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# SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

## FORM 20-F

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2000      COMMISSION FILE NO. 005-60609

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## Compugen Ltd.

(Exact name of registrant as specified in its charter and translation of registrant's name into English)

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### Israel

(Jurisdiction of incorporation or organization)

**72 Pinchas Rosen Street, Tel Aviv, 69512 Israel**

(Address of principal executive offices)

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### Securities registered or to be registered pursuant to Section 12(b) of the Act:

None

### Securities registered or to be registered pursuant to Section 12(g) of the Act:

Ordinary Shares, par value New Israeli Shekels 0.01 per share

(Title of Class)

### Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

25,981,416 Ordinary Shares.

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 which financial statement item the registrant has elected to follow:

Item 17       Item 18

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This annual report on Form 20-F includes “forward-looking” statements within the meaning of Section 21E of the Securities Exchange Act of 1934. We have based these forward-looking statements on information available to us on the date hereof, our current intentions, our beliefs, and expectations or projections about future events. We assume no obligation to update any such forward-looking statements. These statements involve risks and uncertainties and actual results could differ materially from our expectations or projections. Factors that could cause our actual results to differ materially from those projected in the forward-looking statements include the risk factors set forth in this annual report at “Item 3. Risk Factors.”

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We have prepared our consolidated financial statements in United States dollars and in accordance with accounting principles generally accepted in the United States and Israel. All references herein to “dollars” or “\$” are to United States dollars, and all references to “Shekels” or “NIS” are to New Israeli Shekels.

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## PART I.

### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

### ITEM 3. KEY INFORMATION

#### Selected Financial Data

The selected financial data is incorporated by reference to Item 5 of this annual report.

#### Risk Factors

This annual report includes forward-looking statements. We have based these forward-looking statements on our current intentions, beliefs, expectations or projections about the future. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions that could cause our actual results to differ materially from those projected in the forward-looking statements.

#### *Risks Related to Our Business*

#### **Our approach to understanding life sciences through the convergence of computational technologies and molecular biology is novel and may not be accepted by our potential customers.**

Our technologies involve new and unproven approaches to understanding biological processes. Our approaches to understanding these matters may prove to be ineffective or not as effective as other methods, or they may not be accepted by our potential customer base. These approaches are based on the assumption that very complex molecular biological processes and experimental results can be successfully understood and modeled through the convergence of advanced mathematical techniques, computer science and molecular biology in ways not attainable as quickly or at all using conventional techniques. If our technologies are not accepted by customers, our business may fail or we may never become profitable. In addition, the life processes and experimental results that we are now attempting to model and understand in our research activities may turn out to be significantly more complex than those involved in our earlier efforts.

#### **We have a history of losses, expect to incur future losses and may never achieve or sustain profitability.**

We incurred net losses of approximately \$3.2 million in 1997, \$3.1 million in 1998, \$8.1 million in 1999, \$13.4 million in 2000 and \$3.6 million in the three months ended March 31, 2001. As of March 31, 2001, we had an accumulated deficit of approximately \$31.9 million (not including approximately \$25 million in accumulated deficit attributable to the conversion of preferred shares upon the closing of our initial public offering). We expect to continue to incur net losses and negative cash flows in the future due in part to increasing research and development expenses, including enhancements to our technologies and investments in new technologies, and increased sales, marketing and business development expenses. As a result, we will need to generate significantly higher revenues to achieve profitability. We cannot assure you that we will ever achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

#### **Even if our technologies are effective as research tools, we or our customers may be unable to**

**develop or commercialize new drugs, therapies or other products based on them.**

Even if our technologies perform their intended functions as research tools, we or our customers may be unable to use the discoveries resulting from them to produce new drugs, therapies, diagnostics or other life science products. There is still a limited understanding of the roles of genes and proteins and their involvement in diseases and other life processes. Few therapeutic products based on genomic or proteomic discoveries have been developed and commercialized. To date, no one has developed or commercialized any drug, therapeutic, diagnostic, or other life science products based on our technologies.

Development of drugs, therapies, diagnostics and other life science products based on Novel Genomics' or our customers' discoveries will also be subject to other risks of failure inherent in development or commercialization of products of these types. These risks include the possibility that any of these products will:

- be found to be toxic or ineffective;
- fail to receive necessary regulatory approvals;
- be difficult or impossible to manufacture on a large scale;
- be uneconomical to market;
- fail to be developed prior to the successful marketing of similar products by competitors; or
- be impossible to market because they infringe on the proprietary rights of third parties or compete with superior products marketed by third parties.

Any of these factors could materially harm our business and financial results.

**Our industry is evolving rapidly, and we may be unable to keep pace with changes in technology.**

The life science industry, and genomic technologies in particular, are characterized by rapid technological change, and the area of gene research is a quickly evolving field. Our future success will depend in large part on maintaining a competitive position in the field of genomic and proteomic research. If we fail to keep pace with changes in technology, our business will be materially harmed. Rapid technological development by us or others may result in our products or technologies becoming obsolete. This may occur even before we recover the expenses we incur in connection with their development. Products or services offered by us could become obsolete due to the development of less expensive or more effective drug discovery technologies, including technologies developed by third parties that may be unrelated to genomics. We may not be able to make the necessary enhancements to our technologies to compete successfully with newly emerging technologies. In addition, the federally funded Human Genome Project, the Celera Genomics group, and others engaged in genomic research have committed to make basic human sequence data available to the public. These publications, including the publication of the human genome, may make some of our products and technologies less valuable or obsolete.

**We face intense competition, and if we are unable to compete successfully, we could experience a loss of market share and reduced gross margins for our products and services.**

We compete with companies in the United States and elsewhere that provide products and services for the analysis of genomic and proteomic information or the commercialization of novel genes and proteins developed from those efforts. These include genomics, pharmaceutical and biotechnology companies, academic and research institutions and government and other publicly-funded agencies. We may not be able to compete successfully against current and future competitors. Many of our competitors have substantially greater capital resources, research and development staffs, facilities, manufacturing and marketing experience, distribution channels and human resources than we do. This may allow these competitors to discover, characterize or develop important discoveries, or to obtain regulatory approval for

products based on these discoveries, in advance of us or our customers. Some of our competitors, especially academic and research institutions and government and other publicly-funded agencies, may provide for free services or data similar to ours that we may provide for a fee. Greater resources may also allow these competitors to develop products that are more effective than ours or those of our customers. Moreover, our competitors may obtain patent protection or other intellectual property rights that would limit our rights or our customers' ability to use our products and services to commercialize their discoveries. If we are unable to compete successfully against existing or potential competitors, our revenues and margins may decline.

**Our Novel Genomics division is a new venture with limited resources, and it may never develop or commercialize products or achieve profitability.**

Our Novel Genomics division is a new venture, with limited research personnel and limited development, manufacturing or marketing capability. Novel Genomics has generated only negligible revenues to date, has no clear source of revenues and may never achieve profitability. Although we intend to allocate a significant portion of our cash resources to Novel Genomics' operations, we do not anticipate that this funding for research and sales and marketing will enable Novel Genomics to achieve profitability in the near future. As a result, we anticipate that its operations will require substantial additional funds in the future. If Novel Genomics is unable to obtain the required additional funding from us, from third-party collaborators or from other third parties on commercially reasonable terms, we may have to curtail or cease Novel Genomics' operations.

Currently, Novel Genomics has no products under development and lacks the infrastructure, equipment and experienced personnel it would need to develop product candidates. Once developed, product candidates must undergo extensive testing, including animal and human clinical trials, to obtain regulatory approvals needed for commercialization. Even if Novel Genomics is able to develop and commercialize its product candidates, we cannot assure you that its products, if any, would be commercially marketable or successful.

**The success of our Novel Genomics division will depend on its ability to find third party collaborators to develop and commercialize product candidates. Working with third party collaborators may expose our Novel Genomics division to several risks related to the terms of licensing agreements, dependence on our collaborators and disputes over the development and ownership of jointly developed technologies**

Our strategy for the development and commercialization of drug targets and diagnostic markers depends, in large part, upon the formation of collaboration agreements with third parties. Potential third parties include pharmaceutical and biotechnology companies, academic institutions and other entities. We must enter into these agreements to successfully develop and commercialize product candidates. These agreements are necessary in order to enable:

- § us to gain access to complimentary technologies;
- § the performance of research and development activities which we are not capable of performing or do not have the necessary human resources to perform;
- § the funding of our research and development activities;
- § the funding of pre-clinical development, clinical trials and manufacturing;
- § us to seek and obtain regulatory approvals; and
- § us to successfully commercialize existing and future product candidates.

Although we are currently negotiating with several life science companies regarding possible collaborations, we have not yet entered into a definitive agreement with respect to any such collaboration, and we cannot assure you that we will enter into any such agreements in the future. If we fail to enter into collaboration agreements, the business of our Novel Genomics Division, financial condition and results of operations will be materially harmed.

Our dependence on licensing and other agreements with third parties subjects us to a number of risks. These agreements may not be on terms favorable to us, and collaborators may typically be afforded

significant discretion in electing whether to pursue any of the planned activities. In most cases, our collaborators will have responsibility for formulating and implementing key strategic or operational plans. Decisions by our collaborators on key development, clinical, regulatory, marketing (including pricing), inventory management and other issues may prevent successful commercialization of the product or otherwise impact our profitability. In addition, we may not be able to control the amount and timing of resources our collaborators will devote to the product candidates, and collaborators may not perform their obligations as expected. Additionally, business combinations or significant changes in a collaborator's business strategy may negatively affect a collaborator's willingness or ability to complete its obligations under arrangements with us. Furthermore, our rights in any intellectual property or products that may result from our collaborations may depend on additional investment of money that we may not be able or willing to make. If we are not able to establish successful collaborations, we may be required to undertake product development and commercialization at our own expense. Such an undertaking may:

- § limit the number of product candidates that we will be able to develop and commercialize;
- § reduce the likelihood of successful product introduction;
- § significantly increase our capital requirements;
- § place additional strain on our management's time; and
- § limit the revenues we receive from each product.

Potential or future collaborators may pursue alternative technologies, including those of our competitors. Disputes may arise with respect to the ownership of rights to any technology or products developed with any future collaborator. Lengthy negotiations with potential collaborators or disagreements between us and our collaborators may lead to delays or termination in the research, development or commercialization of product candidates or result in time-consuming and expensive litigation or arbitration. If our collaborators pursue alternative technologies or fail to develop or commercialize successfully any product candidate to which they have obtained rights from us, our business, financial condition and results of operations may be significantly harmed.

**Our business of providing access to our products and data to our customers and the activities of our Novel Genomics division may conflict with each other.**

Our Novel Genomics division depends, in large part, on our computational platforms and tools and proprietary data to make inventions and establish intellectual property rights in genes and proteins. This access to our tools and proprietary information provides our Novel Genomics division with a competitive advantage over biotechnology companies that are pursuing patents that may compete with us, including patents to gene and protein sequences. The licensing or provision of access to our platforms, tools or proprietary data to our customers, primarily biotechnology companies, may diminish or eliminate our Novel Genomics division's competitive advantage over these customers. If our customers, many of which have greater financial and other resources than our Novel Genomics division, research genes or proteins that we are researching, they may establish intellectual property rights in such genes or proteins before our Novel Genomics division. As a result, our business, financial condition and results of operations may be significantly harmed. In addition, our Novel Genomics division, may pursue opportunities in fields that could conflict with those of our customers or discourage potential customers from working with us, thereby reducing our potential revenues.

**Our failure to manage our growth effectively could limit our ability to pursue business opportunities and expand our business.**

We have experienced a period of rapid growth that has placed, and continues to place, a strain on our management, operations, infrastructure and financial resources. Between January 1, 1998 and May 31, 2001, the number of our employees increased from 56 to 190 and we substantially expanded our United States subsidiary. We expect to continue to experience growth in the number of our employees and customers and the scope of our operations, including our Novel Genomics division. Any failure to properly manage the expansion of our business could limit our ability to operate effectively. Our success will depend on the ability of our officers and key employees to efficiently utilize our human resources, to focus on the key issues essential for our success, continue to implement and improve our operational and financial

systems and managerial controls, to manage concurrent research projects and customer relationships and to hire, train and manage our employees.

**Our revenues are derived primarily from, and are subject to risks faced by, the pharmaceutical and biotechnology industries.**

We expect that our revenues in the foreseeable future will be derived primarily from products and services provided to the pharmaceutical and biotechnology industries. Accordingly, our success will depend directly upon their demand for our products and services. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by companies in these industries. These reductions and delays may result from factors beyond our control, including:

- changes in the regulatory environment affecting health care and health care providers;
- pricing pressures and reimbursement policies;
- market-driven pressures on companies to consolidate and reduce costs;
- business combinations within these industries;
- willingness to invest, or decisions to postpone investment of, substantial amounts in the new areas of genomics and proteomics; and
- other factors affecting research and development spending.

**We rely on a small number of customers for a large portion of our revenues.**

A small number of our customers account for a substantial amount of our revenues. Warner-Lambert Company, a subsidiary of Pfizer, Inc., accounted for approximately 71% of our revenues in 1999 and approximately 35% of our revenues in 2000 and the U.S. Patent and Trademark Office accounted for approximately 31% of our revenues in 1998, approximately 10% of our revenues in 1999 and approximately 24% in 2000. We cannot be certain that this customer will continue to use our services for their research. Our agreement with Warner-Lambert expires in March 2002, and Warner-Lambert may terminate it at any time. A loss of our significant customers, or a reduction in orders from any of these customers, could harm our business and financial results.

**If we are unable to hire or retain key personnel or sufficient qualified employees, we may be unable to successfully operate our business.**

Our business is highly dependent upon the continued services of our senior management and key technical personnel in all areas of our business. While members of our senior management are parties to employment or consulting agreements and non-competition and non-disclosure agreements, we cannot assure you that these key personnel and others will not leave or compete with us, which could materially harm our financial results and our ability to compete. We do not carry key person life insurance on any member of our senior management. Furthermore, competition for highly qualified personnel in our industry and geographic locations is intense. The growth of our business would be seriously harmed if we were unable to retain our key employees, or to attract, integrate or retain other highly qualified personnel in the future.

**If we are unable to raise additional capital in the future, we may have to curtail or cease operations.**

Based on our current projections, we anticipate that our existing cash and cash equivalents will be sufficient to support our operations for at least the next two years. We cannot assure you, however, that we

will not need to raise additional capital prior to that time or that we would be able to raise sufficient additional capital on favorable terms, if at all. If we fail to raise sufficient funds, we may have to curtail or cease operations, which would materially harm our business and financial results. To the extent we raise additional capital by issuing equity securities, our shareholders may experience substantial dilution. To the extent we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us.

**Our operating results are likely to fluctuate and may fail to meet the expectations of securities analysts, which may cause our share price to decline.**

Our quarterly operating results have fluctuated in the past and are likely to do so in the future. These fluctuations, or the failure of our operating results to meet the expectations of securities analysts, could cause our share price to fluctuate significantly or decline. Some of the factors that could cause our operating results to fluctuate include:

- the timing of payments under arrangements with our current and future customers;
  - our rate of success and timing of new collaborations or sale of new product and service offerings;
  - changes in demand for our existing services and our further penetration of the life science industry;
  - the level of activity and funding in the life science industry;
  - a drop in the financial resources available to our customers;
  - changes to our fee structure or our operating expenses;
  - software "bugs" or other product quality problems;
  - increased competition and the timing of the release of products and data by our competitors and academic and other non-profit organizations.
  - the timing and number of our new hires and capital expenditures; and
- § fluctuations in the sales activities of our distributors.

Based upon these and other factors, our quarterly operating results are likely to fluctuate significantly in the future, and quarterly results of operations may not be meaningful. As a result, comparisons of these results should not be relied upon as indications of future performance.

**We have a limited sales and business development organization and limited experience in commercializing our products and services, which may cause significant difficulties. Our ability to successfully commercialize some of our products will depend on our ability to enter into and maintain successful marketing and distribution arrangements with third parties.**

Our sales and business development organization may not be sufficiently large or knowledgeable to successfully penetrate our target markets. Although we substantially expanded our direct sales and business development organization during 2000 and the first six months of 2001, we may not be able to continue expanding our direct sales and business development organization to meet our commercial objectives. In addition, our sales force may not be able to address complex scientific and technical issues raised by our customers. Our customer support personnel may also lack the broad range of technical expertise required to adequately service and support our products and services.

Our ability to successfully commercialize some of our products, such as Z3 and OligoLibraries, will depend on our ability to enter into and maintain successful marketing and distribution arrangements with



third parties. To date, we have entered into an agreement with Sigma Genosys, Inc. for the manufacture, marketing and distribution of the co-branded OligoLibraries and with another company for the limited distribution of Z3. Although we are negotiating with potential distributors for some of our products, we have not entered into any other agreement for the marketing and distribution of our products. We cannot be certain that we will successfully identify other potential distributors for our products or that we will enter into other agreements for the marketing and distribution of our products. In addition, we may not be able to control the amount and timing of resources Sigma or any future distributor will devote to our products, and distributors may not perform their obligations as expected. If we are unable to identify and enter into distribution agreements with potential distributors for our products or Sigma or future distributors of our products do not successfully market and distribute our products, our business, financial condition and results of operations may be significantly harmed.

**We intend to acquire or make strategic investments in other businesses and technologies in the future, and these could prove difficult to integrate, disrupt our business, dilute stockholder value and adversely affect our operating results.**

Although we have not made acquisitions of other companies or businesses in the past and currently have no commitments or agreements with respect to future acquisitions, our business plan includes making future acquisitions of businesses, technologies, services or products that we believe are a strategic fit with our business. Even if we are successful in acquiring complementary businesses or technologies, we may be unable to successfully integrate any additional personnel, operations and acquired technologies into our business. We may not be able to identify suitable acquisition or investment candidates. Even if we do identify suitable candidates, we may not be able to enter into any potential acquisitions or investments on commercially acceptable terms. Moreover, we may have difficulty integrating any acquired businesses, personnel and technologies into our operations. Any difficulties could disrupt our business, distract our management and employees and increase our expenses. In addition, if we conduct acquisitions using convertible debt or equity securities, existing stockholders may be diluted, which could affect the market price of our stock.

**If our access to necessary genomic data, tissue samples or other information is restricted, or if this data is faulty, we may not be able to continue to develop our business.**

To continue to build our technologies and related products and services, we need access to scientific and other data supplied by others, as well as normal and diseased human and other tissue samples, other biological materials and related clinical and other information. We compete with many other companies for these materials and information. We may not be able to obtain or maintain access to these materials and information on acceptable terms, if at all. Some of our suppliers could become our competitors and discontinue selling supplies to us. Data from these suppliers could also contain errors or defects that could corrupt our databases or results. In addition, government regulation in the United States and foreign countries could result in restricted access to, or use of, human and other tissue samples. If we lose access to sufficient numbers or sources of tissue samples, or if tighter restrictions are imposed on our use of the information generated from tissue samples, our business will suffer.

**Our business and the products developed using the information in our databases may be subject to government regulation.**

Any new drug, therapy or diagnostic products developed by our, our collaborators' or our customers' efforts as a result of the use of our databases or our other products or services must undergo a lengthy and expensive regulatory review process in the United States and other countries before it can be marketed. It may be several years, if ever, before any drugs or diagnostic products developed using our technologies will be sold or will provide us with any revenues. This may delay or prevent us from becoming profitable. Changes in policies of U.S. and foreign regulatory bodies can increase the delay for each new drug, product license and biological license application. We expect similar delays in the regulatory review process for any diagnostic product if similar review or other approval is required. Even if marketing clearance is obtained, a marketed product and its manufacturer are subject to continuing review. Discovery of previously unknown problems with a product may result in withdrawal of the product from the market.

No drug, therapeutic, diagnostic or other product resulting from the use of our databases or our other products or services requiring regulatory approval has been released for commercialization in the United States or elsewhere. In addition, no new drug application or application for a diagnostic product has been submitted for any product candidate. We expect to rely on our customers or collaborators to file these applications and generally direct the regulatory review process. We cannot be certain if or when our customers or collaborators will submit any applications for regulatory review, or whether our customers will be able to obtain marketing clearance for any products on a timely basis, if at all. If our customers or collaborators fail to obtain required governmental clearances, it will prevent them from marketing drugs or diagnostic products until clearance can be obtained, if at all. This will in turn reduce our chances of ever receiving any form of payments related to sales of marketed drugs, therapies or diagnostic products from our customers or collaborators.

**If ethical and other concerns surrounding the use of genetic information become widespread, there may be less demand for our products and services.**

Genetic testing has raised ethical issues regarding confidentiality and the appropriate uses of the resulting information. For these reasons, governmental authorities may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to various conditions, particularly for those that have no known cure. Any of these scenarios could reduce the potential markets for our products, which could materially harm our business and financial results.

**The sales cycle for some of our products and services is lengthy. We will need to expend substantial funds and management effort with no assurance of successfully selling our products or services.**

Our ability to obtain corporate customers for our products and services depends in significant part upon the perception that our technologies can help accelerate their efforts in genomics and proteomics, as well as our ability to successfully negotiate terms and conditions for such arrangements. The sales cycle for some of our products and services is typically lengthy and could take 12 months or longer. Our sales effort may require the effective demonstration of the benefits of our products and services to, and significant training of, many different departments within a potential customer. These departments might include research and development personnel and key management personnel. In addition, we are often required to negotiate agreements containing terms unique to each customer. Therefore, we expend and will need to continue expending substantial funds and management effort with no assurance that we will be successful in reaching agreements with potential customers.

**We may be subject to product liability claims if our products, or products derived from our products or services, injure people.**

We may be held liable if any product we develop, or any product that is made with the use or incorporation of, any of our technologies or data, causes injury or is found otherwise unsuitable during product testing, manufacturing, marketing or sale. These risks are inherent in the development of genomic and pharmaceutical products. If we are sued for any injury caused by products derived from our services or products, our liability could exceed our total assets. In addition, such claims could cause us to incur substantial costs and subject us to negative publicity even if we prevail in our defense of such claims.

**If Internet-based research tools do not achieve widespread acceptance, our ability to educate the scientific research market of the merits of our products and services will be negatively affected.**

If the use of Internet-based research tools fails to grow, our Web site traffic and resulting market exposure could be materially reduced. Factors that could deter existing or potential customers from using our Internet-based services may include:

- implementation of competing products or services, particularly if offered for free or at a lower price than our products and services;
- lack of availability of cost-effective, high-speed service;
- inconsistent quality of service;
- inadequate development of the necessary infrastructure for Internet-based communications within life sciences organizations;
- lack of access and ease of use;
- actual or perceived lack of security or confidentiality of information;
- our slow response or failure to respond to customers' requests during periods of high traffic on our Web site; and
- the need to operate with multiple and frequently incompatible products.

**Our business is dependent on the continuous, reliable and secure operation of our tools and functions we provide. If we are unable to safeguard the integrity, security and privacy of our data or our customers' data, our revenue will decline, our business could be disrupted, and we may be sued.**

Our computer and communications hardware is protected through physical and software safeguards. However, they are still vulnerable to fire, storm, flood, power loss, earthquakes, telecommunications failures, physical or software break-ins and similar events. In addition, our database products are complex and sophisticated and could contain erroneous data, design defects or software errors that could be difficult to detect and correct. Software errors and viruses may be found in current products or any future products that we develop. If we fail to maintain and further develop the necessary data to support our customers' data discovery efforts, it could result in a loss of or delay in our revenues and market acceptance and exposure. We also depend upon third parties to provide our customers with Web browsers and Internet services necessary for access to our Web site.

We need to preserve and protect our data and our customers' data against loss, corruption and misappropriation caused by system failures and unauthorized access. We also could be subject to liability claims by customers who have submitted their data to us for analysis for misuse of their data. We have taken security measures to protect our proprietary databases, including software and hardware security mechanisms and entering into confidentiality agreements with employees, customers and collaborators who are provided or have access to confidential or proprietary information. However, these measures may not be sufficient to prevent unauthorized access, use and publication of our proprietary data. A party who is able to circumvent our security measures could misappropriate or destroy proprietary information or cause interruptions in our operations. In addition, a party who obtains unauthorized access to our proprietary data or a party who breaches its confidentiality agreements with us could publish large portions of our proprietary data. Such publication of our proprietary data could make some of our products less valuable or obsolete, thereby seriously harming our financial condition. We may be required to make significant expenditures to protect against system failures or security breaches or to alleviate problems caused by any failures or breaches. Any failure that causes the loss or corruption of, or unauthorized access to, our or our customers' data could reduce customer satisfaction, expose us to liability and, if significant, could cause our revenue to decline.

#### ***Risks Relating to Intellectual Property and Government Regulation***

**Any inability to adequately establish and maintain protection for our proprietary technologies or products could harm our competitive position.**

If we do not adequately protect the intellectual property underlying our products and services,

competitors may be able to develop and market the same products and services and erode our competitive advantage. The laws of some countries do not protect proprietary rights to the same extent as the laws of the U.S., and many companies have encountered significant problems in protecting their proprietary rights in these countries. These problems can be caused by, for example, a lack of rules and methods for defending intellectual property rights.

We use trade secret protection for most of our confidential and proprietary information and know-how. This includes a substantial portion of the knowledge base from which we develop our proprietary products and services. We have taken security measures to protect our proprietary information. For example, we seek to protect our proprietary information by entering into confidentiality agreements with employees, collaborators and consultants. However, these measures may not provide adequate protection for our trade secrets or other proprietary information and know-how. Employees, scientific advisors, collaborators or consultants may still disclose our proprietary information in violation of their agreements with us, and we may not be able to meaningfully protect our trade secrets against this disclosure. In addition, others may independently develop substantially equivalent proprietary information or techniques or otherwise gain access to our trade secrets.

**If we are unable to obtain and preserve patent protection for our proprietary technologies or for genes or proteins that we discover, we may not be able to use or commercialize these discoveries.**

We cannot assure you that we will be able to obtain patent protection for our proprietary technologies or for any of the genes and proteins that we discover using these technologies. If we are unable to obtain this protection, we may be unable to continue using or commercializing these technologies. To date, we have applied for patents covering some aspects of some of our technologies and predicted genes and proteins we have discovered using these technologies, but we have not yet been granted any patent. We plan to continue to apply for patents covering our technologies and discoveries as we deem appropriate, but cannot assure you that we will be able to obtain any patents. The patent positions of biotechnology companies, including Compugen, are generally uncertain and involve complex legal and factual questions. Statements by government officials in the United States and other countries have implied that the governments of these countries may not favor giving patent protection for genetic discoveries. Government agencies may view our discoveries as not proprietary and therefore not protectable as intellectual property.

Even if patent protection is generally available for genetic discoveries, we face intense competition from other biotechnology companies, including customers who use our products and technologies, that are pursuing patents that may compete with us, including patents to gene sequences. We cannot assure you that other parties have not previously discovered all or patentable portions of the genes and proteins we have discovered or may discover in the future. Our patent applications may conflict with prior applications of third parties or otherwise be challenged and may not result in issued patents. Even if issued, our patents could be invalidated. Even if we do receive patents, they may not be sufficiently broad to provide us with any competitive advantages. Our patents will not prevent others from developing competing products if these competitors are able to independently develop similar or alternative technologies or design around our patented technologies. Patent applications are confidential and as they become public, applications for identical gene or protein sequences may become known to us. Any of these events could materially harm our business or financial results.

**Litigation or other proceedings or third party claims of intellectual property infringement could prevent us or our customers from using our discoveries or require us to spend time and money or modify our operations.**

Our commercial success depends in part on neither infringing patents or proprietary rights of third parties, nor breaching any licenses that we have entered into with regard to our technologies and products. We could incur substantial costs and diversion of management and technical personnel in defending ourselves against any claims by third parties that our technologies infringe their patents or in enforcing our patents or other rights against others. Furthermore, parties making claims against us may be able to obtain injunctive or other equitable relief that could effectively block our ability to further develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a

successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties. We may not be able to obtain these licenses at a reasonable cost, if at all. In that event, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing available products. Although we are not aware of any of these situations at present, we cannot assure you that they will not occur in the future.

**We use hazardous chemicals and radioactive and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.**

Our research and development processes involve the controlled use of hazardous materials, including chemicals, radioactive and biological materials and the development of novel viruses and viral animal models. We cannot eliminate the risk of accidental contamination or discharge and any injury from these materials. We could be subject to civil damages in the event of an improper or unauthorized release of, or exposure of individuals to, hazardous materials. 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. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development, or production efforts. Future compliance or a failure to comply could materially harm our business and results of operations.

In addition, some of our research collaborators are working with these types of hazardous materials in connection with our research collaborations. To our knowledge, the work is performed in accordance with applicable biosafety regulations. In the event of a lawsuit or investigation, we could be held responsible for any injury caused to persons or property by exposure to, or release of, these viruses and hazardous materials.

### ***Market Risks***

**Our share price has been volatile and is likely to be volatile in the future.**

The market price of our ordinary shares has been highly volatile and is likely to continue to be highly volatile due to risks and uncertainties described in this annual report, as well as other factors, including:

- conditions and publicity in the economy or in life science-related industries;
- actual or anticipated fluctuations in our operating results;
- changes in expectations as to our future financial performance or changes in financial estimates by securities analysts;
- technological innovations by us or our competitors;
- investors' perceptions or changes in market valuation of life science companies generally;
- the operating and share price performance of other comparable companies.

In addition, due to the recent downturn in the world economy, the securities markets in general have recently experienced increased volatility which has particularly affected the market prices of equity securities of many high-technology and biotechnology companies, including companies that have a significant presence in Israel. Although the volatility of these companies' securities has often been unrelated to the operating performance of these companies, they may experience difficulties in raising additional financing required to effectively operate and grow their businesses. Such failure and the volatility of the securities market in general, and in particular in relation to our shares, may affect our ability to raise additional financing in the future. These broad market and industry fluctuations may also adversely affect the trading price of our ordinary shares, regardless of our actual operating performance. In

the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against the company. We may become involved in this type of litigation in the future. Litigation of this type is often extremely expensive and diverts management attention and resources.

**Future sales of our ordinary shares may depress our share price after this offering.**

A substantial number of our ordinary shares could be sold into the public market. The occurrence of these sales, or the perception that these sales could occur, could materially and adversely affect our share price or could impair our ability to obtain capital through future offerings of equity securities. As of May 31, 2001, we had outstanding 26,000,716 ordinary shares. In addition, as of May 31, 2001, options to purchase 4,613,840 of our ordinary shares were outstanding, of which 1,619,285 were exercisable. In addition, as of May 31, 2001, there were 335,000 ordinary shares issuable upon the exercise of outstanding warrants, 135,000 of which are currently exercisable and 100,000 of which will become exercisable on each of March 30, 2002 and 2003.

**Some of our existing shareholders can exert control over us and may not make decisions that are in the best interests of all shareholders.**

As of May 31, 2001, our officers, directors and shareholders holding more than 5% of our outstanding shares together controlled approximately 41.8% of our outstanding ordinary shares. As a result, these shareholders, if they act together, would be able to exert a significant degree of influence over our management and affairs and over matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. Accordingly, this concentration of ownership may harm the market price of our ordinary shares by delaying or preventing a change in control of us, even when a change may be in the best interests of our other shareholders. In addition, the interests of this concentration of ownership may not always coincide with our interests or the interests of other shareholders, and accordingly, they could cause us to enter into transactions or agreements that we would not otherwise consider.

***Risks Relating to Operations in Israel***

**Conditions in Israel may harm our ability to produce and sell our products and services.**

Our principal offices and research and development facilities and many of our suppliers are located in Israel. Political, economic and military conditions in Israel directly affect our operations. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, as well as incidents of civil unrest. A state of hostility, varying in degree and intensity, has led to security and economic problems for Israel. Despite the progress towards peace between Israel and its Arab neighbors, the future of these peace efforts remains uncertain. There has been an increase in violence since September 2000 which has continued with varying levels of severity into 2001. While certain parties with whom we do business have declined to visit our facilities in Israel during periods of heightened unrest or tension, we have made alternative arrangements when required and we do not believe that the political and security situation has had any material impact on our business. We cannot give any assurance that security and political conditions will not have such an effect in the future. Any future armed conflicts or political instability in the region would likely negatively affect business conditions and harm our results of operations.

In addition, in the past Israel and companies doing business with Israel have been subjected to an economic boycott. Several countries still restrict business with Israel and Israeli companies. These restrictive laws and policies may have an adverse impact on our operating results, financial condition or the expansion of our business.

**Our results of operations may be negatively affected by the obligation of key personnel to perform military service.**

Many of our executive officers, directors and employees are obligated to perform annual military reserve duty and are subject to being called to active duty for extended periods of time under emergency conditions. Our operations could be disrupted by the absence for a significant period of one or more of our executive officers or key employees or a significant number of our other employees due to military service. Any disruption in our operations would harm our business.

**Because a substantial portion of our revenues are generated in U.S. dollars, while a significant portion of our expenses are incurred in New Israeli Shekels, our results of operations may be adversely affected by inflation and currency fluctuations.**

We generate a substantial portion of our revenues in U.S. dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israeli Shekels, commonly referred to as NIS. As a result, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the dollar or that the timing of any devaluation may lag behind inflation in Israel. While in recent years the rate of devaluation of the NIS against the dollar has exceeded the rate of inflation, which is a reversal from prior years, we cannot be sure that this reversal will continue. If the dollar cost of our operations in Israel increases, our dollar-measured results of operations will be adversely affected. Our operations also could be adversely affected if we are unable to guard against currency fluctuations in the future. Accordingly, we may enter into currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rate of the dollar against the NIS. These measures, however, may not adequately protect us from material adverse effects due to the impact of inflation in Israel.

**The government programs and tax benefits in which we currently participate or which we currently receive require us to meet several conditions and may be terminated or reduced in the future, which would negatively impact our revenues or increase our costs or taxes.**

We currently receive research and development grants and are entitled to certain grants and tax benefits under Israeli government programs, particularly as a result of the "approved enterprise" status of our existing facilities in Israel and research and development programs funded by Office of Chief Scientist of the Israel Ministry of Industry and Trade. To maintain our eligibility for these programs and tax benefits, we must continue to meet conditions, including making specified investments in fixed assets, 30% of which must be from paid-in capital. In addition, we must continue to file periodic reports and pay royalties with respect to some of the grants received. If we fail to meet such conditions, we will become ineligible for such grants and tax benefits and could be required to return all or part of the investment grants received. We cannot assure you that we will continue to receive grants at the same rate, if at all. In addition, some of these programs restrict our ability to manufacture particular products or transfer particular technology outside of Israel. See "Item 5. Operating and Financial Review and Prospects—Government of Israel Support Programs." We received or accrued grants from the government of Israel of approximately \$466,000 in 2000, \$507,000 in 1999 and \$333,000 in 1998. From time to time, we submit requests for additional research and development grants and expansions of our approved enterprise programs or for new programs. These requests might not be approved. The termination or reduction of these programs and tax benefits could have a material adverse effect on our business, financial condition and results of operations. In May 2000, the Israeli government approved in principle a tax reform proposal that would reduce or eliminate some of these benefits in the future. To date, legislation to implement these changes has not yet been enacted. If these programs or tax benefits are terminated or reduced, we could lose a significant source of income or be required to pay increased taxes in the future, which could decrease our profits.

**It may be difficult to enforce a U.S. judgment against us, or our officers and directors to assert U.S. securities law claims in Israel.**

Service of process upon Compugen, which is incorporated in Israel, and upon our directors and officers and our Israeli auditors, substantially all of whom reside outside the United States, may be difficult to obtain within the United States. In addition, because substantially all of our assets and substantially all of our directors and officers are located outside the United States, any judgment obtained in the United States against us or any of our directors and officers may not be collectible within the United States.

**Provisions of Israeli law may delay, prevent or make undesirable an acquisition of all or a significant portion of our shares or assets.**

Israeli corporate law regulates acquisitions of shares through tender offers, requires special approvals for transactions involving significant shareholders and regulates other matters that may be relevant to these types of transactions. Furthermore, Israeli tax considerations may make potential transactions undesirable to us or to some of our shareholders.

**The new Israeli Companies Law may cause uncertainties regarding corporate governance.**

The new Israeli Companies Law, which became effective on February 1, 2000, has brought about significant changes to Israeli corporate law. Under this new law, there may be uncertainties regarding corporate governance in some areas. These uncertainties will persist until this new law has been adequately interpreted, and these uncertainties could inhibit takeover attempts or other transactions and inhibit other corporate decisions.



## **ITEM 4. INFORMATION ON THE COMPANY**

### **History and Development of the Company**

Our legal and commercial name is Compugen Ltd. We were established under the laws of the State of Israel in 1993. Our principal executive office is located at 72 Pinchas Rosen Street, Tel Aviv 69512, Israel, and our telephone number is 011-972-3-765-8585. The principal executive office of Compugen, Inc., our U.S. subsidiary, is located at 7 Centre Drive, Jamesburg, New Jersey 08831, and its telephone number is (609) 655-5105. Our internet addresses are [www.cgen.com](http://www.cgen.com) (U.S.-based address) and [www.compugen.co.il](http://www.compugen.co.il) (Israel-based address). We also maintain several other websites, including [www.LabOnWeb.com](http://www.LabOnWeb.com). None of the information on our websites is incorporated by reference into this annual report.

We are a pioneer in the field of predictive life science, achieved through the convergence of molecular biology and advanced computational technologies. We develop and market platforms, tools and products to accelerate post-genomic research, advance the study of proteins and protein pathways, and support drug target discovery. Products and services that we have commercialized to date include: LEADS, Gencarta, DNA chip design, Z3, LabOnWeb.com and Bioccelerators. In addition, through our Novel Genomics Division, we discover and seek to commercialize genes, proteins and drug targets. We are pursuing collaborations with other organizations for the further development and commercialization of genes, proteins and drug targets we have discovered and for the discovery, development and commercialization of new genes proteins and drug targets.

In August 2000, we sold 5,000,000 of our ordinary shares in the initial public offering of our shares on the Nasdaq National Market, and in September 2000, we sold an additional 750,000 ordinary shares upon the exercise by our underwriters of their over-allotment option. Our aggregate net proceeds from these sales was \$51.1 million. Prior to our initial public offering, we financed our operations through private placements of our share capital (including a private placement in July 2000 in which we raised net proceeds of \$35.5 million), revenues generated from sales of our products and services and borrowings under lines of credit. For a description of our principal capital expenditures, see "Item 5. Operating and Financial Review and Prospects."

### **Business Overview**

#### **Current Challenges in the Life Science Industry**

The availability of large amounts of genomic data, coupled with a greater theoretical understanding of biological behavior at the molecular level, is creating a fundamental transition in the field of life science. Biology is moving from primarily a "wet" science, where progress is based largely on observations obtained during laboratory experiments, to a "dry" science, where progress will also be achieved through the quantitative analysis of vast amounts of data and the use of mathematical models to predict biological processes. This understanding has the potential to alter the way diseases are diagnosed, drugs are developed, animals are bred and crops are grown.

#### ***Biological Processes***

The characteristics of all living organisms are determined by DNA, a molecule found in every living cell. DNA is comprised of pairs of four types of small chemical units, each called a nucleotide. DNA contains genes, which in general are comprised of thousands of nucleotides. Scientists estimate that the total DNA found in the form of chromosomes in each cell of a person, known as the human genome, consists of a total of approximately three billion nucleotides and contains between 30,000 and 60,000 genes.

Cells carry out most of their biological functions by means of genetic instructions encoded in DNA. These codes govern the production of proteins through a process known as gene expression. During gene expression, the nucleotides in a gene are first copied into a related molecule called messenger RNA, or mRNA. This mRNA then instructs the cell to produce a protein. Proteins are the molecules that regulate or

perform most of the physiological functions of the body. The sequence of nucleotides determines which protein out of an almost unlimited number of possible proteins is produced. Because the sequence of nucleotides in each gene is different, each gene directs the production of a different protein. Identifying these proteins is made even more difficult because of alternative splicing, a natural process by which a single gene may, under different circumstances or at the same time, produce a number of different proteins.

Genomics is the study of the genetic content of cells, while proteomics is the study of the function of the proteins that genes encode and their interactions with other proteins. Because many human diseases are associated with the inadequate or inappropriate presence, production or performance of proteins, genomics and proteomics can assist pharmaceutical and biotechnology companies in developing diagnostic products, therapies and drugs that will interact with a targeted protein involved in disease in order to identify the presence or absence of the protein, or to regulate, inhibit or stimulate its biological activity. Current drug therapy addresses several hundred specific protein targets. However, we believe that as the functions of additional proteins become better understood, hundreds or thousands of additional potential drug targets will be identified. As additional progress is achieved in genomics and proteomics research, new drugs and therapies may be developed to actually cure disease rather than just treat the symptoms.

In recent years, public and private endeavors, including the Human Genome Project, an international research program designed to construct detailed genetic and physical maps of the human gene, have created, and are continuing to create, vast amounts of raw genomic and related data at an exponential rate. These efforts have led to the publication of the human genome in February 2001. Although this data contains information that should be able to provide scientists with important insights and knowledge about molecular biological processes, the data is very difficult to analyze. This difficulty is due to many factors, including:

- the complexity of the underlying biology;
- the limitations inherent in the laboratory devices used in the creation of the data;
- the largely random nature of the selection of the biological material from which much of the data is derived;
- the enormous quantity of raw data, with a high percentage of errors, overlaps, duplication, and missing pieces; and
- § the variability and quality of available data.

Although new data is constantly being created at an increasing rate, we believe that a substantial amount of the useful information contained in the data that already exists has not yet been extracted.

### ***DNA Sequencing***

DNA sequencing is the process of identifying the order in which nucleotides are arranged in a particular section of DNA, or DNA fragment. In addition to the Human Genome Project, a number of commercial and public organizations have undertaken similar efforts with respect to DNA sequencing in humans and other organisms, including various species of bacteria, plants and animals.

A common method used by these organizations and companies to obtain DNA material is to extract mRNA from a specific cell. Since mRNA is inherently unstable and difficult to use in laboratory experiments, scientists transform mRNA through a process known as reverse transcription into the more stable DNA. This process produces a DNA copy, or cDNA, which contains only the exons, or coding regions, of the gene segment of the original DNA that expressed the mRNA. This segment of cDNA is then sequenced. Using this procedure, scientists obtain data about DNA sequences that are expressed as mRNA and are then usually translated into proteins. Each sequence is termed an expressed sequence tag, or EST, which is typically a short fragment of a gene. Many private companies and not-for-profit organizations have produced large quantities of ESTs, resulting in large public and proprietary databases.

### ***Current Challenges in Converting DNA Sequence Data into Useful Information***

In order to extract value from genomic EST data, molecular biologists need to first overcome some inherent difficulties associated with analyzing this data. While the Human Genome Project and other efforts have created an enormous amount of DNA sequence data, it is often partial, poorly annotated, and unorganized. Furthermore, researchers are producing sequences far faster than scientists can analyze them. While some existing analytical tools and database systems do help in the management of genomic data, most have significant limitations in allowing scientists to effectively make use of this vast amount of data. The following are some of the most important challenges in making use of this new biological data:

*Computational Challenges: Vast Amounts of Data.* A database may contain millions of ESTs, each containing potentially valuable information. As ESTs are only short fragments of genes, researchers must generally find the full coding sequence of the gene represented by the EST in order to make use of that information. This requires an effective method of clustering the millions of ESTs into many different groups, each belonging to a different gene, and assembling, or using sequences in each of these groups to build a comprehensive picture of what can be known about this gene from the available data. This clustering and assembling poses significant mathematical challenges. For example, to cluster a database of ESTs, a researcher first needs to compare each EST to every other EST. For a database containing millions of ESTs, this task alone could take weeks to accomplish using publicly available algorithms and a standard high-end workstation.

*Biological Challenges: Alternative Splicing.* Analyzing genomic data has other inherent difficulties caused by biological processes, including alternative splicing, the expression of more than one protein from the same genetic material. In the past, it was believed that each human gene produced one protein. It is now generally accepted that alternative splicing does exist. However, the extent to which this occurs is still a matter of debate. Researchers have found that alternative splicing occurs in at least 30% of the human genes represented in the public databases. Although the multiple resulting proteins have large areas of identical sequences, these alternative splice variants often perform different functions or are produced in different areas of the body. Analytical methods that fail to model or that incorrectly model alternative splicing will create databases containing distorted representations of the proteins whose mRNA fragments they contain.

*Biological Challenges: Single Nucleotide Polymorphisms.* Another difficulty in analyzing genetic data is the existence of single nucleotide polymorphisms, or SNPs, in which a single nucleotide base difference exists in the same DNA region in different individuals. SNPs and other types of polymorphisms, while apparently minor and hard to detect, are believed to account for differences in individuals' susceptibility to diseases and their responses to particular drugs. We believe that a wide range of genetics disciplines stand to benefit from the study and use of SNPs. Identifying SNPs is difficult, however, because they are hard to distinguish from sequencing errors that exist in current EST databases.

*Experimental Challenges: Errors and Anomalies.* Further complicating the analysis of EST sequence data is the presence of experimental errors and anomalies, including:

- *Sequencing errors;*
- *Chimeric sequences,* which occur where a single EST represents the union of fragments from more than one mRNA molecule;
- *Intron contamination,* which results from the presence of introns, or non-coding regions of a gene, that were not spliced out in the formation of the mRNA; and
- *Vector contamination,* which results from the presence of vectors, pieces of DNA that are used in the laboratory sequencing process that are unrelated to the researched gene.

### ***Current Challenges in Developing and Analyzing DNA Chips***

Another challenge for scientists is in the use of experimental devices known as DNA chips. DNA chips are glass or silicon wafers onto which probes, fragments of DNA with known sequences, are attached. One application of DNA chips is to enable scientists to perform thousands of measurements of mRNA expression level in a tissue sample in a single experiment.

While important advances have been made in chip fabrication, we believe the current usefulness of the chips for expression analysis can be significantly enhanced by better probe design capabilities. Following are some of the challenges in the selection of probes for a DNA chip:

- selecting error-free probes that accurately reflect the exact genes of interest;
- selecting probes that are unique to the genes of interest;
- ensuring that the probes account for the different alternative splice variants of the genes; and
- ensuring that the probes hybridize.

In order to address all of these challenges in choosing probes for DNA chips, scientists would need a reasonably complete picture of all of the possible mRNA forms, including alternative splice variants of the tested organism. An additional problem is that the EST databases that are used today to create probes are known to contain sequencing errors. Therefore, we believe a substantial number of the resulting probes contain errors as well. Because current EST databases, on which DNA chip probes are based, contain sequencing errors, a substantial portion of DNA chip probes used today contain errors as well. As a result of these and other chip fabrication problems, current DNA chips use as many as 20 probes to represent a single gene on a chip, and the results of current DNA chip analysis may be inaccurate or incomplete.

#### ***Current Challenges in Converting Proteomic Data into Useful Information***

Proteomics research aims at characterizing the hundreds or thousands of proteins expressed by organisms in the context of whole organisms, specific tissues or normal versus diseased states. Although still facing technological challenges, as any early phase science, the field of proteomics is predicted to be indispensable in understanding disease mechanisms and identifying therapeutic targets. However, there are significant computational challenges associated with assembling proteomic data. These challenges include:

*Protein Separation Using 2-D Gel Analysis.* 2-D gel analysis is a method in which two or more different samples containing protein mixtures are separated through the use of gels into individual proteins based on their molecular weight and isoelectric point. After the separation process is completed, results are compared side by side for differences. The technology to separate proteins using 2-D gel analysis has been available for over 20 years, and, although widely used, it has significant limitations. For example, often biologists performing the same experiment in seemingly the same conditions obtain results that look completely different. This has led many researchers to search for other protein separation techniques. This search is continuing, but to our knowledge no better high throughput separation technique is currently available.

*Identifying Proteins Using Mass Spectrometry.* Mass spectrometry is a term used to describe a variety of techniques to accurately measure the mass of small molecules. After a protein is separated using, for example, 2-D gel analysis, its mass can be measured using mass spectrometry. After measuring the mass of different fragments of a protein, the researcher can compare the results to profiles in a database of known protein samples. Although the introduction of mass spectrometry to proteomics has been considered a breakthrough, its usefulness has been limited because only a small percentage of all human or mouse proteins are publicly known to the extent that their respective mass profile would identify them. Proteins that cannot be identified from a database must be re-sequenced at the protein level in order to be identified, a long and difficult process compared to sequencing at the mRNA level.

## **Conclusion**

We believe that most researchers would benefit substantially from additional and more computationally precise tools to meet the challenges involved in current genomic and proteomic research. Because of the limitations of most available analytical tools, many molecular biologists cannot effectively use the large amounts of genomic, EST and proteomic information available in public and private databases to obtain reliable information to identify and characterize genes or proteins. Researchers are thus often required to perform months of computer searches, manual analysis and biological experimentation to obtain this information. In addition, researchers may perform months of research working on incorrect information. This situation has created a need for analytical tools that can accurately predict or analyze gene sequences, proteins and other important biological information using genomic, EST or proteomic data.

## **Our Strategy**

The key elements of our business strategy are to:

*Expand the Customer Base for our Computational Genomic and Proteomic Solutions.* We plan to continue to pursue collaborations and other agreements with leading life science companies, as well as governmental, research and academic organizations. Through these arrangements, we intend to continue to commercialize our LEADS software platform and our other existing products and services, and to develop additional solutions for important current and future aspects of life science research. We also hope to expand the market for our Gencarta database, our proteomics software, our genomics research services and our functional genomics products and services.

*Expand our Technological Leadership.* Our current products and services address the immediate need of life scientists to organize and analyze the first wave of genomic, expressed sequence and proteomic data. We intend to continue to identify and provide solutions to the industry's future biological problems using our multidisciplinary approach to molecular biology. For example, we are assisting users of DNA chips to design more efficient and accurate chips for analyzing gene expression in mRNA samples. We are also currently developing additional solutions for various aspects of proteomics and are applying a computational approach to designing small molecules for medicinal chemistry. In addition to our internal efforts, we plan to search for and identify new complementary technologies and products through collaborations with public and private organizations and the possible acquisition of other companies, technologies or data.

*Commercialize Discovered Genes.* Through our Novel Genomics division, we intend to commercialize some of the predicted genes, proteins and other intellectual property that we continue to discover in our research and development efforts. We anticipate doing this through licensing arrangements with pharmaceutical and biotechnology companies. We have currently identified approximately eighty initial gene targets for possible further development and licensing.

*Discover New Drug Targets and Diagnostic Markers.* Through our Novel Genomics division, we intend to pursue collaborations with life science companies and research and academic organizations for the joint discovery, development and commercialization of drug targets and diagnostic markers. We believe that by combining our computational and experimental capabilities with proprietary technologies of potential collaboration partners, we can substantially increase our and our potential collaborators' chances of successfully discovering, developing and commercializing drug targets, drugs and diagnostic markers.

*Leverage LabOnWeb.com to Sell other Products and Services.* We plan to continue marketing *LabOnWeb.com* to molecular biologists and other life scientists in pharmaceutical companies, biotechnology companies and research and academic institutions. *LabOnWeb.com* is designed to provide life science researchers with user-friendly tools and services that significantly enhance and accelerate their discovery efforts. By increasing the exposure of scientists to *LabOnWeb.com*, we hope to provide molecular biologists and other researchers worldwide with a means of evaluating our computational capabilities and thereby interest them in our other products and services. In addition, we intend to continue using *LabOnWeb.com* as a means for delivering our genomics and proteomics services to our customers.

## **Our Technologies**

Since our inception in 1993, our multi-disciplinary team of mathematicians, computer scientists, physicists, chemists and molecular biologists has developed technologies in the areas of:

- analyzing and modeling biological behavior at the molecular level;
  - accelerating the analysis of genomic, proteomic and other biological data;
  - creating user-friendly applications that allow life scientists to quickly obtain results from their biological queries using our modeling and analytical tools; and
- § integrating genomic data into reagents.

We initially directed our technologies towards developing computer hardware systems and software applications to accelerate similarity, or homology, searches in nucleotide and protein sequence databases.

In recent years, a significant focus of our activities has been on the development of technologies that allow molecular biologists to obtain significantly more information from genomic and expressed sequence databases through the analysis and modeling of the underlying biological and experimental processes. An important aspect of this technology is the clustering and assembly of genomic and expressed sequence data in order to provide missing information for the discovery of new genes and proteins and the annotation of genes and proteins. This clustering and assembly technology, when applied to publicly available database information, can lead to the discovery of novel genes and splice variants. To date, we have found full or partial sequence information for over 4,000 predicted human genes that we believe have not been discovered by others. In approximately 90% of the approximately 300 cases we have tested in our laboratories, we have verified the existence of the genes predicted by our analysis. The existence of over 100 of these predicted genes has been validated in our own molecular biology laboratories. We have also identified several thousand predicted SNPs.

We are increasingly focusing our research efforts on proteomics. A common problem for life scientists doing research in this area is the need to separate individual proteins from the thousands included in a test sample and then to identify the known and unknown proteins. Through the use of advanced computational techniques, including pattern recognition and image processing, our scientists are creating new solutions for these difficult problems. We have also begun a research program in computational chemistry.

### ***Our Core Technology***

Our clustering and assembly software technology is primarily used in analyzing DNA sequence data, and also provides input for our proteomics efforts. It involves nine major steps:

- First, it examines the expressed input data – EST or mRNA sequences – and cleans it by eliminating erroneous sequence fragments and marking repetitive sequence fragments.
- Second, it compares the cleaned expressed data to the available genomic data, and finds the best possible genomic location.
- Third, based upon the positioning of the expressed data on the genomic data, it forms genomic contigs, which are groups of EST and mRNA sequences that are positioned in the same genomic area, and have overlapping regions, along with the relevant genomic sequence.
- Fourth, it assembles sequences in most of the genomic contigs, taking into account alternative splicing, and derives a consensus sequence, putative introns and one or more possible transcripts for each contig. A consensus sequence is a predicted combination of all expressed segments in a contig inferred from the data available about these segments. The consensus combines all of the expressed segments in a

contig; the consensus may or may not exist in nature. Forming this consensus, sorts out anomalies and accounts for SNPs. It also accounts for alternative splicing by re-inserting exons that are left out of each different alternative spliced sample. A putative intron is a segment located between expressed segments of a single gene. Introns are considered part of a gene, although they do not express mRNA.

- Fifth, it assembles one or more possible transcripts for each set of genomic contigs. A transcript is an inferred combination of some or all contig segments in the order suggested by the biological data. In cases of alternative splicing, a contig has multiple transcripts, each with a different, although usually overlapping, set of segments.

- Sixth, it takes all the cleaned expressed data that cannot be located on the genomic data, and taking into account alternative splicing, forms expressed contigs.

- Seventh, it joins the expressed contigs to form clusters, which are sets of one or more expressed contigs that contain sequences originating from the same cDNA and therefore are considered to be derived from the same gene.

- Eighth, it assembles sequences in most of the clusters, in a fashion similar to the fourth step, taking into account that there is no genomic data in these clusters (and therefore not identifying putative introns). It then assembles one or more possible transcripts for each cluster, in a fashion similar to the fifth step.

- Ninth, our dry biology system, a semi-automatic intranet-based gene annotation system, automatically annotates and prioritizes the thousands of predicted genes and presents concise analytical findings for each gene to be used for further evaluation by biologists and other life scientists.

**Our Novel Genomics Division**

We established our Novel Genomics division in 1999 to utilize the capabilities of our pioneering tools and platforms to discover and commercialize genes, proteins, drug targets and diagnostic markers. Novel Genomics' research efforts are focused on finding novel genes, proteins and other discoveries that have potential pharmaceutical, therapeutic or diagnostic uses. The Novel Genomics division's in-house molecular biology laboratories also test our tools and platforms and verify discoveries predicted through our proprietary analysis capabilities.

Using our proprietary analysis and predictive models, our researchers have identified full or partial sequence information for thousands of predicted genes that we believe are novel and not identified in any public databases, published scientific literature or patents. In approximately 90% of the approximately 300 cases we have tested in our laboratory, we verified the existence of the genes predicted by our analysis. We believe we have discovered genes relating to the following functions:

<u>Gene family</u>	<u>Disease/treatment area</u>
Transporters	Blood pressure
Angiogenic growth factors	Cancer treatment
Neurotrophic factors	Central nervous system degenerative diseases, obesity
Serotonin receptors	Schizophrenia
Hormone receptors	Hormone replacement therapy
Protease inhibitors	Thrombosis
Tumor markers	Cancer diagnostics
Kinases	Cancer treatment
Anti-angiogenic factors	Metastatic cancer
Immuno-inflammatory genes	Autoimmune diseases; vaccines
Tissue specific genes	Cancer treatment and diagnostics
Metalloproteases inhibitors	Cancer treatment

We intend to commercialize the most promising discoveries through collaborations and licensing arrangements with third parties, primarily pharmaceutical and biotechnology companies. We are seeking

these arrangements on a project by project basis, under which most of the funding would be provided by our partners, and we would receive payments in the form of fees, milestone payments and royalties on product sales. In certain circumstances, we may choose to further develop products ourselves through Novel Genomics.

In addition, we intend to pursue collaborations with life science companies and research and academic organizations for the joint discovery, development and commercialization of drug targets and diagnostic markers. We are seeking these arrangements on a project by project basis, under which, some or most of the funding would be provided by our partners, and we would receive payments in the form of fees, milestone payments and royalties on product sales. We believe that by combining our computational and experimental capabilities with proprietary technologies of potential collaboration partners, we can substantially increase our and our potential collaborators' chances of successfully discovering, developing and commercializing drug targets and diagnostic markers.

Although we are currently negotiating with several life science companies regarding possible collaborations, we have not yet entered into any definitive agreement for a collaboration of this type, and we cannot assure you that we will enter into any arrangements in the future.

We currently expect to continue to fund all of Novel Genomics' research, development and commercialization activities, although we may elect to seek separate funding from third parties, including equity investors in Novel Genomics, in the future.

## **Our Products and Services**

### ***Genomics Software, Hardware and Services***

#### *LEADS 4.0 for Genomic and Expressed Data*

Our LEADS 4.0 software platform for computational biology analyzes genomic and expressed sequence data to enable rapid discovery of genes, splice variants and gene function. LEADS 4.0 solves quantitative and qualitative problems inherent in the analysis of EST data and allows molecular biologists to quickly identify genes from gene fragments. LEADS 4.0 customers have in-house access to this software, which gives them the capability to analyze their own databases in conjunction with public data.

LEADS 4.0 improves available genomic and expressed sequence data by, among other things:

- eliminating overlapping regions of sequences belonging to the same gene, which reduces the size of the databases and reduces the amount of required analysis;
- improving gene coverage by creating a fuller picture of gene structure from EST fragments;
- detecting and correcting sequencing errors;
- detecting and accounting for instances of alternative splicing and SNPs and distinguishing these occurrences from sequencing errors;
- detecting other experimental anomalies, including chimeric sequences, intron contamination and vector contamination; and
- automatically annotating the resulting sequences.

Pfizer Inc. is using LEADS to discover novel drug targets through the analysis of expressed sequence and genomic data, and to engage in DNA chip design and analysis. In October 1998, we entered into a non-exclusive agreement with Warner-Lambert, which was subsequently acquired by Pfizer Inc. in June 2000, under which it became our first LEADS customer. Under this agreement, Pfizer obtains access to LEADS for analyzing genomic and expressed data for all of Pfizer's internal research and development



activities in exchange for an annual license fee and milestone payments. This agreement accounted for approximately \$210,000 of our revenues in 1998, approximately \$2.3 million of our revenues in 1999, and approximately \$2.4 million of our revenues in 2000, and approximately \$1 million of our revenues in the three months ended March 31, 2001. Under the agreement, we are entitled to receive up to approximately \$2.1 million of additional revenues in 2001 and approximately \$1 million in 2002. Our agreement with Warner-Lambert expires in March 2002, and Warner-Lambert may terminate it at any time.

In February 2000, we entered into an agreement with Human Genome Sciences, Inc. ("HGS") under which we applied our LEADS software platform to analyze HGS's proprietary human gene sequence data in conjunction with public data. By its terms, the agreement was to expire in November of 2000. In July 2000, we delivered the results of our preliminary analysis to HGS. In November 2000, the parties agreed to terminate the agreement. As a part of such termination, HGS made a payment to us of \$1.5 million.

#### *Gencarta*

Gencarta is an annotated database of the genome, transcriptome and proteome, comprised of the data obtained from the periodic application our LEADS software platform to various public databases. Gencarta includes three components: the database, a graphical user interface, and query tools. The current version of Gencarta includes more than 150,000 predicted genes, splice variants, SNPs, genomic alignments, chromosomal information, and alignment of ESTs to known mRNAs and transcripts. Each splice variant is further annotated with expression profiles, functional analysis, detailed domain summaries and known and predicted proteins. The browser interface provides an intuitive graphic presentation of database elements and their inter-relationships, which enables users to browse the genome efficiently. The query tools are suitable for various types of experiment results, and enable users to perform searches from multiple entry points. The current version of Gencarta, Version 2.0, includes human, mouse and rat data.

We commenced marketing of Gencarta in the first quarter of 2001. We offer Gencarta as a complete package including the hardware, software and database, which we install at customers' sites and update regularly.

#### *GeneGuide*

GeneGuide is a comprehensive report on a particular gene of interest. Customers submit an EST, SAGE tag, transcript, or peptide sequence from a range of tissues and organisms or parameters for genes or proteins of interest. Using our proprietary LEADS platform which combines public data with the researcher's proprietary sequence, we provide a comprehensive report in a navigable graphic format that includes genomic structure, novel splice variants, predicted proteins, relative alignment of ESTs and mRNAs, and SNPs. GeneGuide enables the researcher to quickly and efficiently obtain large amounts of targeted information on specific genes or sequences of interest. The GeneGuides service is offered both through LabOnWeb.com and off-line.

#### *Analysis of Genomic Information*

We also provide custom-tailored solutions that combine our analysis of the customer's proprietary data with publicly available and proprietary data using our unique computational technologies and our scientists. This analysis of genomic information for customers is performed on a customized, per project basis.

#### *Bioccelerators*

Our Bioccelerator line of products consists of dedicated computers designed to accelerate similarity, or homology, searches in nucleotide and protein sequence databases. Rigorous algorithms used for these types of searches are computationally intensive, forcing researchers to use less sensitive but faster algorithms. By performing rigorous searches up to 1000 times faster than a typical high-end single-processor workstation, the Bioccelerator makes the use of more sensitive algorithms more attractive.

We have sold Biocelerator products to over 40 customers worldwide, including many of the leading companies and research institutions in the field of genomic research.

To date, our largest customer for the Biocelerator has been the U.S. Patent and Trademark Office. The hardware-based corporate solution that we developed for the U.S. Patent and Trademark Office accelerates their analysis of DNA and protein sequence data contained in U.S. patent applications. Revenues from this customer accounted for approximately 31% of our total revenues in 1998, less than 10% of our total revenues in 1999, approximately 24% of our total revenues in 2000. We cannot predict whether we will continue to derive a significant portion of our total revenues from this customer in the future.

### ***Functional Genomics***

#### *DNA Chip Design Service*

We are applying our technologies to develop more efficient probe design and data analysis for DNA chips. Our chip design service uses our LEADS software platform in order to improve the efficiency and accuracy of chip probe design and the analysis of chip experiment results. By correctly placing probes on DNA chips, one can significantly improve chip usage efficiency and the quality of results. We believe that approximately 20% of the probes on most DNA chips using synthesized probes based on EST data contain sequencing errors. Many also contain introns that can be mistaken for expressed sequences. We believe the main challenge in effective DNA chip design is to select error- and intron-free probes that will accurately reflect the exact genes of interest and will ensure accurate differentiation between the different expressed forms, or alternative splice variants, of these genes.

Our DNA chip probe design service offers the following advantages:

- it eliminates redundant probes, allowing representation of a larger number of genes on the same size chip by using our clustering techniques to cluster large amounts EST and genomic data;
  - it identifies sequencing errors, SNPs and introns in ESTs and selects probes from the most error- and intron-free regions it identifies, making our probes high quality representatives of the desired expressed genes;
  - it chooses probes in a manner designed to either maximally differentiate between different splice variants or maximize the chance that alternatively spliced variants of a gene will be measured, depending on the customer's needs;
  - it can help reduce the amount of lab work required to analyze the results; and
- § probes are designed to be as unique as possible to genes of interest, by comparing the probes to other transcripts in the transcriptome.
- § it is designed to ensure that the probes have good properties for hybridization

#### *OligoLibraries*

OligoLibraries are oligonucleotide collections, representing genomes, or sub-sets of genomes, of various organisms. They are designed to provide scientists with a more accurate solution for the rapidly growing area of high-throughput analysis of gene function. Our OligoLibraries are based on probe selection using our LEADS technology platform and our proprietary chip design tools. These technologies enable us to address redundancy, account for alternative splicing and consider specificity and cross-homology while designing optimum oligos for gene expression, drug discovery or functional assays.

In May 2000, we entered into an agreement with Sigma Genosys, Inc., a wholly-owned subsidiary of Sigma Aldrich, Inc. pursuant to which the parties will produce and market OligoLibraries as co-branded products. According to this agreement, Compugen will provide the designs for the co-branded products,

Sigma will manufacture them and both parties will market them. The first three OligoLibraries to be manufactured and marketed under the agreement are collections representing the human, rat and mouse genomes. OligoLibraries have been offered on an early access basis since the first quarter of 2001 and the parties plan to commercially launch the products in the third quarter of 2001.

### ***Proteomics***

#### *Z3 2d-PAGE Gel Analysis.*

In September 2000, we released Z3, our software package for analyzing proteins as they appear on 2D-PAGE gels and, in February 2001 and June 2001, we released enhanced versions of Z3. Our Z3 2D-PAGE gel analysis system employs advanced algorithms to achieve automatic image alignment without manual intervention. The Z3 proprietary differential expression algorithm improves accuracy and automates gel alignment, spot detection, and spot matching, which significantly accelerates the analysis process. Color coding enables users to instantaneously detect differential expressions. In addition, Z3's raw master gel technology is designed to maximize the amount and quality of information derived from repeat runs of the same sample.

#### *ProtoCall*

ProtoCall applies novel algorithms to extract and analyze mass spectrometry data, enabling researchers in the field of proteomics to receive meaningful information about the identity and character of proteins. ProtoCall searches against a comprehensive database of protein, EST and genomic data from public sources. We began beta-testing services using ProtoCall on *LabOnWeb.com* during the second quarter of 2001 and plan to commence commercial sales of ProtoCall during the second half of 2001.

### ***LabOnWeb.com***

In December 1999, we introduced *LabOnWeb.com* to provide our research and analysis capabilities to life scientists over the Internet. *LabOnWeb.com* gives us direct access to hundreds of thousands of life scientists worldwide. We believe that most of these scientists already access the Internet on a regular basis. *LabOnWeb.com* integrates our advanced computational biology techniques with the Internet's ability to remotely access these functions. Using this technology, we are able both to reduce the time and expense of our customers' research and to provide them with tools and services they might not otherwise be able to access.

*LabOnWeb.com* offers Internet-based access to services using our proprietary gene database that presently contains thousands of full or partial human, mouse and rat predicted gene sequences that we believe are not identified in any public sources. Our database is updated on an ongoing basis through the integration of additional data and the use of updated versions of our proprietary computational tools. In addition, most of the database sequences have been manually annotated with additional useful information by our in-house biologists. In addition to access to services using our proprietary gene database, *LabOnWeb* provides access to Genzyme Molecular Ontology's SAGE proprietary information, one of the largest existing databases of gene expression in cancer tissues, and to Genome Therapeutics Corp.'s proprietary pathogenome sequence database.

*LabOnWeb.com* generates revenue both on a pay-per-transaction basis and through longer term subscriptions. *LabOnWeb.com* also exposes scientists to some of our computational capabilities. Such exposure has led to larger transactions involving other products and services.

### **Development-Stage Technologies**

*Computational Technologies for Medicinal Chemistry.* We are now in the early stages of applying our multidisciplinary approach to computational chemistry. Our goal is to devise a new approach to the design of small molecules to be used for pharmaceutical purposes.

*Agricultural Biology.* We are also applying our multidisciplinary approach to plant biotechnology. Our goal is to develop a high throughput platform for enhancing plant breeding using bioinformatics, genomics, molecular biology and tissue culture approaches and breeding know-how.

## **Sales and Marketing**

Since our founding in 1993, we have devoted most of our capital and human resources to research and development of our technologies and products and services. We have limited sales and marketing capabilities. In 1999, we began to expand our sales and marketing capabilities. In 2000 and the first half of 2001, we continued to increase significantly our marketing and business development efforts.

In the United States, we have marketing, sales and business development offices in both Jamesburg, New Jersey and in Sunnyvale, California. We also conduct marketing, sales and business development from our Tel Aviv offices. As of May 31, 2001, our sales, marketing and business development staff consisted of 25 employees, with 7 based in the United States and 18 based in Tel Aviv. The geographic breakdown of our total sales for the year ended December 31, 2000 was approximately 94% in North America, approximately 3% in Europe, approximately 2% in the Far East and approximately 1% in other countries.

We plan to continue to aggressively market our products and services both to pharmaceutical and biotechnology companies and to academic, governmental and other non-profit research organizations and institutions. To accomplish this we intend to:

- recruit additional marketing, sales and business development personnel primarily in the United States;
- increase direct marketing efforts targeted at specific companies as well as individual life scientists;
- enter into marketing and distribution arrangements with third parties with respect to some of our products and services. These may be worldwide arrangements such as our agreement with Sigma Genosys relating to our OligoLibraries or arrangements relating to specific territories;
- § continue to advertise, both in general and scientific journals and on the Internet; and
- exhibit at and sponsor conferences and trade shows.

## **Intellectual Property Rights**

We seek U.S. and international patent protection for major components of our technology platform, including analysis techniques, and for some of the gene sequences we believe we have discovered. We also rely heavily on trade secret protection for some of our confidential and proprietary information, and we use license agreements both to access external technologies and to convey intellectual property rights to others. Our commercial success will be dependent in part on our ability to obtain commercially valuable patent positions, maintain our trade secrets and otherwise protect our intellectual property portfolio.

Our strategy to apply for patents relates primarily to the following areas for potential coverage:

- our technology, which includes pending patent applications for portions of our LEADS clustering and assembly technology, our chip design technology and our 2-D gel analysis method for proteomics and for preparation of our computational approach to medicinal chemistry;
- large-scale gene data, which includes periodic submissions to patent clusters and transcripts for human, mouse or other DNA that we have identified using LEADS;
- individual nucleic acid sequences, which includes a total of 32 patent applications, covering hundreds of sequences we believe to be unique; and

- methods for designing DNA chips and for analysis of data obtained with DNA chips.

The patent positions of biotechnology companies, including ours, are generally uncertain and involve complex legal and factual questions that are still evolving. Our business could be hurt by any of the following:

- government agencies in the United States or abroad may view our discoveries as not proprietary and therefore not patentable;
- the pending patent applications to which we have exclusive rights may not result in issued patents;
- the claims of any patents that may issue from an application may not provide meaningful protection;
- we may not be successful in developing additional proprietary technologies that could be patentable;
- patents that we may ultimately obtain may not provide a basis for commercially viable products or provide us with any competitive advantages and may be challenged by third parties;
- others may obtain patents prior to us which prevent the success of our applications or may obtain competing or overlapping patents which reduce the value of our technology; and
- others may have patents that relate to our technology or business.

The degree of future protection for our proprietary rights is therefore uncertain. Furthermore, others may independently develop similar or alternative technologies, duplicate any of our technologies or, if patents are licensed or issued to us, design around the patented technologies licensed to or developed by us. Other technologies may also provide third parties with competitive advantages over us and may harm our business. In addition, we could incur substantial costs in litigation if we are required to initiate suits to defend our patents or to defend ourselves in patent suits brought by third parties.

These costs could significantly increase our expenses and increase our losses. Furthermore, in circumstances where claims relating to proprietary technology or information are asserted against us, we may seek licenses to this intellectual property. However, any required licenses may not be made available on commercially viable terms, if at all. Failure to obtain any required license could prevent us from using or commercializing one or more of our technologies.

We have applied, and intend to make additional applications, for patent protection for methods relating to gene expression experiments, for the disease-specific patterns of gene expression we identify and for the individual disease genes and targets we discover. These patents may include claims relating to novel genes and gene fragments and to novel uses for known genes or gene fragments identified through our discovery programs. We may not be able to obtain meaningful patent protection for our discoveries. Even if patents are available to us, the failure to obtain necessary licenses or other rights could preclude the offering of our products and services, and, therefore, materially harm our business, financial condition and results of operations.

Several groups are attempting to identify and patent gene fragments and full-length genes, the functions of which have not been characterized, as well as fully characterized genes. There is substantial uncertainty regarding the possible patent protection for gene fragments or genes without known function or correlation with specific diseases. To the extent any patents are issued to other parties on these partial or full-length genes, the risk increases that our potential products and processes and those of our customers may give rise to claims of patent infringement. The public availability of partial or full sequence information or the existence of patent applications related thereto, even if not accompanied by relevant function or disease association, prior to the time we apply for patent protection on a corresponding gene could hinder our ability to obtain patent protection with respect to this gene or to the related expression patterns. Furthermore, others may have filed, and in the future are likely to file, patent applications covering genes

or gene products that are similar or identical to those for which we may seek patent protection. These patent applications may have priority over patent applications filed by us. Any legal action against us or our customers claiming damages and seeking to enjoin commercial activities relating to the affected products and processes could, in addition to subjecting us to potential liability for damages, require us and our customers to obtain a license in order to continue to manufacture or market the affected products and processes. We or our customers may not prevail in any action, and any license required under any patent may not be available on commercially acceptable terms, if at all. We believe that there is likely to be significant litigation in the industry regarding patent and other intellectual property rights. If we become involved in litigation, it could consume a substantial portion of our managerial and financial resources and negatively impact our financial results.

With respect to proprietary know-how that is not patentable and for processes for which patents are difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. We believe that several elements of our computational genomics and proteomics capabilities involve proprietary know-how, technology or data that are not covered by patents or patent applications. In addition, we have developed a proprietary database of genes, alternative splice variants and gene fragment sequences which we update on an ongoing basis. Some of this data will be the subject of patent applications, whereas other data will be maintained as proprietary trade secret information. We have taken security measures to protect our proprietary know-how and technologies and confidential data and continue to explore further methods of protection. While we require employees, consultants and customers to enter into confidentiality agreements, we cannot be sure that proprietary information will not be disclosed in violation of these agreements, that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets, or that we can meaningfully protect our trade secrets. In the case of arrangements with our customers that require the sharing of data, our policy is to make available to our customers only data that is relevant to our agreements with these customers, under controlled circumstances, and only during the contractual term of those agreements, and subject to a duty of confidentiality on the part of our customer. However, these measures may not adequately protect our data. Any material leak of confidential data into the public domain or to third parties may cause our business, financial condition and results of operations to be harmed.

We are a party to various license agreements that give us rights to use technologies and biological materials in our research and development processes. We may not be able to maintain these rights on commercially reasonable terms, if at all. Our failure to maintain these rights could harm our business.

## **Competition**

We compete in a number of overlapping markets to provide analytical tools to aid institutions and individuals in their genomic and proteomic research. Our Novel Genomics division is competing to identify the makeup and function of genes and proteins that will lead to the development of therapeutic and diagnostic products and services. Our principal competitors include, among others:

- Celera Genomics Group, which provides genomic data that may compete with our LEADS software, Gencarta and our genomic services;
- Incyte Genomics, Inc., which provides genomic data that may compete with our LEADS software, Gencarta and *LabOnWeb.com*;
- Lion Bioscience AG, which provides genomic research and infrastructure tools and services that may compete with our genomic services;
- DoubleTwist, Inc., formerly Pangea Systems, which provides genomic research tools and databases in competition with Gencarta and *LabOnWeb.com*;
- § Amersham Pharmacia Biotech, Nonlinear Dynamics Ltd., Biorad, Inc., Geneva Bioinformatics S.A., which provide 2D-gel analysis systems that compete with Z3; and

§ Operon Technologies, Inc. and Clontech Laboratories, Inc., which provide products that compete with our OligoLibraries.

Competition among entities attempting to identify the genes associated with specific diseases and to develop products based on these discoveries is intense. We face, and will continue to face, competition from pharmaceutical, biotechnology and diagnostic companies, academic and research institutions, and government agencies, in the United States and elsewhere, including many of our customers. We are aware that several of our competitors are using a variety of gene expression analysis methodologies, including the use of chip-based systems, to attempt to identify disease-related genes.

In addition, our Novel Genomics division depends, in large part, on our computational platforms and tools and proprietary data to make inventions and establish intellectual property rights in genes and proteins. This access to our tools and proprietary information provides our Novel Genomics division with its primary competitive advantage over biotechnology companies that are pursuing patents that may compete with us, including patents to gene and protein sequences. The licensing or provision of access to our platforms, tools or proprietary data to our customers, primarily biotechnology companies, may diminish or eliminate our Novel Genomics division's competitive advantage over these customers. If our customers, many of which have greater financial and other resources than our Novel Genomics division, research genes or proteins that we are researching, they may establish intellectual property rights in such genes or proteins before our Novel Genomics division. may conflict with the interests of our Novel Genomics Division. As a result, the business, financial condition and results of operations of our Novel Genomics division may be significantly harmed. In addition, our Novel Genomics division, may pursue opportunities in fields that could conflict with those of our customers or discourage potential customers from working with us. As a result, our business, financial condition and results of operations may be significantly harmed

Many of our competitors have substantially greater capital resources, research and development staffs, facilities, manufacturing and marketing experience, distribution channels and human resources than we do. These competitors may discover, characterize or develop important genes, drug targets, lead compounds, drug discovery technologies or drugs in advance of us or our customers or that are more effective than those developed by us or our customers, or they may obtain regulatory approvals for their drugs more rapidly than we or our customers do. Any of these events could have a material adverse effect on any of our similar programs. Moreover, our competitors may obtain patent protection or other intellectual property rights that could limit our rights or our customers' ability to use our technologies or commercialize drug, therapeutics, diagnostics or agricultural products. We also face competition from these and other entities in gaining access to cells, tissues and nucleic acid samples used in our discovery programs.

## **Government Regulation**

### ***Environmental Regulation***

Our research and development activities in some cases involve the controlled use of biological and other hazardous materials, chemicals and various radioactive materials. We are subject to Israeli and U.S. federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and waste products. The risk of accidental contamination or injury from these materials cannot be eliminated. In the event of an accident, we could be held liable for any damages that result, and any liability could exceed our resources. Other than laws and regulations governing the generation, use and disposal of hazardous materials and wastes, and limiting workplace exposures to these materials, we do not believe our current and proposed activities are subject to any specific government regulation other than regulations affecting the operations of companies generally.

### ***Regulation of the Internet***

There is an increasing body of law and regulation pertaining to the Internet. In addition, a number of legislative and regulatory proposals are under consideration by federal, state, local and foreign governments and agencies. Laws or regulations may be adopted with respect to the Internet relating to liability for information retrieved from or transmitted over the Internet, on-line content regulation, user privacy,

taxation and quality of products and services. Moreover, it may take years to determine whether and how existing laws, including those governing intellectual property ownership and infringement, privacy, copyright, trademark, trade secret, taxation and the regulation of the sale of other specified goods and services, apply to the Internet. The requirement that we comply with any new legislation or regulation, or any unanticipated application or interpretation of existing laws, may decrease the growth in the use of the Internet, which could in turn decrease the demand for our products, increase our cost of doing business or otherwise harm our business, results of operations and financial condition.

Due to the global reach of the Internet, it is possible that governments of nations to which we transmit data over the Internet might attempt to regulate Internet activity and our transmissions or take action against us for violations of their laws. We cannot assure you that violations of these laws will not be alleged or charged by state or foreign governments and that these laws will not be modified, or new laws enacted, in the future. Any regulation of this type could materially harm our business, results of operations and financial condition.

#### ***Regulation of Use of Human Tissue***

Our access to and use of human or other tissue samples in the expansion of our proprietary database or our product development through Novel Genomics may become subject to government regulation, in the United States, Israel and elsewhere. U.S. and foreign government agencies may also impose restrictions on the use of data derived from human or other tissue samples. If our access to or use of human tissue samples, or our customers' use of data derived from these samples, is restricted, our business will suffer.

#### ***Regulation of Products Developed with Government Support***

For a discussion of regulations governing products developed with research and development grants from the Government of Israel, see "Item 5. Operating and Financial Review and Prospects, Government of Israel Support Programs, Research and Development Grants."

#### **Organizational Structure**

Compugen is the parent of two wholly-owned subsidiaries: Compugen, Inc., which is incorporated in Delaware and which has its principal place of business in New Jersey; and Agro-Leads Ltd., an inactive company which was formed under the laws of the State of Israel.

#### **Property, Plants and Equipment**

As of May 31, 2001, we lease an aggregate of approximately 2,883 square meters of office and laboratory facilities in Tel Aviv, Israel, approximately 69 square meters of office space in Jerusalem, Israel, approximately 289 square meters of office and laboratory facilities in Rehovot, Israel, approximately 5,704 square feet of office space in Jamesburg, New Jersey, and approximately 388 square feet of office space in Sunnyvale, California. The leases in Tel Aviv expire between July 2002 and March 2004, the lease in Jerusalem expires in August 2001, the lease in Rehovot expires in March 2004, the lease in New Jersey expires in December 2003, and the lease in Sunnyvale expires on January 2002. We believe that the facilities we currently lease are sufficient for approximately the next 12 months. We believe we will require additional space after that time.



## ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

### Selected Financial Data

The following consolidated statement of operations data for the years ended December 31, 1998, 1999 and 2000 and consolidated balance sheet data as of December 31, 1999 and 2000 are derived from our audited consolidated financial statements presented elsewhere in this annual report. The following consolidated statement of income data for the years ended December 31, 1996 and 1997 and the consolidated balance sheet data as of December 31, 1996 and 1997 are derived from our audited consolidated financial statements not included in this annual report. The financial data set forth below should be read together with our consolidated financial statements and the notes thereto and the other financial information appearing elsewhere in this annual report.

	Year ended December 31,				
	1996	1997	1998*	1999*	2000
	(U.S. \$ in thousands, except share and per share data)				
<b>Consolidated Statements of Operations Data</b>					
Revenues:					
Services.....	193	334	511	2,454	4,623
Products.....	1,933	1,530	4,020	783	2,268
Total revenues.....	2,126	1,864	4,531	3,237	6,891
Cost of revenues:					
Services.....	50	100	100	480	1,243
Products.....	525	767	1,399	611	477
Total cost of revenues.....	575	867	1,499	1,091	1,720
Gross profit.....	1,551	997	3,032	2,146	5,171
Operating expenses**:					
Research and development expenses, net.....	883	1,704	3,567	6,676	12,169
Sales and marketing expenses.....	389	1,121	924	1,166	3,781
General and administrative expenses.....	277	1,473	1,815	3,152	5,397
Total operating expenses.....	1,549	4,298	6,306	10,994	21,347
Operating (loss) profit.....	2	(3,301)	(3,274)	(8,848)	(16,176)
Financing income (expenses), net.....	(16)	111	192	719	2,772
Net loss.....	\$ (14)	\$ (3,190)	\$ (3,082)	\$ (8,129)	\$ (13,404)
Dividends related to convertible preferred shares	—	234	882	1,886	24,923
Net loss available to ordinary shares	(14)	(3,424)	(3,964)	(10,015)	(38,327)
Basic and diluted net loss per ordinary share.....	\$ —	\$ (0.62)	\$ (0.67)	\$ (1.70)	\$ (2.75)
Weighted average number of ordinary shares outstanding.....	3,885,167	5,493,959	5,886,208	5,896,780	13,914,485
Pro forma basic and diluted net loss Per share (unaudited).....	\$ —	\$ (0.46)	\$ (0.29)	\$ (0.58)	\$ (0.69)
Pro forma weighted average number of shares outstanding (unaudited).....	3,885,167	6,938,272	10,749,861	14,102,899	19,305,553
	As of December 31,				
	1996	1997	1998	1999	2000
	(U.S. \$ in thousands)				
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents.....	\$ 694	\$ 5,715	\$ 19,941	\$ 11,436	\$ 80,675
Receivables.....	431	1,084	905	710	2,682
Inventory.....	275	621	530	380	385
Total assets.....	1,629	8,644	23,279	15,518	97,872
Accumulated deficit.....	(516)	(3,706)	(6,788)	(14,917)	(53,244)
Total shareholders' equity.....	652	6,933	18,780	12,787	92,510

(\*) Reclassified

(\*\*) Includes deferred compensation costs – see Note 11 to the consolidated financial statements.

## Overview

The following discussion should be read in conjunction with the selected financial data included above and our consolidated financial statements and the related notes thereto included in this annual report.

We are a pioneer in the field of predictive life science, achieved through the convergence of molecular biology and advanced computational technologies. We develop and market platforms, tools and services that accelerate life science research, advance the study of proteins and protein pathways and support drug target discovery. Through our Novel Genomics Division, we discover and commercialize genes, proteins and drug targets.

Since our inception, we have incurred significant losses and, as of March 31, 2001, we had an accumulated deficit of \$31.9 million (not including approximately \$25 million in accumulated deficit attributable to the conversion of preferred shares upon the closing of our initial public offering). Through 2000, our revenues were primarily generated by: the license of, and provision of services related to, our LEADS platform; sales of Biocelerator systems; licenses of Z3; and services provided through *LabOnWeb.com*. In 2001, we expect that an increased percentage of our revenues will be derived from new products and services introduced to the market in the second half of 2000 and during 2001, including Gencarta, Z3, chip design and OligoLibraries.

We recorded deferred compensation of approximately \$700,000 in 1998, approximately \$3.9 million in 1999, approximately \$4.7 million in 2000 in connection with the grant of share options. These amounts are being amortized over the vesting periods of the individual share options. Based on options granted through March 31, 2001, future amortization of deferred compensation is expected to amount to approximately \$2.7 million in 2001, \$1.4 million in 2002, \$612,000 in 2003 and \$92,000 in 2004. Our current policy is to grant options at the fair market value of the underlying shares on the date of grant.

We previously accounted for the deferred compensation of two consultants as if they were our employees according to APB 25. We recalculated the deferred compensation for these individuals to reflect that they are consultants according to EITF 96-18. The effect of the restatement was an increase in general and administrative expenses of approximately \$1.1 million in the year ended December 31, 1999, \$1.4 million in the year ended December 31, 2000 and an increase in accumulated deficit of \$1.1 million as of December 31, 1999 and \$2.5 million as of December 31, 2000. Earnings per share decreased by \$0.18 in the year ended December 31, 1999 and by \$0.10 in the year ended December 31, 2000.

In July 2000, we raised an aggregate of approximately \$35.5 million in a private placement through the issuance of 5,538,462 Series C preferred shares at a price of \$6.50 per share. As a result of this transaction, we recorded a preferred share dividend for the third quarter of 2000 of approximately \$24.9 million, representing the value of the beneficial conversion feature of this issuance, based on the difference between the conversion price of \$6.50 per share and \$11.00 per share, the range of the offering price in our initial public offering.

In August 2000, we sold 5,000,000 of our ordinary shares in the initial public offering of our shares on the Nasdaq National Market, and in September 2000, we sold an additional 750,000 ordinary shares upon the exercise by our underwriters of their over-allotment option. Our aggregate net proceeds from these sales were \$51.1 million. All outstanding preferred shares were converted into Ordinary Shares upon the closing of the public offering.

Commencing January 1, 2001, we record research grants as part of revenues. Prior to January 1, 2001, research grants were accounted for as a reduction in research and development expenses.

## Results of Operations

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

*Revenues.* Total revenues increased 113% to approximately \$6.9 million for 2000 from approximately \$3.2 million for 1999. Service revenues increased 88% to approximately \$4.6 million for 2000 from approximately \$2.5 million for 1999. This increase was due to an increase in revenues resulting from our agreement with Human Genome Sciences (HGS), our collaboration with Pfizer, increased maintenance fees from our installed base of Bioccelerators, and sales through LabOnWeb.com, which was launched in December 1999. Product revenues increased 190% to approximately \$2.3 million for 2000 from approximately \$783,000 for 1999. This increase was due to an increase in Bioccelerator sales to the United States Patent and Trade Mark Office (USPTO) and from sales of Z3, our high throughput 2D gel electrophoresis analysis system, which was introduced in the fourth quarter of 2000. Revenues from Pfizer, HGS, and the USPTO represented 81% of our total revenues in 2000.

*Cost of Revenues.* Cost of revenues increased 58% to approximately \$1.7 million for 2000 from approximately \$1.1 million for 1999. Cost of services revenues increased 159% to approximately \$1.2 million for 2000 from approximately \$480,000 for 1999. This increase was due to costs related to support services provided under our agreement with HGS, an increase in costs related to support services provided under our agreement with Pfizer, and costs related to our LabOnWeb.com operations. Cost of product revenues decreased 22% to approximately \$477,000 for 2000 from approximately \$611,000 in 1999. This decrease was primarily due to the write down during 1999 of the net realizable value of inventory in the amount of \$300,000, and an increase in production efficiency. Cost of revenues as a percentage of total revenues decreased from 34% for 1999 to 25% for 2000.

*Research and Development Expenses, Net.* Gross research and development expenses increased 76% to approximately \$12.6 million for 2000 from approximately \$7.2 million for 1999. These amounts for research and development expenses are presented in our consolidated financial statements net of grants from the Office of Chief Scientist (OCS) and the European Molecular Biology Laboratory (EMBL) of a total of \$466,000 for 2000 and \$507,000 for 1999. The increase in gross research and development expenses was primarily due to an increase in the number of research and development personnel to support existing as well as new research and development projects, increased salaries due to increased competition for professional employees, and an increase in the amortization of the deferred compensation to approximately \$2.4 million for 2000 from approximately \$882,000 for 1999. Research and development expenses, net as a percentage of total revenues decreased from 206% in 1999 to 177% in 2000.

*Sales and Marketing Expenses.* Sales and marketing expenses increased 224% to approximately \$3.8 million for 2000 from approximately \$1.2 million for 1999. This increase was primarily due to an increase in the number of sales and marketing personnel, increased travel expenses, promotional costs and marketing expenses to accommodate the growth of our business, and an increase in the amortization of deferred compensation to approximately \$505,000 for 2000 from approximately \$55,000 for 1999. Sales and marketing expenses as a percentage of total revenues increased from 36% in 1999 to 55% in 2000.

*General and Administrative Expenses.* General and administrative expenses increased 71% to approximately \$5.4 million for 2000 from approximately \$3.2 million for 1999. This increase was primarily due to an increase of approximately \$1.5 million in amortization of deferred compensation recorded in connection with options issued to employees and consultants, and an increase in personnel to support the growth of our business. General and administrative expenses as a percentage of total revenues decreased from 97% for 1999 to 78% for 2000.

*Financing Income, Net.* Financing income, net increased 286% to approximately \$2.8 million for 2000 from approximately \$719,000 for 1999. This increase was attributable to higher levels of cash and cash equivalents available from the aggregate proceeds of approximately \$35.5 million from the sale of our Series C preferred shares in July 2000, net of issuance expenses of \$487,000, and approximately \$51.1 million from the initial public offering of our shares on the Nasdaq National Market, net of issuance

expenses of approximately \$6.3 million, in August 2000. Financing income, net as a percentage of total revenues increased from 22% for 1999 to 40% for 2000.

#### ***Years Ended December 31, 1999 and 1998***

*Revenues.* Total revenues decreased 29% to approximately \$3.2 million for 1999 from approximately \$4.5 million for 1998. Service revenues increased 380% to approximately \$2.5 million for 1999 from approximately \$511,000 for 1998. This increase was due to an increase in revenues resulting from our agreement with Warner-Lambert from \$110,000 in 1998 to \$1.7 million in 1999 and increased maintenance fees in connection with Bioccelerator sales in 1998. Product revenues decreased 81% to approximately \$783,000 for 1999 from approximately \$4.0 million for 1998. This decrease was due to a decrease in Bioccelerator sales resulting from our strategic decision to focus on our corporate solutions and LabOnWeb.com. Revenues from Warner-Lambert represented 71% of our total revenues in 1999.

*Cost of Revenues.* Total cost of revenues decreased 27% to approximately \$1.1 million for 1999 from approximately \$1.5 million for 1998. Cost of services revenues increased 380% to approximately \$480,000 for 1999 from approximately \$100,000 for 1998. This increase resulted from an increase in costs in the amount of \$260,000 related to support services provided under our agreement with Warner-Lambert and increased expenses in the amount of \$120,000 related to support provided to our Bioccelerator customers resulting from increased sales in 1998. Cost of product revenues decreased 56% to approximately \$611,000 for 1999 from approximately \$1.4 million in 1998. This decrease was primarily related to a decline in Bioccelerator sales in 1999. The decrease was offset by the write down of the net realizable value of inventory in the amount of \$300,000, which resulted from our strategic decision to focus on our corporate solutions and LabOnWeb.com. Cost of revenues as a percentage of total revenues remained relatively constant from 1998 to 1999.

*Research and Development Expenses, Net.* Gross research and development expenses increased 84% to approximately \$7.2 million for 1999 from approximately \$3.9 million for 1998. These amounts for research and development expenses are presented in our consolidated financial statements net of grants from the OCS and the EMBL of \$507,000 for 1999 and \$333,000 for 1998. This increase was primarily due to an increase in the number of research and development personnel to accommodate the growth of our business and an increase in the amortization of the deferred compensation to approximately \$882,000 for 1999 from approximately \$73,000 for 1998. Research and development expenses, net as a percentage of total revenues increased from 79% for 1998 to 206% for 1999.

*Sales and Marketing Expenses.* Sales and marketing expenses increased 26% to approximately \$1.2 million for 1999 from approximately \$924,000 for 1998. This increase was primarily due to increased travel expenses, promotional costs and marketing expenses related to our effort to penetrate the market for our software. Sales and marketing expenses as a percentage of total revenues increased from 20% in 1998 to 36% in 1999.

*General and Administrative Expenses.* General and administrative expenses increased 74% to approximately \$3.2 million for 1999 from approximately \$1.8 million for 1998. This increase was primarily due to an increase of approximately \$1.2 million of the amortization of deferred compensation recorded in connection with options issued to employees and consultants and the costs associated with relocating our facilities in the amount of \$263,000. General and administrative expenses as a percentage of total revenues increased from 40% for 1998 to 97% for 1999.

*Financing Income, Net.* Financing income, net increased 274% to approximately \$719,000 for 1999 from approximately \$192,000 for 1998. Financing income, net, in 1998, reflects a loss from marketable securities of approximately \$108,000 as a result of a decrease in the value of mutual funds in which we had invested our cash reserves. The increase in financing income was attributable to higher levels of cash and cash equivalents available from the aggregate proceeds of approximately \$15.0 million from the sale of our Series B preferred shares in November 1998. Financing income, net as a percentage of total revenues increased from 4% for 1998 to 22% for 1999.

## **Liquidity and Capital Resources**

From our inception until the initial public offering of our Ordinary Shares in August 2000, we obtained financing primarily through private placements of equity securities, and, to a lesser extent, government grants and loans. Financing activities from private placements of preferred and ordinary shares, net of issuance costs, provided cash of approximately \$14.8 million in 1998 and approximately \$19,000 in 1999. In July 2000, we completed a private placement of Series C preferred shares for aggregate consideration, net of expenses, of approximately \$35.5 million.

In August 2000, we sold 5,000,000 of our ordinary shares in the initial public offering of our shares on the Nasdaq National Market, and in September 2000, we sold an additional 750,000 ordinary shares upon the exercise by our underwriters of their over-allotment option. Our aggregate consideration from these sales was \$57.5 million (\$51.1 million net of issuance expenses). All outstanding preferred shares were converted into Ordinary Shares upon the closing of the public offering.

Net cash used in operating activities was approximately \$409,000 in 1998, approximately \$5.8 million in 1999, approximately \$6.1 million in 2000, and approximately \$2.4 million in the three months ended March 31, 2001. These amounts were used to fund our net losses for the periods, adjusted for non-cash expenses and changes in operating assets and liabilities.

Net cash used in investing activities consists of purchases of fixed assets, purchase of marketable securities and short-term deposits, and investment in debt securities. Net cash used in investing activities was approximately \$1.1 million in 1998, \$1.8 million in 1999, \$12.1 million in 2000, and \$18.9 million in the three months ended March 31, 2001. The increase in net cash used in 2000 resulted primarily from the purchase of approximately \$10 million in short-term deposits. The continued increase in net cash used in the three months ended March 31, 2001 was due primarily to investment of approximately \$18 million in investment grade debt securities.

Our net cash provided by financing activities was approximately \$15.8 million in 1998, approximately \$87.4 million in 2000, and approximately \$19,000 in the three months ended March 31, 2001. Our net cash used in financing activities was approximately \$939,000 in 1999. The principal sources of cash in 1998 were derived from private placements of our preferred shares and the principal sources of cash in 2000 were derived from the private placement of our preferred shares and issuance of Ordinary Shares in our initial public offering. The cash used in financing activities in 1999 is attributable to the repayment of a short-term bank loan.

As of March 31, 2001, we had cash and cash equivalents, short-term deposits and short-term investments of approximately \$77.7 million, and treasury and corporate bonds of approximately \$9.6 million. We believe that our existing cash and cash equivalents, will be sufficient to fund our operations until we become profitable. However, we may need additional equity or debt financing in the future to fund our operations or to finance potential acquisitions of other businesses, products or technologies.

## **Corporate Tax Rate**

Israeli companies are generally subject to income tax at the corporate tax rate of 36%. However, several investment programs at our manufacturing facility in Tel Aviv have been granted approved enterprise status and we are, therefore, eligible for the reduced tax benefits under the Law for the Encouragement of Capital Investments, 1959. We have derived, and expect to continue to derive, a substantial portion of our income from the approved enterprise programs at our manufacturing facility. Subject to compliance with applicable requirements, the portion of our income derived from the approved enterprise programs will be tax-exempt for a period of two years commencing in the first year in which it generates taxable income and will be subject, for a period of five to eight years, to a reduced corporate tax of up to 25%, depending on the percentage of non-Israeli investors who acquire our ordinary shares. The period of tax benefits with respect to our approved enterprise programs has not yet commenced, because we have yet to realize taxable income. These benefits should result in income recognized by us being tax exempt or taxed at a lower rate

for a specified period after we begin to report taxable income and exhaust any net operating loss carry-forwards. However, these benefits may not be applied to reduce the tax rate for any income derived by our U.S. subsidiary. In May 2000, the Israeli government approved in principle a tax reform proposal that would reduce or eliminate some of these benefits in the future. To date, legislation to implement these changes has not yet been enacted. If these tax benefits and programs are terminated or reduced, we could pay increased taxes in the future, which could decrease our profits.

As of December 31, 2000, our net operating loss carry-forwards for Israeli tax purposes amounted to approximately \$17.5 million. Under Israeli law, these net operating losses may be carried forward indefinitely and offset against future taxable income.

As of December 31, 2000, the net operating loss carry-forwards of our U.S. subsidiary for U.S. tax purposes amounted to approximately \$4.8 million. These losses are available to offset any future U.S. taxable income of our U.S. subsidiary and will expire between the years 2012 and 2020.

## **Government of Israel Support Programs**

### *Research and Development Grants*

We participate in programs offered by the Office of the Chief Scientist of Israel (“OCS”) that support research and development activities. We received or accrued participations from the OCS of approximately \$333,000 in 1998, approximately \$507,000 in 1999 and approximately \$466,000 in 2000. All of the amounts, except for \$15,000 of the amounts granted in 1999, were granted under our MAGNET projects referred to below.

We have received grants from the OCS for several projects related to our Bioccelerator systems. Most of these grants were received before 1997. Under the terms of these grants, a royalty of 3% to 5% of the net sales of products developed from a project funded by the OCS must be paid, beginning with the commencement of sales of products developed with grant funds and ending when 100% of the dollar value of the grant is repaid. As of December 31, 2000, we were subject to the payment of \$165,000 in royalties to the OCS out of future net sales of our Bioccelerator systems and maintenance revenues. The terms of Israeli government participation also require that the manufacture of products developed with government grants be performed in Israel, unless a special approval has been granted by the OCS. This approval, if granted, is generally subject to an increase in the total amount to be repaid to the OCS to between 120% and 300% of the amount granted, depending on the extent of the manufacturing to be conducted outside of Israel. Separate Israeli government consent is required to transfer to third parties technologies developed through projects in which the government participates. These restrictions do not apply to exports from Israel of products developed with these technologies.

Effective with regard to OCS grants received under programs approved after January 1, 1999, repayments of these grants are subject to interest at an annual rate of LIBOR for 12 months applicable to dollar deposits, which will accrue annually based on the LIBOR rate published on the first day of each year.

In addition to the OCS programs described above, we are a party to a consortium of Israeli research institutions and high technology companies devoted to the development of generic technologies for the design and development of pharmaceutical products and diagnostic kits. The consortium is sponsored by the OCS MAGNET program. Under the terms of the MAGNET program, the OCS contributes 66% of the approved budget of the consortium and the members of the consortium contribute the remaining 34%. No royalties are payable to the OCS with respect to this funding. Expenses in excess of the approved budget are borne by the consortium members.

In general, any member of the consortium that develops technology in the framework of the consortium retains the intellectual property rights to this technology and all other members of the consortium have the right to use and implement this technology without having to pay royalties to the developing consortium member, provided that the technology will not be transferred under any circumstances to any entity outside

of the consortium. None of the other members of the consortium is currently a competitor of ours. The terms of the program prohibit the manufacture of products using technology developed in the context of the program outside of Israel and the transfer of technology developed under the program to any person, without the prior written consent of the OCS. These restrictions do not apply to the sale or export from Israel of products developed with this know-how.

### **Impact of Inflation and Currency Fluctuations**

We generate substantially all of our revenues in U.S. dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israeli Shekels, or NIS. As a result, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the U.S. dollar or that the timing of this devaluation lags behind inflation in Israel. In addition, we are exposed to the risk that the U.S. dollar will be devalued against the NIS. We try to protect ourselves against this possibility by investing a portion of our cash in NIS deposits. To date, we have not been materially affected by changes in the Israeli rate of inflation or the exchange rates of the NIS compared to the U.S. dollar. We do not currently use financial instruments for trading purposes and do not currently hold any derivative financial instruments that could expose us to significant market risk. ]

### **Trend Information**

There is a trend towards consolidation in the pharmaceutical and biotechnology industries. This trend may negatively affect us in several ways. These consolidations usually involve larger companies acquiring smaller companies, which results in the remaining large companies having greater financial resources and technological capabilities, thus strengthening competition in the industry. In addition, continued consolidation within the pharmaceutical and biotechnology industries may result in fewer customers for our products and services. Also, if one of the parties to a consolidation uses the products or services of our competitors, we may lose existing customers as a result of such consolidation.

To date, most of the public efforts relating to genomics involved producing data under the Human Genome Project. Following the publication of the human genome, there has been an increase in public efforts to develop analysis tools for understanding genomic and proteomic data. These efforts may result in the development of tools which are competitive to ours and available for free. Such developments could require us to lower our prices or cause some of our products to be less commercially viable or obsolete.

As the quantity and quality of publicly available and proprietary genomic information increases, there is a growing need in the pharmaceutical and biotechnology industries for predictive, or quantitative, life science platforms for proteomics, functional pathways and drug development. The increasing focus on predictive life science solutions for these areas may result in decreased demand for genomics products and services, including most of our current products and services. Although we have begun research and development efforts in these areas and have released our first product for proteomics, to date, most of our research and development experience is in the field of genomics. We cannot be certain that we will successfully develop predictive life science platforms for these areas. If we are unable to successfully develop and commercialize such platforms and products our business, financial condition and results of operations may be negatively impacted.

Due to the recent downturn in the securities markets worldwide, including in the stock of biotechnology companies, biotechnology companies, including current and potential customers of ours, may experience difficulties in raising additional financing required to effectively operate and grow their businesses. If some of our current or potential customers are unable to raise such financing, they may be unable or less willing to expend the amounts required to purchase our products and service. As a result, we may lose potential sales or may be forced to lower our prices. This could negatively impact our business, financial condition and results of operations.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### Directors and Senior Management

The following sets forth information with respect to our directors and executive officers as of June 30, 2001.

<u>Name</u>	<u>Age</u>	<u>Positions</u>
Martin S. Gerstel	60	Chairman of the Board of Directors
Mor Amitai, Ph.D	35	Chief Executive Officer, President and Director
Vincent R. Zurawski, Jr., Ph.D	55	Chief Executive Officer of Compugen, Inc.
Simchon Faigler	35	Executive Vice President and Chief Technology Officer, Compugen, Inc.
Eli Mintz	37	President, Compugen, Inc. and Director
Lior D. Ma'ayan	36	Vice President, Commercial Operations
Nurit Benjamini	34	Chief Financial Officer
Amos Goren	45	Director
David Haselkorn, Ph.D	57	Director
Neil Cohen	37	Director
Avi Shachar	44	Director
Philip Young	61	Director
Orna Berry, Ph.D	51	Director
David Schlachet	55	Director

**Martin S. Gerstel** has served as our Chairman and Chief Financial Officer since August 1997. From September 1993 until August 1997, Mr. Gerstel was an independent consultant and lecturer and served on various boards of directors. From July 1987 until August 1993, he was Co-Chairman and Chief Executive Officer of Alza Corporation in Palo Alto, California. Mr. Gerstel currently serves on the boards of directors of Teva Pharmaceuticals, Symyx Corporation, Itamar Medical and the Weizmann Institute of Science, and he is an advisor to the U.S.-Israel Binational Industrial Research and Development Foundation. Mr. Gerstel is obligated to devote at least 50% of his time to our affairs. Mr. Gerstel holds a B.S. in Engineering from Yale University and an M.B.A. from Stanford University.

**Mor Amitai, Ph.D.** joined Compugen in November 1994 as Chief Scientist, was promoted to Head of Research at the end of 1995, has served as our Chief Executive Officer and a director since January 1998 and received the title of President in 2000. Prior to joining us, Mr. Amitai had served as an engineer at Comverse Technologies since August 1991. Mr. Amitai holds a B.Sc. in Mathematics and Physics, and a M.Sc. and a Ph.D. in Mathematics, each from Hebrew University.

**Vincent R. Zurawski, Jr., Ph.D** joined Compugen Inc. as co-Chief Executive Officer in March 2001 and became its Chief Executive Officer in May 2001. From 1999 until 2001, he held the position of Adjunct Associate Professor at the University of Pennsylvania School of Medicine. From 1998 to 2000, he served as the Director of Research Business Development for the University of Pennsylvania Health System and the School of Medicine. Dr. Zurawski was the founder of Apollon Inc. and served as its President and Chief Executive Officer from 1992 to 1998. Dr. Zurawski holds a Ph.D. in chemistry from Purdue University.

**Simchon Faigler**, a co-founder of Compugen, has served in various capacities at Compugen since our founding in 1993, including Vice President and Chief Technology Officer of Compugen Ltd. From May 2001, he has held the title of Executive Vice President and Chief Technical Officer of Compugen, Inc. From February 2000 until May 2001, he held the title of Chief Executive Officer of Compugen, Inc., our U.S. subsidiary. From May 1999 until February 2000, he held the titles of Chairman and Chief Technology Officer of Compugen, Inc. and Vice President of Compugen. Mr. Faigler holds a B.Sc. in Physics and Mathematics from Hebrew University.



**Eli Mintz**, a co-founder of Compugen, has served in various capacities at Compugen since our founding in 1993 and since January 1998 has served as President of Compugen, Inc. From January 1998 until March 2000, he also served as our Vice President — Business Development and Commercialization. Mr. Mintz holds a B.Sc. in Physics, Mathematics and Computer Science from Hebrew University and an M.B.A. from INSEAD.

**Lior D. Ma'ayan** joined us in October 1998 as Vice President — Operations, was promoted to Vice President, Commercial Operations in 2000. From August 1990 until September 1998, Mr. Ma'ayan held various positions with Scitex Corporation Ltd., most recently as Managing Director of Scitex Middle East and Africa. Mr. Ma'ayan holds a B.Sc. in Physics and Mathematics from Hebrew University, an M.Sc. in behavioral sciences from Technion Institute of Technology and an M.B.A. from INSEAD.

**Nurit Benjamini** joined Compugen as Vice President Finance and Investor Relations in April 2000, and was promoted to Chief Financial Officer in December, 2000. Prior to joining Compugen, she served as the Chief Financial Officer of Phone-Or Ltd., from 1998 to 2000, and of Aladdin Knowledge Systems Ltd. from 1993 and 1998. Previously, Ms. Benjamini served as Chief Financial Analyst and Economist with Cubital Ltd, and as an economist on the Tel Aviv Stock Exchange. Ms. Benjamini holds a BA in Economics and Business and an MBA in Finance from Bar Ilan University, Israel.

**Amos Goren** has served as a director since December 1997. Since June 1997, Mr. Goren has been a Director of Apax Partners Ventures (Israel), Ltd., the investment advisor to Israel Growth Fund, L.P., a venture capital fund. From May 1993 until June 1997, Mr. Goren served as the Chief Executive Officer and Chairman of AquaPharm Technologies Inc., a pharmaceutical company that he co-founded. From August 1990 until January 1993, Mr. Goren served as a Vice President of Business Development at Carmel Containers in Israel. Mr. Goren holds a B.Sc. in Biology from the Hebrew University, an M.Sc. in Biochemistry from Weizmann Institute in Israel and an M.B.A. from Harvard Business School.

**David Haselkorn, Ph.D.** has served as a director since December 1998. Since 1998 Dr. Haselkorn has been the Chief Executive Officer of Clal Biotechnology Industries Ltd. From 1987 to 1998, Dr. Haselkorn served as a Managing Director and Chief Operating Officer of Biotechnology General Corp. Dr. Haselkorn is also on the board of directors of several privately-held companies. Dr. Haselkorn holds a B.Sc. in Chemistry and an M.Sc. in Biochemistry from Hebrew University, and a Ph.D in Chemical Immunology from the Weizmann Institute of Science.

**Neil Cohen** has served as a director since May, 2001. He is a General Partner at Israel Seed Partners, an Israel-focused early-stage technology venture capital firm which he co-founded in 1994. From 1992 to 1995, he served as the Business Editor of the Jerusalem Post. From 1991 to 1992, Mr. Cohen served as the Marketing Director of Biodar Ltd., a specialty chemicals company. Mr. Cohen served as a venture capital executive at NM Rothschild in London from 1986 to 1989, first in the general venture group and then in the bank's bioscience venture capital unit. He holds a B.A. and an M.A. in Oriental Languages from Oxford, with first class honors.

**Avi Shachar** has served as a director since July 1999. Since 1994, Mr. Shachar has served as a senior business manager of Poalim Investments Ltd. Mr. Shachar serves on the board of directors of several privately-held companies. Mr. Shachar holds a B.A. in Economics from Ben Gurion University and an M.B.A. from Tel Aviv University.

**Philip Young** has served as a director since May 1997. Since 1990, Mr. Young has been a general partner of U.S. Venture Partners, a venture capital investment firm located in Menlo Park, CA. He currently serves on the boards of directors of Zoran Corporation, Vical, Inc. Aerogen, Inc. and The Immune Response Corporation, as well as a number of privately-held companies. He has a B.M.E. from Cornell University, an M.S. in Applied Sciences from George Washington University and an M.B.A. from Harvard Business School.

**Orna Berry, Ph.D** joined our Board as an outside director in June 2001 and serves as a member of our Audit Committee. She is a Venture Partner at Gemini Capital Fund Management Ltd., and the active

Chairperson at Lambda Crossing, Ltd. and at WanWall Inc. From 1997 to 2000, she was the Chief Scientist of the Ministry of Industry and Trade of the Government of Israel. Dr. Berry was a co-founder of ORNET Data Communication Technologies Ltd. She served as the Chief Scientist of Fibronics and as a senior research engineer in several companies, including IBM and UNISYS. Dr. Berry received her Ph.D. in computer science from the University of Southern California and M.A. and B.A. degrees in statistics and mathematics from Tel Aviv and Haifa Universities, respectively. Dr. Berry serves as an outside director on our Board for a fixed term which expires in June 2004.

**David Schlachet** joined our Board as an outside director in June 2001 and serves as a member of our Audit Committee. He is the Managing Partner of Biocom, a venture capital fund focused on life sciences. He also serves on the Boards of Directors of the following companies: Poalim Capital Markets & Investments Ltd., Harel Capital Markets Ltd (as Chairman), Taya Investment Company Ltd., United Studios Ltd., Pharmos Ltd., Taldor Ltd., ProSeed Venture Capital Fund Ltd and Israel Discount Bank Limited. From 1997 to July 2000, he was Chairman of the Board of Directors of Elite Industries Ltd. From 1996 to January 2000, Mr. Schlachet served as Vice President of the Strauss Group of companies. From 1990 to 1996, he was Vice President, Finance and Administration at the Weizmann Institute of Science. From 1989 to 1990, Mr. Schlachet was Chief Executive Officer of Yeda Research and Development Ltd. of the Weizmann Institute of Science. From 1974 to 1988, he was a senior manager at the Investment Company of Bank Hapoalim Ltd. Mr. Schlachet holds a B.Sc. degree in chemical engineering from the Technion, Israel Institute of Technology and an MBA degree from Tel Aviv University. Mr. Schlachet serves as an outside director on our Board for a fixed term which expires in June 2004.

#### ***Election of Directors and Terms of Office***

Our board of directors currently consists of ten members, including our chairman and chief executive officer. Other than our two outside directors and Neil Cohen, who was elected by the board of directors to replace Jonathan Medved in May 2001, our current directors were nominated and elected by specific shareholders in accordance with rights to appoint directors provided in our Amended and Restated Investor Rights Agreement dated July 17, 2000 and our Articles of Association. Those rights terminated upon the closing of our initial public offering in August 2000. See Item 7. Major Shareholders and Related Party Transactions; Related Party Transactions; Rights to Appoint Directors.”

Dr. Orna Berry and David Schlachet serve as outside directors pursuant to the provisions of the Israel Companies Law for a three-year term ending in June 2004. Thereafter their term of service may be renewed for one additional three-year term. Unless they earlier resign or are removed in accordance with our Articles of Association, all of our other directors will serve as directors until our next annual general meeting of shareholders, which we intend to hold in August 2001. None of our directors or officers have any family relationships with any other director or officer.

#### ***Alternate Directors***

Our Articles of Association provide that a director may appoint, by written notice to us, any individual to serve as an alternate director, provided that the director is not currently serving as a director or as an alternate director. Any alternate director will have all of the rights and obligations of the director appointing him or her, except the power to appoint an alternate, unless the instrument appointing him or her provides otherwise, and the right to remuneration. The alternate director may not act at any meeting at which the director appointing him or her is present. Unless the time period or scope of any appointment is limited by the appointing director, the appointment is effective for all purposes, but will expire upon the expiration of the appointing director's term.

#### ***Outside and Independent Directors***

The Israeli Companies Law requires Israeli companies with shares that have been offered to the public in or outside of Israel to appoint at least two outside directors. No person may be appointed as an outside director if the person or the person's relative, partner, employer or any entity under the person's control, has

or had, on or within the two years preceding the date of the person's appointment to serve as outside director, any affiliation with the company or any entity controlling, controlled by or under common control with the company. The term affiliation includes:

- an employment relationship;
- a business or professional relationship maintained on a regular basis;
- control; and
- service as an office holder.

No person may serve as an outside director if the person's position or other business activities create, or may create, a conflict of interest with the person's responsibilities as an outside director or may otherwise interfere with the person's ability to serve as an outside director. If, at the time outside directors are to be appointed, all current members of the board of directors are of the same gender, then at least one outside director must be of the other gender.

Outside directors are to be elected by a majority vote at a shareholders' meeting, provided that either:

- the majority of shares voted at the meeting, including at least one-third of the shares held by non-controlling shareholders voted at the meeting, vote in favor of election of the director; or
- the total number of shares held by non-controlling shareholders voted against the election of the director does not exceed one percent of the aggregate voting rights in the company.

The initial term of an outside director is three years and may be extended for an additional three years. Outside directors may be removed only by the same percentage of shareholders as is required for their election, or by a court, and then only if the outside directors cease to meet the statutory qualifications for their appointment or if they violate their duty of loyalty to the company. Each committee of a company's board of directors must include at least one outside director.

An outside director is entitled to compensation as provided in regulations adopted under the new Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with service provided as an outside director.

In addition, the Nasdaq National Market requires us to have at least two independent directors on our board of directors and to establish an audit committee, at least a majority of whose members are independent of management.

Dr. Orna Berry and David Schlachet currently serve as our outside directors under Israeli law and as our independent directors under Nasdaq requirements. They both serve on our audit committee.

### ***Approval of Certain Transactions***

The Companies Law codifies the fiduciary duties that office holders, including directors and executive officers, owe to a company. An office holder, as defined in the Companies Law, is a director, general manager, chief business manager, deputy general manager, vice general manager, chief business manager, executive vice president, vice president, other manager directly subordinate to the managing director or any other person assuming the responsibilities of any of the foregoing positions without regard to such person's title. An office holder's fiduciary duties consist of a duty of care and a duty of loyalty. The duty of loyalty includes avoiding any conflict of interest between the office holder's position in the company and his personal affairs, avoiding any competition with the company, avoiding exploiting any business opportunity of the company in order to receive personal advantage for himself or others, and revealing to the company any information or documents relating to the company's affairs which the office holder has received due to his position as an office holder. Each person listed in the table under "Directors and Senior Management"

above is an office holder. Under the Companies Law, all arrangements as to compensation of office holders who are not directors require approval of the board of directors. Arrangements regarding the compensation of directors also require audit committee and shareholder approval.

The Companies Law requires that an office holder promptly disclose any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. The disclosure must be made to our board of directors or shareholders prior to the meeting at which the transaction is to be discussed. In addition, if the transaction is an extraordinary transaction, as defined under Israeli law, the office holder must also disclose any personal interest held by the office holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants and the spouses of any of the foregoing, or by any corporation in which the office holder is a five percent or greater shareholder, director or general manager or in which he or she has the right to appoint at least one director or the general manager. An extraordinary transaction is defined as a transaction not in the ordinary course of business, not on market terms, or that is likely to have a material impact on the company's profitability, assets or liabilities.

In the case of a transaction which is not an extraordinary transaction, after the office holder complies with the above disclosure requirement, only board approval is required unless the Articles of Association of the company provides otherwise. The transaction must not be adverse to the company's interest. If the transaction is an extraordinary transaction, then, in addition to any approval required by the Articles of Association, it also must be approved by the audit committee and by the board of directors, and, under specified circumstances, by a meeting of the shareholders. An office holder who has a personal interest in a matter that is considered at a meeting of the board of directors or the audit committee may not be present at this meeting or vote on this matter.

The Companies Law applies the same disclosure requirements to a controlling shareholder of a public company, which includes a shareholder that holds 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights in the company. Extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, and the terms of compensation of a controlling shareholder who is an office holder, require the approval of the audit committee, the board of directors and the shareholders of the company.

The shareholder approval must either include at least one-third of the disinterested shareholders who are present, in person or by proxy, at the meeting, or, alternatively, the total shareholdings of the disinterested shareholders who vote against the transaction must not represent more than one percent of the voting rights in the company.

Under the Companies Law, a shareholder has a duty to act in good faith towards the company and other shareholders and refrain from abusing his power in the company, including, among other things, voting in the general meeting of shareholders on the following matters:

- any amendment to the Articles of Association;
- an increase of the company's authorized share capital;
- a merger; or
- approval of interested party transactions that require shareholder approval.

In addition, any controlling shareholder, any shareholder who can determine the outcome of a shareholder vote and any shareholder who, under a company's Articles of Association, can appoint or prevent the appointment of an office holder, is under a duty to act with fairness towards the company. The Companies Law does not describe the substance of this duty.

For information concerning the direct and indirect personal interests of some of our office holders and principal shareholders in transactions with us, see "Item 7. Major Shareholders and Related Party Transactions."

### **Compensation**

The aggregate compensation paid by us and our subsidiaries to all persons who served in the capacity of director or executive officer for the year ended December 31, 2000 (8 persons) was approximately \$1,366,511. This amount includes approximately \$263,924 set aside or accrued to provide pension, severance, retirement or similar benefits. This amount also includes sums paid to Shomar Corporation under the consulting agreements described under "Item 7. Major Shareholders and Related Party Transactions; Related Party Transactions and Consulting Agreement with Shomar Corporation." This amount does not include expenses, including business travel, relocation, professional and business association dues and expenses, reimbursed to officers and other benefits commonly reimbursed or paid by companies in Israel.

During 2000, we granted a total of 245,000 options to purchase Ordinary Shares to our directors and executive officers as a group. All the options are exercisable at a range of between \$5 per share and \$10 per share, and expire ten years after the date of grant.

All members of the board of directors and scientific advisory board members who are not employees or consultants are reimbursed for their expenses for each meeting attended and are eligible to receive share options under our share option plans. Members of our scientific advisory board receive cash compensation and may be granted share options for their services. As of December 31, 2000, options to purchase 965,300 ordinary shares were granted to our directors and scientific advisors.

### **Board Practices**

None of our directors is entitled to receive any severance or similar benefits upon termination of his or her service, except Mor Amitai and Eli Mintz who are entitled to severance as employees under Israeli law.

Our Articles of Association permit us to hold officers' liability insurance and to indemnify our officers for actions performed on our behalf, subject to specified limitations.

### ***Audit Committee***

The Companies Law requires public companies to appoint an audit committee. The responsibilities of the audit committee include identifying irregularities in the management of the company's business and approving related party transactions as required by law. An audit committee must consist of at least three directors, including at least two outside directors. The chairman of the board of directors, any director employed by or otherwise providing services to the company, and a controlling shareholder or any relative of a controlling shareholder, may not be a member of the audit committee. An audit committee may not approve an action or a transaction with a controlling shareholder, or with an office holder, unless at the time of approval two outside directors are serving as members of the audit committee and at least one of the outside directors was present at the meeting in which an approval was granted.

Our audit committee is currently comprised of Dr. Orna Berry, David Schlachet and Amos Goren.

### ***Internal Auditor***

Under the Companies Law, the board of directors must appoint an internal auditor, nominated by the audit committee. The role of the internal auditor is to examine, among other matters, whether the company's actions comply with the law and orderly business procedure. Under the Companies Law, the internal auditor may be an employee of the company but not an office holder (as defined below), or an affiliate, or a relative of an office holder or affiliate, and he or she may not be the company's independent accountant or its representative.

### ***Scientific Advisory Board***

Our scientific advisory board meets once or twice annually, and we consult with its individual members regularly. At its meetings, we review our primary ongoing and planned projects, and the board recommends which projects to pursue and in what priority. Our scientific advisory board currently includes:

<u>Name</u>	<u>Affiliation</u>
Richard Durbin, Ph.D.	Head of Informatics, Deputy Director of the Sanger Centre, UK
C. Ronald Kahn, M.D., D.Sc.	Professor of Medicine, Harvard Medical School, Cambridge, MA
Joseph Schlessinger, Ph.D.	Director of the Skirball Institute of Biomolecular Medicine; Chairman of Pharmacology, NYU Medical Center, New York, NY
Arthur Weiss, M.D., Ph.D.	Ephraim P. Engleman Distinguished Professor of Rheumatology; Professor of Medicine; Professor of Microbiology and Immunology, University of California, San Francisco, CA

### **Employees**

The following table sets forth for the last three fiscal years, the number of our employees engaged in the specified activities, by geographic location.

<b>Year Ended December 31,</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>
Research and Development and Engineering			
Israel	105	69	33
U.S.	15	11	1
Administration, Accounting and Operations			
Israel	21	15	7
U.S.	2	2	1
Sales, Marketing, Business Development and Support			
Israel	17	9	12
U.S.	8	5	2
Total	168	111	56

We and our Israeli employees are subject to provisions of the collective bargaining agreements between the Histadrut, the General Federation of Labor in Israel and the Coordination Bureau of Economic Organizations, including the Industrialists Associations, by order of the Israeli Ministry of Labor and Welfare. These provisions principally concern cost of living increases, recreation pay and other conditions of employment. We provide our employees with benefits and working conditions above the required minimum. Our employees are not represented by a labor union. We have written employment contracts with most of our employees and we believe that our relations with our employees are good.

### **Share Ownership**

#### ***Share Ownership by Directors and Senior Management***

All of the persons listed above under the caption “Directors and Senior Management” own Ordinary Shares and/or options to purchase Ordinary Shares. Except as set forth below, none of the directors or executive officers owns shares and/or options amounting to 1% or more of the outstanding Ordinary Shares.

The following table sets forth certain information as of May 31, 2001, regarding the beneficial ownership of our directors and executive officers.

<u>Beneficial Owner</u>	<u>Amount Owned</u>	<u>Percent of Class</u>
Martin S. Gerstel(1)	1,505,653	5.8%
Mor Amitai, Ph.D.(2)	453,625	1.7%
Eli Mintz(3)	1,166,896	4.5%
Simchon Faigler(4)	694,803	2.7%
David Haselkorn, Ph.D.(5)	3,045,498	11.7%
Philip Young(6)	1,969,000	7.6%
Amos Goren(7)	902,243	3.5%
Neil Cohen(8)	953,250	3.7%
Avi Shachal(9)	792,335	3.0%
Directors and executive officers as a group(10)	11,596,637	44.8%

- (1) Includes 550,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, and 545,653 shares held by Merrill Lynch IRA for Martin Gerstel, of which Martin Gerstel is the beneficiary. Based on information provided in the Form 13D filed with the Securities and Exchange Commission in March 2001.
- (2) Includes options to purchase 453,625 shares that are exercisable within 60 days of May 31, 2001.
- (3) Includes options to purchase 133,869 shares that are exercisable within 60 days of May 31, 2001.
- (4) Includes options to purchase 93,553 shares that are exercisable within 60 days of May 31, 2001.
- (5) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 3,041,748 shares held by Clal Biotechnology Industries, an affiliate of Dr. Haselkorn. Dr. Haselkorn's address is c/o Clal Biotechnology Industries Ltd., 3 Azrieli Center, Tel Aviv 67023, Israel.
- (6) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 1,768,750 shares held by U.S. Venture Partners V, L.P., 98,250 shares held by USVP V International, L.P., 55,000 shares held by 2180 Associates Fund V, L.P. and 43,250 shares held by USVP V Entrepreneur Partners, L.P. Philip Young is a managing member of Presidio Management Group V, L.L.C., the general partner of U.S. Venture Partners V, L.P., USVP V International, L.P., 2180 Associates Fund V, L.P. and USVP V Entrepreneur Partners, L.P. Mr. Young, the member of our board of directors, may be deemed beneficial owner of the reported shares but disclaims beneficial ownership in the shares held by these entities, except to the extent of any indirect pecuniary interest therein. The address of Mr. Young, Presidio Management Group V, LLC and its affiliated entities is c/o U.S. Venture Partners, 2180 Sand Hill Road, Suite 300, Menlo Park, California 94025.
- (7) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 513,878 shares held by Israel Growth Fund L.P., 331,707 shares held by Apax Israel II L.P., 45,403 shares held by Apax Israel II (Israel) L.P., 4,165 shares held by Apax Israel II Entrepreneur's Club L.P., and 3,340 shares held by Apax Israel Entrepreneur's Club (Israel) L.P., all affiliates of Mr. Goren. Mr. Goren's address is c/o Apax Partners Ventures (Israel), Ltd., P.O. Box 2034, Herzliya 46120, Israel.
- (8) Ownership consists of 688,657 shares held by Israel Seed II L.P. and 264,593 shares held by Israel Seed L.P., affiliates of Mr. Cohen. Mr. Cohen's address is c/o Israel Seed II Limited Partnership, 64 Emek Refaim St., Jerusalem 93142, Israel.
- (9) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 788,585 shares held by Koonras Technologies Ltd., an affiliate of Mr. Shachar. Mr. Shachar's address is 21 Ha'arba'ah Street, Tel Aviv 64739, Israel.
- (10) Includes options to purchase 809,373 shares that are exercisable within 60 days of March 31, 2001.

## ***Share Option Plans***

We maintain the following share option plans for our and our subsidiaries' employees, directors and consultants. In addition to the discussion below, see Note 11 to our Consolidated Financial Statements.

### *Compugen Ltd. Employee Share Option Plan (1996)*

We have granted options to purchase up to 559,750 ordinary shares to our employees and consultants under the Compugen Ltd. Employee Share Option Plan (1996). As of May 31, 2001, options to purchase 472,250 ordinary shares remained outstanding under the plan at an exercise price of \$1.34. Of these options, 344,250 were held by the directors and officers listed under "Directors and Senior Management" above. These options expire ten years after the date of grant. If a grantee leaves his or her employment or other relationship with us or is terminated without cause, his or her unexercised vested options expire four weeks later. If we terminate the grantee for cause, the options expire immediately. We do not intend to grant additional options under this plan.

### *Compugen Share Option Plan (1998)*

Under the Compugen Share Option Plan (1998), we may grant options for up to an aggregate of 2,500,000 ordinary shares to employees, directors and consultants of Compugen and its subsidiaries. A committee of our board of directors administers the plan and designates all terms of the options, including the grantees, exercise prices, grant dates, vesting schedules and expiration dates, which may be no more than ten years after the grant date. Options may not be granted with an exercise price of less than the current fair market value of our ordinary shares unless otherwise determined by our board of directors. If the fair market value of our ordinary shares drops below the exercise price of any options previously granted, the committee may lower the exercise price of those options to the then-current fair market value. As of May 31, 2001, options to purchase 1,664,850 ordinary shares were outstanding under the plan at a weighted average exercise price of \$1.97 per share. Options to purchase 529,555 ordinary shares under the plan have previously been exercised at an exercise price of approximately \$1.35, and options to purchase 305,595 ordinary shares remain available for future grant. These options expire ten years after the date of grant. If a grantee leaves his or her employment or other relationship with us, his or her unexercised vested options expire 90 days later.

### *Compugen Share Option Plan (2000)*

Under the Compugen Share Option Plan (2000), we may grant options for up to an aggregate of 2,539,257 ordinary shares to our and our subsidiary's employees, directors and consultants. This total number will automatically increase each January 1 by the lesser of 1,500,000 shares or 4% of the total number of our then-outstanding shares or such lower amount as shall be determined by the board of directors. A committee of our board of directors administers the plan and designates all terms of the options, including the grantees, exercise prices, grant dates and vesting schedules. These options expire ten years after the date of grant. Options may not be granted with an exercise price of less than the fair market value of our ordinary shares on the date of grant, unless otherwise determined by our board of directors. If the fair market value of our ordinary shares drops below the exercise price of any options previously granted, the committee may lower the exercise price of those options to the then-current fair market value. If a grantee leaves his or her employment or other relationship with us, or if his or her relationship with us is terminated without cause, his or her unexercised options will expire three months later. As of May 31, 2001, options to purchase 2,334,950 ordinary shares were outstanding under the plan at a weighted average exercise price of \$5.85 per share. Options to purchase 204,307 ordinary shares remain available for future grant.

## ***Non-Plan Options***



In 1996, we granted options to purchase a total of 249,250 ordinary shares to three of our employees. 32,797 of these options were forfeited without being exercised in November 1999. In addition, 54,663 of these options have been exercised to date. The terms of these options are the same as those granted under the Compugen Share Option Plan (1998).

*Directors' Options*

Prior to our initial public offering, we adopted a plan to grant options to our directors, effective as of the closing of our initial public offering. Pursuant to such plan, effective as of the closing of our initial public offering, we granted options to purchase 20,000 ordinary shares at an exercise price of \$10.00 per share to all of our directors (on the date of the closing of our initial public offering) who are not employees or consultants. Of these options, options to purchase 1,250 ordinary shares vest at the end of every three-month period following the date of grant. Pursuant to this plan, we also grant each new non-employee director options to purchase 20,000 ordinary shares at the time he or she becomes a director. Of these options, options to purchase 5,000 ordinary shares will vest on the first anniversary of the grant date, and options to purchase 1,250 ordinary shares will vest at the end of every three-month period afterwards. Since the initial public offering we have granted options to three new directors under this plan: Neil Cohen, Orna Berry and David Schlachet. In addition, pursuant to the plan, we will grant each director options to purchase an additional 5,000 ordinary shares on each anniversary of the initial date of grant of options to such director. Of these options, options to purchase 1,250 ordinary shares will vest at the end of every three-month period during the fourth year after the date of grant. All of the options described above have been and will be granted under, and subject to, the terms of share option plans of Compugen in effect on the date of the grant of the option.

**ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**

**Major Shareholders**

The following table sets forth certain information regarding beneficial ownership of our ordinary shares as of June 18, 2001 by each person who is known by us to own beneficially more than 5% of our outstanding ordinary shares. The voting rights of our major shareholders do not differ from the voting rights of other holders of our ordinary shares.

<u>Beneficial Owner</u>	<u>Number of Ordinary Shares Beneficially Owned</u>	<u>Percent of Ownership</u>
Martin Gerstel(1)	1,505,653	5.8%
David Haselkorn Ph.D.(2)	3,045,498	11.7%
Philip Young(3)	1,965,250	7.6%
Clal Biotechnology Industries Ltd.(4)	3,041,748	11.7%
U.S. Venture Partners V, L.P.(5)	1,965,250	7.6%
Apax Partners & Co.(6)	1,384,615	5.3%

(1) Includes 550,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, and 545,653 shares held by Merrill Lynch IRA for Martin Gerstel, of which Martin Gerstel is the beneficiary. Based on information provided in the Form 13D filed with the Securities and Exchange Commission in March 2001.

(2) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 3,041,748 shares held by Clal Biotechnology Industries, an affiliate of Dr. Haselkorn. Dr. Haselkorn's address is c/o Clal Biotechnology Industries Ltd., 3 Azrieli Center, Tel Aviv 67023, Israel.

(3) Ownership consists of options to purchase 3,750 shares that are exercisable within 60 days of May 31, 2001 and 1,768,750 shares held by U.S. Venture Partners V, L.P., 98,250 shares held by USVP V

International, L.P., 55,000 shares held by 2180 Associates Fund V, L.P. and 43,250 shares held by USVP V Entrepreneur Partners, L.P. Philip Young is a managing member of Presidio Management Group V, L.L.C., the general partner of U.S. Venture Partners V, L.P., USVP V International, L.P., 2180 Associates Fund V, L.P. and USVP V Entrepreneur Partners, L.P. Mr. Young, the member of our board of directors, may be deemed beneficial owner of the reported shares but disclaims beneficial ownership in the shares held by these entities, except to the extent of any indirect pecuniary interest therein. The address of Mr. Young, Presidio Management Group V, LLC and its affiliated entities is c/o U.S. Venture Partners, 2180 Sand Hill Road, Suite 300, Menlo Park, California 94025.

- (4) The address of Clal Biotechnology Industries Ltd. is 3 Azrieli Center, Tel Aviv 67023, Israel. David Haselkorn, Ph.D. the member of our board of directors affiliated with Clal Biotechnologies Industries Ltd., may be deemed to be the natural person with voting or investment control over the shares held by this entity.
- (5) Ownership consists of 1,768,750 shares held by U.S. Venture Partners V, L.P., 98,250 shares held by USVP V International, L.P., 55,000 shares held by 2180 Associates Fund V, L.P. and 43,250 shares held by USVP V Entrepreneur Partners, L.P. Philip Young is a managing member of Presidio Management Group V, L.L.C., the general partner of U.S. Venture Partners V, L.P., USVP V International, L.P., 2180 Associates Fund V, L.P. and USVP V Entrepreneur Partners, L.P. Mr. Young may be deemed beneficial owner of the reported shares but disclaims beneficial ownership in the shares held by these entities, except to the extent of any indirect pecuniary interest therein. The address of Mr. Young, Presidio Management Group V, L.L.C. and its affiliated entities is c/o U.S. Venture Partners, 2180 Sand Hill Road, Suite 300, Menlo Park, California 94025.
- (6) The address of Apax Partners & Co. is P.O. Box 431, 13-15 Victoria Road, St. Peter Port Guernsey GY1 3ZD, United Kingdom.

As of June 18, 2001, there were a total of 75 holders of record of our Ordinary Shares, of which 34 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 66% of the outstanding Ordinary Shares.

### **Related Party Transactions**

It is our policy to enter into transactions with related parties on terms that, on the whole, are no less favorable than those that would be available from unaffiliated parties. Based on our experience in the business segments in which we operate and the terms of our transactions with unaffiliated third parties, we believe that all of the transactions described below met our policy standards at the time they occurred.

### ***Private Placement of Series C Preferred Shares***

We issued 5,538,462 Series C preferred shares on July 17, 2000 at a purchase price of \$6.50 per share, to Apax Partners & Co., Pequot Private Equity Fund II, L.P., Clal Biotechnology Industries Ltd., Evergreen Canada – Israel Management and certain of its affiliates, and Israel Growth Fund L.P. and certain of its affiliates. Upon the closing of the initial public offering of our Ordinary Shares, each Series C preferred share was converted into one Ordinary Share. See “Rights to Appoint Directors.”

### ***Rights to Appoint Directors***

In connection with their purchases of our ordinary shares, Series A preferred shares, series B preferred shares and Series C preferred shares, nearly all of our shareholders held rights to appoint members of our board of directors pursuant to the Articles of Association and an Amended and Restated Investor Rights Agreement dated July 17, 2000. Israel Seed Limited Partnership and its affiliated entities received the right to collectively appoint one member of our board of directors. In May 2001, Neil Cohen was elected by the board of directors to replace Jonathan Medved, who was the director appointed by these holders. In addition, Eli Mintz, Amir Natan and Simchon Faigler also received the right to collectively appoint one member of our board of directors. Eli Mintz is the director appointed by these holders. Our Chief Executive

Officer, currently Mor Amitai, also had the right to sit as a member of our board of directors. Philip Young, a general partner of U.S. Venture Partners, and Amos Goren, a general partner of Apax Leumi Partners, an affiliate of Israel Growth Fund LP, were appointed by the Series A preferred shareholders. David Haselkorn, Chief Executive Officer of Clal Biotechnology Industries Ltd., and Avi Shachar, Senior Business Manager of Poalim Investments Ltd., were appointed by the Series B preferred shareholders. Zev Scherl, a Vice President of Pequot Capital Management, an affiliate of Pequot Private Equity Fund II, L.P., who served as a director until May 2001, was appointed by the Series C preferred shareholders. For a further description of the beneficial ownership and relationships to Compugen of persons described in this section, see "Item 6. Directors, Senior Management and Employees" and "Item 7. Major Shareholders and Related Party Transactions; Major Shareholders."

Upon the closing of the initial public offering of our Ordinary Shares on August 11, 2001, all rights to appoint directors granted by the Investor Rights Agreement expired, and our Articles of Association were amended to remove these rights. Unless they earlier resign or are removed in accordance with our Articles of Association, all of these directors will serve as directors until our next annual general meeting of shareholders, which we intend to hold in August 2001

#### ***Amended and Restated Investor Rights Agreement***

All of the holders of our preferred shares and some of the holders of our Ordinary Shares prior to the initial public offering are parties to an Amended and Restated Investor Rights Agreement dated July 17, 2000. Under the Investor Rights Agreement and the Articles of Association in effect until August 11, 2001, in addition to the rights to appoint directors described above, these shareholders and the classes of shares had, among other rights and obligations: restrictions on transfers of their shares; rights to regular accrual, but not payment, of dividends; registration rights; rights to approve major transactions, issuances of securities or dividend payments on ordinary shares; rights to receive regular financial information from us; rights to invest in a spin-off company from us; and preemptive rights and rights of first refusal. These rights and obligations terminated upon the closing of the initial public offering of our Ordinary Shares on August 11, 2000, except for the registration rights contained in the Investor Rights Agreement, which are described below, and the right of one investor to receive financial information from us.

#### ***Registration Rights***

Under the terms of the Investor Rights Agreement, the holders of registration rights are entitled to request that we effect the registration of their Compugen ordinary shares under the Securities Act. At the request of any holder of demand registration rights, we must use our best efforts to register at least 20% of the shares held by that holder if they are not freely tradable under the Securities Act. These demand rights may be exercised at least six months following any other registration of our shares. Certain groups of shareholders may only make one demand for us to register shares. Other of our shareholders and a warrant holder will have the right to include their shares in these registrations, subject to specified limitations.

At any time when we are eligible to register securities on Form F-3, subject to specified exceptions, the holders of registration rights will have the right to request that we register their ordinary shares that are not freely tradable under the Securities Act. The minimum aggregate offering price of the securities to be registered is at least \$500,000.

The holders of registration rights will also have the right to include their shares in any registration statements filed by us for purposes of a public offering, subject to specified limitations. An underwriter participating in an offering may limit the number of shares offered for marketing reasons, in which case the number of shares to be registered would be reduced pro rata among the holders requesting registration of their shares.

We will pay all expenses in connection with any registration, other than underwriting fees or discounts. These registration rights are transferable under specified circumstances and may be amended or waived

only with our written consent and a specified number of the affected holders.

### ***Consulting Agreement with Shomar Corporation***

In October 1998, we entered into a two-year consulting agreement with Shomar Corporation, a company controlled by Martin S. Gerstel, our Chairman and Chief Financial Officer and a director. The agreement renews automatically each year unless terminated by either party. Under the agreement, as amended, Mr. Gerstel provides consulting services to us and is required to devote at least 50% of his business time to us. As compensation for his services under this agreement, we pay Shomar Corporation an annual consulting fee of \$150,000, plus reimbursement of Mr. Gerstel's reasonable out-of-pocket expenses. The agreement includes nondisclosure and noncompetition obligations in favor of us. In February 1999, our shareholders ratified our board's decisions to grant Mr. Gerstel options to purchase an aggregate of 500,000 of our ordinary shares at a price of \$1.35 per share. All of these options have been exercised. If Mr. Gerstel ceases for any reason to be our Chairman, then Compugen or its shareholders as of January 2000 may require Shomar Corporation to sell some of these shares back to us or those shareholders as of January 2000 at a price of \$1.35 per share. As of May 31, 2001, 83,333 of these shares were subject to this repurchase right, and this number declines ratably to zero between June 1, 2000 and January 1, 2002. Mr. Gerstel does not receive any other compensation for his services to us.

### ***Loans and Options Among Shareholders***

In March 1999, two of our officers and one other shareholder executed promissory notes in favor of five of our other existing shareholders. In connection with the promissory notes, the borrowers entered into option agreements under which the lenders had the right to purchase a portion of the shares pledged by each borrower to secure the promissory notes. These options were exercised immediately preceding the closing of our initial public offering.

## **ITEM 8. FINANCIAL INFORMATION**

### **Consolidated Statements and Other Financial Information**

Our consolidated financial statements are incorporated herein by reference to pages F-1 through F-23.

### ***Legal Proceedings***

Currently, we are not a party to any material pending legal proceedings.

### ***Dividend Distributions***

We have never paid any cash dividends on our Ordinary Shares and we do not intend to pay cash dividends on our Ordinary Shares in the foreseeable future. Our current policy is to retain earnings for use in our business.

In the event that we decide to pay a cash dividend from income that is tax exempt under our approved enterprise status, we would be liable for corporate tax on the amount distributed at the rate of up to 25%. See Note 15 to our Consolidated Financial Statements and "Item 10. Taxation." Cash dividends may be paid by an Israeli company only out of retained earnings as calculated under Israeli law.

### **Significant Changes**

No significant changes have occurred since the date of the consolidated financial statements included in this annual report.

## **ITEM 9. THE OFFER AND LISTING**

## Price History of the Stock and Markets

The regulated market for our Ordinary Shares is the Nasdaq National Market, where our shares have been listed and traded under the symbol “CGEN” Since our initial public offering in August 2000. The following table sets forth, for the periods indicated, the high and low reported sales prices of the Ordinary Shares on the Nasdaq National Market:

<b>Period</b>	<b>High</b>	<b>Low</b>
May 2001	\$6.050	\$3.850
April 2001	\$5.000	\$3.125
March 2001	\$5.375	\$3.125
February 2001	\$8.625	\$5.000
January 2001	\$7.750	\$5.188
December 2000	\$8.125	\$5.063
Fourth Quarter 2000	\$14.000	\$5.063
Third Quarter 2000	\$19.500	\$10.063

## ITEM 10. ADDITIONAL INFORMATION

### Memorandum and Articles of Association

#### *Objects and Purposes of the Company*

We are registered under the Israel Companies Law as a public company with the name Compugen Ltd. and registration number 51-177-963-9. The objective stated in our articles of association is to engage in any lawful activity.

#### *Powers of the Directors*

Pursuant to the Israel Companies Law and our articles of association, a director is not permitted to vote on a proposal, arrangement or contract in which he or she is materially interested. Also, the directors may not vote compensation to themselves or any members of their body without the approval of our audit committee and our shareholders at a general meeting. The requirements for approval of certain transactions are set forth above in “Item 6. Directors, Senior Management and Employees; Directors and Senior Management; Approval of Certain Transactions”. The powers of our directors to enter into borrowing arrangements on our behalf is limited to the same extent as any other transaction by us.

#### *Rights Attached to Ordinary Shares*

Our authorized share capital consists of 50,000,000 Ordinary Shares, par value NIS 0.01 per share. Holders of Ordinary Shares have one vote per share, and are entitled to participate equally in the payment of dividends and share distributions and, in the event of our liquidation, in the distribution of assets after satisfaction of liabilities to creditors. No preferred shares are currently authorized. All outstanding Ordinary Shares are validly issued and fully paid.

Immediately prior to the date of our initial public offering in August 2000, there were Series A, Series B and Series C preferred shares and Ordinary Shares issued and outstanding. Upon completion of our initial public offering, all of our outstanding preferred shares were automatically converted into an aggregate of 13,744,581 Ordinary Shares, and the entire authorized share capital of the Company immediately prior to the completion of the offering consisted of 50,000,000 Ordinary Shares.

#### *Transfer of Shares and Notices*

Fully paid ordinary shares are issued in registered form and may be freely transferred under our Articles of Association unless the transfer is restricted or prohibited by another instrument. Our Articles of Association provide that each shareholder of record is entitled to receive at least 21 days' prior notice of any shareholders' meeting.

### ***Dividend and Liquidation Rights***

We may declare a dividend to be paid to the holders of Ordinary Shares according to their rights and interests in our profits. In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of Ordinary Shares in proportion to the nominal value of their holdings. This right may be affected by the grant of preferential dividend or distribution rights to the holders of a class of shares with preferential rights that may be authorized in the future. Under the Companies Law, the declaration of a dividend does not require the approval of the shareholders of the company, unless the company's Articles of Association require otherwise. Our Articles of Association provide that the board of directors may declare and distribute dividends without the approval of the shareholders.

### ***Annual and Extraordinary General Meetings***

We must hold our annual general meeting of shareholders each year no later than 15 months from the last annual meeting, at a time and place determined by the board of directors, upon at least 21 days' prior notice to our shareholders. A special meeting may be convened by request of two directors or by written request of one or more shareholders holding at least 5% of our issued share capital and 1% of the voting rights or one or more shareholders holding at least 5% of the voting rights. Shareholders requesting a special meeting must submit their proposed resolution with their request. Within 21 days of receipt of the request, the Board must convene a special meeting and send out notices setting forth the date, time and place of the meeting. Such notice must be given at least 21 days but not more than 35 days prior to the special meeting.

The quorum required for a meeting of shareholders consists of at least two shareholders present in person or by proxy who hold or represent between them at least 33.3% of the issued share capital. A meeting adjourned for lack of a quorum generally is adjourned to the same day in the following week at the same time and place or any time and place as the directors designate in a notice to the shareholders. At the reconvened meeting, the required quorum consists of any two members present in person or by proxy.

### ***Voting Rights***

Our Ordinary Shares do not have cumulative voting rights in the election of directors. As a result, the holders of ordinary shares that represent more than 50% of the voting power represented at a shareholders meeting have the power to elect all of our directors, except the outside directors whose election requires a special majority as described under the section entitled "Item 6. Directors, Senior Management and Employees; Board Practices; Outside and Independent Directors."

Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders. Shareholders may vote in person or by proxy. These voting rights may be affected by the grant of any special voting rights to the holders of a class of shares with preferential rights that may be authorized in the future.

Under the Companies Law, unless otherwise provided in the Articles of Association or by applicable law, all resolutions of the shareholders require a simple majority and all shareholders' meetings require prior notice of at least 21 days. Our Articles of Association provide that all decisions may be made by a simple majority. See "Item 6. Directors, Senior Management and Employees; Directors and Senior Management; Approval of Certain Transactions" above for certain duties of shareholders towards the company.

### ***Limitations on the Rights to Own Securities***

The ownership or voting of ordinary shares by non-residents of Israel is not restricted in any way by our articles of association or the laws of the State of Israel, except that nationals of countries which are, or have been, in a state of war with Israel may not be recognized as owners of Ordinary Shares.

#### ***Anti-Takeover Provisions under Israeli Law***

The Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would become a 25% shareholder of the company. This rule does not apply if there is already another 25% shareholder of the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would become a 45% shareholder of the company, unless there is a 50% shareholder of the company. These rules do not apply if the acquisition is made by way of a merger. Regulations promulgated under the Companies Law provide that these tender offer requirements do not apply to companies whose shares are listed for trading outside of Israel if, according to the law in the country in which the shares are traded, including the rules and regulations of the stock exchange or which the shares are traded, either:

- there is a limitation on acquisition of any level of control of the company; or
- the acquisition of any level of control requires the purchaser to do so by means of a tender offer to the public.

Finally, Israeli tax law treats specified acquisitions, including a stock-for-stock swap between an Israeli company and a foreign company, less favorably than does U.S. tax law. For example, Israeli tax law may subject a shareholder who exchanges his ordinary shares for shares in a foreign corporation to immediate taxation.

#### **Material Contracts**

##### ***Series C Share Purchase Agreement***

In July 2000, we completed a private placement of 5,538,462 Series C preferred shares at a price of \$6.50 per share, for aggregate consideration of approximately \$36.0 million (\$35.4 million net of issuance expenses). We issued the 5,538,462 Series C preferred shares to Apax Partners & Co., Pequot Private Equity Fund II, L.P., Clal Biotechnology Industries Ltd., Evergreen Canada – Israel Management and certain of its affiliates, and Israel Growth Fund L.P. and certain of its affiliates. Upon the closing of the initial public offering of our ordinary shares, each Series C preferred share was converted into one ordinary share.

##### ***Underwriting Agreement***

In August 2000, we entered into an underwriting agreement with FleetBoston Robertson Stephens Inc., U.S. Bancorp Piper Jaffray Inc. and Invemed Associates LLC, the representatives of the several underwrites of our initial public offering, pursuant to which these underwriters purchased a total of 5,000,000 of our ordinary shares at a price of \$10.00 per share, less the underwriters discount. As part of the underwriting agreement, we granted to the underwriters an option, exercisable during the 30-day period following the date of the prospectus, to purchase up to 750,000 additional ordinary shares at the same price per share. This option was exercised in September 2000.

#### **Exchange Controls**

Under the Israeli Currency Control Law, 1978, and the “general permit” issued pursuant thereto in May 1998, substantially all transactions in foreign currency are permitted. Non-residents of Israel who purchase Ordinary Shares with certain non-Israeli currencies (including dollars) may freely repatriate in such non-Israeli currencies all amounts received in Israeli currency in respect of the Ordinary Shares, whether as a dividend, as a liquidating distribution, or as proceeds from any sale in Israel of the Ordinary Shares, provided in each case that any applicable Israeli income tax is paid or withheld on such amounts. The conversion into the non-Israeli currency must be made at the rate of exchange prevailing at the time of conversion.

### **Israeli Tax Considerations**

The following discussion refers to the current tax law applicable to companies in Israel, with special reference to its effect on us. This discussion also includes specified Israeli tax consequences to holders of our ordinary shares and Israeli Government programs benefiting us. To the extent that the discussion is based on new tax legislation that has not been subject to judicial or administrative interpretation, we cannot assure you that the views expressed in the discussion will be accepted by the tax authorities in question. The following discussion of Israeli tax considerations is not intended and should not be construed as legal or professional tax advice and does not exhaust all possible tax considerations.

In 2000, a comprehensive tax reform plan was proposed by the Israeli government; the draft legislation that followed this proposal has not yet been enacted and it is not known if, when and in what form that legislation will eventually be enacted.

### ***General Corporate Tax Structure***

Israeli companies are generally subject to company tax at the rate of 36% of taxable income. However, the effective tax rate payable by a company which derives income from an approved enterprise may be considerably less, as discussed further below.

### ***Tax Benefits Under the Law for the Encouragement of Capital Investments, 1959***

The Law for the Encouragement of Capital Investment, 1959, as amended, commonly referred to as the Investment Law, provides that a proposed capital investment in eligible facilities may, upon application to the Investment Center of the Ministry of Industry and Trade of the State of Israel, be designated as an approved enterprise. Each certificate of approval for an approved enterprise relates to a specific investment program delineated both by its financial scope, including its capital sources, and by its physical characteristics, for example, the equipment to be purchased and utilized under the program. The tax benefits derived from any certificate of approval relate only to taxable income attributable to the specific approved enterprise. If a company has more than one approval or only a portion of its capital investments is approved, its effective tax rate is the result of a weighted average of the applicable rates.

Taxable income of a company derived from an approved enterprise is subject to company tax at the maximum rate of 25%, rather than 36%, for the benefit period. This period is ordinarily seven years, or ten years if the company qualifies as a foreign investors' company as described below, commencing with the year in which the approved enterprise first generates taxable income. However, this period is limited to 12 years from commencement of production or 14 years from the date of approval, whichever is earlier.

A company owning an approved enterprise may elect to forego entitlement to grants otherwise available as a result of an approved enterprise in return for an alternative package of benefits. Under the alternative package of benefits, a company's undistributed income derived from an approved enterprise will be exempt from company tax for a period of between two and ten years from the first year of taxable income, depending on the geographic location of the approved enterprise within Israel, and the company will be eligible for a reduced tax rate for the remainder of the benefits period. The proposed tax reform, if enacted, would replace this exemption with tax rates of 0%, 5% or 10% depending on the geographic location of the enterprise.



A company that has elected the alternative package of benefits and that subsequently pays a dividend out of income derived from the approved enterprise during the tax exemption period will be subject to tax on the amount distributed, including any Company tax on these amounts, at the rate which would have been applicable had it not elected the alternative package of benefits, generally 10%-25%, depending on the percentage of the company's shares held by foreign shareholders. The dividend recipient is taxed at the reduced rate applicable to dividends from approved enterprises, which is 15%, if the dividend is distributed during the tax exemption period or within 12 years after this period, or in the case of a foreign investors' company, without time limitation. The company must withhold this tax at source, regardless of whether the dividend is converted into or paid in foreign currency.

A company that has an approved enterprise program is eligible for further tax benefits if it qualifies as a foreign investors' company. A foreign investors' company is a company more than 25% of whose share capital and combined share and loan capital is owned by non-Israeli residents. A company which qualifies as a foreign investors' company and has an approved enterprise program is eligible for tax benefits for a ten year benefit period. The company tax rate applicable to income earned from approved enterprise programs in the benefit period by a company meeting these qualifications is as follows:

<u>For a company with foreign investment of</u>	<u>Company Tax Rate</u>
Over 25% but less than 49% .....	25%
49% or more but less than 74% .....	20%
74% or more but less than 90% .....	15%
90% or more .....	10%

Pursuant to the above mentioned tax reform proposal, foreign investors' companies would no longer be entitled to preferential tax treatment.

Subject to applicable provisions concerning income under the alternative package of benefits, all dividends are considered to be attributable to the entire enterprise and their effective tax rate is the result of a weighted average of the various applicable tax rates. Under the Investment Law, a company that has elected the alternative package of benefits is not obliged to distribute exempt retained profits, and may generally decide from which year's profits to declare dividends. We currently intend to reinvest any income derived from our approved enterprise programs and not to distribute the income as a dividend.

The Investment Center bases its decision whether or not to approve an application on the criteria set forth in the Investment Law and regulations, the then prevailing policy of the Investment Center, and the specific objectives and financial criteria of the applicant. Therefore, we cannot assure you that any applications we may make in the future will be approved. In addition, the benefits available to an approved enterprise are conditioned upon the fulfillment of conditions stipulated in the Investment Law and its regulations and in the criteria in the specific certificate of approval, as described above. If a company does not meet these conditions, it would be required to refund the amount of tax benefits, together with consumer price index linkage adjustment and interest.

The Investment Center has granted approved enterprise status to three of our investment programs. Taxable income derived from these programs will be tax exempt for a period of two years beginning with the year in which we first generate taxable income, and thereafter will be subject to a reduced tax rate of 25% or less, if we qualify as a foreign investors' company, for a period of between five and eight years, depending on the percentage of our capital held by non-Israeli shareholders. We have derived, and expect to continue to derive, a substantial portion of our revenues from our approved enterprise programs. To date, we have not generated taxable revenues, from our approved enterprise programs or otherwise.

***Tax Benefits for Research and Development***

Israeli tax law allows, under specific conditions, a tax deduction in the year incurred for expenditures, including capital expenditures, relating to scientific research and development projects, if the expenditures

are approved by the relevant Israeli government ministry, determined by the field of research, and the research and development is for the promotion of the company and is carried out by or on behalf of the company seeking the deduction. Expenditures not so approved are deductible over a three-year period. However, expenditures made out of proceeds made available to us through government grants are not deductible.

### ***Tax Benefits Under the Law for the Encouragement of Industry (Taxes), 1969***

The Law for the Encouragement of Industry (Taxes), 1969, generally referred to as the Industry Encouragement Law, provides several tax benefits for industrial companies. An industrial company is defined as a company resident in Israel, at least 90% of the income of which in a given tax year exclusive of income from specified government loans, capital gains, interest and dividends, is derived from an industrial enterprise owned by it. An industrial enterprise is defined as an enterprise whose major activity in a given tax year is industrial production activity.

Under the Industry Encouragement Law, industrial companies are entitled to a number of corporate tax benefits, including:

- deduction of purchase of know-how and patents over an eight-year period; and
- right to elect, under specified conditions, to file a consolidated tax return with additional related Israeli industrial companies and an industrial holding company.

Under some tax laws and regulations, an industrial enterprise may be eligible for special depreciation rates for machinery, equipment and buildings. These rates differ based on various factors, including the date the operations begin and the number of work shifts. An industrial company owning an approved enterprise may choose between these special depreciation rates and the depreciation rates available to the approved enterprise.

Eligibility for benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority.

We believe that we currently qualify as an industrial company within the definition of the Industry Encouragement Law. We cannot assure you that we will qualify or, if we qualify, that we will continue to qualify as an industrial company or that the benefits described above will be available to us in the future.

### ***Special Provisions Relating to Taxation under Inflationary Conditions***

The Income Tax Law (Inflationary Adjustments), 1985, generally referred to as the Inflationary Adjustments Law, represents an attempt to overcome the problems presented to a traditional tax system by an economy undergoing rapid inflation. The Inflationary Adjustments Law is highly complex. Its features which are material to us can be described as follows:

- There is a special tax adjustment for the preservation of equity which classifies corporate assets into fixed assets and non-fixed assets. Where a company's equity, as defined in the law, exceeds the depreciated cost of fixed assets, a deduction from taxable income that takes into account the effect of the applicable annual rate of inflation on the excess is allowed up to a ceiling of 70% of taxable income in any single tax year, with the unused portion permitted to be carried forward on a linked basis. If the depreciated cost of fixed assets exceeds a company's equity, then the excess multiplied by the applicable annual rate of inflation is added to taxable income.
- subject to specified limitations, depreciation deductions on fixed assets and losses carried forward are adjusted for inflation based on the increase in the consumer price index.
- Gains on traded securities, which are normally exempt from tax, are taxable in specified circumstances.

### ***Capital Gains Tax on Sales of Our Ordinary Shares***

Israeli law imposes a capital gains tax on the sale of capital assets. The law distinguishes between real gain and inflationary surplus. The inflationary surplus is a portion of the total capital gain that is equivalent to the increase of the relevant asset's purchase price which is attributable to the increase in the Israeli consumer price index between the date of purchase and the date of sale. The real gain is the excess of the total capital gain over the inflationary surplus. The inflationary surplus accumulated from and after December 31, 1993, is exempt from any capital gains tax in Israeli while the real gain is added to ordinary income, which is taxed at ordinary rates of 30% to 50% for individuals and 36% for corporations.

Under current law, sales of our ordinary shares, which were purchased pursuant to a prospectus or were quoted on a recognized exchange when they were purchased, are exempt from Israeli capital gains for so long as these shares are quoted on the Nasdaq National Market or listed on a stock exchange in specified countries and we qualify as an industrial company. We cannot assure you that we currently hold or will maintain this qualification or our status as an industrial company. This exemption does not apply to dealers in securities in Israel and persons subject to the Adjustment Law who are taxed at regular tax rates. Pursuant to the proposed tax reform, this exemption would no longer apply; subject to any lower tax rate that may apply pursuant to the provisions of any applicable double taxation treaty, individuals would be taxed at their marginal rate up to a maximum rate of 25%.

Under the income tax convention between the government of the United States of America and the government of Israel with respect to taxes on income, the sale, exchange or disposition of ordinary shares by a person who qualifies as a resident of the United States within the meaning of the U.S.-Israel tax treaty and who is entitled to claim the benefits afforded to the person by the U.S.-Israel tax treaty generally will not be subject to the Israeli capital gains tax unless the U.S. resident holds, directly or indirectly, shares representing 10% or more of our voting power during any part of the 12-month period preceding the sale, exchange or disposition, subject to specified conditions. Gain from a sale, exchange or disposition of ordinary shares by a treaty U.S. resident who holds, directly or indirectly, shares representing 10% or more of our voting power at any time during the preceding 12-month period would be subject to Israeli tax, to the extent applicable and subject to the general exemption described in the previous paragraph; however, under the U.S.-Israel tax treaty, the U.S. resident would be permitted to claim a credit for the taxes against the U.S. federal income tax imposed with respect to the sale, exchange or disposition, subject to the limitations in U.S. laws applicable to foreign tax credits. The U.S.-Israel tax treaty does not apply to U.S. state or local taxes.

### ***Taxation of Non-Resident Holders of Shares***

Non-residents of Israel are subject to income tax on income accrued or derived from sources in Israel. These sources of income include passive income, including dividends, royalties and interest, as well as non-passive income from services rendered in Israel. On distribution of dividends other than bonus shares or stock dividends, income tax is withheld at source, at the rate of 25%, or 12.5% for dividends not generated by an approved enterprise if the non-resident is a U.S. corporation and holds at least 10% of our voting power, and 15% for dividends generated by an approved enterprise, unless in each case a different rate is provided in a treaty between Israel and shareholder's country of residence. Under the U.S.-Israel tax treaty, the maximum tax on dividends paid to a holder of ordinary shares who is a U.S. resident will be 25%. However, under the Investment Law, dividends generated by an approved enterprise are taxed at the rate of 15%.

### **Documents on Display**

We are required to file reports and other information with the SEC under the Securities Exchange Act of 1934 and the regulations thereunder applicable to foreign private issuers. You may inspect and copy

reports and other information filed by us with the SEC at the SEC's public reference facilities described below. Although as a foreign private issuer we are not required to file periodic information as frequently or as promptly as United States companies, we generally announce publicly our quarterly and year-end results promptly and file periodic information with the SEC under cover of Form 6-K. As a foreign private issuer, we are also exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements and our officers, directors and principal shareholders are exempt from the reporting and other provisions in Section 16 of the Exchange Act.

You may review a copy of our filings with the SEC, including any exhibits and schedules, at the SEC's public reference facilities in Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the regional offices of the SEC located at 7 World Trade Center, 13th Floor, New York, New York 10048 and at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. You may also obtain copies of such materials from the Public Reference Section of the SEC, Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. You may call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. As a foreign private issuer we are not required to file through the SEC's EDGAR system and our periodic filings are therefore not available on the SEC's Web site. You may read and copy any reports, statements or other information that we file with the SEC at the SEC facilities listed above. These SEC filings are also available to the public from commercial document retrieval services.

Any statement in this annual report about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to this annual report, the contract or document is deemed to modify the description contained in this annual report. We urge you to review the exhibits themselves for a complete description of the contract or document.

## **ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

### **Interest Rate Risk**

At December 31, 2000, we were not exposed to any material interest rate risk.

### **Foreign Currency Exchange Risk and Inflation**

Since the majority of our revenues are paid in U.S. dollars, we believe that inflation and fluctuations in the NIS/U.S. dollar exchange rate have no material effect on our revenues. We incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israeli Shekels, or NIS. As a result, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the U.S. dollar or that the timing of this devaluation lags behind inflation in Israel. In addition, we are exposed to the risk that the U.S. dollar will be devalued against the NIS. We try to protect ourselves against this possibility by investing a portion of our cash in NIS deposits. To date, we have not been materially affected by changes in the Israeli rate of inflation or the exchange rates of the NIS compared to the U.S. dollar.

### **Market Risk**

We do not currently use financial instruments for trading purposes and do not currently hold any derivative financial instruments that could expose us to significant market risk.

## **ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

Not applicable.

## PART II

### ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

### ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

#### Material Modifications to the Rights of Security Holders

None.

#### Use of Proceeds

The effective date of the registration statement for which the information is being disclosed is August 11, 2000 (Commission file number 333-12316). The underwriters were FleetBoston Robertson Stephens Inc., U.S. Bancorp Piper Jaffray Inc. and Invemed Associates LLC.

We issued 5,750,000 Ordinary Shares (including the exercise of the over-allotment option by the underwriters), at a price of \$10 per share, for an aggregate consideration of approximately \$57.5 million.

In connection with the issuance and distribution of the registered securities, we incurred total expenses of approximately \$6.4 million, consisting of \$4.025 million in underwriting discounts and commissions, and \$2.375 million for other expenses. None of such expenses were paid directly or indirectly to directors, officers, persons owning 10% or more of any class of our equity securities or to our affiliates. The net public offering proceeds to us were \$51.1 million.

Between August 11, 2000 and December 31, 2000, none of the proceeds were used. Pending use of the proceeds for research and development, sales and marketing, working capital and other general corporate purposes, such proceeds were invested in short-term, interest-bearing investment grade and U.S. government securities.

ITEM 15. [RESERVED]

ITEM 16. [RESERVED]

**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

We have elected to furnish financial statements and related information specified in Item 18.

**ITEM 18. FINANCIAL STATEMENTS**

See pages F-1 to F-23.

**ITEM 19. EXHIBITS**

**Index to Exhibits**

<u>Exhibit Number</u>	<u>Description</u>
*1.1	Form of Articles of Association of Registrant (post offering)
10.1	Auditors Consent dated June 27, 2001.

\* Incorporated by reference to our registration statement on Form F-1, registration number 333-12316, as amended, filed with the Securities and Exchange Commission.

## SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant certifies that it meets all the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized on this 27th day of June 2001.

### COMPUGEN LTD.

By:

\_\_\_\_\_ /s/

Mor Amitai, Ph.D  
*President, Chief Executive  
Officer and Director*