

COMPUGEN LTD  
Form 20-F  
April 18, 2007  
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, 2006

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:**

Ordinary Shares, par value New Israeli Shekels 0.01 per share

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

None

(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:

28,162,202 Ordinary Shares

Indicate by check mark if the registrant is a well known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Yes  No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days:

Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

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

Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

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**COMPUGEN LTD. AND ITS SUBSIDIARIES 1**

**CONSOLIDATED FINANCIAL STATEMENTS 1**

**AS OF DECEMBER 31, 2006 1**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM 2**

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**CAUTIONARY STATEMENT REGARDING**

**FORWARD-LOOKING STATEMENTS**

This annual report on Form 20-F includes "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934. These statements include words such as "may", "expect", "believe", and "intend", and describe opinions about future events. 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", "our company" 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				
	2002	2003	2004	2005	2006
	(\$ in thousands, except share and per share data)				
<b>Consolidated Statements of Operations Data</b>					
Revenues	\$ 9,262	\$ 6,776	\$ 2,630	\$ 646	\$ 215
Total operating expenses	*24,306	20,992	18,207	15,524	14,208
Operating loss	(15,044)	(14,216)	(15,577)	(14,878)	(13,020)
Financial income, net	2,789	2,112	1,417	682	884
Net loss available to ordinary shares	(12,204)	(11,442)	(13,722)	(13,978)	(13,978)
Basic and diluted net loss per ordinary share	\$ (0.47)	\$ (0.43)	\$ (0.50)	\$ (0.50)	\$ (0.47)
Weighted average number of ordinary shares used in computing basic and diluted net loss per share	26,103,343	26,409,180	27,473,341	27,774,535	27,985,957
<b>Consolidated Balance Sheet Data</b>					
Cash and cash equivalents, short-term deposits, marketable securities and cash held in favor of consortium partners	\$48,402	\$16,707	\$20,574	\$31,821	\$25,403
Long-term deposits and marketable securities	18,940	43,803	27,854	4,983	1,000
Total assets	77,257	67,526	55,353	42,106	30,856
Accumulated deficit	(80,592)	(92,034)	(105,756)	(119,734)	(132,754)
Total shareholders' equity	68,881	59,808	49,566	36,248	25,738

(\*) Includes deferred stock compensation - see Note 11 of our 2006 consolidated financial statements.

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

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## **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. If we do not successfully address the risks to which we are subject, we could experience a material adverse effect on our business, results of operations and financial condition and our share price may decline. We can give no assurance that we will successfully address any of these risks. The principal risks are described below.

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

#### **We may not be as successful as we hope in implementing our evolving business model.**

Since in or about 2004, we have made significant changes to our business model, which included the elimination of our sale of computational tools products and services. The elimination of computational tools revenue has negatively affected our financial results. In 2004, we recognized computational tools revenue of approximately \$2.6 million. In 2005 and 2006, we recognized approximately \$646,000 and approximately \$205,000 of computational tools revenue respectively. Under our current business model, we seek to increase revenue through developing therapeutic and diagnostic product candidates and licensing the rights to these product candidates to collaborators and licensees who may be able to develop novel drugs and diagnostic products. Product candidates are molecules that we discover and identify as having a potential therapeutic or diagnostic application. Our current business model in some respects remains untested. We cannot be certain that it will generate a profitable revenue stream. The inability to derive adequate revenues from our current business model may significantly impede improvement in our operating results and profitability.

#### **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 \$13.7 million in 2004, approximately \$14 million in 2005 and approximately \$13 million in 2006. As of December 31, 2006, we had an accumulated deficit of approximately \$107.9 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 in 2000). 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, and we may never be able to achieve profitability.**

We discover and carry out early stage development of therapeutic and diagnostic product candidates. Product candidates are molecules that we discover and identify as having a potential therapeutic or diagnostic application. In 2006, we allocated a substantial portion of our cash and other resources to our discovery and development activities and we intend to continue to do so. To date, these activities have generated only negligible revenues. These activities may never generate significant revenues and we may never achieve profitability.

In December 2005, we underwent a re-organization in order to focus our resources on our research and development and on our commercialization goals. Nevertheless, we do not anticipate that we will achieve profitability in the near future. We expect that we will need additional funds to continue financing our discovery and development and commercialization 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, and if we raise additional capital, our existing shareholders are likely to experience dilution of their shareholdings.**

As of December 31, 2006, we had cash and cash equivalents, short-term deposits and marketable securities of approximately \$25.4 million, and long-term deposits and marketable securities of approximately \$1.0 million. Based on our current projections, we anticipate that our existing cash and cash equivalents, and short term and long term deposits and marketable securities will be sufficient to support our operations for at least the next two years. We expect that we will need to raise additional capital within the next two years.

However, we cannot assure you 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, we expect that our shareholders will experience dilution of their shareholdings. If we fail to raise sufficient funds, we will likely have to further curtail or cease activities, which would materially harm our business and financial results.

**If we are unable to continue to successfully apply for research and development grants, our financial results may be materially harmed.**

We receive research and development grants from the Office of the Chief Scientist of the Israeli Ministry of Industry, Trade and Labor, from the Israel-U.S. Bi-national Industrial Research and Development Foundation and from the European Community, under the European Union's 6<sup>th</sup> Framework Program. Our subsidiary, Keddem Bioscience, also receives certain grants under Israeli government programs and receives funds in support of some of its research and development programs from the Office of Chief Scientist of the Israel Ministry of Industry, Trade and Labor. Our entitlement to receive these grants is dependent on, among other things, our compliance with the various grants' respective terms and conditions. In addition, the total value of grants that the Office of the Chief Scientist makes available generally, and to each individual grantee, has gradually decreased in recent years and may reduce or eliminate these benefits in the future. In 2006, the grants we received and that accrued totaled approximately \$1.8 million, compared with approximately \$2.3 million in 2005 and approximately \$1.4 million in 2004.

If we do not comply with the terms and conditions of the grants or if we do not succeed in obtaining these grants in the future, or if we will be able to obtain only a reduced amount of grants, our business and financial results may be materially harmed, and we may have to restrict or cease operations.

**If our wholly-owned subsidiary, Keddem Bioscience Ltd., will not be able to raise capital in the next few months, it may have to cease operations, in which case all of our investments in Keddem Bioscience's business to date may 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 \$1,572,000. In November 2005, our board of directors also agreed to assign approximately \$400,000 to Keddem Bioscience, which amount represented our entitlement to receive from the Investment Center of the Israeli Ministry of Industry, Trade and Labor on account of our investment in the expansion of our computational chemistry facilities and the building of a chemistry laboratory for drug discovery. Pursuant to our board of directors' decision of June, 2006, Keddem Bioscience received the amount of approximately \$400,000.

We currently seek to raise third party funding for Keddem Bioscience. Since late 2005, Keddem Bioscience's external auditors raised substantial doubts on Keddem Bioscience's ability to continue as a going concern. Keddem has been experiencing operating losses since its incorporation and has accumulated a deficit of \$2,917,000 as of December 31, 2006. Keddem's ability to continue, as a going concern in the next year is dependent on its ability to raise additional funding. If Keddem Bioscience fails to raise additional capital, 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 to discovering 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.**

Our method of discovering novel product candidates involves incorporating ideas and methods from mathematics, computer science and physics into biology, chemistry and medicine. By using this approach, we have already predicted

discoveries *in silico*, which means prediction by computers. We have also initially validated the suitability of some of these discoveries for diagnostic and therapeutic application. However, our approach has not yet been proven or validated beyond that initial validation and we cannot predict whether this method will yield other discoveries or that such discoveries will be suitable for development into therapeutic or diagnostic products.

If our approach is ultimately proven to be ineffective for discovering therapeutic or diagnostic candidates, if we fail to make further discoveries, or if our discoveries are not suitable for development into therapeutic or diagnostic products our business may be materially harmed. If our potential licensees or collaborators believe that this is not a successful approach, or if we are not able to find any biological activity for the therapeutic and diagnostic product candidates that we discover, we may fail to commercialize discoveries that we make, and, as a result, our business will likely be significantly harmed.

**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.**

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, among other risks, the possibility that:

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

- our diagnostic product candidates will prove to be ineffective in distinguishing between healthy and disease samples or in providing information relating to a patient's response to a drug;

- our collaborators will fail to receive applicable regulatory approvals;

- our collaborators will fail to manufacture these products on a large scale in a cost effective manner;

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

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

- 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 and/or

- once a product is launched on the market, there will be little or no demand for it as a result of its exclusion from health funds' reimbursement schemes.

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



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

Our experience in the discovery and development of therapeutic and diagnostic product candidates is limited. In order to successfully develop and commercialize therapeutic and diagnostic product candidates, we must improve our internal expertise, capabilities and facilities. We may not be able to maintain and/or engage any or all of the experts that we need in order to do so.

If we fail to acquire all of the required 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, Europe and elsewhere compete with our efforts to discover, validate and partner with licensees to commercialize therapeutic and diagnostic products or product candidates. 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 develop technologies that enable the discovery of novel 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. 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. They may also obtain patents and other intellectual property rights before us and thereby prevent us from pursuing the development and commercialization of our discoveries. For information about the specific competitors with whom we compete, see "Competition" under "Item 4. Information on the Company."

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, diagnostic and biotechnology industries may adversely affect us.**

There is a trend towards consolidation in the pharmaceutical, diagnostic and biotechnology industries. This consolidation trend may result in the remaining companies having greater financial resources and discovery 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 ability to enter into agreements for the development and commercialization of our product candidates, and as a result may harm our business.

**We depend significantly on collaborators and licensees for the development and commercialization of our therapeutic and diagnostic product candidates, and if we are unable to maintain our existing agreements and 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 depend significantly on our collaborators and licensees to carry out and/or finance product development and

commercialization of our therapeutic and diagnostic product candidates. Potential collaborators and licensees include pharmaceutical, biotechnology and diagnostic companies.

To date, we have granted a small number of licenses for the development and commercialization of our product candidates. Over approximately the past two and a half years, we entered into 6 license collaboration agreements for the development and commercialization of a multiple number of our product candidates.

We cannot assure you that any of these agreements 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 identifying suitable collaborators or licensees or entering into any other agreements with collaborators or licensees for the development and commercialization of our therapeutic and diagnostic product candidates. If we are unable to identify suitable collaborators or licensees or 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 validation and in some cases pre-clinical development of those product candidates. We consider early stage development of diagnostic product candidates to be a stage at which their existence is validated. At this stage we may demonstrate that the product candidate is differentially expressed in different physiological conditions, but in any case with no clinical proof. We consider early stage development of therapeutic product candidate, to be a stage at which we show biological activity of that candidate in animal models. We ordinarily carry out such early stage validation work ourselves, and we ordinarily seek to 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 stages of discovery or validation or 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 validate and develop our discoveries ourselves until the candidates 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 raise or spend these 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, among other things, the following:

we may be unable to comply or fully comply with our obligations under license or collaboration agreements into which we enter, 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;

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;

we may not be able to obtain our collaborators agreement that we own the intellectual property generated under our

collaboration;

our ownership of 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; 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 identify therapeutic and diagnostic product candidates in a specific therapeutic and diagnostic area of interest. By using our discovery engines and related technologies, we intend to constantly feed our pipeline of discoveries with novel therapeutic and diagnostic product candidates. Our success as a 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 new developments and enhancements to our discovery engines and related technologies in order to compete successfully within these industries. Further, since we use public and freely available bioinformatics and other data to improve and enhance our discovery engines, our use of these data may render our discovery engines and related technologies less valuable or even obsolete.

If we 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 on the quality of the data available from those databases, and if we are denied access to these databases for any reason or if the quality of available information is poor, 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. The quality of our discoveries is in part dependent on the quality of the data in these databases. If we are denied access to these databases, or if we are granted access to such databases on terms, which are not commercially reasonable, or if the quality of data available from those databases is poor, our business and our results of operation may be harmed.

#### *Factors Related to our Operations*

**The licensing cycle for our commercial offerings 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 and 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 process of preparing and negotiating our licensing and other agreements 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 believe that we will need to continue to expend substantial funds and management effort into these business development activities with no assurance of successfully entering into agreements with potential collaborators and licensees.

**We may be unable to hire or retain key personnel or sufficiently qualified employees, in which case 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 and other key personnel 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 in certain aspects of 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.

**Revenues that we may generate from commercialization of our technologies or discoveries may be reduced because of obligations to pay back 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. According to Israeli law, certain restrictions and obligations may be imposed on us in relation to the development and commercialization of discoveries that are financed by these grants. These obligations and restrictions may be imposed if we were to seek to manufacture outside of Israel or transfer our know-how within or outside of Israel.

We believe that these obligations and restrictions do not apply to us for a number of reasons, including our strategy not to transfer, as opposed to license, the know-how subsisting in our technologies and discoveries. We also believe that 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. In addition, due to certain changes to the applicable Israeli law that came into force in June 2005, these obligations and restrictions, have been ameliorated.

Nevertheless, if the Office of the Chief Scientist of the Israel Ministry of Industry, Trade and Labor adopts a view contrary to our own or if restrictive statutory changes are legislated in the future, our ability to commercialize some of our technologies or discoveries may be limited.

**We may be unable to safeguard the integrity, security and confidentiality of our data or 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 and third parties` data. However, these methods may not protect us against fire, storm, flood, power loss, earthquakes, telecommunications failures, physical or software break-ins or 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. 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 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 hazardous. 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.

**The clinical 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 clinical development and marketing of therapeutic and diagnostic products based on our discoveries 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, Israel 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 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 marketing therapeutic or diagnostic products based on our discoveries. This will in turn reduce our chances of receiving payment from our collaborators 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. The protective measures that we employ 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, to a large extent, 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. We have a total of eight patents, of which seven are US patents 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.

The process of obtaining patents for inventions that cover our genes and gene-based products is uncertain for a number of reasons, including but not limited to:

the patenting of genes and gene-based inventions 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;

publication of large amounts of genomic data by non-commercial and commercial entities may 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, including by our competitors.

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 do 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 and the proteins expressed therefrom.

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

forgo the research, development and commercialization of therapeutic and diagnostic products candidates that we discover, notwithstanding their promising scientific and commercial merits; or

invest substantial management and financial resources to either challenge or 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.

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 approximately 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 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.**

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. 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 U.S. residents may be required to pay additional U.S. federal income taxes.**

There is a significant risk that we may 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 U.S. holders of our ordinary shares and may cause a reduction in the value of our shares. For U.S. 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 our assets for the taxable year produce or are held for the production of passive income. If we were

determined to be a PFIC for U.S. federal income tax purposes, highly complex rules would apply to U.S. holders owning our ordinary shares.

U.S. holders should carefully read "Taxation, United States Federal Income Tax Consequences" under "Item 10. Additional Information" for a more complete discussion of the U.S. federal income tax risks, including the potential application of the PFIC rules, related to acquiring, owning and disposing of our ordinary shares.

We have a limited operating history based on our revised business model, upon which to base an investment decision.

Since our inception in 1993, our business model has continually evolved. We started our business of discovering therapeutic and diagnostic candidates in 1998, but only fully focused on this business since 2004. Our operations in this business provide a limited basis for you to assess our ability to commercialize our product candidates and the advisability of investing in our securities.

These difficulties may result in our ordinary shares trading at a discount.

**Our share price has been volatile and may be volatile in the future and this could limit investors' ability to sell stock at a profit.**

During the last two fiscal years, our stock price on the Nasdaq Global Market has traded at a low of \$2.1 to a high of \$6.54. The volatile price of our stock may make it difficult for investors to predict the value of their investment, to sell shares at a profit at any given time, or to plan purchases and sales in advance. A variety of factors may affect the market price of our ordinary shares including:

delay or failure in initiating, completing or analyzing pre-clinical or clinical trials or the unsatisfactory design or results of these trials;

achievement or rejection of regulatory approvals by our competitors or us;

announcements of technological innovations or new commercial products by our competitors;

developments concerning proprietary rights, including patents;

developments concerning our collaborations;

regulatory developments in the United States, Israel and foreign countries;

economic or other crises and other external factors;

period to period fluctuations in our revenues and other results of operations;

changes in financial estimates by securities analysts; and;

sales of our ordinary shares

We will not be able to control many of these factors, and we believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance.

In addition, the stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations that may have been unrelated or disproportionate to the operating performance of individual companies. These broad market and industry factors may seriously harm the market price of our ordinary shares, regardless of our operating performance.

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 fluctuated. Since we seek to generate revenues from collaborators and licensees commercializing therapeutic and diagnostic products that are based on our discoveries and which are enabled by the use of the intellectual property, scientific know-how and computational biology capabilities, our quarterly operating results may fluctuate in the future. The fluctuations may result from the extent to which our collaborators and licensees succeed in commercializing our technology.

Our operating results may also fluctuate as a result of, among other things:

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 and licensees may develop our therapeutic and/or diagnostic product candidates into revenue-producing products;

our ability to secure research and development grants.

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. These results should not be relied upon as indications of future performance, and comparisons of quarterly results of operations may not be any meaningful indication of our progress in the long term.

**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 shares.**

Israeli corporate law regulates mergers, requires tender offers for acquisitions of shares above specified thresholds, requires special approvals for transactions involving directors, officers or 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, even if such an acquisition would be considered beneficial by a

majority of our shareholders, 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." Furthermore, Israeli tax considerations may make potential transactions undesirable to us or to some of our shareholders.

### ***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 are located in Israel. Accordingly, political, economic and military conditions in Israel may 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. During the summer of 2006, Israel was engaged in an armed conflict with Hezbollah, a Lebanese Islamist Shiite militia group and political party. This conflict involved missile strikes against civilian targets in northern Israel, and negatively affected business conditions in Israel. In addition, Israel and companies doing business with Israel have, in the past, been the subject of an economic boycott. Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, Israel has been and is subject to civil unrest and terrorist activity, with varying levels of severity, since September 2000. The election in early 2006 of representatives of the Hamas movement to a majority of seats in the Palestinian Legislative Council and the tension among the different Palestinian factions may create additional unrest and uncertainty. Any future armed conflicts or political instability in the region may negatively affect business conditions and adversely affect our results of operations. Parties with whom we do business have sometimes declined to travel to Israel during periods of heightened unrest or tension, forcing us to make alternative arrangements when necessary. In addition, the political and security situation in Israel may result in parties with whom we have agreements involving performance in Israel claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions in the agreements.. 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. However, if there were to be emergency conditions, some of our key employees may be called to active duty for extended periods of time and could adversely affect our operations. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could also 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.



**Our results of operations may be adversely affected by inflation and/or by a devaluation of the Dollar against the New Israel Shekel.**

We hold most of our cash, cash equivalents deposits and marketable securities in US dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses, in New Israel Shekels. As a result, we are exposed to the risk that the US dollar will be devalued against the New Israel Shekel. 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. However, our operations could also be adversely affected if we will be unable in the future to guard against devaluation of the Dollar against the New Israel.

**We may not continue to be entitled to certain tax benefits.**

We and our subsidiary Keddem Bioscience are entitled to certain tax benefits under Israeli government programs.

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 yet generated any taxable income. 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.

If we cease to become entitled to these 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.

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## **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 and have operated under the laws of the State of Israel since 1993. 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](http://www.cgen.com). None of the information on our website is incorporated by reference into this annual report.

Our initial business since 1994 was to develop and commercialize a computer hardware system and software applications to accelerate homology searches of biological sequences under the name "Bioccelerator". In 2003, we sold the Bioccelerator product line as part of a shift in the focus of our business. We are now focused on further developing our discovery engines and using them to discover therapeutic and diagnostic product candidates.

Using the capabilities we previously developed for our computational tools, we started developing therapeutic and diagnostic product candidates in or about 1997, using the biology laboratory that we initially built to validate our computationally-generated predictions. With the use of our computational platforms, we have been able to discover novel genes and gene-based products, including novel transcripts and proteins.

We incorporated our wholly-owned US subsidiary, Compugen USA, Inc., in 1997. Since that time, we have conducted most of our business development and commercial operations from the United States, primarily in New Jersey, California and Maryland. Our business development and commercial operations are now carried out primarily from our Tel Aviv offices.

In August 2000, we sold 5,000,000 of our ordinary shares in an initial public offering of our shares on the Nasdaq Global 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).

In 1999, we established a division focusing on agricultural biotechnology and plant genomics. On January 1, 2002, we transferred this business to what is now a minority held affiliate in which we have approximately a 15% shareholding. 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 1999, we also 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 substantially increase the predictability and success rates of small molecule drug discovery. On August 1, 2004, we transferred all of the assets and liabilities of this division to Keddem Bioscience, a wholly-owned subsidiary. This transfer was part of our continuing efforts to streamline our focus on our discovery engines and the discovery and development of novel therapeutic proteins and diagnostic biomarkers.

Since 2002, we have been focusing on the discovery of novel therapeutic proteins and peptides in addition to the discovery of diagnostic biomarkers. Therapeutic peptides and proteins are peptides and proteins that are themselves drugs and are usually administered by injection. Since peptides are typically short proteins, we refer collectively to such proteins and peptides as "therapeutic proteins". Diagnostic biomarkers indicate: the presence or absence of a physiological condition, such as a disease, a person's predisposition to either acquire a disease or to respond to a therapeutic treatment. We discover these therapeutic proteins and diagnostic biomarkers through the use of the intellectual property, scientific know-how and computational biology capabilities that we had developed since our inception. During 2003 and 2004 we expanded our biology laboratory by, among other things, expanding its floor space and adding new functions and equipment. During that time, we also recruited experts for the purpose of strengthening our protein expression, production, purification and analysis capabilities. We seek to commercialize the novel therapeutic protein and diagnostic biomarker candidates that we discover by entering into contracts with potential collaborators and licensees, including leading diagnostic, biotechnology and pharmaceutical companies. We intend for these revenues to be in the form of milestone and royalty payments.

In December 2005, we underwent a re-organization to concentrate on the discovery, validation and commercialization of

our therapeutic and diagnostic biomarker product candidates and relevant research and discovery activities. As part of this re-organization we reduced the number of our employees by approximately 25%.

During 2006, we achieved proof of concept for a number of new technologies, all relating to the discovery of therapeutic and diagnostic product candidates. These include technologies for the detection of large-scale genetic variation that are relevant to the detection of disease predisposition and drug response predisposition and peptides that bind to GPCRs. GPCRs are membrane protein receptors that are involved in signal transduction of numerous physiologic processes.

## **Business Overview**

We are a biotechnology discovery company focused on the discovery of therapeutic and diagnostic product candidates. Our predictive models and discovery engines enable us to discover numerous potential therapeutics and diagnostic biomarkers. This capability results from our pioneering efforts in the deeper understanding of important biological phenomena at the molecular level through the incorporation of ideas and methods from mathematics, computer science, and physics into biology, chemistry and medicine. To date, our product discovery efforts and initial discovery engines have focused mainly on cancer, cardiovascular and immune-related diseases. Product development is pursued both in-house and through collaborative arrangements. Our primary commercialization pathway for our therapeutic and diagnostic product candidates is to enter into milestone and revenue sharing out-licensing and joint development agreements with leading companies.

We focus on three principal research and development activities; therapeutics, diagnostic biomarkers and research and discovery. These activities are serviced and supported by our financial, legal and business development personnel.

### ***Therapeutics Activities***

Our therapeutics activities comprise the selection and validation of therapeutic protein and peptide product candidates that we discover in-house with the use of our predictive discovery engines. These activities include the in vitro and in vivo experimental validation of selected potential therapeutic protein candidates. In vitro and in vivo experiments are experiments outside the living body, performed in an artifi