COMPUGEN LTD
Form 20-F
February 28, 2005

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, 2004**

**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:

27,726,022 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 [x] No [ ]

Indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 [ ] Item 18 [x]

**TABLE OF CONTENTS**

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, and on our current intentions, beliefs, expectations and projections about future events. We assume no obligation to update any such forward-looking statements. 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 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 under "Item 3. Key Information. Risk Factors", the information about us set forth under "Item 4. Information about the Company", and information related to our financial condition under "Item 5. Operating and Financial Review and Prospects."

Compugen Ltd. is referred to in this annual report as "we", "our" or "us".

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

# 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**

| | Year ended December 31 | | | | |
|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 |
| | **($ in thousands, except share and per share data)** | | | | |
| **Consolidated Statements of Operations Data** | | | | | |
| Revenues | $ 6,891 | $ 10,366 | $ 9,262 | $ 6,776 | $ 2,630 |
| Governmental and other grants | 466 | 994 | 1,835 | 2,050 | 1,397 |
| Total revenues and grants | 7,357 | 11,360 | 11,097 | 8,826 | 4,027 |
| Total operating expenses ** | 23,533 | 30,379 | 26,141 | 23,042 | 19,604 |
| Operating loss | (16,176) | (19,019) | (15,044) | (14,216) | (15,577) |
| Net loss | $ (13,404) | $ (15,144) | $ (12,204) | $ (11,442) | $ (13,722) |

| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2000(*) | 2001(*) | 2002(*) | 2003(*) | 2004 |
| | | | **($ in thousands)** | | |
| **Consolidated Balance Sheet Data:** | | | | | |
| Cash and cash equivalents, short-term bank deposits and marketable securities | $90,675 | $32,347 | $48,402 | $16,707 | $20,574 |
| Long-term investments in marketable securities and bank deposits | - | 46,148 | 18,940 | 43,803 | 27,854 |
| Total assets | 97,872 | 87,289 | 77,257 | 67,526 | 55,353 |
| Accumulated deficit | (53,244) | (68,388) | (80,592) | (92,034) | (105,756) |
| Total shareholders' equity | 92,510 | 80,062 | 68,881 | 59,808 | 49,566 |

(*) Reclassified.

(**) Includes deferred stock compensation. See Note 10 of our 2004 consolidated financial statements.

For additional financial data, see "Item 5. Operating and Financial Review and Prospects. Results of Operations".

**Risk Factors**

Many factors could affect our financial condition, cash flows and results of operations. We are subject to various risks resulting from changing economic, political, social, industry, business and financial conditions. The principal risks are described below.

***Factors Related to our Financial Results and Financing Needs***

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

We incurred net losses of approximately $12.2 million in 2002, $11.4 million in 2003 and $13.7 million in 2004. As of December 31, 2004, we had an accumulated deficit of approximately $80.9 million (not including approximately $24.9 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 in the future due in part to the costs and expenses associated with our research and development activities. 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.

**We may be required to allocate substantial additional funds in the future to our discovery and development activities, but we may never be able to achieve profitability.**

We discover and intend to carry out early stage development of therapeutic and diagnostic product candidates. Product candidates are molecules that we discover and that we identify as having a potential therapeutic or diagnostic application. In 2004, we allocated a substantial portion of our cash and other resources to our discovery and development activities. To date, these activities have generated only negligible revenues. These activities may never generate significant revenues and we may never achieve profitability. Although we intend to allocate additional cash and other resources to our discovery and development activities, we do not anticipate that this funding will enable us to achieve profitability in the near future. As a result, we may need additional funds to continue financing our discovery and development activities. If we are unable to obtain the required additional financing, whether internally or from third parties, on commercially reasonable terms, we may have to curtail or cease our discovery and development activities, and our business will likely be materially harmed.

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

As of December 31, 2004, we had cash and cash equivalents, and short-term marketable securities of approximately $20.6 million, and long-term marketable securities of approximately $27.8 million. Based on our current projections, we anticipate that our existing cash and cash equivalents, and short-term and long-term marketable securities will be sufficient to support our operations for at least the next two years. However, we cannot assure you that we will not need to raise additional capital within the next two years or that we would be able to raise sufficient additional capital on favorable terms, if at all. If we raise additional capital by issuing equity securities, our shareholders may experience dilution. If we fail to raise sufficient funds, we will likely have to curtail or cease operations, which would materially harm our business and financial results.

**If our wholly-owned subsidiary, Keddem Bioscience Ltd., will not be able to raise capital in the near future, it may have to cease operations, in which case all of our investments made in Keddem Bioscience`s business to date will be lost and our financial results may be harmed.**

In 2004, we turned our chemistry division, which was engaged in small-molecule drug discovery, into a wholly-owned subsidiary, Keddem Bioscience Ltd. The transaction was effected by us transferring to Keddem Bioscience all of our assets and liabilities that were dedicated to the operation of our chemistry division. In connection with this transaction, we agreed to loan to Keddem Bioscience $1,530,000. We currently seek to raise third party funding for Keddem. The continuation of Keddem Bioscience`s operations depends on raising additional capital in order to continue its operations.

If Keddem Bioscience fails to raise additional capital in the near future, it will likely need to cease its operations. If so, our investments in Keddem Bioscience will be lost, and this is likely to harm our financial results.

***Factors Related to our Discovery and Development Activities and to the Commercialization of our Discoveries***

**Our approach of incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine for the purpose of discovery and development of novel therapeutic and diagnostic product candidates, is itself novel and has not yet been fully proven or validated. If this approach does not prove to be successful our business will be significantly harmed.**

We believe we are a leader in incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine. We attempt to discover novel potential therapeutic proteins and diagnostics markers on the basis of which our collaborators and licensees may be able to develop novel drugs and diagnostic products. By using this approach, we have already predicted discoveries *in silico*, which means prediction by computers. We have also initially validated the existence in nature of some of these predictions, and we have also partially validated the suitability for diagnostic application of some of the diagnostic product candidates that we discovered *in silico*. However, our approach has not yet been proven or validated beyond that initial validation.

If our approach is proven to be ineffective for making discoveries or not as effective as other methods, or if our potential customers or collaborators will not accept that our approach provides value to them, we may fail to make discoveries or commercialize discoveries that we make, and, as a result, our business will likely be significantly harmed.

**We may never make discoveries that will be suitable for development into therapeutic and diagnostic products, and if we do not, our business may be significantly harmed and we may cease operations.**

Even if our approach to discovering therapeutic and diagnostic product candidates by incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine proves to be effective, and even though we have initially validated some of our *in silico* predictions, our discoveries may be proven to be unsuitable for the development into revenue-producing products by our collaborators and licensees.

For example, one of the criteria that we apply when choosing our potential therapeutic product candidates is that such candidates must be a variant of a gene from which a known protein is derived. In focusing on such variants, we hope to benefit from the availability of biological and medical information that relate to the biology and use of the known protein. However, to date, it has not been proven that such a variant is likely to have similar or more advantageous pharmacological characteristics or uses as the known protein to which it relates. Another example of one of the criteria that we apply when choosing one type of potential diagnostic product candidates is that such candidates must be secreted into the blood stream. However, mere presence of a candidate molecule in blood does not necessarily ensure that it will be easily and reliably detectable in blood.

If our approach of choosing variants of known proteins proves to be ineffective, we may fail to discover therapeutic and diagnostic product candidates that are suitable for the development of revenue-producing products by our collaborators and licensees, and as a result our business will likely fail or we will likely never become profitable.

**There are risks that are inherent in the development and commercialization of therapeutic and diagnostic products, and if these risks materialize, our business and financial results may be materially harmed.**

Even if we are able to continue to discover new therapeutic or diagnostic product candidates, our collaborators or licensees may not be able to develop new products based on our discoveries. Even if our collaborators or licensees are able to develop such products, our collaborators or licensees may not be able to commercialize them.

We face a number of risks of failure that are inherent in the process of developing and commercializing therapeutic and diagnostic products. These risks include the possibility that:

our product candidates will be found to be pharmacologically ineffective or to be toxic or to have other side effects;

our collaborators will fail to receive applicable regulatory approvals;

our collaborators will fail to manufacture these products on a large scale;

products based on our discoveries will be uneconomical or not cost effective to develop, produce or to market;

our collaborators will fail to develop and market products based on our discoveries prior to the successful marketing of similar or competing products;

the development, marketing or sale of our product candidates will fail because they may infringe third party intellectual property rights; or

the development, marketing or sale of our product candidates will fail because of our inability or failure to protect or maintain our own intellectual property rights.

If any of these risks materialize our business and financial results may be materially harmed.

**We have limited business experience in, and limited resources for, the discovery and development of therapeutic and diagnostic product candidates, and if we fail to acquire the appropriate experience, our business may be materially harmed.**

Our business experience in the discovery and development of therapeutic and diagnostic product candidates is limited. Although we believe that we have already acquired experience and expertise in the discovery and in certain aspects of the development of therapeutic and diagnostic product candidates, in order to successfully develop and commercialize therapeutic and diagnostic product candidates, we must further improve our internal expertise, capabilities and facilities. We may not be able to engage all of the experts that we need in order to do so.

If we fail to acquire all of the required business experience and expertise in the discovery and development of therapeutic and diagnostic product candidates, we may be unsuccessful in our discovery and development activities, and as a result our business may be materially harmed.

**The biotechnology and pharmaceutical industries are highly competitive, and we may be unable to compete effectively.**

The biotechnology and pharmaceutical industries are highly competitive. Numerous entities in the United States and elsewhere compete with our efforts to commercialize our discoveries. Our competitors include pharmaceutical, biotechnology and diagnostic companies, academic and research institutions and governmental and other publicly funded agencies. We face, and expect to continue to face, competition from these entities to the extent that they develop products that have a function similar or identical to the function of our therapeutic and diagnostic product candidates. We also face, and expect to continue to face, competition from entities that seek to discover therapeutic and diagnostic product candidates.

Many of our competitors benefit from greater market recognition, and have substantially greater financial, technical, human, research and development, and marketing resources than we do. Since we are a small company with limited human resources, we are not able to work with a large number of collaborators in parallel.

To our knowledge, third parties, including our competitors, are seeking to discover new genes and gene-based products, including proteins and expressed sequence tags, or ESTs, which are short nucleotide sequences that code for the expression of partial mRNA, or messenger RNA, sequences. These efforts compete with our own discovery efforts. Although collaborations for the development and commercialization of therapeutic and diagnostic product candidates can assume many forms, to the extent that these will be based on the out put of our discovery engines and other related technologies for the benefit of a collaboration, we may compete with companies such as Exelixis Inc., Curagen Corporation and Myriad Genetics, Inc., all of whom seek to develop life science products based on the analysis of large amounts of genomic information.

Also, our competitors may discover and develop product candidates or market and sell products based on their discoveries, in advance of us or of our collaborators or licensees.

In addition, the human genomic pool is finite. As new genes and gene-based products are discovered, the pool of new genes and gene-based products yet to be discovered dwindles. As a result, we may face increasing difficulty in generating new discoveries. Our competitors may also obtain patents and other intellectual property rights that will prevent us from pursuing the development and commercialization of our discoveries.

If we are unable to compete successfully against existing or potential competitors, our financial results and business may be materially harmed.

**The trend towards consolidation in the pharmaceutical and biotechnology industries may adversely affect us.**

There is a trend towards consolidation in the pharmaceutical and biotechnology industries. This consolidation trend may result in the remaining companies having greater financial resources and technological capabilities, thus intensifying competition in the industries. This trend may also result in fewer potential collaborators or licensees for our therapeutic and diagnostic product candidates. Also, if a consolidating company is already doing business with our competitors, we may lose existing licensees or collaborators as a result of such consolidation.

This trend may adversely affect our potential market share and our revenues, and as a result may harm our business.

**We depend significantly on our collaborator and licensees for the development and commercialization of our therapeutic and diagnostic product candidates, and if we are unable to enter into additional agreements with collaborators and licensees in the future, our business will likely be materially harmed.**

Our strategy for the development and commercialization of therapeutic and diagnostic product candidates depends on the formation of collaborations or licensing relationships with third parties that have complementary capabilities. We rely on our collaborator and licensees to carry out product development and commercialization of our therapeutic and diagnostic product candidates. Potential collaborators and licensees include pharmaceutical, biotechnology and diagnostic companies and academic institutions.

To date, we have granted two licenses to specific molecules, one for the development and commercialization of diagnostic markers and the other for cell and gene-based therapy, and we have entered into a broad collaboration pipeline agreement for the development and commercialization of a multiple number of diagnostic products.

Even though we have entered into collaboration and license agreements for the development and commercialization of our discoveries, we cannot assure you that they will result in the successful development or commercialization of any products based on our discoveries. Further, we cannot assure you that we will succeed in entering into any other agreements with third party collaborators or licensees for the development and commercialization of our therapeutic and diagnostic product candidates. If we are unable to enter into new collaborations or license agreements, our business will likely be materially harmed.

**We may not be able to find additional collaborators or licensees that will agree to in-license our discoveries at an early stage, and if we do not find these collaborators or licensees, our business will likely be materially harmed.**

Our strategy for the development and commercialization of therapeutic and diagnostic product candidates is based on our discovery and early stage developmental work. We consider early stage to be a stage at which a product candidate is validated to exist in nature. In the case of a therapeutic product candidate, we may also initially show activity of that candidate and in the case of a diagnostic product candidate, we may also show that the product candidate is differently expressed in different physiological conditions, but in any case with no clinical proof. We rely on our collaborators and licensees to carry out further product development.

Pharmaceutical and diagnostic companies may be reluctant or refuse to in-license our therapeutic and diagnostic product candidates at these early stage of discovery or development. Even if additional potential collaborators or licensees agree to in-license our discoveries at an early stage, such additional collaborators or licensees may not agree to do so on terms that we would consider commercially desirable.

If we are unable to out-license our discoveries at an early stage, we may need to develop our discoveries ourselves until we attain a more mature stage of development. Such development activities may require us to expend substantial additional financial and other resources. If we are unable to commit these required additional resources, we may have to curtail or cease our discovery and development activities, and as a result our business will likely be materially harmed.

**Our dependence on licensing and collaboration agreements with third parties presents a number of risks, and if one or more of these risks materialize, our business may be materially harmed.**

The risks that we face in connection with our existing collaborations, licenses and other business alliances as well as those that we may enter into the future include the following:

we may not be able to enter into licensing or other collaboration agreements on terms favorable to us;

we may displease our collaborators or licensees if we are unable to comply or fully comply with our obligations under agreements with them, including obligations we may have to generate discoveries, and as a result, we may not generate royalties from such agreements, and our ability to enter into additional agreements may be harmed;

our collaborators may have significant discretion in electing whether to pursue any of the planned activities and the manner in which this will be done;

we may not be able to control our collaborators` or licensees` willingness to pursue development of our product candidates, or the amount of resources that our collaborators will devote to the collaboration;

our collaborators may not perform their obligations as agreed or expected;

changes in a collaborator's or a licensee`s business strategy may negatively affect its willingness or ability to complete its obligations under its arrangement with us;

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 nor willing to make;

prospective collaborators may pursue alternative products or technologies, by internally developing them or by preferring those of our competitors;

disagreements between us and our collaborators may lead to delays in, or termination of, the collaboration or result in time-consuming and expensive litigation; and

our collaborators may fail to develop or commercialize successfully any products based on product candidates to which they have obtained rights from us.

If any of these risks materialize, our business, financial condition and results of operations may be materially harmed.

***Factors Related to our Discovery Engines and Related Technologies***

**The success of our business largely depends on our ability to continue to develop and enhance our discovery engines and related technologies, and if we fail to continue to develop and enhance them, our business will likely be materially harmed.**

Our discovery engines are proprietary computational platforms that are designed to accurately identify therapeutic and diagnostic product candidates, which are expected to be suitable for therapeutic and diagnostic development. By using

our discovery engines and related technologies, we intend to constantly feed our pipeline of discoveries with novel gene-based therapeutic and diagnostic product candidates. Our success as a genomic-based discovery company largely depends on our ability to continue to develop and enhance our discovery engines and related technologies.

The pharmaceutical and biotechnology industries are characterized by continuous technological changes. We may not be able to make the necessary developments and enhancements to our discovery engines and related technologies in order to compete successfully within these industries.

This competition is intensified by the public and free availability of human and other organisms` genomic sequence data, as a result of the US Federal Government funded Human Genome Project and other projects engaged in the study of genes. Since we use these data to improve and enhance our discovery engines, the publication of these data may render our discovery engines and related technologies less valuable or even obsolete. Although we believe that our discovery engines provide us with discovery capabilities, this competition is also intensified by the availability to our competitors of software that performs some functions that are performed by our discovery engines.

If we will fail to continue to develop and enhance our discovery engines and related technologies, our business will likely be materially harmed.

**We rely on access to public and commercial databases to feed our discovery engines, and if we are denied access to commercial databases for any reason, our operations and business may be harmed.**

In carrying out our discovery and development of therapeutic and diagnostic product candidates, we rely on our ability to access and use public and commercially available databases. If we are denied access to commercial databases, or if we are granted access to such databases on terms, which are not commercially reasonable, our business and our results of operation may be harmed.

***Factors Related to our Operations***

**The sales cycle for work products resulting from our discovery engines is complex and lengthy and as a result, we may expend substantial funds and management resources with no assurance of success**.

We are required to negotiate agreements containing terms unique to each licensee or collaborator and which suit each licensee`s or collaborator`s specific discovery, development and business strategies. The accommodation of these requirements mandates a thorough consideration of both the scientific and business aspects of each transaction. As a result, the sales cycle for the work products of our discovery engines is complex and may take 12 months or longer. These business development and related commercial activities require the input and efforts of our key management personnel.

As a result we expend and will need to continue to expend substantial funds and management effort with no assurance of successfully entering into agreements with potential collaborators and licensees.

**We may be unable to recruit a successor to Dr. Mor Amitai or hire or retain other key personnel or sufficiently qualified employees, in each of these cases our business may be harmed.**

In November 2004 we announced that Dr. Mor Amitai, our President and CEO wishes to resign his position. Dr. Amitai agreed to remain in office until the earlier of finding a new successor and the end of 2005 to allow our board of directors to recruit a suitable successor. Although we have already initiated an executive search for Dr. Amitai`s successor, if we fail to recruit a suitable successor for Dr. Amitai, our business may be harmed.

Our business is highly dependent upon the continued services of our senior management and key scientific and technical personnel. While members of our senior management have entered into employment or consulting agreements and non-competition and non-disclosure agreements, we cannot assure you that these key personnel and others will not leave us or compete with us, which could harm our business activities and operations. Within our geographic location, it is difficult to find suitable and highly qualified personnel within our industry.

Furthermore, we do not carry key person life insurance on any member of our senior management.

Our business may be harmed if we are unable to retain our key personnel, or to attract, integrate or retain other highly qualified personnel in the future.

**Our ability to commercialize some of our technologies or discoveries may be limited because of Israeli governmental grants that we receive.**

The development of some of our technologies and of the discoveries that we make have been and may in the future be partially funded by governmental grants that we receive from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor. Israeli law imposes certain restrictions and limitations on technologies and discoveries financed by these grants. For instance, in order to transfer our Office of the Chief Scientist -funded technologies or discoveries to third parties in Israel or to manufacture products based on these technologies outside of Israel, we need to obtain the Office of the Chief Scientist` consent. Additionally, the transfer of our Office of the Chief Scientist-funded technologies or discoveries outside of Israel may be prohibited. These restrictions may limit our ability to commercialize some of our technologies or discoveries. These restrictions do not apply to the sale or to the export of product candidates that we develop by using or based on our Office of the Chief Scientist -funded technologies or discoveries.

**We may be unable to safeguard the integrity, security and confidentiality of our data, our customers' data or other third parties` data, and if we are unable to do so, our business may be harmed.**

We rely heavily on the use and manipulation of large amounts of data and on the secure and continuous use of our internal computers, communication networks and software and hardware systems. We have implemented and maintain physical and software security measures to preserve and protect our computers, communication, and hardware and software systems as well as our data, our customers' data and other third parties` data. These measures are intended to safeguard against loss, corruption and misappropriation caused by system failures or unauthorized access. We have also entered into confidentiality agreements with our employees, consultants, customers and collaborators who have access to such confidential or proprietary information.

However, these methods may not protect us against fire, storm, flood, power loss, earthquakes, telecommunications failures, physical or software break-ins and similar events. In addition, these measures may not be sufficient to prevent unauthorized access, use or publication of such 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 breaches a confidentiality agreement with us could publish or transfer large portions or all of our proprietary data. Such publication of proprietary data could materially harm our intellectual property position, thereby seriously harming our financial condition. We also could be subject to liability claims by our customers or other third parties who have submitted their proprietary data to us. These security problems, if significant, could harm our operations and even cause our business to cease.

**We may be subject to claims related to hazardous chemicals and radioactive and biological materials that we use, and these claims may harm our business.**

Our research and development activities in some cases involve the controlled use of biological and chemical materials, a small amount of which could be considered to be hazardous. We also have the facilities for safe use and handling of radioactive materials. To our knowledge, our work is performed substantially in accordance with all applicable environmental regulations. However, we cannot eliminate the risk of accidental contamination or discharge of any of these materials. If hazardous biological or chemical materials in our possession were to be improperly used, this could result in harm to persons or property and we could be subject to both civil damages and criminal penalties. In such event, our liability may exceed our insurance coverage. In addition, our insurance policy does not cover damages that result from radioactive contamination.

**The development and marketing of products based on our discoveries are subject to governmental regulation and the receipt of regulatory approvals, and if we or our collaborators or licensees fail to receive such approvals, our business may be materially harmed.**

The development and marketing of therapeutic and diagnostic products requires obtaining regulatory approvals to such effect. The process of obtaining regulatory approvals for therapeutic or diagnostic products based on our discoveries in the United States and in other countries can be lengthy and complex. Changes in legislation and in guidelines and policies made pursuant to such legislation could increase the complexity and the length of the process of obtaining such regulatory approvals. Even if and once we or our collaborators or licensees obtain regulatory approval for products based on our discoveries, these products may be subject to continuous regulatory review. Products based on our discoveries that are found to be unsuitable for human consumption, for example due to the causation of unwanted side effects, may result in the withdrawal of such products from the market.

Neither we, nor our licensees or collaborators, have yet applied for or received any regulatory approvals for any therapeutic or diagnostic products based on our discoveries. Such approvals are also required for conducting clinical trials of products based on our discoveries. We intend to become involved in initial clinical development phases in the future, and we also expect to rely on our collaborators and licensees to advance regulatory approval processes. However, we cannot be certain that we or our collaborators or licensees will be able to obtain such approvals for any product or product candidate that we may develop.

If we or our collaborators or licensees fail to obtain required regulatory approvals, our collaborators or licensees may be prevented from producing or marketing therapeutic or diagnostic products based on our discoveries. This will in turn reduce our chances of receiving payment from our collaborators and licensees relating to attaining developmental milestones or to the sale of therapeutic and diagnostic products based on our discoveries and as a result, our business may be materially harmed.

***Factors Related to Intellectual Property***

**We may not be able to protect our non-patented proprietary data, technologies or discoveries, and this may materially harm our business.**

We rely heavily on our proprietary know-how and trade secrets that we develop and that are not protectable or protected by patents. We employ a number of measures to ensure that our know-how and trade secrets will not be disclosed outside our organization, and to the extent that they may be, we make extensive use of confidentiality agreements. However, these measures may not provide adequate protection for our trade secrets and know-how. Our

business collaborators, employees, advisors and consultants may disclose our proprietary know-how or trade secrets in violation of their obligations to us. We may not be able to meaningfully protect our rights in our proprietary know-how or trade secrets against such unauthorized disclosure and any consequent unauthorized publication.

If we are not able to adequately protect our proprietary know-how and trade secrets, competitors may be able to develop technologies and resulting discoveries and inventions that are the same or similar to our own discoveries and inventions. This could erode our competitive advantage and materially harm our business.

**We may not be able to obtain or maintain patent protection for our inventions that relate to genes and gene-based products, and if we fail to do so, our business will likely be materially harmed.**

The success of our business depends, in large part, on our ability to obtain and maintain patents that cover our therapeutic and diagnostic product candidates. We have applied for patents covering our therapeutic and diagnostic product candidates as well as aspects of some of our technologies. To date we have been granted a total of seven patents, of which five are US patents, one is a European patent and one is an Australian patent. We plan to continue to apply for patents as we deem appropriate, but we cannot assure you that our patent applications will be accepted, or that they will be accepted to the extent that we seek.

Additionally, the process of obtaining patents for inventions that cover our genes and gene-based products is uncertain for a number of reasons, including:

the patenting of genes and gene-based inventions is a relatively new field of law that involves complex legal issues, many of which have not yet been settled;

legislative and judicial changes, or changes in the examination guidelines of governmental patent offices may negatively affect our ability to obtain genes and gene-based patents;

in view of the finite number of human genes, we face intense competition from other biotechnology and pharmaceutical companies who have already sought patent protection relating to gene and gene-based discoveries that we may intend to develop and commercialize;

part of our discovery efforts are aimed at discovering novel variants of gene-based therapeutic products that belong to third parties and, as such, those third parties may have already acquired intellectual property rights that precede and prevent us from obtaining patent protection for our variants;

publication of large amounts of genomic data by non-commercial and commercial entities may potentially hinder our ability to obtain sufficiently broad patent claims for our inventions;

even if we succeed in obtaining patent protection, such protection may not be sufficient to prevent third parties from using our patented inventions; and

even if we succeed in obtaining patent protection, our patents could be partially or wholly invalidated.

If we do not succeed in obtaining patent protection for our inventions to the fullest extent for which we seek protection, our business and financial results will likely be materially harmed.

**The existence of third party intellectual property rights may prevent us from developing our discoveries or require us to expend financial and other resources to be able to continue to so.**

In selecting a therapeutic or diagnostic product candidate for development, we take into account, among other considerations, the existence of third party intellectual property rights that may hinder our right to develop and commercialize that product candidate. The human genomic pool is finite. To our knowledge, third parties, including our competitors, have been filing wide patent applications covering an increasing portion of the human genomic pool. In the future, we may be unable to continue and extract or use new discoveries, since such discoveries will be protected by third party intellectual property rights, which precede our own. The existence of these third party rights is particularly pertinent to our novel variants of known gene-based therapeutic products since in such circumstances third parties may have already acquired intellectual property rights that encumber our own.

As a result of the existence of such third party intellectual property rights, we may be required to:

invest substantial management and financial resources to in-license such third party intellectual property, and we cannot assure you that we will succeed in doing so on commercially reasonable terms, if at all; and

forgo a particular development project even though it may have very promising scientific and commercial merits.

We do not always have available to us, in a timely manner, information of the existence of third party intellectual property rights related to our own discoveries. The content of US and other patent applications remain unavailable to the public for a period of 18 months from their filing date. In some instances, the content of US patent applications remain unavailable to the public until the patents are issued. As a result, we can never be certain that development projects that we commence will be free of third party intellectual property rights. If we become aware of the existence of third party intellectual property rights only after we have commenced a particular development project, we may have to forgo such particular development project after having invested in it substantial resources.

**We may infringe third party rights and may become involved in litigation, which may materially harm our business.**

Our business philosophy is to respect the intellectual property rights of third parties. Nevertheless, if a third party accuses us of infringing its intellectual property rights or if a third party commences litigation against us for the infringement of patent or other intellectual property rights, we may incur significant costs in defending such action, whether or not we ultimately prevail. Typically, patent litigation in the pharmaceutical and biotechnology industry is expensive. Costs that we incur in defending third party infringement actions would also include diversion of management`s and technical personnel`s time and energy. In addition, parties making claims against us may be able to obtain injunctive or other equitable relief that could prevent us from further developing our discoveries or commercializing our products. 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 the prevailing third party. If we are not able to obtain these licenses at a reasonable cost, if at all, we could encounter delays in product introductions and loss of substantial resources while we attempt to develop alternative products. Defense of any lawsuit or failure to obtain any of these licenses could prevent us or our partners from commercializing available products and could cause us to incur substantial expenditures.

***Factors Related to our Ordinary Shares***

**Holders of our ordinary shares who are United States residents may be required to pay additional income taxes.**

There is a significant risk that we will be classified as a Passive Foreign Investment Company, or PFIC. Our treatment as a PFIC could result in a reduction in the after-tax return to the holders of our ordinary shares and may cause a reduction in the value of these shares. For US Federal income tax purposes, we will be classified as a PFIC for any taxable year in which either: (i) 75% or more of our gross income is passive income, or (ii) at least 50% of the average value of all of our assets for the taxable year produce or are held for the production of passive income. For this purpose, passive income includes dividends, interest, royalties, rents, annuities and the excess of gains over losses from the disposition of assets that produce passive income. If we were determined to be a PFIC for US Federal income tax purposes, highly complex rules would apply to US taxpayers owning our ordinary shares. Accordingly, **YOU ARE URGED TO CONSULT YOUR TAX ADVISORS REGARDING THE APPLICATION OF THESE RULES**.

As a result of our substantial cash position and the relatively lower price of our stock through the beginning of 2003, there is a risk that we will be classified as a PFIC under the asset test described in the preceding paragraph. There can be no assurance that we will not be classified as a PFIC in the future, because the determination of whether we are a PFIC is based upon the composition of our income and assets from time to time, and such determination cannot be made with certainty until the end of a calendar year.

United States residents should carefully read "Taxation, United States Federal Income Tax Consequences" under "Item 10. Additional Information" for a more complete discussion of the US Federal income tax risks related to owning and disposing of our ordinary shares.

**Our business is difficult to evaluate because we have a limited history of operations and because we operate in industries that are constantly evolving, and this may result in our shares trading at a discount or in our share price being volatile.**

Since our incorporation in 1993, our research focus, the products that we developed and our business model have been continually evolving. Some of the products that we sold and some of the technologies that we developed, no longer constitute part of our business (for instance, the LabOnWeb and the Bioccelerator product line), and some of the products that in the past were considered part of our core business (for instance, Oligo Libraries and Genecarta), are no longer considered to be so. In addition, since 1998, part of our business has involved the discovery and development of therapeutic and diagnostic product candidates. Therapeutic products are typically developed over a period of approximately 12 years and the development period for diagnostic products is typically four years. For these reasons, we have a history of operations in which we believe there is insufficient information to identify a historical pattern.

Even if we could discern an historical pattern for our operations, the continuously evolving nature of the biotechnology and pharmaceutical industries in general and our business in particular would make it very difficult to identify any meaningful information. Therefore, it would also be difficult to make any projections about the future of our operations.

These difficulties may result in our ordinary shares trading at a discount or the market price of our shares to be volatile.

**Our share price has been volatile and we believe that it is likely to continue to be volatile.**

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

general economic conditions, including those that specifically relate to 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 the investment community;

technological innovations by us or by our competitors;

investors' perceptions or changes in market valuation of biotechnology companies in general;

relatively low volumes at which our shares have been traded at in the past and at which they may continue to trade; and

the operating and share price performance of comparable companies.

In addition, the market prices of equity securities of companies that have a significant presence in Israel may also be affected by the changing security situation in the Middle East and particularly in Israel. As a result, these companies 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 our share price in particular, may affect our ability to raise additional financing in the future. Market and industry fluctuations may adversely affect the trading price of our ordinary shares, regardless of our actual operating performance.

**Our share price may decline if our operating results fluctuate and/or if we fail to meet the expectations of the investment community.**

Our quarterly operating results have fluctuated in the past and we believe that they will do so in the future. For example, our net loss in the 1st quarter of 2004 was approximately $3.0 million and our net loss in the 2nd quarter of 2004 was approximately $3.4 million. These fluctuations may cause our share price to fluctuate significantly. If our operating results fail to meet the expectations of the investment community, this may cause fluctuations in our share price. Consequently these results should not be relied upon as indications of future performance, and comparisons of quarterly results of operations may not be meaningful. Our operating results may fluctuate as a result of:

our rate of success and timing of entering into transactions for the commercialization of our discoveries;

a decrease in the financial resources available to our customers, collaborators or licensees;

increased competition and the timing of the release of products and data by our competitors and academic and other non-profit organizations;

inflation/deflation in Israel or changes in the conversion rate between New Israeli Shekel and other currencies;

the outcome and length of conflicts in the Middle East;

the time within which our collaborators may develop our therapeutic and/or diagnostic product candidates into revenue-producing products; and

a decrease in our entitlement to receive research and development grants and certain tax benefits from the Israeli government.

**Provisions of Israeli law may delay, prevent or affect a potential acquisition of all or a significant portion of our shares or assets and therefore depress the price of our stock.**

Israeli corporate law regulates acquisitions of shares through tender offers. It requires special approvals for transactions involving significant shareholders and regulates other matters that may be relevant to these types of transactions. The provisions of Israeli law may delay or prevent an acquisition, or make it less desirable to a potential acquirer and therefore depress the price of our shares. For information about these limitations, see "Anti-Takeover

Provisions under Israeli Law" Under "Item 10. Additional Information". Further, Israeli tax considerations may make potential transactions undesirable to us or to some of our shareholders.

**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 January 31, 2005, officers, directors, and shareholders holding more than 5% of our outstanding shares, collectively controlled approximately 33.6% 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 if a change is in the best interests of our other shareholders.

In addition, the interests of this concentration of ownership may not always coincide with the interests of other shareholders, and accordingly, they could cause us to enter into transactions or agreements that we would not otherwise consider.

**Our ordinary shares are traded on more than one market and this may result in price variations.**

Our ordinary shares are traded primarily on the Nasdaq National Market and on the Tel Aviv Stock Exchange. Trading in our ordinary shares on these markets is made in different currencies (US dollars on the Nasdaq National Market, and New Israeli Shekels on the Tel Aviv Stock Exchange), and at different times (resulting from different time zones, different trading days and different public holidays in the United States and Israel). Consequently, the trading prices of our ordinary shares on these two markets often differ. Any decrease in the trading price of our ordinary shares on one of these markets could cause a decrease in the trading price of our ordinary shares on the other market.

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

**Conditions in the Middle East and in Israel may harm our operations.**

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, military conflicts and terrorist actions. There has been a significant increase in violence since September 2000, which has continued with varying levels of severity through to the present. This state of hostility has caused

security and economic problems for Israel. To date, we do not believe that the political and security situation has had a material adverse impact on our business but we cannot give you any assurance that this will continue to be the case. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could adversely affect our operations and could make it more difficult for us to raise capital.

Our insurance does not cover losses that may occur as a result of events associated with the security situation in the Middle East. Although the Israeli government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, we cannot assure you that this government coverage will be maintained. Any losses or damages incurred by us could have a material adverse effect on our business. Any armed conflicts or political instability in the region would likely negatively affect business conditions and could harm our results of operations.

Further, in the past, the State of Israel and Israeli companies have been subjected to an economic boycott. Several countries still restrict business with the State of Israel and with 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 employees to perform military service.**

Some of our key employees are obligated to perform military reserve duty and are subject to being called to active duty for extended periods of time under emergency conditions. To date, any calls to active duty have not affected us materially. However, it is possible that there will be additional call-ups in the future, which may have a material effect on us. The absence of one or more of our key employees due to military service could disrupt our operations. Any disruption in our operations may have an adverse impact on our business.

**Our results of operations may be adversely affected by inflation and currency fluctuations.**

We generate a substantial portion of our revenues and hold most of our cash, cash equivalents and marketable securities in US dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israeli Shekels. As a result, we are exposed to the risk that the US dollar will be devalued against the New Israeli Shekel. In addition, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the New Israeli Shekel in relation to the dollar or that the timing of any devaluation may lag behind inflation in Israel. However, since a significant portion of our expenses are the cost of our salaries, which we pay in New Israeli Shekel, we believe that this risk is not significant. If the US dollar cost of our operations in Israel increases, our dollar-measured results of operations will be adversely affected. Our operations could also be adversely affected if we are unable to guard against currency fluctuations in the future. To date, our business has not been materially adversely affected by changes in the Israeli rate of inflation or by fluctuations in the US dollar - New Israeli Shekel exchange rate. We do not currently hedge against fluctuations in the US dollar - New Israeli Shekel exchange rate with financial instruments.

**We may not continue to receive research and development grants and may not continue to be entitled to certain tax benefits from the Israeli government.**

We currently receive research and development grants and are entitled to certain grants and tax benefits under Israeli government programs.

We receive funds in support of some of our research and development programs from the Office of Chief Scientist of the Israeli Ministry of Industry Trade and Labor. To maintain our eligibility to receive these funds, we must file periodic reports and pay royalties with respect to some of the grants that we received. From time to time, we submit requests for additional research and development funds from the Office of Chief Scientist. However, we cannot assure you that we will continue to receive funds from the Office of Chief Scientist at the same rate, if at all. In addition, the

Office of Chief Scientist funding programs restrict our ability to transfer the technologies funded by these grants outside of Israel (for more information, see "Item 5. Operating and Financial Review and Prospects; Research and Development, Patents and Licenses; Israeli Government Research and Development Programs").

Israeli law and regulations prescribe that after June 30, 2005 no further new funding will be available from the Office of Chief Scientist. This date is an extension of earlier deadlines that have been repeatedly extended, and it is possible that this latest deadline may be again extended. There can be no assurance that new benefits will be available after June 2005, however benefits already granted will stay in effect throughout each plan`s period.

The tax benefits that we are entitled to receive are a function of the "approved enterprise" status of our existing facilities in Israel (for more information, see "Item 5. Operating and Financial Review and Prospects; Operating Results; Governmental Economic, Fiscal, Monetary or Political Policies that Materially Affected or Could Materially Affect our Operations"). To date we have not received any such tax benefits because we have not generated any taxable income to date. To maintain our eligibility for these tax benefits, we must continue to meet certain conditions, including making specified investments in fixed assets and financing a percentage of investments with share capital.

The termination or reduction of the Office of Chief Scientist funding programs that we receive, could have a material adverse effect on our business, financial condition and results of operations. If these funding programs are terminated or reduced, we could lose a significant source of revenue.

If we cease to become entitled to tax benefits, we may be required to pay increased taxes on the taxable income that we may generate in the future from funded technology.

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

Service of process upon us, since we are incorporated in Israel, and upon our directors and officers and our Israeli auditors, almost 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 almost 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.

# ITEM 4. INFORMATION ON THE COMPANY

**History and Development of the Company**

Our legal and commercial name is Compugen Ltd. We were established as a corporation under the laws of the State of Israel in 1993, and we operate under the laws of the State of Israel. Our principal offices are located at 72 Pinchas Rosen Street, Tel Aviv 69512, Israel, and our telephone number is +972-3-765-8585. The principal offices of Compugen USA, Inc. (formerly known as Compugen, Inc.), our wholly-owned US subsidiary, are located at 560 S. Winchester Blvd., Suite 500, San Jose, California 95128, and its telephone number is (408) 236-7336. Our primary Internet address is www.cgen.com. None of the information on our websites is incorporated by reference into this annual report.

We initially developed a computer hardware system and software applications to accelerate homology searches of biological sequences. This system and those applications were commercialized under the name "Bioccelerator" since 1994. In 2003, we sold the Bioccelerator product line (for more information regarding the sale of our Bioccelerator product line, see Note 3 of our 2004 Consolidated Financial Statements). The purpose of divesting the Bioccelerator product line, was to enable us to focus on the enhancement of our discovery engines and on the discovery of novel therapeutic proteins and diagnostic markers.

In 1997, we incorporated our wholly-owned US subsidiary, Compugen USA, Inc. We conduct a large portion of our business development and marketing operations from the US.

Since 1997, we directed a significant portion of our activities to the development of technologies that allow molecular biologists to obtain significantly more information and more valuable information from genomic and related databases. An important aspect of the technologies that we developed is the analysis and rearrangement - also known as clustering and assembly - of genomic and expressed sequence data in order to provide information that can lead to the discovery of new genes and gene-based products, including mRNAs and proteins. This clustering and assembly technology can lead and has led to our discovery of novel genes and gene-based products, including novel mRNAs and proteins. Some of these discoveries have been discoveries of "splice variants". Splice variants are the product of the alternative splicing of a gene, before it encodes a protein. Such splicing may account for the expression of more than one protein from the same gene.

Since 1997, we have been developing our core technology, our LEADS computational biology platform. This platform analyzes genomic and expressed sequence data to enable rapid discovery of genes, splice variants and gene function. Our LEADS computational biology platform solves quantitative and qualitative problems inherent in the analysis of expressed sequence tag, or EST, data and allows molecular biologists to quickly identify genes from gene fragments. The LEADS computational biology platform improves the quality of available genomic and expressed sequence data. Throughout the years, we licensed use of this technology to a number of pharmaceutical and biotechnology companies, including Pfizer Inc., Novartis Pharma A.G. and Abbott Laboratories. We have also sold the output of LEADS to other commercial and academic entities.

In 1998, we established our biology laboratory, the initial purpose of which was to validate our computationally generated predictions. Subsequently, we recognized that there is vast potential in discovering and developing novel therapeutic and diagnostic product candidates, rather than merely validating our computational capabilities and technologies.

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 at $10.00 per share. In September 2000, we sold an additional 750,000 ordinary shares upon the exercise by our underwriters of their over-allotment option. In January 2002, we listed our shares for trading on the Tel Aviv Stock Exchange (TASE).

Since 2000, we applied our technologies, including our LEADS computational biology platform, to the development of solutions for addressing challenges in the fields of functional genomics, which is the study of gene expression and gene function. We designed probes, which are short nucleotide sequences designed to be uniquely representative of much larger corresponding genes. Probes that we designed can be used for gene expression experiments. The probes that we designed served as the basis for our Oligolibraries products. In 2001, we entered into a joint license and marketing agreement with Sigma-Genosys for the development, marketing and production of our Oligolibraries products. This agreement terminated on December 31, 2004. Following termination of our agreement with Sigma-Genosys, we do not actively market our Oligolibraries products in order to focus on the enhancement of our discovery engines and the discovery of novel therapeutic proteins and diagnostic markers.

In 2001, we commenced to market our Genecarta product. Genecarta is a user-friendly database application that allows scientists in the field of genomics, functional genomics and proteomics to easily use the results of analyses performed with our Leads computational biology platform. We have licenses for use of our Genecarta still in force. However, we no longer actively market the Genecarta product in order to focus our resources on the enhancement of our discovery engines and the discovery of novel therapeutic proteins and diagnostic markers.

Since 2002, we have been focusing on the discovery of novel therapeutic proteins and diagnostic markers. During 2003 and 2004 we expanded our biology laboratory by, among other things, expanding its floor space and adding new functions and equipment. We also recruited experts for the purpose of strengthening our protein expression, production, purification and analysis capabilities. By using our proprietary discovery engines and other technologies and by focusing on therapeutic proteins (proteins which are themselves drugs and which are usually administered by injection) and diagnostic markers (which indicate the presence or absence of a physiological condition, such as a disease), we have discovered novel proteins with potential applications in the therapeutics and diagnostics fields. We seek to generate revenue from commercializing the novel therapeutic protein and diagnostic markers that we discover, by pursuing commercial relationships with potential collaborators and licensees, including leading diagnostic, biotechnology and pharmaceutical companies.

In 1999, we established a division focusing on agricultural biotechnology and plant genomics. On January 1, 2002, we transferred the business of this division to a majority-owned subsidiary, Evogene Ltd. We entered into this transaction as part of our continuing efforts to focus on the enhancement of our discovery engines and the discovery of novel therapeutic proteins and diagnostic markers. For more information about this transaction and our holdings in Evogene, see Item 7, "Major Shareholders and Related Party Transactions. Related Party Transactions. Evogene Ltd.".

In the field of proteomics, we developed and, through 2004, commercialized the Z3 and Z4000 software products. These products used advanced computational techniques to carry out pattern recognition analyses and image processing to analyze the results of certain protein separation experiments. In 2004 we ceased to market these products in order to focus on the enhancement of our discovery engines and the discovery of novel therapeutic proteins and diagnostic markers.

In 1999, we established a chemistry division to carry out a research program in which we integrated the disciplines of organic chemistry with physics and advanced computational technologies for the development of a method to identify small molecule lead compounds for protein targets, which does not rely on protein structure information or high-throughput screening of very large compound libraries. This transaction by which we created Keddem Bioscience was part of our continuing efforts to focus on the enhancement of our discovery engines and the discovery and development of novel therapeutic proteins and diagnostic markers. On August 1, 2004 we turned our chemistry division into a wholly owned subsidiary by transferring all of our assets and liabilities that were dedicated to the operation of our chemistry division into Keddem Bioscience.

**Business Overview**

We are a drug and diagnostic discovery company. We incorporate ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine. We believe that this capability results in powerful predictive models, discovery engines and related technologies, which are both advancing our understanding of important biological phenomena and enabling us to discover potential therapeutic proteins and diagnostic markers.

We develop platforms, discovery engines and related technologies that enable the discovery and analysis of genes and gene-based products, including mRNAs and proteins. These platforms include our LEADS computational biology platform, and our discovery engines, including our protein variant discovery engine and our diagnostic biomarkers discovery engines.

Our discovery engines and related technologies, which we base on our LEADS computational biology platform, provide us with a deeper understanding of important biological phenomena, such as alternative splicing, naturally occurring antisense and RNA editing sites in the human genome. Our discovery engines and related technologies also enable us to identify and prioritize potential drug targets, therapeutic proteins and diagnostic markers in our internal discovery efforts, thereby constantly feeding our therapeutic proteins and diagnostic markers pipeline with novel putative therapeutic and diagnostic product candidates. Using our discovery engines, we have identified a variety of novel genes with potential applications in therapeutics and diagnostics.

Our discovery engines together with our related technologies have already formed the basis for a broad discovery-based collaboration with Diagnostic Product Corporation, for the development and commercialization of diagnostic products based on the output of our diagnostic discovery engines. We intend to continue to focus on licensing-out our novel therapeutic and diagnostic product candidates, which we discovered and continue to discover internally or with our collaborators, to pharmaceutical, biotechnology and diagnostics companies, with the aim that they will develop and commercialize our discoveries into therapeutic or diagnostic products. In these commercial arrangements we seek to receive payments upon the successful completion of certain predetermined developmental stages and milestones, and royalties from the sales of the drugs and/or diagnostics kits, which will be based on our discoveries.

***Background - Pharmaceutical and Biotechnological Research and Development***

*Biological Processes* - The characteristics of all living organisms are determined by DNA, a molecule found in virtually every living cell. DNA is comprised of pairs of four types of small chemical units, each called a nucleotide. DNA contains genes, which are comprised of thousands of nucleotides. The Human Genome Project, an international research program designed to construct detailed genetic maps of the human genome (that is, all of the genetic information contained in the human genes), demonstrated that the human genome consists of a total of approximately 3 billion nucleotides. These nucleotides are arranged in up to 25,000 genes.

Cells carry out most of their biological functions by means of proteins. The production of proteins is encoded by DNA through a process known as gene expression. Therefore, by identifying a gene, it is possible to identify a protein or proteins that are expressed from that gene. The first stage of gene expression is transcription, which involves the matching of the DNA nucleotides in a gene with the nucleotides of a related molecule called messenger RNA, or mRNA. mRNA then instructs the cell to produce a protein by a process known as translation. Proteins are the molecules that regulate or perform most of the physiological functions of the body.

*Diagnostic Markers* - A major aspect of the pharmaceutical and biotechnological research and development process is the identification of diseases and other physiological conditions. The levels of presence or absence of proteins or other molecules, may give information about the presence or absence of a disease or a particular stage of a disease or other physiological condition. A molecule that provides this information is known as a "diagnostic marker". For example, the presence or abnormal increased presence of a certain protein in blood may indicate a cancerous condition. In order to develop a diagnostic marker, it is first necessary to identify a correlation between, on the one hand, the presence or levels of presence of a molecule and, on the other hand, a disease or other physiological condition. Once such a correlation is identified, it is then necessary to develop a method for identifying the correlation. The task of developing such method that will be easy to perform, sensitive, with high predictive value, safe, inexpensive and covering an attractive market segment, is a challenge faced by the diagnostics, pharmaceutical and biotechnological industries.

*Therapeutic Proteins* - In some cases, the protein itself may be a drug. A familiar example of such a drug is insulin, which is a protein. This category of proteins is referred to as therapeutic proteins, because use or administration of the protein itself may have the effect of preventing, treating or curing a disease.

*Drug Targets* - In other cases, a protein may be a target to which a drug binds, and is known as a drug target. By increasing or decreasing the amount of a target protein or by activating or inhibiting its activity, a disease may be prevented, treated or cured.

*Challenges* - We believe that increasing the probability of successfully discovering and developing new therapeutic drugs and diagnostic products is the principal challenge that the pharmaceutical and biotechnology industries face today. This challenge is a direct result of the lack of sufficient predictability in the drug discovery and development process. This problem becomes even more pronounced as the increase in the amount of data and knowledge available to scientists out paces the rate at which new drugs are developed based on that information. One of the outcomes of the insufficient predictability in the drug discovery and development process is the high failure rate and large expense associated with developing drugs. Typically, ten to 12 years elapse from the time that research begins to the time that a drug can reach the market. This process, on average, is estimated to cost more than $800 million per drug, taking into account the expenses of development of drugs that ultimately do not reach the market.

***Our Approach to Biotechnological Research***

We believe that there is increasing pressure in the pharmaceutical, biotechnology and the diagnostics industries to discover and develop effective and cost effective drugs and diagnostic products. By incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine, we attempt to discover novel potential therapeutic proteins and diagnostics markers, on the basis of which our collaborators and licensees may be able to develop novel drug and diagnostic products. Over approximately the past decade, we have been developing

technologies, including our discovery engines, which enable researchers to accurately identify genes, mRNAs, and proteins that can be the basis for the development of therapeutic and diagnostic products of interest. Our multidisciplinary discovery process combines sophisticated mathematical modeling with experimental "wet" biological validation in an iterative process that is designed to investigate biological phenomena and discover potentially valuable drug targets, therapeutic proteins and diagnostic markers.

Our discovery cycle relies on an iterative process of predictive modeling followed by hypothesis-driven experimentation, yielding discoveries, which in turn, facilitates the improvement of the predictive models, thereby increasing the probability of making additional discoveries in the future. This process nurtures the continuing improvement and enhancement of our discovery engines and related technologies.

We believe that the mathematical modeling of significant biological phenomena will lead us to better research capabilities and to more efficient and effective discovery of potential therapeutic and diagnostic product candidates. We further believe that our increasing understanding of biological phenomena can make certain key aspects of therapeutic and diagnostic products discovery and development shorter, more predictable and more efficient processes.

We believe that the understanding of one biological phenomenon that is derived from an understanding of other biological phenomena is made possible as life sciences transform and mature from largely observational to more predictive. We believe that a deeper understanding of biological phenomena is useful for drug discovery. Our belief is supported by discoveries of novel genes and gene-based therapeutic and diagnostic product candidates that we have already made and that have resulted from our modeling of biological phenomena. Below are three examples of biological phenomena that we have modeled and are researching:

*Alternative Splicing* - alternative splicing is a biological phenomenon whereby a single gene may express more than one protein. Since 1997, by applying our proprietary LEADS computational biology platform to the analysis of publicly available genomic information, we discovered that the phenomenon of alternative splicing occurs in at least 30% of human genes. Previously, scientists believed that alternative splicing occurred in only a very small number of genes. By having identified the wide-spread nature of the alternative splicing phenomenon and having developed the computational technologies to identify it, we are able to discover unknown proteins that are encoded by known genes. Now alternative splicing is commonly assumed to occur in the majority of genes.

*Antisense* - antisense is a biological phenomenon of the existence of two genes that are located on opposite strands of DNA and, therefore, have complementary nucleic acid sequences. In 2002, by applying our proprietary LEADS computational biology platform to the analysis of publicly available genomic information, we discovered that the phenomenon of naturally occurring antisense in the human genome was significantly more common than previously believed. We identified hundreds of antisense pairs of genes and published our findings in the April 2003 issue of Nature Biotechnology, Volume 21, No. 4.

*RNA Editing* - RNA editing is a biological phenomenon in which small nucleotide changes occur in RNA after its transcription from DNA. Although it has been known that RNA editing is an essential factor for mammalian development and although recent evidence has suggested that it may be a fairly common phenomenon, very few RNA editing sites had been actually discovered and it was generally believed to be impossible to systematically discover such sites with current experimental and computational procedures and tools. We developed and proved systematic identification of adenosine to inosine (A to I) RNA editing sites in the human transcriptome, and increased the number of known A to I RNA editing sites from approximately 100 to 12,723. Our discovery was published in the August 2004 issue of Nature Biotechnology, Volume 22, No. 8.

***Challenges in Converting Genomic Data into Useful Information***

One of the key requirements for successful genomics-based drug and diagnostic discovery is the competent analysis of raw genomic and related data. In recent years, both public and private endeavors, including the Human Genome

Project, have created vast amounts of raw genomic and related data. These endeavors led to the publication of the first complete sequence of the human genome in April 2003. Although these sets of data represent vast amounts of scientific information, they are difficult to analyze. This difficulty is a function of many factors, including:

the complexity of underlying biological processes such as the processes of transcription of DNA into mRNA and the translation of mRNA into proteins; and

the enormous quantity of available data and the high rate of occurrence of errors and inaccuracies in these data.

We believe that a substantial amount of the useful information contained in the raw data that already exists has not yet been extracted or fully analyzed, particularly at the protein level. Conventional biology laboratory-based techniques have traditionally been a principal tool to understand and analyze biological data. However, techniques from the exact and computational sciences have become and increasingly continue to be important analytical tools as well. By using exact sciences and computational techniques, it is possible to quantitatively analyze vast amounts of data and to create mathematical models to predict structures and processes in the fields of biology, chemistry and medicine. We believe that the use of such techniques has the potential to significantly improve the research and development processes in the pharmaceutical, biotechnology and diagnostics industries. The following are some important challenges in applying exact sciences and computational techniques to the analysis of biological data:

*Computational Challenge, Vast Amounts of Data* - Public databases today contain millions of randomly arranged short mRNA segments, each representing a short fragment of a gene. In order to extract the full coding sequence of the gene from this data, scientists must be able to effectively cluster and assemble these numerous segments, called expressed sequence tags, or ESTs, into meaningful biological sequences.

*Computational Challenge, Multiple Sources of Data* - Today, a large number of databases and data sources exist, both public and commercial. We believe that valuable unrevealed information exists in the combination of all the data within these databases, which is not possible to extract or reach by analyzing each of the databases by itself, or even by cross referencing the analysis of these databases.

*Experimental Challenge, Errors and Anomalies* - Experimental errors and anomalies, including sequencing errors, the fusion of two nucleotide sequences from different loci (known as chimeric events) and contaminations, introduce errors into data and complicate its analysis.

*Biological Challenge, Discovering and Modeling New Biological Phenomena* - One of the challenges that molecular biology scientists face today is how to discover and model unknown biological phenomena by analyzing the vast amount of available genomic information. Discovery of these phenomena is difficult as a result of the complexity of biological systems and the existence of random occurrences that create "noise". The modeling of biological phenomena is important for use in genomic analysis and predictions. We believe that, in general, failure to identify and account for key biological phenomena may lead to erroneous analysis and predictions of genomic data. Three examples of biological phenomena in which we gained a deeper understanding are alternative splicing, naturally occurring antisense and RNA editing, which are described above.

**Our Enabling Technologies**

***Our LEADS Computational Biology Platform***

Our core technology and primary area of expertise is the modeling of biological phenomena and applying this modeling to the analysis of biological data. This technology and expertise, which includes our clustering and assembly technology, has enabled us to efficiently and effectively extract valuable information from genomic, proteomic and related databases. Our LEADS computational biology platform analyzes genomic and expressed sequence data to enable rapid discovery of genes, mRNAs, and proteins, including their splice variants, and respective functions. Our LEADS computational biology platform, which is continuously updated with new information and insights, accurately models a wide variety of complex biological phenomena and provides a comprehensive research infrastructure, facilitating the discovery of therapeutic and diagnostic product candidates and other biological products. It solves quantitative and qualitative problems inherent in the analysis of EST data, thereby improving the quality of available genomic and expressed sequence data by, among other things:

eliminating overlapping regions of sequences belonging to the same gene, thus reducing the size of the databases and the amount of required analysis;

clustering together numerous EST fragments believed to belong to the same gene and assembling them, thereby creating a fuller picture of gene structure;

detecting and correcting sequencing errors;

detecting and accounting for instances of alternative splicing and antisense;

detecting other experimental anomalies, including chimeric sequences, and contaminations;

automatically annotating the resulting sequences;

predicting the location of EST fragments on the genomic backbone; and

predicting the translation results of the mRNA splice variants into protein or peptide sequences.

***Discovery Engines***

Our discovery engines are proprietary technologies that extend the capabilities of our LEADS platform by incorporating sophisticated search and analysis algorithms. Our discovery engines are designed to enable our researchers to identify proteins and mRNAs with desired properties, intended to render these proteins and mRNAs suitable for therapeutic and diagnostic development. A key input for our discovery engines is the comprehensive view of predicted genes, mRNA transcripts, splice variants and proteins, and detailed functional annotations provided by our LEADS computational biology platform. The power of our engines result from our ability to continuously incorporate into these engines information that we obtain from both our internal discovery efforts and external sources, such as our extensive database of human genome and related annotations, and from our iterative research process that continuously improves our engines over time.

We use our discovery engines and related technologies in our internal drug and diagnostics discovery efforts to facilitate the creation of our therapeutic proteins and diagnostic markers pipelines. Although to date, we have used our discovery engines to discover therapeutic and diagnostic product candidates, our approach may be equally useful for the discovery and selection of potential targets for small molecules, antibodies and other types of drugs.

*Therapeutic Protein Discovery Engine* - The therapeutic protein discovery engine is an example of one of our discovery engines. It is designed to identify novel splice variants of proteins that are known to have a therapeutic utility. It does so by combining output of our LEADS analysis and knowledge that we generate from our modeling of biological phenomena with biological and medical information about known therapeutic proteins that are already marketed or being developed by others. This engine also enables the selection of proteins based on their predicted biological properties such as the existence of a signal peptide, which is a biological signal on the protein directing it to be secreted out of the cell into the blood stream. The input into our therapeutic protein discovery engine is analyzed by proprietary software and automated processes, and is thereafter manually analyzed by our scientists and consulting experts. This engine is designed to provide our scientists with the capability to discover potential therapeutic proteins with desired properties.

*Diagnostic Biomarker Discovery Engines* - Another example of our discovery engines is our line of six diagnostic biomarker discovery engines. These engines are designated to identify novel transcripts and splice variants of genes, mRNAs and proteins, that are differentially expressed in specific tissues or pathological conditions, and which may therefore serve as biomarkers for diagnosis. Genes, mRNA and proteins that are involved in various diseases may be over-expressed in such conditions. Our approach to identify such genes, mRNAs and proteins is to search *in-silico* for, among other things, patterns of over-expression, and then to attempt to verify these predictions by experimental methods in our biology laboratory. The *in-silico* predictions are based on a sophisticated analysis of genomic and expressed biological sequence data from both normal tissues and tissues with pathologies.

We constantly update and improve our discovery engines and related technologies as we gain additional knowledge from their use or from other research.

**Our Products and Commercial Offerings**

***Our In-House Therapeutic Proteins and Diagnostic Markers Pipeline***

We use the capabilities of our discovery engines and related technologies to create pipelines of gene-based products, including mRNAs and proteins, that we believe to be potential therapeutic or diagnostic product candidates. Once we identify therapeutic or diagnostic product candidates *in-silico,* we select candidate molecules for validation and further development in our biology laboratory. The molecules that we select to enter our pipeline, are those molecules that we believe are most likely to succeed, based on a set of criteria that we continually develop and use in our discovery process. The first biology laboratory activity that we carry out on those molecules that enter our pipeline is to validate their existence in nature at the RNA level. This is achieved by laboratory techniques such as quantitative RT-PCR, which is a method for isolating and amplifying desired DNA sequences, and the use of microarrays, which can be used to detect the presence of mRNA in tissue.

There are three principal selection criteria that we apply to select therapeutic protein product candidates for validation and further development once we identify them *in-silico*. These are:

Novelty and freedom to operate - we select proteins that are predicted to be novel and found not to be covered by third party patents.

Close relationship with a known drug - in general, the chosen protein should be closely related to an already marketed drug or to one that is in advanced stages of development. In focusing on novel splice variants of known drugs, we benefit from the availability of relevant biological and medical information that relate to our novel splice variant.

Pharmacological or other advantage - there should be a reasonable probability that our selected protein variants will have a pharmacological or other advantage over the related existing drugs, in terms of, for instance, efficacy, stability and non-toxicity, and such advantages should be relatively inexpensive to experimentally verify.

There are three principal selection criteria that we apply to select for validation and further development diagnostic product candidates that we identify *in-silico*. These are:

Novelty and freedom to operate - we select molecules that are predicted to be novel and found not to be covered by third party patents.

Differentiation between disease and healthy conditions - we select molecules that are predicted to be present in different quantities in diseased and healthy human tissues respectively.

Biological characteristics - we select molecules that have biological features, which make them suitable for diagnostic detection. For example, in the case of immunoassay-based diagnostic markers, we select molecules that are predicted to be secreted into the blood stream and therefore possibly detectable in blood.

We believe that our approach to drug and diagnostic discovery makes it possible for us to continually feed our pipeline with novel therapeutic and diagnostic product candidates. For example, the use of the therapeutic protein variant engine has resulted in the selection of our initial therapeutic and diagnostic pipelines.

During the past three years we expanded our discovery and development activities. During 2003 and 2004 we expanded our biology laboratory by, among other things, expanding its floor space, adding new functions and equipment and recruiting experts for the purpose of strengthening our protein expression, production, purification, assaying and analysis teams. At the same time, we are seeking to continue to recruit experienced personnel in various related fields, for the purpose of building our internal capabilities in order to further develop products ourselves should we decide to do so. We intend to generate revenue from commercializing our pipelines of therapeutic protein and diagnostic marker product candidates through commercial relationships with potential collaborators and licensees, including leading biotechnology, diagnostic and pharmaceutical companies.

***Genomics-Based Discovery Collaborations***

We offer the discovery engines that we use internally to create our pipelines, to our prospective collaborators, for the discovery and development of therapeutic and diagnostic product candidates within a given area of interest to them to match their profile of requirements. By collaborating with us, our prospective collaborators, primarily pharmaceutical, diagnostic and biotechnology companies, would be able to gain access to the advantages offered by use of our proprietary discovery engines and multidisciplinary team of experts. Ultimately, these collaborations are intended to yield novel putative genes and gene-based products, including mRNAs and proteins, to enable our collaborators and licensees to develop and commercialize therapeutic and diagnostic products based on our discoveries. We seek to receive payments upon the successful completion of predetermined development stages, and royalties from the sale of therapeutic and diagnostic products based on our discoveries.

**Our Selected Customers and Collaborators**

***Commercializing our in-house discoveries***

In August 2004, we entered into a broad pipeline discovery-based collaboration with Diagnostic Product Corporation, for the development and commercialization of diagnostic products based on the output of our diagnostic discovery engines, with an anticipated focus on cancer and cardiovascular disease. The terms of this agreement allow Diagnostic Product Corporation to develop and commercialize immunoassay and nucleic-acid based diagnostic products that are based on candidate biomarkers that we already discovered, as well as additional candidates that may arise out of the collaboration.

***Other Selected Customers***

*Novartis* - In July 2001, we entered into a three-year License and Development Agreement with Novartis Pharma A.G., under which we granted Novartis a non-exclusive license to use our LEADS computational biology platform for analyzing genomic and expressed data for Novartis` internal research and development activities in exchange for an annual license fee. In July 2002, we amended our agreement with Novartis, to pursue joint research and collaboration relating to the design molecules for RNA interference. In May 2003, we further amended our agreement with Novartis to design DNA probes and Novartis received an option to in-license our Genecarta viewer. We also entered into a Genecarta Access Agreement with Novartis effective as of July 2004, under which we granted to Novartis a license to use our Genecarta product for a term of one year, with an option to extend this agreement for one additional year.

*Abbott* - On December 31, 2002, we entered into a License Agreement with Abbott Laboratories, under which we granted Abbott a non-exclusive license to our LEADS computational biology platform for the single analysis of human genomic data and to our Genecarta viewer. On December 31, 2003, we amended the agreement, by extending the license to use our Genecarta viewer for an additional term of approximately fifteen months.

**Our Strategy**

In the past, our revenues have been generated from licensing the use of our computational technologies, such as the LEADS computational platform, and of database and software products such as our OligoLibraries products and our Genecarta and Z software products, and related services.

Commencing in 2003 and consistent with our continuing focus on enhancing our discovery engines and on the discovery and development of novel therapeutic proteins and diagnostic markers, we shifted our strategy for generating revenue. We now intend that our principal source of revenues will be obtained from our collaborators and licensees commercializing therapeutic and diagnostic products that are based on our discoveries. We believe that we can commercialize discoveries that result from our in-house discovery programs or that result from collaboration discovery projects aimed at a given area of interest to our collaborators and/or their profile of requirements. We are also able to offer to our prospective collaborators an analysis of their proprietary data in order to discover therapeutic and diagnostic product candidates. We intend to focus on licensing-out our product candidates to diagnostics, biotechnology and pharmaceutical companies, and we intend that they will further develop and commercialize those product candidates into revenue generating therapeutic and diagnostic products. We intend to receive from these commercial arrangements payments upon the successful completion of certain predetermined development stages and milestones, and royalties from the sales of the drugs or diagnostics products, which will be based on our discoveries.

To date, we have commenced to implement this strategy by entering into a broad pipeline collaboration agreement with Diagnostic Products Corporation for the development and commercialization of novel diagnostic products, with an anticipated focus on cancer and cardiovascular disease.

**Subsidiaries**

***Keddem Bioscience Ltd.***

In 1999, we formed a chemistry division focusing on the development of a technology platform intended to identify small molecule lead compounds for protein targets that does not rely on protein structure information or high-throughput screening of millions of compounds. On August 1, 2004, we turned our chemistry division into a wholly-owned subsidiary, Keddem Bioscience (see Item 7. "Major Shareholders and Related Party Transactions. Related Party Transactions. Keddem Bioscience Ltd.").

Keddem Bioscience's objective is to improve the success rate for the development of new drug products by developing and applying a technology platform that consistently enables the design of small molecules which can change the level of activity of potentially any given protein target. Identifying a lead chemical for a potential target is a long, arduous and expensive undertaking, considered by many to be the principal bottleneck in small molecule drug discovery. Common methods for finding such small molecules, typically involving high-throughput screening of drug like compounds, have low success rates and often fail to find any candidate compound for a given target.

Keddem Bioscience`s approach is based on the proposed creation of a comprehensive, yet relatively small set of carefully designed molecules that are not necessarily drug-like, namely that they do not necessarily possess qualities of molecules which are drugs, and a suite of algorithms. Keddem Bioscience intends that the set of molecules will number less than 100,000 and will consist of mostly novel compounds. Although 100,000 compounds is a small number compared to the millions typically used in screening libraries of drug-like compounds, Keddem Bioscience`s screening set is designed to be comprehensive and covering all relevant chemical possibilities. When synthesized, the Keddem Bioscience set of molecules will be used in a screening process, in which the activity of the drug target protein will be tested against the screening library molecules. Through the use of a suite of algorithms to analyze screening results, Keddem Bioscience`s platform is designed to provide comprehensive three-dimensional information about a drug target`s active site. This information can then be used to design a variety of potent inhibitors satisfying desired drug-like properties.

***Evogene Ltd.***

In October 1999, we formed a division focusing on agricultural biotechnology and plant genomics. On January 1, 2002, we turned the business of this division into a majority-owned subsidiary, Evogene Ltd. As of December 31, 2004 we held approximately 84.7% of Evogene`s issued and outstanding share capital, but only 22.85% of Evogene`s share capital, on a fully-diluted basis. Following our grant of irrevocable proxies to certain investors in Evogene, those investors are empowered to vote with 50% of our holdings in Evogene, as existed at the date of grant of such proxies. As a result, we have the power to vote 49.79% of Evogene's share capital (see Item 7. "Major Shareholders and Related Party Transactions. Related Party Transactions. Evogene Ltd.").

Evogene's objective is to develop improved traits in plants. Evogene`s high-throughput platform combines computational genomics tools, knowledge in molecular biology and advanced classical breeding techniques, designed to accelerate, direct and mimic the natural evolution process of plants. Evogene's current product development efforts are focused on enhanced fiber in cotton, abiotic stress tolerance and nitrogen use efficiency in various crops, and a unique plant platform for the production of therapeutic proteins.

**Sales, Marketing and Business Development**

Since our incorporation in 1993, we devoted most of our capital and human resources to research and development of our technologies, discoveries, products and services. In 2003 and in 2004, we moved away from commercializing our software tools and software products and began concentrating our efforts on our in-house discovery activities and commercializing those discoveries. In connection with this shift in strategy, we reduced our sales force from 19 employees in 2002 to six employees by the end of 2004.

The approximate geographical breakdown of our revenues for the year ended December 31, 2004 was 40% in North America, 48% in Europe, 10% in the Far East and 2% in other countries. The approximate geographical breakdown of our revenues for the year ended December 31, 2003 was 66% in North America, 31% in Europe, 1% in the Far East and 2% in other countries. The approximate geographical breakdown of our revenues for the year ended December 31, 2002 was 68% in North America, 20% in Europe, 7% in the Far East and 5% in other countries.

As of December 31, 2004, our sales, marketing and business development staff consisted of six employees, with four based in the US, one in Israel, and one in England.

In the US, we have marketing, sales and business development presence in San Jose, California and in Rockville, Maryland.

**Seasonality; Raw Materials**

Seasonality does not affect our main business; our business generally does not fluctuate based solely on the time of year.

Most of the raw materials that we use in our business are either freely available, such as publicly available EST databases, or are easily available to us or to our customers and at reasonable prices, such as computer hardware and software, and biological materials. Tissue samples that we need to use in our laboratories are often not freely available. Where they are freely available, they may be of poor quality. We have already encountered circumstances in which tissue samples that we acquired were found to be of poor quality. Such circumstances may delay and even interfere with our discovery and development efforts.

**Intellectual Property Rights**

Our intellectual property assets are among our principal assets. These assets include the intellectual property rights subsisting in our proprietary know-how and trade secrets, the copyrights subsisting in our software and related documentation and our patents and patent applications.

We seek to vigorously protect our rights and interests in our intellectual property. We seek patent protection for certain components of our technology platforms and for our therapeutic and diagnostic inventions. We also seek protection for our proprietary know-how and trade secrets that are not protectable or protected by patents, by way of safeguarding them against unauthorized disclosure. This is done through the extensive use of confidentiality agreements and assignment agreements with our employees and third parties as well as by technological means. We use license agreements both to access third party technologies and to grant licenses to third parties to exploit our intellectual property rights. We expect that our commercial success will depend on, among other things, our ability to obtain commercially valuable patents, maintain the confidentiality of our proprietary know-how and trade secrets and otherwise protect our intellectual property.

We currently have approximately 76 families of valid patents or pending patent applications. These patent families include multiple US patents or patent applications as well as foreign applications. To date, we obtained seven issued patents, of which five are US patents, one is a European patent and one is an Australian patent. We also received an allowance for one of our patent applications. We intend to continue to apply for patent protection for our therapeutic and diagnostic inventions, including for related inventions such as antibodies and peptides.

Similarly to other biotechnology companies, the status of our patent portfolio is generally uncertain and involves relatively new and complex legal questions, many of which have not yet been settled. We may not be able to secure patent protection for our discoveries as a result of the following:

legislative and judicial changes, or changes in the examination guidelines of governmental patents offices that negatively affect our ability to obtain genes and gene-based patents;

in view of the finite number of human genes, we face intense competition from other biotechnology and pharmaceutical companies who have already sought patent protection relating to gene and gene-based discoveries that we may intend to develop and commercialize;

part of our discovery efforts are aimed at discovering novel variants of gene-based therapeutic products that belong to third parties and, as such, those third parties may have already acquired intellectual property rights that precede and prevent us from obtaining patent protection for our variants;

publication of large amounts of genomic data by non-commercial and commercial entities may potentially hinder our ability to obtain sufficiently broad patent claims for our inventions; and

even if we succeed in obtaining patent protection, our patents could be partially or wholly invalidated or such protection may otherwise not be sufficient to prevent third parties from using our patented inventions.

Other companies and organizations are attempting to obtain patents relating to novel genes and proteins. These third parties may succeed in obtaining issued patents on genes, proteins or genomics-based products that are similar or identical to those for which we may seek patent protection. Furthermore, these patents may have earlier priority dates over patent applications that we file. In such circumstances, we may be prevented from using the technology for which we seek patent protection.

In circumstances where third parties assert against us claims relating to infringement of their intellectual property, we may be required to invest substantial management and financial resources to in-license such third party intellectual property. Where we seek to in-license such third party intellectual property, any required licenses may not be made available on commercially viable terms, if at all. If we are not able to acquire required licenses, we may be prevented from using or commercializing one or more of our technologies and we may need to forgo a particular development project even though it may have very promising scientific and commercial merits.

Our industry is very litigious. Should patent infringement suits be commenced against us or against our commercial partners, we may be subject to claims for payment of damages and we may be enjoined from using our technology. The commencement of such litigation could also consume a substantial portion of our managerial and financial resources and negatively affect our financial results.

With respect to proprietary know-how that is not patentable or that we choose not to patent, we rely on trade secret protection and confidentiality agreements to protect our interests. Many elements of our computational genomics, functional genomics and proteomics capabilities involve proprietary know-how, technology or data that are not covered by patents or patent applications. We have implemented security measures to protect our proprietary know-how and technologies and confidential data, including a range of confidentiality agreements with out employees, consultants and customers. 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 that we can otherwise meaningfully protect our trade secrets. In the case of arrangements with our customers that require the sharing of information, our policy is to make available to our customers only information 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 information. Any material leak of confidential information 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. We depend on these licenses, and our failure to maintain these rights could harm our business.

**Competition**

The biotechnology and pharmaceutical industries are highly competitive. Numerous entities in the United States and elsewhere compete with our efforts to commercialize our discoveries. Our competitors include pharmaceutical, biotechnology and diagnostic companies, academic and research institutions and governmental and other publicly funded agencies. We face, and expect to continue to face, competition from these entities to the extent that they

develop products that have a function similar or identical to the function of our therapeutic and diagnostic product candidates. We also face, and expect to continue to face, competition from entities that seek to discover therapeutic and diagnostic product candidates.

Many of our competitors are more established, benefit from greater market recognition and have greater financial, technical, human, research and development and marketing resources, as well as facilities and experience, than we do. These competitors may discover and develop product candidates, or market and sell products based on their discoveries, in advance of us or our collaborators and licensees. Our competitors may also obtain patent protection or other intellectual property rights that could limit or prevent us from pursuing the development and commercialization of our discoveries. This prospect is particularly pertinent to us since our discovery engines and related technologies are aimed at identifying, among other discoveries, novel alternatively spliced variants of genes that are the basis of third parties` respective gene-based therapeutic or diagnostic products. We have already encountered circumstances where third parties attained intellectual property rights in their respective therapeutic or diagnostic products that preceded and interfered with the rights that we obtained. We expect to encounter similar such circumstances in relation to other therapeutic or diagnostic product candidates that we may wish to develop.

The human genomic pool is finite. To our knowledge, third parties, including our competitors, have been filing wide patent applications covering an increasing portion of the human genomic pool. In the future, we may be unable to continue and extract or use new information through EST-based methods, since such information will be protected by third party intellectual property right, which precede our rights.

Our discovery program depends, in large part, on our discovery engines and other technologies and our proprietary data to make inventions and establish intellectual property rights in genes and gene-based products, including mRNAs and proteins. There are a number of other means by which such inventions and intellectual property can be generated. We believe that our computational technologies, and specifically our Leads-based discovery engines, provide us with a competitive advantage in the field of predicting splice variants, over pharmaceutical, diagnostics and biotechnology companies with which we compete. We believe that this advantage is made possible by the incorporation of ideas and methods from mathematics and computer science into biology, and by the modeling of significant biological phenomena and the resultant better research capabilities that we developed. Nevertheless, we may lose this advantage if our existing or future competitors make scientific and technological progress, or if we provide to our customers, primarily biotechnology, pharmaceutical and diagnostic companies, access to results that we generate through the use of our discovery engines. In addition, we may discover and pursue the development of therapeutic or diagnostic product candidates that could conflict with our collaborators` discovery and development plans, including licensees or collaborators to whom we granted in the past a license to use our LEADS computational platform. The prospect of such a conflict arising is particularly pertinent in relation to those collaborators and licensees that received from us a license to use our LEADS computational platform to analyze raw data which is the same or similar to the raw data that we may analyze through LEADS.

Although collaborations for the development and commercialization of therapeutic and diagnostic product candidates can assume many forms, to the extent that these will be based on use of our discovery engines and other related technologies for the benefit of a collaboration, we may be competing with companies such as Exelixis Inc., Curagen Corporation and Myriad Genetics, Inc. all of whom seek to develop life science products based on the analysis of large amounts of genomic information.

**Government Regulation**

***Environmental Regulation***

Our research and development activities in some cases involve the controlled use of biological and chemical materials, a small amount of which could be considered to be hazardous. We also have the facilities for safe use and handling of radioactive materials. We are subject to Israeli laws and regulations governing the use, storage, handling and disposal of all these materials and resulting waste products. We store relatively small amounts of biological and chemical materials. To our knowledge, we substantially comply with these laws and regulations. However, the risk of accidental contamination or injury from these materials cannot be entirely eliminated. In the event of an accident, we could be held liable for any resulting damages, and any liability could exceed our resources.

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

Our access to and use of human or other organisms` tissue samples in our product development may become subject to further government regulation, in the US, Israel and elsewhere. US and other governmental 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 may suffer.

***Regulation of Products Developed with Governmental 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; Research and Development, Patents and Licenses; Israeli Government Research and Development Programs."

**Organizational Structure**

We are the parent of two wholly-owned subsidiaries, Compugen USA, Inc., which is a corporation incorporated in Delaware and has its principal place of business in California, and Keddem Bioscience Ltd., which is a company incorporated in Israel and has its principal place of business in Ashqelon, Israel.

As of December 31, 2004, we also held approximately 84.7% of the outstanding share capital of Evogene Ltd., but only 22.85% of its share capital, on a fully-diluted basis. We deconsolidated Evogene out of our consolidated financial statements as of July 2003 and thereafter (See Item 5. "Operating And Financial Review And Prospects". "Critical Accounting Policies". "Investment in Evogene Ltd."). Evogene was formed under the laws of the State of Israel and has its principal place of business in Rehovot, Israel. As of December 31, 2004, we had the power to vote 49.79% of Evogene's share capital, due to our granting irrevocable proxies to a group of Evogene's investors (see Item 7. "Major Shareholders and Related Party Transactions. Related Party Transactions. Evogene Ltd.").

**Property, Plant and Equipment**

We lease an aggregate of approximately 28,200 square feet of office and laboratory facilities in Tel Aviv, Israel. The leases in Tel Aviv expire in December 2009.

Keddem Bioscience leases approximately 7,750 square feet of office and laboratory facilities in Ashqelon, Israel. The lease in Ashqelon expires on August 31, 2006, and we have an option to extend it for an additional term of five years.

In addition, Compugen USA leases approximately 406 square feet of office space in San Jose, California and approximately 145 square feet in Rockville, Maryland. The lease in San Jose expires on May 30, 2005, and we have an option to extend it for one additional year, and the lease in Maryland expires in January 2006.

We believe that the facilities that we currently lease are sufficient for approximately the next 12 months.

There are no encumbrances on our rights in these leased properties or on any of the equipment that we own.

To our knowledge, there are no environmental issues that affect our use of the properties that we lease.

# ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion of our critical accounting policies and our financial condition and operating results should be read in conjunction with our consolidated financial statements and related notes, prepared in accordance with US GAAP for the years ended December 31, 2004, 2003 and 2002 respectively, and with any other selected financial data included elsewhere in this annual report.

**Background**

We are a drug and diagnostic discovery company, incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine. We believe that this capability results in powerful predictive models and discovery engines and related technologies, which are both advancing our understanding of important biological phenomena and enabling the discovery of numerous potential therapeutic proteins and diagnostic markers.

We develop platforms, discovery engines and related technologies that enable the discovery and analysis of genes and gene-based products, including mRNAs and proteins. These include our LEADS computational biology platform, and our discovery engines, such as our protein variant discovery engine and our diagnostic biomarkers discovery engine.

Our discovery engines are proprietary technologies designed to enable our researchers to identify proteins and mRNAs with desired properties, intended to render them suitable for therapeutic and diagnostic development. Our discovery engines extend the capabilities of our LEADS platform by incorporating sophisticated search and analysis algorithms to select the most promising therapeutic proteins and diagnostic markers in a specific category or area of interest, from the myriad of proteins identified by our technologies.

We use our discovery engines and other related technologies for our drug and diagnostics discovery. By using these engines and other related technologies, we have discovered potentially novel therapeutic proteins and diagnostic markers that we believe may be suitable for developing therapeutic and diagnostic product candidates respectively. Based on our belief in the capabilities of our discovery engines and related technologies, it is our intention to continue our efforts in the selection of additional therapeutic proteins and diagnostic markers product candidates. We have an early stage in-house pipeline of selected potential therapeutic proteins and diagnostic markers, which we have discovered. Going forward, we plan on continue to regularly augment our internal therapeutic and diagnostics pipelines with additional product candidates for therapeutic a diagnostic development. We intend to continue to pursue licensing arrangements and collaboration agreements with leading biotechnology, diagnostic and pharmaceutical companies, for the development and commercialization of product candidates that we discover and develop through the use of our discovery engines and related technologies.

OPERATING RESULTS

**Overview**

***We have incurred losses and our revenues are likely to decrease in the next few years***.

Since our inception, we have incurred significant losses and, as of December 31, 2004, we had an accumulated deficit of $80.9 million (not including approximately $24.9 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 in the near future.

Prior to 2004, an important aspect of our commercialization activities involved the sale of hardware and software platforms, tools, databases and other products, in which we incorporated certain aspects of our understandings and/or discoveries and made them available to our customers. For example, in 2004, our revenues were primarily attributable to the commercialization of our LEADS platform and Genecarta and OligoLibraries. The commercialization of these products is no longer at the focus of our business. We also recorded revenues both from royalty-bearing and non-royalty bearing Israeli governmental grants.

We now intend to commercialize the therapeutic and diagnostic product candidates that we generate from use of our discovery engines and related technologies. To date, we have used our discovery engines and related technologies both internally and in collaboration with Diagnostic Products Corporation. We continue to evaluate various opportunities for additional collaborations based on use of these discovery engines. We intend to continue to focus on the licensing out of our novel therapeutic and diagnostic product candidates, which we discovered and intend to continue to discover internally or with our collaborators. We intend that such licensing-out arrangements will be with pharmaceutical, biotechnology and diagnostics companies, who will develop and commercialize therapeutic or diagnostic products based on our discoveries. In these commercial arrangements we seek to receive payments upon the successful completion of certain predetermined developmental stages and milestones, and royalties from the sales of the drugs or diagnostics products, which will be based on our discoveries.

During 2005 and beyond, we intend to continue in our efforts to generate revenue from licensing-out, to our prospective collaborators and licensees, the intellectual property rights subsisting in our therapeutic and diagnostic product candidates that we generate from use of our discovery engines and related technologies.

We believe that the greatest long term and sustainable financial potential for us lies in the commercialization of specific therapeutic proteins and diagnostic marker product candidates that we discovered and that we plan to continue to discover through the use of our discovery engines and related technologies and through our intended collaborations. For the purpose of attaining this goal, we have shifted our focus away from commercializing our computational platforms and tools (such as Genecarta and OligoLibraries), all of which yielded revenues in the short term. We believe that the commercialization of our therapeutic and diagnostic product candidates has the potential to generate revenues, in the long term, to a substantially greater extent than the long-term potential revenue-stream from commercializing our computational platforms and tools only.

Since we shifted focus away from commercializing our computationally-based products, our revenues, not including governmental and other grants, decreased by approximately 61% in 2004 compared to 2003, and by approximately 27% in 2003 compared to 2002.

***Our research and development expenses are expected to account for more than 60% of our total operating expenses.***

Our research and development expenses are expected to be our major expense in 2005, accounting for more than 60% of our total 2005 operating expenses. Our research and development expenses have always comprised a significant portion of our expenses. However, approximately since 2001, the specific research and development activities in which we invested our resources has changed, to accommodate our changing business focus. In 2004 we significantly increased the resources allocated to advance our internal therapeutic proteins and diagnostic markers pipeline.

Since January 1, 2001, we presented governmental and other grants as one of the components of our total revenues. Prior to January 1, 2001, we accounted for research grants as a reduction in research and development expenses. We have changed our financial statements for the years preceding 2001 to conform to this change.

***We base our budget and operating expenses on our cash flow.***

We base our budget and operating expenses on our cash flow. For a detailed description of our cash and cash equivalents position, see "Liquidity and Capital Resources" in this Item 5.

**Compensation expenses attributed to option grants.**

We recorded compensation expenses of approximately $862,000 in 2002, approximately $1.1 million in 2003, and approximately $755,000 in 2004, in connection with the grant of share options. These expenses are mostly attributable to options that we granted to our consultant and to those of our employees and directors to whom we granted employee stock options at an exercise price below the fair market value at the date of grant. These amounts are amortized over the vesting periods of the individual share options. Based on options granted through December 31, 2004, and based on our ordinary share price on that date, we estimated that our future amortization of compensation expenses will be approximately $1.1 million in 2005 and approximately $880,000 in 2006. Effective as of July 2005, we are required to apply new accounting standard FAS 123R, which determines the accounting treatment for share-based payments to employees. These estimates already reflect the application of this standard. These estimates are subject to changes in the share price or in the amount of granted options at any given point in time. Our current policy is to grant options at the fair market value of the underlying shares on the date of grant.

**Impact of Inflation and Currency Fluctuations**

We generate a substantial portion of our revenues and hold most of our cash, cash equivalents and marketable securities in US dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israeli Shekels. As a result, we are exposed to the risk that the US dollar will be devalued against the New Israeli Shekels. In addition, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the New Israeli Shekels in relation to the US dollar or that the timing of this devaluation will lag inflation in Israel. However, since a significant portion of our expenses are salaries and related expenses, which are paid in New Israeli Shekels, this is a small risk. To date, our business has not been materially adversely affected by changes in the Israeli rate of inflation or the exchange rates of the NIS compared to the US dollar. We do not currently use financial instruments for trading purposes.

**Critical Accounting Policies**

The preparation of our consolidated financial statements and other financial information appearing in this annual report requires our management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate on an on-going basis these estimates, mainly related to revenues, allowance for doubtful debts, contingencies, and investment in Evogene.

We base our estimates on our experience and on various assumptions that we believe are reasonable under the circumstances. The results of our estimates form the basis for our management`s judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

***Revenue and Grants Recognition***

We generate most of our revenues from license fees related to the commercialization of our software products. We also generate revenues from the sale of services, including from the provisions of maintenance, support, customization, training and installation services, and also from the sale of products (such as our OligoLibraries). In addition, we recognized as revenues, governmental and other grants that we received.

We recognize revenues from collaboration arrangements in accordance with Statement of Position 81-1 "Accounting for Performance of Construction - Type and Certain Production - Type Contracts" ("SOP 81-1"). The reason for using this Statement of Position is that the various elements of our collaboration arrangements are deemed to be inseparable portions of an overall solution. We believe that revenues that we generate from our collaborations under which we commercialize our software products should be recognized in accordance with the development plan of each specific collaboration, using contract accounting on a percentage of completion method - the input measure prescribed in SOP 81-1. As a result, revenues that we generate from these collaboration arrangements were recognized in accordance with our estimate regarding the status of the collaborative project. Any revisions to estimates of the status of a project (and the consequent recognizable revenues) are recorded in the period during which we become aware of these changes. If we do not accurately estimate the resources required for or the scope of work to be performed under each such collaboration arrangement, or do not manage our projects properly within the planned periods of time or satisfy obligations under the contracts, then the service margins may be significantly and negatively affected or losses on existing contracts may have to be recognized. We periodically check the possibility of losses from collaboration arrangements, which should be recognized immediately, in accordance with our projections. During 2004, no provision for losses was required.

We recognize software license revenues in accordance with Statement of Position 97-2, "Software Revenue Recognition" ("SOP 97-2") as amended. We recognize revenues when both parties sign an agreement or other persuasive evidence of an arrangement exists, when the software has been shipped or electronically delivered, when the fees are fixed or determinable, and when collection of the resulting receivable is probable, and no other significant obligations remain. For multiple element arrangements, where vendor-specific objective evidence of fair value exists for all undelivered elements, we account for the delivered elements in accordance with the "residual method" prescribed by Statement of Position 98-9, "Modification of SOP 97-2, Software Revenue Recognition with Respect to Certain Transactions" ("SOP 98-9"). Vendor-specific objective evidence of fair value is based on the price a customer is required to pay when the element is sold separately. We assess whether the fee is fixed or determinable and collection is probable at the time of the transaction. In assessing whether the fee is fixed or determinable, we analyze the payment terms of the transaction and other factors, including the nature and class of customer, our historical experience of collecting under our payment terms without granting a concession, the possibility of the product becoming technologically obsolete before the payments become due and the likelihood of the customer asking for a refund. If we determine the fee is not fixed or determinable, we defer the revenue until the payments under the arrangement become due. We assess whether collection is probable based on a number of factors, including the customer's past transaction history and credit worthiness. If we determine that collection of a fee is not probable, we defer the fee and recognize revenue only at the time that collection becomes probable, which is generally upon the receipt of cash.

We recognize revenues from product sales in accordance with SAB 104 "Revenue Recognition" when shipment has occurred, persuasive evidence of an arrangement exists, the vendor`s fee is fixed or determinable, no future obligations exist and collection is probable. We generally do not grant rights of return. Determination of the probability of collection is based on management`s judgments regarding the payment of fees for services rendered and products delivered. Should changes in conditions cause management to determine that this criteria is not met for certain future transactions, revenue recognized for any reporting period could be adversely affected.

Revenue from maintenance contracts is recognized ratably over the term of the maintenance contract. Revenues related to other services are recognized as the services are rendered.

Royalty and non-royalty bearing governmental grants that we receive from the Government of Israel through the Office of the Chief Scientist at the Ministry of Industry, Trade and Labor for funding research and development projects, are presented as a component of total revenues and grants as the related research and development expenses are incurred (for more information, see "Research and Development, Patents and Licenses", below).

***Contingencies***

We periodically estimate the impact of various conditions, situations and/or circumstances involving uncertain outcomes to our financial condition and operating results. These events are called "contingencies", and the accounting treatment for such events is prescribed by the Statement of Financial Accounting Standards No. 5, "Accounting for Contingencies" ("SFAS No. 5"). SFAS No. 5 defines a contingency as "an existing condition, situation, or set of circumstances involving uncertainty as to possible gain or loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur". Legal proceedings are a form of such contingencies.

We are not currently involved in any legal proceedings and are not required to assess the likelihood of any specific adverse judgments or outcomes of such proceedings or of any potential ranges of probable losses. A determination of the amount any accruals, if required, for these contingencies would be made after careful analysis. As of December 31, 2004, we believe that the status of legal proceedings (described in Item 8. "Financial Information; Consolidated Statements and Other Financial Information; Legal Proceedings") will not have a material impact on our financial condition, results of operations or cash flows. It is possible, however, that future results of operations for any particular quarter or annual period could be materially affected by changes in our assumptions or as a result of the effectiveness of our strategies related to these legal proceedings.

***Investment in Evogene Ltd.***

In accounting for our investment in Evogene, we adopted FIN 46 on July 1, 2003. Under FIN 46, we determined that Evogene qualified as a Variable Interest Entity, an entity which has one of the following: (1) an insufficient amount of equity to carry on its principal operations, without additional subordinated financial support from other parties, (2) a group of equity owners that are unable to make decisions about the entity`s activities, or (3) equity that does not absorb the entity`s losses or receive the benefits of the entity.

FIN 46 requires consideration and estimates of a significant number of possible future outcomes of the Variable Interest Entity as well as the probability that each of the outcomes will occur. The results of each possible outcome are allocated to the parties holding interests in the Variable Interest Entity. Based on the allocation of possible outcomes, a calculation is performed to determine which party, if any, has a majority of potential negative outcome (expected losses) or a majority of the potential positive outcomes (expected residual returns). That party, if any, is the Variable Interest Entity`s primary beneficiary and is required to consolidate the Variable Interest Entity. Calculating the expected losses and expected residual returns is highly subjective and requires the use of significant estimates.

We have examined the potential future results of Evogene, assigning probabilities to each potential outcome, and allocated these potential outcomes to the Variable Interest Entity`s variable interest holders. We have determined that we are not the primary beneficiary of Evogene, since we do not absorb the majority of the entity's expected losses or its expected residual returns. We have the power to vote 49.79% of Evogene's share capital due to our granting irrevocable proxies to a group of Evogene's investors with respect to most of our shares in Evogene. For more information about our voting power in Evogene, see Item 7, "Major Shareholders and Related Party Transactions. Related Party Transactions. Evogene Ltd.".

Under FIN 46, the reconsideration of a Variable Interest Entity`s primary beneficiary status requires a triggering event, such as any of the following: (1) the entity`s governing documents or contractual arrangement among the parties have been changed, (2) sales of part of the variable interests to unrelated parties, (3) acquirement of newly issued variable interest in the entity or a portion of the primary beneficiary`s interest, or (4) decrease in assets due to losses incurred by the Variable Interest Entity. In 2004, we again evaluated FIN 46 following the consummation of an amended and restated convertible loan agreement in February 2004, between Evogene and certain investors, and the issuance of additional shares to us under a LEADS license extension agreement with Evogene dated September 6, 2004 (See Item 7. Major Shareholders and Related Party Transactions for more information on this transaction). Our conclusion from this evaluation is that we are still not the primary beneficiary of Evogene.

**Results of Operations**

***Selected Financial Data***

The following discussion and analysis is based on and should be read in connection with our audited consolidated financial statements, including the related notes, contained in "Item 18 - Financial Statements" and the other financial information appearing elsewhere in this annual report.

| | Year ended December 31 | | | | |
|---|---|---|---|---|---|
| | 2000 | 2001 | 2002 | 2003 | 2004 |
| | **($ in thousands, except share and per share data)** | | | | |
| **Consolidated Statements of Operations Data** | | | | | |
| Revenues | $ 6,891 | $ 10,366 | $ 9,262 | $ 6,776 | $ 2,630 |
| Governmental and other grants | 466 | 994 | 1,835 | 2,050 | 1,397 |
| Total revenues and grants | 7,357 | 11,360 | 11,097 | 8,826 | 4,027 |
| Cost of revenues | 1,720 | 3,455 | 2,819 | 2,275 | 1,100 |
| Research and development expenses | 12,635 | 15,976 | 14,170 | 13,306 | 12,318 |
| Sales and marketing expenses | 3,781 | 6,565 | 5,538 | 3,811 | 2,446 |
| General and administrative Expenses | 5,397 | 4,383 | 3,614 | 3,650 | 3,740 |
| Total operating expenses ** | 23,533 | 30,379 | 26,141 | 23,042 | 19,604 |
| Operating loss | (16,176) | (19,019) | (15,044) | (14,216) | (15,577) |
| Financial and other income, net | 2,772 | 3,875 | 2,840 | 2,774 | 1,855 |
| Net loss | $ (13,404) | $ (15,144) | $ (12,204) | $ (11,442) | $ (13,722) |
| Dividends related to convertible preferred shares | 24,923 | - | - | - | - |
| Net loss available to ordinary shares | (38,327) | (15,144) | (12,204) | (11,442) | (13,722) |
| Basic and diluted net loss per ordinary share *** | $ (2.75) | $ (0.58) | $ (0.47) | $ (0.43) | $ (0.50) |
| Weighted average number of ordinary shares used in computing basic and diluted net loss per share | 13,914,485 | 26,005,784 | 26,103,343 | 26,409,180 | 27,473,341 |

| | | | | | |
|---|---|---|---|---|---|
| Pro forma basic and diluted net loss Per share (unaudited) **** | | | | | |
| | $ (0.69) | - | - | - | - |
| Pro forma weighted average number of shares outstanding (unaudited) **** | | | | | |
| | 19,305,553 | - | - | - | - |

| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2000(*) | 2001(*) | 2002(*) | 2003(*) | 2004 |
| | | | **($ in thousands)** | | |
| **Consolidated Balance Sheet Data:** | | | | | |
| Cash and cash equivalents, short-term bank deposits and marketable securities | $90,675 | $32,347 | $48,402 | $16,707 | $20,574 |
| Long-term investments in marketable securities and bank deposits | - | 46,148 | 18,940 | 43,803 | 27,854 |
| Receivables, net | 2,759 | 3,163 | 4,601 | 1,456 | 1,545 |
| Inventory | 347 | 134 | 111 | - | - |
| Total assets | 97,872 | 87,289 | 77,257 | 67,526 | 55,353 |
| Accumulated deficit | (53,244) | (68,388) | (80,592) | (92,034) | (105,756) |
| Total shareholders' equity | 92,510 | 80,062 | 68,881 | 59,808 | 49,566 |

(*) Reclassified.

(**) Includes deferred stock compensation . See Note 10 of our 2004 consolidated financial statements.

(***) Basic and diluted net loss and pro-forma basic and diluted net loss, for the year ended December 31, 2000 exclude the non-cash dividend recorded in the amount of $24.9 million related to the beneficial conversion feature of the issuance of 5,538,462 Series C preferred shares (at a price of $6.50 per share). As per their terms, all preferred shares were converted to ordinary shares upon the closing of our initial public offering in August 2000.

(****) Pro-forma basic and diluted net loss per share and pro-forma weighted average number of shares outstanding for the year ended December 31, 2000 give effect to the automatic conversion of the preferred shares which occurred in August 2000 upon the closing of the IPO (using the "as-if converted" method from original date of issuance).

***Years Ended December 31, 2004 and 2003***

*Revenues and Grants.* Revenues and grants decreased by 54% to approximately $4.0 million in 2004 from approximately $8.8 million in 2003. The decrease in revenues and grants was primarily due to decreased sales of LEADS, Genecarta, and Oligolibraries, and decreased governmental and other grants. The decrease in the sales of

these products is attributable to the shift in focus away from commercializing our computational products in favor of generating long-term revenues from commercializing the therapeutic and diagnostic product candidates that we discover and develop. Revenues from governmental and other grants decreased by 32% to approximately $1.4 million in 2004 from approximately $2 million for 2003. This decrease is primarily due the Office of Chief Scientist rejecting our application to continue funding in 2004 one of our projects that was funded in 2003, and our termination or reduction in the scope of activity in other Office of Chief Scientist-funded projects, which was done as part of our shift in focus towards developing therapeutic and diagnostic product candidates. In addition, in 2004, the Office of Chief Scientist`s budget as well as the percentage of its funding of each approved project, were reduced compared to 2003, and as a result less funds were available from it. Revenues from Novartis and Sigma-Genosys represented 61% of our revenues in 2004. Our agreements with each of Novartis and Sigma-Genosys terminated in 2004.

*Cost of Revenues.* Cost of revenues decreased by 52% to approximately $1.1 million for 2004 from approximately $2.3 million for 2003. This decrease was primarily due to decreased costs related to the sale of OligoLibraries, LEADS and Genecarta.

*Research and Development Expenses.* Research and development expenses decreased by 7% to approximately $12.3 million for 2004 from approximately $13.3 million for 2003. The decrease in research and development expenses was primarily due to decrease in cost of salaries due to change of employees, and decrease of depreciation expenses. Research and development expenses as a percentage of total revenues and grants increased from 151% in 2003 to 306% in 2004.

*Sales and Marketing Expenses*. Sales and marketing expenses decreased by 36% to approximately $2.5 million for 2004 from approximately $3.8 million for 2003. This decrease was due to our decision to decrease our marketing and sales efforts for some of our existing hardware and software products and related services. Sales and marketing expenses as a percentage of total revenues and grants increased from 43% in 2003 to 61% in 2004.

*General and Administrative Expenses.* General and administrative expenses increased by 2% to approximately $3.74 million for 2004 from approximately $3.65 million for 2003. This increase was primarily due to an increase in our CEO`s salary, and to the costs associated with the closing of our offices in New Jersey. General and administrative expenses as a percentage of our total revenues and grants increased from 41% for 2003 to 93% in 2004.

*Financial Income, Net.* Financial income, net, decreased by 33% to approximately $1.4 million for 2004 from approximately $2.1 million for 2003. This decrease was attributable to lower levels of cash and cash related accounts, and lower interest rates we received on short and long-term marketable securities. This decrease was partially offset by other income, consisting of approximately $262,000 received from the sale by our subsidiary, Compugen USA, Inc., of its New Jersey net operating losses carryover, and of approximately $343,000 income we received in connection with the sale of our Bioccelerator product line. Financial income, net as a percentage of total revenues and grants increased from 24% for 2003 to 35% for 2004.

***Years Ended December 31, 2003 and 2002***

*Revenues and Grants.* Revenues and grants decreased by 20% to approximately $8.8 million in 2003 from approximately $11.1 million in 2002. The decrease in revenues was primarily due to decreased sales of our Bioccelerator products line (which we have divested), decreased sales of LEADS, decreased sales of Genecarta, decreased sales of Oligolibraries, and decreased sales of Z3 and Z4000. The decrease in the sales of these products is attributable to the shift in focus away from commercializing our computational products in favor of generating long-term revenues from commercializing the therapeutic and diagnostic product candidates that we discover and develop. Revenues from governmental and other grants increased 12% to approximately $2 million for 2003 from approximately $1.8 million for 2002. This increase was due to an increase in grants received from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor. Revenues from Novartis and Abbott represented 52% of our total revenues and grants in 2003.

*Cost of Revenues.* Cost of revenues decreased 19% to approximately $2.3 million for 2003 from approximately $2.8 million for 2002. This decrease was primarily due to decreased costs related to the sale of LEADS, Bioccelerator systems and OligoLibraries.

*Research and Development Expenses.* Research and development expenses decreased 6% to approximately $13.3 million for 2003 from approximately $14.2 million for 2002. The decrease in research and development expenses was primarily due to the devaluation of the Israeli shekel against the US dollar and the decrease in stock based compensation expenses to approximately $308,000 for 2003 from approximately $621,000 for 2002. Research and development expenses as a percentage of total revenues and grants increased from 128% in 2002 to 151% in 2003.

*Sales and Marketing Expenses*. Sales and marketing expenses decreased 31% to approximately $3.8 million for 2003 from approximately $5.5 million for 2002. This decrease was due to the devaluation of the Israeli shekel against the US dollar, the decrease in stock based compensation expenses to approximately $79,000 for 2003 from approximately $197,000 for 2002, and a decrease in promotional costs and marketing expenses. This later decrease is attributable to our decision to decrease our marketing and sales for some of our existing hardware and software tools products and related services. Sales and marketing expenses as a percentage of total revenues and grants decreased from 50% in 2002 to 43% in 2003.

*General and Administrative Expenses.* General and administrative expenses increased 1% to approximately $3.7 million for 2003 from approximately $3.6 million for 2002. This increase was primarily due to an increase of approximately $602,000 in stock based compensation expenses. Without taking into account the stock based compensation expenses, general and administrative expenses decreased by 16% to approximately $3 million for 2003 from approximately $3.5 million for 2002. This decrease was primarily due to the devaluation of the Israeli shekel against the US dollar. General and administrative expenses as a percentage of total revenues and grants increased from 33% for 2002 to 41% for 2003.

*Financial Income, Net.* Financial income, net decreased by 24% to approximately $2.1 million for 2003 from approximately $2.8 million for 2002. This decrease was attributable to lower levels of cash and cash related accounts, and lower interest rates we received on short-term bank deposits and short and long-term marketable securities. This decrease was partially offset by other income, consisting of approximately $218,000 received from the sale by our subsidiary, Compugen USA, Inc., of its New Jersey net operating losses carryover, and of approximately $459,000 attributed to capital gains in connection with the sale of our Bioccelerator product line (see Note 3 of our 2003 Consolidated Financial Statements). Financial income, net as a percentage of total revenues and grants decreased from 25% for 2002 to 24% for 2003.

Governmental Economic, Fiscal, Monetary or Political Policies that Materially Affected or Could Materially Affect Our Operations

Israeli companies are generally subject to income tax at the corporate tax rate of 35%, which was reduced to 34% in January 2005, and will be further reduced to 32% in 2006 and 30% in 2007. However, several investment programs at our facility in Tel Aviv have been granted approved enterprise status and we are, therefore, eligible for a reduced corporate tax under the Law for the Encouragement of Capital Investments, 1959. Subject to compliance with applicable requirements, the portion of our profits derived from the approved enterprise programs will be tax-exempt for a period of two years commencing in the first year in which we generate taxable income and will be subject, for a period of five to eight years, to a reduced corporate tax of between 10% and 25%, depending on the percentage of non-Israeli investors holding 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 US federal tax rate for any income derived by our US subsidiary. There can be no assurance that such tax benefits will continue in the future at their current levels or otherwise.

As of December 31, 2004, we did not have any taxable income. As of December 31, 2004, our net operating loss carry-forwards for Israeli tax purposes amounted to approximately $56 million. Under Israeli law, these net-operating losses may be carried forward indefinitely and offset against certain future taxable income.

Until December 31, 2004, the net operating loss carry-forwards of our US subsidiary for US tax purposes amounted to approximately $15 million. These losses are available to offset any future US taxable income of our US subsidiary and will expire between the years 2012 and 2024.

Use of our US net operating losses may be subject to substantial annual limitation due to the "change in ownership" provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses before utilization.

For a description of Israeli government policies that affect our research and development expenses, and the financing of our research and development, see "Research and Development, Patents and Licenses; Israeli Government Research and Development Programs" in this Item 5 below.

LIQUIDITY AND CAPITAL RESOURCES

In 2004, as in 2003 and 2002, our sources of cash came from a private placement that took place in July 2000, from our IPO, which took place in August 2000, from revenues generated from sales, from Israeli governmental grants and from financing activities. We used these funds primarily to finance our business operations.

***Equity Financing***

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, governmental and other 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, approximately $19,000 in 1999 and approximately $35.5 million in 2000.

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 proceeds from these sales were $57.5 million ($51.1 million net of issuance expenses). All outstanding preferred shares were converted into ordinary shares upon the closing of the initial public offering.

***Net Cash Used in Operating Activities***

Net cash used in operating activities was approximately $9.1 million in 2002, approximately $5.6 million in 2003, and approximately $12.2 million in 2004. These amounts were used to fund our net losses for these periods, adjusted for non-cash expenses and changes in operating assets and liabilities. The sources of the cash that we used in our activities through 2004 was the cash we had in the bank, revenues including governmental and other grants that we received, the receipts from the exercise of employee stock options, and financing income. We expect that our sources of cash for year 2005 will be similar. Our subsidiaries are not restricted from transferring funds to Compugen, although we do not expect any cash to flow in from them.

***Net Cash Used in Investing Activities***

Net cash used in investing activities consists of purchase of marketable securities, proceeds from short-term and long-term bank deposits, purchases of property and equipment, and proceeds from redemption of marketable securities. Net cash provided by investing activities was approximately $5.8 million in 2002, approximately $4.9 million in 2003, and approximately $5.9 million in 2004. The increase in net cash provided by investing activities in 2004 is mainly attributable to the investment of approximately $8 million in marketable securities, and the proceeds

from redemption of marketable securities, of approximately $15.6 million.

***Net Cash Provided by Financing Activities***

Our net cash provided by financing activities was approximately $161,000 in 2002, approximately $3.3 million in 2003, and approximately $2.7 in 2004. The principal sources of cash provided by financing activities in 2002 and 2004 were derived from proceeds received from the issuance of ordinary shares as result of the exercise of stock options by employees. The increase in net cash provided by financing activates in 2003 is attributable to proceeds that we received from the issuance of ordinary shares as result of the exercise of stock options by employees, and from proceeds of approximately $2 million that our then-consolidated subsidiary, Evogene, raised through a convertible loan (See Note 1 of our 2004 Consolidated Financial Statements).

***Net Liquidity***

Liquidity refers to the liquid financial assets we have available to fund our business operations and pay for near term future obligations. These liquid financial assets consist of cash and cash equivalents as well as short-term and long-term marketable securities. As of December 31, 2004, we had cash and cash equivalents, and short-term marketable securities of approximately $20.6 million, and long-term marketable securities of approximately $27.8 million. We believe that our existing cash and cash equivalents, and short-term and long-term marketable securities will be sufficient to fund our operations for at least the next two years. 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.

We have a commitment for capital expenditures in the amount of approximately $190,000 that relates to construction of our molecular biology laboratories and which comprises part of our current liabilities.

RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES

We invest heavily in research and development. Research and development expenses were our major expenditure, representing more than 50% of the total operating expenses for each of 2002, 2003 and 2004. Our research and development expenses were $12.3 million in 2004 compared to $13.3 million in 2003 and $14.2 million in 2002. As of December 31, 2004, 92 of our employees were engaged in research and development on a full-time basis. This represents approximately 75% of our entire work force.

Consistent with our shift in focus away from selling our computational and software products, we now focus our research and development efforts on the development of our discovery engines and related technologies, and of our therapeutic proteins and diagnostic marker product candidates pipeline. We expect that in 2005 our research and development expenses will continue to be our major expenditure, representing more than 60% of our total operating expenses.

We believe that our future success will depend, in large, on our ability to continue to expand our inventory of promising potential therapeutic proteins and diagnostic markers, which we intend to discover through the use of our discovery engines and related technologies and validate in our molecular biology laboratories.

***Israeli Government Research and Development Grants***

We participate in programs offered by the Office of the Chief Scientist under the Industry, Trade and Labor Ministry of Israel that supports research and development activities. We received grants and other forms of consideration from the Office of the Chief Scientist of approximately $1.8 million in 2002, approximately $2.1 million in 2003, and approximately $1.4 million in 2004. We have applied for grants from the Office of the Chief Scientist for the year 2005.

We received grants from the Office of the Chief Scientist for several projects. Under the terms of these grants, we will be required to pay a royalty ranging between 3% to 5% of the net sales of products developed from an Office of the Chief Scientist-funded project, beginning with the commencement of sales of such products and ending when 100% of the dollar value of the grant is repaid (100% plus LIBOR interest applicable to grants received on or after January 1, 1999). The royalty rate (between 3% and 5%) varies depending on the amount of years that lapse between receipt of the grant and its repayment by us. As of December 31, 2004, our contingent accrued obligation for royalties, based on royalty-bearing government grants, net of royalties already paid, totaled approximately $3.9 million, payable out of future net sales of products that were developed under Office of the Chief Scientist -funded projects.

Israeli law requires that the manufacture of products developed with government grants be carried out in Israel, unless the Office of the Chief Scientist provides a special approval to the contrary. This approval, if provided, is generally conditioned on an increase in the total amount to be repaid to the Office of the Chief Scientist, to between 120% and 300% of the amount of funds granted. The specific increase within this range would depend on the extent of the manufacturing to be conducted outside of Israel. Alternatively, the restriction on manufacturing outside of Israel shall not apply to the extent that plans to manufacture were disclosed when filing the application for funding (and provided the application was approved based on the information disclosed in the application). In such circumstances, the Office of the Chief Scientist will take into account the proposal that Office of the Chief Scientist -funded projects will have an overseas manufacturing component. Under applicable Israeli law, Israeli government consent is required to transfer to Israeli third parties technologies developed under projects, which the government funded. Transfer of Office of the Chief Scientist -funded technologies outside of Israel is prohibited. Israeli law further specifies that both the transfer of know-how as well as the transfer of intellectual property rights in such know-how are subject to the same restrictions. These restrictions do not apply to exports from Israel or the sale of products developed with these technologies.

In addition to the Office of the Chief Scientist programs described above, we participate in a number of research consortia in which Israeli research institutions and high technology companies are members. These consortia are devoted to the development of generic technologies in the fields of biotechnology, agricultural biotechnology and pharmaceuticals. The Office of the Chief Scientist MAGNET program sponsors these consortia. Under the terms of the MAGNET program, the Office of the Chief Scientist contributes 66% of the consortium`s research budget that the Office of the Chief Scientist approves and the consortium industry members contribute the remaining 34%. No royalties are payable to the Office of the Chief Scientist with respect to this funding. Expenses in excess of the approved budget are borne by the consortium members.

In general, any member of a consortium that develops technology in the framework of a consortium retains the intellectual property rights to this technology and all other consortium members 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. The terms of the program prohibit the manufacture of products using technology developed in the context of the program outside of Israel nor the transfer of technology developed under the program to any Israeli third party, without the prior written consent of the Office of the Chief Scientist. Transfer of Office of the Chief Scientist -funded technologies outside of Israel is prohibited. Israeli law further specifies that both the transfer of know-how as well as the transfer of intellectual

property rights in such know-how are prohibited. These restrictions do not apply to exports from Israel of products developed with these technologies.

TREND INFORMATION

***Trend towards consolidation***

There is a trend towards consolidation in the pharmaceutical and biotechnology industries, which may negatively affect our ability to enter into agreements. This trend often involves larger companies acquiring smaller companies, and this may result in the remaining companies having greater financial resources and technological capabilities, thus intensifying competition in the industry. This trend towards consolidation in the pharmaceutical and biotechnology industries may also result in there being fewer customers for our products and services. Also, if one of the consolidating companies already uses the technologies or services of our competitors, we may lose existing customers as a result of such consolidation.

***Trend towards making genomic data and related software publicly available***

Large amounts of genomic data are increasingly becoming available to the general public. To date, most of the public efforts relating to human genomics involved producing data under the Human Genome Project. Following the publication of the first draft of the human genome, there has been an increase in public efforts to develop analysis tools for understanding genomic, functional genomic and proteomic data. These efforts have already resulted and may further result in the future in the development of products, which are competitive to ours and that are available free of charge. Such developments could require us to lower our prices, could cause some of our products to be less commercially viable or to be obsolete, or could assist third parties to discover genes or proteins that are of interest to us.

***The pharmaceutical industry is reluctant to in-license potential therapeutic products which are at the early stage of their development***

In the past, pharmaceutical companies were generally willing to in-license potential therapeutic product candidates that were in an early developmental stage. Genomics-based drug discovery and development companies were able to commercialize their intellectual property based only on initial developmental work, and without necessarily performing any preclinical or clinical experiments or validation. While pharmaceutical companies have not necessarily maintained their willingness to in-license early stage product candidates, recently, pharmaceutical and biotechnological companies have been showing an inclination to in-license product candidates at a stage of development which is significantly earlier than Phase II clinical trials, so that they can themselves control and manage the development of product candidates.

The impact on us of the most recent trend (that favors the in-licensing of product candidates at a relatively early developmental stage), if it persists, is that the financial and other resources that we may be required to invest in our product candidates in advance of commercializing them may be reduced. However, if pharmaceutical and biotechnology companies begin in-licensing product candidates at a more advanced stage of development, we may be

required to invest a substantial amount of money and other resources in each product candidate, without assurance that its product candidates will be commercialized and the number of product candidates in which we will be able to invest our research and development resources will be limited.

If we are successful in commercializing some of our product candidates at an earlier developmental stage, the consideration that we can expect to receive for our product candidates would be commensurately low.

OFF-BALANCE SHEET ARRANGEMENTS

We are not a party to any material off-balance-sheet arrangements.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The table below summarizes our contractual obligations as of December 31, 2004 and should be read together with the accompanying comments that follow.

| | | Payments due by period | | |
|---|---|---|---|---|
| | Total | Less than 1 year | 1-3 years | 3-5 years |
| Operating Lease Obligations | 3,642 | 1,053 | 1,553 | 1,036 |
| Other Long-Term Liabilities Reflected on our Balance Sheet under the GAAP of the primary financial statements | 60 | | | 60 |
| Total | 3,702 | 1,053 | 1,553 | 1,096 |

The above table does not include royalties that we may be required to pay to the Office of the Chief Scientist (See "Research and Development, Patents and Licenses" in this Item 5). We are unable to reasonably estimate the time and the amounts that we will eventually be required to pay to the Office of the Chief Scientist, if at all, since these amounts and times depend on our ability to sell products based on the Office of the Chief Scientist -funded technologies and the timing of any such sales.

The above table also does not include contingent contractual obligations or commitments that may crystallize in the future, such as contractual undertakings to pay royalties subject to certain conditions occurring.

# 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 January 31, 2005.

| Name | Age | Positions |
|---|---|---|
| Martin S. Gerstel | 63 | Chairman of the Board of Directors |
| Mor Amitai, Ph.D | 39 | Chief Executive Officer, President and Director |
| Orna Berry, Ph.D | 55 | Director |
| David Schlachet | 59 | Director |
| Ruben Krupik | 53 | Director |
| Nurit Benjamini | 38 | Chief Financial Officer |
| Erez Chimovits | 41 | President, Compugen USA, Inc., and Executive Vice President, Commercial Operations |
| Noam Shani, Ph.D | 42 | Vice President, Biology, Research and Development |
| D`vorah Graeser, Ph.D | 37 | Vice President, Intellectual Property |
| Ronit Weinstein | 42 | Vice President, Human Resources |

**Martin S. Gerstel** has served as our chairman since August 1997. Prior to relocating to Israel in 1994, Mr. Gerstel was co-chairman and CEO of ALZA Corporation, which he helped found in 1968. Mr. Gerstel is also the Chairman of Evogene Ltd. and Keddem Bioscience Ltd., co-founder and co-chairman of Itamar Medical, and serves as a director of Symyx Technologies, Yissum Ltd., Yeda Ltd. and the Foundation for the National Medals of Science and Technology. He is a member of the Board of Governors and the Executive Committee of The Weizmann Institute of Science and The Board of Governors of The Hebrew University of Jerusalem, and is an advisor to the Burrill Life Science Funds and the board of the Israel-US Bi-national Industrial Research and Development (BIRD) Foundation. Mr. Gerstel holds a B.S. from Yale University and an MBA from Stanford University.

**Mor Amitai, Ph.D.** joined us in 1994. He held several positions, including Chief Scientist and Head of Research, before assuming his current position in 1997. Between 1991 and 1994, Dr. Amitai worked as a digital signal processing engineer, developing speech recognition technologies, at Comverse Technologies (NASDAQ: CMVT). Previously, Dr. Amitai carried out algorithm and communications system development for five years in the Israeli Defense Forces, which he left as a captain. Dr. Amitai holds a B.S. in Mathematics and Physics, and an M.S. and a Ph.D. in Mathematics, all from The Hebrew University of Jerusalem. In November 2004, we announced that Dr. Mor Amitai wishes to resign his position and agreed to remain in office until the earlier of finding a new Chief Executive Officer and the end of 2005, to allow our board of directors to recruit a suitable successor.

**Orna Berry, Ph.D** joined our board of directors as an outside director in June 2001. She is a Venture Partner at Gemini Israel Funds, and the Chairperson at Lambda Crossing, Ltd. and at Adamind Ltd. From 1997 to 2000, she was the Chief Scientist of the Ministry of Industry and Trade of the Government of Israel. Dr. Berry was the 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 her 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 of directors for a fixed term, which expires in June 2007.

**David Schlachet** joined our board of directors as an outside director in June 2001. He is a managing partner of BioCom Management and Investment (2002) Ltd, which serves as the managing company of BioCom venture capital fund, focused on life sciences and as of July 2004 he has taken on the role of CFO of Syneron Medical Ltd. He also serves on the Boards of Directors of the following companies: Poalim Capital Markets & Investments Ltd., Harel Capital Markets Ltd., Taya Investment Company Ltd., United Studios Ltd., Pharmos Ltd., Edgar Development and Investment 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 Poalim Ltd. Mr. Schlachet holds a B.Sc. in chemical engineering from the Technion, Israel Institute of Technology and an MBA from Tel Aviv University. Mr. Schlachet serves as an outside director on our board of directors for a fixed term, which expires in June 2007.

**Ruben Krupik** joined our board of directors in 2003. Mr. Krupik serves as the President and CEO of Arte Venture Group Ltd, which provides a framework of business development, investments and Management for various large investment entities in Israel. Mr. Krupik serves as the CEO of Clal Biotechnology Industries, the general manager of Biomedical Investments, the active chairman of Steps Ventures, and the manager of the Arison Group's technology Division. From 1991 to 2000 Mr. Krupik held a number of positions, including the President and CEO of RDC (Rafael Development Corporation Ltd.). Prior to that, Mr. Krupik held a number of senior management positions at Tadiran Communications Group. Mr. Krupik holds an LL.B. in law from the Tel Aviv University and BA in Economics and Political Sciences from the Hebrew University.

**Nurit Benjamini** joined us in 2000 bringing over ten years of experience in the Israeli and international economic field. Prior to joining us, Ms. Benjamini served as CFO of Phone-Or Ltd. Between 1993 and 1998, Ms. Benjamini was CFO at Aladdin Knowledge Systems Ltd. (NASDAQ: ALDN). Ms. Benjamini holds a B.A. in Economics and Business and an MBA in Finance, both from Bar Ilan University, Israel.

**Erez Chimovits** joined us in 1999, holding several senior business development and sales positions before assuming his current position in 2001. Prior to joining us, Mr. Chimovits held various positions in business development,

marketing and sales at Saifan Ltd. Mr. Chimovits holds a B.S. in Biology, an M.S. in Microbiology, and an MBA, all from Tel Aviv University, Israel.

**Noam Shani, Ph.D.** joined us in 2004 from Medgenics Inc., where he served as Vice President of Research and Development and led the development of the company's technologies and applications, including all biological and clinical research. Prior to Medgenics, Dr. Shani was a senior scientist and project manager at Biotechnology General Ltd. In this capacity, he headed the company's generic recombinant protein drug development activities. Dr. Shani holds a B.S. in Biology from Ben Gurion University, Israel and a M.S. and Ph.D. in Biology, both from the Weizmann Institute of Science, Israel. He completed a postdoctoral fellowship at Johns Hopkins University's School of Medicine, Maryland.

**D'vorah Graeser, Ph.D.** commenced working with us in 2004, bringing with her eight years of patent experience in both life science and computer-related fields. Prior to joining us, Dr. Graeser founded a boutique patent firm, which eventually merged with Ehrlich & Partners, a leading patent firm in Israel. Dr. Graeser was a partner at this firm until she joined us. Previously Dr. Graeser worked as a US Patent Agent at Dr. Mark Friedman Ltd., where she headed the department for computer-related patents and applications. Dr. Graeser holds a B.A. in Biochemistry from Harvard University and a Ph.D. in Pharmacology from the University of Michigan, Ann Arbor. She completed post-doctoral fellowships at both the Institute for Biomedical Computing at Washington University in St. Louis, Missouri and at the Imperial Cancer Research Fund in London, performing computer programming and experimental work for the Human Genome Project.

**Ronit Weinstein** joined us in 2003 with almost 10 years of experience in human resources and organizational consulting. Most recently, Ms. Weinstein was Vice President of Human Resources at Enavis Networks, a subsidiary of ECI Telecom (NASDAQ: ECIL). Prior to working for Enavis, Ms. Weinstein served as Director of Human Resources for ECI Telecom and Tadiran Telecommunications Transport Network Division. Previously, Ms. Weinstein served as Human Resources Manager at Comtek. Ms. Weinstein also worked as an organizational consultant for Lotem for three years. Prior to 1993, Ms. Weinstein was a research assistant and lecturer at Tel Aviv University and at the Tel Aviv College of Management. Ms. Weinstein holds a BA in Sociology and Political Science from Tel Aviv University and an MA in Sociology from UCLA.

#### Compensation

The aggregate compensation paid by us and by our wholly-owned subsidiaries to all persons who served as directors or senior management for the year 2004 (15 persons) was approximately $1,529,000. This amount includes approximately $121,000 set aside or accrued to provide pension, severance, retirement or similar benefits.

During 2004, we granted a total of 258,500 options to purchase ordinary shares to our directors and senior management, as a group. These options are exercisable at a range of between $4.45 and $7.27 per share, and expire ten years after their respective date of grant in the case of our employees and directors, and six years after their respective date of grant in the case of our consultants. As of December 31, 2004, there were a total of 1,728,577 outstanding options to purchase ordinary shares that were granted to our directors and senior management, and 112,100 outstanding options that were granted to the members of our scientific advisory board.

All members of our board of directors who are not our employees or consultants are reimbursed for their expenses for each meeting attended and are eligible to receive share options under our share option plans. The aggregate amount paid to all of our non-employee directors for the year ended December 31, 2004 was approximately $60,049. These fees are adjusted semi-annually to reflect changes prescribed by regulations under the Israeli Companies Law, 5759-1994, for payment to outside directors. Members of our scientific advisory board receive cash compensation and, have been granted and may be granted further stock options for their services.

***Approvals Required for Compensation to our Directors***

In accordance with the requirements of Israeli Law, we determine our directors` compensation in the following manner:

first, our audit committee reviews the proposal for compensation;

second, provided that the audit committee approves the proposed compensation, the proposal is then submitted to our board of directors for review, except that a director who is the beneficiary of the proposed compensation does not participate in any discussion or voting with respect to such proposal; and

finally, if our board of directors approves the proposal, it must then submit its recommendation to our shareholders, which is usually done in the forum of our shareholders` general meeting.

The approval of a majority of our shareholders is required to implement any such compensation proposal.

**Board Practices**

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

Our board of directors currently consists of five members, including our chairman and chief executive officer. Other than our two outside directors, our directors are elected by an ordinary resolution at the annual general meeting of our shareholders. In August 2003, our board of directors appointed Ruben Krupik to serve as one of our directors. Unless they resign before the end of their term or are removed in accordance with our Articles of Association, all our directors, other than our outside directors, will serve as directors until our next annual general meeting of shareholders.

Dr. Orna Berry and Mr. David Schlachet serve as outside directors pursuant to the provisions of the Israeli Companies Law for a second three-year term ending in June 2007. After this date, their term of service may not be renewed.

None of our directors or officers have any family relationship with any other director or officer.

None of our directors are entitled to receive any severance or similar benefits upon termination of his or her service, except for Dr. Mor Amitai who is entitled to severance as an employee, pursuant to the terms of his employment agreement.

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

***Alternate Directors***

On April 20, 2004, our board of directors recommended to our shareholders that Article 46 of our articles of association, titled "Alternate Director", be deleted from our Articles of Association. On June 1, 2004, our shareholders approved the deletion of Article 46 of our Articles of Association. Article 46 from our Articles of Association prescribed that a director may appoint, by written notice to us, any individual to serve as an alternate director, provided that proposed alternate director is not currently serving as a director or as an alternate director. The impact of deleting this provision is that a director is no longer entitled to unilaterally nominate an alternate director to replace him/her as one of our acting directors.

***Outside and Independent Directors***

The Companies Law requires Israeli companies with shares that have been offered to the public either in or outside of Israel to appoint two outside directors. No person may be appointed as an outside director if that person or that 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 that person's appointment to serve as an outside director, had 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 that person's position or business activities create, or may create, a conflict of interest with that person's responsibilities as an outside director or may otherwise interfere with his/her 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; abstaining votes shall not be counted in this vote, 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 term. 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 Companies Law and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with service provided as an outside director.

Dr. Orna Berry and Mr. 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.

In addition, since our shares are listed on the Nasdaq National Market, after July 31, 2005, a majority of our directors must be independent (as defined by Nasdaq), and our audit committee must be comprised of at least three members, all of whom must be independent (subject to limited exceptions).

***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 all of its 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, Mr. David Schlachet and Mr. Ruben Krupik. Mr. David Schlachet serves as the Chairman of our Audit Committee.

***Approval of Compensation to Our Officers***

The Companies Law prescribes that compensation to officers must be approved by a company`s board of directors. In accordance with Article 52(d) of our Articles of Association, our board of directors authorized and empowered our Chief Executive Officer to appoint office holders and determine their terms of employment, without our board of director`s approval. Compensation to our officers who serve members of our board of directors require the approval of our audit committee, the board of directors and shareholders, as specified above.

***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 above), 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. We comply with the requirement of the Companies Law relating to internal auditors. Our internal auditors examine whether our various activities comply with the law and orderly business procedure.

***Scientific Advisory Board***

Our scientific advisory board convenes once or twice annually, and we consult with its individual members when we determine that there is a need to do so. At the advisory board meetings, we review our primary ongoing and planned projects, and the advisory board recommends which projects to pursue and in what priority. Our scientific advisory board currently includes:

| Name | Affiliation |
|---|---|

| | |
|---|---|
| Richard Durbin, Ph.D. | Head of Informatics and Deputy Director, Wellcome Trust Sanger Institute, United Kingdom |
| C. Ronald Kahn, M.D. | President and Director, Joslin Diabetes Center, Mary K. Iacocca Professor, Harvard Medical School |
| Joseph Schlessinger, Ph.D. | William H. Prusoff Professor and Chairman of the Department of Pharmacology of the Yale University School of Medicine;<br><br>Member, National Academy of Sciences, USA |
| Arthur Weiss, M.D., Ph.D. | Ephraim P. Engleman Distinguished Professor of Rheumatology;<br>Investigator, Howard Hughes Medical Institute, University of California, San Francisco |

**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.

| **Year Ended December 31,** | **2004** | **2003** | 2002 |
|---|---|---|---|
| Research & Development | | | |
| Israel | 90 | 95 | 109 |
| USA | 2 | 7 | 15 |
| United Kingdom | | 1 | 1 |
| Administration, Accounting and Operations | | | |
| Israel | 24 | 24 | 23 |
| USA | 1 | 4 | 3 |
| Sales, Marketing, Business Development and Support | | | |
| Israel | 1 | 2 | 8 |
| USA | 4 | 7 | 9 |
| United Kingdom | 1 | 1 | 2 |
| Total | 123 | 141 | 170 |

We and our Israeli employees are subject, by an extension order of the Israeli Ministry of Welfare, to a few provisions of collective bargaining agreements between the Histadrut, the General Federation of Labor Unions in Israel and the Coordination Bureau of Economic Organizations, including the Industrialists Associations. These provisions principally concern cost of living increases, recreation pay, travel expenses, vacation pay and other conditions of employment. We provide our employees with benefits and working conditions equal to or above the required minimum. Our employees are not represented by a labor union. We have written employment contracts with 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 in the table 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 January 31, 2005, regarding the beneficial ownership by our directors and executive officers. All numbers quoted in the table are inclusive of options to purchase shares that are exercisable within 60 days after January 31, 2005.

| Beneficial Owner | Amount Owned | Percent of Class |
|---|---|---|
| Martin S. Gerstel [(1)] | 1,810,504 | 5.9% |
| Mor Amitai, Ph.D. [(2)] | 660,008 | 2.2% |
| All directors and senior management as a group | 2,811,521 | 9.2% |

[(1)] Includes 550,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, 1,119,888 shares held by Merrill Lynch IRA for Martin Gerstel, of which Martin Gerstel is the beneficiary, and options to purchase 140,616 shares that are exercisable within 60 days of January 31, 2005. Based on information disclosed by Mr. Martin Gerstel on Form 13G, filed with the SEC on February 14, 2005.

[(2)] Includes options to purchase 660,008 ordinary shares that are exercisable within 60 days of January 31, 2005.

***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 10 of our Consolidated Financial Statements.

Our board of directors administers our share option plans and has the authority to designate all terms of the options granted under our plans 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 fair market value of our ordinary shares on the date of grant, unless otherwise determined by our board of directors.

*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 January 31, 2005, options to purchase 124,000 ordinary shares, granted at a weighted average exercise price of approximately $1.99 per share, remained outstanding under the plan. These options expire ten years after the date of grant or four weeks after termination of a grantee`s employment or other relationship with us, without cause. 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 have granted options to purchase up to 2,289,250 ordinary shares to our and our subsidiaries` employees, directors and consultants. As of January 31, 2005, options to purchase 671,909 ordinary shares were outstanding under the plan at a weighted average exercise price of approximately $2.22 per share. Options to purchase 1,169,875 ordinary shares under the plan have previously been exercised at an exercise price of approximately $1.56, and options to purchase 658,216 ordinary shares remain available for future 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 6,810,668 ordinary shares to our and our subsidiaries' employees, directors and consultants. This total number automatically increases every 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. 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 90 days later. As of January 31, 2005, options to purchase 3,254,336 ordinary shares were outstanding under the plan at a weighted average exercise price of approximately $4.71 per share. Options to purchase 718,791 ordinary shares under the plan have previously been exercised at an exercise price of approximately $3.67, and options to purchase 2,837,541 ordinary shares remain available for future grant.

In 2003, the terms of this plan were modified to comply with changes in the Israeli tax law relating to the taxation of incentive options to Israeli resident employees. Pursuant to the Tax Reform (See "Item 10. Additional Information. Taxation. Israeli Tax Considerations. Tax Reform") and in order to comply with the revised provisions of Section 102 of the Income Tax Ordinance (Amendment No. 132), 5762-2002 (the Ordinance), on February 4, 2003, our board of directors adopted an addendum to our share option plan which applies to options granted as of January 1, 2003 to grantees who are residents of Israel. This addendum does not affect grantees that are not residents of Israel.

On February 4, 2003, our board of directors further resolved to elect the "Capital Gains Track" (as defined in Section 102(b)(2) of the Ordinance) for the grant of options to Israeli grantees. Generally, under the Capital Gains Track, the tax liability to a Grantee resulting from the grant and exercise of options will be postponed until the time that shares that are acquired upon the exercise of options will be sold or released from trust, subject to fulfillment of the requirements of Section 102 of the Ordinance. Entitlement to the benefits under the Capital Gains Track is contingent upon the grantee of options holding them and the shares issued upon their exercise for a period of at least 24 months from the end of the tax year in which the award was made. Under the Capital Gains Track, a fixed rate of 25% apply to gains that are realized from the sale of shares issued upon exercise of options (i.e., for sales proceeds in excess of

the exercise price of the options, assuming that the exercise price is equal to the fair market value of the shares on the date of the award), and provided that the sale occurs after the required holding period.

If a grantee sells shares or releases them from trust prior to expiration of the required holding period, the grantee will be subject to income tax on his gains at a rate which is his or her marginal income tax rate (currently up to 49%), as well as payment of associated health tax and national insurance payments. Additionally, in such circumstances, withholding requirements will apply and be carried out by the employing company in accordance with applicable laws, regulations and rules.

Neither we nor the grantee will be liable for payment of national insurance payments or health tax in connection with the granting or exercise of options that are exercised under the Capital Gains Track mechanism, or upon the sale of the shares underlying such options or upon the release of such shares from the trust, provided that such sale or release occurs after the required holding period.

We will not be entitled to a tax deduction for Israeli income tax purposes with respect to options granted under the Capital Gains Track.

*Non-Plan Options*

In 1996, we granted options to purchase a total of 249,250 ordinary shares to three of our employees. 133,847 of these options were forfeited without being exercised in November 1999. In addition, 115,403 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). We do not intend to grant additional options under this plan.

*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 each of our directors (serving on our board of directors on the date of the closing of our initial public offering) who were not our 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 granted and will continue to grant to 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 vest on the first anniversary of the grant date, and options to purchase 1,250 ordinary shares vest at the end of every three-month period afterwards. In addition, pursuant to the plan, we 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 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 our share option plans in effect on the date of the grant of the option.

On September 3, 2002, our shareholders approved the following grants to our members of our board of directors: (i) each audit committee member shall be entitled to an annual grant of options to purchase 2,000 ordinary shares, (ii) each executive committee member shall be entitled to an annual grant of options to purchase 2,000 ordinary shares,

and (iii) in addition to the previous grants, the chairman of the audit committee and the executive committee respectively, shall each be granted additional options to purchase 2,000 ordinary shares, each year. All of these options shall vest over a four-year period. These options shall be granted at the exercise price equal to the fair market value of our shares, at the time of grant.

# 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 January 31, 2005 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.

| Beneficial Owner | **Number of Ordinary Shares Beneficially Owned** | **Percent of Ownership** |
|---|---|---|

| | | |
|---|---|---|
| Martin Gerstel [1] | 1,669,888 | 6.02 |
| Clal Industries & Investments Ltd. [2] | 3,056,274 | 11.01 |
| AXA Assurances I.A.R.D. Mutuelle [3] | 4,594,980 | 16.56 |

[1] Includes 550,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, 1,119,888 shares held by Merrill Lynch IRA for Martin Gerstel, of which Martin Gerstel is the beneficiary. Based on information disclosed by Mr. Martin Gerstel on Form 13G, filed with the SEC on February 14, 2005.

[2] Includes 10,526 shares held by Clal Industries & Investments Ltd. and 3,045,748 shares held by Clal Biotechnology Industries Ltd. Clal Industries & Investments Ltd.`s address is 3 Azrieli Center, Tel Aviv 67023, Israel. This disclosure is based on information disclosed by Clal Industries & Investments Ltd. on Form 13D, filed with the SEC on May 19, 2003.

[3] This disclosure is based on information disclosed by AXA Assurances I.A.R.D. Mutuelle on Form 13G, field with the SEC on February 14, 2005. On their Form 13G, AXA Assurances I.A.R.D. Mutuelle indicated that they held 17.1% of our share capital, which is a mistake.

As of January 31, 2005, there were a total of 112 holders of record of our ordinary shares, of which 69 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 89% 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.

***Evogene Ltd.***

In October 1999, we formed a division focusing on agricultural biotechnology and plant genomics. On January 1, 2002, we turned the business of this division into a majority-owned subsidiary, Evogene. As part of this transaction, we extended to Evogene a loan in the amount of $900,000 which we subsequently forgave. On January 6, 2003, a group of investors, led by Martin Gerstel, the Chairman of our board of directors extended to Evogene a loan, convertible into equity, in the amount of $2,000,000. Upon conversion of the loan, Evogene will be required to issue to these investors Preferred A Shares of Evogene (convertible into ordinary shares), with certain preferences over ordinary and ordinary-1 shares. Following the closing of the convertible loan transaction, we granted these investors an irrevocable proxy empowering them to vote 820,000 of our shares in Evogene (which constituted 50% of our shareholding of Evogene at the time). Following the convertible loan transaction our shares in Evogene were converted into ordinary-1 shares (convertible into ordinary shares), to allow for certain preferences over ordinary share holders, in the case of liquidation or deemed liquidation of Evogene.

Evogene entered into additional convertible loan agreements with the investors. In February 2004, Evogene and the investors entered into an amended and restated convertible loan agreement, under which the amount of the convertible loan was increased by additional $ 1,551,000. In January 2005 Evogene and investors entered into a convertible bridge loan agreement and an amendment to that agreement, under which the amount of the convertible loan is due to increase by an additional $ 1,600,000. We did not participate in any of these loans.

As of December 31, 2004, we held approximately 84.7% of Evogene`s issued and outstanding share capital, but only 22.85% of Evogene`s share capital, on a fully-diluted basis. As a combined result of us granting irrevocable proxies to investors in Evogene empowering them to vote 820,000 of our shares in Evogene (which constituted 50% of our shareholding of Evogene at the time of the grant) and of the issuance to us of 350,000 ordinary shares of Evogene under a Computational Tools License Agreement, with Evogene (see 2 paragraphs below), we have the power to vote 49.79% of Evogene's share capital (See Note 1b. of our 2004 Consolidated Financial Statements and Item 5.Operating and Financial Review and Prospects. Critical Accounting Policies. Investment in Evogene).

As of December 31, 2004, Martin Gerstel, our chairman of the board, held 6.28% of Evogene`s issued and outstanding share capital (5.43% of Evogene`s share capital, on a fully-diluted basis), and the power to vote approximately 3.49% of Evogene`s share capital. Since December 19, 2004 Martin Gerstel has served as the chairman of Evogene`s board of directors.

We do not have control over Evogene for the following reasons:

We have less than 50% voting power in Evogene;

Other investors in Evogene have the right to covert their loan to Evogene into preference shares;

Of the five directors serving on Evogene`s board of directors, we have only one representative and even though we have a right to nominate another director to represent us, we do not exercise this right;

We are not involved in the daily management of Evogene; and

Under the FASB issued Interpretation No. 46, "Consolidation of Variable Interest Entities", we are not a primary beneficiary of Evogene`s business.

On August 1, 2004, we entered into an Extension Agreement to a Computational Tools License Agreement, with Evogene. The original license was granted to Evogene upon Evogene`s incorporation on January 1, 2002. Under the extension agreement, the license was extended for two additional years, until December 31, 2007, in consideration of the issuance to us of 350,000 ordinary shares of Evogene. During these two years we are obligated to provide to Evogene limited support services at no additional charge. We consider the fair value of the equity instruments received to date in connection with Evogene to be minimal and as a result we did not recognize any revenues from

these transactions.

On September 6, 2004, we entered into a Material Transfer Agreement with Evogene, under which we agreed to provide to Evogene, at no charge, the sequence information to certain of our proteins, as well as small amounts of purified antibodies that bind to these proteins, for the purpose of assisting Evogene to develop a method for producing mammalian proteins in trichome plant cells.

***Keddem Bioscience Ltd.***

On August 1, 2004, we turned our chemistry division into a wholly-owned subsidiary, Keddem Bioscience Ltd. The transaction was effected by way of a transfer to Keddem Bioscience of all of our assets and liabilities that were dedicated to the operation of our chemistry division, in consideration of the issuance to us of 2,999,900 ordinary shares NIS0.01 par value of Keddem Bioscience. On July 29, 2004 we entered into a Convertible Loan Agreement with Keddem Bioscience, under which we agreed to loan to Keddem Bioscience up to US$1,530,000. The outstanding principal loan amount shall bear interest at an annual rate (each year considered separately) which is the greater of (i) 5%; and (ii) the 12 month LIBOR as determined on the first business day after the corresponding anniversary, compounded annually. The loan is convertible into Keddem Bioscience`s shares at our discretion, until the earlier of: (x) the repayment date or (y) the merger, acquisition, IPO or similar event of Keddem Bioscience. If not converted, the loan is to be repaid by Keddem Bioscience upon the earlier of (i) June 30, 2011, and (ii) Keddem Bioscience defaulting under the loan agreement`s terms.

***Consulting Agreement with Shomar Corporation, a company controlled by Martin Gerstel, our Chairman of the Board of Directors***

In October 1998, we entered into a consulting agreement with Shomar Corporation, a company controlled by Martin S. Gerstel, our Chairman of the board of directors. 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 paid Shomar Corporation an annual consulting fee of $150,000, plus reimbursement of Mr. Gerstel's reasonable out-of-pocket expenses. The agreement includes non-disclosure and non-competition obligations in our favor.

On July 30, 2003, we granted to Martin Gerstel options to purchase 150,000 of our ordinary shares at an exercise price of $2.38 per share, under the terms of our 2000 Option Plan. This grant was made in consideration of Shomar Corporation`s waiver of the annual consulting fees of $150,000 for each of the years 2003 through 2006 and was ratified by our shareholders in our annual shareholders` meeting convened on July 30 2003.

On July 30, 2003, we granted to Martin Gerstel options to purchase 100,000 of our ordinary shares, at the exercise price of $2.38 per share, under the terms of our 2000 Option Plan. This grant was made in consideration for his services as Chairman of our board of directors and was ratified by our shareholders in our annual shareholders` meeting convened on July 30 2003.

Except for this aforesaid remuneration, the reimbursement of Mr. Gerstel`s reasonable expenses incurred in connection with the performance of services, in accordance with our consulting agreement with Shomar, and for remuneration that all of our non-employee directors receive (which is the maximum amount payable to external directors in accordance with the Companies Law), Mr. Gerstel does not receive any other direct or indirect compensation for his services to us.

## ITEM 8. FINANCIAL INFORMATION

**Consolidated Statements and Other Financial Information**

Our consolidated financial statements are included on pages F-1 through F-32 of this annual report.

***Legal Proceedings***

Currently, we are not a party to any material pending legal proceedings. Except for the sets of correspondence described below, there are no legal proceedings pending or, to our knowledge, threatened against us or our subsidiaries and we are not involved in any legal proceedings that our management believes, individually or in the aggregate, would have a material adverse effect on our business, financial conditions or operating results.

On January 5, 2004, we received a letter from Genetic Technologies Limited, in which Genetic Technologies claims to own certain patents relating to non-coding DNA polymorphisms. Following discussions between us and Genetic Technologies on July 1, 2004, on August 1, 2004, Genetic Technologies informed us that it wishes to meet with us to discuss the matters raised in this letter. We invited Genetic Technologies to propose dates for such a meeting. However, Genetic Technologies has not responded to that invitation and has not been in touch with us since.

We received a letter dated February 23, 2004 from the law offices of I. Gornitzky & Co acting on behalf of Eli Mintz, a previous employee and officer of ours and one of our co-founders. By that letter, Eli Mintz is requesting that we provide to him his full rights, including those rights that relate to his share options. Following initial communication between our external legal representatives and those acting on behalf of Eli Mintz, we sought clarification of Eli Mintz`s requests. Since that initial communication, we have not received any clarifications or any other information from Eli Mintz.

If Genetic Technologies or Eli Mintz were to institute litigation against us, the cost of such litigation, if instituted, could be substantial whether or not we prevail.

***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 of 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. We currently have no retained earnings and do not expect to have any retained earnings in the foreseeable future.

**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

*Markets and Share Price History*

The primary trading 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. Our shares have also been traded on the Tel Aviv Stock Market under the symbol "CGEN" since January 7, 2002. 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 and on the Tel Aviv Stock Exchange:

| | **Nasdaq** | | **TASE** | |
|---|---|---|---|---|
| **Last Six Calendar Months** | **High** | **Low** | **High** | Low |

| | | | | |
|---|---|---|---|---|
| January 2005 | $6.250 | $4.930 | $6.046 | $4.936 |
| December 2004 | $5.250 | $4.310 | $5.262 | $4.496 |
| November 2004 | $4.900 | $3.750 | $4.724 | $3.832 |
| October 2004 | $5.100 | $3.650 | $4.960 | $3.725 |
| September 2004 | $5.320 | $4.430 | $5.180 | $4.717 |
| August 2004 | $5.210 | $3.180 | $5.081 | $3.042 |
| | | | | |
| **Financial Quarters During the Past Two Full Fiscal Years** | | | | |
| Fourth Quarter of 2004 | $5.250 | $3.650 | $5.262 | $3.725 |
| Third Quarter 2004 | $5.410 | $3.180 | $5.180 | $3.042 |
| Second Quarter 2004 | $7.190 | $4.280 | $7.055 | $4.336 |
| First Quarter 2004 | $8.090 | $5.010 | $8.130 | $5.127 |
| Fourth Quarter 2003 | 5.760$ | 4.320$ | $5.132 | $4.463 |
| Third Quarter 2003 | 5.990$ | 4.000$ | $5.593 | $4.155 |
| Second Quarter 2003 | 6.090$ | 1.750$ | $6.086 | $1.866 |
| First Quarter 2003 | $2.490 | $1.500 | $2.629 | $1.506 |
| | | | | |
| **Last Five Full Financial Years** | | | | |
| 2004 | $8.090 | $3.180 | $8.130 | $3.042 |
| 2003 | 6.090$ | 1.500$ | $6.086 | $1.505 |
| 2002 | $5.240 | $0.910 | $6.335 | $0.894 |
| 2001 | $8.625 | $2.600 | -- | -- |
| 2000 - commencing August 11, 2000 | $19.500 | $5.063 | -- | -- |

## ITEM 10. ADDITIONAL INFORMATION

**Memorandum and Articles of Association**

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

We are registered under the 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 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 has a personal interest. 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 below in "Item 10. Additional Information; Memorandum and Articles of Association; Approval of Certain Transactions" below. 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.

***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, 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 exploitation of any business opportunity of the company in order to reap personal gain 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", which is displayed under "Item 6. Directors, Senior Management and Employees; Directors and Senior Management", is one of our office holders. Under the Companies Law, all arrangements as to compensation of office holders who are not directors require approval of the board of directors, or a committee thereof. Arrangements regarding the compensation of directors also require audit committee and shareholders approval, with the exception of compensation to outside directors in the amounts specified in the regulations promulgated under the Companies Law, as discussed in "Item 6. Directors and Senior Management; Compensation".

The Companies Law requires that an office holder promptly discloses 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 the Companies 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 (5%) or greater shareholder, or holder of 5% or more of the voting power, 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 of directors` approval is required unless the Articles of Association of the company provide otherwise. A 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, the transaction must also 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 is defined as a shareholder who has the ability to direct the activities of a company, other than in circumstances where this power derives solely from the shareholder`s position on the board of directors or any other position with the company, and 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 shareholders` 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 (1%) of the voting rights in the company.

In addition, a private placement of securities that will increase the relative holdings of a shareholder that holds five percent (5%) or more of the company`s outstanding share capital, assuming the exercise by such person of all of the convertible securities into shares held by that person, or that will cause any person to become a holder of more than five percent (5%) of the company`s outstanding share capital, requires approval by the board of directors and the shareholders of the company. However, subject to certain exceptions, shareholders approval will not be required if the aggregate number of shares issued pursuant to such private placement, assuming the exercise of all of the convertible securities into shares being sold in such a private placement, comprises less than twenty percent (20%) of the voting rights in a company prior to the consummation of the private placement.

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 shareholders approval.

In addition, any controlling shareholder, any shareholder who knows it can determine the outcome of a shareholders vote and any shareholder who, under our 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. The Companies Law requires that specified types of transactions, actions and arrangements be approved as provided for in a company`s articles of association and in some circumstances by the audit committee, by the board of directors and by the shareholders. In general, the vote required by the audit committee and the board of directors for approval of these matters, in each case, is a majority of the disinterested directors participating in a duly convened meeting.

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; Related Party Transactions" above.

***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.

***Transfer of Shares***

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.

***Dividend and Liquidation Rights***

We may declare a dividend to be paid to the shareholders of our 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 shareholders of our ordinary shares in proportion to the nominal value of their shareholdings. This right may be affected by the grant of preferential dividend or distribution rights to the shareholders of a class of shares with preferential rights that may be authorized in the future. Pursuant to Israel's securities laws, a company registering its shares for trade on the Tel Aviv Stock Exchange (TASE) may not have more than one class of shares for a period of one year following registration, after which it is permitted to issue preference shares. 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 of directors 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 10. Additional Information; Memorandum and Articles of Association; 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 our 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 such acquisition, the purchaser would become shareholder with over 25% of the voting rights in the company. This rule does not apply if there is already another shareholder of the company with 25% or more of the voting rights. 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`s shareholdings would entitle the purchaser to over 45% of the voting rights in the company, unless there is a shareholder with 50% or more of the voting rights in 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, in general, Israeli tax law treats specified acquisitions less favorably than does US tax law. However, Israeli tax law has been amended to provide for tax deferral in specified acquisitions, including transactions where the consideration for the sale of shares is the receipt of shares of the acquiring company, making Israeli tax consequences more favorable than they had been in the past for shareholders who exchange their ordinary shares for shares in a

foreign corporation under certain circumstances.

**Material Contracts**

***Asset Purchase Agreement and Loan Agreement with Keddem Bioscience Ltd.***

On August 1, 2004, we turned our Chemistry division into a wholly-owned subsidiary, Keddem Bioscience. The transaction was effected by way of an asset purchase agreement pursuant to which we transferred to Keddem Bioscience of all of our assets and liabilities that were dedicated to the operation of our chemistry division, in consideration of the issuance to us of 2,999,900 ordinary shares NIS0.01 par value of Keddem Bioscience. On July 29, 2004, we entered into a Convertible Loan Agreement with Keddem Bioscience, under which we agreed to loan to Keddem Bioscience up to $1,530,000. The outstanding principal loan amount shall bear interest at an annual rate (each year considered separately) which is the greater of (i) 5%; and (ii) the 12 month LIBOR as determined on the first business day after the corresponding anniversary, compounded annually. The loan is convertible into Keddem Bioscience`s shares at our discretion, until the earlier of: (x) the repayment date or (y) the merger, acquisition, IPO or similar event of Keddem Bioscience. If not converted, the loan is to be repaid by Keddem Bioscience upon the earlier of (i) June 30, 2011, and (ii) Keddem Bioscience defaulting under the loan agreement`s terms.

**Exchange Controls**

Under Israeli Law, Israeli non-residents 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. Under Israeli law, both residents and non-residents of Israel may freely hold, vote and trade ordinary shares.

**Taxation**

The following discussion of Israeli and United States tax consequences material to our shareholders is not intended and should not be construed as legal or professional tax advice and does not exhaust all possible tax considerations. To the extent that the discussion is based on new tax legislation, which has not been subject to judicial or administrative interpretation, the views expressed in the discussion might not be accepted by the tax authorities in question.

**We urge shareholders and prospective purchasers of our ordinary shares to consult their own tax advisors as to the US, Israeli, or other tax consequences of the purchase, ownership and disposition of ordinary shares, including, in particular, the effect of any foreign, state or local taxes.**

***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.

*General Corporate Tax Structure*

Israeli companies are generally subject to company tax at the rate of 35%, which was reduced to 34% in January 2005, and will be further reduced to 32% in 2006 and 30% in 2007. However, the effective tax rate payable by a company which derives income from an approved enterprise may be considerably less, as further discussed 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, Trade and Labor 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 between 10% and 25% depending on the percentage of non-Israeli investors holding our ordinary shares, rather than 35% in 2004, which has been reduced to 34% in 2005, and will be further reduced to 32% in 2006 and 30% in 2007, 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 alternative tax 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 seven 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.

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:

| **For a company with foreign investment of** | Company Tax Rate |
|---|---|

| | |
|---|---|
| More than 25% and less than 49% | 25% |
| 49% or more and less than 74% | 20% |
| 74% or more and less than 90% | 15% |
| 90% or more | 10% |

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 attribute part of the dividend to exempt 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 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 granted approved enterprise status to three of our investment programs. However, following the transfer of certain assets to Keddem Bioscience under the Asset Purchase Agreement (See "Item 10. Additional Information; Material Contracts; Keddem Bioscience Ltd."), we currently have an approved enterprise status for two 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. To date, we have not generated taxable income.

*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.

*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

the 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 the Israeli tax authorities will agree that we 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; and

in specified circumstances, gains on traded securities, which might otherwise be eligible for reduced rates of tax, will be liable to company tax at the rate of 35% for 2004.

*Capital Gains Tax on Sale of our Ordinary Shares by both residents and non-residents of Israel.*

Israeli law generally imposes a capital gains tax on the sale of capital assets located in Israel, including shares in Israeli resident companies, by both residents and non-residents of Israel, unless a specific exemption is available or unless a treaty between Israel and the country of the non-resident provides otherwise. Regulations promulgated under the Israeli Income Tax Ordinance provided for an exemption from Israeli capital gains tax for gains accrued before January 1, 2003 and derived from the sale of shares of an "Industrial Company", as defined by the Industry Encouragement Law, that are traded on specified non-Israeli markets, including The NASDAQ National Market, provided that the sellers purchased their shares either in the company`s initial public offering or in public market transactions thereafter.

This exemption does not apply to shareholders who are in the business of trading securities, or to shareholders that are Israeli resident companies subject to the Income Tax (Adjustments for Inflation) Law- 1985, or to shareholders who acquired their shares prior to an initial public offering. We believe that we are currently an Industrial Company, as defined by the Industry Encouragement Law. The status of a company as an Industrial Company may be reviewed by the tax authorities from time to time. There can be no assurance that the Israeli tax authorities will not deny our status as an Industrial Company, possibly with retroactive effect.

On January 1, 2003, the Law for Amendment of the Income Tax Ordinance (Amendment No.132), 5762-2002, known as the tax reform, came into effect thus imposing capital gains tax at a rate of 15% on gains accrued on or after January 1, 2003 from the sale of shares in Israeli companies publicly traded on a recognized stock exchange outside of Israel. This tax rate does not apply to: (1) dealers in securities; (2) shareholders that report in accordance with the Income Tax Law (Inflationary Adjustment) - 1985; or (3) shareholders who acquired their shares prior to an initial public offering. The tax basis of shares acquired prior to January 1, 2003 will be determined in accordance with the average closing share price in the three trading days preceding January 1, 2003. Non-Israeli residents shall be exempt from Israeli capital gains tax on any gains derived from the sale of shares publicly traded on a stock exchange recognized by the Israeli Ministry of Finance, provided such shareholders did not acquire their shares prior to an initial public offering and further provided that their shares were not held through a permanent establishment maintained in Israel by such shareholders. In any event, the provisions of the tax reform shall not affect the exemption from capital gains tax for gains accrued before January 1, 2003, as described in the previous paragraph.

In addition, pursuant to the Convention Between the Government of the United States of America and the Government of Israel with Respect to Taxes on Income, as amended (the "United States- Israel Tax Treaty"), 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 United States-Israel Tax Treaty and who is entitled to claim the benefits afforded to such person by the United States- Israel Tax Treaty (a "Treaty United States Resident") generally will not be subject to the Israeli capital gains tax unless such "Treaty United States Resident" holds, directly or indirectly, shares representing 10% or more of our voting power during any part of the 12-month period preceding such sale, exchange or disposition, subject to certain conditions. However, under the United States-Israel Tax Treaty, such "Treaty United States Resident" would be permitted to claim a credit for such taxes against the United States federal income tax imposed with respect to such sale, exchange or disposition, subject to the limitations in United States laws applicable to foreign tax credits. The United States-Israel Tax Treaty does not relate to United States state or local taxes.

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 US 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 US-Israel tax treaty, the maximum tax on dividends paid to a holder of ordinary shares who is a US resident will be 25%. However, under the Investment Law, dividends generated by an approved enterprise are taxed at the rate of 15%.

***United States Federal Income Tax Considerations***

The following discusses the material United States federal income tax consequences to a holder of our ordinary shares and qualifies as a US Holder, which is defined as:

a citizen or resident of the United States;

a corporation created or organized under the laws of the United States, the District of Columbia, or any state; or

a trust or estate, treated, for United States federal income tax purposes, as a domestic trust or estate.

This definition is based on current provisions of the Internal Revenue Code of 1986 (the "Code"), as amended, current and proposed Treasury regulations promulgated under the Code, and administrative and judicial decisions as of the date of this prospectus, all of which are subject to change, possibly on a retroactive basis. This definition does not encompass any aspect of state, local or non-United States tax laws.

Further, this definition does not purport to be a comprehensive description of all of the tax considerations that may be relevant to US Holders entitled to special treatment under United States federal income tax laws, for example, financial institutions, insurance companies, tax-exempt organizations and broker-dealers, and it does not address all aspects of United States federal income taxation that may be relevant to any particular shareholder based on the shareholder's individual circumstances. In particular, this definition does not address the potential application of the alternative minimum tax, nor the special United States federal income tax rules applicable in special circumstances, including to US Holders who:

have elected mark-to-market accounting;

hold our ordinary shares as part of a straddle, hedge or conversion transaction with other investments;

own directly, indirectly or by attribution at least 10% of our voting power; and

have a functional currency that is not the US dollar.

Additionally, this opinion does not consider the tax treatment of partnerships or persons who hold ordinary shares through a partnership or other pass-through entity or the possible application of United States federal gift or estate taxes. Material aspects of United States federal income tax relevant to a holder other than a US Holder are also described below.

***Taxation of Dividends Paid On Ordinary Shares***

A US Holder will be required to include in gross income as ordinary income the amount of any distribution paid on ordinary shares, including any Israeli taxes withheld from the amount paid, to the extent the distribution is paid out of our current or accumulated earnings and profits as determined for United States federal income tax purposes. Distributions in excess of these earnings and profits will be applied against and will reduce the US Holder's basis in the ordinary shares and, to the extent in excess of this basis, will be treated as gain from the sale or exchange of ordinary shares.

Dividend income earned by individuals may be eligible for a reduced rate of taxation. Dividend income will be taxed at the applicable long-term capital gains rate if the dividend is received from a "qualified foreign corporation," and the shareholder of such foreign corporation holds such stock for more than 60 days during the 120 day period that begins on the date that is 60 days before the ex-dividend date for the stock. The holding period is tolled for any days on which the shareholder has reduced his risk of loss. A "qualified foreign corporation" is one that is eligible for the benefits of a comprehensive income tax treaty with the United States. A foreign corporation will be treated as qualified with respect to any dividend paid, if its stock is readily tradable on an established securities market. However, a foreign corporation will not be treated as qualified if it is a Passive Foreign Investment Company (as discussed below) for the year in which the dividend was paid or the preceding year.

Distributions of current or accumulated earnings and profits paid in foreign currency to a US Holder will be includible in the income of a US Holder in a US dollar amount calculated by reference to the exchange rate on the day the distribution is received. A US Holder that receives a foreign currency distribution and converts the foreign currency into US dollars subsequent to receipt will have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the US dollar, which will generally be US source ordinary income or loss.

As described above, we will generally be required to withhold Israeli income tax from any dividends paid to holders who are not resident in Israel. See "Israeli Tax Considerations - Taxation of Non-Resident Holders of Shares." If a US Holder receives a dividend from us that is subject to Israeli withholding, the following would apply:

You must include the gross amount of the dividend, not reduced by the amount of Israeli tax withheld, in your US taxable income.

You may be able to claim the Israeli tax withheld as a foreign tax credit against your US income tax liability.

The foreign tax credit is subject to significant and complex limitations. Generally, the credit can offset only the part of your US tax attributable to your net foreign source passive income. Additional special rules apply to taxpayers predominantly engaged in the active conduct of a banking, insurance, financing or similar business. Additionally, if we pay dividends at a time when 50% or more of our stock is owned by US persons, you may be required to treat the part of the dividend attributable to US source earnings and profits as US source income, possibly reducing the allowable credit, unless you elect to calculate your foreign tax credit separately with respect to our dividends.

A US Holder will be denied a foreign tax credit with respect to Israeli income tax withheld from dividends received on the ordinary shares to the extent the US Holder has not held the ordinary shares for at least 16 days of the 30-day period beginning on the date which is 15 days before the ex-dividend date or to the extent the US Holder is under an obligation to make related payments with respect to substantially similar or related property. Any days during which a US Holder has substantially diminished its risk of loss on the ordinary shares are not counted toward meeting the 16-day holding period required by the statute.

If you do not elect to claim foreign taxes as a credit, you will be entitled to deduct the Israeli income tax withheld from your Compugen dividends in determining your taxable income. Individuals who do not claim itemized deductions, but instead utilize the standard deduction, may not claim a deduction for the amount of the Israeli income taxes withheld.

If you are a US corporation holding our stock, you cannot claim the dividends-received deduction with respect to our dividends.

Special rules, described below, apply if we are a passive foreign investment company.

***Taxation of the Disposition of Ordinary Shares***

Subject to the description of the passive foreign investment company rules below, upon the sale, exchange or other disposition of our ordinary shares, a US Holder will recognize capital gain or loss in an amount equal to the difference between the US Holder's basis in the ordinary shares, which is usually the cost of these shares, and the amount realized on the disposition. If, as anticipated, the ordinary shares are publicly traded, a disposition of shares will be considered to occur on the trade date, regardless of the holder's method of accounting. Capital gain from the sale, exchange or other disposition of ordinary shares held more than one year is long-term capital gain and is eligible for a reduced rate of taxation for non-corporate holders. Gain or loss recognized by a US Holder on a sale, exchange or other disposition of ordinary shares generally will be treated as United States source income or loss for United States foreign tax credit purposes. The deductibility of capital losses is subject to limitations for both corporate and individual shareholders.

A US Holder that uses the cash method of accounting calculates the US dollar value of the proceeds received from a sale of ordinary shares as of the date that the sale settles, and will generally have no additional foreign currency gain or loss on the sale, while a US Holder that uses the accrual method of accounting is required to calculate the value of the proceeds of the sale as of the trade date and may therefore realize foreign currency gain or loss, unless the US

Holder has elected to use the settlement date to determine its proceeds of sale for purposes of calculating this foreign currency gain or loss. In addition, a US Holder that receives foreign currency upon disposition of our ordinary shares and converts the foreign currency into US dollars subsequent to receipt will have foreign exchange gain or loss based on any appreciation or depreciation in the value of the foreign currency against the US dollar, which will generally be US source ordinary income or loss.

***Tax Consequences If We Are a Passive Foreign Investment Company***

Generally, a foreign corporation is treated as a passive foreign investment company ("PFIC") for United States federal income tax purposes for any tax year if, in such tax year, either (i) 75% or more of its gross income is passive in nature (the "Income Test"), or (ii) the average percentage of its assets during such tax year that produce, or are held for the production of, passive income (determined by averaging the percentage of the fair market value of its total assets which are passive assets as of the end of each quarter of such year) is 50% or more (the "Asset Test").

Because less than 75% of our gross income in 2004 and in prior years constituted passive income, as defined for purposes of the Income Test, we believe that application of the Income Test would have not have resulted in our classification as a PFIC for any of such years.

For 2001, 2002 and 2003, however, it is possible that we could be classified as a PFIC under the Asset Test principally because a significant portion of our assets consisted of the cash raised in connection with both a public offering and a private offering of our ordinary shares in 2000, coupled with the decline in the public market value of our ordinary shares during 2001, 2002 and through the beginning of 2003 and the timing of the required valuations, although there is no definitive method prescribed in the Code, United States Treasury Regulations or administrative or judicial interpretations thereof for determining the value of a foreign corporation`s assets for purposes of the Asset Test. While the legislative history of the United States Taxpayer Relief Act of 1997 indicates that "the total value of a publicly-traded foreign corporation`s assets generally will be treated as equal to the sum of the aggregate value of its outstanding stock plus its liabilities", there remains substantial uncertainty regarding the valuation of a publicly-traded foreign corporation`s assets for purposes of the Asset Test.

In view of the uncertainty regarding the valuation of our assets for purposes of the Asset Test and the complexity of the issues regarding our treatment as a PFIC, US shareholders are urged to consult their own tax advisors for guidance as to our status as a PFIC. For those US shareholders who determine that we were a PFIC and notify us in writing of their request for the information required in order to effectuate the QEF Election described below, we will promptly make such information available to them.

If we are treated as a PFIC for United States federal income tax purposes for any year during a US shareholder`s holding period of ordinary shares and the US shareholder does not make a QEF Election or a "mark-to-market" election (both as described below), any gain recognized by the US shareholder upon the sale of ordinary shares (or the receipt of certain distributions) would be treated as ordinary income. This income would be allocated over the US shareholder`s holding period with respect to his ordinary shares and an interest charge would be imposed on the amount of deferred tax on the income allocated to prior taxable years.

Although we will be generally treated as a PFIC as to any US shareholder if we are a PFIC for any year during the U.S. Shareholder`s holding period, if we cease to satisfy the requirements for PFIC classification, then under such circumstances, the US shareholder may avoid the consequences of PFIC classification for subsequent years if he elects to recognize gain based on the unrealized appreciation in the ordinary shares through the close of the tax year in which we cease to be a PFIC. Additionally, if we are treated as a PFIC, a US shareholder who acquires ordinary shares from a decedent would be denied the normally available step-up in tax basis for these ordinary shares to fair market value at the date of death and instead would have a tax basis equal to the decedent`s tax basis in these ordinary shares.

For any tax year in which we are treated as a PFIC, a US shareholder may elect to treat his ordinary shares as an interest in a qualified electing fund (a "QEF Election"), in which case, the US shareholder would be required to include in income currently his proportionate share of our earnings and profits in years in which we are a PFIC regardless of whether distributions of our earnings and profits are actually distributed to the US shareholder. Any gain subsequently recognized upon the sale by the US shareholder of his ordinary shares, however, generally would be taxed as capital gain.

As an alternative to a QEF Election, a US shareholder may elect to mark his ordinary shares to market annually, recognizing ordinary income or loss (subject to certain limitations) equal to the difference between the fair market value of his ordinary shares and the adjusted tax basis of his ordinary shares. Losses would be allowed only to the extent of net mark-to-market gain accrued under the election.

We cannot assure you that we will avoid becoming a PFIC. US holders who hold ordinary shares during a period when we are a PFIC will be subject to the foregoing rules, even if we cease to be a PFIC. US Holders are urged to consult their tax advisors about the PFIC rules, including QEF elections.

***United States Federal Income Tax Consequences for Non-US Holders of Ordinary Shares***

Except as described in "Information Reporting and Back-up Withholding" below, a Non-US Holder of ordinary shares will not be subject to US federal income or withholding tax on the payment of dividends on, and the proceeds from the disposition of, ordinary shares, unless:

the item is effectively connected with the conduct by the Non-US Holder of a trade or business in the United States and, in the case of a resident of a country which has a tax treaty with the United States, the item is attributable to a permanent establishment or, in the case of an individual, a fixed place of business, in the United States;

the Non-US Holder is an individual who holds the ordinary shares as a capital asset and is present in the United States for 183 days or more in the taxable year of the disposition and does not qualify for an exemption; or

the Non-US Holder is subject to tax under the provisions of United States tax law applicable to US expatriates.

***Information Reporting and Back-up Withholding***

US Holders generally are subject to information reporting requirements with respect to dividends paid in the United States on ordinary shares. Existing regulations impose back-up withholding on dividends paid in the United States on ordinary shares unless the US Holder provides IRS Form W-9 or otherwise establishes an exemption. US Holders are subject to information reporting and back-up withholding at a rate of 28% on proceeds paid from the disposition of ordinary shares unless the US Holder provides IRS Form W-9 or otherwise establishes an exemption.

Non-US Holders generally are not subject to information reporting or back-up withholding with respect to dividends paid on, or upon the disposition of, ordinary shares, provided that the non-US Holder provides a taxpayer identification number, certifies to its foreign status, or otherwise establishes an exemption.

Prospective investors should consult their tax advisors concerning the effect, if any, of these Treasury regulations on an investment in ordinary shares. The amount of any back-up withholding will be allowed as a credit against a US or Non-US Holder's United States federal income tax liability and may entitle the Holder to a refund, provided that specified required information is furnished to the IRS.

**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 office of the SEC located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and at the offices of the Israel Securities Authority at 22 Kanfei Nesharim St., Jerusalem, Israel. 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 were only required to file through the SEC`s EDGAR system as of November 2002. Our periodic filings are therefore available on the SEC`s Website www.sec.gov from that date. You may read and copy any reports, statements or other information that we file with the SEC, through the SEC`s EDGAR system available on the SEC`s website and at the SEC facilities listed above. These SEC filings are also available to the public on the Israel Securities Authority`s website at www.isa.gov.il and 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

We are exposed to a variety of risks, including changes in interest rates and foreign currency exchange risk and inflation. On December 31, 2004 and December 31, 2003, $14 million of our available cash was invested in market risk sensitive instruments. These instruments are three structured notes that we acquired from three separate and unaffiliated issuers. These bear an interest rate, which is dependent upon the six-months LIBOR rate.

We may, in the future, undertake hedging or other similar transactions or invest in other market risk sensitive instruments, if our management will determine that it is necessary to offset these risks.

**Interest Rate Risk**

As of December 31, 2004, we had $48.4 million in cash, cash equivalents and marketable securities. We invest our cash surplus in bank deposits and marketable securities. Since these investments typically carry fixed interest rate, excluding our structure note, and since our policy and practice is to hold these investments to maturity, financial income over the holding period is not sensitive to changes in rates interest.

**Foreign Currency Exchange Risk and Inflation**

Since the majority of our revenues are paid in US dollars, we believe that inflation and fluctuations in the NIS/US 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 US dollar or that the timing of this devaluation lags behind inflation in Israel. In addition, we are exposed to the risk that the US dollar will be devalued against the NIS. 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 US dollar.

## 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**

None.

## ITEM 15. CONTROLS AND PROCEDURES

Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in this report is recorded, processed, summarized and reported on a timely basis. Under the supervision of our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report. Our Chief Executive Officer and Chief Financial Officer have also concluded that there were no significant changes in our internal controls or in other factors that could significantly affect the internal controls subsequent to that date of evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

## ITEM 16. RESERVED

## ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. David Schlachet, who chairs our audit committee, is an "audit committee financial expert".

## ITEM 16B. CODE OF ETHICS

Our board of directors adopted a code of ethics that applies to our chief executive officer, chief financial officer, director of finance, controller, and other persons performing similar functions.

The code of ethics is posted on our website, addressed www.cgen.com.

## ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table presents the fees paid to our external auditors for professional services rendered in the years ended December 31, 2004 and 2003:

| | 2004 | 2003 |
|---|---|---|
| Audit Fees | $55,000 | $ 55,000 |
| Audit Related Fees | - | $ 7,000 |
| Tax Fees | $13,000 | $ 18,000 |
| All Other Fees | $1,935 | $ 6,250 |
| **Total** | **$69,935** | **$ 86,250** |

"Audit Fees" are fees for professional services rendered in connection with the audit of our consolidated annual financial statements and review of our unaudited interim financial statements;

"Audit Related Fees" are fees for professional services rendered in connection with the audit and other assignments, relating to internal accounting functions and procedures;

"Tax Fees" are fees for services rendered in connection with tax compliance, tax planning and tax advice; and

"All Other Fees" are fees for consulting services rendered to us.

## ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

None.

## ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

None.



## ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

# 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-32 of this annual report.

## ITEM 19. EXHIBITS

**Index to Exhibits**

| Exhibit Number | Description |
|---|---|
| 1.1 | Form of Articles of Association of Issuer, as amended as of June 1, 2004. |
| 4.1 | Asset Purchase Agreement with Keddem Bioscience, and Amendment thereto. |
| 4.2 | Loan Agreement with Keddem Bioscience, and Amendment thereto. |
| 10.1 | Consent of Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, dated February 28, 2005. |
| 10.2 | Consent of Kesselman & Kesselman, member of PriceWaterhouseCoopers, independent auditors of Keddem Bioscience, dated February 28, 2005. |
| 10.3 | Audit Report by Kesselman & Kesselman, member of PriceWaterhouseCoopers, independent auditors of Keddem Bioscience, dated February 28, 2005. |
| 12.1 | Certification by Chief Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002. |
| 12.2 | Certification by Chief Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002. |
| 13.1 | Certification by Chief Executive Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002. |
| 13.2 | Certification by Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002. |

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant hereby 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 28th day of February, 2005.

**COMPUGEN LTD.**

Signature: \s\ Dr. Mor Amitai

Name: Mor Amitai, Ph.D.

Title: President, Chief Executive Officer and Director

Date: February 28, 2005

**COMPUGEN LTD. AND ITS SUBSIDIARIES**

**CONSOLIDATED FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2004**

**IN U.S. DOLLARS**

**INDEX**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

**To the Shareholders of**

**COMPUGEN LTD.**

We have audited the accompanying consolidated balance sheets of Compugen Ltd. ("the Company") and its subsidiaries as of December 31, 2004 and 2003, and the related consolidated statements of operations, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We did not audit the financial statements of Keddem BioSciense Ltd., a wholly-owned subsidiary, for the year ended December 31, 2004, which statements reflect total assets constituting 4% in 2004 and total revenues and grants constituting 3.5% in 2004 of the related consolidated totals. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Keddem BioSciense, is based solely on the report of the other auditors.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the

amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits and the report of other auditors provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of December 31, 2004 and 2003, and the consolidated results of their operations and their cash flows for each of the three years in period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles.

Tel-Aviv, Israel
February 7, 2005

KOST FORER GABBAY & KASIERER
A Member of Ernst & Young Global

**F - 3**

| | Note | 2004 | 2003 |
|---|---|---|---|
| ASSETS | | | |
| CURRENT ASSETS: | | | |
| Cash and cash equivalents | 5 | $4,366 | $7,910 |
| Marketable securities | 6 | 16,208 | 8,797 |
| Trade receivables | | 143 | 256 |
| Other accounts receivable and prepaid expenses *) | 7 | 1,402 | 1,200 |
| Total current assets | | 22,119 | 18,163 |
| LONG-TERM INVESTMENTS: | | | |
| Marketable securities | 6 | 27,854 | 43,803 |
| Long-term lease deposits *) | | 102 | 95 |
| Severance pay fund | | 1,539 | 1,528 |
| | | 29,495 | 45,426 |
| PROPERTY AND EQUIPMENT, NET | 8 | 3,739 | 3,937 |
| Total assets | | $55,353 | $67,526 |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | | |
| CURRENT LIABILITIES: | | | |
| Trade payables | | $1,425 | $ 1,583 |
| Other accounts payable and accrued expenses | 9 | 1,682 | 2,046 |
| Deferred revenue | | 276 | 1,566 |
| Total current liabilities | | 3,383 | 5,195 |
| LONG-TERM LIABILITIES: | | | |
| Long-term accounts payable | | 60 | 60 |
| Accrued severance pay | | 1,878 | 1,997 |
| Excess of losses over investment in Evogene | 1b | 466 | 466 |
| Total current liabilities | | 2,404 | 2,523 |
| COMMITMENTS AND CONTINGENCIES | 10, 4 | | |
| SHAREHOLDERS' EQUITY: | 11 | | |
| Share capital: | | | |
| Ordinary shares of NIS 0.01 par value; 50,000,000 shares authorized at December 31, 2004 and 2003, 27,726,022 and 26,848,474 shares issued and outstanding at December 31, 2004 and 2003, respectively | | 74 | 72 |
| Additional paid-in capital | | 155,444 | |