clones, a significant portion of which do not presently exist in the public databases.
- NHL Cancer Vaccines: At the American Society of Hematology (ASH) annual conference in December 2001, LSBC presented the excellent safety profile of its Phase I NHL vaccines and preliminary findings on antibody response.
- Stem Cell Growth Factor: At the same ASH conference, LSBC gave presentations on several development projects related to using its adult endothelium-derived hematopoietic factor (EDHF) for research use in cancer immune response and the reliable production of large quantities of multi-potential progenitor cells from which other blood lineages may be derived.
- Research Phase of Dow Collaboration: LSBC met or exceeded all of the research objectives established under its collaboration with The Dow Chemical Company and Dow's subsidiary Dow AgroSciences LLC. LSBC has continuing rights to royalty and milestone payments on products from this collaboration that Dow might commercialize.
- New Patents: LSBC had 13 new patents issued, impacting each key component of the Company's technology base and bringing its total issued patents to 37 U.S. and 17 foreign. The Company has 106 new patent filings, bringing the total pending U.S. and foreign patents to 253.

To successfully complete LSBC's transition to a more commercially focused company, *LSBC has strengthened its broader-based management team* and realigned the focus of several key executives.

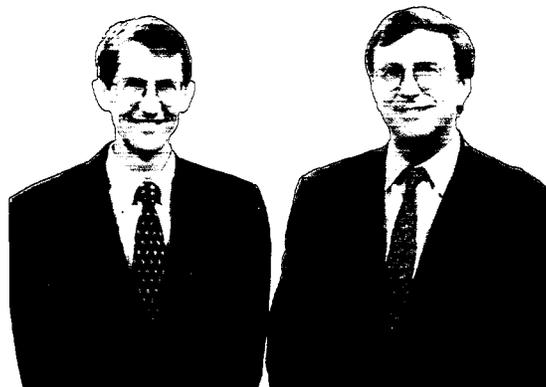
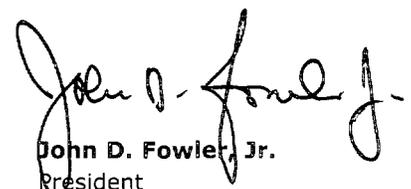
The appointment of Ronald J. Artale as LSBC's Chief Financial Officer was an important step in advancing the Company's commercial agenda. Ron's extensive experience in sound fiscal management is amplified by a long track record of success in the business development and strategic planning area.

In the summer of 2001, LSBC also created a new business development department, which has grown to four members. The business development team is highly motivated, and LSBC expects a number of new alliances and partnerships to be formed over the remainder of 2002.

We are optimistic about the future of our Company and thank our shareholders, customers, collaborators and employees for their continuing commitment to furthering the success of Large Scale Biology Corporation.



**Robert L. Erwin**  
Chairman and CEO

**John D. Fowler, Jr.**  
Resident

# To Our Shareholders:

The year 2001, and the early part of 2002, marked a period of significant transition for Large Scale Biology Corporation. LSBC has moved from a general focus on discovery and scientific development to a primary focus on commercializing its products and technologies. While LSBC remains committed to its core strategy of developing novel therapeutic drug candidates, the Company also recognizes that there are significant opportunities to generate revenue by expanding the application of its technology with outside collaboration partners.

For LSBC, and for the two of us, one of the most significant developments in the last year was the strengthening of LSBC's commercial management, signified by John Fowler's appointment as President in November. As business colleagues, we have worked closely together over the last ten years plotting strategic direction, raising capital and completing various transactions for the Company. We feel we bring complementary strengths to the table at this critical time of transition to a more commercially focused company. Bob has strengthened his role in advancing LSBC's science, technology and strategic direction. John, with his strong transactional background in healthcare, is ramping up LSBC's commercial partnership and alliance initiatives, as well as emphasizing corporate focus on near-term opportunities.

We would like to share with you the accomplishments LSBC has made over the last year in several areas: our commercial product pipeline; new alliances and partnerships; scientific and technological advancement; and additional management changes.

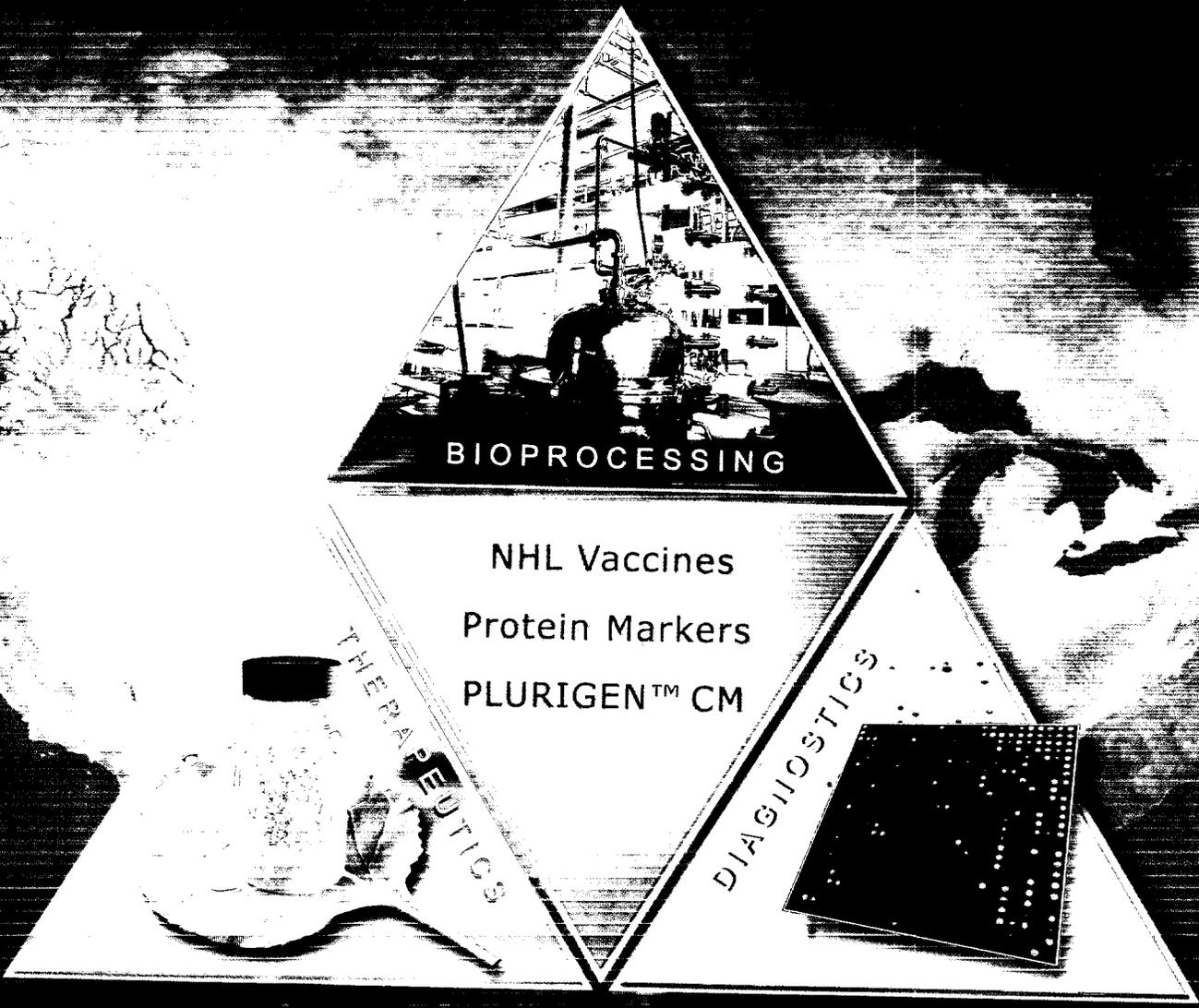
We are happy to report that *LSBC has made a number of advances on the commercial product pipeline front.*

- **NHL Vaccine:** LSBC is presently completing a Phase I clinical trial on its lead internal product, personalized therapeutic cancer vaccines for the treatment of non-Hodgkin's lymphoma (NHL). The safety results of these trials have been excellent, and promising antibody responses are being seen as well. The Company expects to initiate Phase II clinical trials during the middle of 2002.
- **Adult Stem Cell Growth Factor:** Together with LSBC's partners at the U.S. Navy and National Institutes of Health (NIH), significant progress was made in identifying the genes and proteins which induce the self-renewal of adult human stem cells utilizing our endothelial cell-derived growth factor. As evidence of the remarkable progress within this initiative, LSBC launched a research-use-only product, PLURIGEN™CM, on March 25, 2002.
- **Protein Manufacturing:** LSBC has manufactured over 200 different proteins using its GENEWARE® plant production technology. This includes bulk production of alpha-galactosidase as part of an NIH collaborative agreement related to the development of a therapeutic treatment for Fabry's disease.

*LSBC also has completed several alliances with new collaboration partners.* It is important to note that the pace, focus and intensity of LSBC's conversations with other new partners have increased radically in the last few months, and the Company expects to be very active in this area throughout the year. This is important to the Company as a source of near-term revenue, as validation of LSBC's complex technology platforms and as a longer-term opportunity to participate in the upside of LSBC's partners' products through licensing fees, milestone payments and product revenues or royalties. Some notable commercial partnerships include the following publicly announced deals:

- **ApoImmune, Inc.:** LSBC is developing and producing human therapeutic proteins in plants for intended use in stimulating the human immune system (March 2002)
- **Weyerhaeuser Company:** LSBC has entered into a research and development collaboration aimed at understanding fundamental biology of certain tree species such as Douglas fir and loblolly pine (March 2002)
- **Plant Bioscience Ltd.:** LSBC is licensing plant functional genomics technology to enable a major expansion of the Company's high-throughput gene discovery capabilities (June and December 2001)
- **H. Lee Moffitt Cancer Center of the University of South Florida:** LSBC is investigating protein expression in human cancer tumors (October 2001)
- **The Stanley Medical Research Institute:** LSBC is analyzing novel protein markers related to psychiatric diseases (October 2001)

Changing the way products are made, with  
proprietary technologies that make a world of difference.



BIOPROCESSING

NHL Vaccines  
Protein Markers  
PLURIGEN™ CM

THERAPEUTICS

DIAGNOSTICS

Vacaville, CA

cancer vaccines  
human full-length genes  
stem-cell growth factors  
therapeutic enzymes

Germantown, MD

pharmaceutical proteomics  
high-throughput protein discovery  
human protein databases  
diagnostics markers

Owensboro, KY

therapeutic protein manufacturing  
custom bioprocess development  
economic protein extraction  
environment-friendly processes

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 10-K



- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the year ended December 31, 2001.

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_.

Commission File Number 0-31275

**LARGE SCALE BIOLOGY  
CORPORATION**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
Incorporation or organization)

77-0154648  
(I.R.S. employer  
identification number)

3333 Vaca Valley Parkway, Suite 1000, Vacaville, CA 95688  
(Address of principal executive offices and zip code)

(707) 446-5501  
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None  
Securities registered pursuant to Section 12(g) of the Act:  
Common Stock, \$0.001 par value  
Preferred Stock Purchase Rights

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  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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.

The aggregate market value of common stock held by non-affiliates of the Registrant was approximately \$49.6 million as of March 15, 2002.

The number of shares outstanding of registrant's common stock as of March 15, 2002:

<u>Class</u>	<u>Number of Shares Outstanding</u>
Common Stock, \$0.001 par value	24,976,057

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Registrant's definitive proxy statement, which is expected to be filed not later than 120 days after the Registrant's year ended December 31, 2001, to be delivered in connection with the Registrant's Annual Meeting of Stockholders, are incorporated by reference into Part III of this Form 10-K.

*Some of the statements contained in this report constitute forward-looking statements that involve substantial risks and uncertainties. In some cases, you can identify these statements by forward-looking words such as "may", "will", "should", "expect", "plan", "anticipate", "believe", "estimate" or "continue" and variations of these words or comparable words. In addition, any statements which refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. Our Management's Discussion and Analysis of Financial Condition and Results of Operations contain many such forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and situations that may cause our or our industry's actual results, level of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these statements. The risk factors contained in this report, under the heading Factors That May Affect Our Business, as well as any other cautionary language in this report, provide examples of risks, uncertainties and events that may cause our actual results to differ from the expectations described or implied in our forward-looking statements.*

*Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this report. Except as required by law, we do not undertake to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.*

*Large Scale Biology Corporation, LSBC, our logo, GENEWARE, PLURIGEN, ProGEx and other product and trade names are trademarks of or registered trademarks of Large Scale Biology Corporation in the United States and/or other countries. Other product and trade names mentioned herein may be trademarks and/or registered trademarks of their respective companies. References in this report to "the Company," "our," "we" and "us" refer collectively to Large Scale Biology Corporation, a Delaware corporation, and its predecessors and subsidiaries.*

## PART I

### Item 1. Business

#### Overview

LSBC's goal is to develop therapeutic products using our proprietary technology and expertise in proteins. We have technological expertise in three areas: (1) proteomics, which is the study of proteins and how they change in disease and in response to drugs; (2) functional genomics, which is the study of each protein's function; and (3) the production of proteins for commercial applications.

The product categories of strategic importance to LSBC are: (1) cancer vaccine immunotherapy and development of other vaccines for the treatment and prevention of infectious diseases, (2) products and processes for treatment of a variety of diseases in the medical field of hematology, and (3) the low-cost production of complex human proteins in genetically engineered host plants for our products and in partnership with others. Examples of specific products on which we are working include a therapeutic vaccine for treatment of non-Hodgkin's lymphoma, a novel product for stimulation and expansion of stem cell precursors, and a proprietary form of human alpha-galactosidase for the treatment of Fabry disease, a lysosomal storage disorder. We produced human alpha-galactosidase as part of a collaborative research agreement with the National Institutes of Health, or NIH.

In the bodies of all living things, genes tell the body the type and quantity of proteins to make. If that process does not work properly, normal function is impaired and the body may become sick. For these reasons, LSBC analyzes a variety of biological samples to determine functions of genes and proteins. We work to discover the biological or medical significance of changes in the relative abundance of large numbers of proteins. LSBC's proprietary technologies include methodologies for the analysis of both genes and proteins and for the completion of that analysis in an automated, high-throughput fashion. We also own unique systems for manufacturing proteins in both research quantities and commercial quantities to pharmaceutical-grade purity standards.

In addition to developing proprietary therapeutic products, LSBC is marketing its technologies to collaborators and commercial customers. These potential opportunities include the discovery of proteins that act as markers for diagnostic purposes and/or as therapeutic targets for disease, the custom manufacturing of customers' protein therapeutics and vaccines, and protein biochips for commercial research applications. Historically, the Company has successfully applied its core technology to product discovery applications in agriculture, and is pursuing new clients in that market as well.

From inception in 1987 until the end of 2000, LSBC's main focus was on internally developing and integrating proprietary technologies, and on providing research and development services to customers. The focus then shifted to the development of products.

#### Developments in the Year 2001

In fiscal year 2001, LSBC accomplished the following:

- *Vaccine Production*—Successfully completed the manufacture in plants of our first candidate therapeutic product, a series of personalized vaccines for the treatment of non-Hodgkin's lymphoma, or NHL.
- *Positive Results in Phase I NHL Clinical Trial*—Demonstrated an excellent safety profile in the Phase I clinical trial of our non-Hodgkin's lymphoma vaccines and began designing a Phase II clinical trial.
- *New Research Collaborations*—Established new research collaborations, including those with the H. Lee Moffitt Cancer Center of the University of South Florida, the Stanley Foundation Research Programs and Stanford University to expand our search for proteins linked to various diseases. The Company also announced a collaboration in a joint U.S. Navy and NIH research project that focuses on non-embryonic human stem cell research.
- *Successfully Completed Research Phase of Dow Collaboration*—Met or exceeded all of the research objectives established under our collaboration with The Dow Chemical Company and its subsidiary Dow AgroSciences LLC. LSBC has rights to royalty and milestone payments on products from this collaboration which Dow might commercialize.
- *Strengthening of Senior Management Team*—Substantially enhanced our senior management team with the addition of John D. Fowler, Jr. as President and as a Director, and Ronald J. Artale as Chief Financial Officer. The Company believes that adding these individuals significantly strengthens our leadership and aids in the continuing transformation of LSBC from a development-stage into a full-fledged, commercially oriented business.
- *Progress Shown With Adult Stem Cell Growth Factor*—Together with LSBC's partners at the U.S. Navy and NIH, showed significant progress in identifying the genes and proteins

which induce the self-renewal of adult human stem cells utilizing LSBC's Endothelial Cell-Derived Growth Factor.

- *Intellectual Property*—Obtained 13 new patents, impacting each key component of our technology base, bringing LSBC's total patents to 54. These new patents cover such things as anti-cancer molecules, plant and animal viral vectors, proteomics processes and instruments, and bioprocessing. LSBC also filed 106 new patent applications covering various aspects of the Company's technology base, which increases the total of pending patents to 253.
- *Facility Upgrades*—Upgraded our Owensboro, Kentucky large scale bioprocessing facility to produce vaccines and other therapeutic proteins in humans. Specific facilities were completed in Owensboro to enable production of NHL vaccines for a human Phase II trial. LSBC also completed the build-out of a new 53,000 square foot proteomics facility in Germantown, Maryland, believed to be one of the largest in the world.

### Recent Developments

Since the end of 2001, LSBC has new contracts with Weyerhaeuser Company and ApolImmune, Inc. LSBC entered into a research and development collaboration with Weyerhaeuser, which will fund forestry research at LSBC aimed at understanding fundamental biology of certain tree species. With ApolImmune, Inc., LSBC is developing and producing human therapeutic proteins in plants, intended for use in stimulating the human immune system. Also, in March 2002, at the Transcriptome 2002 Conference, LSBC announced the successful discovery and collection of more than 16,000 distinct full-length cDNA clones, a significant portion of which do not presently exist in the public databases. The Company expects to use these clones for internal discovery of novel protein therapeutics and other products, and is also marketing the collection to potential collaboration partners for drug and other product development efforts.

### Science and Industry Background

All living things are made up of one or more cells. Although scientists still have much to learn about how cells actually function, we do know that all cells have several basic components. Inside each plant and animal cell is a nucleus, which contains deoxyribonucleic acid, or DNA, that makes up its genetic code. Each gene is composed of a specific, unique sequence of DNA. When a gene is turned on, or expressed, the genetic code is copied and converted into a cell component called messenger ribonucleic acid, or mRNA. This messenger carries the genetic code to a specific part of the cell, which is outside the nucleus and is where proteins are made. The mRNA tells the cell to make a specific protein.

All diseases involve unhealthy changes either in protein structure, quantity or location within cells. Many diseases are directly caused by genetic defects which impact the way proteins are made or regulated within cells. Therefore, we believe that the field of proteomics is becoming crucial in the biotechnology and pharmaceutical industries' efforts to discover and develop drugs that treat disease, and to make products which enable researchers and doctors to predict, diagnose and monitor diseases. Medical professionals also use proteins as therapeutics themselves; for example, insulin.

Private industry and the federal government have each announced completion of sequencing of the human genome. The Human Genome Project has resulted in large databases but with little or no information about the function of individual genes. We believe that biotechnology is moving from the era of gene discovery into an era focused on identifying the functions of the proteins that genes produce. Determining function involves the discovery of the

role or relationship that a gene or a protein has with a particular biological process and the consequences of modulating its activity. Scientists cannot necessarily reliably infer gene function from gene sequence or mRNA levels alone, nor from comparison to other genes of known function. Discovering gene functions requires the matching of gene sequence to specific protein function. We believe our key technologies, including our core GENEWARE technology, address these needs. In addition, we believe that our bioprocessing technology will enable us to produce commercially valuable proteins rapidly and cost effectively.

Much of the work being done in the biotechnology industry today is on drug development. Quite often, for a company to discover and develop a new drug requires analysis of diseased versus normal tissue to find what is known as a drug "target" within the tissue. A drug "target" may be a protein that is directly correlated to the disease or a biochemical pathway involved with the disease. The scientist's next step is to determine which chemicals, proteins or compounds impact the drug "target" in a positive way; i.e., which cures or reduces the effect of the disease on the particular tissue without causing unacceptable side effects. If the scientist is successful at that stage, then the scientist has discovered a potential drug product. We believe that the final, and perhaps most important step for drug development is a speedy and cost-effective means of producing the new protein drugs in commercial quantities.

### Strategy

LSBC's strategy is as follows:

- Commercialize products and technologies in the field of human and animal healthcare, using proprietary methods to identify and analyze genes and proteins associated with disease.
- Provide speedy and cost-effective manufacturing of therapeutic proteins.
- Capitalize on our leadership position with plant viral vector technology for product discovery applications in agriculture and forestry.

An important assumption underlying LSBC's strategy is that application of our technology to the molecular profiling of patients and disease will enable us to develop therapeutic products with higher than traditional efficacy. Due to the time and cost savings achieved through proprietary processes, we also believe that such products can be sold at profit margins as high or higher than traditional pharmaceuticals.

A key element of LSBC's strategy is the simultaneous focus on product applications of technology and the establishment of commercial collaborations with companies that are leaders in their markets or product categories. LSBC believes this parallel approach to executing our strategy will reduce financial risk, enable access to vital commercial expertise, and preserve attractive financial participation for shareholders in the products which arise from inventions and technologies.

### Commercial Opportunities

*Therapeutic Vaccines.* LSBC's product strategy for the treatment of non-Hodgkin's lymphoma, or NHL, differs from traditional therapeutic approaches in two ways. First, the therapy is individualized, meaning that each vaccine can be used to treat only one patient. We expect such personalized therapy to offer greater control over disease progression than traditional chemotherapy and antibody products because NHL is a heterogeneous (patient specific) disease that frequently does not respond well to conventional treatment. Second, LSBC

manufactures NHL vaccines in the leaves and other tissues of plants using the proprietary GENEWARE system. While individualized vaccines against NHL can be produced by other methods, those processes are often slow and each individual vaccine may require many months to produce. Meanwhile, the patient's condition may deteriorate or the patient may die in the time it would take to make the vaccine. However, our technology produces vaccines in a few weeks' time, a substantial improvement over alternative approaches. We believe that our ability to save time and lower costs is very important in profitably addressing a medical opportunity that might otherwise be uneconomic.

LSBC has demonstrated an excellent safety profile in the Phase I clinical trials for these vaccines. We selected NHL as a product target because it is the most predominant type of lymphoma, is the sixth most common cause of cancer-related deaths, and is a cancer that can be treated successfully by individualized immunotherapy. There are approximately 55,000 new cases of NHL in the United States each year. The initial category of patients selected for our vaccine therapy is that having the "slow growth" form of NHL. This category represents approximately one-third of the total population of NHL patients. Depending upon the success of our clinical trials, our vaccines might one day be extended to cover a higher percentage of NHL patients.

LSBC can use GENEWARE to produce not only vaccines against non-Hodgkin's lymphoma, but also other vaccines for treating cancer if we can find and use a specific tumor-associated antigen as a starting point for vaccine production. We believe that we can use our proprietary technology to discover many such antigens for future use in product development for cancer treatment and for treatment and prevention of other diseases.

*Endothelial Cell-Derived Growth Factor.* LSBC, together with our collaborators in the U.S. Navy and the National Institutes of Health, has demonstrated in preclinical research that Endothelial Cell-Derived Growth Factor, or EDHF, as a single agent, can generate large quantities of multi-potential progenitor cells from which other blood lineages may be derived. We believe that our work in this area has important research implications in such fields as autologous transplantation and gene therapy, which rely on a sufficient and uniform supply of multi-potential cells, which EDHF may be able to generate. While we continue the basic and preclinical research necessary to develop a therapeutic product based on EDHF, we have identified an opportunity to commercialize a research reagent form of EDHF for sale in the cell culture research market. We call this reagent PLURIGEN CM and we are pursuing potential collaborations to commercialize this product in the research market.

*Rapid and Cost-Effective Protein and Vaccine Manufacturing.* LSBC produces human and animal proteins using live plants as production hosts. We believe that our approach to protein production in plants will be a faster and cheaper way to produce vaccines and therapeutic proteins as compared to traditional mammalian production systems. We have produced successfully many different peptides and proteins in plants, including enzymes, single-chain antibodies, growth factors, vaccine antigens and serum proteins. LSBC's NHL vaccines are one prime example. Also, our success with preclinical testing of human alpha-galactosidase has demonstrated the economy and effectiveness of LSBC's proprietary technology in manufacturing a complex human protein for therapeutic purposes. The Company's Owensboro, Kentucky facility is capable of processing up to three tons of plant material per hour to yield pharmaceutical-grade proteins. We are marketing this manufacturing system to various companies who are interested in efficient production of therapeutic proteins. LSBC has a contract with Apolimmune, Inc. to test our system with that company's proprietary polypeptides. LSBC's method of producing low-cost protein vaccines also lends itself to the mass production of vaccines to defend against certain threats of bioterrorism.

*Protein BioChips for Commercial Research Markets.* LSBC is actively pursuing collaborative opportunities to be the content provider for early generations of protein biochips for sale in commercial research markets. A "protein biochip" is a discreet device or platform, sometimes called an array, on which a series of analytical tests for determining the protein content and quantity in a sample of biological material can be performed. We believe that we can leverage our expertise in proteomics in this exciting new area. We believe that protein arrays have the potential to revolutionize proteomics in ways analogous to how microarrays have revolutionized the study of genes in the field of genomics.

*Marker and Target Discovery.* Protein markers are proteins that, when present in body tissues, or fluids such as blood or urine, can be used to make an early diagnosis of a disease or to track its progress. Protein markers can provide an early, accurate, simple and non-invasive technique for assessing:

- When a person has a disease or is at risk of developing it (diagnostic markers).
- The progress of an existing disease and its response to treatment (clinical markers).

Our ProGEx platform provides us with a proprietary facility for discovering new protein markers. This is particularly true in blood serum, the most widely used diagnostic sample, where we have developed expertise in the removal of common protein components and the analysis of trace proteins. Using this technology, tissues or body fluids from patients with specific diseases are compared against the same tissues or fluids obtained from healthy controls, one tissue can be compared against other tissues, and tissues exposed to drugs are compared with untreated tissues. By applying these approaches, we have identified approximately 120 candidate markers of disease or injury in human tissues and approximately 150 in animal tissues. In addition, we have discovered more than 75 markers in human serum directly. LSBC has covered more than 200 markers in these patent applications.

*Plant Functional Genomics, Forestry and Agriculture.* LSBC has developed GENEWARE vectors that can be used to rapidly determine gene function in crops and other plants in a days-to-weeks timeframe, as compared to the months-to-years timeframes that are typical of competing technologies. We plan to capitalize on our global leadership position in high-throughput gene function determination in economically important crops and model plant hosts such as tobacco (i.e. *Nicotiana*) and *Arabidopsis*.

In 2001, LSBC and Plant Bioscience Ltd., or PBL, of Norwich, U.K., entered into a broad, exclusive licensing and option agreement in plant functional genomics that will enable a major expansion of our agricultural gene discovery capabilities by combining our proprietary GENEWARE genomics platform with PBL's substantial portfolio of technologies in this field. PBL is an independent technology interaction and intellectual property management company with rights to various viral-based plant technologies. Under the terms of the agreement, PBL has granted to LSBC an exclusive license to certain viral-derived gene silencing and overexpression technologies developed by Professor David Baulcombe and colleagues at The Sainsbury Laboratory, Norwich, U.K. LSBC believes that this relationship with PBL created the world's leading platform of state-of-the-art methods for plant functional genomics and viral-based manufacture of valuable compounds in plants.

LSBC also entered into a new alliance with Icon Genetics AG of Munich, Germany. Icon is an integrated platform technology provider developing proprietary technologies with application to a broad range of agricultural and pharmaceutical biotechnology products. In this alliance, LSBC and Icon have targeted up to 200 genes, identified through LSBC's GENEWARE technology, for direct introduction into commercial plant varieties using Icon's proprietary Transgene Operating

System™ technology. LSBC believes that Icon's proprietary gene transfer and line conversion systems, in combination with our GENEWARE technology, may generate new commercial opportunities, including in the areas of agriculture and production of proteins.

LSBC recently filed patent applications on gene function discoveries enabled by our GENEWARE high-throughput screening technology. More recently, we have developed novel *Nicotiana* screening hosts via interspecific hybridization and were issued a U.S. patent on the technology in February 2002. We believe this new invention will enable us to further extend the utility of GENEWARE for certain genomic and agricultural applications. Most recently, we have developed a new system for high-throughput screening via GENEWARE in monocots such as barley. At the end of August 2001, we completed our three-year research collaboration with Dow on plant functional genomics, under which we generated over \$52 million in revenue. We are currently marketing our plant functional genomics technology to agricultural chemical companies, forestry companies and multinational seed companies.

## Our Technologies

### *Proteomics and Genomics*

GENEWARE, our core technology, is a modified viral vector system we use to insert genes rapidly and temporarily into host organisms, usually plants in the *Nicotiana* species. We use GENEWARE for gene discovery, gene function analysis and protein production. GENEWARE viral vectors carry a gene sequence of interest into a cell of a host organism. Normally, the gene sequence is converted into mRNA inside the nucleus of the cell. The mRNA then moves outside the nucleus to the cytoplasm where it is translated into protein. GENEWARE does not use the traditional transgenic methods of inserting a gene into the genome of the host organism, which permanently alters the genetic makeup of the plant or other organism. To discover gene function, we insert a gene into the GENEWARE vector (a virus) that is then inoculated onto a plant causing changes in just that generation of the plant that we then analyze. After inoculation with our viral vector, the plant continues to grow until we harvest it, usually within two or three weeks. GENEWARE allows us to tell the plant to turn on or turn off protein production from sequences in genes of unknown function during the plant's growth, thereby enabling us to determine the function and potential commercial use of those genes and proteins. The GENEWARE plant virus is not harmful to either humans or the environment.

LSBC's proteomics technology, including the proprietary ProGEx system, allows for the fast determination of the protein composition, or proteome, of cells and tissues. Protein composition is a listing of the specific proteins present in tissues and cells, and their amounts. We can rapidly identify and quantify proteins found in normal human tissues and cells and the changes in proteins that are caused by diseases or by the use of particular drugs. We believe that proteomics is becoming very important in discovering and developing therapeutics, and in predicting, diagnosing and monitoring diseases. We believe that our proteomics expertise can be used to derive information that is currently unavailable using gene identification alone.

LSBC's GENEWARE and ProGEx technologies, used in combination, can reveal complete genetic information from identification of gene function through quantitative and qualitative descriptions of identified proteins resulting from turning a gene on or off. We are continuing to integrate our proteomics and genomics technology platforms. We believe that this integration effort is a significant competitive advantage in our product development strategy.

### *Bioprocessing*

LSBC also uses GENEWARE to manufacture therapeutic proteins, peptides and other molecules in plants. GENEWARE can achieve significant time and cost advantages over traditional, transgenic genetic-engineering systems and alternative manufacturing technologies. This is because our GENEWARE system does not require alteration of the genome of the host organism. LSBC uses its Owensboro, Kentucky production facility for the custom production of protein products using GENEWARE technology. The Company is in the process of obtaining FDA approval to produce NHL vaccines for a human Phase II trial. Since 1991, LSBC has conducted several USDA-approved field trials, each demonstrating that GENEWARE is environmentally safe. We believe that GENEWARE is environmentally safe because the viral vector and the genes we insert cannot be incorporated into the plant genome and, thus, cannot be transmitted to the next generation of the plant in the seed or pollen. Nor does the vector affect other crops or the food supply because we use non-food plant hosts.

### *Bioinformatics*

LSBC generates large amounts of data when working with genes and proteins. Bioinformatics is the word we use to define our gathering, storage, analysis, retrieval and manipulation of this data using computers. Our bioinformatics infrastructure comprises the entire collection of laboratory information management systems (LIMS), relational database technology, analysis tools and various other hardware and software supporting our development efforts. We use very sophisticated techniques in advanced computer programming and engineering to integrate proprietary software, relational database programming, load balancing, batch management processing, and client-side applications to integrate and manage all types of biological information.

LSBC is diligently mining the proprietary proteomics data generated to date in our Human Protein Index™, or HPI™ database, our MAP-Molecular Anatomy and Pathology™, or MAP™ database and in our MED-Molecular Effects of Drugs™, or MED™ database, in connection with the ongoing effort to develop new therapeutic products. In addition, to increase our understanding of the biological importance of our data, our proprietary data are joined with publicly available biological data and stored in a relational database for data mining and discovery purposes. These combined data sets are used by LSBC scientists for product discovery applications.

We believe our bioinformatics resources are important components of the Company's competitiveness and of great value to our product development initiatives.

### *Collaborations*

LSBC's revenue has been derived principally from collaborations with others. LSBC structures collaborations in many ways. We pursue immediate funding in the form of ongoing committed research and development payments and, in some cases, technology access fees from our collaborators. We also seek to share in the long-term value of the products that we assist our collaborators in developing through the retention of certain product rights and from royalty fees from the sale of products developed using our technologies. Other collaborations take the form of alliances to jointly commercialize product applications evolved from combining specific technologies of each company.

Glaxo Wellcome PLC, Procter & Gamble Co., Novartis AG and other pharmaceutical companies have collaborated with us on specific proteomics projects in pharmaceutical research and development. Biotechnology companies, such as Genentech, Inc., have also conducted

research with us. We also have had research programs with numerous government agencies. We currently have several ongoing research and technology development programs.

Dow collaborated with us between September 1998 and August 2001. Dow had exclusive use of our GENEWARE technology for functional genomics in selected agricultural and industrial chemical categories. We generated over \$52 million in revenue from this collaboration, representing approximately 86% of our total revenues over that time frame. LSBC and Dow have identified commercially significant genes for specific agricultural and industrial uses that may be marketed by Dow and its affiliates. We retain the right to use any of the identified genes resulting from this collaboration for uses in other categories not allocated to Dow.

LSBC is entitled to royalties if Dow and its affiliates commercialize products from the collaboration. Under our agreement with Dow, we received research and development funding, milestone payments upon completion of research objectives, and technology access fees. Revenues recognized pursuant to this collaboration were \$15.1 million in 2001. We have not yet entered into any new collaborations which would make up for the absence of ongoing revenue from Dow. However, we are currently marketing access to our functional genomics technology for agriculture, horticulture, forestry and similar purposes to other parties.

LSBC is committed to developing protein markers as content for early generations of commercial biochips. We expect to collaborate with one or more companies in connection with this effort.

In February 2001, LSBC formed a collaborative alliance with ProdiGene, Inc. to jointly market to third parties our combined capabilities to manufacture therapeutic antibodies made in transgenic plants. We believe that this alliance will commercially link our bioprocessing capabilities with ProdiGene's transgenic plant protein production technology.

### **Intellectual Property**

LSBC continually seeks patent protection for our proteomics, genomics, bioprocessing, and plant and animal viral gene expression technologies. As of December 31, 2001, we had 37 issued and 97 pending U.S. patents. Our issued U.S. patents expire between 2006 and 2020. Foreign patents corresponding to many of the U.S. patents and patent applications have been filed and/or issued in one or more other countries, resulting in a total of 17 issued and 156 pending foreign patents as of December 31, 2001. We believe that these issued patents in various technological areas are valuable to our business. In the plant and animal viral systems field, we have 15 issued U.S. patents and 16 foreign country patents with duration ranging from 2011 to 2018. In the proteomics field we have 17 issued U.S. patents and one issued foreign patent with duration ranging from 2006 to 2020. In the genomics field, we have 1 issued U.S. patent with duration to 2018. In the bioprocessing field, we have 4 issued U.S. patents with durations through 2018.

These patents give us the right to exclude others from practicing or selling products, technologies or services covered by the methods claimed, and from making, using or selling the products which are the subject of the claims of these patents.

A registered trademark gives the owner the right to exclude others from using identical or confusingly similar marks within the same channels of commerce. We own or own rights to many registered trademarks and unregistered marks in the United States and in many other countries.

LSBC also relies upon copyright protection, trade secrets, continuing technological innovation and licensing from others to protect our intellectual property. Our success will

depend, in part, on our ability to obtain patent protection for our products and processes, to preserve our copyrights and trade secrets, to operate without infringing the proprietary rights of third parties and to acquire licenses, if needed, to support or enhance our intellectual property portfolio.

### **Employees**

As of March 25, 2002, LSBC had 169 full-time employees, of which 128 comprised staff engaged in development and scale-up activities. The remainder work in general and administrative areas. Also, 31 of our employees hold Ph.D. degrees. We consider relations with our employees to be good, and none of the employees are covered by a collective bargaining agreement.

### **Research and Development**

LSBC's internally funded research and development expenses totaled \$22.4 million, \$16.4 million and \$9.5 million in 2001, 2000 and 1999, respectively. Our customer-sponsored research and development expenditures totaled \$3.5 million, \$8.1 million and \$7.4 million in 2001, 2000 and 1999, respectively.

### **Competition**

The genomics and proteomics businesses are intensely competitive. Extensive research efforts characterize the genomics and proteomics industries, resulting in rapid technological progress. Many universities, public agencies and established pharmaceutical, biotechnology, chemical and other life sciences companies with substantially greater resources are developing and using competitive technologies and are actively engaging in the development of competitive products. In addition, other companies are engaged in development programs directed to the production of therapeutic proteins or peptides in plants.

The markets for protein development and production, including human vaccines and therapeutics like the ones we are developing, also are highly competitive. Competitors with substantially greater resources are actively developing products similar to, or competitive with, our products. Several pharmaceutical, biotechnology, chemical and other life sciences companies engage in research and development in the use of novel gene expression systems to produce therapeutic proteins. Other companies are developing and marketing therapeutics for non-Hodgkin's lymphoma.

In the field of functional genomics, we face competition from many biotechnology companies. In the field of proteomics, we face competition from a small number of companies using similar methods to investigate protein expression, and we believe some major pharmaceutical companies are internally developing proteomics technologies that may be competitive with ours. The maturation of the genomics industry, associated with completion of the sequencing of the human genome, has also caused successful genomics companies with greater resources than ours to look to proteomics as an opportunity for continued growth.

We and others compete in the emerging fields of functional genomics and proteomics on the basis of technological innovations that offer time and cost advantages for the accomplishment of specific tasks, many of which were not previously practical. We believe our proprietary technology, and our significant patent portfolio, will allow us to compete effectively in these fields. However, we expect new developments to continue and discoveries by others may render our potential products and technologies non-competitive.

**Item 2. Properties**

LSBC's principal research and development facilities and corporate headquarters are located in Vacaville, California, at a facility of approximately 45,000 square feet that includes administrative offices, a genetic engineering laboratory, a plant discovery and function laboratory and a bioinformatics software laboratory, under a lease that expires on February 28, 2004. In addition, LSBC has a bioprocessing laboratory at this same facility. We also own a facility of approximately 22,000 square feet in Owensboro, Kentucky for pilot and large-scale extraction and downstream bioprocessing of protein products produced in plants. Our proteomics division presently occupies a laboratory and office facility in Germantown, Maryland of approximately 53,000 square feet, under a lease that expires on December 31, 2010. LSBC believes that our existing facilities are adequate to meet our current needs.

**Item 3. Legal Proceedings**

None.

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

Not applicable.

## PART II

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

The Company's common stock is traded on the Nasdaq National Market under the symbol "LSBC." Public trading of the common stock commenced on August 10, 2000. Prior to that, there was no public market for our common stock. The following table sets forth the high and low bid price per share of the Company's common stock as reported on the Nasdaq National Market during each quarter the stock has been publicly traded.

	<u>High</u>	<u>Low</u>
Year Ended December 31, 2001:		
Fourth Quarter .....	\$ 5.50	\$ 3.20
Third Quarter .....	7.55	2.63
Second Quarter .....	8.63	3.40
First Quarter .....	15.69	4.38
Year Ended December 31, 2000:		
Fourth Quarter .....	32.88	5.25
Third Quarter (from August 10, 2000) .....	32.94	18.75

Based upon data provided by our transfer agent, the Company had approximately 6,300 beneficial holders of our common stock as of March 15, 2002. This total includes the number of persons whose stock is in nominee or "street name" accounts through brokers.

The Company has never declared nor paid any cash dividends on its common stock and we do not anticipate declaring any dividends on our common stock in the foreseeable future. We currently intend to reinvest future earnings, if any, for use in research and development or other business needs.

In the fourth quarter of 2001, the Company issued the following unregistered securities:

- On November 1, 2001, the Company's President, John D. Fowler, Jr., purchased 100,000 shares of common stock from the Company at an aggregate purchase price of \$345,000.
- On November 1, 2001, the Company issued, subject to the Company's right to reversion, 200,000 shares of common stock to Mr. Fowler in consideration for his services as an employee of the Company. These shares vest and the Company's right of reversion lapses according to the following schedule: 50,000 shares on January 1, 2002, and thereafter in twelve quarterly installments of 12,500 shares beginning on February 1, 2002. Any unvested shares will immediately vest in full under certain circumstances.
- Mr. Fowler was also issued a warrant to purchase 250,000 shares of common stock in consideration for his services as an employee of the Company. The warrant becomes exercisable in full if the quoted value of the Company's common stock, as reported on the Nasdaq National Market, equals an average of at least \$6.84 for any consecutive 20-business-day period prior to February 15, 2006. This warrant has an exercise price of \$5.13, and expires on February 14, 2012.

The issuance or sale of the above unregistered securities were made in reliance upon Section 4(2) of the Securities Act and were made without general solicitation or advertising. Mr. Fowler is an accredited investor and had access to all relevant information to evaluate the investment and represented to us that the shares were being acquired for personal investment.

During the third quarter of 2000, the Company received net proceeds of approximately \$89 million from an initial public offering, or IPO, of the Company's common stock. Provided below is a reasonable estimate of the amount of IPO net proceeds used in each of the following categories, through December 31, 2001:

Construction of plant, building and facilities .....	\$ 1,912,000
Purchase and installation of machinery and equipment .....	7,150,000
Construction of leasehold improvements .....	5,993,000
Repayment of indebtedness .....	3,618,000
Purchase of intellectual property licenses .....	2,650,000
Capitalized patent costs .....	1,253,000
Working capital .....	17,401,000
Cash and investments .....	48,779,000

The use of proceeds for working capital includes expenses for research and development and general and administrative activities. Cash and investments consist of money market funds, commercial paper, corporate and U.S. government agency notes, and bank certificates of deposit.

None of the IPO net proceeds were paid directly or indirectly to directors, officers, or their associates, persons owning 10 percent (10%) or more of any class of our equity securities, or our affiliates. The use of IPO net proceeds set forth above does not represent a material change from the anticipated use of proceeds described in the prospectus contained in our Registration Statement on Form S-1 (SEC Registration No. 333-34198), declared effective on August 9, 2000.

## Item 6. Selected Financial Data

You should read the following selected financial data in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and related notes included in Part IV of this Annual Report on Form 10-K. We derived the consolidated statement of operations data for the years ended December 31, 2001, 2000 and 1999 and the consolidated balance sheet data as of December 31, 2001 and 2000 from our audited consolidated financial statements. We derived the statements of operations data for the years ended December 31, 1998 and 1997 and the balance sheet data as of December 31, 1999, 1998 and 1997 from our audited consolidated financial statements not included in this Report.

	Year ended December 31,				
	2001	2000	1999	1998	1997
In thousands, except share and per share data					
<b>Consolidated Statement of Operations Data</b>					
Revenues .....	\$ 17,731	\$ 23,291	\$ 16,090	\$ 3,394	\$ 2,108
Costs and expenses:					
Development agreements .....	3,467	8,115	7,439	2,565	1,735
Research and development .....	22,391	16,373	9,491	6,973	5,872
General, administrative and marketing .....	14,373	8,119	7,977	3,492	3,363
Purchased in-process research and development .....	—	—	21,362	—	—
Stock compensation bonus .....	—	7,268	—	—	—
Amortization of goodwill and purchased intangibles .....	1,300	1,197	623	—	—
Total costs and expenses ...	41,531	41,072	46,892	13,030	10,970
Gain on litigation settlements .....	—	—	1,300	1,890	2,000
Loss from operations .....	(23,800)	(17,781)	(29,502)	(7,746)	(6,862)
Total other income (expense) .....	3,111	1,481	(5,203)	(1,009)	293
Loss before provision for income taxes .....	(20,689)	(16,300)	(34,705)	(8,755)	(6,569)
Provision for income taxes .....	—	—	190	—	—
Net loss .....	\$ (20,689)	\$ (16,300)	\$ (34,895)	\$ (8,755)	\$ (6,569)
Net loss per share—basic and diluted .....	\$ (0.84)	\$ (1.07)	\$ (3.76)	\$ (0.93)	\$ (0.70)
Weighted average shares outstanding—basic and diluted .....	24,599,126	15,251,575	9,275,228	9,366,774	9,332,235
December 31,					
	2001	2000	1999	1998	1997
In thousands					
<b>Consolidated Balance Sheet Data</b>					
Cash and cash equivalents .....	\$ 24,055	\$ 40,030	\$ 6,975	\$ 3,484	\$ 2,708
Marketable securities .....	24,724	44,971	7,124	4,086	—
Working capital (deficit) .....	47,135	70,853	(1,514)	2,514	1,385
Total assets .....	76,912	106,943	31,762	17,590	8,388
Long-term debt and warrant liability .....	249	423	13,837	4,061	205
Convertible preferred stock .....	—	—	40,497	15,848	8,894
Accumulated deficit .....	(115,721)	(95,032)	(78,732)	(43,837)	(35,082)
Total stockholders' equity (deficit) ..	73,037	89,792	(6,703)	2,927	6,261

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with Item 6, "Selected Financial Data" and our audited consolidated financial statements and related notes included in Part IV of this Annual Report on Form 10-K. This discussion includes forward-looking statements, such as our projections about future results of operations which are inherently uncertain. Our actual results could differ materially from those anticipated in our forward-looking statements as a result of many factors including, but not limited to, those discussed in "Factors That May Affect Our Business" in this item.

### Overview

The Company's recent operating results and financial position are summarized as follows:

- The Company has incurred significant operating and net losses in each year since inception in 1987. As of December 31, 2001, the Company's accumulated deficit equaled \$115.7 million.
- The Company's research collaboration with Dow (see *Results of Operations, Revenues* below), which accounted for 85%, 86% and 88% of total revenues in 2001, 2000 and 1999, respectively, ended in August 2001.
- The Company incurred negative operating cash flows of \$18.9 million and \$13.0 million in 2001 and 2000, respectively, and we expect cash consumption to increase until such time as we are able to replace the revenue generated from the Dow research collaboration.
- The Company's aggregate cash and marketable securities balance at December 31, 2001 equaled \$48.8 million compared to \$85.0 million at December 31, 2000, shortly after the Company's initial public offering of common stock, or IPO, in the third quarter of 2000.

For the Company to generate positive earnings and operating cash flows in 2002, we must realize significant revenues and cash receipts from product sales or new collaboration agreements. Without positive operating cash flows in 2002, we will continue to consume remaining IPO proceeds to fund internal research and development and general and administrative activities. If that happens, we may have to conserve working capital by forcing reductions in operating expenses and reducing the rate of investment or scope of product development activities. Additionally, the Company may be required to seek additional equity or debt financing. Such sources of working capital may not be available to the Company or on terms acceptable to the Company.

### Results of Operations

*Revenues.* In September 1998, the Company entered into a Collaboration and License Agreement, or Dow Agreement, with The Dow Chemical Company and its subsidiary, Dow AgroSciences LLC, or collectively, Dow. The collaboration portion of the agreement, or Dow Collaboration, had a three-year term ending in August 2001. Under the Dow Collaboration, the Company received funding for sponsored genomics research and payments for technology access fees and milestone achievements. Revenues earned under the Dow Agreement accounted for 85%, 86% and 88% of total revenues in 2001, 2000 and 1999, respectively. Total revenues decreased \$5.6 million, or 24%, in 2001 and increased \$7.2 million, or 45%, in 2000. These changes are similar to changes in revenues earned under the Dow Collaboration for the same periods. The decrease in Dow related revenues in 2001 is attributable to the completion of the Dow Collaboration in August 2001. All deferred revenue related to the Dow Collaboration was

fully recognized as of August 2001. At December 31, 2001, deferred revenue from other sources equaled \$598,000. Accordingly, revenues for 2002 and beyond are dependent upon the Company entering into new collaboration agreements or developing products for sale in one or more of our key technologies.

*Development agreement costs.* Development agreement costs consist mainly of personnel expenses and research materials related to activities performed under revenue generating collaboration agreements. These costs in 1999 through 2001 essentially related to the Dow Collaboration. Development agreement costs decreased \$4.6 million, or 57%, in 2001 and increased \$676,000, or 9%, in 2000. The decrease in 2001 is primarily attributable to the completion of the Dow Collaboration in August 2001. We expect future development agreement costs to fluctuate consistently with increases or decreases in revenues earned from new collaboration agreements.

*Research and development expenses.* Research and development expenses consist mainly of internal personnel, consulting and other outside research services, and materials related to unreimbursed research activities. Research and development expenses increased \$6.0 million, or 37%, in 2001 and \$6.9 million, or 73%, in 2000. The increase in 2001 is primarily attributable to the reallocation of resources from activities associated with the Dow Collaboration to internally funded research projects. For reporting purposes, this reallocation of resources resulted in increased research and development expenses and decreased development agreement costs (as noted above). The increase in 2001 is also due to the hiring of additional research personnel and increased rent and other expenses related to the relocation of the Company's Maryland facility in 2001. The increase in 2000 was attributable to the hiring of additional research personnel, expansion of operations at our proteomics division, amortization expense related to stock options granted in December 1999, and costs for non-Hodgkin's lymphoma vaccine clinical trials. We believe that research and development activities are essential to the Company's technological and product development strategy and we expect to continue investing a significant amount of our working capital in such activities in 2002. We do not expect research and development expenses to increase significantly in 2002.

The Company's major research and development projects include our initiatives in the areas of therapeutic vaccines, endothelial cell-derived growth factor, protein and vaccine manufacturing, protein biochips, marker and target discovery, and plant functional genomics. We cannot estimate with reasonable certainty the project completion dates or cost to complete these projects. If we are to generate significant cash flows in the future, we believe that one or more of these projects must develop into a commercially successful product or service. Although we believe that all of our projects are important, business developments such as new collaborations with our partners may dictate the relative emphasis and resources we place on any given project which will affect the costs and completion dates of our other projects. Alternative technologies may supersede our technologies or make them non-competitive, in which case we would shift our resources away from projects related to these obsolete technologies. In addition, if we are unable to generate significant cash flows in the near future, we may have to delay, reduce the scope of, or eliminate one or more of our research and development projects. Any delay in the completion of any one of our research and development projects would jeopardize the success of the product or service we expect to commercialize from that project.

*General, administrative and marketing expenses.* General, administrative and marketing expenses increased \$6.3 million, or 77%, in 2001 and \$1.7 million, or 21%, in 2000 (after excluding a \$1.5 million charge for write-off of capitalized patent costs in 1999). The increase in 2001 is attributable to several factors including personnel additions and consulting services related to business development and public and investor relations activities commencing in 2001;

personnel additions and production costs related to regulatory and shareholder reporting requirements after the Company's IPO in August 2000; greater outside legal costs related to increasing volume of patent applications in 2001; and increased rent and other expenses related to the relocation of the Company's Maryland facility in 2001. The increase in 2000 was attributable to amortization expense related to stock options granted in December 1999 and the hiring of additional administrative personnel. We currently expect general, administrative and marketing expenses in 2002 to be consistent with, or lower than, 2001. However, we may have to significantly reduce these expenses in 2002 if the Company continues to experience negative operating cash flows.

*Purchased in-process research and development.* In connection with the Company's acquisition of Large Scale Proteomics Corporation, or Proteomics, in 1999, \$21.4 million of purchased in-process research and development was identified as an intangible asset. These research projects were subsequently deemed not to have future uses or markets. As such, the identified intangible asset was written off in 1999 at the date of acquisition.

*Stock compensation bonus.* The stock compensation bonus of \$7.3 million in 2000 is a non-cash charge for stock options issued to key officers and employees in December 1999 that vested concurrent with the Company's IPO in August 2000.

*Amortization of goodwill and purchased intangibles.* Amortization of goodwill and purchased intangibles relates to the Company's acquisition of Proteomics. We expect amortization expense to decrease to \$624,000 in 2002 as goodwill and certain purchased intangibles are no longer amortized in accordance with Statement of Financial Accounting Standard ("SFAS") No. 142. However, the Company will continue to evaluate goodwill and certain purchased intangibles for possible impairment in 2002 and future periods.

*Interest income.* Interest income increased \$562,000 and \$2.2 million in 2001 and 2000, respectively, due to the investment of unused proceeds of the Company's IPO. The Company invests available cash balances in interest bearing securities. We expect interest income to decrease significantly in 2002 due to lower cash balances available for investment and lower average interest yields.

*Change in fair value of warrant.* The non-cash charges of \$811,000 and \$5.4 million in 2000 and 1999 relate to increases in the fair value of a warrant issued to Dow in connection with the Dow Agreement. We reclassified the warrant from a liability to permanent equity in 2000 and no subsequent charges were incurred.

*Provision for income taxes.* In 1999, the Company realized federal and state alternative minimum taxable income due to differences between book and tax treatment of milestone payments received in connection with the Dow Collaboration and the charge for purchased in-process research and development.

## Liquidity and Capital Resources

	Year Ended December 31,		
	2001	2000	1999
Cash and marketable securities .....	\$ 48,779,000	\$ 85,001,000	\$14,099,000
Working capital .....	47,135,000	70,853,000	(1,514,000)
Cash (used in) provided by operating activities .....	(18,862,000)	(12,997,000)	6,298,000
Cash used in investing activities, excluding marketable securities activity .....	(15,643,000)	(5,289,000)	(5,454,000)
Cash (used in) provided by financing activities .....	(915,000)	88,388,000	5,639,000

*Working capital.* Working capital represents the Company's current assets (including cash and marketable securities) less current liabilities. We have historically funded our working capital needs through payments received from collaboration agreements and issuances of preferred and common stock. In the third quarter of 2000, the Company received net proceeds of \$88.8 million from the IPO. The IPO proceeds represented our primary source of working capital in 2001, in addition to \$6.7 million of payments received in 2001 from Dow under the terms of the Dow Collaboration. We have utilized a substantial amount of the IPO proceeds to fund research and development activities and expand the Company's facilities. The rate of utilization of IPO proceeds in 2002 depends on the Company's ability to generate positive cash flows from product sales or from new collaboration agreements. We expect that our cash and marketable securities balance at December 31, 2001 is sufficient to meet our working capital and capital expenditure needs through December 31, 2002. However, if the Company continues to experience significant negative cash flows in 2002, we may need to sell additional equity or debt securities, obtain credit financing, or sell all or a portion of certain assets or technologies in order to fund our operating activities in 2003 and beyond. Given the Company's financial position, credit financing may not be available to the Company or on terms acceptable to the Company. Also, the sale of additional equity or convertible debt securities may result in significant dilution to our current stockholders.

*Cash (used in) provided by operating activities.* The trend of decreasing operating cash flows is attributable to the reduction of cash received from Dow under the Dow Collaboration and increases in operating expenses. The Company received \$6.7 million, \$9.8 million and \$24.3 million from Dow in 2001, 2000 and 1999, respectively. The Dow Collaboration ended in August 2001. Cash operating expenses increased \$6.0 million and \$5.6 million in 2001 and 2000, respectively, reflecting increased investment in internal research and development projects and increased general and administrative expenses.

*Cash used in investing activities, excluding marketable securities activities.* Capital expenditures equaled \$12.3 million, \$4.5 million and \$5.1 million in 2001, 2000 and 1999, respectively. In 2001, capital expenditures invested in our proteomics division equaled \$7.7 million, primarily for leasehold improvements to a new and expanded facility in Germantown. We also invested \$2.4 million in 2001 at our Owensboro facility for further construction of a bioprocessing plant. The Company had no material capital expenditure commitments at December 31, 2001. For 2002, the Company's planned capital expenditures are less than \$2 million. This planned amount may change based upon the requirements of any new collaboration agreements we may enter into during 2002.

In 2001, we paid \$2.7 million in patent license fees for the rights to utilize specified technologies. This amount has been capitalized and is included in other assets in the Company's

consolidated balance sheet at December 31, 2001. The Company may enter into license fee agreements in the future when acquiring rights to certain technologies creates product development opportunities.

*Cash (used in) provided by financing activities.* In 2000, the Company received net proceeds of \$88.8 million from the IPO and proceeds of \$1.8 million from the issuance of common stock upon exercise of stock options. In 1999, the Company received proceeds of \$3.7 million from the issuance of long-term debt. Also in 1999, we allocated \$3.4 million of milestone payments received from Dow to a common stock warrant issued to Dow. Principal payments on long-term debt equaled \$2.1 million, \$2.9 million and \$1.1 million in 2001, 2000 and 1999, respectively.

### Commitments

The Company leases facilities in Vacaville, California and Germantown, Maryland under operating leases. Additionally, the Company has research sponsorship agreements with major universities, government institutions and other companies whereby the Company funds specific projects of interest to the Company.

The Company's non-cancelable commitments to make minimum payments under contractual obligations as of December 31, 2001 are as follows:

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>After 5 Years</u>
Long-term debt .....	\$ 107,000	\$ 49,000	\$ 52,000	\$ 54,000	\$ 57,000	\$ 37,000
Operating leases .....	1,707,000	1,758,000	948,000	806,000	830,000	3,578,000
Research agreements ..	398,000	—	—	—	—	—
License agreements ..	225,000	—	—	—	—	—
Total .....	<u>\$2,437,000</u>	<u>\$1,807,000</u>	<u>\$1,000,000</u>	<u>\$860,000</u>	<u>\$887,000</u>	<u>\$3,615,000</u>

In addition to the future non-cancelable minimum payments above, certain of our research agreements require future aggregate payments of \$2,775,000 if the agreements are not cancelled.

In June 2001, the Company entered into a patent license agreement that requires the Company to pay \$600,000 in the first year of the agreement for a two-year worldwide exclusive right to specified technologies. As of December 31, 2001, \$400,000 has been paid. The agreement provides extension options for exclusive or non-exclusive rights beginning in year three. Additionally, the agreement provides the licensor an option, through June 2004, to require the Company to fund research of a laboratory associated with the licensor. If such option is exercised, the required research funding will be at least \$200,000 per year.

In January 2001, the Company entered into an agreement with Biosite Inc. whereby the Company originally committed to pay \$6,760,000 over 14 months for the purchase of antibodies. Later in 2001, Biosite and Xoma Ltd. (and certain Xoma affiliates) sued each other over intellectual property issues. That litigation impacted work Biosite had agreed to do for the Company under the agreement. Because of this litigation, the Company voided the agreement in

January 2002. We have not paid and do not expect to pay any amounts to Biosite under the terms of the voided agreement.

The Company does not have any unconsolidated entities or any other arrangements with third parties that provide financing, liquidity or capital resources to the Company.

#### **Critical Accounting Policies**

The Company's accounting policies are explained in Note 1 to the Consolidated Financial Statements. We consider the following accounting policies to be critical given they involve estimates and judgments made by management and are important for our investors' understanding of our operating results and financial condition.

*Revenue Recognition.* Revenues are derived from research and collaboration agreements and government grants that consist of one or more revenue sources including research funding, technology access fees and milestone payments. Revenue from research funding is recognized as services are performed and expenses are incurred. The Company's collaboration agreements generally provide for continued access by the partners to technologies developed under such agreements for the life of the agreements. Accordingly, technology access fees and milestone payments received are deferred because their receipt does not represent the culmination of the earnings process. Revenue from technology access fees is recognized on a straight-line basis over the term of the applicable agreement. Revenue from milestone payments is recognized on a straight-line basis from the date of completion of the milestone to the end of the applicable agreement. The life of a collaboration agreement is based on the original term of the agreement, not including renewal periods unless renewal is assured. Revenue from government grants is recognized as expenses are incurred and billed, except that revenue received for equipment purchases is deferred and recognized as revenue over the life of the grant.

*Intangible and Long Lived Assets.* The Company's intangible and long-lived assets include goodwill and other intangibles related to the Company's acquisition of Proteomics, capitalized costs of filing patent applications that related to commercially viable technologies, capitalized license fees for rights to specified technologies, and property and equipment related to our bioprocessing facility in Kentucky. We evaluate our intangible and long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets.

In June 2001, the Financial Accounting Standards Board issued SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 142 addresses the recognition and measurement of goodwill and other intangible assets subsequent to their acquisition. The Company adopted SFAS No. 142 on January 1, 2002. Adoption of SFAS No. 142 eliminates future amortization of goodwill and certain purchased intangible assets. As a result, amortization of goodwill and purchased intangibles is expected to decrease by \$676,000 in 2002. SFAS 142 also requires that goodwill and certain purchased intangible assets be evaluated for impairment within six months of adoption and no less frequently than annually thereafter.

In October 2001, the Financial Accounting Standards Board issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. The Company adopted SFAS No. 144 on January 1, 2002. Adoption of SFAS No. 144 will not have a material effect on the Company's financial position, results of operations and cash flows.

## Inflation

The Company believes that inflation has not had a material adverse impact on our business or operating results during the periods presented.

## Factors That May Affect Our Business

We operate in a rapidly changing environment that involves a number of risks, some of which are beyond our control. The following discussion highlights some of these risks, and other risks are discussed elsewhere in this Report.

### Risks Related To Our Business

*We are at an early stage of development, and we may not be able to successfully develop and commercialize our products and technologies*

We are in an early stage of development as an operating company, and we are subject to all the risks inherent in the development of a business enterprise, including the need for substantial capital to support the development of our products and technologies. We have had limited revenue from contract research and development services and collaborations.

Our anticipated products, including our novel vaccines for the treatment of non-Hodgkin's lymphoma, or NHL, and our initiative to be a protein and antibody content provider for biochips, most likely will require that we enter into new collaborations before we can manufacture and/or market them. Vaccines are also subject to the governmental regulatory process. Because we are in new and developing fields, and our research focuses on new and unproven technologies, our therapeutic vaccines, proteins and other therapeutics under development may not be effective in humans, or may not meet regulatory requirements for safety and efficacy. In addition, even if we successfully develop a product, there may not be a substantial commercial market for that product.

*We are in new and developing fields and there may not be a market for our products and technologies*

Protein-based gene expression products and technologies, including our plant-derived proteins and our ProGEx system and GENEWARE technology, have limited commercial precedent. Our research is fundamentally unique and we cannot assure the acceptance of its scientific merit or the benefits of products produced by it, or that the public will react favorably to it. The usefulness of the information and products generated by our proteomics and functional genomics technologies is unproven, and our collaborators and potential collaborators may determine that they are not useful or cost-effective. We generate large amounts of data from our research with genes and proteins and we may not be able to timely mine or integrate this data, or turn it into commercially viable information. In addition, we must develop new products and technologies in time to meet market demand, if any. If we fail to do so, it is likely that other technologies and companies will predominate and we will not be able to earn a sufficient return on our investment.

*We have a history of losses and cannot predict when we will become profitable, if at all*

We have had net losses in each year since our inception in 1987. We sustained a net loss of \$20.7 million in 2001, and had an accumulated deficit of \$115.7 million as of December 31, 2001. Almost all of our revenues over the last three years have come from Dow. The research collaboration under the Dow Agreement ended on August 31, 2001 and we expect no additional

revenues under the Dow Agreement for several years. We have not yet entered into any new collaborations that could make up for the decrease in cash flow and revenues resulting from the completion of the Dow Collaboration. We expect to continue to spend significant amounts to develop products, fund research and development, and to enhance our core technologies. As a result we will need to generate significant additional revenues from collaborations and the commercialization of our products and technologies to achieve profitability. We expect to incur substantial losses in the foreseeable future. If we are unable to enter into new collaborations, control our operating expenses and successfully commercialize our products and technologies, we may never become profitable.

*We may require additional capital*

In order for us to remain competitive so we can develop profitable and cash-positive operations, we must generate revenue from our products under development and our technologies. We have never generated enough cash during any period since our inception to cover our expenses and we expect to continue to spend substantial funds to continue our product development programs. Changes in our business may occur that would consume available capital resources significantly sooner than we expect. In addition, the risks inherent in developing innovative products, such as a protein biochip or NHL vaccines, make it difficult to forecast with certainty the capital required to commercialize our products. If our capital resources are insufficient to meet future capital requirements and expenses, we will have to raise additional funds. If we raise additional funds by issuing equity securities, our existing stockholders may be diluted. We may raise this capital through public or private financings or additional collaborations, strategic partnerships or licensing arrangements. While we cannot predict our need for additional capital in the future, the amount required may be substantial. We may be unsuccessful in entering into any new collaboration that results in significant revenues or cash flow. If we are unable to raise sufficient additional capital, we will have to curtail or cease operations.

*General economic conditions result in uncertainty with respect to other companies' and entities' collaborating with us or otherwise dealing with us, and this can have an adverse effect on our revenues and cash flows*

To a large extent, decisions by businesses and other entities to collaborate or otherwise do business with us are discretionary. We believe that the prolonged slowdown in the U.S. economy and economies overseas has caused, and may continue to cause such potential collaborators and customers to defer decisions to work with us or access our technologies. As a result, we expect that revenues and cash flow will be uncertain for the remainder of 2002. Therefore, it is difficult to accurately assess and predict the future demand for our products, technologies and services. If these general economic considerations continue, such conditions will likely have a continuing, adverse effect on our revenues and operating results.

*In an environment of diminished revenue, we must manage our costs in ways that preserve our product pipeline and technology base*

Because we are experiencing diminished revenue and cash flow, we are internally funding virtually all of our product development initiatives. At the same time, because our cash flow is substantially reduced compared to the last three years, we are experiencing increasing pressure to curtail spending and otherwise reduce costs. If we cannot increase our cash flow in the very near term, we may be required to take one or more of the following actions: delay, reduce the scope of, or eliminate one or more of our research and development programs; significantly reduce patent-related expenses, effectively foregoing our rights to future technologies or

products; obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates or products that we would otherwise seek to develop or commercialize on our own; or license the rights to certain of our products or technologies on terms that are not favorable to us.

*Alternative technologies may supersede our technologies or make them non-competitive*

Genomics, proteomics and bioprocessing fields are intensely competitive. They are characterized by extensive research efforts, which result in rapid technological progress which can render existing technologies obsolete or economically noncompetitive. If our competitors succeed in developing products or technologies that are more effective than ours or that render our products or technologies obsolete or noncompetitive, our business will suffer. Many universities, public agencies and established pharmaceutical, biotechnology, chemical and other life sciences companies with substantially greater resources than we have are developing and using technologies and are actively engaging in the development of products similar to or competitive with our products and technologies. Like us, our competitors are using proteomics and genomics technologies to identify potential drug targets, therapeutic proteins and diagnostic marker proteins. In addition, our competitors have developed databases containing gene sequence, gene expression, genetic variation or other genomic information and are marketing or plan to market their data to pharmaceutical, biotechnology, chemical and other life sciences companies. To remain competitive, we must continue to invest in new and existing technologies, expand our databases and improve our bioinformatics software, including proprietary software used with our ProGEx system.

Our competitors may devise faster, more complete or more accurate methods to obtain proteomic and functional genomic information than our technologies and systems, including our ProGEx and GENEWARE systems. There has been and continues to be substantial academic and commercial research effort devoted to the development of such methods. If a successful competitive method is developed, it would undermine the commercial basis for the products and technologies we intend to provide.

*We may not be able to enter into collaborations necessary to fully develop and commercialize our products and technologies, and we will be dependent on our collaborators if we do*

We intend to independently pursue some therapeutic product applications into the development stage. However, we expect to develop and commercialize most of our future products in collaboration with pharmaceutical, biotechnology, agricultural, chemical and other life sciences companies. We cannot guarantee that such collaborative arrangements will be available to us on acceptable terms, or at all. Our success will depend in large part on our ability to enter into future collaborations with other companies for the research and development, pre-clinical and clinical testing and the regulatory approval and commercialization of our products. Our reliance upon these companies for these capabilities will reduce our control over such activities and could make us dependent upon them. To date, we have entered into only a limited number of collaborations. Generally, the scope of these collaborations has been to demonstrate the function of plant genes and the feasibility of using viral vectors to create proteins in plants and to identify marker proteins for drug development and diagnostics. Our existing agreements generally provide us with rights to participate financially in the commercial development of products resulting from the use of our technologies. We may be unable to obtain such rights in future collaborations. In addition, unforeseen delays or complications could arise and result in the breach of our contractual obligations with our collaborators and others, or render our technologies unable to perform at the quality and capacity levels required for success.

*Conflicts with our collaborators or licensees could harm our business*

Conflicts with collaborators could have a negative impact on our relationships with them, including on our revenues to be derived from certain of these relationships, and impair our ability to enter into future collaborations, either of which could adversely affect our business. Collaborators could develop competing products, preclude us from entering into collaborations with their competitors or terminate their agreements with us prematurely. Moreover, disagreements could arise with collaborators or licensees over rights to our intellectual property, our rights to share in any of the future revenues from products or technologies resulting from use of our technologies, our rights to payments for achievement of milestones or our performance of research and development activities on behalf of collaborators, or our activities in separate fields may conflict with other business plans of our collaborators or licensees.

*We must enter into agreements with third parties to provide sales and marketing services, or develop these capabilities on our own, if we are to successfully commercialize our products and technologies*

Although we plan to enter into sales and marketing arrangements with third parties, we may not be able to enter into these arrangements on favorable terms, if at all. If we cannot enter into these arrangements, we must develop a sales and marketing force with sufficient technical expertise to generate demand for our products and technologies. Our inability to develop or contract for effective sales and marketing capabilities would significantly impair our ability to develop and commercialize our products.

*We may not be able to successfully manufacture products in commercial quantities or at acceptable costs*

We have only produced proteins on a small, test scale. The failure of our technologies to provide safe, effective, useful or commercially viable approaches to the discovery and development of drug targets and proteins which can be used as therapeutics would significantly limit our business plan and future growth.

*We may be unable to recruit and retain senior management and other key scientific personnel on whom we are dependent*

The loss of one or more of our senior management or other key scientific personnel could have a material adverse effect on our business and could inhibit our research and development and commercialization efforts. Although we have entered into employment agreements with some of our key personnel, these employment agreements are for a limited period of time and most of our key personnel are not subject to employment agreements. There is currently a shortage of skilled senior management in the biotechnology industry, which is likely to continue and intensify. In addition, we face competition for research scientists and technical staff from other companies, academic institutions, government entities, nonprofit laboratories and other organizations. Failure to recruit and retain senior management and scientific personnel on acceptable terms would prevent us from achieving our business objectives.

*Concentration of ownership among our existing executive officers, directors and principal stockholders enables them to collectively control all significant corporate decisions*

Our directors, our executive officers and entities affiliated with our directors and our executive officers beneficially own, in the aggregate, approximately 40% of our outstanding common stock as of December 31, 2001. These stockholders as a group will most likely be able to elect our directors and officers, control our management and affairs and be able to control most

matters requiring the approval of our stockholders, including any merger, consolidation or sale of all or substantially all of our assets and any other significant corporate transaction. The concentration of ownership will also prevent a change of control of our Company if these stockholders oppose it, and may discourage third parties from making a proposal to cause a change of control in the first instance.

*Our stockholder rights plan and provisions of our charter documents and Delaware law may inhibit a takeover, which could adversely affect our stock price*

We have adopted a stockholder rights plan and declared a dividend distribution of one right for each outstanding share of common stock to stockholders of record as of May 4, 2001. Subject to certain specified exceptions and limitations under the rights plan, we will continue to issue one right for each share of common stock that becomes outstanding after May 4, 2001. Each right entitles the holder to purchase one unit consisting of one one-hundredth of a share of our Series A Junior Participating Preferred Stock for \$45 per unit. Under certain circumstances, if a person or group acquires 15% or more of our outstanding shares of common stock, holders of the rights (other than the person or group causing their exercisability) will be able to purchase, in exchange for the \$45 exercise price, shares of our common stock or of any company into which we are merged having a value of \$90. In addition, the board of directors has the option, under certain circumstances, to exchange each right (other than rights held by the person or group triggering the board of directors' option) for a share of common stock for no additional consideration on the part of the holder of the right. The rights expire on April 27, 2011. Our rights plan could make it more difficult for a third party to acquire us (or a significant percentage of our outstanding capital stock) by causing substantial dilution of the stock ownership of a person or group attempting to acquire control of us. Our rights plan may have the effect of discouraging takeover attempts because a potential acquirer would have to negotiate with our board of directors to avoid suffering dilution.

Provisions in our charter and bylaws and applicable provisions of the Delaware General Corporation Law may also make it more difficult for a third party to acquire control of us without the approval of our board of directors. These provisions may make it more difficult or expensive for a third party to acquire a majority of our common stock or delay, prevent or deter a merger, acquisition, tender offer or proxy contest, which may adversely affect our stock price.

#### **Risks Related to Our Industry**

*If companies in the pharmaceutical, biotechnology, agricultural, chemical and life sciences industries do not succeed or their demand for our products and technologies decreases, then our revenues could be reduced*

We expect to derive our revenues primarily from products and technologies provided to the pharmaceutical, biotechnology, agricultural, chemical and life sciences industries. Accordingly, our success will depend directly on the success of companies in these industries and their demand for our products, services and technologies. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by companies in those industries, or their unwillingness or inability to use our products and technologies. These reductions and delays may result from factors which are not within our control, such as:

- changes in economic conditions generally;
- the extent to which companies in these industries conduct research and development involving proteomics and functional genomics in-house or through industry consortia;
- the extent to which genomic information is or is not made publicly available;

- consolidation within one or more of these industries;
- changes in the regulatory environment affecting these industries;
- pricing pressures;
- market-driven pressures on companies to consolidate and reduce costs; and/or
- other factors affecting research and development spending in these industries.

*If competitive products are better than our products, then our business may fail*

The markets for protein development and production, including human and veterinary therapeutics and vaccines like the ones we are developing, are highly competitive. Virtually all of the genes in the human genome have been sequenced and have been substantially identified. We face significant competition in our protein product development and production efforts from entities using alternative, and in some cases higher volume and larger scale, approaches for the same purpose. Competitors with substantially greater resources are actively developing products similar to or competitive with our products and potential products. Our competitors may succeed in developing products or obtaining regulatory approval before we do or in developing products that are more effective than those we develop or propose to develop. A large number of universities and other not-for-profit institutions, many of which are funded by the U.S. and foreign governments, are also conducting research to discover genes and their functions. Any one or more of these entities may discover and establish a patent position in one or more of the genes or proteins that we wish to commercialize.

In addition, several pharmaceutical, biotechnology, chemical and other life sciences companies engage in research and development in the use of unique gene expression systems to produce therapeutic proteins. These competitors may develop products earlier or obtain regulatory approvals faster than we may be able to, or develop products that are more effective than ours. At least one of our major competitors, Oxford Glycosciences, Plc., is located in Europe, and our ability to use our patent rights to prevent competition in the creation and use of proteomics-driven products and technologies is more limited outside of the United States. New developments are expected to continue, and discoveries by others may render our products and technologies noncompetitive, which could lead to the failure of our business.

*We may not have access to sufficiently complete, accurate or defect-free data from outside sources, including genome sequence data, which would increase our costs and could affect our product development efforts*

The efforts of the Human Genome Project and private companies to create a complete catalog of the human genome may not enable us to fully integrate that data with our proprietary protein databases. In addition, we obtain our data from other sources, including our academic collaborators and our sources of cell and tissue samples. This data could contain errors or other defects which could corrupt our databases or increase our costs by requiring us to use alternative methods or sources to obtain such data. In addition, these data sources may have acquired this information in a manner that violates various applicable legal requirements.

*We and our collaborators may not obtain FDA and other approvals for our products in a timely manner, or at all*

Drugs and diagnostic products are subject to an extensive and uncertain regulatory approval process by the FDA and comparable agencies in other countries. The regulation of new products is extensive, and the required process of laboratory testing and human studies is lengthy,

expensive and uncertain. The burden of these regulations will fall on us to the extent we are developing proprietary products on our own, such as our vaccines for the treatment of non-Hodgkin's lymphoma. We may not be able to obtain the clearances and approvals necessary for the clinical testing, field-testing, manufacturing or marketing of our products. If the products are the result of a collaborative effort, these burdens may fall on our collaborators or we may share these burdens with them. We may not obtain FDA or other approvals for those products in a timely manner, or at all. We may encounter significant delays or excessive costs in our efforts to secure necessary approvals or licenses. Even if we obtain FDA regulatory approvals, the FDA extensively regulates manufacturing, labeling, marketing, promotion and advertising after product approval. Further, once a manufacturer obtains regulatory approval, a marketed product and its manufacturer are subject to continual review, and discovery of previously unknown problems with a product or manufacturer may result in restrictions on the product, manufacturer or manufacturing facility, including withdrawal of the product from the market. In some countries, regulatory agencies also set or approve the sale prices for drug products. Additionally, several of our product development areas may involve relatively new technology that has not been the subject of extensive product testing in humans. The regulatory requirements governing these products and related clinical procedures remain uncertain and the products themselves may be subject to substantial review by the FDA and foreign governmental regulatory authorities that could prevent or delay approval. Regulatory requirements ultimately imposed on our products could limit our ability to test, manufacture and commercialize our products.

*If new rules issued by the USDA adversely affect us or our collaborators' ability to commercialize genetically modified products, then our ability to sell certain products and technologies will be severely impaired*

We must comply with USDA regulations for outdoor releases of genetically engineered organisms as well as other products designed for use on or with agricultural products. The USDA has released regulations that prohibit the inclusion of genetically modified ingredients in products labeled as organic. The USDA regulations also prohibit the use of genetically modified fibers in clothing labeled as organic. These regulations ultimately could make any products that may be developed with our collaborators, including Dow, unattractive to or too expensive for consumers, or could cause the government to prohibit their sale or use. In addition, the USDA prohibits growing and transporting genetically modified plants except pursuant to an exemption or under special permits. We may use genetically modified plants as screening or production hosts. Changes in USDA policy regarding the movement or field release of genetically modified plant hosts could adversely affect our business by increasing the cost of our products and technologies or decreasing consumer demand for those products and technologies or causing the government to prohibit their sale or use.

*Future legal and regulatory requirements may limit or discourage the use of certain genetically engineered organisms and products, which could negatively impact revenues*

The FDA currently applies the same regulatory standards to foods developed through genetic engineering as it applies to foods developed through traditional plant breeding. However, genetically engineered food products will be subject to pre-market review if these products raise safety questions or if the FDA considers these products to be food additives. Our products and the products of our collaborators that contain genes that we identify or determine to have a particular function may be subject to lengthy FDA reviews and unfavorable FDA determinations if the FDA considers them to be food additives or if the FDA changes its policy. Also, we believe the FDA's policy is that it will not require that genetically engineered agricultural products be labeled as such, provided that these products are as safe and have the same nutritional characteristics as conventionally developed products. The FDA may reconsider or change its

labeling policies, or local or state authorities may enact labeling requirements. Any such labeling requirements could reduce the demand for genetically engineered products. In those products where production must be performed outdoors, the USDA prohibits manufacturers from growing and transporting genetically engineered plants except pursuant to an exemption or a permit under strict controls. If our future products are not exempted or covered by permits by the USDA, it may be impossible to sell such products.

*If there is negative public reaction to the use of genetically engineered products and technologies, then the market for certain products and technologies we develop will be adversely affected*

Future commercial success of some of our products and of the products of some of our collaborators, will depend in part 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. Negative public reaction to genetically modified organisms and products could result in greater government regulation of genetic research and resultant products, including stricter labeling requirements, and could cause a decrease in the demand for our products.

*We may be sued for product liability and our product liability insurance may not be adequate*

The testing, marketing and sale of our and our collaborators' products will entail a risk of allegations of product liability, and third parties may assert substantial product liability claims against us. While we have limited product liability insurance to protect against this risk, adequate insurance coverage may not be available at an acceptable cost, if at all, in the future and a product liability claim or product recall could materially and adversely affect our business. Inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the commercialization of the products we or our collaborators develop. If we are sued for any injury allegedly caused by our products or our collaborators' products, our liability could exceed our total assets and our ability to pay the liability.

*If we use hazardous materials in our business in a manner that causes injury or violates laws, we may be liable for substantial damages*

Our research and development processes involve the use of hazardous materials, including chemicals and radioactive and biological materials. Our operations also produce hazardous waste products. The chemicals we use include, but are not limited to, flammable solvents such as methanol and ethanol, ethidium dye which is a commonly used fluorescent dye for visualizing DNA, and buffer solutions used in the purification of DNA. We also use several radioisotopes including phosphorous-32, carbon-14, sulfur-35, phosphorous-33, iodine-125 and hydrogen-3. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these materials. We could be subject to civil damages and criminal penalties in the event of an improper or unauthorized release of, or exposure of individuals to, hazardous materials. Further, it is possible that the materials we use could contaminate another party's property. In addition, claimants may sue us for injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets and our ability to pay the liability. In addition, compliance with environmental laws and regulations is expensive, and current or future environmental regulations may impair our research and development and production efforts. Although we have general liability insurance, these policies do not cover claims arising from pollution from chemical

or radioactive materials. Our collaborators may also be working with various types of hazardous materials in connection with our collaborations. In the event of a lawsuit or investigation, we could be held responsible for any injury we or our collaborators cause to persons or property by exposure to, or release of, any hazardous materials.

*Healthcare reform and restrictions on reimbursements may limit the financial returns from our products*

Our ability and that of our collaborators to commercialize therapeutics and diagnostic products may depend in part on the extent to which government health administration authorities, private health insurers and other organizations will pay the cost of these products. These third parties are increasingly challenging both the need for and the price of new medical products and services. Significant uncertainty exists as to the reimbursement status of newly approved therapeutics and diagnostics, and adequate third party reimbursement may not be available for any product to enable us to maintain price levels sufficient to realize an appropriate return on our investment in research and product development.

**Risks Related to Our Intellectual Property**

*Patent protection in the biotechnology industry is uncertain, which may result in a decrease in the value of our products and technologies*

We are involved in overlapping and rapidly evolving areas of biotechnology, pharmaceutical development and basic research involving viral vectors, plant transgenics, proteomics, protein microarrays, functional genomics, protein transformation, and immunotherapy. Each of these areas has been the subject of intense research and patenting activity throughout the world by our commercial competitors, actual and potential collaborators, academic institutions and government researchers. We cannot determine whether or not there are patents currently pending which, if issued, would prevent us from practicing our core technologies, commercializing them or developing commercially viable products based upon them.

The patent positions of biotechnology firms generally are highly uncertain and involve complex legal and factual questions that will determine who has the right to develop a particular product. No clear policy has emerged regarding the breadth of claims covered in biotechnology patents in general and those relating to gene sequences in particular. In addition, recently there has been public debate questioning the patentable scope of genomic sequence data. The biotechnology patent situation outside the United States is even more uncertain and is currently undergoing review and revision in many countries. Changes in, or different interpretations of, patent laws in the United States and other countries might allow others to use our discoveries or to develop and commercialize products and technologies similar to our products and technologies without any compensation to us. Our potential collaborators or customers may conclude that uncertainties about patent protection decrease the value of our databases, products and services.

Throughout the world there are numerous issued patents, as well as published foreign patent applications which may issue as patents, many of which relate to our current operations, our anticipated future operations and the products we are likely to develop. The scope of these patents is a matter of legal interpretation and is subject to uncertainty. We have not obtained, but we may in the future obtain, opinions from our patent counsel that we have freedom to conduct our commercial activities free of claims of patent infringement from third parties. For example, we are aware of one company, Enzon, Inc., that through its subsidiary, SCA Ventures, Inc., owns or has licensed a broad portfolio of patents to single-chain antigen binding proteins. Enzon, in a letter mailed to numerous companies including us, has stated that it would like to

discuss providing a license under these patents. In addition, Dow owns or controls certain patent rights in the field of viral vectors covering the infection of plant cells and the expression of foreign genes in plant cells, and has informed us that it believes that some of our plant viral activities may fall within the scope of its patents. Two patents issued to us in October, 2001, reference the Dow-controlled patents and conclude that they do not constitute prior art. If we are unable to resolve this matter, and are found to have infringed upon Dow's rights, our product development and research activities related to plant viruses which fall within the scope of Dow's patents may be delayed or terminated. These kinds of disagreements could result in costly and time-consuming litigation and divert our financial and managerial resources.

*Our patent applications may not result in issued patents that are enforceable*

Our disclosures in our patent applications may not be sufficient to meet the statutory requirements for patentability in all cases. As a result, we do not know which of our patent applications will result in enforceable patents. Our patent applications may not issue as patents, and any patents that are issued to us may not provide commercially meaningful protection against competitors. Any issued patent may not provide us with competitive advantages. Others may challenge our patents or independently develop similar products which could result in an interference proceeding in the U.S. Patent and Trademark Office. Others may be able to design around our issued patents or develop products similar to our products. In addition, others may discover uses for genes or proteins other than those uses covered in our patents, and these other uses may be separately patentable.

*Public disclosure and patents relating to genes and gene sequences held by others may limit our proprietary rights*

The Human Genome Project and many companies and institutions have identified genes and deposited those sequences in public databases and are continuing to do so. These public disclosures might limit the scope of our claims or make unpatentable subsequent patent applications on full-length gene sequences. We are aware of issued patents and patent applications containing subject matter such that we or our licensees or collaborators may require a license or rights in order to research, develop or commercialize some of our products and technologies. We may find that licenses relating to such subject matter will not be available on acceptable terms, or at all.

*Patent infringement or enforcement litigation or interference proceedings could be costly and disrupt our business and may prevent us from commercializing our products*

The technology that we use to develop our products and key resources, and those that we incorporate in our products and technologies, may be subject to claims by third parties, including our collaborators, that they infringe the patents or proprietary rights of others. Technologies of our collaborators may also be subject to infringement or similar claims which could impair our collaborative product development and commercialization efforts. We also may need to enforce our patent rights in actions against others, which could be expensive. The risk of such events occurring will tend to increase as the fields of proteomics, genomics and the biotechnology industry expand, more patents are issued and other companies attempt to discover genes and proteins and engage in other proteomics, genomics and biotechnology-related businesses.

With respect to identifying proteins uniquely associated with disease states or as targets for drug therapy, we are aware that companies have published patent applications relating to nucleic acids encoding specific proteins. If the U.S. Patent and Trademark Office issues patents to these companies, their patents may limit our ability and the ability of our collaborators to

practice under any patents that may be issued to us. Also, even if the U.S. Patent and Trademark office issues us a patent, the scope of coverage or protection afforded to the patent may be limited.

*We may not be able to protect our know-how and trade secrets*

We generally control the disclosure and use of our know-how and trade secrets using confidentiality agreements. It is possible, however, that:

- Some or all confidentiality agreements will not be honored;
- Third parties will independently develop equivalent technology;
- Disputes will arise with our consultants, collaborators or others concerning the ownership of intellectual property; and/or
- Unauthorized disclosure of our know-how or trade secrets will occur.

**Item 7A. Quantitative and Qualitative Disclosure About Market Risk**

**Interest rate risk**

The Company's exposure to market risk for changes in interest rates relates primarily to the Company's investment portfolio. The Company's investments consist of money market funds, commercial paper, corporate and U.S. government agency notes, and bank certificates of deposit. The Company does not invest in derivative instruments. The Company mitigates its risk of principle loss by investing only in securities of high quality issuers with maturities of less than one year and limiting the amount of credit exposure to any one issuer.

The table below presents the amortized principal amount, weighted average interest rates and maturities for the Company's investment portfolio at December 31, 2001. The amortized principal amount approximates fair value at December 31, 2001. If market interest rates were to change immediately and uniformly by 10% from levels at December 31, 2001, the fair value of the Company's investments would change by an immaterial amount.

	<u>Amortized Principal Amount</u>	<u>Weighted Average Interest Rate</u>
Cash and cash equivalents . . . . .	\$24,055,000	2.07%
Marketable securities (0-1 year) . . . . .	24,724,000	2.76%

**Foreign currency**

The Company has minimal transactions in foreign currencies and has not had any material exposure to foreign currency rate fluctuations relating to assets or liabilities.

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

The financial statements and supplementary data required by this Item 8 are listed in Item 14 and begin at page F-1 of this Report.

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

Not applicable.

### PART III

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

##### Directors

Information with respect to directors may be found in the section captioned "Proposal No. 1: Election of Directors" appearing in the definitive proxy statement to be delivered to stockholders in connection with the 2002 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

##### Executive Officers

Information with respect to executive officers may be found in the section captioned "Executive Officers" appearing in the definitive proxy statement to be delivered to stockholders in connection with the 2002 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

#### Item 11. Executive Compensation

Information with respect to executive compensation may be found in the section captioned "Executive Compensation and Related Information" appearing in the definitive proxy statement to be delivered to stockholders in connection with the 2002 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

#### Item 12. Security Ownership of Certain Beneficial Owners and Management

Information with respect to security ownership of certain beneficial owners and management may be found in the section captioned "Security Ownership of Certain Beneficial Owners and Management" appearing in the definitive proxy statement to be delivered to stockholders in connection with the 2002 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

#### Item 13. Certain Relationships and Related Transactions

Information with respect to certain relationships and related transactions may be found in the section captioned "Certain Relationships and Related Transactions" appearing in the definitive proxy statement to be delivered to stockholders in connection with the 2002 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

PART IV

Item 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K

(a) Index to Financial Statements

The following Financial Statements are included herein:

	<u>Page Number</u>
Independent Auditors' Report .....	F-1
Consolidated Balance Sheets as of December 31, 2001 and 2000 .....	F-2
Consolidated Statements of Operations for the Years Ended December 31, 2001, 2000 and 1999 .....	F-3
Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2001, 2000 and 1999 .....	F-4
Consolidated Statements of Cash Flows for the Years Ended December 31, 2001, 2000 and 1999 .....	F-5
Notes to Consolidated Financial Statements .....	F-6

(b) Reports on Form 8-K

None.

(c) Exhibits

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
2.1*	Agreement and Plan of Reorganization, dated January 25, 1999, by and amongst registrant, the entity formerly known as Biosource Technologies, Inc., Large Scale Biology Corporation, N. Leigh Anderson, Constance L. Seniff and Robert J. Walden and other Large Scale Biology shareholders.
3.1*	Amended and Restated Certificate of Incorporation.
3.2**	Amended and Restated Bylaws, as amended on July 20, 2001.
3.3***	Certificate of Designations specifying the terms of the Series A Junior Participating Preferred Stock of Registrant, as filed with the Secretary of State of the State of Delaware on May 4, 2001.
4.1*	Form of registrant's Specimen Common Stock Certificate.
4.2*	Information and Registration Rights Agreement dated October 11, 1990 by and among the registrant and the parties who are signatories thereto.
4.3*	Amendment to the Information and Registration Rights Agreement dated October 10, 1991 by and among the registrant and the parties who are signatories thereto.
4.4*	Second amendment to the Information and Registration Rights Agreement dated October 10, 1991 by and among the registrant and the parties who are signatories thereto.
4.5*	Third Amendment to the Information and Registration Rights Agreement dated March 20, 1998 by and among the registrant and the parties who are signatories thereto.

<u>Exhibit Number</u>	<u>Description</u>
4.6*	Fourth Amendment to the Information and Registration Rights Agreement dated September 1, 1998 by and among the registrant and the parties who are signatories thereto.
4.10*	Warrant to purchase 1,848,091 shares of common stock dated September 1, 1998, by and between the registrant and The Dow Chemical Company.
4.11*	Warrant Agreement to purchase 1,848,091 shares of common stock dated September 1, 1998, by and between the registrant and The Dow Chemical Company.
4.12*	Warrant to purchase 21,991 shares of common stock dated January 29, 1988, assigned by the registrant on January 14, 2000 to Arnold Zimmerman.
4.13*	Warrant to purchase 21,991 shares of common stock dated January 29, 1988 assigned by the registrant on January 29, 2000 to Sebastian J. Trusso.
4.14*	Warrant Agreement to purchase 21,991 shares of common stock assigned by the registrant to Arnold Zimmerman.
4.15*	Warrant Agreement to purchase 21,991 shares of common stock assigned by the registrant to Sebastian J. Trusso.
4.16#	Rights Agreement dated April 27, 2001 between registrant and Equiserve Trust Company, as Rights Agent, which includes as Exhibit A the form of Certificate of Designations of Series A Junior Participating Preferred Stock, as Exhibit B the Form of Rights Certificate and as Exhibit C the Summary of Rights to Purchase Preferred Shares.
10.1	Reserved.
10.2*†	Registrant's 2000 Stock Incentive Plan.
10.3*†	Registrant's 2000 Employee Stock Purchase Plan.
10.4*†	Form of registrant's Directors' and Officers' Indemnification Agreement.
10.5*	Dow Collaboration and License Agreement dated August 24, 1998, by and among the registrant and The Dow Chemical Company and its subsidiary Dow AgroSciences LLC.
10.6*	Grant from National Cancer Institute to Large Scale Biology dated January 5, 2000.
10.7*†	Employment agreement between the registrant and Dr. N. Leigh Anderson.
10.8*†	Employment agreement between the registrant and Dr. Norman Anderson.
10.9*	Lease Agreement dated October 15, 1987, and amendments 1 through 8 thereto between the registrant and Mission Vacaville Limited partnership.
10.10*	Equipment financing arrangement entered into on November 30, 1998 between registrant and Sierrawest Bank.
10.11****	Ninth Amendment to Lease Agreement between registrant and Mission Vacaville Limited partnership, dated July 31, 2000.
10.12****	Tenth Amendment to Lease Agreement between registrant and Woodlawn Foundation (successor-in-interest to Mission Vacaville Limited partnership), March 1, 2001.
10.13****	Lease Agreement dated July 26, 2000 between Large Scale Proteomics Corporation and Westphalia Center II Limited partnership.
10.14†	Letter Agreement between registrant and John D. Fowler, Jr.

<u>Exhibit Number</u>	<u>Description</u>
10.15†	Stock Purchase Subscription Agreement between registrant and John D. Fowler, Jr.
10.16†	Warrant to Purchase Common Stock between registrant and John D. Fowler, Jr.
10.17†	Stock Issuance Agreement between registrant and John D. Fowler, Jr.
10.18†	Letter Agreement between registrant and Ronald J. Artale.
10.19†	Consulting Agreement between registrant and William M. Pfann.
21.1	Large Scale Biology Corporation Subsidiaries.
23.1	Independent Auditors' Consent.

\* Incorporated by reference to designated exhibits to the Company's Registration Statement on Form S-1 (SEC Registration No. 333-34198), declared effective on August 9, 2000.

\*\* Incorporated by reference to exhibit 3.1 to the Company's Quarterly Report on Form 10-Q, filed with the SEC on November 13, 2001.

\*\*\* Incorporated by reference to exhibit 3.2 to the Company's Registration Statement on Form 8-A, filed with the SEC on May 4, 2001

\*\*\*\* Incorporated by reference to designated exhibits to the Company's Annual Report on Form 10-K, filed with the SEC on April 2, 2001.

# Incorporated by reference to exhibit 4.1 to the Company's Registration Statement on Form 8-A, filed with the SEC on May 4, 2001.

† Management contract or compensatory plan or arrangement filed as exhibits pursuant to Items 14(a) and 14(c) of Form 10-K.



## INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Stockholders  
of Large Scale Biology Corporation

We have audited the accompanying consolidated balance sheets of Large Scale Biology Corporation and its subsidiaries (collectively the "Company") 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 of America. 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, such consolidated financial statements present fairly, in all material respects, the financial position of Large Scale Biology Corporation and its subsidiaries as of December 31, 2001 and 2000, and the results of their operations and their 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 of America.

/s/ DELOITTE & TOUCHE LLP

Sacramento, California  
January 18, 2002

**LARGE SCALE BIOLOGY CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2001	2000
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents .....	\$ 24,055,000	\$ 40,030,000
Marketable securities .....	24,724,000	44,971,000
Prepaid expenses and other current assets .....	1,662,000	1,923,000
Total current assets .....	50,441,000	86,924,000
Property, plant and equipment, net .....	18,882,000	13,270,000
Intangible assets, net .....	4,207,000	5,015,000
Other assets .....	3,382,000	1,734,000
	\$ 76,912,000	\$ 106,943,000
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable .....	\$ 1,816,000	\$ 4,534,000
Accrued expenses .....	1,105,000	803,000
Current portion of long-term debt .....	107,000	2,048,000
Deferred revenue and customer advances .....	278,000	8,686,000
Total current liabilities .....	3,306,000	16,071,000
Long-term debt .....	249,000	423,000
Long-term deferred revenue .....	320,000	657,000
Total liabilities .....	3,875,000	17,151,000
Commitments (Note 10)		
Stockholders' equity:		
Common stock, par value \$.001 per share; 60,000,000 shares authorized; 24,892,989 and 24,446,325 shares issued and outstanding at December 31, 2001 and 2000, respectively ..	191,901,000	190,097,000
Stockholders' notes receivable .....	(50,000)	(65,000)
Deferred compensation .....	(3,093,000)	(5,208,000)
Accumulated deficit .....	(115,721,000)	(95,032,000)
Total stockholders' equity .....	73,037,000	89,792,000
	\$ 76,912,000	\$ 106,943,000

See accompanying notes to consolidated financial statements.

**LARGE SCALE BIOLOGY CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Year Ended December 31,		
	2001	2000	1999
Revenues .....	\$ 17,731,000	\$ 23,291,000	\$ 16,090,000
Costs and expenses:			
Development agreements .....	3,467,000	8,115,000	7,439,000
Research and development .....	22,391,000	16,373,000	9,491,000
General, administrative and marketing .....	14,373,000	8,119,000	7,977,000
Purchased in-process research and development ..	—	—	21,362,000
Stock compensation bonus .....	—	7,268,000	—
Amortization of goodwill and purchased intangibles .....	1,300,000	1,197,000	623,000
Total costs and expenses .....	41,531,000	41,072,000	46,892,000
Gain on litigation settlements .....	—	—	1,300,000
Loss from operations .....	(23,800,000)	(17,781,000)	(29,502,000)
Other income (expense):			
Interest income .....	3,200,000	2,638,000	452,000
Interest expense .....	(89,000)	(346,000)	(302,000)
Change in fair value of warrant .....	—	(811,000)	(5,353,000)
Total other income (expense) .....	3,111,000	1,481,000	(5,203,000)
Loss before provision for income taxes .....	(20,689,000)	(16,300,000)	(34,705,000)
Provision for income taxes .....	—	—	190,000
Net loss .....	\$(20,689,000)	\$(16,300,000)	\$(34,895,000)
Net loss per share—basic and diluted .....	\$ (0.84)	\$ (1.07)	\$ (3.76)
Weighted average shares outstanding—basic and diluted .....	24,599,126	15,251,575	9,275,228

See accompanying notes to consolidated financial statements.

**LARGE SCALE BIOLOGY CORPORATION**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

	Number of Shares			Amount			
	Convertible Preferred Stock	Common Stock	Convertible Preferred Stock	Common Stock	Stockholders' Receivable	Deferred Compensation	Total Stockholders' Equity
Balances, December 31, 1998	3,319,806	9,227,300	\$ 15,848,000	\$ 30,966,000	\$ (32,000)	\$ (18,000)	\$ 2,927,000
Issuance of Series G convertible preferred stock	2,287,634		24,660,000				24,660,000
Issuance of common stock options in connection with business combination				394,000			394,000
Conversion of Series C convertible preferred stock into common stock	(1,627)	2,583	(11,000)	11,000			—
Issuance of common stock for services		4,723		31,000			31,000
Exercise of stock options		28,578		49,000			49,000
Issuance of common stock for notes receivable		37,500		82,000	(82,000)		—
Payment on notes receivable				2,000			2,000
Deferred stock compensation for issuance of common stock options				7,809,000		(7,809,000)	—
Issuance of common stock options for services				37,000		(37,000)	—
Accretion of options to consultants				90,000		(90,000)	—
Amortization of deferred compensation						129,000	129,000
Net loss							(34,895,000)
Balances, December 31, 1999	5,605,813	9,300,684	40,497,000	39,469,000	(112,000)	(7,825,000)	(6,703,000)
Issuance of common stock		5,750,000		88,756,000			88,756,000
Conversion of convertible preferred stock into common stock	(5,605,813)	8,441,415	(40,497,000)	40,497,000			—
Reclassification of warrant liability to stockholders' equity				12,191,000			12,191,000
Exercise of stock options		952,726		1,786,000			1,786,000
Issuance of common stock for notes receivable		1,500		10,000	(10,000)		—
Payment on notes receivable				57,000			57,000
Stock compensation bonus				7,268,000			7,268,000
Charge for common stock options issued to non-employees				120,000			120,000
Amortization of deferred compensation						2,617,000	2,617,000
Net loss							(16,300,000)
Balances, December 31, 2000	—	24,446,325	—	190,097,000	(65,000)	(5,208,000)	89,792,000
Issuance of common stock		100,000		345,000			345,000
Issuance of common stock by Employee Stock Purchase Plan		48,433		389,000			389,000
Issuance of common stock for services		1,065		7,000			7,000
Exercise of stock options		97,166		186,000			186,000
Common stock granted to an employee		200,000		690,000		(690,000)	—
Charge for common stock options issued to non-employees				187,000			187,000
Payments on notes receivable				15,000			15,000
Amortization of deferred compensation						2,805,000	2,805,000
Net loss							(20,689,000)
Balances, December 31, 2001	—	24,892,989	\$ —	\$ 191,901,000	\$ (50,000)	\$ (3,093,000)	\$ 73,037,000

See accompanying notes to consolidated financial statements.

**LARGE SCALE BIOLOGY CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31,		
	2001	2000	1999
<b>Cash flows from operating activities:</b>			
Net loss .....	\$(20,689,000)	\$(16,300,000)	\$(34,895,000)
Reconciliation of net loss to net cash provided by (used in) operating activities:			
Depreciation of property, plant and equipment .....	4,070,000	3,452,000	2,204,000
Amortization of intangible and other assets .....	1,660,000	1,410,000	1,065,000
Charge-off of capitalized patent costs .....	—	32,000	1,517,000
Accrued interest and amortized discount on marketable securities .....	802,000	(800,000)	(45,000)
Issuance of common stock for services .....	7,000	—	31,000
Purchased research and development .....	—	—	21,362,000
Stock compensation expense .....	2,992,000	2,737,000	129,000
Stock compensation bonus .....	—	7,268,000	—
Change in fair value of warrants .....	—	811,000	5,353,000
Changes in assets and liabilities:			
Prepaid expenses and other current assets .....	261,000	(833,000)	(303,000)
Other assets .....	207,000	(281,000)	100,000
Accounts payable .....	(118,000)	386,000	528,000
Accrued expenses .....	691,000	(452,000)	(554,000)
Deferred revenue and customer advances .....	(8,745,000)	(10,427,000)	9,806,000
Total adjustments .....	1,827,000	3,303,000	41,193,000
Net cash provided by (used in) operating activities .....	(18,862,000)	(12,997,000)	6,298,000
<b>Cash flows from investing activities:</b>			
Purchase of marketable securities .....	(60,455,000)	(48,149,000)	(7,019,000)
Proceeds from matured marketable securities .....	79,900,000	11,102,000	4,027,000
Capital expenditures .....	(12,281,000)	(4,489,000)	(5,061,000)
Net cash acquired in business combination .....	—	—	21,000
Capitalized acquisition costs .....	—	—	(53,000)
Increase in intangible assets .....	(712,000)	(753,000)	(361,000)
Purchase of intellectual property licenses .....	(2,650,000)	—	—
Proceeds from employee loan payments .....	—	27,000	—
Exercise of call option .....	—	(74,000)	—
Net cash provided by (used in) investing activities .....	3,802,000	(42,336,000)	(8,446,000)
<b>Cash flows from financing activities:</b>			
Proceeds from issuance of common stock .....	531,000	90,542,000	49,000
Proceeds from issuance of common stock warrant .....	—	—	3,411,000
Proceeds from issuance of long-term debt .....	—	744,000	3,687,000
Proceeds from stockholder loan payments .....	15,000	57,000	—
Change in restricted cash .....	654,000	(41,000)	(391,000)
Principal payments on long-term debt .....	(2,115,000)	(2,914,000)	(1,117,000)
Net cash provided by (used in) financing activities .....	(915,000)	88,388,000	5,639,000
Net increase (decrease) in cash and cash equivalents .....	(15,975,000)	33,055,000	3,491,000
Cash and cash equivalents at beginning of year .....	40,030,000	6,975,000	3,484,000
Cash and cash equivalents at end of year .....	<u>\$ 24,055,000</u>	<u>\$ 40,030,000</u>	<u>\$ 6,975,000</u>

See accompanying notes to consolidated financial statements.

LARGE SCALE BIOLOGY CORPORATION  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. *The Company and Summary of Significant Accounting Policies*

Large Scale Biology Corporation and its subsidiaries (collectively the "Company") applies its proprietary proteomics and functional genomics technologies to develop products and establish commercial collaborations with pharmaceutical, biotechnology, chemical and other life science companies. The Company maintains its headquarters and a research facility in Vacaville, California, a bioprocessing facility in Owensboro, Kentucky and an additional research facility in Germantown, Maryland.

The Company was founded in 1987 to develop the GENEWARE system, a viral-based gene expression technology in plants that enables the discovery, development and production of new biopharmaceuticals and gene-based agricultural products. The Company's proprietary systems are supported by patents, patent applications and exclusive technology licenses.

The Company acquired 92.5% of Large Scale Proteomics Corporation ("Proteomics") in February 1999 and the remaining 7.5% in March 2000. Proteomics' automated, high-throughput ProGEx system provides a snapshot of the protein composition, or proteome, of cells and tissues, and is being used to rapidly identify changes in proteins that are associated with diseases or with a therapeutic effect.

On August 9, 2000, the initial public offering of the Company's common stock was declared effective by the Securities and Exchange Commission (see Note 3).

*Reincorporation and Stock Conversion*—On August 8, 2000, the Company reincorporated from a California corporation to a Delaware corporation. In connection with the reincorporation, each share of the Company's common stock was converted into 1.5 shares of common stock of the Delaware corporation. The conversion rate for the conversion of the Company's convertible preferred stock into common also reflects the 1.5 to 1 exchange rate (see Note 3). All share and per share amounts in the accompanying consolidated financial statements have been restated to give effect to the stock conversion.

*Basis of Consolidation*—The accompanying consolidated financial statements include the accounts of Large Scale Biology Corporation, its subsidiary, Proteomics, since February 1999 and all other subsidiaries. The Company owned 92.5% of Proteomics from February 1999 until the remainder was acquired in March 2000. All intercompany balances and transactions have been eliminated.

*Use of Estimates*—The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported revenue and expenses during the period. Actual results could differ from those estimates.

*Cash and Cash Equivalents*—The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents.

*Marketable Securities*—Marketable securities at December 31, 2001 and 2000 consist of commercial paper, corporate and U.S. government agency notes, and bank certificates of deposit

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

all maturing within one year and are classified as held-to-maturity. The amortized cost of marketable securities at December 31, 2001 and 2000 approximates fair value. There were no significant holding gains or losses for any of the periods shown.

*Concentrations of Credit Risk*—Revenues from one customer represented 85%, 86% and 88% of total revenues during 2001, 2000, and 1999, respectively. The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities and accounts receivable. Cash equivalents and marketable securities consist of high quality credit instruments and management regularly monitors their composition and maturities. Substantially all of the Company's accounts receivable are derived from revenue earned from customers located within the United States. Management monitors the amount of credit exposure related to accounts receivable on an ongoing basis and generally requires no collateral from its customers. The Company maintains allowances for estimated probable losses, when applicable.

The following is a summary of the Company's allowance for accounts receivable losses:

	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Year Ended December 31, 1999 .....	\$1,200,000	—	\$1,200,000	—
Year Ended December 31, 2000 .....	—	—	—	—
Year Ended December 31, 2001 .....	—	—	—	—

*Property, Plant and Equipment*—Property, plant and equipment is stated at cost. Depreciation is computed on a straight-line basis over the estimated useful lives of the assets, which are 3 to 10 years for machinery and equipment, the lease term for leasehold improvements, and 30 years for building.

*Computer Software*—The Company develops software for internal research and development activities and such costs are expensed as incurred. Costs related to software developed in connection with collaboration agreements are expensed over the life of the agreement.

*Intangible Assets*—The Company's policies with respect to intangible assets are as follows:

- *Patents*—The legal costs of filing patent applications are capitalized if they relate to commercially viable technologies. Commercially viable technologies are those technologies that are projected to generate future positive cash flows. Legal costs associated with patents not determined to be commercially viable are expensed as incurred. Once patents are issued, capitalized costs are amortized over the shorter of the statutory or estimated economic life, ranging from 5 to 17 years.
- *Purchased Technology*—The Company pays license fees to individuals under licensing agreements. These agreements provide the Company with exclusive licenses or rights to specified technologies. These costs have been capitalized and are being amortized over 5 years.

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

- *Core Technology and Assembled Work Force*—Core technology and assembled work force represent intangible assets related to the Company's acquisition of Proteomics (see Note 2). Core technology is being amortized over 4 years. The Company will discontinue amortizing assembled work force after December 31, 2001 in accordance with Statement of Financial Accounting Standard ("SFAS") No. 142. The Company will continue to evaluate assembled work force for impairment.
- *Goodwill*—Goodwill represents the excess of the fair value of the consideration given over the estimated fair value of the assets and liabilities received when the Company acquired the remaining 7.5% interest of Proteomics (see Note 2). The Company will discontinue amortizing goodwill after December 31, 2001 in accordance with SFAS No. 142. The Company will continue to evaluate goodwill for impairment.

*Long-Lived Assets*—The Company evaluates its long-lived and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the fair value of the assets. A legal settlement received in 1999 (see Note 4) resulted in certain patents and the underlying technology having limited projected future cash flows. Consequently, capitalized patent costs totaling \$1,517,000 were charged to general and administrative expense during 1999.

*Revenue Recognition*—Revenues are derived from research and collaboration agreements and government grants that consist of one or more revenue sources including research funding, technology access fees, and milestone payments. Revenue from research funding is recognized as services are performed and expenses are incurred. The Company's collaboration agreements generally provide for continued access by the partners to technologies developed under such agreements for the life of the agreements. Accordingly, technology access fees and milestone payments received are deferred because their receipt does not represent the culmination of the earnings process. Revenue from technology access fees is recognized on a straight-line basis over the term of the applicable agreement. Revenue from milestone payments is recognized on a straight-line basis from the date of completion of the milestone to the end of the applicable agreement. The life of a collaboration agreement is based on the original term of the agreement, not including renewal periods unless renewal is assured. Revenue from government grants is recognized as expenses are incurred and billed, except that revenue received for equipment purchases is deferred and recognized as revenue over the life of the grant.

*Comprehensive Income*—There were no items of other comprehensive income (loss) in any period presented and, therefore, comprehensive loss is the same as net loss for all periods presented.

*Research and Development*—Research and development costs consist mainly of internal personnel, consulting and other outside research services, and materials. Research and development costs that are related to customer funded development agreements are expensed as incurred and reported as costs of development agreements. Research and development costs not related to customer funded development agreements are expensed as incurred and reported as research and development expense.

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

*Stock-Based Compensation*—The Company accounts for stock-based awards to employees using the intrinsic value method of accounting. As such, compensation expense or deferred compensation is recorded on the date of issuance or grant equal to the excess of the fair value of the underlying stock on the date of issuance or grant over the purchase or exercise price. Any deferred compensation is amortized over the vesting period of the equity instrument. Pro forma information required by SFAS No. 123, "Accounting for Stock-Based Compensation," is included in Note 11. As required by SFAS No. 123, stock options issued to non-employees as consideration for goods or services provided to the Company are accounted for under the fair value method.

*Income Taxes*—The Company accounts for income taxes using the asset and liability approach whereby deferred income tax assets and liabilities are recognized for the estimated future tax effects, based on current enacted tax laws, of temporary differences between financial and tax reporting for current and prior periods. Deferred tax assets are reduced, if necessary, by a valuation allowance if the corresponding future tax benefits are not expected to be realized.

*Segment Reporting*—The Company operates in one reportable segment.

*Fair value of Financial Instruments*—The carrying amount of cash and cash equivalents, marketable securities, accounts receivable and accounts payable approximate fair value because of the short-term nature of these instruments. The fair value of debt is based upon current interest rates for debt instruments with comparable maturities and characteristics and approximates the carrying amount.

*Net Loss Per Share*—Basic net loss per share is computed by dividing the net loss for the period by the weighted average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss for the period by the weighted average number of common shares outstanding during the period, plus the potential dilutive effect of common shares issuable upon exercise or conversion of outstanding stock options, warrants and convertible preferred stock during the period. The weighted average number of potentially dilutive common shares are 839,154, 7,909,347 and 12,552,806 in 2001, 2000 and 1999, respectively. These shares were excluded from diluted loss per share because of their anti-dilutive effect.

*Recently Issued Accounting Standards*—In June 2001, the Financial Accounting Standards Board issued SFAS No. 141, "Business Combinations", and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 addresses the initial recognition and measurement of goodwill and other intangible assets acquired in a business combination and SFAS No. 142 addresses the initial recognition and measurement of intangible assets acquired outside of a business combination whether acquired individually or with a group of other assets. SFAS No. 142 also addresses the recognition and measurement of goodwill and other intangible assets subsequent to their acquisition. SFAS No. 141 is applicable to business combinations after July 1, 2001. The Company adopted SFAS No. 142 on January 1, 2002. Adoption of SFAS No. 142 eliminates future amortization of goodwill and assembled work force intangible assets. As a result, amortization of goodwill and purchased intangibles is expected to decrease by \$676,000 in 2002. SFAS 142 also requires that goodwill and assembled work force intangible assets be evaluated for impairment within six months of adoption and no less frequently than annually thereafter.

In October 2001, the Financial Accounting Standards Board issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 addresses financial

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

accounting and reporting for the impairment or disposal of long-lived assets. The Company adopted SFAS No. 144 on January 1, 2002. Adoption of SFAS No. 144 will not have a material effect on the Company's financial position, results of operations and cash flows.

*Reclassifications*—Certain 1999 amounts have been reclassified in order to conform to the 2000 and 2001 presentation.

#### 2. Acquisition of Large Scale Proteomics

In February 1999, Large Scale Biology Corporation acquired approximately 92.5% of the outstanding common stock of Proteomics in exchange for 2,287,634 shares of the Company's Series G convertible preferred stock and options to purchase 60,562 shares of the Company's common stock. The Series G convertible preferred stock was subsequently converted into 3,431,448 shares of the Company's common stock. This acquisition was accounted for by the purchase method of accounting. The purchase price of \$25,100,000 was based on the estimated fair value of the net tangible and intangible assets received. The operating results of Proteomics are included in the consolidated statements of operations of the Company as of February 1, 1999. As part of the acquisition, the Company acquired the option to purchase the remaining 7.5% of the outstanding common stock of Proteomics. In March 2000, the Company exercised its option and acquired the remaining 7.5% of the outstanding common stock of Proteomics for \$74,000.

The significant intangible assets acquired included in-process research and development of \$21,362,000, core technology of \$2,497,000, and the option to purchase the remaining 7.5% of Proteomics, valued at \$1,787,000. As a result of the acquisition of the remaining 7.5% of Proteomics, the Company recorded goodwill of \$1,861,000, equal to the carrying value of the option and cash paid.

Purchased in-process research and development expense represents the value of purchased research and development projects that had not reached technological feasibility at the date of acquisition. These projects relate to the development of proteomics and virus technologies. Proteomics technology can only be used for large-scale, quantitative analysis and identification of proteins from biological samples. There is no other known use of this technology for performing analysis on other components of biological origin (i.e. DNA, carbohydrates, lipids, etc.). Similarly, the virus technology is expected to only be capable of separating virus size particles—a size thought to be unique to viruses. No alternative future uses or markets were identified for these projects because of their unique qualities.

The purchased research and development was valued by an independent appraiser using the risk-adjusted cash flow approach, which includes an analysis of the projected future cash flows that were expected to result from the progress made on each of the in-process projects prior to the date of acquisition and the risks associated with achieving such cash flows. The value allocated to purchased in-process research and development was expensed at the date of acquisition. Projects that had already been commercialized at the date of the valuation were valued and recorded as core technology.

Future cash flows for in-process research and development were estimated by first forecasting, on a project-by-project basis, total revenues expected to result from sales of each in-process project. Revenues were not anticipated from the in-process research and development projects until approximately one year into the forecast. Appropriate operating expenses, cash

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

flow adjustments and contributory asset returns were deducted from projected future revenues, and adjustments were made to remove the value contributed by core technology. No anticipated expense reductions due to synergies between Proteomics and Large Scale Biology Corporation were assumed. The analysis resulted in a forecast of net returns on each in-process project. These net returns were then discounted to a present value at discount rates that incorporate the project specific risks associated with each purchased in-process research and development project. The project specific risk factors considered included the complexity of the development effort, the likelihood of achieving technological feasibility and the likelihood of market acceptance. The applied discount rate of 50% was believed to adequately account for the additional risks associated with the in-process technologies over other technologies existing at the acquisition date.

The forward-looking data employed in the analysis of in-process research and development was based upon management's estimate of future performance of its business. Management believes the assumptions used were reasonable. However, the assumptions used may be incomplete or inaccurate, and unanticipated events and circumstances may occur, which could cause a material adverse effect on the Company's financial condition and results of operations.

A brief description of purchased in-process research and development projects is set forth below, including the status of products within each project at the acquisition date:

- *Proteomics*—The proteomics technology applies sample preparation and fractionation, high throughput, high resolution two-dimensional gels, mass spectrometry, databases and bioinformatics software to the discovery and development of drugs, diagnostics and agricultural chemicals. The proteomics technology was completed during the three months ended March 31, 2000.
- *Virus*—The virus detection technology allows for the rapid discovery of new, yet difficult to propagate viruses, addressing a wide range of suspected viral diseases. Virus detection technology is expected to be completed in 2003. The Company estimates that after December 31, 2001, it will spend an insignificant amount related to personnel and system prototype development in order to complete development of the virus technology by 2003.

The following unaudited pro forma information gives effect to the acquisition of 100% of Proteomics as if the acquisition had occurred on January 1, 1999:

	Year Ended December 31,	
	2000	1999
Revenues .....	\$ 23,291,000	\$ 17,441,000
Net loss .....	(16,403,000)	(35,493,000)
Net loss per share—basic and diluted .....	(1.08)	(3.83)

These unaudited pro forma results have been prepared by the management of the Company for comparative purposes only. They do not purport to be indicative of the results of operations that actually would have resulted had the combination occurred on the date indicated and may not be indicative of future results of operations.

**LARGE SCALE BIOLOGY CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**3. Initial Public Offering and Conversion of Preferred Stock**

During the quarter ended September 30, 2000, the Company completed an initial public offering of 5,750,000 shares of its common stock at a price of \$17.00 per share. The Company received net proceeds of \$88,756,000 from the offering.

Concurrent with the initial public offering, all 5,605,813 outstanding shares of the Company's convertible preferred stock, having a stated value of \$40,497,000, were automatically converted into 8,441,415 shares of the Company's common stock as follows:

<u>Preferred Stock</u>	<u>Convertible Preferred Shares</u>	<u>Common Shares Conversion</u>
Series A .....	666,667	999,997
Series B .....	878,003	1,316,993
Series C .....	338,336	537,432
Series D .....	435,173	655,550
Series F .....	1,000,000	1,499,995
Series G .....	<u>2,287,634</u>	<u>3,431,448</u>
	<u>5,605,813</u>	<u>8,441,415</u>

**4. Litigation Settlement**

In 1999, the Company reached a settlement with Advanced Polymer Systems, Inc. ("APS") related to a License and Supply Agreement between APS and the Company that expired on December 31, 1998. Under the terms of the settlement agreement, the Company received \$1,300,000.

**5. Property, Plant and Equipment**

	<u>December 31,</u>	
	<u>2001</u>	<u>2000</u>
Machinery and equipment .....	\$ 18,426,000	\$14,186,000
Leasehold improvements .....	7,640,000	1,580,000
Building .....	3,206,000	2,355,000
Construction in progress .....	1,599,000	3,308,000
Land .....	373,000	373,000
	<u>31,244,000</u>	<u>21,802,000</u>
Accumulated depreciation .....	<u>(12,362,000)</u>	<u>(8,532,000)</u>
	<u>\$ 18,882,000</u>	<u>\$13,270,000</u>

**LARGE SCALE BIOLOGY CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**6. Intangible Assets**

	December 31,	
	2001	2000
Patents .....	\$ 2,455,000	\$ 1,744,000
Purchased technology .....	900,000	900,000
Core technology and assembled workforce .....	2,774,000	2,774,000
Goodwill .....	1,861,000	1,861,000
	<u>7,990,000</u>	<u>7,279,000</u>
Accumulated amortization .....	(3,783,000)	(2,264,000)
	<u>\$ 4,207,000</u>	<u>\$ 5,015,000</u>

Capitalized patent costs at December 31, 2001 include \$239,000 that relates to issued or allowed patents for which amortization has begun. The remaining amounts relate to pending patents, amortization of which will begin when the patents are issued or allowed.

**7. Other Assets**

	December 31,	
	2001	2000
License fees .....	\$2,650,000	\$ —
Restricted cash .....	716,000	1,371,000
Deposits and long-term prepaid expenses .....	157,000	363,000
	<u>3,523,000</u>	<u>1,734,000</u>
Accumulated amortization .....	(141,000)	—
	<u>\$3,382,000</u>	<u>\$1,734,000</u>

License fees include \$2,150,000 paid to The Dow Chemical Company for the worldwide, exclusive or non-exclusive rights to certain plant gene technologies and \$500,000 paid to Icon Genetics AG for the right to utilize specified technologies. The license fees are being amortized on a straight-line basis over the five-year estimated economic life of the license agreements.

Restricted cash at December 31, 2001 represents a certificate of deposit held as security for a facility lease.

**LARGE SCALE BIOLOGY CORPORATION**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

**8. Borrowings**

	December 31,	
	2001	2000
\$5,000,000 equipment financing arrangement entered into on November 30, 1998 and matured in 2001 .....	\$ —	\$ 1,994,000
\$500,000 note payable bearing interest at 5%, payable through August 2008 in monthly installments of \$5,000 and secured by the Owensboro processing facility and certain equipment .....	356,000	405,000
\$100,000 note payable originally maturing in September 2007 but prepaid in 2001 .....	—	72,000
Total debt .....	356,000	2,471,000
Less current portion .....	(107,000)	(2,048,000)
Total long-term debt .....	\$ 249,000	\$ 423,000

Future principal payments of debt are as follows:

2002 .....	\$107,000
2003 .....	49,000
2004 .....	52,000
2005 .....	54,000
2006 .....	57,000
Thereafter .....	37,000
Total principal payments .....	\$356,000

**9. Dow Contract**

The Company entered into a Collaboration and License Agreement with The Dow Chemical Company and its subsidiary, Dow AgroSciences LLC (collectively "Dow"), on September 1, 1998. The collaboration portion of the agreement ("Dow Collaboration") had a three-year term ending in August 2001. Under the Dow Collaboration, the Company received funding for sponsored genomics research and payments for technology access fees and milestone achievements. The research funding was not contingent on achievement of certain results. Accordingly, no obligation to repay any funded amounts or repurchase technology has been recorded. Revenues from Dow represented 85%, 86% and 88% of total revenues for 2001, 2000 and 1999, respectively. The Dow Collaboration ended in August 2001. In October 2001, the Company received \$3,395,000 from Dow as a final payment under the terms of the Dow Collaboration.

**Technology Access Fees**

In 1998, the Company received \$10,000,000 from Dow in exchange for access to the Company's technologies and a warrant granted to Dow (the "Dow Warrant") to purchase 1,848,091 shares of the Company's common stock, subject to certain vesting provisions. Using the Black-Scholes option-pricing model, the Company determined that the fair value of the Dow Warrant was \$1,392,000 on the issuance date and such amount was recorded as a warrant liability in 1998 (see Note 11). The remaining technology access fee of \$8,608,000 was recorded as deferred revenue and was recognized on a straight-line basis over the three-year term of the

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Dow Collaboration ending in August 2001. Amortized revenue of \$1,916,000, \$2,868,000 and \$2,868,000 was recorded during 2001, 2000 and 1999, respectively. Related deferred revenue was \$0 and \$1,916,000 at December 31, 2001 and 2000, respectively.

#### Milestone Payments

In 1999, the Company received \$20,000,000 from Dow for achievement of certain milestones specified in the Dow Collaboration. A portion of this amount was attributed to the fair value of the Dow Warrant shares vesting in 1999. Using the Black-Scholes option-pricing model, the Company determined that the fair value of the Dow Warrant vesting in 1999 was \$3,411,000 and such amount was recorded as additional warrant liability in 1999 (see Note 11). The remaining milestone payment amount of \$16,589,000 was recorded as deferred revenue and was recognized on a straight-line basis from the date of completion of the milestones to the end of the Dow Collaboration in August 2001. The Company received \$1,500,000 from Dow in 2000 for achieving an additional milestone and such amount was recorded as deferred revenue and amortized on the same basis as the earlier milestone payment. Amortized revenue of \$6,519,000, \$8,768,000 and \$2,802,000 was recorded in 2001, 2000 and 1999, respectively. Related deferred revenue was \$0 and \$6,519,000 at December 31, 2001 and 2000, respectively.

#### Research Funding

Revenue related to research performed under the Dow Collaboration was \$3,309,000, \$8,332,000 and \$8,563,000 in 2001, 2000 and 1999, respectively.

#### 10. Commitments

In January 2001, the Company entered into an agreement with Biosite Inc. whereby the Company originally committed to pay \$6,760,000 over 14 months for the purchase of antibodies. Later in 2001, Biosite and Xoma Ltd. (and certain Xoma affiliates) sued each other over intellectual property issues. That litigation impacted work Biosite had agreed to do for the Company under the agreement. Because of this litigation, the Company voided the agreement in January 2002. We have not paid and do not expect to pay any amounts to Biosite under the terms of the voided agreement.

The Company leases facilities under operating leases and incurred facility rental expenses of \$1,836,000, \$690,000 and \$659,000 during 2001, 2000 and 1999, respectively. Additionally, the Company has research sponsorship agreements with major universities, government institutions and other companies whereby the Company funds specific projects of interest to the Company. Expenses under these agreements totaled \$2,240,000, \$3,671,000 and \$3,072,000 during 2001, 2000 and 1999, respectively.

**LARGE SCALE BIOLOGY CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Future non-cancelable minimum payments under operating leases and research agreements are as follows:

	<u>Operating Leases</u>	<u>Research Agreements</u>
2002 .....	\$1,707,000	\$398,000
2003 .....	1,758,000	—
2004 .....	948,000	—
2005 .....	806,000	—
2006 .....	830,000	—
Thereafter .....	<u>3,578,000</u>	<u>—</u>
	<u>\$9,627,000</u>	<u>\$398,000</u>

In addition to the future non-cancelable minimum payments above, certain of the research agreements require future aggregate payments of \$2,775,000 if the agreements are not cancelled.

In June 2001, the Company entered into a patent license agreement that requires the Company to pay \$600,000 in the first year of the agreement for a two-year worldwide exclusive right to specified technologies. As of December 31, 2001, \$400,000 has been paid. The agreement provides extension options for exclusive or non-exclusive rights beginning in year three. Additionally, the agreement provides the licensor an option, through June 2004, to require the Company to fund research of a laboratory associated with the licensor. If such option is exercised, the required research funding will be at least \$200,000 per year. The agreement requires the Company to pay royalties or a percentage of income from future sales of products developed by the Company from use of the licensed technology or from collaborations or sublicenses between the Company and third parties that involve the licensed technology, or from GENEWARE alone in certain plant genomic applications.

The Company has patent license agreements with major universities that require the Company to pay royalties based on product sales, subject to minimum annual royalty amounts. These arrangements remain in effect until the expiration of all related patents or upon termination of the agreements by the Company. Each arrangement is cancelable by the Company upon ninety days notice without significant liability to the Company. Royalty payments were \$137,000, \$147,000 and \$207,000 during 2001, 2000 and 1999, respectively. The Company's non-cancelable obligation related to royalty agreements at December 31, 2001 was \$25,000.

#### 11. Stockholders' Equity

##### Stock Issued

On November 1, 2001, an employee purchased 100,000 shares of common stock from the Company at a price of \$3.45 per share, equal to the fair market value of the Company's stock on that date.

##### Warrants

In 2001, an employee was granted a warrant to purchase 250,000 shares of common stock. The warrant becomes exercisable in full if the quoted value of the Company's common stock, as reported on the Nasdaq National Market, equals an average of at least \$6.84 for any consecutive

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

20-business-day period prior to February 15, 2006. The exercise price of the warrant is \$5.13 per share and the warrant expires on February 14, 2012. The Company will recognize compensation expense of approximately \$428,000 if and when the warrant becomes exercisable.

The Company has reserved 1,848,091 shares of common stock for issuance upon the exercise of a warrant granted on September 1, 1998 to Dow in conjunction with the Dow Collaboration (see Note 9). The warrant is currently exercisable at \$10.14 a share. Portions of a technology access fee received in 1998 and a milestone payment received in 1999 from Dow were attributed to the warrant based on its fair value. The warrant was revalued on August 9, 2000 and December 31, 1999, resulting in the recognition of \$811,000 and \$5,353,000 of expense for 2000 and 1999, respectively. Because Dow held a put option for any shares obtained upon exercise of the warrant, the Company could have been obligated to repurchase the related common stock at its fair market value under certain conditions. Accordingly, the warrant was originally reported as a liability because of this put feature. Concurrent with the Company's initial public offering, the put feature expired and the warrant liability was reclassified to stockholders' equity. The following assumptions were used at August 9, 2000 and December 31, 1999 to determine the fair value of the warrant: expected volatility of 60%; risk-free interest rates from 4.6% to 6.4%; expected life of 3.1 years during 2000 and 3.7 years during 1999; and no expected dividend yield.

A warrant to purchase 100,000 shares of Series E convertible preferred stock was granted to a marketing consultant during 1997. This warrant is exercisable at \$4.00 per share, expires on February 20, 2002, and is fully exercisable into 150,000 shares of common stock.

The Company has reserved 43,983 shares of common stock for issuance upon the exercise of a warrant granted during 1988. This warrant is exercisable at \$1.59 per share and expires on August 9, 2005.

#### Stock Plans

In 2000, the Company adopted the Employee Stock Purchase Plan ("ESPP") that allows employees to purchase shares of the Company's common stock through payroll deductions. Total shares issued by the ESPP in 2001 equaled 48,433. No shares were issued in 2000. At December 31, 2001, total shares of common stock reserved and available for issuance by the ESPP equaled 546,030.

The Company adopted the 2000 Stock Incentive Plan (the "Plan") that incorporated the 1988, 1990, 1992 and 1999 Stock Plans. Under the terms of the Plan, the Company's employees, officers, directors and consultants may be granted options to purchase, or be allowed to immediately purchase, shares of the Company's common stock. The vesting period and exercise price of the stock options are determined by the Company's Board of Directors. Stock options granted under the Plan are exercisable over a ten-year period from the grant date and have vesting periods ranging from immediate vesting to four years. Options granted under the Plan may be either incentive stock options or nonqualified stock options. Incentive stock options may be granted only to Company employees (including officers and directors who are also employees).

Nonqualified stock options may be granted to Company employees, directors and consultants. Incentive and nonqualified stock options granted under the Plan may be granted at exercise prices no less than 100% and 85%, respectively, of the fair value of the Company's common stock on the date of grant. However, an option granted to a 10% shareholder under

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

the Plan shall be granted at an exercise price not less than 110% of the fair value of the Company's common stock on the date of grant.

The Company has reserved 8,921,633 shares of common stock for issuance under the Plan. At December 31, 2001, 2,084,380 shares of common stock were available for grant. The Plan includes a net exercise provision whereby shares of the Company's common stock that have been owned for more than one year can be exchanged at fair market value to pay the exercise price of stock options. Employees and consultants exchanged 8,141, 19,779 and 7,593 shares of common stock to exercise stock options under the net exercise provision during 2001, 2000 and 1999, respectively.

Outstanding stock options are summarized as follows:

	Number of Options	Weighted Average Exercise Price
Outstanding, December 31, 1998 .....	2,158,846	\$ 3.17
Granted .....	2,378,062	6.95
Exercised .....	(73,671)	2.47
Forfeited .....	(217,930)	2.22
Outstanding, December 31, 1999 .....	4,245,307	5.35
Granted .....	346,200	22.79
Exercised .....	(974,005)	2.33
Forfeited .....	(106,221)	6.49
Outstanding, December 31, 2000 .....	3,511,281	7.87
Granted .....	3,391,900	5.42
Exercised .....	(105,307)	2.54
Forfeited .....	(387,983)	16.55
Outstanding, December 31, 2001 .....	<u>6,409,891</u>	6.14
Exercisable options:		
December 31, 1999 .....	1,742,717	\$ 3.06
December 31, 2000 .....	2,163,118	6.14
December 31, 2001 .....	3,061,060	6.53

The weighted-average fair value of options granted was \$4.35 in 2001, \$18.58 in 2000, and \$7.13 in 1999. The number of options outstanding at December 31, 2001 includes 495,388 options granted to consultants.

The following table summarizes information about stock options outstanding and exercisable under the Plan at December 31, 2001:

Range of Exercise Prices	Outstanding Options			Exercisable Options	
	Number of Options	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number of Options	Weighted-Average Exercise Price
\$0.27 to 5.35 . . . .	1,806,177	7.48	\$ 3.44	653,093	\$ 3.23
\$6.19 to 8.41 . . . .	4,494,431	8.42	6.83	2,360,130	7.13
\$14.31 to 22.50 . .	109,283	8.63	22.28	47,837	22.33
	<u>6,409,891</u>	8.16	6.14	<u>3,061,060</u>	6.53

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The fair value of each option granted to employees was estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions during 2001 and 2000: expected volatility of 98% and 100%, respectively; average risk-free interest rate of 4.7% and 5.9%, respectively; initial expected life of six years; and no expected dividend yield. For options granted to employees during 1999, the minimum value method was used with the following weighted-average assumptions: risk-free interest rate of 6.5%; expected life of six years; and no expected dividend yield.

Pro Forma Net Loss

If compensation cost for the Company's stock-based compensation plans and the warrant granted to an employee had been determined based on the fair value method at the grant dates as prescribed by SFAS No. 123, the Company's net loss and net loss per share would have increased to the pro forma amounts indicated below:

	Year Ended December 31,		
	2001	2000	1999
Net loss:			
As reported .....	\$(20,689,000)	\$(16,300,000)	\$(34,895,000)
Pro forma .....	(26,112,000)	(17,867,000)	(35,371,000)
Net loss per share:			
As reported:			
Basic and diluted .....	(0.84)	(1.07)	(3.76)
Pro forma:			
Basic and diluted .....	(1.06)	(1.17)	(3.81)

Stock Compensation

On November 1, 2001, the Company issued, subject to the Company's right of reversion, 200,000 shares of common stock to an employee. These shares vest and the Company's right of reversion lapses according to the following schedule: 50,000 shares on January 1, 2002, and thereafter in twelve quarterly installments of 12,500 shares beginning on February 1, 2002. Any unvested shares will immediately vest under certain circumstances. The fair market value of the Company's common stock on the grant date was \$3.45 and the Company recorded total deferred compensation of \$690,000 on that date. The deferred compensation is being amortized consistent with the vesting schedule. Stock compensation expense of \$201,000 was recorded in 2001.

The Company issued options to consultants to purchase 65,000, 39,000 and 7,500 shares of the Company's common stock in 2001, 2000 and 1999, respectively. The exercise prices per share for options granted ranged from \$4.75 to \$6.19 in 2001, \$14.31 and \$22.50 in 2000, and \$6.67 in 1999. The options have a 10-year life and vest over periods ranging from three to four years. The fair value of each option was estimated on the date of grant and revalued during the vesting period using the Black-Scholes option-pricing model with the following weighted-average assumptions during 2001, 2000 and 1999: expected volatility of 98%, 100% and 60%, respectively; risk-free interest rate of 5.2%, 5.4%, and 6.1%, respectively; initial expected life of ten years; and no expected dividend yield. Stock compensation expense of \$187,000, \$136,000 and \$129,000 was recorded in 2001, 2000 and 1999, respectively.

## LARGE SCALE BIOLOGY CORPORATION

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

On December 31, 1999, the Company issued options to employees, officers and directors to purchase 1,545,000 shares of the Company's common stock. These options are exercisable at between \$6.67 and \$7.50 per share, have a 10-year life and vest in quarterly installments over three years. Deferred compensation in the amount of \$7,809,000 was recorded as the difference between the exercise price and the estimated fair value of the common stock as of December 31, 1999. The deferred compensation is being amortized over the three-year vesting period. Stock compensation expense of \$2,604,000 and \$2,601,000 was recorded in 2001 and 2000, respectively.

In December 1999, certain officers and key employees were granted options to purchase 765,000 shares of the Company's common stock at \$7.50 per share that became fully exercisable upon the closing of the Company's initial public offering. Stock compensation expense of \$7,268,000 was recognized in 2000 based on the difference between the exercise price of the options and the fair market value of the Company's common stock at the date of the initial public offering.

The Company issued 1,065 shares of common stock valued at \$7,000 in 2001 and 4,723 shares of common stock valued at \$31,000 in 1999 to non-employees in exchange for consulting and research and development services.

#### Stockholders' Notes Receivable

The Company's Board of Directors has authorized the issuance of up to \$650,000 of notes receivable to allow salaried employees, who are not Company officers, to exercise stock options by borrowing the aggregate exercise price from the Company. Employees borrowed \$10,000 to purchase 1,500 shares of common stock in 2000 and \$82,000 to purchase 37,500 shares of common stock in 1999. These notes are secured by the underlying stock and are recorded as a reduction of stockholders' equity.

#### 12. Employee Benefit Plan

The Company sponsors a 401(k) defined contribution retirement plan covering all employees who meet certain eligibility requirements. The Company makes discretionary matching contributions equal to 50% of employee contributions up to a maximum of 3% of an employee's compensation, subject to statutory limits. The Company's contributions under this plan amounted to \$264,000, \$243,000 and \$155,000 in 2001, 2000 and 1999, respectively.

#### 13. Income Taxes

The Company's income tax provision of \$190,000 in 1999 consists of current federal and state alternative minimum income taxes.

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The provision for income taxes differs from the amount computed by applying the statutory federal income tax rate as follows:

	Year Ended December 31,		
	2001	2000	1999
Federal income tax benefit at statutory rate .....	(35.0)%	(35.0)%	(35.0)%
Purchased research and development .....	—	—	24.2
Research and development credits .....	(4.3)	(4.6)	(1.9)
Change in valuation allowance for income taxes .....	38.9	39.0	12.4
Other .....	0.4	0.6	1.0
	<u>0.0 %</u>	<u>0.0 %</u>	<u>0.7 %</u>

The significant components of net deferred income tax assets are:

	December 31,	
	2001	2000
Deferred tax assets:		
Deferred revenue .....	\$ 266,000	\$ 3,885,000
Net operating loss carryforwards .....	29,530,000	19,766,000
Tax credit carryforwards .....	7,884,000	6,212,000
Capitalized project costs .....	1,389,000	1,220,000
Deferred compensation .....	3,810,000	3,529,000
Other .....	1,069,000	626,000
Total deferred tax assets .....	43,948,000	35,238,000
Deferred tax liabilities—intangible assets .....	(1,355,000)	(1,485,000)
Valuation allowance .....	(42,593,000)	(33,753,000)
Net deferred income tax asset .....	<u>\$ —</u>	<u>\$ —</u>

At December 31, 2001, the Company had net operating loss carryforwards of \$77,397,000 and \$39,719,000 available to reduce future Federal and state taxable income, respectively. These net operating loss carryforwards expire between 2009 and 2021 for federal income tax purposes and expire between 2005 and 2011 for state income tax purposes. The difference between the federal and state net operating loss carryforwards is due to the California limitation on loss carryforwards (55% of 2001 net taxable loss) and the capitalization of certain research costs for state income tax purposes. Additionally, at December 31, 2001, the Company has research and other tax credit carryforwards of \$4,354,000 and \$3,530,000 available to reduce future federal and state income taxes, respectively. These tax credits expire between 2003 and 2016 for federal income tax purposes and have no date of expiration for state income tax purposes. The Company has fully reserved all net deferred tax assets as management does not believe that their future realization is more likely than not.

The extent to which the net operating loss carryforwards can be used to offset future taxable income may be limited if changes in the Company's stock ownership exceed certain defined limits.

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

**14. Supplemental Cash Flow Disclosures**

In 2001, the Employee Stock Purchase Plan issued 48,433 shares of Company common stock, valued at \$389,000, to employees.

In 2001, the Company recorded deferred compensation of \$690,000 related to stock granted to an employee.

Included in construction in progress and accounts payable at December 31, 2000 is accrued capital expenditures of \$2,729,000 for leasehold improvements at Proteomics.

In 2000, \$12,191,000 of warrant liability was reclassified to stockholders' equity due to the expiration of a put option concurrent with the Company's initial public offering of common stock (see Note 11).

In 1999, the Company issued 2,287,634 shares of Series G convertible preferred stock in exchange for 92.5% of the outstanding common stock of Proteomics (see Note 2). Net cash acquired in connection with the Proteomics acquisition is as follows:

Issuance of Series G convertible preferred stock .....	\$ 24,660,000
Issuance of stock options .....	394,000
Fees and expenses .....	53,000
Less fair value of non-cash net assets acquired .....	<u>(25,086,000)</u>
Net cash acquired .....	<u>\$ 21,000</u>

With the acquisition of the remaining 7.5% of the outstanding common stock of Proteomics in March 2000, the Company recorded goodwill of \$1,861,000, equal to the \$1,787,000 carrying value of a put option and cash paid of \$74,000 (see Note 2).

In 2000 and 1999, the Company issued 1,500 and 37,500 shares of its common stock in exchange for \$10,000 and \$82,000 in notes receivable, respectively.

In 1999, the Company recorded deferred compensation of \$7,936,000 related to the issuance of options to purchase common stock.

**15. Related Party Transactions**

Two of the Company's directors are former managing directors of Technology Directors, Inc. ("TDI"). In 1998, the Company entered into a consulting and business development arrangement with TDI whereby TDI provides management advisory services to the Company. Compensation received by TDI for the management advisory services includes a fee based upon amounts received by the Company from Dow under a collaboration agreement (see Note 9). Expenses related to this agreement totaled \$66,000, \$99,000 and \$644,000 during 2001, 2000 and 1999, respectively, and are included in general, administrative and marketing expenses in the consolidated statements of operations.

In 1999, pursuant to an employment agreement with an employee and founder of Proteomics, the Company paid the employee \$500,000 over two years for a five-year non-

LARGE SCALE BIOLOGY CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

compete agreement. In addition, the Company entered into a license and consulting agreement with the employee covering certain biochip technology developed by him. The license is a worldwide, exclusive, non-royalty bearing license to the biochip technology. This agreement requires monthly payments of \$4,000 and \$6,667 for consulting services over two years and for license fees over five years, respectively. Expenses related to these agreements totaled \$188,000, \$228,000 and \$190,000 during 2001, 2000 and 1999, respectively. Remaining license fees owed at December 31, 2001 equal \$167,000 and are included in accrued expenses in the consolidated balance sheet.

In 1999, the Company entered into a license agreement with Icon Genetics Inc., an affiliate of Icon Genetics AG ("Icon"), and the International Institute of Cell Biology, National Academy of Sciences of Ukraine (the "Institute"). The Company's Chief Executive Officer and Chairman of the Board of Directors serves as Chairman of the Supervisory Board of Icon. Another of the Company's directors is a member of the Supervisory Board and a principal shareholder of Icon. The license provides the Company an exclusive, worldwide license to specified technology for a paid license fee of \$300,000. The Company was also granted a worldwide, non-exclusive license to specified technology for a 2% royalty on the sale of products developed with such technology. An additional \$200,000 was paid upon achievement of milestones specified in the license agreement. In 2000, the Company entered into a one-year research services agreement with Icon that provided for payments of \$200,000 to Icon. In 2001, the Company entered into another license agreement with Icon for the worldwide, non-exclusive license to specified technology for a paid license fee of \$500,000. Under these agreements, the Company paid \$537,500, \$450,000 and \$213,000 in 2001, 2000 and 1999, respectively, to Icon Genetics Inc., Icon and the Institute.

16. Quarterly Results of Operations (Unaudited)

The following interim financial information presents the Company's 2001 and 2000 quarterly results of operations:

	Three Months Ended			
	December 31	September 30	June 30	March 31
<b>2001</b>				
Revenues .....	\$ 678,000	\$ 5,129,000	\$ 5,943,000	\$ 5,981,000
Loss from operations .....	(10,020,000)	(5,452,000)	(4,738,000)	(3,590,000)
Net loss .....	(9,619,000)	(4,801,000)	(3,877,000)	(2,392,000)
Net loss per share—basic and diluted .....	(0.39)	(0.20)	(0.16)	(0.10)
<b>2000</b>				
Revenues .....	\$ 5,719,000	\$ 6,338,000	\$ 5,604,000	\$ 5,630,000
Loss from operations .....	(3,728,000)	(9,964,000)	(2,238,000)	(1,851,000)
Net loss .....	(2,261,000)	(10,663,000)	(1,875,000)	(1,501,000)
Net loss per share—basic and diluted .....	(0.09)	(0.60)	(0.20)	(0.16)

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**Corporate  
Information**

**Officers**

**Robert L. Erwin**  
Chairman of the Board and  
Chief Executive Officer

**John D. Fowler, Jr.**  
President

**N. Leigh Anderson, Ph.D.**  
Chief Scientific Officer

**David R. McGee, Ph.D.**  
Chief Operating Officer  
Sr. Vice President and  
Assistant Secretary

**Ronald J. Artale**  
Chief Financial Officer  
Sr. Vice President, Finance

**John S. Rakitan**  
General Counsel  
Sr. Vice President and Secretary

**Pieter C. Bax, Ph.D.**  
Sr. Vice President  
Corporate Development

**Laurence K. Grill, Ph.D.**  
Sr. Vice President, Research

**R. Barry Holtz, Ph.D.**  
Sr. Vice President  
Bioprocess Development

**Robert J. Walden**  
Sr. Vice President  
General Manager of the  
Proteomics Division

**Michael D. Centron**  
Vice President, Treasurer

**Guy della-Cioppa, Ph.D.**  
Vice President  
Business Development

**Daniel Tusé, Ph.D.**  
Vice President  
Business Development  
Pharmaceutical Products

**Board of Directors**  
**Robert L. Erwin**  
Chairman of the Board and  
Chief Executive Officer

**John D. Fowler, Jr.**  
President

**N. Leigh Anderson, Ph.D.**  
Chief Scientific Officer

**Marvyn Carton**  
Executive Vice President and Director  
(Retired) Allen & Company

**Bernard I. Grosser, Ph.D.**  
Professor and Chairman,  
Department of Psychiatry  
University of Utah School of Medicine

**Charles A. Hayes**  
Chairman of the Board  
Guilford Mills

**Sol Levine**  
Former President, Revlon, Inc.

**John W. Maki**  
Managing Director  
Technology Directors, Inc.

**John J. O'Malley**  
Managing Director  
Technology Directors, Inc.

**Kevin J. Ryan**  
Chairman of the Board  
Sonic Innovations, Inc.

**James P. TenBroek**  
Managing Director  
Wind Point Investors, LLC

**Jacobo Zaidenweber, M.D.**  
Chairman of the Board  
American Textile-Guilford, Mexico

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Additional copies of this  
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are available, without charge,  
upon request from the Company  
Attention: Investor Relations

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Providence, RI 02940-3010  
Phone: 1-781-575-3400  
www.EquiServe.com

**NASDAQ Symbol**  
LSBC

**Web Site**  
www.lsbc.com

**Annual Meeting**  
The annual meeting of  
stockholders will be held on  
Monday, May 13, 2002 at 2:30 P.M.  
Travis Credit Union  
Community Room  
One Travis Way  
Vacaville, CA 95688

