

COMPUGEN LTD  
Form 20-F  
February 18, 2014

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2013

OR

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

OR

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

DATE OF EVENT REQUIRING THIS SHELL COMPANY REPORT \_\_\_\_\_

COMMISSION FILE NO. 000-30902

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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, 6951294 Israel  
(Address of principal executive offices)

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

Title of each class	Name of each exchange on which registered
Ordinary shares, par value NIS 0.01 per share	The NASDAQ Stock Market LLC (The NASDAQ Global Market)

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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: 41,002,113 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 has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

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

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board

Other

If "Other" has been checked in response to the previous question, 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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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 and the Private Securities Litigation Reform Act of 1995. These statements include words such as “may”, “assume”, “expect”, “anticipate”, “could”, “project”, “estimate”, “possible”, “potential”, “believe”, 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 assumptions, intentions, beliefs, expectations and projections about future events. We assume no obligation to update any such forward-looking statements. These forward-looking statements involve known and unknown risks and uncertainties that may cause the actual results, performance or achievements of Compugen to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Factors that could cause our actual results to differ materially from those projected in the forward-looking statements include, without limitation, 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”.

All references in this annual report on Form 20-F to “Compugen,” the “Company,” “we,” “us,” “our,” or similar references refer to Compugen Ltd. and our wholly owned subsidiary Compugen USA, Inc., except where the context otherwise requires or as otherwise indicated.

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

(ii)

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## PART I.

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

Not applicable.

## ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

## ITEM 3. KEY INFORMATION

## A. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data are derived from our audited consolidated financial statements which have been prepared in accordance with U.S. GAAP. The selected consolidated financial data as of December 31, 2013 and 2012 and for the years ended December 31, 2013, 2012 and 2011 have been derived from our audited consolidated financial statements and notes thereto included elsewhere in this annual report. The selected consolidated financial data as of December 31, 2011, 2010 and 2009 and for the years ended December 31, 2010 and 2009 have been derived from audited consolidated financial statements not included in this annual report. The selected consolidated financial data set forth below should be read in conjunction with and are qualified by reference to "Item 5. Operating and Financial Review and Prospects" and our consolidated financial statements and notes thereto included elsewhere in this annual report.

## Selected Financial Data

	Year ended December 31,				
	2009	2010	2011	2012	2013
	(US\$ in thousands, except share and per share data)				
<b>Consolidated Statement of Operations Data</b>					
Revenues	\$250	\$1,115	\$-	\$242	\$3,549
Total operating expenses (1)	7,879	8,769	11,979	13,583	18,083
Operating loss	(7,629 )	(7,878 )	(11,979 )	(13,542 )	(17,043 )
Financial and other income (expenses), net	3,786	675	(25 )	(86 )	3,460
Losses before tax expenses	(3,843 )	(7,203 )	(12,004 )	(13,628 )	(13,583 )
Income tax expenses	-	-	-	-	(500 )
Net loss	(3,831 )	(7,203 )	(12,004 )	(13,628 )	(14,083 )
Realized and unrealized gain (loss) on Investment in Evogene	3,594	2,716	(2,141 )	1,103	(739 )
Total comprehensive loss	(237 )	(4,487 )	(14,145 )	(12,525 )	(14,822 )
Basic and diluted net loss per share	\$(0.13 )	\$(0.22 )	\$(0.35 )	\$(0.38 )	\$(0.36 )
Weighted average number of ordinary shares used in computing basic net loss per share	28,608,317	33,284,017	34,276,697	35,844,496	38,869,438
Weighted average number of ordinary shares used in computing diluted net loss per share	28,608,317	33,284,017	34,276,697	36,249,262	38,869,438



- (1) Includes stock based compensation – see Note 9 of our 2013 consolidated financial statements.

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	2009	2010	As of December 31,		2013
			2011	2012	
			(US\$ in thousands)		
<b>Consolidated Balance Sheet Data</b>					
Cash and cash equivalents, short-term bank deposits, marketable securities and restricted cash	\$15,800	\$22,508	\$22,463	\$19,685	\$46,920
Receivables on account of shares and from funding arrangement	7,790	5,000	-	-	-
Investment in Evogene	3,898	6,227	4,093	5,196	4,565
Total assets	30,185	36,458	29,081	28,909	56,711
Deferred Revenues	-	-	-	-	6,772
Research and development funding arrangements and others	-	4,037	6,434	7,872	13,189
Accumulated deficit	(161,284 )	(168,487 )	(180,491 )	(194,119 )	(208,202 )
Total shareholders' equity	27,398	28,285	19,581	17,672	31,888

For additional financial information, please see “Item 5. Operating and Financial Review and Prospects – A. Operating Results - Results of Operations”.

#### B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

#### C. REASONS FOR THE OFFER AND USE OF PROCEEDS

Not applicable.

#### D. RISK FACTORS

Many factors could affect our financial condition, cash flows and results of operations. We are subject to various risks including all the risks which are inherent in pharmaceutical discovery and development and those risks resulting from changing economic, political, social, industry, business and financial conditions in Israel and the major market countries. If we do not successfully, or cannot, address the risks to which we are subject, we could experience a material adverse effect on our business, results of operations and financial condition, which could include the need to limit or even discontinue our business operations, and accordingly our share price, may decline. We can give no assurance that we will successfully address any of these risks. The principal risks we face are described below.

## Risks Related to our Business, Financial Results and Financing Needs

We cannot provide assurance that our business model will succeed in generating substantial revenues.

Our business model is primarily based on receiving revenues in the form of fees, research revenues, milestone payments, royalties and other revenue sharing payments from the commercialization of drug and diagnostic products by third parties based on product candidates (i) discovered by us and then licensed to such third parties, and/or (ii) discovered pursuant to various forms of collaborations with such third parties whereby our discovery platforms or other discovery capabilities target areas of mutual interest. To date, third party arrangements have only been entered into at early validation or pre-clinical stages which have an inherent risk of high failure rate. Following establishment and validation of a sufficiently broad and integrated infrastructure of our individual predictive discovery capabilities into a “therapeutics needs (market) driven” discovery process, during 2010, a program was initiated to predict and select novel molecules in specific areas of high interest in both oncology and immunology. Therapeutic product candidates resulting from this “therapeutics needs (market) driven” effort are being validated and advanced forward in the preclinical stage prior to licensing or other collaborations (our “Pipeline Program”). To date, we have entered into only one commercial arrangement with Bayer Pharma AG (“Bayer”) with respect to our Pipeline Program molecules and, other than that, we have received only minimal revenues from limited commercialization efforts with respect to molecules discovered during our infrastructure building period. We cannot be certain this business model will generate a stable or significant revenue stream. The inability to derive adequate revenues from our business model would materially harm our business, financial condition and results of operations and could result in the need to limit or even discontinue our business operations.

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

As of December 31, 2013, we had an accumulated deficit of approximately \$208 million and had incurred net losses of approximately \$12.0 million in 2011, approximately \$13.6 million in 2012, and approximately \$14.1 million in 2013. In addition, we expect to continue to incur net losses in the future due to the costs and expenses associated with our expanding research and development activities, including significantly increasing Pipeline Program activities, our increase in activities in the United States, and the development, validation and integration of additional discovery platforms. To date, we have entered into only one commercial arrangement with respect to our Pipeline Program molecules and, other than that, we have received only minimal revenues from limited commercialization efforts with respect to molecules discovered during our infrastructure building period. We cannot be certain that we will enter into additional arrangements for our Pipeline Program candidates or other discoveries or capabilities, or that such additional arrangements will provide sufficient revenues to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

We may need to raise additional funds in the future, and if we are unable to raise such additional funds, we may need to curtail or cease operations. To the extent any such funding is based on the sale of equity, our existing shareholders would experience dilution of their shareholdings.

We believe that our existing cash and cash equivalents and short-term bank deposits will be sufficient to fund our operations for at least the next 12 months, taking into consideration the anticipated increase in our R&D expenditures of more than 60% as compared to 2013. However, we cannot predict with any degree of certainty when, or even if, we will achieve profitability and therefore may need additional funds to continue financing our discovery, validation, development and commercialization activities. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Additional funds, including proceeds from commercialization agreements, or from other financings, may not be available to us when needed, on acceptable terms, or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our existing shareholders. For example, if we raise additional funds by issuing equity securities, our existing shareholders would experience dilution of their shareholdings. Debt financing, if available, may involve restrictive covenants that could limit our flexibility in conducting future business activities. If we are unable to obtain funding on a timely basis, we may be required to significantly curtail one or more of our research or development programs. We also could be required to seek funds through arrangements with collaborators or others that may require us to enter into arrangements on terms that would otherwise not be acceptable to us. Any failure to raise capital when needed would materially harm our business, financial condition and results of operations.

Our Pipeline Program will require additional resources that may not be available.

In 2010 we initiated our Pipeline Program pursuant to which we are both (i) substantially increasing the number of predicted and selected therapeutic candidates being evaluated by us, and (ii) taking certain therapeutic candidates beyond their validation stage (of either disease animal model for Fc fusion proteins or drug target expression profile for monoclonal antibody ("mAb") targets and antibody-drug conjugate ("ADC") targets) into preclinical activities for Fc fusion proteins and to disease animal models for therapeutic mAbs against the targets, and in selected cases, possibly clinical evaluation. Assuming a similar level of success as we experienced in the past in the initial validation stages, this may result in multiple product candidates reaching more costly stages of research and development in parallel. If we are not able to secure the funding or the technologies required for these more advanced activities, we may be required to abandon, postpone, or attempt to license out certain molecules at an earlier than anticipated stage, which may result in a substantial reduction in the potential returns from the Pipeline Program, or even result in the inability to have some or all of such successful "proof of concept" therapeutic candidates further developed and commercialized.

We operate in a rapidly developing field and will be required to allocate substantial additional funds in the future to our research activities.

Our drug and diagnostic product candidate discovery capabilities rely on a proprietary infrastructure of predictive models, algorithms and other computational tools incorporating proprietary knowledge of key biological phenomena. Life science today is a rapidly changing field with substantial research being undertaken on a worldwide basis both by academia and industry. In order to maintain our competitive position in predictive discovery, we must continue to allocate resources to broadening and deepening our scientific infrastructure. Any inability to allocate such resources when needed could materially harm our future business, financial condition and results of operations.

We have a limited operating history with respect to the commercialization aspects of our business model upon which investors can base an investment decision or upon which to predict future revenues.

Our ability to generate revenues from collaboration and licensing activities for current and future product candidate discoveries, primarily in the form of fees, research revenues, milestone payments, royalties and other revenue sharing payments has had limited success to date. In 2013, we entered into our first collaboration with respect to our Pipeline Program activities, and have received only minimal revenues from our earlier collaborations based on discoveries made during our infrastructure building. We recognized \$3.5 million in revenue in 2013, \$242,000 in 2012 and no revenue in 2011. Furthermore, only in 2010 did we implement our Pipeline Program pursuant to which we are advancing certain therapeutic product candidates past disease animal model proof of concept or other validation studies and therefore we have very limited experience with respect to the financial terms that may be available for our candidates at later stages of validation and development, and financial terms for agreements by other companies, to the degree disclosed, vary greatly. Therefore, our operating history with respect to the commercialization aspects of our business model provides a limited basis to assess our ability to generate significant fees, research revenues, milestone payments, royalties or other revenue sharing payments from the licensing and commercialization of our product candidate discoveries, or from research and development collaborations.

#### Risks Related to our Discovery and Development Activities

We are focusing our discovery and development activities on, mAb drug targets, mAb therapeutics, and Fc fusion proteins for uses in oncology and immunology, and have chosen novel immune checkpoint proteins as the objective for our first focused discovery program. If we fail to continue to discover and develop product candidates of industry interest in these fields, or to focus our Pipeline Program efforts on the most promising of such discoveries and candidates, our business will likely be materially harmed.

Since late 2010 we have chosen to focus our broadly applicable predictive discovery capability in the areas of oncology and immunology, including both auto-immune and inflammatory conditions, and more specifically on monoclonal antibody therapeutics and Fc fusion protein to address unmet needs in these fields. We have also chosen immune checkpoints as the objective for our first focused discovery program and more recently we have initiated our second focused program for discovery of targets for antibody-drug-conjugate (ADC) therapy. The result of our 2010 focusing decision is that we are not undertaking internal development in other areas, including those where we previously demonstrated discovery capabilities, such as diagnostic products and peptide based drugs, and intend to pursue such opportunities only in collaboration with third parties. With respect to checkpoint proteins, although there have been positive clinical results reported by others with respect to a small number of products based on certain checkpoint proteins, resulting in substantial industry, academic and medical interest, there can be no assurance that our checkpoints, which currently are the basis for the majority of candidates in our Pipeline Program, will provide similar clinical advantages or interest, that no long term adverse effects will be seen, or that a different class of molecules will not be discovered with comparable or superior attributes. In the event of any of these occurrences, the actual and/or perceived value of a substantial portion of our Pipeline Program would likely be reduced in which case our business may be harmed. Additionally, although certain of our initial candidates based on Compugen discovered checkpoint proteins are generating interest from potential partners, to date we have signed only one collaboration involving such discoveries and all such candidates are at early stages of development. There is no assurance that we will be able to consummate additional collaborations or agreements on reasonable terms, if at all. In addition, if we fail to continue to discover product candidates of industry interest in our fields of focus, or to pursue validation and development efforts in our Pipeline Program on the most promising discoveries, our business will likely be materially harmed. There are many risks associated with this decision of focusing in these areas that include, among others:

- not utilizing all of our discovery capabilities

- choosing therapeutic areas with a very high degree of competition
- choosing therapeutic areas of great complexity and with very high failure rates in product development
- failing to successfully focus our discovery infrastructure to discover novel product candidates in our chosen therapeutics areas
  - having insufficient relevant knowledge in our chosen therapeutic areas to select the right unmet needs or candidates, or to properly and efficiently further them in development
  - the inherent risk of high program failure rate in early stage therapeutic development.

In each case, our failure could be due to lack of experience or applying the wrong criteria, with the possible result that no selected candidates result in licensed or marketable products in these fields. If any of these risks should materialize, our business, financial condition and results of operations would be materially harmed.

Our predictive discovery capabilities remain unproven with respect to yielding marketable products. If in further development and clinical evaluation, all, or a larger percentage than typically seen in industry experience, of our product candidates fail to prove sufficiently safe and effective for regulatory approval and marketing, our business will be significantly harmed.

Our in silico (by computer) predictive approach to drug discovery remains unproven with respect to yielding marketable products, and to date, our validation efforts for our initial discoveries have been limited to in vitro testing and in vivo testing using animal disease models. These discovery capabilities, which are designed to predict and select potential product candidates in many different therapeutic and diagnostic areas of interest, rely on the modeling, by our scientists, of complex biological processes, both physiological and pathological. This modeling is partial and may prove insufficient to result in true predictions of the biological processes as they occur naturally. If in further development and clinical evaluation, all, or a larger percentage than typically seen in industry experience, of our initial product candidates fail to prove sufficiently safe and efficacious for regulatory approval and marketing, our business will be significantly harmed.

Our in silico predictive approach to drug discovery typically results in a significant number of putative discoveries of interest with each discovery program. If we or our partners fail to select the right candidates to validate and/or progress, due to either lack of experience or applying the wrong criteria, the selected candidates may never result in marketable products and our business, financial condition and results of operations will be materially harmed.

Our in silico predictive approach to drug discovery typically results in a significant number of putative discoveries of interest with each discovery program. Following each such discovery run, we assess which of such putative discoveries to move forward with initiation of validation based on various scientific and business criteria, and this assessment continues on an on-going basis. In addition, since our research and development resources are limited we are able to progress with only a fraction of our discoveries in parallel. If at any stage in such assessment, we or our partners fail to select the right candidates to validate and/or progress, due to either lack of experience or applying the wrong criteria, the selected candidates may never result in marketable products, and our business, financial condition and results of operations may be materially harmed.

If either the predictive discovery approach in general, or our “therapeutics needs (market) driven” approach, does not prove to be successful, our business will be significantly harmed.

Our method of discovering novel product candidates involves first selecting either on our own or with a partner company an unmet therapeutic need where we believe our predictive capabilities would be relevant, or could be modified to be relevant. In this “therapeutics needs (market) driven” approach, our goal is to harness all of our relevant capabilities in order to address the specific unmet need, rather than obtaining product candidates resulting from the development, validation or initial runs of a single discovery platform, as was the case prior to initiation of our Pipeline Program. After selection of the unmet need we wish to address, we then focus all of our relevant discovery platforms, algorithms and other computational biology capabilities to predict in silico (by computer) sequences for a typically large number of possible product candidates. Next we utilize proprietary algorithms and tools and other methodologies to select, from this large number of possibilities, those novel molecules that we believe have the highest probability of success. Selected molecules are then produced and undergo in vitro and/or in vivo validation testing. Although our initial “therapeutics needs (market) driven” approach has resulted in the discovery of a number of novel molecules in an area of significant industry interest, these molecules are in the very early stages of development. Therefore, we cannot predict whether this “therapeutics needs (market) driven” approach will continue to yield product candidates or that any of our existing discoveries or future discoveries will be suitable for final development into therapeutic products. If either the predictive discovery approach in general does not prove to be successful, or this “therapeutics needs (market) driven” approach does not lead to successful product candidates, our business will be significantly harmed.

Our focus on the Pipeline Program has resulted in a substantial increase in activities, certain of which we will undertake for the first time and may result in product candidate failures, or fewer molecules being available for commercialization.

Until recently, our in vitro and in vivo validation studies concluded with disease animal model or drug target expression profile analysis. At the completion of such activities, or earlier, we initiated our efforts to enter into collaborations for such molecules. This is at an earlier stage than is typical for licensing in the pharmaceutical industry. Pursuant to the Pipeline Program initiated in 2010, and with a more than 60% planned increase in R&D activities for 2014 in comparison to 2013, we are both advancing more molecules in parallel, and intend to advance certain molecules further towards pre-clinical activities, with the possibility of selected molecules entering clinical evaluation in the future. This decision to advance further with certain molecules is requiring us to undertake certain activities for the first time and may result in product candidate failures during such additional activities, either due to our lack of expertise or due to unsupportive findings or due to the lack of an appropriate technology. Furthermore, due to our limited resources, we must choose which Pipeline Program molecules to advance further in pre-clinical development, and in selected cases possibly clinical development in the future. This could result in fewer molecules being available for commercialization, due to our available resources being insufficient to further advance all programs. In addition, if we fail to select the right molecules to advance further, due to either lack of experience or applying the wrong criteria, the selected candidates may never result in a marketable product. If any of these risks materialize, our business, financial condition and results of operations may be materially harmed.

We have limited experience in the development of therapeutic product candidates.

Our experience in the development of therapeutic product candidates is limited. In order to successfully develop and commercialize therapeutic products, we must either access such expertise via collaborations or service providers or improve our internal expertise, capabilities and facilities. We may not be able to hire the scientists with the required expertise in a timely manner, if at all, and/or engage any or all of the service providers or other experts that we need in order to do so. If we fail to have available, at the appropriate times, the required experience and expertise for the further development and commercialization of our therapeutic product candidates, we may be unsuccessful in these



activities, and as a result our business would be materially harmed.

Our establishment of our own therapeutic mAb research and development capabilities contains a number of risks.

In 2012, we announced that we had established our own therapeutic mAb development capabilities in our U.S. based, wholly owned subsidiary, Compugen USA, Inc., in order to develop mAb therapeutics against the target candidates that we discovered. The establishment of such in-house capabilities contains a number of risks, including, without limitation, the need for additional resources and funding in order to maintain such capabilities or to acquire additional technologies and the need to identify additional qualified employees and consultants in order to further advance these capabilities. Furthermore, although the scientists we have hired have prior experience with other organizations in the field of therapeutic mAb research and development, we have no experience as a company in this field and no experience in managing a site in a different geographic location. Therefore, as a result, if we are unsuccessful in any of these required undertakings, our business could be materially harmed. In addition, the chairperson of Compugen USA, Inc. has the additional position of chief executive officer of another mAb discovery and development company, which although not at present directly competitive, could present, in the future, potential conflict of interest issues.

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

We and our collaborators face a number of risks of failure that are inherent in the process of developing and commercializing novel therapeutic products. These risks, which typically result in very high failure rates even for successful biopharma companies, include, among others, the possibility that:

- our product candidates will be found to be therapeutically ineffective
- our product candidates will be found to be toxic or to have other unacceptable side effects
- our product candidates will not show added value compared to competing products
- our mAb targets will prove to be inappropriate targets for mAb therapeutics
- we or our collaborators will fail to receive required regulatory approvals
- we will not be able to generate product candidate differentiation between some of our product candidates
- we or our collaborators will fail to manufacture our product candidates in the quantity or quality needed for preclinical studies or clinical trials on a large scale and in a cost effective manner
- our early stage commercialization efforts may provoke competition by potential partners
- the commercialization of our product candidates 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
- once a product is launched on the market, there will be little or no demand for it for a number of possible reasons including lack of acceptance by the medical community or by patients, lack of or insufficient coverage and payment by third party payors, or as a result of there being more attractive, less risky or less expensive, products available for the same use.

If one or more of these risks or any similar risks should materialize, our business and financial results may be materially harmed.

Under the current funding agreement with Baize Investments (Israel) Ltd., we may have to share in any future economic success of certain product candidates.

Under the current funding agreement with Baize Investments (Israel) Ltd., ("Baize") Baize has the right to receive 10% of the cash consideration received by us or our affiliates from third parties, less certain pass-through amounts, with respect to certain designated product candidates through June 30, 2015. Not later than June 30, 2015 or, if later, 30 days following the receipt by Baize from Compugen of the annual report for 2014 containing a status report with respect to such designated product candidates, Baize has the right to select five of such product candidates for which it will receive such 10% of certain cash consideration received by Compugen or its affiliates as previously described through December 31, 2030. Alternatively, Baize has the right at any time prior to June 30, 2015 to cancel all of its rights to receive any cash consideration for the designated (including the selected) product candidates, in exchange for Compugen ordinary shares. Therefore, to the extent that any of the designated product candidates are successfully

licensed, developed or commercialized and Baize has not exercised its right to exchange its right to cash consideration for ordinary shares, we will need to provide Baize with 10% of the cash consideration, as described above, received by us, thus reducing the amount of net revenues we receive from such transactions.

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## Risks Related to Development, Clinical Trials and Government Regulation

We or our collaborators may be unable to obtain regulatory approval for any product that we or a collaborator may develop.

Any therapeutic product that we or our collaborators may attempt to develop, manufacture or market in the United States will be subject to extensive governmental regulations, including those relating to development, performance of clinical trials, manufacturing and post-approval commercialization. Preclinical testing, manufacturing and clinical trials, among other activities, will be subjected to an extensive regulatory review process before a new therapeutic product can be sold in the United States. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. The time required to obtain the approval of the U.S. Food and Drug Administration, or FDA, and other approvals for therapeutic products is unpredictable but typically requires several years.

Any therapeutic product that we or our collaborators may wish to develop, manufacture or market in countries other than the United States will also be subject to numerous regulatory requirements governing the conduct of clinical trials, manufacturing and marketing, pricing and third-party reimbursement among other things in such countries. The foreign regulatory approval process includes all of the risks and uncertainties associated with FDA approval described above as well as risks attributable to the satisfaction of local regulations in such foreign jurisdictions.

It is possible that none of the therapeutic products we or our collaborators may develop will obtain the approvals necessary for us or our collaborators to sell them either in the United States or any other country. Furthermore, approval by the FDA of a therapeutic product does not assure approval by regulatory authorities outside the United States or vice versa. Even if approval for a therapeutic product is obtained, such approval may be subject to limitations on the indicated uses or appropriate patient population that could result in a significantly reduced potential market size for the product.

If we or our collaborators fail to obtain the appropriate regulatory approvals necessary for us or our collaborators to sell our products, or if the approvals are more limited than those that we intend to seek, our business, financial condition and results of operations would be materially harmed.

It may be difficult to manufacture therapeutic products based on our technologies.

Our Pipeline Program is focused on mAbs and protein therapeutics in the fields of oncology and immunology and such therapeutic types can be difficult to manufacture. If it should prove to be difficult to manufacture any therapeutics based on our technologies in sufficient quantities or in an economical manner to conduct clinical trials and to commercialize any approved therapeutic candidate, our business, financial condition and results of operations would be materially harmed.

If we or any of our collaborators, or third-party manufacturers, fail to comply with regulatory requirements, we or they could be subject to enforcement actions, which could affect the marketability of Compugen-discovered therapeutics and may significantly harm our financial status and/or reputation.

If we or any of our collaborators or third-party manufacturers with which we may enter into agreements in the future fail to comply with applicable federal, state or foreign laws or regulations, we or they could be subject to enforcement actions. These enforcement actions may include:

- warning letters

- recalls, product seizures or medical product safety alerts
- restrictions on, or prohibitions against, marketing such tests or products
- restrictions on importation of such tests or products
- suspension of review or refusal to accept or approve new or pending applications
  - withdrawal of product approvals
    - injunctions

- civil and criminal penalties and fines
- debarment or other exclusions from government programs.

If we or our collaborators will be subject to such enforcement actions, these enforcement actions, could affect the ability to successfully develop, market and sell therapeutic products based on our discoveries and could significantly harm our financial status and/or reputation and lead to reduced acceptance of such products by the market or product recall.

If we do not comply with laws regulating the use of human tissues or the conduct of experiments involving animals, our business could be adversely affected.

We use human tissue samples and conduct experiments involving animals for the purpose of development and validation of our technologies and product candidates. Our access to and use of human tissue samples and the conduct of experiments involving animals are subject to government regulation in the United States, Israel and elsewhere and may become subject to additional regulation. For example, the Israeli Ministry of Health requires compliance with the principles of the Helsinki Declaration, the Public Health Regulations (Clinical Trials in Human Subjects) 1980, the Genetic Information Law, 5761-2000, the provisions of the Israel Ministry of Health Guidelines for Clinical Trials in Human Subjects and the provisions of the current Harmonized Tripartite Guideline for Good Clinical Practice. Our failure to comply with these or similar regulations could negatively impact our business and results of operations.

If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.

Our research and development activities involve the use of hazardous materials and chemicals, and we maintain quantities of various flammable and toxic chemicals in our facilities. Although we believe our safety and other procedures for storing, handling and disposing these materials in our facilities comply with applicable governmental regulations and guidelines, the risk to our employees or others of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. We may incur substantial costs to comply with, and substantial fines or penalties if we violate any of these laws or regulations.

#### Risks Related to Our Dependence on Third Parties

We depend significantly on third parties to carry out the development and commercialization of our product candidates, and if we are unable to maintain our existing agreements or to enter into additional agreements with such third parties in the future, our business will likely be materially harmed.

Our primary strategy for the final development and commercialization of products based on our product candidates depends on third parties to carry out and/or finance development and commercialization of such products, principally pharmaceutical, biotechnology and diagnostic companies and other healthcare related organizations. To date, we have entered into one collaboration with Bayer with respect to two molecules from our Pipeline Program and a small number of agreements covering discovery activities to be performed by us, and development and commercialization rights with respect to certain of our discovery stage product candidates. None of the product candidates subject to such agreements has advanced beyond the discovery and early pre-clinical stages and we cannot be sure that any of these agreements will result in the successful development or commercialization of any products. Further, we cannot assure you that we will succeed in identifying additional suitable parties or entering into any other additional agreements on

satisfactory terms or at all for the development and/or commercialization of our product candidates. If we are unable to identify such additional suitable parties or enter into new agreements on satisfactory terms, our business will likely be materially harmed.

Our dependence on 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 in the future include, among others, the following:

- we may be unable to reach mutually agreeable terms and conditions with respect to potential new collaborations

- we may be unable to comply or fully comply with our obligations under collaboration agreements into which we enter, and as a result, we may not generate royalties or milestone payments from such agreements, and our ability to enter into additional agreements may be harmed
- our obligations under existing or future collaboration agreements may harm our ability to enter into additional collaboration agreements
- our collaborators have significant discretion in electing whether to pursue any of the planned activities and the manner in which it will be done, including the amount and nature of the resources to be devoted to the development and commercialization of our product candidates
- our collaborators have significant discretion in terminating the collaborations for scientific, business or other reasons
  - if our collaborators breach or terminate the agreement with us, the development and commercialization of our product candidates could be adversely affected because at such time we may not have sufficient financial or other resources or capabilities to successfully develop and commercialize these therapeutics on our own or find other partners
  - our collaborators may fail to design and implement appropriate preclinical and/or clinical trials
- our collaborators may fail to manufacture our product candidates needed for either clinical trials or for commercial purposes on a sufficiently large scale and/or in a cost effective manner
- our collaborators may fail to develop and market products based on our discoveries due to various regulatory restrictions
- our collaborators may fail to develop and market products based on our discoveries prior to the successful marketing of competing products by others or prior to expiry of the patents protecting such products;
- changes in a collaborator's business strategy may negatively affect its willingness or ability to complete its obligations under its arrangement or to continue with its collaboration with us
  - ownership of the intellectual property generated under our collaborations may be disputed
- 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 or 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
- our collaborators may fail to develop or commercialize successfully any products based on discoveries or product candidates to which they have obtained rights from us
- our collaboration partners may be acquired by, acquire, or merge with, another pharmaceutical company, and the resulting entity may have different priorities or competitive products to the collaboration product being developed previously by our partner.



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

To date we have entered into only one collaboration agreement with respect to our Pipeline Program candidates and this agreement with Bayer is subject to many risks. If such agreement is terminated by Bayer, particularly in advance of our signing additional collaboration agreements, our business and financial condition may be materially harmed.

In August, 2013, we entered into a Research and Development Collaboration and License Agreement with Bayer for the research, development, and commercialization of antibody-based therapeutics for cancer immunotherapy against two novel, Compugen-discovered immune checkpoint regulators – CGEN 15001T and CGEN 15022. This is our first collaboration arrangement for any of our Pipeline Program candidates.

The collaboration with Bayer is subject to all of the risks as set forth above with respect to our dependence in general on collaboration agreements with third parties. In addition, since this is our first collaboration involving our Pipeline Program candidates, and specifically covering Compugen-discovered immune checkpoint regulators, until such time as we have additional agreements, the effect of any event related to this collaboration will likely have a significantly greater effect on our business and financial condition than otherwise would be the case.

As is customary for pharmaceutical research and licensing agreements, Bayer may terminate the agreement, at any time with or without cause either in whole or only with respect to one of the two programs, and in each case also on a product-by-product and/or country-by country basis, upon prior written notice. Upon any termination of the agreement, depending upon the circumstances, the parties have varying rights and obligations with respect to the continued development and commercialization of any products and or various payment and royalty obligations in the event of such continuation of the development and commercialization. If significant adverse unforeseen events occur in the Bayer collaboration or the agreement is terminated, in whole or in part, particularly in advance of our signing additional collaboration agreements, our business and financial condition may be materially harmed.

Our reliance on third parties for the performance of key research, validation and development activities heightens the risks faced by our businesses.

We invest significant efforts and resources into outsourcing certain key functions with third parties, including certain research, validation and development activities, manufacturing operations, and others. We do not control the third parties to whom we outsource these functions, but we depend on them to undertake activities and provide results which may be significant to us. If these third parties fail to properly perform these activities, or provide us with incorrect or incomplete results this could lead to significant delays in the program or even program failure, along with significant additional costs. In addition, should any of these third parties fail to comply with the applicable laws and regulations and/or research and development or manufacturing accepted standards in the course of their performance of services for us, there is a risk that we could be held responsible for such violations of law as well. Any such failures by third parties could have a material adverse effect on our business, financial condition or results of operations.

We rely on the services of various third party service providers, such as contract research organizations, or CROs, contract manufacturing organizations, or CMOs, technology providers, and academia. If we fail to identify and obtain quality services from such third parties, our discovery, and validation and development capabilities may be harmed.

In carrying out discovery, validation and development activities for our product candidates, we and our partners rely on advice, services and results obtained from various third party service providers, such as CROs, CMOs, technology providers, academia and regulatory and other consultants. This includes, without limitation, production of certain biological reagents and performance of certain in vitro and in vivo validation of our discoveries and product candidates. We do not always independently verify the results obtained by such third parties and in some cases, rely upon the data provided by the third party. If we fail to identify and obtain accurate and quality services technologies and/or data from such third parties, or if the contractual demands of such third parties become unreasonable and we are not able to reach satisfactory agreements with such third parties, we may not be able to obtain the required services and/or technologies, in which event we may lose our investment in these services, fail to receive the expected benefits from our discoveries, and our validation and development capabilities may be significantly harmed or delayed.

We have limited experience and capabilities in conducting, managing or sponsoring preclinical evaluation of therapeutic drug candidates.

During 2010, we began to focus our discovery efforts primarily in the fields of oncology and immunology, and initiated the Pipeline Program to both substantially increase the number of molecules in our validation pipeline and to increase the value of certain of our candidates by advancing selected molecules to pre-clinical studies and in selected

cases, possibly clinical evaluation. We have limited experience and capabilities in conducting, managing or sponsoring the work and efforts required beyond the proof of concept experimental validation stage towards preclinical evaluation, and by doing so we will need to rely on our consultants and third party service providers. If we fail to identify the right consultants or service providers, if the consultants or service providers fail in providing the required services or if we fail to take the necessary steps towards preclinical evaluation, for these or other reasons, our business may be harmed.

We have no experience in conducting or managing clinical trials for potential therapeutic products.

We have no experience in conducting or managing the clinical trials necessary to obtain regulatory approvals for any product, and we intend to rely on our collaborators or third parties, such as CROs, medical institutions and clinical investigators to perform these functions. Our reliance on third parties for clinical development activities reduces our control over these activities. Third-party contractors may not complete activities on schedule, or may not conduct clinical trials in accordance with regulatory requirements or our trial design. If these third parties do not successfully carry out their contractual duties or meet required performance standards or expected deadlines, we might be required to replace them or the data that they provide could be rejected, all of which may result in a delay of the affected trial and additional program costs.

We rely on access to public and commercial databases to feed our discovery capabilities, including our individual discovery platforms. If we are denied access to these databases or if the quality of available information is poor, or if the quantity of the available information is insufficient (both of which have occurred in the past), our operations and business may be harmed.

In the development and validation of our discovery platforms and other tools, as well as in connection with the resulting therapeutic and diagnostic product candidates, we rely on our ability to access and use public and commercially available databases. The quality of our platforms, tools and discoveries is in part dependent on the quality and quantity 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, or if the quantity of the available information is insufficient, each of which has occurred in the past, our business and our results of operations may be materially harmed.

We rely on access to high-quality biological samples supported by detailed clinical records to conduct parts of our discovery and validation activities. If we fail to identify and purchase or otherwise obtain such samples for any reason, if the quality of available biological samples is poor, or if the quantity of the available biological samples is insufficient, which has occurred in the past, our discovery and validation capabilities may be harmed.

In carrying out our discovery and validation of product candidates, we rely on our ability to access and use commercially available biological samples. The quality of our discoveries is in part dependent on the quality and quantity of available biological samples. If we fail to identify and purchase or otherwise obtain such samples for any reason or if the quality of available biological samples is poor, or if the quantity of the available biological samples is insufficient, which has occurred in the past, our discovery and validation capabilities may be harmed.

#### Risks Related to Competition and Commercialization

Our business model is at an early stage of implementation and to date has not provided significant revenues.

The success of our business model relies on providing, through licensing agreements and other forms of collaboration, product candidates for commercialization by third parties, principally pharmaceutical and biotechnology companies. In all cases, our objective is that these collaborations will be “product oriented”, with us having the right to receive fees, research revenues, milestones, royalties and other revenue-sharing payments from all products developed and commercialized based on our product candidates. Additionally, we are continuing to seek research and discovery collaborations either aimed at harnessing our infrastructure capabilities towards the partners’ discovery needs, or pursuant to which we can license out our various non-focus specific discoveries of interest. Potential revenue sources in these types of transactions could include fees, research revenues, milestone payments, royalties and revenue sharing profits. Our commercialization efforts are at an early stage of implementation. To date, we have entered into one collaboration with respect to molecules from our Pipeline Program and only a small number of other collaboration

agreements, none of which, other than the collaboration with Bayer with respect to molecules from our Pipeline Program, has to date provided significant revenues. There can be no assurance that such agreements will be successful in the future or that we will be able to enter into additional arrangements with respect to other existing or future discoveries. If we are unable to achieve success, primarily by entering into additional license agreements or other collaboration arrangements related to our product candidates, our business will be materially harmed.

In addition, most of our programs are in the discovery, research and validation or early preclinical stage. The data generated so far may not be sufficient for prospective collaborators, and may not fit their strategy. A limited number of companies are interested in early stage collaborations, and some of them will require more data before they enter into a significant collaboration. We are therefore dependent on the fit of the stage of our programs to pharma strategy and we may not be able to identify additional partners interested in programs at the stage we are in. This may adversely affect our ability to enter into additional agreements for the research, development and commercialization of our product candidates, and as a result may harm our business.

In addition, an initial industry trend towards drug combinations in the field of cancer immunotherapy, mainly immune modulating agents such as immune checkpoints, may result in a situation under which our immune checkpoint candidates will serve as a combination product and may therefore be entitled to only a fraction of the anticipated product revenues.

The agreement cycle for potential collaborations is complex and lengthy and as a result, we may expend substantial funds and management resources with no assurance of success.

In general, each potential license agreement or other form of collaboration we may enter into will require negotiating with our potential partner a large number of scientific, legal and business terms and conditions that can vary significantly in each instance due to the specific product candidate or candidates involved, and the potential partner's licensing, development and business operations and strategy. The accommodation of these requirements mandates a thorough consideration of both the scientific and business aspects of each transaction. Furthermore, the diversity and wide applicability of our discovery capabilities and our product candidates, together with the fact that we are mainly located in Israel, adds additional levels of complexity to our business development efforts. As a result, the process of preparing and negotiating our licensing and other agreements may take more than 12 months and will require the input and substantial time and effort of our key scientific and management personnel. Accordingly, we will need to expend substantial funds and substantial key personnel time and effort into these business development activities with no assurance of successfully entering into agreements with potential collaborators and this could harm our business.

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. Although this consolidation trend is diminishing, it may still result in the remaining companies having greater financial resources and discovery and technological capabilities, thus intensifying competition in these 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 or potential licensees or collaborators as a result of such consolidation. In addition, if a consolidating company is already doing business with us, we may lose the interest of the consolidating parties in our discovery capabilities or individual discoveries as a result of a modified strategy and new priorities of such consolidated entity. 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.

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

The biotechnology and pharmaceutical industries in general, and the immune checkpoints field in particular, are highly competitive. Numerous entities in the United States, Europe and elsewhere compete with our efforts to discover, validate and partner with licensees and/or collaborators to commercialize therapeutic and diagnostic products or product candidates. Our competitors include pharmaceutical and biotechnology 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 they develop products that have a function similar or identical to the function of our therapeutic product candidates in the fields of oncology and immunology that may attract our potential collaborators or that may reach the market sooner. We also face, and expect to continue to face, competition from entities that seek to develop technologies that enable the discovery of novel targets, antibodies and Fc fusion proteins in the fields of oncology and immunology. Many of our competitors have one or more of the following:

- much greater financial, technical and human resources than we have at every stage of the discovery, development, manufacture and commercialization process

- more extensive experience in preclinical testing, conducting clinical trials, obtaining regulatory approvals, and in manufacturing and marketing diagnostics and therapeutics
- more extensive experience in oncology and immunology and in the fields of mAb therapy and fusion protein therapeutics
  - products that have been approved or are in late stages of development
- collaborative arrangements in our target markets with leading companies and research institutions

Since we are a small company with limited human and financial resources, we are not able to work with a large number of collaborators in parallel and/or advance a large number of molecules in parallel. Our competitors may develop or commercialize products with significant advantages over any therapeutic products we, our collaborators or third-party licensees may develop. 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. Our competitors may therefore be more successful in developing and/or commercializing products than we, our collaborators, or third party licensees are, which could adversely affect our competitive position and business. If we are unable to compete successfully against existing or potential competitors, our financial results and business would be materially harmed.

Changes in healthcare policy could increase our expenses, decrease our revenues and impact sales of, and reimbursement for, our products.

Our ability to commercialize our future product candidates successfully, alone or with collaborators, will depend in part on the extent to which coverage and reimbursement for these product candidates will be available from government health programs, such as Medicare and Medicaid in the United States, private health insurers and other third-party payors. At present, significant changes in healthcare policy, in particular the continuing efforts of the U.S. and other governments, insurance companies, managed care organizations and other payors to contain or reduce health care costs are being discussed, considered and proposed.

For example, in the United States, there have been several initiatives implemented to achieve these aims. The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, the “ACA”), substantially changes the way health care is financed by both governmental and private insurers. The ACA contains a number of provisions that are expected to impact our business and operations, including those governing enrollment in federal healthcare programs and reimbursement changes which will impact existing government healthcare programs and will result in the development of new programs.

In addition to the ACA, there will continue to be proposals by legislators at both the federal and state levels, regulators and third-party payors to keep these costs down. While in general it is too early to predict specifically what effect these acts and their implementation or any future healthcare reform legislation or policies in the United States or other countries will have on our business, including our ability to set prices for our product candidates which we believe are fair, and therefore our ability to generate revenues and achieve and maintain profitability, current and future healthcare reform legislation and policies could have a material adverse effect on our business and financial condition.

#### Risks Related to our Operations

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 be sure that these key personnel and others will not leave us or compete with us, which could harm our business activities and operations. It is difficult to find suitable and highly qualified personnel in certain aspects of our industry.

It can also be difficult for us to find employees with appropriate experience for our business, and our plans to increase our R&D budget by over 60% in 2014 in comparison to 2013 will require increased efforts to attract the required personnel. We require a multidisciplinary approach and some of our researchers require an understanding in both exact and biological sciences. On average, our employees have been employed by Compugen Ltd. for approximately eight years (and for approximately 6.5 years when taking Compugen USA, Inc. into account). 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.

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, hardware and software systems as well as our data and third parties' data. However, these methods may not fully 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 (partially or completely) proprietary information or cause interruptions in our operations. In addition, a party, including an employee, 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 competitive position. Such security breaches, if significant, could materially harm our operations and even cause our business to cease.

If we are unable to manage the challenges associated with our bi-national operations, the growth of our business could be limited.

In addition to our operations in Israel, our wholly owned subsidiary, Compugen USA, Inc., operates in South San Francisco, California. We are subject to a number of risks and challenges that specifically relate to these bi-national operations. Our combined operations may not be successful if we are unable to meet and overcome these challenges, which could limit the growth of our business and may have a material adverse effect on our business and operating results. These risks include:

- difficulty managing and coordinating operations in multiple locations, which could adversely affect the progress of our research and development programs and business prospects
- local regulations or intellectual property requirements that may restrict or impair our ability to conduct pharmaceutical and biotechnology-based research and development; foreign protectionist laws and business practices that favor local competition
- laws and regulations governing U.S. immigration and entry into the United States that may restrict free movement of our employees between Israel and the United States and employment of Israeli citizens in our U.S. facilities
- fluctuations in foreign currency exchange rates that may increase the U.S. dollar cost of our operations in either country.

#### Risks Related to Intellectual Property

We may not be able to obtain or maintain patent protection for our inventions and if we fail to do so, our business will likely be materially harmed.

We have applied for patents covering therapeutic and diagnostic product candidates as well as aspects of some of our technologies, and the success of our business depends, to a large extent, on our ability to obtain and maintain such patents and any additional patents covering our future product candidates. As of January 1, 2014 we had a total of 43 issued and allowed patents, of which 32 are U.S. patents. We also have pending patent applications, which as of January 1, 2014, included 21 patent applications that have been filed in the United States, 17 patent applications that have been filed in Europe, 21 patent applications that have been filed in Israel, nine patent applications that have been

filed in Australia, seven patent applications that have been filed in Canada, four patent applications that have been filed in Japan, three patent applications that have been filed in India, three patent applications that have been filed in China, one application that has been filed in Brazil, one application that has been filed in Korea, one application that has been filed in New Zealand, one application that has been filed in the Russian Federation, one application that has been filed in Singapore, one application that has been filed in Mexico, one application that has been filed in South Africa and two applications that have been filed under the Patent Cooperation Treaty for which we have not yet designated the countries of filing. We plan to continue to apply for patent protection for our therapeutic and diagnostic inventions, but we cannot be sure that any of our patent applications will be accepted, or that they will be accepted to the extent that we seek. Additionally, we file for patent protection in selected countries and not in all countries of the world. Therefore, we are exposed to competition in those countries in which we have no patent protection. Also, due to our early stage business model, we may be required to seek patent protection at a very early stage. This may cause issuance of a patent at an earlier stage creating a shorter commercialization period under patent protection, possibly enabling others to compete with us.

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

- the patenting of our 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 molecule-based patents
- in view of the finite number of human proteins, we face intense competition from other biotechnology and pharmaceutical companies who have already sought patent protection relating to proteins and protein based products, as well as therapeutic and diagnostic antibodies specifically binding these proteins, and their utility based discoveries that we may intend to develop and commercialize; such prior patents may negatively affect our ability to obtain protein-based and antibody-based patents, may hinder our ability to obtain sufficiently broad patent claims for our inventions, and/or may limit our freedom to operate
- publication of large amounts of gene and gene products 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
  - even if we succeed in obtaining patent protection, we may face FTO issues
- even if we succeed in obtaining patent protection, our patents could be partially or wholly invalidated, including by our competitors
  - there are significant costs that may need to be incurred in registering and filing patents
  - our data may support others in strengthening their patents
- seeking patent protection at an early stage may prevent us from providing comprehensive data supporting the patent claims and may prevent allowance of the patent or limit the scope of patent coverage

The U.S. Supreme Court, or the Court, has also issued decisions for which the full impact is not yet understood. On June 13, 2013, in *Association for Molecular Pathology v. Myriad Genetics, Inc.* the Court held that claims to isolated genomic DNA were not patentable subject matter, but claims to complementary DNA (cDNA) molecules were patentable subject matter. The effect of the decision on patents for other isolated natural products is uncertain. On March 20, 2012, in *Mayo Collaborative Services, DBA Mayo Medical Laboratories, et al. v. Prometheus Laboratories, Inc.*, the Court held that several claims drawn to measuring drug metabolite levels from patient samples and correlating them to drug doses were not patentable subject matter. The decision has created uncertainty around the ability to patent certain biomarker-related method patents. These decisions have increased the uncertainty with regard to our ability to obtain patents in the future as well as the value of current and future patents, once obtained. Depending on decisions by the U.S. federal courts and the Patent Office, the interpretation of laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents, all of which could have a material adverse effect on our business.

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 could be materially harmed.



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

Aside from our patented information, we also rely 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, licensees, employees, advisers 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. That could erode our competitive advantage and materially harm our business.

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

- forgo the research, development and commercialization of certain therapeutic product 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 be sure 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 U.S. and other patent applications remains unavailable to the public for a period of approximately 18 months from the filing date. In some instances, the content of U.S. patent applications remains unavailable to the public until the patents are issued. As a result, we can never be certain that programs 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 program, we may have to forgo such project after having invested substantial resources in it.

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 and prolonged. Costs that we incur in defending third party infringement actions would also result in the 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 or our collaborators and licensees 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 or obtain one or more licenses from the prevailing third party, which may not be available to us on commercially reasonable terms, if at all. If we are not able to obtain such a license or not

able to obtain such a license at a reasonable cost, 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 such license could prevent us or our partners from commercializing available products and could cause us to incur substantial expenditures.

Patent reform and other legislative changes in the U.S. and other countries may affect our ability to obtain and enforce our patents.

In 2011, the United States passed comprehensive patent reform laws in the “America Invents Act,” or the “Act.” These changes may affect our ability to obtain and enforce patents in a number of ways. First, the Act provides for a period of ex parte post-grant review with expanded grounds for challenging validity of a patent for nine months after grant of a patent. If the validity of one of our U.S. patents is successfully challenged, some or all of the claims may be invalidated, such that we could not enforce the patent and hence could not protect one or more of our therapeutic product candidates. Other countries may also pass legislative changes to their patent laws which could materially affect – and even invalidate – one or more of our already filed patent applications, or even granted patents.

Increased progress in our scientific and technological environment may reduce our chances of obtaining a patent.

In order to obtain a patent to protect one of our therapeutic product candidates, we must show that the underlying invention (that is, the candidate itself or its use) is inventive. As an increasing amount of scientific knowledge is becoming available regarding genes, proteins and biological mechanisms, the bar is increasingly raised to show sufficient inventiveness, as inventiveness is judged against all publicly available information available prior to filing of the patent application (the exact date may vary by country or due to other circumstances). We were initially pioneers in a largely unexplored field, but now there are many others working in our area. We may not be able to obtain patents for our product candidates due to the increased information published in this area. Collective patent applications, in which a large number of candidates are included in one patent application, are also challenged due to the raised bar for information that must be included in a patent application, as well as due to the availability of other publications. Our own published patent applications and other publications also serve as prior art against our new inventions and patent applications, and may prevent us from obtaining new patents.

We may become subject to claims for remuneration or royalties for assigned service invention rights by our employees, which could result in litigation and adversely affect our business.

We enter into assignment of invention agreements with our employees pursuant to which such individuals agree to assign to us all rights to any inventions created in the scope of their employment or engagement with us. A significant portion of our intellectual property has been developed by our employees in the course of their employment for us. Under the Israeli Patent Law, 5727-1967, or the Patent Law, inventions conceived by an employee due to and during his or her employment with a company are regarded as “service inventions,” which belong to the employer, absent a specific agreement between the employee and employer giving the employee service invention rights or waiver of such rights by employer. The Patent Law also provides that if there is no agreement with respect to whether the employee is entitled to remuneration for his or her service invention, to what extent and under what conditions, such entitlement and terms shall be determined by the Israeli Compensation and Royalties Committee, or the Committee, a body constituted under the Patent Law. A recent decision by the Committee has created uncertainty in this area, as it held that employees may be entitled to remuneration for their service inventions despite having specifically waived any such rights. Further, the Committee has not yet determined the method for calculating such remuneration. Although our employees have agreed to assign to us service invention rights, we may face claims demanding remuneration in consideration for assigned inventions. As a consequence of such claims, we could be required to pay additional remuneration or royalties to our current and/or former employees, or be forced to litigate such claims, which could negatively affect our business.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.



In addition to patents, we rely on trade secrets, know-how and technology, not protected by patents, to maintain our competitive position. In order to protect our proprietary technology and processes, we rely in part on confidentiality agreements with our collaborators, employees, consultants, outside scientific collaborators and sponsored researchers and other advisors. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover trade secrets and proprietary information, and in such cases we could not assert any trade secret rights against such party. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

## Risks Related to Operations in Israel

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

Our headquarter offices and part of our 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. Future armed conflicts or political instability in the region, as recently seen in Egypt, Syria and other neighboring countries, may negatively affect business conditions and adversely affect our results of operations. In addition, Iran has threatened to attack Israel and is suspected of developing nuclear weapons. Iran is also believed to have a strong influence among extremist groups in the region. These situations may potentially escalate in the future and turn violent which could affect Israel and us.

Furthermore, several countries, principally in the Middle East, restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies if hostilities in the region continue or intensify. 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. Additionally, some of our employees, including key employees, perform annual military reserve duty and may be called to active military services for extended periods of time which could adversely affect our operations.

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 is currently committed to covering the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, there can be no assurance that such government coverage will be maintained, or if maintained, will be sufficient to compensate us fully for damages incurred. 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.

Holders of our ordinary shares who are U.S. residents may be required to pay additional U.S. income taxes if we are classified as a PFIC for U.S. federal income tax purposes.

There is a 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 of 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 generally 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 (determined on a quarterly basis) of our total assets for the taxable year produce or are held for the production of passive income. Based on our analysis of our income, assets, activities and market capitalization, we do not believe that we were a PFIC for the taxable year ended December 31, 2013. However, there can be no assurances that the United States Internal Revenue Service (“IRS”) will not challenge our analysis or our conclusion regarding our PFIC status. There is also a risk that we were a PFIC for one or more prior taxable years or that we will be a PFIC in future years, including 2014. If we were a PFIC during any prior years, U.S. holders who acquired or held our ordinary shares during such years generally will be subject to the PFIC rules. The tests for determining PFIC status are applied annually and it is difficult to make accurate predictions of our future income, assets, activities and market capitalization, which are relevant to this determination. 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 and such U.S. holders could suffer adverse U.S. tax consequences. For more information please see “Item 10. Additional Information – E. Taxation - Certain Material U.S. Federal Income Tax Considerations – Passive Foreign Investment Company.”

Our results of operations may be adversely affected by the devaluation of the dollar against the New Israeli Shekel.

We hold most of our cash, cash equivalents and short-term bank deposits in U.S. dollars but incur a significant portion of our expenses, principally salaries and related personnel expenses and administrative expenses for our Israeli based operations, in NIS. As a result, we are exposed to the risk that if the U.S. dollar devaluates against the NIS, our NIS denominated expenses will be greater than anticipated when reported in U.S. dollars. In 2011, the dollar appreciated against the NIS by 7.7%, in 2012, the dollar devaluated against the NIS by 2.3%, and in 2013 the dollar devaluated against the NIS by 7.0%, and, as a result, our NIS denominated expenses were affected by these fluctuations. Inflation in Israel may compound the adverse impact of any devaluation by further increasing the amount of our Israeli expenses. Israeli inflation may also (in the future) outweigh the positive effect of any appreciation of the U.S. dollar relative to the NIS, if, and to the extent that, it outpaces such appreciation or precedes such appreciation. The Israeli rate of inflation (2.2%, 1.6% and 1.8% in 2011, 2012 and 2013, respectively) has not had a material adverse effect on our financial condition during 2011, 2012 or 2013.

We may not be entitled to certain tax benefits.

We may be entitled to benefit in the future from certain government programs and tax legislation, particularly as a result of the ‘Approved Enterprise’ status granted to some of our operations by the Investment Center in the Israeli Ministry of the Economy and the ‘Benefiting Enterprise’ status that resulted from our eligibility for tax benefits under the Israel Law for Encouragement of Capital Investments, 1959 (an “Approved Enterprise”, a “Benefiting Enterprise” and the “Investment Law”, respectively). The availability of these tax benefits, however, is subject to certain requirements under the Investment Law including, among other things, making specified investments in fixed assets and equipment. The tax benefits that we anticipate receiving under our current “Approved Enterprises” and “Benefiting Enterprises” programs may not be continued in the future at their current levels or at all. To date, we have not actually received any such tax benefits because we have not yet generated any taxable income.

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

It may be difficult to obtain, within the United States, 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. In addition, because substantially all of Compugen Ltd.'s assets and almost all of Compugen Ltd.'s directors and officers are located outside the United States, it may be difficult to enforce a judgment obtained in the United States against us or any of our directors and officers in United States or Israeli courts, including a judgment, based on the civil liability provisions of the U.S. federal securities laws. Also, it may be difficult to enforce civil liabilities under United States federal securities laws or to assert original actions instituted in Israel under such United States federal securities laws. Israeli courts may refuse to hear a claim based on an alleged violation of U.S. securities laws reasoning that Israel is not the most appropriate forum in which to bring such a claim. In addition, even if an Israeli court agrees to hear such a claim, it is not certain whether Israeli law or U.S. law will be applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proven as a fact by expert witnesses, which can be a time consuming and costly process. Certain matters of procedure will also be governed by Israeli law. There is little binding case law in Israel that addresses the matters described above. As a result of the difficulty associated with enforcing a judgment against us in Israel, you may not be able to collect any damages awarded by either a U.S. or foreign court.

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 that acquisitions of shares above specified thresholds be conducted through tender offers, requires special approvals for transactions involving directors, officers or significant shareholders and regulates other matters that may be relevant to these types of transactions.

In addition, Israeli tax considerations may also make potential transactions unappealing to us or to our shareholders whose country of residence does not have a tax treaty with Israel exempting such shareholders from Israeli tax or who are not exempt under the provisions of Israeli tax laws from Israeli capital gains tax on the sale of our shares.

Furthermore, under the Israeli Encouragement of Research and Development in Industry Law, 1984 as amended (the “R&D Law”), to which we are subject due to our receipt of grants from the Office of the Chief Scientist of the Israeli Ministry of Economy (the “OCS”), a recipient of OCS grants such as us must report to the applicable authority of the OCS any change in the holding of the means of control of our Company as a result of which any non-Israeli citizen or resident or a non-Israeli entity becomes an interested party in our Company and the consideration available to our shareholders in a transaction involving the transfer outside of Israel of technology or know-how developed with OCS funding (such as a merger or similar transaction) may be reduced by any amounts that we are required to pay to the

OCS.

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These and other similar provisions could delay, prevent or impede an acquisition of us or our merger with another company, even if such an acquisition or merger would be beneficial to us or to our shareholders, and it may therefore limit the price that investors may be willing to pay in the future for our ordinary shares.

We received grants from the OCS that may restrict the transfer of know-how that we develop.

We have received research and development grants from the OCS. Therefore, even following full repayment of any OCS grants, we must nevertheless continue to comply with the requirements of the R&D Law. The transfer to third parties of know-how or technologies developed under the programs submitted to the OCS and as to which we received the grants, manufacturing or rights to manufacture based on and/or incorporating such know-how to third parties, might require the consent of the OCS, and may require certain payments to the OCS. Although such restrictions do not apply to the export from Israel of the Company's products developed with such know-how, they may prevent us from engaging in transactions with our affiliates, customers or other third parties outside Israel, involving product or other asset transfers, which might otherwise be beneficial to us.

Being a foreign private issuer exempts us from certain SEC and NASDAQ requirements.

We are a "foreign private issuer" within the meaning of rules promulgated by the SEC. As such, we are exempt from certain provisions applicable to U.S. public companies including:

- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q and current reports on Form 8-K
- the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act
- the provisions of Regulation FD aimed at preventing issuers from making selective disclosures of material information
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and establishing insider liability for profits realized from any "short-swing" trading transaction (a purchase and sale, or sale and purchase, of the issuer's equity securities within less than six months).

In addition, under the rules and regulations of The NASDAQ Stock Market, a foreign private issuer may follow its home country practice in lieu of certain NASDAQ listing requirements. For example, under NASDAQ's rules a company traded on the NASDAQ market is required to select director nominees either by independent directors constituting a majority of the board of directors or by a nominations committee comprised solely of independent directors. Under Israeli law, there is no such requirement to have an independent nominating committee or to have the independent directors of a company select (or recommend for selection) director nominees. We have elected that our board of directors handle this process, as is permitted under our Articles of Association and the Israeli Companies Law, 5759-1999, as amended (the "Companies Law"). We also need not adopt a formal board resolution or charter addressing the director nominations process and such related matters as may be required under the U.S. federal securities laws, as Nasdaq requires for a U.S. issuer. In addition, pursuant to Israeli law, we seek shareholder approval for all corporate actions requiring such approval under the requirements of the Companies Law, which are different from the requirements for seeking shareholder approval under NASDAQ Listing Rule 5635. For a description of the transactions requiring shareholder approval under the Companies Law see "Item 10. Additional Information — B. Memorandum and Articles of Association — Conflict of interest" in this annual report. Furthermore, consistent with Israeli law, if a quorum is not present within half an hour from the time stated for an adjourned general meeting of shareholders of the Company, any shareholders present in person or by proxy at such meeting shall constitute a

quorum. As such, the quorum requirements for an adjourned meeting are different from the Nasdaq requirement that an issuer listed on Nasdaq have a quorum requirement that in no case be less than 33 1/3% of the outstanding shares of the company's common voting stock. Because of these SEC and NASDAQ exemptions, investors are not afforded the same protections or information generally available to investors holding shares in public companies organized in the United States.

Your rights and responsibilities as a shareholder will be governed by Israeli law which differs in some material respects from the rights and responsibilities of shareholders of U.S. companies.

The rights and responsibilities of the holders of our ordinary shares are governed by our Articles of Association, which we refer to as our “Articles” and by Israeli law. These rights and responsibilities differ in some material respects from the rights and responsibilities of shareholders in U.S.-based corporations. In particular, a shareholder of an Israeli company has a duty to act in good faith and in a customary manner in exercising its rights and performing its obligations towards the company and other shareholders, and to refrain from abusing its power in the company, including, among other things, in voting at a general meeting of shareholders on matters such as amendments to a company’s articles of association, increases in a company’s authorized share capital, mergers and related party transactions requiring shareholder approval. In addition, a shareholder who is aware that it possesses the power to determine the outcome of a shareholder vote or to appoint or prevent the appointment of a director or other Office Holder (as such term is defined in the Companies Law, see “Item 6 - Directors, Senior Management and Employees – B. Compensation - Approval Required for Directors’ and Officers’ Compensation”) in the company has a duty of fairness toward the company. There is limited case law available to assist us in understanding the nature of this duty or the implications of these provisions. These provisions may be interpreted to impose additional obligations and liabilities on holders of our ordinary shares that are not typically imposed on shareholders of U.S. corporations.

#### Risks Related to our Ordinary Shares

Sales under our existing shelf registration statement will dilute existing shareholders.

On January 7, 2013, we filed a shelf registration statement on Form F-3 with the SEC under which we may offer and sell from time to time in one or more offerings, our ordinary shares, debt securities, rights, warrants and units having an aggregate offering price of up to \$100 million. This registration statement was declared effective by the SEC on January 16, 2013. As of January 31, 2014, no shares have been issued pursuant to this shelf registration statement. While there is no assurance that we will sell any shares, including shares underlying securities convertible into, exchangeable for, exercisable for shares, under this shelf registration statement, any such sales in the future may result in dilution to existing shareholders. In addition, we may seek additional capital by selling shares or other securities under this shelf registration statement due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Potential Issuance of ordinary shares pursuant to the funding agreement with Baize Investments (Israel) Ltd. will dilute existing shareholders.

We have received a total of \$13 million under our funding arrangements with Baize. Pursuant to the amended funding agreement, Baize has the right to receive 10% of the cash consideration received by Compugen or its affiliates from third parties, less certain pass-through amounts, with respect to certain designated product candidates through December 31, 2030. In addition, Baize has the right, until June 30, 2015, to waive its right to such participation rights in exchange for a number of the Company’s ordinary shares to be calculated as the quotient of (i) \$13 million less 50% of any cash consideration paid prior to such date to Baize, divided by (ii) the average closing price of the Company’s ordinary shares during the 20 trading days prior to the exchange date; provided however that such exchange price shall not be lower than \$3.00 per share, and shall not exceed \$12.00 per share. Baize has also received a warrant to purchase up to 500,000 of our ordinary shares at an exercise price of \$7.50 per share through June 30, 2015. In the event that Baize elects to exchange its participation rights for our ordinary shares or to exercise the warrant it will result in dilution to existing shareholders.

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



In addition to being traded on The NASDAQ Global Market, our ordinary shares are also traded on the Tel Aviv Stock Exchange, or TASE. Trading in our ordinary shares on these markets take place in different currencies (U.S. dollars on NASDAQ and NIS on the TASE), and at different times (resulting from different time zones, trading days and public holidays in the United States and Israel). The trading prices of our ordinary shares on these two markets may differ due to these and other factors. Any decrease in the price of our ordinary shares on one market could cause a decrease in the trading price of our ordinary shares on the other market.

Our share price and trading volume have been volatile and may be volatile in the future and that could limit investors' ability to sell our shares at a profit and could limit our ability to successfully raise funds.

During the calendar years 2012 and 2013, our stock price on NASDAQ has traded from a low of \$2.96 to a high of \$11.92 and trading volume is volatile from time to time. The volatile price of our shares and periodic volatile trading volume 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:

- global macroeconomic developments

- our success (or lack thereof) in entering into collaboration agreements and achieving certain research and developmental milestones thereunder
  - our need to raise additional capital and our success or failure in doing so
  - achievement or denial of regulatory approvals by us or our competitors
- announcements of technological innovations or new commercial products by our competitors
  - developments concerning proprietary rights, including patents
  - developments concerning our existing or new collaborations
  - regulatory developments in the United States, Israel and other countries
- delay or failure by us or our partners in initiating, completing or analyzing pre-clinical or clinical trials or the unsatisfactory design or results of such trials
  - period to period fluctuations in our results of operations
  - changes in financial estimates by securities analysts
  - changes in senior management or the board of directors
- our ability (or lack thereof) to disclose the commercial terms of, or progress under, our collaborations;
  - our ability (or lack thereof) to show and accurately predict revenues
- transactions with respect to our ordinary shares by insiders or institutional investors.

We are not 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, have experienced extreme price and volume fluctuations that may be 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.

Furthermore, 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 volatility in their stock prices and/or difficulties in raising additional financing required to effectively operate and grow their businesses. Thus, market and industry-wide fluctuations and political, economic and military conditions in the Middle East may adversely affect the trading price of our ordinary shares, regardless of our actual operating performance.

As a result of the volatility of our stock price, we could be subject to securities litigation, which could result in substantial costs and divert management's attention and company resources from our business.

#### ITEM 4. INFORMATION ON THE COMPANY

A. HISTORY AND DEVELOPMENT OF THE COMPANY

History

Our legal and commercial name is Compugen Ltd. We were incorporated on February 10, 1993 as an Israeli corporation. The legislative framework within which Compugen Ltd. now operates is the Companies Law, which originally became effective on February 1, 2000, and the Israeli Companies Ordinance (New Version) 1983, as amended. Our principal offices are located at 72 Pinchas Rosen Street, Tel Aviv 6951294, Israel, and our telephone number is +972-3-765-8585. 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.

We have a wholly owned subsidiary, Compugen USA, Inc., which was incorporated in Delaware in March 1997 and is qualified to do business in California. This subsidiary did not have any significant operations from 2008 to March 2012.

#### Principal Capital Expenditures

In the years ended December 31, 2013, 2012 and 2011, our capital expenditures were \$328,000, \$1 million, and \$96,000, respectively, and for the year 2013 were spent primarily on laboratory equipment, general computer software and hardware, and leasehold improvements. We have no current significant commitments for capital expenditures.

## B. BUSINESS OVERVIEW

### Overview

Compugen is a drug discovery and development company utilizing a broadly applicable proprietary infrastructure for the in silico (by computer) prediction and selection of human therapeutic product candidates, which are then advanced in its Pipeline Program. The initial fields of focus selected by us are monoclonal antibodies and therapeutic proteins to address major unmet needs in the fields of oncology and immunology. Beginning in late 2010, we established the Pipeline Program, consisting of targets and product candidates for applications in oncology and immunology, based largely on novel immune checkpoint regulator candidates discovered by us during our first focused discovery program. Our business model includes entering into collaborations covering the further development and commercialization of product candidates at various stages from our Pipeline Program and various forms of research and discovery agreements, in both cases providing us with potential fees, research revenues, milestones, royalties and other revenue sharing payments.

**Predictive Discovery Infrastructure:** Our continuously growing discovery infrastructure, established over more than a decade of pioneering research with respect to key biological phenomena, consists of a multi-dimensional platform integrating proprietary scientific understandings and predictive models, algorithms, machine learning systems and other computational biology capabilities.

**Initial Fields of Focus:** Oncology and immunology are both areas of complex and challenging diseases with significant unmet medical needs. Therefore, these are areas of high industry interest with numerous efforts to identify novel therapeutic solutions. Our science-driven predictive capabilities are well suited for the identification of novel therapeutic candidates for these complex, multi-factorial and challenging therapeutic fields.

**The Pipeline Program:** Our Pipeline Program consists of therapeutic product candidates at various stages ranging from target validation to pre-clinical studies. The aim of the Pipeline Program is to advance in our validation pipeline mAb targets and mAbs against such targets, and Fc fusion protein therapeutics, in each case discovered by us, in the fields of oncology and immunology and to further advance selected molecules beyond their animal proof of concept stage. The newly discovered candidates enter the Pipeline Program when they begin experimental evaluation following their in silico prediction and selection. These candidates then undergo in vitro and in vivo experimental validation, with selected candidates eventually being advanced toward pre-clinical, and, in selected cases, possibly future clinical activities. The experimental validation studies are conducted at our facilities, or at expert laboratories, selected specifically for each relevant field. In the case of drug targets for mAbs, target functional characterization and other validation studies, selected based on the nature of the target, confirming the target's therapeutic potential are undertaken, followed by the generation of a therapeutic mAb to be used for in vitro and in vivo proof of concept studies in disease animal models. mAb candidates, either humanized or fully-human, selected to be advanced to pre-IND studies, will then enter the stage of lead candidate selection and optimization. For specific candidates we may choose to continue development into further clinical activities. With respect to therapeutic protein product candidates

that have either been or will be successfully validated in vitro, these candidates are further advanced to in vivo proof of concept studies in disease animal models and to mechanism of action studies to explore their novel biology, followed by the selection of the final therapeutic form of the molecule to be used at later development stages.

## Pipeline Program

### Overview

During 2010, we integrated our approach to drug target and drug discovery, moving from a “technology driven” individual platform capability approach to a “therapeutics needs (market) driven” approach. In this “therapeutics needs (market) driven” approach we harness all of our relevant discovery platforms, systems and tools towards a selected unmet need in order to predict and validate novel candidates that we believe have the highest potential to be successful first-in-class drug candidates to address that particular need. Our first focused discovery program under this therapeutics needs (market) driven approach was directed towards the discovery of novel members of the immune checkpoint regulators family of proteins, specifically focusing on B7/CD28 co-stimulatory/co-inhibitory proteins, which are of high interest to the industry and have therapeutic potential in autoimmune diseases and/or cancer.

In late 2010, we initiated our Pipeline Program, pursuant to which we have both (i) accelerated the number of predicted and selected product candidates being evaluated by us, primarily in our fields of focus, and (ii) taken certain product candidates further beyond their proof of concept into preclinical activities, and in selected cases we may elect to take them into future clinical activities.

The Pipeline Program is now focused on mAb and protein therapeutics in the fields of oncology and immunology, and is largely based on novel immune checkpoint regulator candidates discovered by us.

Our initial results in identifying potential immune checkpoint candidates and the high industry interest in this class of proteins, led us to expand our discovery efforts in this area to the identification of additional sets of immunomodulatory proteins beyond the B7/CD28-like family. In 2011, we developed two as yet undisclosed discovery platforms based on new approaches and algorithms to predict such novel immunomodulatory proteins. These platforms completed their in silico validation stage and have already predicted several novel immunomodulatory proteins, which have entered initial validation studies.

### First Focused Discovery Program – Immune Checkpoints

Oncology and Immunology are two medical fields with significant unmet medical needs. Biological drugs have revolutionized patients’ treatment in these areas and have gained the highest commercial successes in the industry. For example, Humira® and Enbrel®, indicated for autoimmune diseases, are the industry’s top-selling drugs, with 2012 annual sales of \$9.3 billion and about \$8.4 billion respectively. Compugen has therefore elected to focus its discovery effort using its proprietary predictive capabilities in these areas.

Modulation of the immune system has shown clinical success in several therapeutic applications, such as treating various types of cancer, inhibiting autoimmune diseases and prolonging graft survival in organ transplant recipients. This initial clinical significance is the basis for the increasing interest in the discovery and development of immunomodulators for therapeutic uses, and the rationale behind Compugen’s first therapeutic needs driven efforts: the identification of novel immune checkpoint proteins that can serve as targets for therapeutic mAb discovery or be engineered to produce therapeutic protein candidates. Indeed, recent data presented at the American Society of Clinical Oncology (ASCO) on checkpoint inhibitors for immuno-oncology has continued to excite the industry, proposing a paradigm shift in cancer therapy, with excellent promise for patients’ long-term survival, though still for a small fraction of patients. Despite the impressive efficacy observed with current immune checkpoint strategies, there still remains a significant unmet need to be addressed, e.g., by novel immune checkpoints.

Immune checkpoints: Immune checkpoints are inhibitory receptors and their ligands, which are crucial for the maintenance of self-tolerance (that is, the prevention of autoimmunity) and for the protection of tissues from damage

when the immune system is responding to pathogenic infection. In several autoimmune diseases, including for example multiple sclerosis and rheumatoid arthritis, self-reactive T cells escape immune checkpoints and autoimmune responses ensue. Therefore, restoring immunologic balance by activating immune checkpoints and regulatory immune cells is a promising avenue for the treatment of autoimmunity.

Immune checkpoints also play critical roles in cancer development as they are "hijacked" by tumors to block the ability of the immune system to destroy the tumor ("immune resistance"). Immune checkpoints have lately emerged as potential "game changers" and promising targets for cancer immunotherapy. Clinical studies employing mAb blockade of immune checkpoints, such as PD-1 and CTLA4, have shown unprecedented durable responses. Antibodies targeting immune checkpoints have been thus termed "the next frontier" in the treatment of cancer and some refer to this approach as 'the beginning of the end of cancer'. Cancer immunotherapy was selected by Science magazine as the Breakthrough of the Year 2013. It also came into high focus of the investment community, with multiple analyses, conferences, articles in leading business journals, and investments in new companies. One industry analyst estimates that the cancer immunotherapy market will generate annual sales of up to \$35 billion over the next ten years and will be used in the management of up to 60% of all cancers.

Discovery of novel immune checkpoints for oncology and immunology: A key Compugen established capability in this field was the development and use of our Protein Family Members Discovery Platform for the discovery of novel protein members belonging to various known and clinically important protein families. This discovery platform incorporates two key Compugen proprietary infrastructure capabilities: LEADS and MED (described in more detail below). Specialized algorithms designed for identification of the unique characteristics of specific protein families, utilizing LEADS and MED, analyze the entire proteome to search for novel proteins belonging to a desired family. This platform concept was initially developed for the identification of novel immunomodulators which can serve as protein therapeutics for various pathological conditions, and more specifically, the B7/CD28 protein family of costimulators/coinhibitors. The reason we focused initially on this protein family is that B7/CD28 proteins are known to play key roles in regulating immune responses and serve as immune checkpoints. We believe new proteins of this family could have significant therapeutic potential in many pathological conditions, including autoimmune diseases and cancer. Applying the Protein Family Members Discovery Platform resulted in the identification of nine putative immune checkpoint B7/CD28-like membrane proteins. Among those we have disclosed are CGEN-15001T, CGEN-15022 and CGEN-15049.

Our newly discovered immune checkpoints have been shown to be expressed in cancer tumors, thus substantiating their potential as mAb targets for cancer immunotherapy. CGEN-15001T is expressed on numerous types of solid cancers and hematological malignancies, such as prostate cancer, melanoma, Hodgkin's lymphoma and Non-Hodgkin's lymphoma. CGEN-15022 is expressed in numerous types of epithelial cancers with significant unmet clinical needs, such as liver, colorectal, lung and ovarian cancers. The different expression profiles of CGEN-15022 and CGEN-15001T not only provide important differentiating characteristics between these two novel targets, but also offer promising potential to utilize these proteins as mAb targets to treat a broad set of key cancer indications with significant unmet medical needs. In August 2013, we signed a research and discovery collaboration and license agreement with Bayer for the development and commercialization of antibody-based therapeutics for cancer immunotherapy against CGEN-15001T and CGEN-15022.

In September 2013, Compugen disclosed experimental data for CGEN-15049, a novel immune checkpoint mAb target. The experimental data demonstrate CGEN-15049's expression in a wide variety of cancers and its functional effects on the activities of different types of immune cells that play critical roles in the immune system's response against the tumor. These two characteristics identify CGEN-15049 as a promising target for the treatment of various cancers using monoclonal antibody therapy in order to block its inhibition of immune response against the tumor and release the brakes on the immune system.

The immune checkpoint mAb targets' respective fusion proteins were genetically engineered as recombinant proteins consisting of the extracellular region of the immune checkpoint membrane proteins fused to an Fc antibody domain. CGEN-15001 was the first of these predicted candidates to undergo extensive in vitro and in vivo validation, demonstrating robust efficacy in animal models of multiple sclerosis and rheumatoid arthritis, pointing to its therapeutic potential for treatment of multiple autoimmune diseases. Two additional proteins disclosed in 2011, CGEN-15021 and CGEN-15091, have also been validated and shown to have beneficial effects in animal models of autoimmune diseases. In 2012, we disclosed two additional Fc fusion proteins, CGEN-15031 and CGEN-15051 with positive initial results in animal models of autoimmune diseases. The experimental data on our Fc fusion proteins demonstrate their therapeutic potential in treatment of autoimmune diseases and inflammatory conditions, such as multiple sclerosis and rheumatoid arthritis. In 2013, we disclosed additional results for CGEN-15001 in disease animal models of type 1 diabetes and psoriasis. In addition, we disclosed in 2013 that CGEN-15001 was highly effective in preventing graft rejection in a bone marrow transplantation animal model, suggesting that this drug candidate acts through an induction of immune tolerance. In comparison to current therapeutic approaches that generally suppress the immune system, tolerance induction would provide a sustained resolution of the disease without compromising the immune system's capacity to fight infections and malignancies.





## Second Focused Discovery Program – Targets for Antibody Drug Conjugate Technology

Antibody-drug conjugate (ADC) cancer therapy destroys cancer cells through the use of an antibody or antibody fragment linked to a high-potency cytotoxic agent, called the payload. Unlike traditional cancer therapeutics, ADC therapy is designed to target and destroy only the cancer cells. The antibody specifically targets the cancer cell, where the payload is released and selectively kills the cancer cell. ADCs against a number of targets, both in solid and hematologic tumors, have already demonstrated clinical success, with two ADC products gaining FDA approval in the past three years.

Fueled by the success of recent FDA approvals, ADC cancer therapy is an area of increased focus and activity. At least 17 ADCs started clinical trials in 2011 and 2012, up from just eight in 2009 and 2010. There are approximately 30 ADCs in clinical testing, accounting for approximately 15% of the clinical-stage anticancer antibody-based pipeline and outnumbering other modified mAbs such as bispecifics and fragments (Nature Reviews Drug Discovery 2013). Additionally, in recent years the ADC field has been characterized by a very active partnering landscape amongst pharmaceutical companies, signifying the high unmet clinical need in cancer treatment and the high level of interest in developing novel ADC therapies.

Arming antibodies or antibody fragments with cytotoxic agents can be viewed as a means of enhancing tumor cell killing while sparing normal cells. ADCs represent a potential approach to enhance the efficacy of mAbs, by harnessing the mAb specificity to target the delivery of a cytotoxic agent to the tumor. Cancer therapy through ADCs addresses an area of high unmet medical need and is of great interest to the pharma industry. The lack of suitable ADC targets is a major problem, which provides an opportunity for Compugen to serve as a key source of such potential targets and their mAbs.

Compugen's ADC target discovery program, which was initiated in 2013, utilizes our underlying predictive discovery infrastructure which was also used in our earlier immune checkpoint program, with the addition of certain algorithms and other computational capabilities specifically developed for this effort. The additional algorithms enable prediction of membrane proteins having the potential to internalize, which are both expressed on cancer cells and have low expression on healthy cells, in order to allow the ADC drug to selectively attack the tumor and spare healthy tissues. It was additionally enhanced to identify targets associated with advanced cancer stages and poor clinical outcome, in order to provide potential superior first-in-class treatment to patient populations with limited therapeutic options and high unmet need.

The initial results from our second focused in silico discovery program were announced at the end of 2013 with the predictive discovery and selection of five potential candidate targets for ADC cancer therapy. These five potential ADC targets are now entering initial experimental validation to be followed by antibody discovery and development activities.

## Monoclonal Antibody Therapy

Monoclonal antibody (mAb) therapy relates to a class of biological drugs that bind with high specificity to target cells or proteins. Due to the versatility and specificity of this approach, mAb therapies are being intensively researched and developed as treatments for numerous serious diseases with the belief that they have the potential to be more effective and have fewer side effects compared to traditional chemical drugs. During the past two decades, mAbs have emerged as an important and rapidly growing drug class, with over 20 mAbs already approved for therapeutic use in the U.S. for various clinical indications, including oncology, chronic inflammatory diseases, transplantation, infectious diseases and cardiovascular diseases. For cancer therapy, a mAb may inhibit cellular processes critical for tumor growth, stimulate the patient's immune system to attack the target cancerous cells, or be used for targeted delivery of chemotherapy specifically to the cells identified by the antibodies (known ADC technology). Moreover, according to

an analysis by Tufts University, the rate of success for mAb therapeutics from first use in humans to regulatory approval is more than double that of traditional chemical drugs.

Although significant progress has been made in recent years in mAb therapeutics, numerous challenges still remain. One of the main challenges in this extremely promising field is the identification of novel targets for mAb therapy. To this end, we have developed several proprietary target discovery platforms through the focusing and integration of various aspects of our unique predictive discovery capabilities to identify novel drug targets for mAb therapies.

The Pipeline Program consists of mAb targets discovered by our Monoclonal Antibody (mAb) Targets Discovery Platform and our Protein Family Members Discovery Platform. While our computational capabilities can enable target discovery in any number of areas, we have focused our antibody pipeline efforts on two main target classes: Immune checkpoints and targets for ADC technology. Immune checkpoint candidates disclosed by Compugen include CGEN-15001T, CGEN-15022 and CGEN-15049. These three targets have shown immunomodulatory activity on immune cells and expression in a wide variety of cancers. Additional undisclosed immune checkpoint candidates are available in the Pipeline Program. The other class of targets in our Pipeline Program is targets for ADC which are undergoing validation studies. CGEN-671, is a novel potential ADC target. Compugen also has five additional ADC targets in the Pipeline Program that recently began to undergo initial validation studies.

Compugen has secured access to a highly diverse human phage display antibody library to generate antibodies against its novel targets for its Pipeline Program. We will use this library to screen for antibodies that bind to a given target with high specificity and affinity. Those antibodies will then be tested for desired activities, such as the ability to stimulate anti-tumor immune response, or induce tumor cell killing when coupled with a toxin. Lead candidates will then be selected based on their potency and efficacy in animal-based tumor studies, to be further advanced towards clinical development.

#### Targets for Antibody Drug Conjugate Technology

Ideal targets for ADCs are expressed at high levels in the tumor epithelium, internalize upon antibody binding, and demonstrate minimal expression in normal tissues. This enables specific antibody delivery of toxin to tumor cells, while sparing normal tissues from exposure to and damage from the toxin. Following our second focused target discovery effort, Compugen has a number of potential ADC targets that will serve as the basis for future antibody development programs. Additionally, antibody development efforts have been initiated against a protein previously discovered by Compugen that demonstrates desired ADC target features. Antibodies that bind specifically to the target will be tested for their ability to internalize following binding on the cell surface, and cell killing will be assessed using commercially available reagents commonly used for in vitro ADC testing. For proof of concept testing in animal models, candidate antibodies will be conjugated with linkers and toxins that are widely used and well defined in the industry, and used to treat mice bearing tumors that express the target on the cell surface. Lead candidates will be chosen based on their ability to induce tumor destruction, together with biophysical properties that are consistent with use in a therapeutic setting.

#### Therapeutic Proteins for Immunology in the Pipeline Program

Therapeutic proteins are large biological molecules usually produced by recombinant technologies. Therapeutic proteins are clinically used to treat a wide range of diseases including cancer, autoimmune diseases, infectious diseases, blood-related disorders and others. Compugen's therapeutic proteins candidates are based on novel B7/CD28-like immune checkpoint proteins discovered using the Company's Protein Family Members Discovery Platform. The therapeutic protein candidates in the Pipeline Program were created by fusing the extracellular domain of the newly discovered immune checkpoints to an Fc fragment of an antibody. This class of therapeutic proteins, known as Fc fusion proteins, has achieved significant clinical and commercial success as exemplified by the anti-rheumatic biologics ENBREL® (etanercept) with sales of about \$8.4 billion in 2012, and ORENCIA® (abatacept) with about \$1.2 billion in sales in 2012. Potential therapeutic proteins for immunology disclosed by Compugen include CGEN-15001, CGEN-15021, CGEN-15091, CGEN-15031 and CGEN-15051. The therapeutic potential of Compugen's Fc fusion drug candidates for immunology was demonstrated in animal models of autoimmune diseases. Specifically CGEN-15001, Compugen's leading Fc fusion program, was successfully tested in disease models of multiple sclerosis, rheumatoid arthritis, psoriasis, type 1 diabetes and bone marrow transplantation. In these disease models, CGEN-15001 provided sustained long-term therapeutic effect and showed immune tolerance induction in the transplantation model. The promise of this class of therapeutic candidates based on immune checkpoints is to potentially affect immunological processes underlying autoimmunity, thereby potentially providing long-term therapeutic solutions for patients.

#### Our Discovery Infrastructure

Our proprietary underlying and growing predictive discovery infrastructure has been shown to be applicable for the discovery of product candidates in many different therapeutic and diagnostic areas. This infrastructure incorporates predictive understandings of numerous biological phenomena at the molecular level. These predictive understandings were accomplished during a decade-long and ongoing research effort at Compugen and are based on sophisticated analyses of large amounts of data of various types, such as genetic, molecular, structural, clinical, biological pathways

and others. This effort is performed on an ongoing basis by an experienced multidisciplinary research team of scientists, who on average have been employed by Compugen Ltd. for approximately 8 years (and 6.5 years when taking Compugen USA, Inc. into account) and over time have generated more than 70 peer reviewed publications of certain of our findings and capabilities in scientific journals.

A key aspect of our capabilities is the increasing set of building block algorithms and other proprietary technologies for the accurate integration of the enormous amount of data from different sources, as well as of specialized data, which form the basis for our infrastructures, such as our core discovery infrastructure platforms, LEADS, MED and NexGen as described below. This has resulted in the ability to utilize this discovery infrastructure to provide output in the form of meaningful biological information, in addition to continuing the development and enhancement of the infrastructure itself. A further requirement of our discovery capabilities is the development of a set of query algorithms specifically designed for the prediction and selection of molecules that should address specific areas or needs. Such query algorithms are different for each of our growing list of individual discovery capabilities.

Following the prediction and selection of potential product candidates through use of this infrastructure, which is accomplished entirely by computer, the resulting predicted candidates are validated utilizing well-accepted laboratory experimental procedures, which in addition to providing validation of the candidates, also provide key information for further refining the query algorithms and other aspects of the infrastructure.

#### Infrastructure Platforms

An important aspect of our infrastructure development efforts was the creation of our three key infrastructure platforms, LEADS, MED and NexGen, which integrate our scientific understandings and predictive models. These infrastructure platforms serve as key components first in the creation of our individual discovery platforms described below, and then in allowing us to approach unmet clinical needs through the integrated use of these infrastructure platforms with the discovery platforms, systems and tools developed by us during the last decade.

LEADS provides a comprehensive view of the human transcriptome, proteome, and peptidome and serves as a rich infrastructure for the discovery of novel genes, transcripts and proteins. This was the first infrastructure platform developed by us and it has been enhanced and improved for over a decade. LEADS provides precise gene, transcript, protein and peptide prediction through modeling of various biological phenomena such as alternative splicing, antisense, fusion gene, RNA editing and polymorphisms. LEADS serves as a rich and accurate database of thousands of proprietary and novel genes and proteins. The infrastructure is based on mapping of messenger RNAs, or mRNAs, and expressed sequence tags (ESTs) to the genome, followed by clustering of the sequences and assembly of the gene structure and all possible mRNA transcripts and resulting proteins, through a multistep predictive analysis process. LEADS includes proprietary algorithms developed at Compugen and public and proprietary input data. This combination of proprietary algorithm tools and data, public and proprietary, allows us to identify previously unknown proteins and transcripts.

MED is an in silico disease expression database integrating more than 70,000 microarray experiments which are grouped into approximately 1,400 sets. Each set is a unification of different experiments of tissues with the same clinical relevance (i.e. normal tissues, malignant tissues, tissues from drug treated patients). In contrast to a commonly used single experiments analysis approach, the results from all 70,000 microarray experiments are integrated by MED via a sophisticated procedure that we developed, and they are then unified into a "virtual" or in silico chip. The "virtual" chip allows us to analyze simultaneously the expression of genes across all 1,400 conditions and tissues based on the results from the 70,000 experiments. This integrated analysis allows a broad view of the expression profile of a single gene over thousands of experiments and multiple tissue types. It also allows the identification and elimination of exceptional expression results obtained from various data sources, resulting in a system with an improved signal-to-noise ratio and thus superior accuracy. The fact that the platform integrates data from many sources and experiments gives robust results. MED's in silico discoveries have been experimentally validated repeatedly over the years with expression data obtained in-house by a quantitative expression assay system, qRT-PCR, on established controlled and independent mRNA tissue panels.

NexGen is designed to analyze Next Generation Sequencing data which is now beginning to be generated worldwide through RNA-Seq methodology. RNA-Seq is a new and powerful ultra-high throughput approach to provide raw data for transcriptome analysis and expression profiling. Although this new approach provides a massive amount of data in the form of very short partial transcript sequences, it also creates an extremely challenging environment for obtaining meaningful and accurate information. Our NexGen Platform, which incorporates advanced algorithms and other proprietary tools, is designed to efficiently and accurately integrate and analyze this vast amount of short sequence data. The integration of this capability with our discovery infrastructure, mainly our predictive transcriptome and proteome, is expected to provide us with both enhanced identification of novel genes and splice variants, and a broader view of the expression levels of RNA transcripts, facilitating new associations to pathological or healthy conditions. These new integrated capabilities should provide us with further substantial advantages in predictive discovery of potential drugs and drug targets, and also in the discovery of potential diagnostic product candidates.

## Discovery Platforms

Each of our individual discovery platforms targets a specific area or type of molecule and consists of three modules: prediction, selection and validation. The first two modules are accomplished by computer, while the third module involves laboratory based in vitro and in vivo experimental validation of selected candidates. In general, the prediction and selection modules utilize our discovery infrastructure to predict putative product candidates for a defined unmet need.

Our current key individual discovery capabilities are:

- **mAb Target Discovery:** This platform relies on both the LEADS and MED infrastructure platforms and utilizes query algorithms focused on the discovery of targets suitable for mAb technology based on statistical analysis of expression data provided by these platforms. Compugen's mAb Target Discovery capability has been expanded beyond the initial focus on various solid tumors such as lung, ovarian, breast, colorectal and hematological cancers. New field extension modules have been added, which are now enabling the discovery of drug targets involved in drug response, metastatic stage cancer, and additional cancers such as melanoma, renal, liver, and pancreatic.
- **Protein Family Members Discovery Platform:** This platform incorporates both LEADS and MED infrastructure capabilities for the discovery of novel protein members belonging to various known and clinically important protein families. Since most traditional approaches for identifying such novel members are largely based on sequence homology, we first identify other types of characteristics that are shared between known members of the family of interest, and then the specialized algorithms select proteins from the LEADS proteome that share these characteristics and therefore could potentially be unknown family members.
- **Antibody-Drug Conjugate Cancer Therapy Discovery Platform:** Compugen's discovery infrastructure was expanded by incorporating additional algorithms that enable prediction of membrane proteins having the potential to internalize, that are both expressed on cancer cells and have low expression on healthy cells, in order to allow the ADC drug to selectively attack the tumor and spare healthy tissues. It was additionally enhanced to identify targets associated with advanced cancer stages and poor clinical outcome, in order to provide potential superior first-in-class treatment to patient populations with limited therapeutic options.
- **Predictive Structural Biology Discovery Platform:** This platform leverages previously developed platforms, in particular the PPI blockers platform, and enhances them, to enable the identification of functional interactions sites within proteins of interest, thus increasing the probability of identifying and/or optimizing functional monoclonal antibodies that modulate targets of interest in cancer and immunology

## Commercialization

### Therapeutic Needs (Market Driven) Discoveries

Although our individual discovery capabilities are in general broad and not limited to a certain indication or therapeutic field, during 2010, we focused our approach upon drug target and drug discovery in the fields of oncology and immunology moving from a "technology driven" individual platform capability approach to a "therapeutics needs (market) driven" approach. In this "therapeutics needs (market) driven" approach we harness all of our relevant discovery platforms, systems and tools towards a selected unmet need in order to predict and validate novel molecules that we believe have the highest potential to be successful first-in-class drug candidates for that need.

In late 2010, we initiated our Pipeline Program, which is now focused on mAbs and protein therapeutics in the fields of oncology and immunology and is largely based on novel immune checkpoint regulator candidates discovered by



the Company.

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We are currently concentrating our main commercialization efforts on entering into licensing and partnership arrangements with respect to our Pipeline Program product candidates, in which we may also participate in the further development of the partnered candidates. Potential revenue sources in such arrangements could include fees, research revenues, milestones payments, royalties and other revenue sharing payments. In some cases we expect these agreements may include an option for license, option exercise fees and license fees.

Additionally, we intend to seek research and discovery collaborations aimed at harnessing our infrastructure capabilities towards the partners' discovery needs. In these arrangements we would combine our discovery approaches to identify and prioritize novel proteins and/or targets according to the specific unmet need of our partner. Potential revenue sources in these types of transactions could include upfront fees, research funding, option exercise and license fees, milestone payments, royalties and other revenue sharing payments.

#### Bayer Collaboration

On August 5, 2013, Compugen and Bayer entered into a Research and Development Collaboration and License Agreement (the "Bayer Agreement") for the research, development, and commercialization of antibody-based therapeutics against two novel, Compugen-discovered immune checkpoint regulators, CGEN 15001T and CGEN 15022.

Under the terms of the Bayer Agreement, we received an upfront payment of \$10 million, and we are eligible to receive an aggregate of over \$500 million in potential milestone payments for both programs, not including aggregate preclinical milestone payments of up to \$30 million during the research programs. Additionally, we are eligible to receive mid- to high single digit royalties on global net sales of any approved products under the collaboration.

Under the Bayer Agreement, Compugen and Bayer will jointly pursue a preclinical research program with respect to each of the two immune checkpoint regulators. A joint steering committee consisting of representatives from each party will be responsible for overseeing and directing each such research program pursuant to an agreed upon workplan. Following each such research program, Bayer will have full control over further clinical development of any cancer therapeutic product candidates targeting the Compugen-discovered immune checkpoint regulators and will have worldwide commercialization rights for any approved products.

Bayer may terminate the Bayer Agreement, either in whole or only with respect to one of the programs, and in each case also on a product-by-product and/or country-by country basis, at any time without cause, upon prior written notice. Either party may also terminate the Bayer Agreement, either in whole or with respect to only one of the programs, if the other party is in material breach and such breach has not been cured within the applicable cure period. Upon any termination of the Agreement, depending upon the circumstances, the parties have varying rights and obligations with respect to the continued development and commercialization of any products and certain payment and royalty obligations.

#### Validation Based (Technology Driven) Discoveries

A result of the decade long and continuing establishment of our discovery infrastructure was the validation of each of our discovery platforms described above. This validation, and in some cases the initial runs of the discovery platform, resulted in the "technology driven" discovery of multiple novel molecules in a broad range of therapeutic and diagnostic fields, such as oncology, immunology, cardiovascular, ocular diseases and more.

In view of the wide applicability of our predictive biology capabilities, we have in the past formed, or participated in the formation, of companies to utilize certain of these capabilities in other fields. We have also entered into other arrangements for the further development and commercialization of various non-focus area specific discoveries of

interest, most of which resulted from our infrastructure development and validation activities. In all such cases, these arrangements provide the potential for future financial gain to Compugen without any further financial commitment for either development or commercialization from us. This commercialization pathway is anticipated to be of lesser importance in the future.

In 2012, we entered into two such arrangements: (i) the joint establishment of a new Israeli company, Neviah Genomics Ltd., with Merck Serono, a division of Merck, Darmstadt, Germany, in the field of toxicity biomarkers, and (ii) a financing arrangement with a United States investment company to allow the further development of Keddem Bioscience Ltd., previously a wholly owned, but inactive, subsidiary of Compugen, in the field of small molecule drugs.

In December 2011, we entered into a framework agreement with BiolineRx pursuant to which we suggest potential drug candidates for consideration by BiolineRX, primarily peptides, which were identified by us in the past using our predictive drug discovery platforms. The field of peptide therapeutics is not currently in our areas of focus, and the agreement provides that, any such potential drug candidates, if accepted by BioLineRx, will be developed by BioLineRx at its expense through Phase II clinical trials, with the goal of ultimately licensing them to pharmaceutical companies for advanced clinical development and commercialization, with any proceeds subject to pre-agreed sharing by the parties. Under this framework agreement, three peptides were initially accepted by BiolineRx to be of possible interest and entered into the BiolineRx pipeline. Subsequently it was determined that there was insufficient market opportunity for those candidates, and currently there are no active programs under this arrangement.

In October 2011, we entered into an agreement through December 31, 2013 with the Pulmonary Fibrosis Foundation and the University of Pittsburgh, according to which the Pulmonary Fibrosis Foundation has agreed to provide a grant to scientists at the University of Pittsburgh to further evaluate the therapeutic potential of CGEN-25009 for the treatment of idiopathic pulmonary fibrosis (IPF), a devastating disease with no current effective treatment and which is estimated to affect more than five million people worldwide. The parties are currently discussing an extension to that agreement.

#### Competition

The biotechnology and pharmaceutical industries are highly competitive. Numerous entities in the United States and elsewhere compete with our efforts to make discoveries and out-license them to pharmaceutical and biotech companies. Our competitors include biotechnology companies, the research and discovery groups of pharmaceutical companies, academic and research institutions and governmental and other publicly funded agencies.

We face, and expect to continue to face, competition from entities that discover and develop products that have a function similar or identical to the function of our therapeutic product candidates or a product that acts in a different, but successful, manner addressing the same unmet need. With respect to our therapeutic product candidates, our potential competitors comprise of companies that discover and develop novel targets and/or therapeutic proteins for monoclonal antibody therapy. Specifically in the immune checkpoint field for cancer immunotherapy, there are several leading pharmaceutical and biotechnology companies as well as smaller biotechnology companies and academic institutions that are developing biological therapies to enhance immune response towards tumors. The product candidates being developed by the smaller companies and/or academic institutions are expected to compete with our product candidates on licensing and collaboration opportunities. If approved, such cancer immunotherapy products would compete with our approved products in the respective field.

Our discovery program depends, in large part, on our discovery platforms 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 discovery platforms, provide us with a competitive advantage in the field of predicting gene-based products. We believe that this advantage is made possible by building an infrastructure for predictive discovery based on the incorporation of ideas and methods from exact sciences into biology, and by the modeling of significant biological phenomena and the resultant better research capabilities that we have developed, as well as our unique team of scientists from both biology and exact sciences disciplines who have worked together for approximately eight years on average.

Many of our potential competitors, either alone or with their collaborative partners, have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of therapeutics, obtaining FDA and other regulatory approvals, and commercialization. Accordingly, our competitors may be more successful than we may be in identifying product candidates, protecting them with patent

applications, developing them, obtaining FDA approval and achieving widespread market acceptance. We anticipate that we will face intense and increasing competition as advanced technologies become available.

#### Intellectual Property Rights

Our intellectual property assets are our principal assets. These assets include the intellectual property rights subsisting in our proprietary know-how and trade secrets underlying our predictive biology capabilities and discovery platforms, our patents and patent applications, particularly with respect to Compugen discovered molecules and utilities, and the copyrights subsisting in our software and related documentation. We seek to vigorously protect our rights and interests in our intellectual property. We expect that our commercial success will depend on, among other things, our ability to obtain commercially valuable patents, especially for our product candidates, maintain the confidentiality of our proprietary know-how and trade secrets, and otherwise protect our intellectual property.

We seek patent protection for certain promising inventions that relate to our product candidates. As of January 1, 2014, we had a total of 43 issued and allowed patents, of which 32 are U.S. patents, five are Australian patents, three are Israeli patents, two are European patents and one is a Japanese patent. Our issued patents expire between 2020 and 2029. We also have 94 pending patent applications, which as of January 1, 2014, included 21 patent applications that have been filed in the United States, 17 patent applications that have been filed in Europe, 21 patent applications that have been filed in Israel, nine patent applications that have been filed in Australia, seven patent applications that have been filed in Canada, four patent applications that have been filed in Japan, three patent applications that have been filed in India, three patent applications that have been filed in China, one application that has been filed in Brazil, one application that has been filed in Korea, one application that has been filed in New Zealand, one application that has been filed in the Russian Federation, one application that has been filed in Singapore, one application that has been filed in Mexico, one application that has been filed in South Africa and two applications that have been filed under the Patent Cooperation Treaty for which we have not yet designated the countries of filing.

Our general policy is to continue patent filings and maintenance for our product candidates, only with respect to candidates or projects that are being actively pursued internally or with partners, or that we believe to have future commercial value. We routinely abandon patent applications and may choose to abandon maintenance of patents supporting candidates or projects that do not meet these criteria.

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, consultants 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.

#### Manufacturing

We currently intend to rely on contract manufacturers or our collaborative partners to produce materials and drug substances for drug products required for preclinical studies and clinical trials. We plan to continue to rely upon contract manufacturers and collaboration partners to manufacture commercial quantities of these materials for any marketed therapeutic products.

#### Government Regulation

##### Environmental Regulation

Some of our research and development activities involve the controlled use of biological and chemical materials, a small amount of which could be considered to be hazardous. We are subject to laws and regulations in the U.S. and Israel 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

We need to access and use various human or other organisms' tissue samples for the purpose of development and or validation of some of our product candidates. Our access and use of these samples is subject to government regulation, in the United States, Israel and elsewhere and may become subject to further regulation. United States and other governmental agencies may also impose restrictions on the use of data derived from human or other tissue samples.

To our knowledge, we substantially comply with these regulatory requirements.

### Regulations Concerning the Use of Animals in Research

We also are subject to various laws and regulations regarding laboratory practices and the use of animals in our research. In the United States, the FDA regulations describe good laboratory practices, or GLPs, for various types of nonclinical laboratory studies that support or are intended to support applications for research or marketing permits for products regulated by the FDA, including investigational new drug applications, or INDs. Further, preclinical animal studies conducted by us or third parties on our behalf may be subject to the U.S. Department of Agriculture regulations for certain animal species. In Israel, the Council on Animal Experimentation has regulatory and enforcement powers, including the ability to suspend, change or withdraw approvals, among other powers. To our knowledge, the Company and the third party service providers we work with, as applicable, substantially comply with these regulatory requirements.

### Regulation of Products Developed with the Support of Research and Development Grants

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. C - Research and Development, Patents and Licenses – The Office of the Chief Scientist.”

### Regulation of Therapeutic Product Candidates

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, biologics under the Public Health Service Act, and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with applicable federal, state and local statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies in compliance with the FDA’s Good Laboratory Practices or other applicable regulations;
  - submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials in accordance with Good Clinical Practices, or GCPs, to establish the safety and efficacy of the proposed drug for its intended use;
- submission to the FDA of a new drug application, or NDA if the drug is a small molecule, or a biologics license application, or BLA, if the drug is a biologic;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the drug or biologic is produced to assess compliance with current Good Manufacturing Practice, or cGMP, to assure that the facilities, methods and controls are adequate to preserve the drug’s identity, strength, quality and purity; and
  - FDA review and approval of the NDA or BLA.

Once a pharmaceutical candidate is identified for development it enters the preclinical testing stage. Preclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information and analytical data, and applicable clinical data or literature, among other things, to the FDA as part of the IND. The sponsor will also



include a protocol detailing, among other things, the objectives of the first phase of the clinical trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated, if the first phase lends itself to an efficacy evaluation. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during studies due to, among other things, safety concerns or non-compliance.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCPs. An IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. An IRB considers, among other things, whether the risks to individuals participating in the trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the information regarding the trial and the consent form that must be provided to each trial subject or his or her legal representative and must monitor the study until completed.

Each new clinical protocol must be submitted to the FDA, and to the IRBs for approval. Protocols detail, among other things, the objectives of the study, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- Phase 1: The drug is initially introduced into healthy human subjects and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. In the case of some products, usually for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients.
- Phase 2: Involves studies in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- Phase 3: Involves studies undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical study sites. These studies are intended to establish the overall risk-benefit ratio of the product and provide an adequate basis for product labeling and approval.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

Concurrent with clinical trials, companies usually complete additional nonclinical studies and must also finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug within required specifications and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final drug. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug does not undergo unacceptable deterioration over its shelf life.

#### United States Review and Approval Processes

The results of product development, preclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, proposed labeling, and other relevant information are submitted to the FDA as part of an NDA or BLA requesting approval to market the product for one or more indications. The FDA initially reviews all NDAs or BLAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. The FDA may request additional information rather than accept an NDA or BLA for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA may refer the NDA or BLA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendation of an advisory committee.

The review process is lengthy and the FDA may refuse to approve an NDA or BLA if the applicable regulatory criteria are not satisfied or may require additional clinical or other data and information. Even if such data and information are submitted, the FDA may ultimately decide that the NDA or BLA does not satisfy the criteria for approval.

If a product receives regulatory approval, the approval may be limited to specific diseases and dosages or the approved indications for use may otherwise be limited, which could restrict the commercial value of the product. In addition, the FDA may require a company to conduct post-approval testing, including Phase 4 clinical trials, to further assess a drug's safety and effectiveness after NDA or BLA approval, and may require testing and surveillance programs to monitor the safety of approved products which have been commercialized including Risk Evaluation and Mitigation Strategy (REMS) to ensure that the benefits of a drug outweigh its risks.

## Post-approval Requirements

Approved drugs are subject to extensive and continuing regulation by the FDA, including, among other things, cGMP compliance, record-keeping requirements, reporting of adverse experiences with the drug, providing the FDA with updated safety and efficacy information, and complying with FDA promotion and advertising requirements. After an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements is not maintained or if serious problems occur after the product reaches the market. Drugs may be promoted for use only for the approved indication or indications and in accordance with the provisions of the approved label. The FDA and other federal and state agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to criminal and civil penalties.

## Diagnostic Products

In the United States, IVDs are regulated by the FDA as medical devices. Medical devices are classified into one of three classes on the basis of the controls deemed by the FDA to be necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls, including labeling, premarket notification and adherence to FDA's quality system regulations, which are device-specific good manufacturing practices. Class II devices are subject to general controls and special controls, including performance standards and post market surveillance. Class III devices are subject to most of the previously identified requirements as well as to premarket approval. Class I devices are exempt from premarket submissions to the FDA; most Class II devices require the submission of a 510(k) premarket notification to the FDA; and Class III devices require submission of a premarket approval application, or PMA. Most in vitro diagnostic kits are regulated as Class I or Class II devices and are either exempt from premarket notification or require a 510(k) submission.

A 510(k) notification must demonstrate that a medical device is substantially equivalent to another legally marketed device, termed a "predicate device," that is legally marketed in the United States and for which a PMA was not required. A device is substantially equivalent to a predicate device if it has the same intended use and technological characteristics as the predicate, or has the same intended use but different technological characteristics, where the information submitted to the FDA does not raise new questions of safety and effectiveness and demonstrates that the device is at least as safe and effective as the legally marketed device. Most 510(k)s do not require clinical data for clearance, but a minority will. The FDA is supposed to issue a decision letter within 90 days of receipt of the 510(k) if it has no additional questions or send a first action letter requesting additional information within 75 days. Requests for additional data, including clinical data, will increase the time necessary to review the notice. If the FDA does not agree that the new device is substantially equivalent to the predicate device, the new medical device is automatically classified as a Class III device for which a PMA will be required. However, the sponsor may petition the FDA to make a risk-based determination that the device does not pose the type of risk associated with Class III devices and down-classify the device to Class I or Class II.

Class III devices require the submission and approval of a PMA prior to product sale. The PMA process is more complex, costly and time consuming than the 510(k) process. A PMA must be supported by more detailed and comprehensive scientific evidence, including clinical data, to demonstrate the safety and efficacy of the medical device for its intended purpose. If the device is determined to present a "significant risk," the sponsor may not begin a clinical trial until it submits an investigational device exemption, or IDE, to the FDA and obtains approval from the FDA to begin the trial. After the PMA is submitted, the FDA has 45 days to make a threshold determination that the PMA is sufficiently complete to permit a substantive review. If the PMA is complete, the FDA will file the PMA. The FDA is subject to a performance goal review time for a PMA of 180 days from the date of filing, although in practice this review time is longer. Questions from the FDA, requests for additional data and referrals to advisory committees may delay the process considerably. The total process may take several years, and the FDA may also request

additional clinical data as a condition of approval or after the PMA is approved. Product changes after approval typically require a supplemental submission with FDA review cycles ranging from 30 to 180 days.

Any products manufactured or distributed pursuant to FDA clearances or approvals are subject to pervasive and continuing regulation by the FDA, including recordkeeping requirements, reporting of adverse experiences with the use of the device, and restrictions on advertising and promotion. Device manufacturers are required to register their establishments and list their devices with the FDA and are subject to periodic inspections by the FDA and certain state agencies. Noncompliance with applicable FDA requirements can result in, among other things, warning letters, fines, injunctions, civil penalties, recalls or seizures of products, total or partial suspension of production, refusal of the FDA to grant 510(k) or PMA approval for devices, withdrawal of 510(k) clearances and/or PMA approvals, or criminal prosecution.

## Non-U.S. Regulations

In addition to regulations in the United States, drugs are subject to a variety of foreign laws and regulations governing clinical trials and commercial sales and distribution before they may be sold outside the United States. Whether or not we obtain FDA approval for a product, we must obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, the approval process, product licensing, pricing and reimbursement vary greatly from country to country.

## C. ORGANIZATIONAL STRUCTURE

We were incorporated under the laws of the State of Israel on February 10, 1993 as Compugen Ltd., which is both our legal and commercial name. Compugen USA, Inc., a wholly owned subsidiary, was incorporated in Delaware in March 1997 and is qualified to do business in California.

## D. PROPERTY, PLANTS AND EQUIPMENT

We currently lease an aggregate of approximately 15,380 square feet of office and biology laboratory facilities in Tel Aviv, Israel, under a lease that expires on December 31, 2015. In addition, Compugen USA, Inc. currently subleases an aggregate of approximately 4,410 square feet of office and biology laboratory facilities in South San Francisco, California, under a sublease that expires on June 30, 2014. Compugen USA, Inc. signed on December 12, 2013 a new lease agreement, pursuant to which, as of approximately June 1, 2014, it will lease 12,560 square feet for four years. We believe that the facilities that we currently lease are sufficient for at least 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 4A. UNRESOLVED STAFF COMMENTS

None

## 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 U.S. GAAP as of December 31, 2013, and with any other selected financial data included elsewhere in this annual report.

### Background

We are a drug discovery and development company utilizing a broadly applicable proprietary infrastructure for the in silico (by computer) prediction and selection of human therapeutic product candidates which are then advanced in its Pipeline Program. The initial fields of focus selected by us are monoclonal antibodies and therapeutic proteins to address major unmet needs in the fields of oncology and immunology. Beginning in late 2010, we established the Pipeline Program, consisting of targets and product candidates for applications in oncology and immunology, based largely on novel immune checkpoint regulator candidates discovered by us. Our business model includes entering into collaborations covering the further development and commercialization of product candidates at various stages from our Pipeline Program and various forms of research and discovery agreements, in both cases providing us with potential fees, research revenues, milestones, royalties and other revenue sharing payments.



## A. OPERATING RESULTS

### Overview

Since our inception, we have incurred significant losses and, as of December 31, 2013, we had an accumulated deficit of \$208 million. We may continue to incur net losses in the foreseeable future.

Prior to 2010, we began to focus a significant portion of our research and discovery efforts on the creation of area specific discovery platforms intended to identify novel drug and diagnostic product candidates and discontinued commercialization of our computational biology software products, with a resulting decrease in revenues. By year-end 2010 we had (i) largely integrated the various area specific discovery platforms and other computational biology tools and systems into a multi-dimensional and broadly applicable predictive discovery infrastructure, (ii) selected oncology and immunology as our areas of focus, (iii) selected the field of checkpoint proteins as our first focused discovery program, and (iv) initiated our Pipeline Program to advance selected candidates beyond their research proof of concept stage. In 2012 we initiated activities in Compugen USA, Inc. for mAb discovery and development against certain targets we had discovered. In 2013, we entered into our first collaboration based on our Pipeline Program candidates with Bayer.

We incurred net losses of approximately \$12.0 million in 2011, approximately \$13.6 million in 2012 and approximately \$14.1 million in 2013. We may continue to incur net losses in the future due in part to the costs and expenses associated with our research, development and discovery activities. Our business model primarily involves collaborations covering the further development and commercialization of our discovered product candidates and various forms of research and discovery agreements, in both cases providing us with potential milestone payments and royalties on product sales or other forms of revenue sharing.

Our net research and development expenses are expected to be our major operating expense in 2014, accounting for more than 70% of our expected total 2014 operating expenses. Our research and development expenditures have always comprised a significant portion of our total cash expenditures, and are budgeted to increase by more than 60% in 2014 compared to 2013.

We currently have sufficient working capital in order to sustain our operations for at least the next 12 months. For a detailed description of our cash and cash equivalents position, see “Item 5. Operating and Financial Review and Prospects – B. Liquidity and Capital Resources”.

### 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 share based payments, embedded derivatives and fair value measurements related to research and development funding arrangements, revenue recognition and commitments and contingencies.

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.

### Share Based Payments



We account for stock-based compensation in accordance with ASC 718, “Compensation – Stock Compensation” (“ASC 718”), which requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in our consolidated statement of comprehensive income.

We primarily selected the Black-Scholes-Merthon model, which is the most common model in use in evaluating stock options. This model evaluates the options as if there is a single exercise point, and thus considers and expected option life (expected term). The input factored in this model is constant for the entire expected life of the option.

We recognize compensation expenses for the value of awards which have graded vesting based on the straight line method over the requisite service period of each of the awards, net of estimated forfeitures. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

The computation of expected volatility is based on historical volatility of our stock. The risk-free interest rate assumption is the implied yield currently available on United States treasury zero-coupon issues with a remaining term equal to the expected life term of the options. We determined the expected life of the options based on historical experience, representing the period of time that options granted are expected to be outstanding.

We apply ASC 718 and ASC 505-50, "Equity-Based Payments to Non-Employees" with respect to options and warrants issued to non-employees. ASC 718 requires the use of option valuation models to measure the fair value of the options and warrants at the measurement date.

Share-based compensation expense recognized under ASC 718 and ASC 505-50 were approximately, \$3.4 million \$2.5 million and \$3.5 million for the years ended December 31, 2011, 2012 and 2013, respectively.

#### Embedded Derivatives and Fair Value Measurements related to research and development funding arrangements

Under the funding agreements with Baize we entered into on December 29, 2010 ("Pipeline funding agreement"), as amended on April 21 2013 ("Amended Pipeline Funding Agreement") and December 20, 2011 ("mAb funding agreement"), in accordance with ASC 730-20, "Research and Development Arrangements" and ASC 815, "Derivative and Hedging" we considered the Participation Rights under the Pipeline funding agreement and the mAb Participation Interest under the mAb funding agreement to be a research and development arrangement ("Research and Development Component") coupled with embedded derivatives (the Exchange Option and the Company Option) as those instruments do not have fixed settlement provisions. Consequently, we determined that the embedded derivatives in the Research and Development Component should be accounted for as a liability to be measured at fair value at inception. The embedded derivatives will be re-measured to fair value at each reporting period until their exercise or expiration with the change in such calculated value reported in the statement of operations (as part of financial income or expenses). We determined the fair value of the Pipeline Funding Agreement embedded derivatives using a multi period binomial model with monthly observations, while the exercise price used in the binomial model is the expected cash consideration from certain molecules which value was estimated using the income approach. Following the second amendment to the mAb Funding Agreement and the third amendment to the Pipeline Funding agreement and the need to calculate the mean average closing market price of the shares on NASDAQ within the twenty trading days prior or the actual exchange date we used Monte Carlo simulation paths of our stock prices when determine the fair value of the mAb Funding Agreement and the Pipeline Funding agreement embedded derivatives, respectively. The income approach that was used to estimate the exercise price of the embedded derivatives for the original two agreements and later for the Amended Pipeline Funding Agreement utilizes a discounted cash flow model, as we believe that this approach best approximates the fair value of the expected income from certain molecules in the pipeline program that are underlying the Pipeline Funding Agreement and certain therapeutic mAb products that are underlying the mAb Funding Agreement, all included under the Amended Pipeline Funding Agreement. Judgments and assumptions related to revenues, future short-term and long-term growth rates, weighted average cost of capital, interest, capital expenditures, cash flows, and market conditions are inherent in developing the discounted cash flow model. The material assumptions used for the income approach for 2011, 2012 and 2013 were years of projected net cash flows, a discount rate and the market growth rate. We considered historical and current market research and conditions when determining the discount and growth rates to use in our analyses. If these estimates or their related assumptions change in the future it may affect the fair value of our results. We determine that the fair value of the embedded derivatives is to be classified under Level 3 according to the fair value hierarchy mentioned above.

We determine the fair value of the Amended Pipeline Funding Agreement detachable warrants using Monte Carlo simulation paths of the Company's stock prices. The Monte Carlo Model was chosen following the need to calculate the mean average closing market price of the shares on NASDAQ within the ten consecutive trading days.

The above approach to valuation uses estimations, which are consistent with the plans, and estimates that we use to manage our business. There is inherent uncertainty in making these estimates.

## Revenue recognition

We recognize revenue pursuant to the Bayer Agreement in accordance with ASC 605-25, "Revenue Recognition, Multiple-Element Arrangements" and ASC 605-10, "Revenue Recognition". Revenues from the non-refundable upfront license fee of \$10 million has no stand-alone value based on the conclusion of an analysis we performed for segregation criteria under ASC 605-25, "Multi-elements arrangement". The segregation criteria is defined by two consecutive criterions: (1) the delivered item has value to the customer on a standalone basis, and (2) in situations in which a general right of return exists for the delivered item, delivery or performance of the undelivered item(s) is considered probable and is substantially within the control of a company. These revenues are recognized on proportional performance method over the estimated development period in which research and development services will be performed. Based on this method we have deferred the revenue of \$ 6.7 million as of December 31, 2013. The development period for the Bayer agreement is estimated using the current project progress. As of December 31, 2013, we assessed that there is no impact on the performance period of the Bayer agreement and concluded that it should remain as the original work plan.

## Selected Financial Data

The following discussion and analysis is based on and should be read in conjunction 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,		
	2011	2012	2013
	(US\$ in thousands, except share and per share data)		
<b>Consolidated Statements of Operations Data</b>			
Revenues	\$-	\$242	\$3,549
Cost of revenues	-	201	2,509
Gross profit	-	41	1,040
Research and development expenses, net	6,778	9,442	12,275
Marketing and business development expenses	610	684	962
General and administrative expenses	4,591	3,457	4,846
Total operating expenses (*)	11,979	13,583	18,083
Operating loss	(11,979 )	(13,542 )	(17,043 )
Financial income (loss), net	(25 )	(86 )	3,460
Loss before income tax	(12,004 )	(13,628 )	(15,583 )
Income tax expenses	-	-	(500 )
Net loss	\$(12,004 )	\$(13,628 )	\$(14,083 )
Realized and unrealized gain (loss) on Investment in Evogene	(2,141 )	1,103	(739 )
Total comprehensive loss	\$(14,145 )	\$(12,525 )	\$(14,822 )
Basic and diluted net loss per share	\$(0.35 )	\$(0.38 )	\$(0.36 )
Weighted average number of shares used in computing basic net loss per share	34,276,697	35,844,496	38,869,438
Weighted average number of shares used in computing diluted net loss per share	34,276,697	36,249,262	38,869,438

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(\*) Includes stock based compensation – see Note 9 of our 2013 consolidated financial statements.

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	As of December 31,		
	2011	2012	2013
	(US\$ in thousands)		
<b>Consolidated Balance Sheet Data:</b>			
Cash and cash equivalents, short-term bank deposits and restricted cash	\$22,463	\$19,685	\$46,920
Investment in Evogene	4,093	5,196	4,565
Trade receivables, other accounts receivable and pre-paid expenses	546	690	1,731
Total assets	29,081	28,909	56,711
Research and development funding arrangements and others	6,434	7,872	13,189
Deferred revenues	-	-	6,772
Accumulated deficit	(180,491 )	(194,119 )	(208,202 )
Total shareholders' equity	19,581	17,672	31,888

#### Years Ended December 31, 2013 and 2012

**Revenues.** Revenues totaled approximately \$3.5 million in 2013 and \$242,000 in 2012. The increase in revenues for 2013 is due to the portion of the non-refundable upfront payment received under the August 2013 Research and Development Collaboration and License Agreement with Bayer that was recognized in 2013 accordance with revenue recognition policy over the performance period in which the research and development service are provided.

**Cost of Revenues.** Cost of revenues attributable to product candidate research and collaboration agreements totaled approximately \$2.5 million for 2013 and \$201,000 for 2012. The increase in the cost of revenues in 2013 is primarily due to an increase in research and development expenses attributed to the Bayer Agreement. In addition, there were certain payments that occurred in the third quarter of 2013 attributed to the Bayer Agreement and other deductions from the Bayer cash payment pursuant to our funding arrangement with Baize.

**Research and Development Expenses, Net.** Research and development expenses, net increased by 31%, to approximately \$12.3 million for 2013, from approximately \$9.4 million for 2012. The increase was primarily due to the increasing levels of activities in support of our Pipeline Program, including a substantial increase in activities relating to the research and development of monoclonal antibody therapeutic candidates at our U.S. subsidiary. Research and development expenses, net, as a percentage of total operating expenses, were 68% in 2013 compared to 70% in 2012.

**Marketing and Business Development Expenses.** Marketing and business development expenses increased by 41% to approximately \$962,000 in 2013 from approximately \$684,000 in 2012. The increase was primarily due to payments made to a strategic advisor in connection with the Bayer Agreement. Marketing and business development expenses, as a percentage of total operating expenses, were 5% for both 2013 and 2012.

**General and Administrative Expenses.** General and administrative expenses increased by 37% to approximately \$4.8 million for 2013 from approximately \$3.5 million for 2012. The increase was primarily due to legal fees related to the Bayer transaction, an increase in non-cash expense related to stock based compensation and the expenses related with the establishment of our scientific advisory board in 2013. General and administrative expenses, as a percentage of total operating expenses, were 27% in 2013 and 25% in 2012.

**Financial Income (loss), Net.** Financial income, net was \$3.5 million for 2013 compared to a financial loss, net of approximately \$86,000 for 2012. This change was mainly due to realized gain derived from the sale of a portion of our holdings of Evogene ordinary shares in the amount of \$3.7 million.

Income taxes. Incomes taxes expenses were \$500,000 in 2013. These expenses were attributed to withholding tax related to the Bayer agreement.

Years Ended December 31, 2012 and 2011

**Revenues.** Revenues totaled approximately \$242,000 in 2012. No revenues were recognized in 2011. The revenues for 2012 were due to product candidate research and collaboration agreement under which we performed research services and recognized revenues according to the proportional performance method.

**Cost of Revenues.** Cost of revenues attributable to product candidate research and collaboration agreements totaled approximately \$201,000 for 2012 and \$0 for 2011.

**Research and Development Expenses, Net.** Research and development expenses, net increased by 38%, to approximately \$9.4 million for 2012, from approximately \$6.8 million for 2011. The increase was primarily due to the establishment and initiation of activities at our U.S. based operation as well as an increase in lab activity related expenses associated with our Pipeline Program. Governmental and other research and development grants received by us, which are subtracted from research and development expenses in the calculation of research and development expenses, net decreased to approximately \$93,000 for 2012 from approximately \$424,000 for 2011. Research and development expenses, net, as a percentage of total operating expenses, increased to 70% in 2012 from 57% in 2011.

**Marketing and Business Development Expenses.** Marketing and business development expenses increased by 12% to approximately \$684,000 in 2012 from approximately \$610,000 in 2011. This increase was primarily due to new engagements we entered into with public relations and investors relations firms to support our marketing and business development activities worldwide and especially in the U.S. Marketing and business development expenses, as a percentage of total operating expenses, were 5% for both 2012 and 2011.

**General and Administrative Expenses.** General and administrative expenses decreased by 24% to approximately \$3.5 million for 2012 from approximately \$4.6 million for 2011. The decrease was primarily due to non-cash expense related to stock based compensation which totaled approximately \$979,000 for 2012 compared with approximately \$2.2 million for 2011. Included in the non-cash expense of \$2.2 million for 2011 was a \$1.3 million one-time charge relating to an extension of the time to exercise certain previously outstanding and vested options previously issued to a director, which extension was approved by our shareholders. General and administrative expenses, as a percentage of total operating expenses, decreased to 25% in 2012 from 38% in 2011.

**Financial loss, Net.** Financial loss, net, increased to \$86,000 for 2012 from a financial loss, net of approximately \$25,000 for 2011. This increase was primarily due to non-cash finance expenses mainly derived from the re-measurement of the embedded derivatives and exchange options components under the research and development funding arrangements signed in late 2010 and 2011 and the effect of changes in currency rates. This increase was partially offset by realized gain derived from the sale of a portion of our holdings of Evogene ordinary shares in 2011.

#### Governmental Policies that Materially Affected or Could Materially Affect Our Operations

Our income tax obligations consist of those of Compugen Ltd. in Israel and of Compugen USA, Inc. in its taxing jurisdictions.

The corporate tax rate in Israel from January 1, 2014 is 26.5%, compared to 25% in 2012 and 2013 and 24% in 2011. In the future, if and when we generate taxable income, our effective tax rate will be primarily influenced by: (a) the split of taxable income between the various tax jurisdictions; (b) the availability of tax loss carry forwards and the extent to which valuation allowance has been recorded against deferred tax assets; (c) the portion of our income which is entitled to tax benefits pursuant to the Investment Law; and (d) the changes in the exchange rate of the U.S. dollar to the NIS. We may benefit from certain government programs and tax legislation, particularly as a result of the Approved Enterprise status granted to some of our operations by the Investment Center in the Israeli Ministry of



Economy and the Benefiting Enterprise status that resulted from our eligibility for tax benefits under the Investment Law. To be eligible for these benefits, we need to meet certain conditions. Should we fail to meet such conditions, these benefits could be cancelled and we might be required to refund the amount of the benefits previously received, if any, in whole or in part, together with interest and linkage differences to the Israeli CPI, or other monetary penalty. We also benefit from a Government of Israel program under which we receive grants from the OCS. For more information please see “Item 5 Operating and Financial Review and Prospects– C. Research and Development, Patents and Licenses - Research and Development Grants; The Office of the Chief Scientist”. There can be no assurance that these programs and tax legislation will be continued in the future or that the available benefits will not be reduced.

The termination or curtailment of these programs or the loss or reduction of benefits under the Investment Law could have a material adverse effect on our business, financial condition and results of operations.

Currently we have two Approved Enterprises and two Benefiting Enterprises programs under the Investment Law. The tax benefits period with respect to all of these programs has not yet begun as we have not yet generated any taxable income. These benefits should result in income recognized by us being tax exempt or taxed at a lower rate for a specified period of time 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 U.S. federal tax rate for any income that our U.S. subsidiary may generate.

We have elected the alternative benefits route under the Investment Law with respect to our Approved Enterprises. Under this route we waived government grants in return for a tax exemption on undistributed income. Due to the geographic location of our facilities, such tax exemption on undistributed income will apply for a limited period of two years. In the event that such tax exempt income is thereafter distributed as a dividend or a deemed dividend, we will be required to pay the applicable corporate tax that would otherwise have been payable on such income. During the remainder of the benefits period applicable to us (generally until the expiration of ten years), a corporate tax rate not exceeding 25% will apply.

In April 2005, substantive amendments to the Investment Law came into effect. Under these amendments, eligible investment programs of the type in which we participated prior to the amendment were eligible to qualify for substantially similar benefits as a 'Benefiting Enterprise', subject to meeting certain criteria. This replaced the previous terminology of 'Approved Enterprise', which required pre-approval from the Investment Center of the Ministry of the Economy of the State of Israel. As a result of these amendments, tax-exempt income generated from Benefiting Enterprises under the provisions of the amended law will, if distributed upon liquidation or if paid to a shareholder for the purchase of his or her shares, be deemed distributed as a dividend and will subject the Company to the applicable corporate tax that would otherwise have been payable on such income. Therefore, a company may be required to record deferred tax liability with respect to such tax-exempt income, which would have an adverse effect on its results of operations.

Additional amendments to the Investment Law became effective in January 2011 and were further amended in August 2013 (the "2011 Amendment"). Under the 2011 Amendment, income derived by 'Preferred Companies' from 'Preferred Enterprises' (both as defined in the 2011 Amendment) would be subject to a uniform rate of corporate tax for an unlimited period as opposed to the incentives prior to the 2011 Amendment that were limited to income from Approved or Benefiting Enterprises during their benefits period. According to the 2011 Amendment, the uniform tax rate on such income, referred to as 'Preferred Income', would be 10% in areas in Israel that are designated as Development Zone A and 15% elsewhere in Israel during 2011-2012, 7% and 12.5%, respectively, in 2013, and 9% and 16%, respectively, thereafter. Income derived by a Preferred Company from a 'Special Preferred Enterprise' (as defined in the Investment Law) would enjoy further reduced tax rates for a period of ten years of 5% in Development Zone A and 8% elsewhere. Under the transitional provisions of the 2011 Amendment, companies may elect to irrevocably implement the 2011 Amendment with respect to their existing Approved and Benefiting Enterprises while waiving benefits provided under the legislation prior to the 2011 Amendment or keep implementing the legislation prior to the 2011 Amendment. Should a company elect to implement the 2011 Amendment with respect to its existing Approved Enterprises and Benefiting Enterprises prior to June 30, 2015 dividends distributed from taxable income derived from Approved or Benefiting Enterprises to another Israeli company would not be subject to tax. We have not elected to implement the 2011 Amendment and we do not currently have any Preferred Enterprises. While a company may incur additional tax liability in the event of distribution of dividends from tax exempt income generated from its Approved and Benefiting Enterprises, as previously described, no additional tax liability will be incurred by a company in the event of distribution of dividends from Preferred Income.

Pursuant to an amendment to the Investment Law which became effective on November 12, 2012 (the “2012 Investment Law Amendment”), companies that have retained earnings from Approved or Benefiting Enterprises were able to elect by November 11, 2013 to pay a reduced corporate tax rate as set forth in the 2012 Investment Law Amendment on such undistributed income as of December 31, 2011 and thereafter distribute a dividend from such income without being required to pay additional corporate tax with respect to such income as the case would otherwise be, as previously described. A company that made this election, will be required to make certain investments in its Approved or Benefiting Enterprise, as prescribed in the 2012 Investment Law Amendment, and cannot withdraw from its election.

The Company does not have any retained earnings from its Approved or Benefiting Enterprises and, accordingly, did not make such election.

As of December 31, 2013, our net operating loss carry-forwards for Israeli tax purposes amounted to approximately \$178 million. Under Israeli law, these net operating losses may generally be carried forward indefinitely and offset against certain future taxable income.

At December 31, 2013, the net operating loss carry-forwards of our U.S. subsidiary for federal income tax purposes amounted to approximately \$15 million. These losses are available to offset any future U.S. taxable income of our U.S. subsidiary and will expire between the years 2018 and 2032.

Use of our U.S. 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 Israel government policies that affect our research and development expenses, and the financing of our research and development, see “Item 5. Operating and Financial Review and Prospects -C - Research and Development, Patents and Licenses - Research and Development Grants; The Office of the Chief Scientist”.

## B. LIQUIDITY AND CAPITAL RESOURCES

### Funding Agreements

#### Baize Pipeline and mAb Funding Agreements

On December 29, 2010, we entered into a Funding Agreement with Baize (the “Original Pipeline Funding Agreement”), pursuant to which Baize provided us with \$5 million in support of the Pipeline Program. In exchange, Baize had the right to receive 10% (which amount would be reduced under certain circumstances) of certain cash consideration received by us pursuant to any licenses covering the development and commercialization of products developed from five designated product candidates in the Pipeline Program (the “Pipeline Program Participation Rights”), provided that, in all cases, any such Pipeline Program Participation Rights were to be reduced by certain pass-through amounts. Baize also received a warrant to purchase up to 500,000 of our ordinary shares, exercisable at \$6.00 per share through June 30, 2013 (the “Original Warrant”). In addition, under the Original Pipeline Funding Agreement, Baize had the right, until June 30, 2013, to waive its right to receive Pipeline Program Participation Rights, in exchange for 833,334 of the Company’s ordinary shares.

On December 20, 2011, we entered into an additional Funding Agreement with Baize (the “Original mAb Funding Agreement”), pursuant to which Baize agreed to invest \$8 million (the “Investment Amount”) in Compugen in connection with certain research funding in exchange for a “mAb Participation Interest” in certain mAb product candidates that achieve specific milestones or have been licensed out by December 31, 2014. Under the Original mAb Funding Agreement, Baize had the right, during the first quarter of 2014, to waive its rights to the mAb Participation Interest in exchange for 1,455,000 of the Company’s ordinary shares. The original mAb Funding Agreement was amended on July 24, 2012 and on December 27, 2012.

On April 21, 2013, upon receipt of the final \$5 million Investment Amount under the Original mAb Funding Agreement, as amended, Baize and the Company entered into an amendment to the Original Pipeline Agreement, pursuant to which the Original mAb Funding Agreement, as amended, has been terminated and the Original Pipeline Funding Agreement has been amended as follows (the “Amended Pipeline Funding Agreement”):

- Until June 30, 2015, Baize has the right to receive 10% of the cash consideration received by Compugen or its affiliates from third parties, less certain pass-through amounts, with respect to the Combined Program Initial Candidates (“Amended Initial Participation Rights”). The Combined Program Initial Candidates include (i) the five designated product candidates from the Original Pipeline Funding Agreement and (ii) all mAb product candidates to be developed against the eight specified Targets from the Original mAb Funding Agreement, as amended on July 24, 2012.
- Not later than June 30, 2015 or, if later, 30 days following the receipt by Baize from Compugen of the annual report for 2014 containing a status report with respect to the Combined Program Initial Candidates Baize must select five product candidates from the Combined Program Initial Candidates, as “Selected Products”. Combined Program Initial Candidates not selected by Baize as one of the five Selected Products shall no longer be subject to the Amended Pipeline Funding Agreement.

- Beginning July 1, 2015 through December 31, 2030, Baize has the right to receive 10% of the cash consideration received by Compugen or its affiliates from third parties, less certain pass-through amounts, with respect to the five Selected Products (the "Amended Final Participation Rights", together with the Amended Initial Participation Rights – the "Amended Participation Rights").
- Baize has the right at any time until June 30, 2015 to elect to exchange the Amended Participation Rights for a number of our ordinary shares (the "Exchange Shares") to be calculated as the quotient of (i) \$13 million less 50% of any cash consideration paid to Baize as Amended Participation Rights, divided by (ii) the average closing price of the Company's ordinary shares during the twenty (20) trading days prior to the Actual Exchange Date (as defined below) (the "Exchange Price"); provided however that the Exchange Price shall not be lower than \$3.00 per share, and shall not exceed \$12.00 per share. The Actual Exchange Date is to be selected by Baize and set forth in written notice of exercise delivered to Compugen and shall not be earlier than 61 trading days after delivery of such notice, nor later than the 62nd trading day after June 30, 2015.
- The Original Warrant granted to Baize to purchase up to 500,000 of the Company's ordinary shares under the Original Pipeline Funding Agreement has been terminated, and Compugen has issued Baize a new warrant to purchase up to 500,000 of the Company's ordinary shares, exercisable at \$7.50 per share through June 30, 2015.

To the extent that Baize is not able to rely upon Rule 144 for the resale of the Exchange Shares, we are required to use commercially reasonable efforts to promptly file a resale registration within 90 days to enable the resale of the Exchange Shares.

#### Cantor Sales Agreement

On August 30, 2011, we entered into a sales agreement with Cantor Fitzgerald & Co. (the "Cantor Sales Agreement"), which enables us to offer and sell an aggregate of up to 6,000,000 of our ordinary shares, from time to time through Cantor Fitzgerald & Co., as our sales agent. The gross proceeds from all sales made pursuant to the Cantor Sales Agreement may not exceed \$40 million in the aggregate. Sales of our ordinary shares under the Cantor Sales Agreement were made in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. Cantor Fitzgerald & Co. is entitled to receive a commission rate of 3.0% of gross sales in connection with the sale of our ordinary shares on our behalf.

As of the date of filing of this annual report on Form 20-F, we had sold through the Cantor Sales Agreement an aggregate of 4,174,120 of our ordinary shares, and received gross proceeds of approximately \$30.8 million, before deducting issuance expenses. On January 21, 2014, the registration statement on Form F-3 under which we had been selling ordinary shares pursuant to the Cantor Sales Agreement terminated.

In 2013, our primary sources of cash were:

- cash held in our bank accounts
- cash generated from the sale and issuance of ordinary shares under the Cantor Sales Agreement
  - the non-refundable upfront payment from the Bayer agreement
  - proceeds from the Original mAb Funding Agreement with Baize
- exercise of employee stock options

- sales of Evogene shares

We used these funds primarily to finance our business operations.

We expect that our sources of cash for 2014 will include cash held in our bank accounts, and may include proceeds generated from license, collaborative and/or research agreements, proceeds from possible sale of Evogene shares and proceeds from issuance of ordinary shares as a result of the exercise of stock options or from financing transactions.

### Net Cash Used in Operating Activities

Net cash used in operating activities was approximately \$9.2 million in 2011, approximately \$10.8 million in 2012 and approximately \$6.4 million in 2013. The decrease in 2013 as compared to 2012 was mainly attributed to the non-refundable upfront payment from the Bayer agreement, which was partially offset by realized gain from sale of Evogene shares and an increase in research and development expenses between the periods and related primarily to the continuation of the growth in the activities at our U.S.-based operation and increased activities under our Pipeline Program.

### Net Cash Provided By (Used In) Investing Activities

Net cash used in investing activities was approximately \$1.2 million in 2011 and approximately \$11.6 million in 2013; net cash provided by investing activities was approximately \$12.3 million in 2012. Changes in net cash during 2013 as compared to 2012 were primarily attributed to the investment in short-term bank deposits offset by proceeds from maturity of short-term bank deposits and proceeds from sale of Evogene shares.

### Net Cash Provided by Financing Activities

Net cash provided by financing activities was approximately \$9.0 million in 2011 approximately \$9.1 million in 2012 and approximately \$30.4 million in 2013. The principal sources of cash provided by financing activities in 2013 were proceeds received from sale and issuance of ordinary shares in an “at the market” under the Cantor Sales Agreement, proceeds received from the research and development funding arrangement signed in December 2011 and proceeds received from the issuance of ordinary shares as a result of the exercise of stock options.

### Net Liquidity

Liquidity refers to the liquid financial assets available to fund our business operations and pay for near-term obligations. These liquid financial assets mostly consist of cash and cash equivalents as well as short-term bank deposits. As of December 31, 2013, we had total cash and cash equivalents and short-term bank deposits of approximately \$46.8 million, not including the market value of the Evogene ordinary shares owned by us. We believe that our existing cash and cash equivalents, and short-term bank deposits will be sufficient to fund our operations for at least the next 12 months.

On January 7, 2013, we filed a shelf registration statement on Form F-3 with the SEC under which we may offer and sell from time to time in one or more offerings, our ordinary shares, debt securities, rights, warrants and units having an aggregate offering price of up to \$100 million. This registration statement was declared effective by the SEC on January 16, 2013. We may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

## C. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES

We invest heavily in research and development. Research and development expenses, net, were our major operating expenses representing between 56% to 70% of total operating expenses for 2011, 2012 and 2013. Our research and development expenses, net, were approximately \$12.3 million in 2013, compared to approximately \$9.4 million in 2012, and approximately \$6.8 million in 2011. As of December 31, 2013, 42 of our employees were engaged in research and development on a full-time basis. This represents approximately 74% of our entire work force.

We focus our research efforts on the development of our discovery platforms and related technologies, and the discovery validation and early stage development of our mAb therapy and therapeutic proteins product candidates.



During 2010 we initiated the Pipeline Program to substantially expand the number of product candidates undergoing in vitro and in vivo validation and to significantly enhance the commercial value of our product candidate pipeline by advancing certain candidates beyond the successful animal disease model proof of concept stage, towards pre-IND studies. We expect that in 2014 our research and development expenses, will continue to be our major operating expense, representing more than 70% of our total operating expenses.

We believe that our future success will depend, in large part, on our ability to discover promising therapeutic product candidates and to successfully advance the research and development of certain of our product candidates under our internal Pipeline Program towards pre-IND studies and thereafter to successfully license such product candidates to pharmaceutical companies. In addition, we expect to continue to expand our inventory of proprietary algorithms, predictive models and discovery infrastructure and platforms which provide opportunities for the discovery of promising therapeutic candidates for inclusion in our Pipeline Program and pursuant to research and discoveries collaborations.

## Research and Development Grants

We have participated in programs offered by the OCS that support research and development activities, and by the European Community, under the European Union's 6th Framework Program ("European Union") and under BIRD. We also received certain investment amounts under the Original mAb Funding Agreement to support our research and development activities. We received grants from the OCS, the European Union, and BIRD as well as other forms of consideration from Baize totaling approximately \$424,000 in 2011, approximately \$93,000 in 2012, and approximately \$215,000 in 2013. We did not apply for additional grants from the OCS for research and technological development in 2013.

## The Office of the Chief Scientist

We received or may receive grants from the OCS for several projects. Under the terms of these grants, we will be required to pay royalties ranging between 3% to 5% of the revenues we generate from our products developed with funds received from the OCS, beginning with the sale of the first product developed with funds received from the OCS and ending when 100% of the dollar value of the grant is repaid (plus LIBOR interest applicable to grants received on or after January 1, 1999). As of December 31, 2013, our contingent obligation for royalties, based on royalty-bearing government grants, net of royalties already paid, totaled approximately \$9 million.

The R&D Law requires that the manufacture of products developed with government grants will be carried out in Israel, unless the OCS provides its approval to the contrary. This approval, if provided, is generally conditioned on an increase in the total amount to be repaid to the OCS, to up to 300% of the dollar value of the grant plus applicable interest. The specific increase within this ceiling would depend on the extent of the manufacturing to be conducted outside of Israel. Transfer of the know-how developed with funds received from the OCS and any right derived therefrom to third parties is prohibited, unless conducted in accordance with the restrictions set forth under Israeli law. Approval for such transfer outside of Israel, if provided, is generally conditioned on a redemption payment which is calculated according to a formula set forth in the R&D Law up to an amount equal to six (6) times the total amount of grants received under the R&D Law and from the OCS in general plus applicable interest. Therefore, our flexibility in commercializing some of our technologies may be reduced. We believe that this restriction does not apply to the commercialization through licensing of product candidates that we discover by using our knowhow developed with funds received from the OCS.

## D. TREND INFORMATION

### Trend towards consolidation

There is a trend towards consolidation in the pharmaceutical, diagnostic and biotechnology industries, which may negatively affect our ability to enter into agreements and may cause us to lose existing licensees or collaborators as a result of such consolidation. This trend often involves larger companies acquiring smaller companies, and this may result in the larger companies having greater financial resources and technological capabilities. This trend towards consolidation in the pharmaceutical diagnostic and biotechnology industries may also result in there being fewer potential companies to license our products and services.

### Trend towards reduction of in-house research and development programs within major pharmaceutical companies.

Recently, a number of major pharmaceutical companies have announced cutbacks in their in-house research and development programs. The effects of these cutbacks on our business opportunities could be positive or negative, and are likely to vary on a company by company basis.

Trend towards reliance by major pharmaceutical companies on smaller company's product candidates to support their pipelines.

There appears to be a trend towards larger companies relying on smaller companies' product candidates. However, this trend usually applies to product candidates that have reached a further stage of development than our candidates. However, in certain fields, pharmaceutical and biotechnological companies are becoming more open to in-licensing product candidates at earlier stages of development, including at early pre-clinical stages. As a result, there may be more interest in entering into agreements with us for further development and commercialization of our early stage product candidates.

However, if this is not correct we may be required to invest a substantial amount of money and other resources to advance each of our product candidates prior to licensing, without assurance that any such product candidates will be commercialized, and limiting the number of product candidates that we are able to so advance, while reducing resources available for our discovery activities, due to resource constraints.

If, consistent with our strategy for commercialization of our therapeutic product candidates, we are successful in commercializing our product candidates at an early stage, our licensees may propose terms that we may not consider commercially desirable and the consideration that we may receive for each individual product may be relatively low. The consideration that we would expect to receive for commercializing our product candidates increases commensurately with the number of such products commercialized and the stage of development that we attain for them. Furthermore, considerations regarding our willingness to advance the product candidate at our risk would likely be of much less importance in research and discovery collaborations.

#### E. OFF-BALANCE SHEET ARRANGEMENTS

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

#### F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The table below summarizes our contractual obligations as of December 31, 2013, and should be read together with the accompanying comments that follow.

	Total	Payments due by period (US\$ in thousands)			More than 5 years
		Less than 1 year	1-3 years	3-5 years	
Operating Lease Obligations(1)	\$ 3,170	\$ 856	\$ 1,514	\$ 800	\$ -
Purchasing Obligations(2)	927	927	-	-	-
Accrued Severance Pay, net	312	-	-	-	312
Total	\$ 4,409	\$ 1,783	\$ 1,514	\$ 800	\$ 312

(1) Consists of operating leases for our facilities and for motor vehicles.

(2) Consists of outstanding purchase orders for materials and services from our vendors.

The above table does not include royalties that we may be required to pay to the OCS or to Baize under the Amended Pipeline Funding Agreement. For more information, see “Item 5. Operating and Financial Review and Prospects – C. Research and Development, Patents and Licenses”.

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

## A. DIRECTORS AND SENIOR MANAGEMENT

The following table sets forth information with respect to Compugen Ltd.'s directors and senior management as of January 31, 2014:

Name	Age	Positions
Prof. Yair Aharonowitz(1)(2)	73	Director
Prof. Ruth Arnon	79	Director
Anat Cohen-Dayag, Ph.D.	46	President and Chief Executive Officer, Director
Martin S. Gerstel	72	Chairman of the board of directors
Dov Hershberg	74	Director
Arie Ovadia, Ph.D. (1)(2)	64	Director (Chairman of the Audit Committee)
Prof. Joshua Shemer(1)(2)	66	Director (Chairman of the Compensation Committee)
Dikla Czaczkes Axselbrad	40	Chief Financial Officer
John Hunter	51	Vice President Antibody Research and Development

(1) An external director pursuant to the Israeli Companies Law

(2) Member of our Audit Committee and our Compensation Committee

Prof. Yair Aharonowitz joined Compugen's board of directors as an external director in July 2007 and was reappointed as an external director in April 2010 and in April 2013. He is a Professor (Emeritus) of Microbiology and Biotechnology at Tel Aviv University (TAU). He was a visiting scientist at Oxford University, an Alberta Heritage Fellow at the University of Alberta, Edmonton, and a visiting professor at the Karolinska Institute and at the University of British Columbia. Professor Aharonowitz's research interests include the molecular genetics and biosynthesis of antibiotics, molecular biology of microbial pathogens and the development of new targets for new antibiotics. He served as TAU Vice President and Dean for R&D (1997-2001), Chairman of the Department of Microbiology and Biotechnology and Chairman of the Institute of Biotechnology and served as a member of the TAU Executive Council. He served as the Chairman of Ramot Fund for Applied Research, as a member of TAU committee for strategic planning, on the TAU patent committee and was a member of the National Committee for Biotechnology. He is a Fellow of the American Academy of Microbiology.

Prof. Ruth Arnon joined Compugen's board of directors in May 2007. Formerly the Vice-President of the Weizmann Institute of Science (1988-1997), she is a noted immunologist, having joined the Institute in 1960. She served as Head of the Department of Chemical Immunology, Dean of the Faculty of Biology and Director of the Institute's MacArthur Center for Molecular Biology of Tropical Diseases. Prof. Arnon has made significant contributions to the fields of vaccine development, cancer research and to the study of parasitic diseases. Along with Prof. Michael Sela, she developed Copaxone® a drug for the treatment of multiple sclerosis which is presently marketed worldwide. Prof. Arnon is a member of the Israel Academy of Sciences and presently serves as its President. She is an elected member of the European Molecular Biology Organization, served as President of the European Federation of Immunological Societies and as Secretary-General of the International Union of Immunological Societies. Her awards include the Robert Koch Prize in Medical Sciences, Spain's Jimenez Diaz Memorial Prize, France's Legion of Honor, the Hadassah World Organization's Women of Distinction Award, the Wolf Prize for Medicine, the Rothschild Prize for Biology, the Israel Prize and she received an Honorary Doctorate from Ben-Gurion University and from Tel Aviv University. In addition, Prof. Arnon is the incumbent of the Paul Ehrlich Chair in Immunochemistry at the Weizmann Institute.

Anat Cohen-Dayag, Ph.D. At its meeting held on February 10, 2013, the board of directors appointed Dr. Anat Cohen-Dayag as a member of the board of directors, effective as of such date, to hold office until the 2014 annual general meeting of shareholders. Dr. Anat Cohen-Dayag joined Compugen in 2002 as Director of Diagnostics, a position she held until 2005 at which time she became Vice President Diagnostic Biomarkers, a position she held until January 2007. From January 2007 until November 2008, Dr. Cohen-Dayag served as Compugen's Vice President, Biomarkers and Drug Targets, at which point she was appointed Vice President, Research and Development. In June 2009, Dr. Cohen-Dayag was appointed, together with Mr. Martin Gerstel, as co-Chief Executive Officer of Compugen. In March 2010, upon Mr. Gerstel's election as Chairman of the board of directors, Dr. Cohen-Dayag was appointed as Compugen's President and Chief Executive Officer. Prior to joining Compugen, she was head of research and development and member of the Executive Management at Mindsense Biosystems Ltd. Prior to Mindsense Biosystems Ltd., Dr. Cohen-Dayag served as a scientist at the R&D department of Organics Ltd. Dr. Cohen-Dayag holds a B.Sc. in Biology from the Ben-Gurion University, Israel, and an M.Sc. in Chemical Immunology and a Ph.D. in Cellular Biology, both from the Weizmann Institute of Science, Israel. Additionally, Dr. Cohen-Dayag is an external director of Ramot at Tel Aviv University Ltd., and a director of the IATI (Israeli Advanced Technologies Industries).

Martin S. Gerstel joined Compugen's board of directors in 1997, and has served as the Chairman of the board of directors, since that time, other than from February 2009 to February 2010, during which time he served as either Chief Executive Officer or co-Chief Executive Officer and, in both cases, as a member of the board of directors. Prior to Compugen, Mr. Gerstel was co-chairman and Chief Executive Officer of ALZA Corporation, which he helped found in 1968. Mr. Gerstel is the Chairman of Evogene Ltd., Keddem Bioscience Ltd., the co-founder and co-chairman of Itamar Medical Ltd., and serves as a director of Yissum Ltd., Yeda Ltd. and the U.S. 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-U.S. Binational Industrial Research and Development ("BIRD") Foundation. Mr. Gerstel holds a B.S. from Yale University and an MBA from Stanford University.

Dov Hershberg joined Compugen's board of directors in February 2009, prior to which he served as a consultant to the board of directors. From February 2009 through February 2010, Mr. Hershberg served as Chairman of the board of directors. Mr. Hershberg previously managed BIRD Foundation from 1997 through 2006. Mr. Hershberg is currently a founder and management member of Powermat Technologies Ltd., a wireless electricity company. Prior to joining BIRD, Mr. Hershberg held various senior management positions in software development, marketing and sales. He was the founder and CEO, with colleagues from Stanford University, of Molecular Applications Group which created software in biomedical research. Mr. Hershberg spent eleven years at Digital Equipment Corporation in various senior management positions in product development, marketing and sales and worked as a mathematician in the Israeli Aircraft Industry. Mr. Hershberg holds graduate degrees in Mathematics, from the Hebrew University in Jerusalem, Israel and in Applied Mathematics and Operations Research from Columbia University in New York City.

Arie Ovadia, Ph.D. joined Compugen's board of directors as an external director in July 2007 and was reappointed as an external director in April 2010 and in April 2013. He advises major Israeli companies on finance, accounting and valuations, and is a member of the board of directors of several corporations, including Strauss Ltd., Israel Petrochemical Industries Ltd., ViryaNet Ltd., Bazan Ltd., Scailex Corporation Ltd., Maxtech Technologies Ltd., Carmel Olefins Ltd. and Elron Electronic Industries Ltd. He has taught at New York University, Temple University and, in Israel, at Tel Aviv and Bradford Universities and The College of Management. Dr. Ovadia served as a member of the Israeli Accounting Board, and is a 14-year member of the Israel Securities Authority. Dr. Ovadia holds an undergraduate degree and an MBA from Tel Aviv University, and earned his Ph.D. in economics from the Wharton School at the University of Pennsylvania.

Prof. Joshua Shemer joined Compugen's board of directors as an external director in July 2007 and was reappointed as an external director in April 2010 and in April 2013. Prof. Shemer is Full Professor of Medicine at the Tel Aviv University. In addition, Prof. Shemer is the Chairman of Assuta Medical Centers in Israel and a member of the Board of Directors of Maccabi Healthcare Services in Israel. Prof. Shemer is a director of the Israeli center for medical technology assessment in healthcare in Gertner Institute, Tel Hashomer. Prof. Shemer is an Associate Editor at IMAJ and Harefuah, and a member of the Editorial Board of the International Journal of Technology Assessment in Health Care. Prof. Shemer teaches Medical Technology Management at the Faculty of Business Administration at Tel Aviv University. He was a member and former chairman of the National Public Committee for Updating the National List of Health Services in Israel and the National Council for Trauma of the Israeli Ministry of Health. Most recently, Prof. Shemer was the Director-General of Maccabi Healthcare Services. Prof. Shemer was formerly Director-General of the Ministry of Health and Surgeon General of the Israel Defense Forces Medical Corps. Prof. Shemer has published five books and more than 200 peer reviewed articles. Additionally, Prof. Shemer is an external director of El-Al Airlines Ltd. Prof. Shemer is a graduate of the Hebrew University and Hadassah School of Medicine and Board certified in Internal Medicine in Israel.





Dikla Czaczkes Axselbrad became Chief Financial Officer of Compugen in 2008. Prior to her current position, Ms. Czaczkes Axselbrad served as director of finance for Compugen from 2002 through 2007. Before joining Compugen, Ms. Czaczkes Axselbrad was chief financial officer of Packet Technologies Ltd., a mobile internet security hardware and software startup company and before that an audit manager at Ernst & Young Israel. She holds an MBA in finance and a BA in accounting and economics, both from Tel Aviv University, and is a certified public accountant in Israel.

John Hunter, Ph.D joined Compugen in 2012 as Site Head at our U.S. subsidiary, Compugen USA, Inc., and VP Antibody Research and Development. Dr. Hunter has worked for 16 years on different aspects of oncology drug development. Following graduation from UCSF, from 1996 to 2003, Dr. Hunter worked for Millennium Pharmaceuticals Inc., where he employed genomic approaches to identify novel drug targets in lung cancer. As a founding member of Millennium's Translational Medicine group he worked to develop clinical biomarkers for their Aurora kinase small molecule inhibitors. Following Dr. Hunter's employment at Millennium, Dr. Hunter joined Xenogen Corp., where he worked as Senior Scientist in Oncology from 2004 to 2005. Dr. Hunter later joined XOMA Ltd., where from 2005 to 2012 he managed early stage antibody discovery for multiple therapeutic programs in oncology and inflammation. Dr. Hunter currently leads therapeutic antibody research and development efforts for Compugen's portfolio of novel oncology targets.

#### Arrangements Involving Directors and Senior Management

There are no arrangements or understandings of which we are aware pursuant to which any of our directors or other Office Holders have been selected for their positions with our Company. In addition, there are no family relationships among any of our directors and other Office Holders.

#### B. COMPENSATION

The aggregate compensation paid or accrued by us to all persons who were, at any time during 2013, Office Holders (as defined below in "- Approval Required for Directors' and Officers' Compensation") of the Company in respect of the fiscal year ended December 31, 2013 (15 persons, one of whom is no longer an Office Holder as of December 31, 2013) was approximately \$2.1 million. This amount includes approximately \$231,000 set aside or accrued to provide pension, severance, retirement or similar benefits.

During 2013, we granted a total of 624,000 options to purchase ordinary shares to persons who are currently, or who were at any time during 2013 Office Holders, as a group. These options are exercisable at a range between \$4.92 and \$5.445 per share, and generally expire ten years after their respective dates of grant. As of December 31, 2013, there were a total of 3,474,863 outstanding options to purchase ordinary shares that were held by persons who are currently, or who were at any time during 2013, Office Holders.

All non-management members of our board of directors are entitled to receive fees in connection with their participation in board meetings as well as meetings of committees of the board and are also eligible to receive options to purchase ordinary shares on an annual basis. The aggregate amount paid or accrued to all persons who are currently, or who were at any time during 2013 non-management directors in respect of the fiscal year ended December 31, 2013 was approximately \$125,000. For additional information on the compensation paid to our non-management directors please see "Item 6. Directors Senior Management and Employees - B. Compensation - Compensation to our Non-Management Directors".

#### Approval Required for Directors' and Officers' Compensation

Prior to an amendment to the Companies Law which became effective on December 12, 2012 (the “2012 Amendment”), arrangements with respect to the terms of office and employment of Office Holders required the approval of the audit committee and of the board of directors and, with respect to the terms of office and employment of directors, also the approval of the shareholders by a simple majority. Following the 2012 Amendment, public companies are required to appoint a compensation committee that meets certain independence criteria as described below, and that replaces the audit committee with respect to the approval of these matters.

The term "Office Holder" as defined in the Companies Law includes a general manager, chief executive officer, executive vice president, vice president, any other person fulfilling or assuming any of the foregoing positions without regard to such person's title, as well as a director or a manager directly subordinate to the general manager or the chief executive officer ("Office Holder"). In addition to each person listed in the table under "Item 6. Directors, Senior Management and Employees – A. Directors and Senior Management", and Alex Kotzer, who was a director during 2013 but did not stand for reelection at the Company's 2013 annual meeting of shareholders, the Company considers five other individuals to have been Office Holders in 2013.

Pursuant to the 2012 Amendment, any arrangement between a public company and an Office Holder of the company as to such Office Holder's terms of office and employment, including exemption and release of the Office Holder from liability for breach of his or her duty of care to the company, an undertaking to indemnify the Office Holder, post factum indemnification or insurance; any grant, payment, remuneration, compensation, or other benefit provided in connection with termination of service; and any benefit, other payment or undertaking to provide any payment as aforesaid ("Terms of Office and Employment"), now generally requires the approval of the company's compensation committee and the board of directors and, with respect to directors and the chief executive officer, also the company's shareholders.

In addition, pursuant to the 2012 Amendment, public companies are required to adopt a compensation policy meeting the provisions of the Companies Law, and any arrangements with respect to the Terms of Office and Employment of Office Holders must generally be consistent therewith. The compensation policy must be approved by the company's board of directors, after considering the recommendations of the compensation committee. In addition, the compensation policy needs to be approved by the company's shareholders by a simple majority, provided that (i) such majority includes a majority of the votes cast by shareholders who are not controlling shareholders and who do not have a personal interest in the matter, present and voting (abstentions are disregarded), or (ii) the votes cast by shareholders who are not controlling shareholders and who do not have a personal interest in the matter who were present and voted against the policy, constitute two percent or less of the voting power of the company (such majority determined in accordance with clause (i) or (ii), the "Compensation Majority").

To the extent not approved by shareholders, the board of directors may subsequently override the resolution of the shareholders following a new discussion of the matter by the board of directors and the compensation committee and for specified reasons.

On September 17, 2013, the Company's shareholders adopted a compensation policy with respect to the Terms of Office and Employment of the Company's Office Holders (the "Compensation Policy").

The term of the Compensation Policy is not limited. However, pursuant to the Companies Law, a compensation policy that is for a period of more than three years generally needs to be brought for approval in accordance with the above procedure every three years.

Notwithstanding the above, amending the existing Terms of Office and Employment of Office Holders (other than directors) requires the approval of the compensation committee only, if the committee determines that the amendment is not material.

#### Directors

Pursuant to the 2012 Amendment, any arrangement between a company and a director (including a chief executive officer who is also a director) as to his or her Terms of Office and Employment must be consistent with the compensation policy and requires the approval of the compensation committee, the board of directors and the shareholders by a simple majority.

Under certain circumstances and conditions, the compensation committee and the board of directors may approve an arrangement that deviates from the compensation policy, provided that such arrangement is approved by the company's shareholders by the Compensation Majority.

Under the Companies Law and regulations promulgated pursuant thereto, the compensation payable to external directors and independent directors is subject to certain further limitations. See “Item 6 – Directors, Senior Management and Employees – C. Board Practices – External Directors”

#### Chief Executive Officer

Pursuant to the 2012 Amendment, any arrangement between a company and its chief executive officer as to his or her Terms of Office and Employment must be consistent with the compensation policy and requires the approval of the compensation committee, the board of directors and the company's shareholders. If the chief executive officer is not also a director of the company, shareholder approval must be made by the Compensation Majority.

Under certain circumstances and conditions, the compensation committee and the board of directors may approve an arrangement that deviates from the compensation policy provided it is approved by the shareholders by the Compensation Majority. In addition, under certain circumstances, a company may be exempt from receiving the shareholders' approval with respect to the Terms of Office and Employment of a candidate for chief executive officer.

In special circumstances, and provided that the chief executive officer is not also a director of the company, to the extent not approved by shareholders, the board of directors and the compensation committee may subsequently override the resolution of the shareholders following a new discussion of the matter and for specified reasons.

#### Other Office Holders

Pursuant to the 2012 Amendment, any arrangement between a company and an Office Holder (other than a director or the chief executive officer) as to his or her Terms of Office and Employment must be consistent with the compensation policy and requires the approval of the compensation committee and the board of directors.

Under certain circumstances and conditions, the compensation committee and the board of directors may approve an arrangement that deviates from the compensation policy, provided that such arrangement is approved by the company's shareholders by the Compensation Majority. In addition, in special circumstances and to the extent not approved by shareholders, the board of directors and the compensation committee may subsequently override the resolution of the shareholders following a new discussion of the matter and for specified reasons.

#### Compensation to our Non-Management Directors

Under arrangements previously approved by the Audit Committee, the board of directors and the shareholders of the Company, and ratified and approved by the Compensation Committee, the board of directors and the shareholders following the approval of the Compensation Policy, each of the Company's current directors and each additional or other director who may be appointed from time to time in the future and who is not, or who ceases to be, an employee of the Company and who does not, or ceases to, hold a management position with the Company or provide services to the Company in addition to his or her office as a director (each a "non-management director") is compensated as of April 22, 2013, as follows:

(i) an annual fee of NIS 36,452 and an additional annual amount of NIS 17,985 to be paid to non-management directors who serve on one or more committees of the board of directors (the "Annual Fees");

(ii) a per meeting fee of NIS 3,597 for participation in any board of directors and/or committee meetings (the "Participation Compensation"), provided that (a) if such participation is by means of communication pursuant to Section 101 of the Companies Law, then such "per meeting" fee shall be 60% of the Participation Compensation; (b) in the event a resolution is adopted by the board of directors without a meeting pursuant to Section 103 of the Companies Law, then such "per meeting" fee shall be 50% of the Participation Compensation;

(iii) the Annual Fees and the Participation Compensation will be adjusted bi-annually to reflect changes in the Israeli Consumer Price Index in the manner provided in the regulations promulgated pursuant to the Companies Law governing the terms of compensation payable to external directors (the "Compensation Regulations");

(iv) the Annual Fees shall be paid in four equal installments, and the Participation Compensation shall be remitted to such directors on a quarterly basis, in each case at the beginning of each calendar quarter with respect to the previous quarter, all as provided for in the Compensation Regulations; and



(v) a grant of options to purchase 10,000 of the Company's ordinary shares on July 31 of each calendar year (including on July 31, 2013) to each non-management director then serving on the board of directors, at an exercise price equal to the closing price on the date of such grant on the principal securities exchange on which the Company's shares are then traded and subject (other than as described herein) to the terms and conditions of the Company's 2010 Share Incentive Plan (the "2010 Plan") or any other equity-based incentive plan the Company may adopt in the future and pursuant to which these equity awards would be granted. 3,333 of such options will vest on each of the first two anniversary dates of such grant and 3,334 on the third anniversary date. Notwithstanding the terms of the relevant plan, all options granted to non-management directors shall be fully vested immediately upon the completion of one or more of the following events, whether by way of a consolidation, merger or reorganization of the Company or otherwise: (a) a sale of all or substantially all of Company's issued share capital or assets to any other company, entity, person or a group of persons, or (b) the acquisition of more than 50% of Company's equity or voting power by any shareholder or group of shareholders. Notwithstanding the terms of the relevant plan, all options granted which shall be vested as of the date of final termination of office as a non-management director of the Company may be exercised within one year following such termination of office. To the extent legally available and applicable, such equity-based awards will be granted to the non-management directors through a trustee under Section 102 of the Israel Income Tax Ordinance [New Version], 5721-1961 (the "Tax Ordinance"), under the capital gains route.

VAT is added to the above compensation in accordance with applicable law.

On February 14, 2014, after adjustment as described in (iii) above, the annual payment to each non-employee director stood at NIS 37,114 and the additional payment to be paid to non-management directors who serve on one or more committees of the board of directors stood at NIS 18,311.62 (approximately \$10,586 and \$5,223, respectively, according to the representative rate of exchange on February 14, 2014, of \$1.00 = NIS 3.506); and the Participation Compensation to each non-employee director stood at NIS 3,662.32 (approximately \$1,045 according to the representative rate of exchange on February 14, 2014, of \$1.00 = NIS 3.506).

#### Compensation to our External Directors

Under arrangements previously approved by the Audit Committee, the board of directors and the shareholders of the Company, and ratified and approved by the Compensation Committee, the board of directors and the shareholders following the approval of the Compensation Policy, in accordance with the Companies Law and the Compensation Regulations, each of our external directors shall be entitled to receive fees in connection with their service as external directors and their participation in board of directors meetings as well as meetings of committees of the board of directors equivalent to the compensation payable to other non-management directors, and shall also be eligible to receive options to purchase ordinary shares on an annual basis equal to the number of ordinary shares subject to the options being granted to each non-management director on terms substantially similar to those described above, provided however that the compensation paid to the Company's external directors shall be no less than the minimum amount that must be paid to external directors of the Company in accordance with the Compensation Regulations. According to the Compensation Regulations, the minimum amounts are adjusted twice annually based on the Israeli Consumer Price Index and are a function of the Company's shareholders' equity.

In addition, under arrangements previously approved by the Audit Committee, the board of directors and the shareholders of the Company, and ratified and approved by the Compensation Committee, the board of directors and the shareholders, following the approval of the Compensation Policy, in accordance with the Companies Law and the Compensation Regulations, in the event that, during their term as external directors, the Company increases the remuneration payable, whether the annual payment or the participation compensation, to any 'other directors', as such term is defined in the Compensation Regulations, or grants additional options to purchase ordinary shares or other stock-based remuneration to 'other directors', each external director will be entitled, without further approval, to receive additional remuneration, if necessary, so that his or her annual compensation and/or compensation for participation in

meetings, as the case may be, will be equivalent to the average compensation payable to such 'other directors' as annual payment or as participation compensation, respectively, or be granted additional options to purchase such number of additional ordinary shares as is equal to the average number of additional ordinary shares subject to the options being granted to such 'other directors' and on substantially similar terms, or receive such other stock-based remuneration required in order to align their compensation with the average compensation payable, including average stock-based remuneration awarded, to 'other directors', as applicable.

#### Compensation to our Active Chairman of the Board of Directors

Mr. Martin Gerstel, our active chairman of the board of directors, is not entitled to receive the above cash or stock option compensation granted to non-management directors. Effective as of March 1, 2010, and following the approval of our Audit Committee, board of directors and shareholders, we entered into an employment agreement with Mr. Gerstel, pursuant to which he serves as Active Chairman of the board of directors. The terms of Mr. Gerstel's employment and service were approved prior to the effective date of the 2012 Amendment. Any change to such terms will be subject to the approval process and other conditions set forth in the 2012 Amendment.



Pursuant to Mr. Gerstel's employment agreement he is entitled to a gross monthly salary of NIS 42,000 (approximately \$ 11,980 according to the representative rate of exchange on February 14, 2014, of \$1.00=NIS 3.506) which will remain at NIS 42,000 regardless of exchange rate fluctuations and certain other employment terms customary in Israel. The employment agreement may be terminated by either party by providing 90 days prior written notice.

Mr. Gerstel currently holds options to purchase a total of 747,500 ordinary shares, of which options to purchase 60,000 ordinary shares were granted during 2013. Out of the options to purchase 747,500 ordinary shares (i) options to purchase 625,000 ordinary shares, with a weighted average exercise price of \$1.40 per share, were exercisable as of December 31, 2013; and (ii) options to purchase 122,500 ordinary shares, with a weighted average exercise price of \$4.71 per share, had not vested as of December 31, 2013. Of the unvested options, options to purchase 62,500 ordinary shares are expected to vest during 2014; options to purchase the remaining 60,000 ordinary shares are expected to vest during 2016. These options were granted under the Company's 2000 Option Plan and under the Company's 2010 Plan. For additional information on Mr. Gerstel's holdings see "Item 6. E - Share Ownership - Share Ownership by Directors and Other Office Holders".

Consistent with our Compensation Policy, our Compensation Committee and board of directors approved in September 2013 the payment of a special bonus to Mr. Gerstel for his exceptional contribution in connection with the Bayer collaboration, in a total amount of approximately \$59,000. The payment of this bonus is subject to the approval of our shareholders and is expected to be brought for their approval at the Company's 2014 annual meeting of shareholders.

Consistent with our Compensation Policy, our Compensation Committee and board of directors approved in February 2014 the target and maximum annual bonus amounts, its objectives and payment terms for year 2014 for Mr. Gerstel. The terms of the 2014 annual bonus are subject to the approval of our shareholders and are expected to be brought for their approval at the Company's 2014 annual meeting of shareholders. Subject to such shareholders' approval and in accordance with the terms approved, our Compensation Committee and board of directors will determine, following the end of 2014, the actual bonus to be paid, if any, to Mr. Gerstel with respect to 2014.

#### Compensation to our Chief Executive Officer

Dr. Anat Cohen-Dayag, our chief executive officer, has been employed by the Company since September 2, 2002 and has served as our co-chief executive officer or chief executive officer since June 2009. Beginning February 10, 2014, Dr. Anat Cohen-Dayag is also a member of our board of directors. The terms of Dr. Anat Cohen-Dayag's employment and service were approved prior to the effective date of the 2012 Amendment. Any change to such terms will be subject to the approval process and other conditions set forth in the 2012 Amendment.

Pursuant to Dr. Cohen-Dayag's employment agreement she is entitled to a gross monthly salary of NIS 82,500 (approximately \$23,500 according to the representative rate of exchange on February 14, 2014, of \$1.00=NIS 3.506) adjusted from time to time in accordance with periodic cost of living increases ("Tosefet Yoker"), and to certain other employment terms customary in Israel. Dr. Cohen-Dayag's employment agreement may be terminated by either party by providing four months prior written notice. In the event of a change of control, Dr. Anat Cohen-Dayag will be entitled, under certain circumstances, to acceleration of unvested options and increased termination payments.

Dr. Cohen-Dayag currently holds options to purchase a total of 948,371 ordinary shares, of which options to purchase 120,000 ordinary shares were granted during 2013. Out of the options to purchase 948,371 ordinary shares: (i) options to purchase 583,371 ordinary shares, with a weighted average exercise price of \$2.97 per share, were exercisable as of December 31, 2013; and (ii) options to purchase 365,000 ordinary shares, with a weighted average exercise price of \$4.29 per share, had not vested as of December 31, 2013. Of the unvested options, options to purchase 125,000

ordinary shares are expected to vest during 2014, options to purchase 120,000 ordinary shares are expected to vest during 2015 and options to purchase the remaining 120,000 ordinary shares are expected to vest during 2016. These options were granted under the Company's 2000 Option Plan and the Company's 2010 Plan. For additional information on Dr. Cohen-Dayag's holdings see "Item 6. E - Share Ownership - Share Ownership by Directors and Other Office Holders".

Consistent with our Compensation Policy, our Compensation Committee and board of directors approved in September 2013 the payment of a special bonus to Dr. Cohen-Dayag for her exceptional contribution in connection with the Bayer collaboration, in a total amount of \$116,000. The payment of this bonus is subject to the approval of our shareholders and is expected to be brought for their approval at the Company's 2014 annual meeting of shareholders.

Consistent with our Compensation Policy, our Compensation Committee and board of directors approved in February 2014 the target and maximum annual bonus, its objectives and payment terms for year 2014 for Dr. Cohen-Dayag. The terms of the 2014 annual bonus are subject to the approval of our shareholders and are expected to be brought for their approval at the Company's 2014 annual meeting of shareholders. Subject to such shareholders' approval and in accordance with the terms approved, our Compensation Committee and board of directors will determine, following the end of 2014, the actual bonus to be paid, if any, to Dr. Cohen-Dayag with respect to 2014.

#### Indemnification, Exemption and Insurance

Our Compensation Committee, the board of directors and the shareholders have resolved, consistent with our Compensation Policy, to ratify and approve (i) to exempt and release to the maximum extent permitted by law all of the directors and the chief executive officer of the Company currently in office, and any additional or other directors and chief executive officer(s) as may be appointed from time to time, from and against all liability for monetary or other damages due to, or arising or resulting from, a breach of their duty of care to the Company, including, with respect to directors, in their capacity as officers of the Company to the extent they also serve as officers of the Company, and to provide them with letters in this regard; and (ii) to undertake to indemnify in advance all directors and the chief executive officer of the Company currently in office, and any additional or other directors and chief executive officer(s) as may be appointed from time to time to the extent and for certain matters, costs and expenses as set forth in a letter of indemnification and exemption and release approved for issuance to them. See “Item 7 – Major Shareholders and Related Party Transactions – B. Related Party Transactions - Indemnification of Our Directors and Officers”.

Following the adoption of the Compensation Policy, and consistent therewith, the Compensation Committee and the board of directors resolved to similarly undertake in advance to indemnify all Office Holders of the Company (in addition to the directors and the chief executive officer of the Company) currently in office and any additional or other Office Holders as may be appointed from time to time; and to similarly exempt and release to the maximum extent permitted by law all such other Office Holders of the Company currently in office and any additional or other Office Holders as may be appointed from time to time, from and against all liability for monetary or other damages due to, or arising or resulting from, a breach of their duty of care to the Company and to provide them with letters in this regard.

Consistent with our Compensation Policy and pursuant to the Companies Law and regulations promulgated pursuant thereunder, our Compensation Committee has approved the purchase of insurance coverage in respect of the liability of our Office Holders and any additional or other Office Holders as may be appointed from time to time, to the maximum extent permitted by law, that will provide for up to \$25 million in coverage.

#### C. BOARD PRACTICES

We are incorporated in Israel, and, therefore, are subject to various corporate governance practices under Israeli law such as with respect to external directors, independent directors, audit committee, compensation committee and an internal auditor. These matters are in addition to the requirements of the NASDAQ Global Market and other relevant provisions of U.S. securities laws applicable to us. Under the NASDAQ Listing Rules of the NASDAQ Stock Market, which we refer to as the NASDAQ Listing Rules, a foreign private issuer may generally follow its home country practices for corporate governance in lieu of the comparable NASDAQ Global Market requirements, except for certain matters such as composition and responsibilities of the audit committee and the SEC-mandated standards for the independence of its members. For U.S. domestic companies, the NASDAQ Listing Rules specify that the majority of the members of the board of directors must be independent. We currently comply with this requirement. In addition, under the Companies Law, we are required to appoint at least two external directors, with which we comply, as described below under “External Directors”.



## Board of Directors

Compugen Ltd.'s board of directors consists of seven members, three of whom were elected as external directors under the provisions of the Companies Law (discussed below). Other than our three external directors, who are elected for a fixed term of three years, our directors are elected by our shareholders by a simple majority of the voting power presented and voting at an annual general meeting of shareholders for a term of approximately one year, ending at the annual general meeting immediately following the annual general meeting at which they were elected and until their successors have been duly elected or until any such directors' term of office terminates as provided in the Companies Law or due to any of the circumstances set forth in our Articles. Our Articles, provide that we may have no less than five, nor more than fourteen directors. At its meeting held on February 10, 2013, the board of directors appointed Dr. Anat Cohen-Dayag as a member of the board of directors, effective as of such date, to hold office until the 2014 annual general meeting of shareholders.

None of our directors is party to a service contract with us that provides for any severance or similar benefits upon termination of his or her service other than our active chairman of the board of directors, Mr. Martin Gerstel, and to our chief executive officer, Dr. Anat Cohen-Dayag, with each of whom we have entered into an employment agreement, according to which they are entitled to employment terms required by Israeli law and as provided for in the agreements, including severance payments. For additional information on the employment agreement entered into with Mr. Gerstel and with Dr. Cohen-Dayag, please see "Item 6 – Directors, Senior Management and Employees – B. Compensation - Compensation to our Active Chairman of the Board of Directors; - Compensation of our Chief Executive Officer."

## External Directors

### Qualifications of External Directors

Under the Companies Law and the regulations promulgated pursuant thereto, Israeli public companies are required to appoint at least two natural persons as external directors. No person may be appointed as an external director of a company if (a) such person is a relative of a controlling shareholder; or (b) such person, a relative, partner or employer, of such person or anyone to whom such person is directly or indirectly subordinate, or any entity under such person's control, has or had, on or within the two years preceding the date of the person's appointment to serve as an external director: (i) any affiliation with the company to whose board the external director is proposed to be appointed, with any controlling shareholder of the company, with a relative of such controlling shareholder at the time of the appointment, or with any entity that, on or within the two years preceding the date of the person's appointment to serve as external director is, or was, controlled by the company or by a controlling shareholder of the company; or (ii) if the company has no controlling shareholder or a shareholder holding 25% or more of the company's voting rights, any affiliation, at the time of the appointment, to the relevant company, to its chairman of the board of directors, its chief executive officer or its most senior financial officer, or to a shareholder holding 5% or more of the outstanding shares or voting rights of the company or to any entity that, on or within the two years preceding the date of the person's appointment to serve as external director is, or was, controlled by the company. The term affiliation includes an employment relationship, a business or professional relationship, maintained on a regular basis, or control, as well as service as an Office Holder.

In addition, no person may serve as an external director if: (a) the person's other positions or activities create, or may create, a conflict of interest with the person's responsibilities as an external director or interfere with the person's ability to serve as an external director; (b) at the time such person serves as a non-external director of another company on whose board of directors a director of the reciprocal company serves as an external director; (c) the person is an employee of the Israel Securities Authority or of an Israeli stock exchange; (d) such person or such person's relative, partner, employer or anyone to whom such person is directly or indirectly subordinate, or any entity

under such person's control, has business or professional relations with any person or entity he or she should not be affiliated with, as described in the previous paragraph, unless such relations are negligible; or (e) such person received compensation directly or indirectly, in connection with such person's services as an external director, other than as permitted under the Companies Law and the Compensation Regulations. If, at the time of election of an external director, all other directors who are not controlling shareholders of such company or their relatives are of the same gender, then the external director to be elected must be of the other gender.

External directors may receive compensation solely as provided for in the Companies Law and the Compensation Regulations.

Pursuant to the Companies Law an external director is required to have either accounting and financial expertise or professional qualifications according to criteria set forth in regulations promulgated under the Companies Law, provided that, subject to certain exceptions, at least one of the external directors has accounting and financial expertise. The board of directors must make the determinations as to the financial and accounting expertise, and as to the professional qualifications, of a director taking into consideration those criteria and matters set forth in the regulations. In addition, the boards of directors of publicly traded companies are required to make a determination as to the minimum number of directors who must have financial and accounting expertise as aforesaid based, among other things, on the type of company, its size, the volume and complexity of the company's activities and the number of directors. Our board of directors has determined that the minimum number of directors with financial and accounting expertise is one and that Dr. Arie Ovadia, one of the Company's external directors, qualifies as such.

#### Election of External Directors

External directors are elected for a term of three years at the general meeting of shareholders by a simple majority, provided that, for their initial appointment, such majority includes at least a majority of the votes cast by shareholders who are not controlling shareholders and who do not have a personal interest in the matter (other than a personal interest which is not the result of a relationship with a controlling shareholder) who are present and voting (abstentions are disregarded) or that votes cast by shareholders who are not controlling shareholders and who do not have a personal interest in the matter (other than a personal interest which is not the result of an affiliation with a controlling shareholder), who are present and voted against the election constitute two percent or less of the voting power of the company.

External directors may be re-elected to two additional terms of three years each, provided that with respect to the appointment for each such additional three - year term one of the following has occurred: (a) the reappointment of the external director has been proposed by one or more shareholders holding together one percent or more of the aggregate voting rights in the company and the appointment was approved at the general meeting of the shareholders by a simple majority, provided that: (i) in calculating the majority, votes of controlling shareholders or of shareholders having a personal interest in the appointment (other than a personal interest which is not the result of a relationship with a controlling shareholder) and abstentions are disregarded, (ii) the total number of votes cast by shareholders who do not have a personal interest in the appointment (other than a personal interest which is not the result of an affiliation with a controlling shareholder) and who are not controlling shareholders, present and voting in favor of the appointment exceed, two percent of the aggregate voting rights in the company, and (iii) the external director is not a related or competing shareholder or a relative of such shareholder, at the time of the appointment, and does not and did not have, any affiliation with a related or competing shareholder, at the time of the appointment or within the two years preceding the appointment. A "related or competing shareholder" is a shareholder proposing the reappointment or a shareholder holding 5% or more of the outstanding shares or voting rights of the company, if at the time of the appointment, such shareholder, a controlling shareholder thereof or a company controlled by such shareholder or by a controlling shareholder thereof, have business relationships with the company or are competitors of the company; or (b) the reappointment of the external director has been proposed by the board of directors and the appointment was approved by the majority of shareholders required for the initial appointment of an external director as described in the previous paragraph.

However, under regulations promulgated pursuant to the Companies Law, companies, such as the Company, whose shares are also listed for trading on specified exchanges outside of Israel, including the NASDAQ Global Market, the NASDAQ Global Select Market, and the NASDAQ Capital Market may elect external directors for additional terms that do not exceed three years each, beyond the three three-year terms generally applicable, provided that, if an

external director is being re-elected for an additional term or terms beyond the three three-year terms: (i) the audit committee and board of directors must determine that, in light of the external director's expertise and special contribution to the board of directors and its committees, the re-election for an additional term is to the company's benefit; (ii) the external director must be re-elected by the majority of shareholders described in the previous paragraph and subject to the terms specified in the Companies Law; and (iii) the term during which the nominee has served as an external director and the reasons given by the audit committee and board of directors for extending his or her term of office must be presented to the shareholders prior to their approval.



Each committee of a company's board of directors that has the right to exercise powers of the board of directors is required to include at least one external director, and the audit committee and the compensation committee are required to include all of the external directors.

Under the Companies Law, an external director cannot be dismissed from office unless: (i) the board of directors determines that the external director no longer meets the statutory requirements for holding the office, or that the external director is in breach of his or her fiduciary duty of loyalty, and the shareholders vote, by the same majority required for his or her appointment, to remove the external director after the board of directors' reasoning has been brought before the shareholders and the external director has been given the opportunity to present his or her position; (ii) a court decides, to dismiss the external director upon a request of a director or a shareholder, after finding that the external director no longer meets the statutory requirements as an external director or that the external director is in breach of his or her fiduciary duty of loyalty to the company; or (iii) a court decides to dismiss the external director, upon a request of the company or a director, shareholder or creditor of the company, after finding that the external director is unable to fulfill his or her duty, or has been convicted of specified crimes. If an external directorship becomes vacant and the number of external directors serving in the company is less than two, then a company's board of directors is required under the Companies Law to call a shareholders' meeting as soon as possible to appoint a new external director.

Following the termination of service of an external director, a public company, a controlling shareholder thereof and any entity controlled by a controlling shareholder, may not grant any benefit, directly or indirectly, to such external director, or to his or her relative, including, not appointing such external director or his or her relative, as an Office Holder of such public company or of any entity controlled by a controlling shareholder of such public company, not employing such external director or his or her relative and not receiving professional services for pay from such external director or his or her relative, either directly or indirectly, including through a corporation controlled by such external director or his or her relative, in each case, until the lapse of two years from termination of office with respect to the external director, his or her spouse or child and until the lapse of one year from termination of office with respect to other relatives of the former external director.

Professor Yair Aharonowitz, Dr. Arie Ovadia and Professor Joshua Shemer currently serve as our external directors, each of whom is also independent under the NASDAQ Listing Rules. The initial election of each of Professor Yair Aharonowitz, Dr. Arie Ovadia and Professor Joshua Shemer for a term of three years was approved by our shareholders at our annual general meeting of shareholders held on July 31, 2007. They were each re-elected by our shareholders on April 15, 2010 and again on April 22, 2013 for an additional three year-term that expires on April 21, 2016.

#### Independent Directors under the Companies Law

Under the Companies Law, an 'independent director' is either an external director or a director appointed or classified as such who meets the same non-affiliation criteria as an external director, as determined by the company's audit committee, and who has not served as a director of the company for more than nine consecutive years. For these purposes, ceasing to serve as a director for a period of two years or less would not be deemed to sever the consecutive nature of such director's service. An independent director may be removed from office in the same manner that an external director may be removed, may receive compensation solely as provided for under the Companies Law and the Compensation Regulations and, upon termination of service as an independent director, is subject to the same restrictions with respect to receipt of benefits, service as an Office Holder, employment and provision of professional services as are applicable to external directors.

Regulations promulgated pursuant to the Companies Law provide that a director in a company, such as the Company, whose shares are listed for trading on specified exchanges outside of Israel, including the NASDAQ Global

Market who qualifies as an independent director under the relevant non-Israeli rules relating to independence standards and who meets certain non-affiliation criteria, which are less stringent than those applicable to external directors, could be considered an 'independent' director pursuant to the Companies Law, provided that (i) he or she has been approved as such by the audit committee; (ii) he or she has not served as a director for more than nine consecutive years; and (iii) his or her remuneration shall be the same as that applicable to external directors. For these purposes, ceasing to serve as a director for a period of two years or less would not be deemed to sever the consecutive nature of such director's service. Furthermore, pursuant to these regulations, such company may reappoint a person as an independent director for additional terms, beyond nine years, which do not exceed three years each, if the audit committee and the board of directors determine that in light of the independent director's expertise and special contribution to the board of directors and its committees, the reappointment for an additional term is to the company's benefit.

Pursuant to the Companies Law, a public company, such as the Company, may include in its articles of association a provision providing that a specified number of its directors be independent directors or may adopt a standard provision providing that a majority of its directors be independent directors or, if there is a controlling shareholder or a 25% or more shareholder, that at least one-third of its directors be independent directors. While the Company has not included such a provision in its Articles, it believes that three of its current seven directors qualify as independent directors under the Companies Law and an additional two of its current seven directors could qualify as independent directors under the Companies Law if its Audit Committee and board were to make the determination as aforesaid.

#### Directors under the Companies Law - General

A nominee for service as a director in a public company may not be elected without submitting a declaration to the company, prior to his or her election, specifying that he or she has the requisite qualifications to serve as a director, an external director or an independent director, as applicable, and the ability to devote the appropriate time to performing his or her duties as such.

A director, including an external director or an independent director, who ceases to meet the statutory requirements to serve as a director, external director or independent director, as applicable, must notify the company to that effect immediately and his or her service as a director will expire upon submission of such notice.

#### Independent Directors under the NASDAQ Listing Rules

In addition to the requirements of the Companies Law as described above, since our shares are listed on the NASDAQ Global Market, pursuant to the NASDAQ Listing Rules, a majority of our directors must be independent (as defined under the NASDAQ Listing Rules). We comply with such NASDAQ independence requirement, as five of the seven members of our board of directors - Professor Yair Aharonowitz, Dov Hershberg, Dr. Arie Ovadia, Professor Joshua Shemer and Professor Ruth Arnon- have been determined by our board of directors to meet the NASDAQ independence requirements.

#### Board Committees

##### Audit Committee

Under the listing requirements of The NASDAQ Global Market, a foreign private issuer is required to maintain an audit committee that operates under a formal written charter and has certain responsibilities and authority, including being directly responsible for the appointment, compensation, retention and oversight of the work of the issuer's independent auditors. According to the NASDAQ Listing Rules, the audit committee is required to consist of at least three members, all of whom must be financially literate and also meet the independence requirements established by the SEC under Rule 10A-3 of the Exchange Act and the independence criteria set forth in the NASDAQ Listing Rules. The NASDAQ Listing Rules also require that at least one member of the audit committee be financially sophisticated (as defined in such listing rules).

The Companies Law also requires public companies such as ours to appoint an audit committee comprised of at least three directors, including all of the external directors and, the majority of its members must be independent directors (as described above under “- Independent Directors under the Companies Law”).

The Companies Law further stipulates that the following may not be members of the audit committee: (a) the chairman of the board of directors; (b) any director employed by or providing services on an ongoing basis to the company, to a controlling shareholder of the company or an entity controlled by a controlling shareholder of the company; (c) a director whose livelihood depends on a controlling shareholder; and (d) a controlling shareholder or

any relative of a controlling shareholder.

The Companies Law further requires that: (i) the chairperson of the audit committee must be an external director; (ii) generally, any person who is not entitled to be a member of the audit committee may not attend the audit committee's meetings; and (iii) the quorum required for the convening of meetings of the audit committee and for adopting resolutions by the audit committee be a majority of the members of the audit committee, provided that the majority of the members present are independent directors and at least one of them is an external director.

The responsibilities of the audit committee under the Companies Law include: (i) identifying flaws in the management of a company's business and making recommendations to the board of directors as to how to correct them, (ii) with respect to certain actions involving conflicts of interest and with respect to certain related party transactions, deciding whether such actions are material actions and whether such transactions are extraordinary transactions, respectively, all for the purpose of approving such actions or transactions, (iii) reviewing and deciding whether to approve certain related party transactions and certain actions involving conflicts of interest, (iv) reviewing the internal auditor's work program, (v) examining the company's internal control structure and processes, the performance of the internal auditor and whether the internal auditor has at his or her disposal the tools and resources required to perform his or her duties, considering, inter alia, the special needs of the company and its size, (vi) examining the external auditor's scope of work as well as the external auditor's fees and providing its recommendations to the appropriate corporate organ, (vii) providing for arrangements as to the manner in which the company will deal with employee complaints with respect to deficiencies in the management of the company's business and the protection to be provided to such employees, and (viii) other matters relevant only to companies with controlling shareholders. As of the date of this report, the Company is not aware of any controlling shareholders as such term is defined for the purposes of the Companies Law.

Our Audit Committee oversees our accounting and financial reporting processes. It also provides assistance to our board in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting and internal control functions of the Company. In carrying out its duties, the Audit Committee meets with management at least once in each fiscal quarter at which time, among other things, it reviews, and either approves or disapproves, the financial results of the Company for the immediately preceding fiscal quarter and conveys its conclusions in this regard to the board of directors. The Audit Committee also generally monitors the services provided by the Company's external auditors to ensure their independence, and reviews all audit and non-audit services provided by them. The Company's external and internal auditors also report regularly to the Audit Committee at its meetings and the Audit Committee discusses with the Company's external auditors the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the Company's financial statements, as and when it deems it appropriate to do so.

Under the NASDAQ Listing Rules the audit committee is directly responsible for the appointment, compensation, retention and oversight of the work of the company's independent auditors, among other things. However, under Israeli law and our Articles, the appointment of independent auditors requires the approval of the shareholders and their compensation requires the approval of our board of directors. In addition, pursuant to the Companies Law, the audit committee is required to examine the independent auditors' scope of work as well as the external auditors' fees and to provide its recommendations with respect thereto to the appropriate corporate organ. Accordingly, the appointment of the independent auditors will be required to be approved and recommended to the shareholders by the Audit Committee and approved by the shareholders. The compensation of the independent auditors for audit services and non-audit services will be required to be approved by the Audit Committee and recommended to the board of directors and approved by the board of directors.

We have an Audit Committee consisting of three independent directors, all of whom are financially literate and one of whom has accounting or related financial management expertise. The members of the Audit Committee are Dr. Arie Ovadia, who serves as the chairman of our Audit Committee, Professor Yair Aharonowitz, and Professor Joshua Shemer. All of the members of our Audit Committee qualify as independent directors under the NASDAQ Listing Rules and as external directors under the Companies Law. We have adopted a charter for the audit committee, which sets forth the purpose and responsibilities of such committee under the above-described legal requirements.

#### Compensation Committee

Under the 2012 Amendment, public companies are required to appoint a compensation committee comprised of at least three directors, including all of the external directors, who must generally also constitute a majority of the

members. All other members of the compensation committee, who are not external directors, must be directors who receive compensation that is in compliance with the Compensation Regulations. In addition, the chairperson of the compensation committee must be an external director.

The Companies Law further stipulates that directors who are not qualified to serve on the audit committee, as described above, may not serve on the compensation committee and that similar to the audit committee, generally, any person who is not entitled to be a member of the compensation committee may not attend the compensation committee's meetings.

The responsibilities of the compensation committee under the Companies Law include: (i) making recommendations to the board of directors with respect to the approval of the compensation policy and any extensions thereto, (ii) periodically reviewing the implementation of the compensation policy and providing the board of directors with recommendations with respect to any amendments or updates thereto, (iii) reviewing and resolving whether or not to approve arrangements with respect to the Terms of Office and Employment of Office Holders or a controlling shareholder or such controlling shareholder's relative, and (iv) resolving whether or not to exempt a transaction with a candidate for chief executive officer from shareholder approval.

The Company's Compensation Committee also oversees, subject to applicable law, the administration of the Company's various compensation plans and arrangements, in particular, the incentive compensation, deferred compensation and equity based plans of the Company (and to the extent appropriate, the subsidiaries of the Company) and assists the board of directors in fulfilling its responsibilities relating to the compensation of directors, the chief executive officer and other Office Holders of the Company. In carrying out these duties, the Compensation Committee meets on an ad hoc basis (usually several times during each fiscal year). Under the Companies Law, the compensation committee may need to seek the approval of the board of director and the shareholders for certain compensation related decisions as described above (see Item 6 - Directors, Senior Management and Employees – B. Compensation - Approval Required for Directors' and Officers' Compensation). Each member of our Compensation Committee is an 'independent director' in accordance with the NASDAQ listing standards. Dr. Arie Ovadia, who serves as the chairman of our Compensation Committee, Professor Yair Aharonowitz, and Professor Joshua Shemer are the members of our Compensation Committee. We have adopted a charter for the compensation committee, which sets forth the purpose and responsibilities of such committee.

#### Other Committees

Our board of directors does not maintain a nominating committee. The functions of such committee are performed by the full board of directors. This practice is compliant with Israeli law and, as a foreign private issuer, we have elected, pursuant to NASDAQ Listing Rule 5615(a) (3), to follow Israeli practice, in lieu of compliance with the NASDAQ Listing Rule 5602(e).

#### Internal Auditor

Under the Companies Law, the board of directors must appoint an internal auditor, recommended 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 procedures. Under the Companies Law, an interested party or an Office Holder of a company, or a relative of an interested party or of an Office Holder of a company, as well as the company's independent auditors or any one on behalf of the independent auditors may not serve as a company's internal auditor. The internal auditor's tenure cannot be terminated without his or her consent, nor can he or she be suspended from such position unless the board of directors has so resolved after hearing the opinion of the audit committee and after providing the internal auditor with the opportunity to present his or her position to the board of directors and to the audit committee. An interested party is defined in the Companies Law as a holder of 5% or more of the company's outstanding shares or voting rights, any person or entity who has the right to designate one or more directors or the chief executive officer of the company or any person who serves as a director or as a chief executive officer of the company.

On February 8, 2010, our board of directors appointed Hila Barr of Brightman Almagor Zohar & Co., a member company of Deloitte Touche Tohmatsu, as its internal auditor. Hila Barr is not an employee, affiliate or Office Holder of the Company, or affiliated with the Company's independent auditors.

#### D. EMPLOYEES

The following table sets out the number of our employees engaged in specified activities, at the end of the fiscal years 2013, 2012 and 2011 (the numbers include employees of our wholly owned U.S. subsidiary Compugen USA, Inc.):

	December 31, 2013	December 31, 2012	December 31, 2011
Research & Development	42	*38	28
Administration, Accounting and Operations	13	*12	10
Marketing and Business Development	2	2	1
Total	57	52	39

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\* includes one employee on a part-time basis



For the year ended December 31, 2011 all of our employees were based in Israel. In April 2012 we established a new monoclonal antibody (mAb) research and development operation in South San Francisco, California. For the year ended December 31, 2012, 43 of our employees were located in Israel and nine were located in the U.S, and for the year ended December 31, 2013, 48 of our employees were located in Israel and nine were located in the U.S.

We consider our relations with our employees to be satisfactory and we have not experienced a significant labor dispute or strike. We are not a party to any collective bargaining agreement with respect to our Israeli employees. However, we are subject to certain labor related statutes and to certain provisions of collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordinating Bureau of Economic Organizations and/or the Industrialists' Association, which are applicable to our Israeli employees by virtue of expansion orders of the Israeli Minister of the Economy. These statutes and provisions cover a wide range of subjects and provide certain minimum employment standards, including the length of the work day and work week, minimum wages, travel expenses, contributions to a pension fund, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay, annual and other vacations, sick pay and other conditions of employment. We generally provide our employees with benefits and working conditions beyond the required minimum. An additional provision applicable to all employees in Israel under collective bargaining agreements and expansion orders is the automatic adjustment of wages in relation to increases in the Israeli CPI. The amount and frequency of these adjustments are modified from time to time; however, no such adjustments have been made in recent years pursuant to expansion orders due to the relatively low prevailing inflation rates.

Our severance pay liability to our Israeli employees, based upon the number of years of service and the latest monthly salary, is in large part covered by regular deposits with recognized pension funds, deposits with severance pay funds and purchases of insurance policies. Pursuant to Section 14 of the Israeli Severance Pay Law, certain of our liabilities for employee rights upon retirement are covered by regular contributions to defined contribution plans so that upon termination of employment of the relevant employees, we are only required to release the payments made by us to such funds on account of severance and by doing so are deemed to have complied with all of our severance payment obligations relating to the service of applicable employees with respect to the period during which the provisions of such section apply. For information concerning our liability for severance pay, see Note 2m to our consolidated financial statements.

Our employees are not represented by a labor union. We have written employment contracts with each of our employees.

## E. SHARE OWNERSHIP

## Share Ownership by Directors and Other Office Holders

The following table sets forth certain information as of January 31, 2014, regarding the beneficial ownership by our directors and other Office Holders. Except as set forth in the table below, none of the directors or other Office Holders beneficially owns ordinary shares and/or ordinary shares underlying options amounting to 1% or more of the outstanding ordinary shares. All numbers quoted in the table are inclusive of options to purchase shares that are exercisable within 60 days after January 31, 2014. The information in this table is based on 41,407,305 ordinary shares outstanding as of January 31, 2014.

Beneficial Owner	Amount Owned	Percent of Class	
Martin S. Gerstel (1)	2,499,604	5.9	%
Anat Cohen-Dayag (2)	606,435	1.4	%
All current directors and Office Holders as a group (14 persons) (3)	3,859,624	8.9	%

(1) Includes (i) 119,240 shares held by Mr. Gerstel, (ii) 500,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, (iii) 619,033 shares held by Merrill Lynch IRA for Martin S. Gerstel, of which Mr. Gerstel is the beneficiary, and (iv) 615,495 shares held in a trust for which Mr. Gerstel is trustee and a member his immediate family is the beneficiary. Also includes 645,836 shares subject to options that are currently exercisable or that become exercisable within 60 days after January 31, 2014 with a weighted average exercise price of \$1.48 per share and which expire between January 2019 and July 2022.

(2) Consists of 606,435 shares subject to options that are exercisable within 60 days after January 31, 2014 with a weighted average exercise price of \$3.08 per share, and which expire between March 2016 and July 2021.

(3) See Notes 1 and 2 above, Also includes (i) a total of 748,585 shares subject to options that are beneficially owned by directors and other Office Holders that are exercisable within 60 days after January 31, 2014 with a weighted average exercise price of \$2.90 per share and which expire between December 2014 and February 2023 and (ii) a total of 5,000 ordinary shares held by directors.

## Share Option Plans

We maintain one active share option plan, plus one additional share option plan under which prior grants remain outstanding, for our employees, directors and consultants. In addition to the discussion below, see Note 9 of our 2013 consolidated financial statements.

Compugen Ltd.'s board of directors administered our share option plans until February 2014 and as of such date subject to applicable law (including with respect to the required approval procedure of compensation to Office Holders under the Companies Law (for additional information on the approval procedure of compensation to Office Holders, see Item 6. Directors, Senior Management and Employees – B. Compensation Approval Required for Directors' and Officers' Compensation), Compugen Ltd.'s Compensation Committee administers our share option plans and has the authority to designate 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 Share Option Plan (2000)

The Compugen Share Option Plan (2000), or the “2000 Option Plan”, enabled granting options for up to an aggregate of 10,191,511 ordinary shares of the Company to our and our subsidiaries' employees, directors and consultants. No further options are being granted under this plan following a July 25, 2010 decision of our board of directors which resolved to cancel the shares then remaining available for grant under the 2000 Option Plan. As of December 31, 2013, options to purchase 2,377,516 ordinary shares at a weighted average exercise price of approximately \$2.54 per share were outstanding (i.e., were granted but not canceled, expired or exercised) under the 2000 Option Plan. Options to purchase 5,305,288 ordinary shares under the plan have previously been exercised at a weighted average exercise price of approximately \$2.85.

Compugen 2010 Share Incentive Plan

On July 25, 2010, our board of directors adopted the Compugen 2010 Share Incentive Plan or the “2010 Plan”, and determined to cease making grants under the 2000 Option Plan. The adoption of the 2010 Plan was approved by our shareholders on May 12, 2011. In addition, the board of directors and shareholders resolved that the options available for grants under the 2000 Option Plan, at such time, as well as any options that may return to such pool in connection with terminated options, will be made available for future grants under the 2010 Plan. 1,953,851 shares were initially reserved for the grant under the 2010 Plan. In keeping with our board of directors’ and shareholders’ resolution any shares subject to options granted under the 2000 Option Plan prior to the adoption of the 2010 Plan which terminate unexercised, will also be made available for future grants under the 2010 Plan. On August 6, 2012 our board of directors adopted certain amendments to the 2010 Plan which, among other things, provided for additional types of awards, namely restricted share and restricted share unit awards.

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 (and other than by reason of death or disability, as defined in the 2010 Plan), the term of his or her unexercised options will generally expire in 90 days, unless determined otherwise by our board of directors. As of December 31, 2013, options to purchase 3,667,637 ordinary shares at a weighted average exercise price of approximately \$4.72 per share were outstanding (i.e., were granted but not canceled, expired or exercised) under the 2010 Plan. Options to purchase 117,409 ordinary shares under the plan have previously been exercised at a weighted average exercise price of approximately \$4.21. Options to purchase 1,814,207 ordinary shares remain available for future grant as of December 31, 2013.

Administration of our Share Options Plans

Our board of directors has elected the “Capital Gains Track” (as defined in Section 102(b) (2) of the Tax Ordinance for the grant of options to Israeli grantee.

Pursuant to Section 102 of the Tax Ordinance, and pursuant to an election made by the Company thereunder, gains derived by employees (which term includes directors) in Israel arising from the sale of shares acquired pursuant to the exercise of options granted to them through a trustee under Section 102 of the Tax Ordinance after January 1, 2003, will generally be subject to a flat capital gains tax rate of 25%, although these gains may also include a salary income component. As a result of this election under Section 102, the Company will not, in the case of equity awards made on or after January 1, 2003, be allowed to claim as an expense for tax purposes in Israel the amounts credited to the employee as capital gains, although it will generally be entitled to do so in respect of the salary income component (if any) of such awards when the related tax is paid by the employee.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. MAJOR SHAREHOLDERS

The following table sets forth certain information regarding beneficial ownership of our ordinary shares as of January 31, 2014 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	Percent of Ownership
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	Owned		
Martin Gerstel (2)	2,499,604	5.9	%

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(1) Includes (i) 119,240 shares held by Mr. Gerstel, (ii) 500,000 shares held by Shomar Corporation, an affiliate of Mr. Gerstel, (iii) 619,033 shares held by Merrill Lynch IRA for Martin S. Gerstel, of which Mr. Gerstel is the beneficiary, and (iv) 615,495 shares held in a trust for which Mr. Gerstel is trustee and a member his immediate family is the beneficiary. Also includes 645,836 shares subject to options that are currently exercisable or that become exercisable within 60 days after January 31, 2014 with a weighted average exercise price of \$1.48 per share and which expire between January 2019 and July 2022.

As of January 31, 2014, there were a total of 67 holders of record of our ordinary shares, of which 47 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 99.7% of the outstanding ordinary shares. Our ordinary shares are traded on the NASDAQ Global Market in the United States and on the TASE in Israel. A significant portion of our shares are held in street name, therefore we cannot determine who our shareholders are, their geographical location or how many shares a particular shareholder owns.

### Significant Changes in Share Ownership

The following table shows changes over the last three years in the percentage ownership by major shareholders:

	Ordinary Shares Owned as of February 29, 2012			Ordinary Shares Owned as of February 28, 2013			Ordinary Shares Owned as of February 28, 2014		
	Number of shares	Percentage of ownership	%	Number of shares	Percentage of ownership	%	Number of shares	Percentage of ownership	%
Martin Gerstel	2,260,015	6.3	%	2,385,015	6.3	%	2,499,604	5.9	%
Clearbridge Advisors LLC (2)	2,211,586	6.2	%	1,273,245	3.6	%	(1)		(1)
Morgan Stanley (3)	1,912,327	5.4	%	(1)		(1)	(1)		(1)

(1) Number and percentage of shares outstanding as of such date is unknown, but is less than 5%.

(2) Percentage of shares outstanding as of February 29, 2012 is based solely on a Schedule 13G/A filed with the SEC on February 14, 2012. Percentage of shares outstanding as of February 28, 2013 is based solely on a Schedule 13G/A filed with the SEC on February 14, 2013.

(3) Percentage of shares outstanding as of February 29, 2012 is based solely on a Schedule 13G/A filed with the SEC on February 10, 2012.

### B. RELATED PARTY TRANSACTIONS

Other than as set forth below and transactions related to compensation of our officers and directors as described under “Item 6. Directors, Senior Management and Employees—B. Compensation,” since January 1, 2013, we have not entered into any related party transactions.

#### Keddem Bioscience Ltd.

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 substantially increase the predictability and success rates of small molecule drug discovery. These operations were subsequently transferred in 2004 to our then wholly owned subsidiary Keddem Bioscience Ltd (“Keddem”), where such operations were later suspended for financial reasons in 2007. On November 19, 2012 we signed an agreement with a private U.S.-based investment company pursuant to which up to \$15 million in milestone related equity financing will be made available to Keddem. This financing will be used to further develop and commercialize Keddem's unique technology platform. Under the agreement, the new investor will obtain a majority equity interest in Keddem, with Compugen maintaining a minority interest and certain future preferential access rights to utilize the Keddem technology with Compugen discovered drug targets. Martin Gerstel, our Chairman of the Board of Directors is also

Chairman of the Board of Keddem, and as of the date of this annual report, we owned approximately 36% of the outstanding securities of Keddem. See also Note 1 to the 2013 financial statements.

Neviah Genomics Ltd.

In June 2012, we established together with Merck KGaA and Merck Holdings Netherlands B.V. (collectively, "Merck") a new start-up company, Neviah Genomics Ltd. ("Neviah"), which is focused on the discovery and development of novel biomarkers for the prediction of drug-induced toxicity. Neviah operates out of the Merck Serono Israel Biocubator. Pursuant to our agreement, Merck is providing the initial funding for Neviah and its expertise in the validation and development of biomarkers into a diagnostic test, and we are utilizing certain proprietary predictive discovery technologies and receiving research revenues for our efforts. The agreement provides Compugen with an equity ownership in the new company and a right to royalties from potential future sales. In 2013, we received \$260,000 in research revenues under this agreement. As of the date of this annual report, we owned approximately 28% of the securities of Neviah on a fully diluted basis. See also Note 1 and Note 14 to the 2013 financial statements.

#### Indemnification of Our Directors and Officers

At a special meeting of shareholders held in September 2013, our shareholders resolved to amend the Articles. Our Articles, as amended, provide as follows:

#### EXEMPTION, INDEMNIFICATION AND INSURANCE

##### 57. Indemnity and Insurance

57.1 Insurance. Subject to the provisions of the Companies Law, the Company may enter into contracts to insure the liabilities of its Office Holders for any liabilities or expenses incurred by or imposed upon them arising from or as a result of any act (or omission) carried out by them as Office Holders of the Company, to the fullest extent permitted by law, including in respect of any liability imposed on any Office Holder with respect to any of the following:

- (a) A breach of the duty of care owed to the Company or to any other person;
- (b) A breach of the duty of loyalty owed to the Company, provided that, the Office Holder acted in good faith and had reasonable grounds to assume that such act would not prejudice the interests of the Company;
- (c) Monetary liabilities or obligations imposed on him in favor of another person;
- (d) A payment which the Office Holder is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Israel Securities Law, 5728-1968 (the "Securities Law") and expenses that the Office Holder incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Securities Law, including reasonable litigation expenses, including attorney's fees, or in connection with Article D of Chapter Four of Part Nine of the Companies Law;
- (e)



Expenses incurred by the Office Holder in connection with a proceeding under Chapter G'1, of the Israel Restrictive Trade Practices Law, 5748-1988 (the "Restrictive Trade Law"), including reasonable litigation expenses, including attorney's fees.

57.2 Indemnification. Subject to the provisions of the Companies Law, the Company may indemnify any of its Office Holders for all liabilities and expenses incurred by them arising from or as a result of any act (or omission) carried out by them as Office Holders of the Company and which is indemnifiable pursuant to applicable law, to the fullest extent permitted by law, including, as follows:

- (a) retrospectively; and
- (b) undertake in advance to indemnify the Office Holders to the fullest extent permitted by law, including, as follows:
  - (i) for any monetary liabilities or obligations imposed on the Office Holder in favor of another person pursuant to a court judgment, including a compromise judgment or an arbitrator's decision approved by a court;
  - (ii) for any payments which the Office Holder is obligated to make to an injured party as set forth in Section 52(54)(a)(1)(a) of the Securities Law and expenses the Office Holder incurred in connection with a proceeding under Chapters H'3, H'4 or I'1 of the Securities Law, including reasonable litigation expenses, including attorney's fees, or in connection with Article D of Chapter Four of Part Nine of the Companies Law;
  - (iii) for reasonable litigation expenses, including attorney's fees, incurred by the Office Holder in consequence of an investigation or proceeding instituted against the Office Holder by an authority that is authorized to conduct such investigation or proceeding, and which was concluded without filing of an indictment against the Office Holder and without imposing on the Office Holder a financial obligation in lieu of criminal proceedings, or which was concluded without filing of an indictment against the Office Holder but with imposing on such Office Holder a financial obligation in lieu of criminal proceedings in respect of an offense that does not require proof of criminal intent or in connection with a financial sanction;

For the purposes hereof: (i) “a proceeding that concluded without filing an indictment in a matter in respect of which an investigation was conducted”; and (ii) “financial obligation in lieu of a criminal proceeding”, shall have the meanings specified in Section 260(a)(1A) of the Companies Law;

- (iv) for reasonable litigation expenses, including attorney’s fees, incurred by the Office Holder or which the Office Holder is ordered to pay by a court, in a proceeding filed against the Office Holder by the Company or on its behalf or by another person, or in a criminal action of which the Office Holder is acquitted, or in a criminal action in which the Office Holder is convicted of an offense that does not require proof of criminal intent.
- (v) for expenses incurred by the Office Holder in connection with a proceeding under Chapter G'1, of the Restrictive Trade Law, including reasonable litigation expenses, including attorney's fees.
- (vi) for any other liability, obligation or expense indemnifiable or which may from time to time be indemnifiable by law.

provided that: (x) an undertaking in advance to indemnify an Office Holder with respect to the matters specified in Article 57.2(b)(i) above is limited to types of occurrences, which in the opinion of the board of directors, in light of the Company's actual activities at the time of the undertaking, are foreseeable and to an amount or to criteria the board of directors has determined to be reasonable in the circumstances; and (y) in the undertaking in advance to indemnify an Office Holder, the types of occurrences that the board of directors believes to be foreseeable in light of the Company's actual activities at the time the undertaking to indemnify was given are mentioned, as is the amount or criteria that the board of directors determined to be reasonable under the circumstances.

57.3 Exemption of Office Holders. Subject to the provisions of the Companies Law, the Company may, to the fullest extent permitted by law, exempt and release its Office Holders, including in advance, from and against all or part of such Office Holders’ liability for monetary or other damages due to, or arising or resulting from, a breach of their duty of care to the Company. The Directors of the Company are released and exempt from any and all liability as aforesaid to the fullest extent permitted by law with respect to any such breach, which has been or may be committed.

57.4 The provisions of this Article 57 are not intended, and shall not be interpreted so as to restrict the Company, in any manner, in respect of the procurement of insurance and/or indemnification and/or exculpation, in favor of any person who is not an Office Holder, including, without limitation, any employee, agent, consultant or contractor of the Company who is not an Office Holder.

57.5 The Company may, as aforesaid, indemnify, insure and exempt from liability any Office Holder to the fullest extent permitted by applicable

law. Accordingly: (i) any amendment to the Companies Law, the Securities Law, the Restrictive Trade Law or any other applicable law expanding the ability of the Company to indemnify, insure or exempt from liability any Office Holder, or expanding the right of any Office Holder to be indemnified, insured or exempted from liability, beyond or in addition to the provisions of these Articles, shall, to the fullest extent possible, automatically and immediately apply to the Office Holders of the Company and be deemed as included in these Articles to the fullest extent permitted by applicable law; and (ii) any amendment to the Companies Law, the Securities Law, the Restrictive Trade Law or any other applicable law adversely affecting the ability of the Company to indemnify, insure or exempt from liability any Office Holder or adversely affecting the right of any Office Holder to be indemnified, insured or exempted from liability as provided for in these Articles shall have no effect post factum and shall not affect the Company's obligations or ability to indemnify, insure or exempt from liability an Office Holder for any act (or omission) carried out prior to such amendment, unless otherwise provided by applicable law.

The Companies Law provides that a company may, if its articles of association include provisions which allow it to do so:

- (1) enter into a contract to insure the liability of an Office Holder of the company by reason of acts or omissions carried out by him or her as an Office Holder of the company for:
  - (a) the breach of his or her duty of care to the company or to any other person;
  - (b) the breach of his or her duty of loyalty to the company, provided that, he or she acted in good faith and had reasonable grounds to assume that the act would not prejudice the interests of the company; and
  - (c) monetary liabilities which may be imposed upon him or her in favor of another person.
- (2) indemnify an Office Holder of the company for the following liabilities or expenses that may be imposed upon him or her or that he or she may incur as a result of acts or omissions carried out by him or her as an Office Holder of the company, for:
  - (a) monetary liabilities imposed upon him or her in favor of another person pursuant to a court judgment, including a compromise judgment or an arbitrator's decision approved by a court;
  - (b) reasonable litigation expenses, including attorney's fees, incurred by the Office Holder in consequence of an investigation or proceeding instituted against him or her by an authority that is authorized to conduct such investigation or proceeding, and which was concluded without filing of an indictment against him or her and without imposing on him or her a monetary liability in lieu of a criminal proceeding, or which was concluded without filing of an indictment against him or her but with imposing on him or her a monetary liability in lieu of a criminal proceeding in respect of an offense that does not require proof of criminal intent or in connection with a financial sanction;

In this subsection: (i) a proceeding that concluded without filing of an indictment in a matter in respect of which a criminal investigation was initiated shall mean the relevant case against him or her being closed in accordance with the provisions of Section 62 of the Israeli Criminal Procedure Law, 5742-1982, or by virtue of a stay of proceedings by the Attorney General in accordance with the provisions of Section 231 of the Israeli Criminal Procedure Law, 5742-1982; and (ii) "a monetary liability in lieu of a criminal proceeding" means a monetary liability imposed by law as an

alternative to a criminal proceeding, including an administrative fine in accordance with the Israeli Administrative Crimes Law, 5746-1985, a fine for an offense that is considered an offense in respect of which a fine may be imposed, in accordance with the provisions of the Israeli Criminal Procedure Law, 5742-1982, a financial sanction or a penalty; and

(c) reasonable litigation expenses, including attorney's fees, incurred by the Office Holder or which the Office Holder is ordered to pay by a court, in a proceeding filed against him or her by the company or on its behalf or by another person, or in a criminal action of which he or she was acquitted, or in a criminal action in which he or she was convicted of an offense that does not require proof of criminal intent.

(3) exempt an Office Holder, in advance, from and against all or part of his or her liability for damages due to a breach of his or her duty of care to it, provided that a company may not exempt a director in advance from his or her liability to it due to a breach of his or her duty of care with respect to a 'Distribution' (as defined in Section 1 of the Companies Law).

The Companies Law provides that a company's articles of association (X) may provide for indemnification of an Office Holder retrospectively; and (Y) may also provide that a company may undertake to indemnify an Office Holder in advance as follows: (i) as detailed in section 2(a) above, provided that the undertaking is limited to occurrences, which in the opinion of the company's board of directors, are foreseeable in light of the company's activities at the time of the undertaking, and to an amount or to criteria that the board of directors has determined to be reasonable in the circumstances, and that in such undertaking, the occurrences that the board of directors believes to be foreseeable in light of the company's activities at the time of the undertaking, and the amount or criteria that the board of directors determined to be reasonable under the circumstances, are mentioned, and (ii) as detailed in sections 2(b) and 2(c) above.

The Companies Law provides that a provision in a company's articles of association which permits the company to enter into a contract to insure the liability of or to indemnify an Office Holder or to exempt an Office Holder from his or her liability to the company, or a resolution of a company's board of directors to indemnify an Office Holder with respect to the following, will not be valid:

- a breach of his or her duty of loyalty, other than, in respect of indemnification and insurance, to the extent described in Section 1(b) above;
- a breach of his or her duty of care that was done intentionally or recklessly, unless the breach was done only in negligence;
- an act or omission done with the intent to unlawfully realize personal gain; or
- a fine, forfeit, financial sanction or penalty imposed upon him or her.

The Company's Office Holders are currently covered by a directors' and officers' liability insurance policy. The Company has also resolved to exempt and release to the maximum extent permitted by law the Company's Office Holders and to indemnify them in advance for certain matters, costs and expenses as set forth in a letter of indemnification and exemption and release approved for issuance to them. For more information see "Item 6. Directors, Senior Management and Employees—B. Compensation, Indemnification, Exemption and Insurance".

#### C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

### ITEM 8. FINANCIAL INFORMATION

#### A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

##### Consolidated Financial Statements

Our consolidated financial statements are included beginning on page F-1 of this annual report. See also "Item 18. Financial Statements."

##### Legal Proceedings

Currently, we are not a party to any legal or arbitration proceedings, including governmental proceedings that are pending or known to be contemplated, that our management believes, individually or in the aggregate, may have, or have had in the recent past, a significant effect on our financial position or profitability, nor are we party to any material proceeding in which any director, member of our senior management or affiliate is a party adverse to us or our subsidiaries or has a material interest adverse to us or our subsidiaries.

##### Dividend Distribution Policy

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 Enterprises and/or Benefiting Enterprises programs, we would be required to pay the applicable corporate tax that would

otherwise have been payable on such income which would be in addition to the tax payable by the dividend payee. See Note 10 of our 2013 consolidated financial statements and “Item 10. Taxation.”

**B. SIGNIFICANT CHANGES**

Not applicable.

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## ITEM 9. THE OFFER AND LISTING

## A. OFFER AND LISTING DETAILS

Our ordinary shares were listed on The NASDAQ Global Market through June 16, 2009. On June 17, 2009, we transferred the listing of our ordinary shares from The NASDAQ Global Market to The NASDAQ Capital Market, and on January 27, 2014 we transferred the listing of our ordinary shares from The NASDAQ Capital Market back to The NASDAQ Global Market. The high and low sales prices per share of our ordinary shares for the periods indicated are set forth below:

Year Ended	High	Low
December 31, 2009	\$5.86	\$0.39
December 31, 2010	\$5.32	\$3.04
December 31, 2011	\$5.80	\$3.32
December 31, 2012	\$6.47	\$2.96
December 31, 2013	\$11.92	\$4.56
Quarter Ended		
March 31, 2012	\$6.47	\$4.96
June 30, 2012	\$6.19	\$3.33
September 30, 2012	\$4.50	\$2.96
December 31, 2012	\$5.86	\$3.53
March 31, 2013	\$6.32	\$4.84
June 30, 2013	\$6.60	\$4.56
September 30, 2013	\$10.60	\$5.04
December 31, 2013	\$11.92	\$7.92
Month Ended		
August 31, 2013	\$10.60	\$5.21
September 30, 2013	\$10.31	\$8.75
October 31, 2013	\$11.92	\$9.20
November 30, 2013	\$10.86	\$9.45
December 31, 2013	\$10.33	\$7.92
January 31, 2014	\$11.47	\$8.76



The high and low sales prices per share of our ordinary shares on the Tel Aviv Stock Exchange for the periods indicated are set forth below. The currency in which our stock is traded on the Tel Aviv Stock Exchange is the New Israeli Shekel, or NIS. The below dollar amounts represent a conversion from NIS to dollar amounts in accordance with the dollar NIS conversion rate as of the relevant date.

Year Ended	High*	Low*
December 31, 2009	\$6.06	\$0.42
December 31, 2010	\$5.64	\$3.08
December 31, 2011	\$5.92	\$3.27
December 31, 2012	\$6.35	\$3.03
December 31, 2013	\$11.79	\$4.57
Quarter Ended		
March 31, 2012	\$6.25	\$4.95
June 30, 2012	\$6.35	\$3.30
September 30, 2012	\$4.47	\$3.03
December 31, 2012	\$5.81	\$3.59
March 31, 2013	\$6.31	\$4.87
June 30, 2013	\$6.52	\$4.57
September 30, 2013	\$10.57	\$5.18
December 31, 2013	\$11.79	\$7.98
Month Ended		
August 31, 2013	\$10.57	\$5.34
September 30, 2013	\$10.33	\$8.88
October 31, 2013	\$11.79	\$9.26
November 30, 2013	\$10.96	\$9.45
December 31, 2013	\$10.34	\$7.98
January 31, 2014	\$11.55	\$8.79

#### B. PLAN OF DISTRIBUTION

Not applicable

C. MARKETS

Our ordinary shares are traded in the United States on The NASDAQ Global Market and in Israel on the Tel Aviv Stock Exchange (TASE).

D. SELLING SHAREHOLDERS

Not applicable

E. DILUTION

Not applicable

F. EXPENSES OF THE ISSUE

Not applicable

ITEM 10. ADDITIONAL INFORMATION

A. SHARE CAPITAL

Not applicable

B. MEMORANDUM AND ARTICLES OF ASSOCIATION

Set forth below is a summary of certain provisions of the Memorandum of Association, the Articles and the Companies Law. This description does not purport to be complete and is qualified in its entirety by reference to the full text of the Memorandum of Association and Articles and by Israeli law.

Objects and Purposes

We are incorporated under the Companies Law under the name Compugen Ltd., public company number 51-177-963-9. The Memorandum of Association of Compugen Ltd. (the "Memorandum") was registered on January 29, 1993. On September 17, 2013, our shareholders adopted new articles of association which constitute the Company's effective Articles of Association as of such date. The purpose of the Company as stated in our incorporation documents is to engage in any lawful act or activity for which companies may be organized under the Companies Law.

Fiduciary Duties of Office Holders

The Companies Law imposes on all Office Holders of a company fiduciary duties which consist of a duty of care and a duty of loyalty. The duty of care requires an Office Holder to act with the standard of skills with which a reasonable Office Holder in the same position would have acted under the same circumstances. The duty of care includes a duty to use reasonable means to obtain:

- information regarding the business advisability of a given action brought for the Office Holder's approval or performed by the Office Holder by virtue of his or her position; and
- all other information of importance pertaining to the aforesaid actions.

The duty of loyalty requires an Office Holder to act in good faith and for the benefit of the company and includes the duty to:

- refrain from any act involving a conflict of interest between the fulfillment of his or her position in the company and the fulfillment of any other position or his or her personal affairs;
  - refrain from any act that is competitive with the business of the company;
- refrain from exploiting any business opportunity of the company with the aim of obtaining a personal gain for himself or herself or for others; and
- disclose to the company all information and provide it with all documents relating to the company's affairs which the Office Holder obtained due to his or her position in the company.

Conflict of interest

Approval of Related Party Transactions

The Companies Law requires that transactions between a company and its Office Holders or in which an Office Holder has a personal interest be approved as provided for in the Companies Law and the company's articles of association. The approval of a majority of the disinterested members of the audit committee and of the board of directors is generally required and, in some circumstances, shareholder approval may also be required. With respect to the Terms of Office and Employment of Office Holders, the approval of the compensation committee would be required in lieu of that of the audit committee. See "Item 6. Directors, Senior Management and Employees – B. Compensation Approval Required for Directors' and Officers' Compensation."

## Disclosure by Office Holders

The Companies Law requires that an Office Holder of a company promptly disclose to the company any personal interest that the Office Holder may have in an existing or proposed transaction by the company. The Office Holder must also disclose related material information and documents about the existing or proposed transaction. Disclosure of personal interest includes disclosure of the interests of any entity in which the person with respect to which the disclosure is made is a 5% or greater shareholder, director or general manager, or in which such person has the power to appoint one or more directors or the general manager. If the transaction is an extraordinary transaction, the Office Holder must also disclose any personal interest of his or her spouse, siblings, parents, grandparents, descendants, spouse's descendants, siblings and parents and the spouses of any of these people. This disclosure must be made no later than the first meeting of the board of directors at which the transaction is discussed. The disclosure is made to the board of directors and to the audit committee or compensation committee if it must approve the transaction. In those circumstances in which shareholder approval is also required, shareholders have the right to review any documents in the company's possession related to the proposed transaction. However, the company may prohibit a shareholder from reviewing the documents if the company believes the request was made in bad faith, the documents include trade secrets or patents or their disclosure could otherwise harm the company's interests.

## Approval procedure

After the Office Holder complies with these disclosure requirements, the company may approve the transaction under the provisions of applicable law and its articles of association. If the transaction is with an Office Holder or with a third party in which the Office Holder has a personal interest, the approval must confirm that the transaction is for the benefit of the company. If the transaction is an extraordinary transaction, it must be approved as required by the articles of association and must also be approved by the audit committee and the board of directors. An extraordinary transaction is a transaction: (i) other than in the ordinary course of business; (ii) on terms other than on market terms; or (iii) that is likely to have a material impact on the company's profitability, assets or liabilities. The audit committee is responsible for determining if a transaction is extraordinary or not. If the transaction is not an extraordinary transaction, it must be approved by the board of directors, unless a different approval procedure is set forth in the articles of association. Pursuant to the Company's Articles, the board of directors may delegate its authority to approve transactions that are not extraordinary transactions, to one or more committees of the board of directors, and it may from time to time revoke such delegation. As of the date of this report, no such delegation has been made.

The Terms of Office and Employment of Office Holders are subject to the approval of the compensation committee and the board of directors, and must generally be consistent with the company's compensation policy. In some circumstances, shareholder approval is required. See Item 6 - Directors', Senior Management and Employees – B. Compensation Approval Required for Directors' and Officers' Compensation.

A person with a personal interest in any matter may not generally be present at any audit committee, compensation committee or board of directors meeting where the matter is being considered, and if a member of the committee or a director, may not generally vote on the matter.

## Transactions with controlling shareholders

The Companies Law extends the disclosure requirements applicable to an Office Holder to a controlling shareholder in a public company. A shareholder that holds 25% or more of the voting rights in a company would be considered a controlling shareholder for the purposes of these disclosure requirements if no other shareholder holds more than 50% of the voting rights. If two or more shareholders are interested parties in the same transaction, their shareholdings are aggregated for these purposes. Extraordinary transactions of a public company with a controlling shareholder or in which a controlling shareholder has a personal interest, as well as any engagement by a public company of a

controlling shareholder or of such controlling shareholder's relative, directly or indirectly, with respect to the provision of services to the company, and, if such person is also an Office Holder of such company, with respect to such person's Terms of Office and Employment as an Office Holder, and if such person is an employee of the company but not an Office Holder, with respect to such person's employment by the company, generally require the approval of the audit committee (or with respect to Terms of Office and Employment the compensation committee), the board of directors and the shareholders of the company. If required, shareholder approval must include at least a majority of the shareholders who do not have a personal interest in the transaction and are present and voting at the meeting (abstentions are disregarded). Alternatively, the total shareholdings of the disinterested shareholders who vote against the transaction must not represent more than two percent of the voting rights in the company. Transactions that are for a period of more than three years generally need to be brought for approval in accordance with the above procedure every three years.

Pursuant to regulations promulgated under the Companies Law, certain transactions with a controlling shareholder or his or her relative, or with directors, that would otherwise require approval of a company's shareholders may be exempt from shareholder approval upon certain determinations of the audit committee or the compensation committee and board of directors, unless a shareholder holding at least 1% of the issued share capital or of the voting rights of the company informs the company in writing, within 14 days of the day such determination is reported to its shareholders, of its objection to such exemption.

For information concerning the direct and indirect personal interests of certain of our Office Holders and principal shareholders in certain transactions with us, see Item 7 Major Shareholders and Related Party Transactions B. Related Party Transactions.

#### Rights Attached To Our Shares

Our authorized share capital is NIS 1,000,000 divided into 100,000,000 ordinary shares of nominal (par) value NIS 0.01 each.

Subject to our Articles, fully paid ordinary shares of the company confer on the holders thereof rights to attend and to vote at general meetings of the shareholders. Subject to the rights of holders of shares with limited or preferred rights which may be issued in the future, the ordinary shares of the Company confer upon the holders thereof equal rights to receive dividends and to participate in the distribution of the assets of the Company upon its winding-up, in proportion to the amount paid up or credited as paid up on account of the nominal value of the shares held by them respectively and in respect of which such dividends are being paid or such distribution is being made, without regard to any premium paid in excess of the nominal value, if any. No preferred shares are currently authorized. All outstanding ordinary shares are validly issued and fully paid.

#### Transfer of Shares

Our ordinary shares which have been fully paid-up are transferable by submission of a proper instrument of transfer together with the certificate of the shares to be transferred and such other evidence of title, as the board of directors may require, unless such transfer is prohibited by another instrument or by applicable securities laws.

#### Dividends

Under the Companies law, dividends may be distributed only out of profits available for dividends as determined by the Companies Law, provided that there is no reasonable concern that the distribution will prevent the Company from being able to meet its existing and anticipated obligations when they become due. If the company does not meet the profit requirement, a court may nevertheless allow the company to distribute a dividend, as long as the court is convinced that there is no reasonable concern that such distribution will prevent the company from being able to meet its existing and anticipated obligations when they become due. Pursuant to our Articles, no dividend shall be paid otherwise than out of the profits of the Company. Generally, under the Companies Law, the decision to distribute dividends and the amount to be distributed is made by a company's board of directors.

Our Articles provide that our board of directors, may, subject to the Companies Law, from time to time, declare and cause the Company to pay such dividends as may appear to the board of directors to be justified by the profits of our Company. Subject to the rights of the holders of shares with preferential special or deferred rights that may be authorized in the future, our profits which shall be declared as dividends shall be distributed according to the proportion of the nominal (par) value paid up or credited as paid up on account of the shares held at the date so appointed by the Company and in respect of which such dividend is being paid, without regard to the premium paid in excess of the nominal (par) value, if any.



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 provide that the board of directors may declare and distribute dividends without the approval of the shareholders.

To date, we have not declared or distributed any dividend and we do not intend to pay cash dividends on our ordinary shares in the foreseeable future.

#### Voting Rights

Subject to the provisions of our Articles, holders of ordinary shares have one vote for each ordinary share held by such shareholder of record, 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. Our ordinary shares do not have cumulative voting rights in the election of directors. As a result, the holders of the majority of the shares present and voting at a shareholders meeting generally have the power to elect all of our directors, except the external directors whose election requires a special majority as described under the section entitled "Item 6. Directors, Senior Management and Employees - C. Board Practices - External Directors."

#### Liquidation Rights

In the event of our winding up on liquidation or dissolution, subject to applicable law, our assets available for distribution among the shareholders shall be distributed to the holders of ordinary shares in proportion to the amount paid up or credited as paid up on account of the nominal value of the shares held by them respectively and in respect of which such distribution is being made, without regard to any premium paid in excess of the nominal value, if any. This liquidation right may be affected by the grant of limited or preferential rights as to liquidation to the holders of a class of shares that may be authorized in the future.

#### Redemption Provisions

We may, subject to applicable law and to our Articles, issue redeemable shares and redeem the same upon such terms and conditions as determined by our board of directors.

#### Capital Calls

Under our Articles, the liability of each shareholder for the Company's obligations is limited to the unpaid sum, if any, owing to the Company in consideration for the issuance of the shares held by such shareholder.

#### Modification of Rights

Pursuant to our Articles, if at any time our share capital is divided into different classes of shares, the rights attached to any class, unless otherwise provided by our Articles, may be modified or abrogated by the Company, subject to the consent in writing of, or sanction of a resolution passed by, the holders of a majority of the issued shares of such class at a separate general meeting of the holders of the shares of such class.

#### Shareholders Meetings and Resolutions

Our Articles provide that our annual general meeting shall be held once in every calendar year at such time (within a period of not more than fifteen months after the last preceding annual general meeting), and place determined by our board of directors. Our board of directors may, in its discretion, convene additional shareholder meetings and,



pursuant to the Companies Law, must convene a meeting upon the demand of: (a) two directors or one quarter of the directors in office; or (b) the holder or holders of (i) 5% or more of the Company's issued share capital and one percent or more of its voting rights; or (ii) 5% or more of the Company's voting rights.

The chairman of the board of directors shall preside as chairman at each of our general meetings. If there is no such chairman, or if the appointed chairman is unwilling to take the chair, or if he shall have indicated in advance that he will not be attending, or if at any meeting such chairman is not present within fifteen (15) minutes after the time fixed for holding the meeting, then those present at the meeting shall choose someone present to be chairman of the meeting. The office of chairman shall not, by itself, entitle the holder thereof to vote at any general meeting nor shall it entitle a second or casting vote. Pursuant to the Companies Law, the holder or holders of one percent of the Company's voting rights may request the inclusion of an item on the agenda of a future shareholder meeting, provided the item is appropriate for discussion at a shareholder meeting. The agenda for a shareholder meeting is determined by the board of directors and must include matters in respect of which the convening of a shareholder meeting was demanded and any matter requested to be included by holder(s) of one percent of the Company's voting rights, as detailed above.

Pursuant to the Companies Law and regulations promulgated thereunder with respect to the convening of general meetings in a public company, shareholder meetings generally require prior notice of not less than 21 days. Pursuant to the Articles, the Company is not required to deliver or serve notice of a general meeting or of any adjournments thereof to any shareholder. However, subject to applicable law and stock exchange rules and regulations, the Company will publicize the convening of a general meeting in any manner reasonably determined by the Company, such as posting a notice on the Company's website, filing an appropriate periodic report with the SEC, or publishing on one or more international wire services or in one or more newspapers, and any such publication shall be deemed duly made, given and delivered to all shareholders on the date on which it is first made, posted, filed or published in the manner so determined by the Company in its sole discretion. The function of the annual general meeting is to elect directors, receive and consider the profit and loss account, the balance sheet and the ordinary reports and accounts of the directors and auditors, appoint auditors and transact any other business which under our Articles or applicable law may be transacted by the shareholders of the Company in a general meeting.

Pursuant to our Articles, the quorum required for a meeting of shareholders consists of at least two shareholders, present in person, by proxy or by proxy card and holding shares conferring in the aggregate thirty-three and a third percent (33.3%) or more of the voting power of the Company. If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if convened by the board of directors upon the demand of shareholders or upon the demand of less than 50% of the directors then in office or directly by such shareholders or directors, shall be cancelled. Otherwise, if a meeting is otherwise called and no quorum is present within half an hour from the time appointed for such meeting it shall stand adjourned to the same day in the following week at the same time and place or to such other day, time and place as the board of directors may determine. At the adjourned meeting, the required quorum consists of any two shareholders present, in person, by proxy or by proxy card.

Generally, under the Companies Law and our Articles, shareholder resolutions are deemed adopted if approved by the holders of a simple majority of the voting rights represented at the meeting, in person, by proxy or by proxy card, and voting on the matter, unless a different majority is required by law or pursuant to the Articles such as a resolution for the voluntary winding up of our Company which requires the approval of holders of 75% of the voting power presented and voting, in person or by proxy at the meeting. Pursuant to the Companies Law, resolutions with respect to certain matters included in our Memorandum of Association, such as a resolution with respect to a change in the Company's name, the Company's objective or the Company's capital, could require a special majority of 75% of the shareholders present and voting (abstentions are disregarded).

#### Limitations on the Rights to Own Securities

Our Articles and Israeli law do not restrict the ownership or voting of ordinary shares by non-residents or persons who are not citizens of Israel, except with respect to subjects of nations which are in a state of war with Israel.

#### Changes in Control

Under the Companies Law, a merger is generally required to be approved by the shareholders and board of directors of each of the merging companies. If the share capital of the company that will not be the surviving company is divided into different classes of shares, the approval of each class is also required, unless determined otherwise by the court. Similarly, unless an Israeli court determines otherwise, a merger will not be approved if it is objected to by shareholders holding a majority of the voting rights participating and voting at the meeting (abstentions are disregarded), after excluding the shares held by the other party to the merger, by any person who holds 25% or more of the other party to the merger or by anyone on their behalf, including by the relatives of, or corporations controlled by, these persons. In addition, upon the request of a creditor of either party to the proposed merger, an Israeli court may delay or prevent the merger, if it concludes that there exists a reasonable concern that, as a result of the merger, the surviving company will be unable to satisfy the obligations of any of the parties to the merger. Further, a merger

can be completed only after all approvals have been submitted to the Israeli Companies Registrar and 30 days have passed from the time that shareholder resolutions were adopted in each of the merging companies and 50 days have passed from the time that a proposal for approval of the merger was filed with the Israeli Companies Registrar.

In addition, subject to certain exceptions, an acquisition of shares in a public company must be made by means of a tender offer to the extent that as a result of such acquisition the acquirer will hold 25% or more of the voting rights in the company if there is no other holder of 25% or more of the company's voting rights, or hold more than 45% of the voting rights in the company if there is no other holder of more than 45% of the company's voting rights. These tender offer requirements do not apply to companies whose shares are listed for trading outside of Israel if, under local law or the rules of the stock exchange on which their shares are traded, there is a limitation on the percentage of control which may be acquired or the purchaser is required to make a tender offer to the public.

Under the Companies Law, a person may not acquire shares in a public company if, after the acquisition, the acquirer will hold more than 90% of the shares or more than 90% of any class of shares of that company, unless a tender offer is made to purchase all of the shares or all of the shares of the particular class. The Companies Law also generally provides that as long as a shareholder in a public company holds more than 90% of the company's shares or of a class of shares, that shareholder shall be precluded from purchasing any additional shares. In order that all of the shares that the purchaser offered to purchase be transferred to him by operation of law, one of the following needs to have occurred: (i) the shareholders who declined or do not respond to the tender offer hold less than 5% of the company's outstanding share capital or of the relevant class of shares and the majority of offerees who do not have a personal interest in accepting the tender offer accepted the offer, or (ii) the shareholders who declined or do not respond to the tender offer hold less than 2% of the company's outstanding share capital or of the relevant class of shares.

A shareholder that had his or her shares so transferred, whether he or she accepted the tender offer or not, has the right, within six months from the date of acceptance of the tender offer, to petition the court to determine that the tender offer was for less than fair value and that the fair value should be paid as determined by the court. However, the purchaser may provide in its offer that shareholders who accept the tender offer will not be entitled to such rights.

If the conditions set forth above are not met, the purchaser may not acquire additional shares of the company from shareholders who accepted the tender offer to the extent that following such acquisition, the purchaser would own more than 90% of the company's issued and outstanding share capital. The above restrictions apply, in addition to the acquisition of shares, to the acquisition of voting power.

#### Changes in Capital

Our Articles enable us to increase or reduce our share capital. Any such changes are subject to the provisions of the Companies Law and must be approved by a resolution duly passed by our shareholders at a general meeting by voting on such change in the capital.

#### C. MATERIAL CONTRACTS

Please see "Item 4. Information on the Company — B. Business Overview — Commercialization — Bayer Collaboration" and "Item 5. Operating and Financial Review and Prospects — B. Liquidity and capital Resources — Funding Agreements" for a discussion of our material contracts.

#### D. EXCHANGE CONTROLS

There are currently no exchange controls in effect in Israel that restrict the repatriation by non-residents of Israel in non-Israeli currency of any dividends, if any are declared and paid, and liquidation distributions or the Company's ability to import and export capital.

#### E. TAXATION

The following is a brief summary of certain material tax consequences concerning the ownership and disposition of our ordinary shares by purchasers or holders of our ordinary shares. Because parts of this discussion are based on new or existing tax or other legislation that has not been subject to judicial or administrative interpretation, there can be no assurance that the views expressed herein will be accepted by the tax or other authorities in question. The summary below does not address all of the tax consequences that may be relevant to all purchasers or holders of our ordinary shares in light of each purchaser's or holder's particular circumstances and specific tax treatment. For example, the summary below does not address the tax treatment of residents of Israel and traders in securities who are subject to specific tax regimes. As individual circumstances may differ, holders of our ordinary shares should consult their own tax advisors as to United States, Israeli or other tax consequences of the purchase, ownership and disposition of our ordinary shares. This discussion is not intended, nor should it be construed, as legal or professional tax advice and it is not exhaustive of all possible tax considerations. Each individual should consult his or her own tax or legal advisor.

## Israeli Taxation

### (i) Taxation of Capital Gains Applicable to Non-Israeli Shareholders

Israeli law generally imposes a capital gains tax on the sale of securities of an Israeli company traded on the TASE, on an authorized stock exchange outside Israel or on a regulated market (which includes a system through which securities are traded pursuant to rules prescribed by the competent authority in the relevant jurisdiction) in or outside Israel (a “Recognized Exchange”). Pursuant to amendments to the Tax Ordinance, effective as of January 1, 2012, the capital gains tax rate applicable to individuals upon the sale of such securities is such individual’s marginal tax rate but not more than 25% (or 30% with respect to a Substantial Shareholder). A tax rate of up to 30% will apply to an individual who meets the definition of a ‘Substantial Shareholder’ on the date of the sale of the securities or at any time during the 12 months preceding such date. A ‘Substantial Shareholder’ is defined as a person who, either alone or together with any other person, holds, directly or indirectly, at least 10% of any of the means of control of a company (including, among other things, the right to receive profits of the company, voting rights, the right to receive the company’s liquidation proceeds and the right to appoint a director). Different tax rates may apply to capital gains accrued from the sale by individuals of securities that are not publicly traded as aforesaid.

With respect to corporate investors, effective January 1, 2012, capital gain tax equal to the corporate tax rate (as of January 1, 2014 – 26.5%) will generally be imposed on the sale of traded shares.

In addition, if our ordinary shares are traded on a Recognized Exchange gains on the sale of our ordinary shares held by non-Israeli tax resident investors will generally be exempt from Israeli capital gains tax. Notwithstanding the foregoing, dealers in securities in Israel are taxed at regular tax rates applicable to business income.

In addition, persons paying consideration for shares, including purchasers of shares, Israeli securities dealers effecting a transaction, or a financial institution through which securities being sold are held, are required, subject to any applicable exemptions and the demonstration by the selling shareholder of its non-Israeli residency, to withhold tax upon the sale of publicly traded securities at a rate of 25% for individuals and at the corporate tax rate (currently 26.5%) for corporations.

Israeli law also generally exempts non-resident individuals and entities from capital gains tax on the sale of securities of Israeli companies, provided that such securities are not traded on a stock exchange in Israel when sold and that the securities were acquired on or after January 1, 2009.

### (ii) Income Taxes on Dividend Distribution to Non-Israeli Shareholders

Non-Israeli residents (whether individuals or corporations) are generally subject to Israeli income tax on the receipt of dividends paid on the shares of companies that are not publicly traded at the rate of 25% (30% if the dividend recipient is a Substantial Shareholder at the time of distribution or at any time during the preceding 12 month period), which tax is to be withheld at source, unless a different rate is provided under an applicable tax treaty. Dividends paid on the shares of companies that are publicly traded, like our ordinary shares, to non-Israeli residents, although generally subject to the same tax rates applicable to dividends paid on the shares of companies that are not publicly traded, are generally subject to Israeli withholding tax at a rate of 25% (whether or not the recipient is a Substantial Shareholder), unless a different rate is provided under an applicable tax treaty. The distribution of dividends to non-Israeli residents (either individuals or corporations) from income derived from the Company’s Approved Enterprises or Benefiting Enterprises during the applicable benefits period is subject to withholding tax at a rate of 15% unless a different tax rate is provided under an applicable tax treaty. The distribution of dividends to non-Israeli residents (either individuals or corporations) from income derived from Preferred Income is subject to withholding tax at a rate of 20%, unless a different tax rate is provided under an applicable tax treaty. The Company does not currently

have any Preferred Enterprises.

A non-resident of Israel who has dividend income derived from or accrued in Israel, from which the full amount of tax was withheld at source, is generally exempt from the duty to file tax returns in Israel in respect of such income, provided that: (i) such income was not derived from a business conducted in Israel by the taxpayer; and (ii) the taxpayer has no other taxable sources of income in Israel with respect to which a tax return is required to be filed.

Residents of the United States generally will have withholding tax in Israel deducted at source. As discussed below, they may be entitled to a credit or deduction for U.S. federal income tax purposes for all or part of the amount of the taxes withheld, subject to detailed rules contained in U.S. tax legislation.

(iii) U.S. Israel Tax Treaty

The Convention between the Government of the State of Israel and the Government of the United States of America With Respect to Taxes on Income (the “Treaty”) is generally effective as of January 1, 1995. Under the Treaty, the maximum Israeli withholding tax on dividends paid to a holder of our ordinary shares who is a Treaty U.S. Resident (as defined below) is generally 25%. However, pursuant to the Investment Law, dividends distributed by an Israeli company and derived from income eligible for benefits under the Investment Law will generally be subject to a reduced dividend withholding tax rate, as detailed above, subject to the conditions specified in the Treaty. The Treaty further provides that a 15% or a 12.5% Israeli dividend withholding tax will apply to dividends paid to a U.S. corporation owning 10% or more of an Israeli company’s voting shares during, in general, the current and preceding tax year of the Israeli company. The 15% rate applies to dividends distributed from income derived from an Approved Enterprise or, presumably, from a Benefiting Enterprise, in each case within the applicable period or, presumably, from a Preferred Enterprise, and the lower 12.5% rate applies to dividends distributed from income derived from other sources. However, these provisions do not apply if the company has certain amounts of passive income.

Pursuant to the Treaty, the sale, exchange or disposition of our ordinary shares by a person who qualifies as a resident of the United States within the meaning of the Treaty and who is entitled to claim the benefits afforded to such residents under the Treaty (a “Treaty U.S. Resident”) generally will not be subject to the Israeli capital gains tax unless such Treaty U.S. Resident holds, directly or indirectly, shares representing 10% or more of the voting power of the Company during any part of the 12-month period preceding such sale, exchange or disposition subject to certain conditions. A sale, exchange or disposition of our ordinary shares by a Treaty U.S. Resident who holds, directly or indirectly, shares representing 10% or more of the voting power of the Company at any time during such preceding 12-month period would not be exempt under the Treaty from such Israeli tax; however, under the Treaty, such Treaty U.S. Resident would be permitted to claim a credit for such taxes against U.S. federal income tax imposed on any gain from such sale, exchange or disposition, under the circumstances and subject to the limitations specified in the Treaty and U.S. domestic law. As mentioned above, gains on the sale of ordinary shares held by non-Israeli tax resident investors will generally be exempt from Israeli capital gains tax if the ordinary shares are traded on a Recognized Exchange. This exemption would generally apply notwithstanding the Treaty.

(iv) Estate Taxes

Israel presently has no estate tax.

(v) Israeli Transfer Pricing Regulations

On November 29, 2006, Income Tax Regulations (Determination of Market Terms), 2006, promulgated under Section 85A of the Tax Ordinance, came into effect (the “TP Regs”). Section 85A of the Tax Ordinance and the TP Regs generally requires that all cross-border transactions carried out between related parties be conducted on an arm’s length principle basis and will be taxed accordingly. The TP Regs have not had a material effect on the Company.

Certain Material U.S. Federal Income Tax Considerations

General



The following is a summary of certain material U.S. federal income tax consequences to U.S. holders (as defined below) of purchasing, owning, and disposing of our ordinary shares. For this purpose, a U.S. holder is, in each case as defined for U.S. federal income tax purposes: (a) an individual who is a citizen or resident of the United States; (b) a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia; (c) an estate the income of which is subject to U.S. federal income tax regardless of its source; or (d) a trust that is subject to the primary supervision of a court over its administration and one or more U.S. persons control all substantial decisions, or a trust that has validly elected to be treated as a domestic trust under applicable Treasury Regulations. This summary does not address any tax consequences to persons other than U.S. holders.

This discussion is a general summary and does not address all aspects of U.S. federal income taxation that may be relevant to particular U.S. holders based on their particular investment or tax circumstances. Except where noted, this summary deals only with ordinary shares held as capital assets. It does not address any tax consequences to certain types of U.S. holders that are subject to special treatment under the U.S. federal income tax laws, such as insurance companies, tax-exempt organizations, financial institutions, broker-dealers, dealers in securities or currencies, traders in securities that elect to use the mark-to-market method of accounting for their securities, partnerships or other pass-through entities for U.S. federal tax purposes, regulated investment companies, real estate investment trusts, expatriates, persons liable for alternative minimum tax, persons owning, directly or by attribution, 10% or more, by voting power or value, of our ordinary shares, persons whose “functional currency” is not the U.S. dollar, persons holding ordinary shares as part of a hedging, constructive sale or conversion, straddle, or other risk-reducing transaction, or persons acquiring an interest in our ordinary shares in exchange for services.

This summary relates only to U.S. federal income taxes. It does not address any other tax, including but not limited to, state, local, or foreign taxes, or any other U.S. federal taxes other than income taxes.

If a partnership holds our ordinary shares, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. A partner of a partnership holding our ordinary shares should consult its tax advisors.

The statements in this summary are based on the current U.S. federal income tax laws as contained in the Internal Revenue Code, Treasury Regulations, and relevant judicial decisions and administrative guidance. The U.S. federal tax laws are subject to change, and any such change may materially affect the U.S. federal income tax consequences of purchasing, owning, or disposing of our ordinary shares. We cannot assure you that new laws, interpretations of law or court decisions, any of which may take effect retroactively, will not cause any statement in this summary to be inaccurate. No ruling or opinions of counsel will be sought in connection with the matters discussed herein. There can be no assurance that the positions we take on our tax returns will be accepted by the Internal Revenue Service.

This summary is not a substitute for careful tax planning. Prospective investors are urged to consult their own tax advisors regarding the specific U.S. federal, state, foreign and other tax consequences to them, in light of their own particular circumstances, of the purchase, ownership and disposition of our ordinary shares and the effect of potential changes in applicable tax laws.

#### Dividends

Subject to the discussion under “Item 10. Additional Information – E. Taxation - Certain Material U.S. Federal Income Tax Considerations – Passive Foreign Investment Company.” below, the gross amount of any distributions with respect to our ordinary shares (including any amounts withheld to reflect Israeli withholding taxes) will be taxable as dividends, to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Such income (including any withheld taxes) will be includable in a U.S. holder’s gross income as ordinary income on the day actually or constructively received. The dividends received deduction will not be available to a U.S. holder that is taxed as a corporation.

With respect to non-corporate U.S. holders, certain dividends received from a qualified foreign corporation may be subject to reduced rates of taxation. A qualified foreign corporation includes a foreign corporation that is eligible for the benefits of a comprehensive income tax treaty with the United States which the United States Treasury Department determines to be satisfactory for these purposes and which includes an exchange of information provision. The United States Treasury Department has determined that the Treaty meets these requirements. A foreign corporation is also treated as a qualified foreign corporation with respect to dividends paid by that corporation on shares that are readily tradable on an established securities market in the United States. United States Treasury

Department guidance indicates that our ordinary shares, which are listed on the NASDAQ, are readily tradable on an established securities market in the United States. There can be no assurance that our ordinary shares will be considered readily tradable on an established securities market in later years. Non-corporate holders that do not meet a minimum holding period requirement during which they are not protected from the risk of loss or that elect to treat the dividend income as "investment income" pursuant to Section 163(d)(4) of the Code will not be eligible for the reduced rates of taxation regardless of our status as a qualified foreign corporation. In addition, the rate reduction will not apply to dividends if the recipient of a dividend is obligated to make related payments with respect to positions in substantially similar or related property. This disallowance applies even if the minimum holding period has been met.

Notwithstanding the above, dividends received by a non-corporate U.S. holder during a year in which the Company is a Passive Foreign Investment Company (a “PFIC Year”) or in a year following a PFIC Year generally will not be eligible for the reduced rates of taxation. Dividends will generally be from a non-U.S. source and treated as “passive income” for U.S. foreign tax credit purposes.

Although, to the extent we pay dividends in the future, we intend to pay dividends to U.S. holders in U.S. dollars, the amount of any dividend paid in Israeli currency will equal its U.S. dollar value for U.S. federal income tax purposes, calculated by reference to the exchange rate in effect on the date the dividend is received by the U.S. holder, regardless of whether the Israeli currency is converted into U.S. dollars. If the Israeli currency received as a dividend are converted into United States dollars on the date they are received, the U.S. holder generally will not be required to recognize foreign currency gain or loss in respect of the dividend income. If the Israeli currency is not converted into U.S. dollars on the date of receipt, the U.S. holder will have a basis in the Israeli currency equal to its U.S. dollar value on the date of receipt. Any subsequent gain or loss upon the conversion or other disposition of the Israeli currency will be treated as ordinary income or loss, and generally will be income or loss from U.S. sources.

Subject to certain conditions and limitations, Israeli withholding taxes on dividends may be treated as foreign taxes eligible for credit against a U.S. holder’s U.S. federal income tax liability. For purposes of calculating the foreign tax credit, dividends paid on our ordinary shares will be treated as income from sources outside the United States and will generally constitute passive category income. Further, in certain circumstances, if a U.S. holder has held ordinary shares for less than a specified minimum period during which the U.S. holder is not protected from risk of loss, or is obligated to make payments related to the dividends, such U.S. holder will not be allowed a foreign tax credit for foreign taxes imposed on dividends paid on our ordinary shares. The rules governing the foreign tax credit are complex. U.S. holders are urged to consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

A U.S. holder will not incur tax on a distribution with respect to our ordinary shares in excess of our current and accumulated earnings and profits if the distribution does not exceed the adjusted basis of the U.S. holder’s ordinary shares. Instead, the distribution will reduce the adjusted basis of the shares. Any such distribution in excess of both our current and accumulated earnings and profits and the U.S. holder’s adjusted basis will be treated as capital gain, long-term if the U.S. holder has held the shares for more than one year, and generally will be gain or loss from U.S. sources. See “Disposition of Ordinary Shares” below for a discussion of capital gains tax rates and limitations on deductions for losses. We do not expect to determine earnings and profits in accordance with U.S. federal income tax principles. Therefore, U.S. holders should expect that a distribution will generally be treated as a dividend (as discussed above).

#### Disposition of Ordinary Shares

In general, subject to the discussion under—“Item 10. Additional Information – E. Taxation - Certain Material U.S. Federal Income Tax Considerations – Passive Foreign Investment Company.”, a U.S. holder must treat any gain or loss recognized upon a taxable disposition of our ordinary shares as capital gain or loss, long-term if the U.S. holder has held the shares for more than one year. In general, a U.S. holder will recognize gain or loss in an amount equal to the difference between the sum of the fair market value of any property and the amount of cash received in such disposition and the U.S. holder’s adjusted tax basis in such shares. A U.S. holder’s adjusted tax basis generally will equal the U.S. holder’s acquisition cost less any return of capital. Subject to certain exceptions (including but not limited to those described under “Passive Foreign Investment Company” below), long-term capital gain realized by a non-corporate U.S. holder generally will be subject to a reduced maximum rate of 20%. The deduction of capital losses is subject to limitations, as are losses upon a taxable disposition of our ordinary shares if the U.S. holder purchases, or enters into a contract or option to purchase, substantially identical stock or securities within 30 days before or after any disposition. Gain or loss from the disposition of our ordinary shares will generally be from U.S.

sources, but such gain or loss may be from a non-U.S. source under some circumstances under the Treaty. If such gain or loss is treated as U.S. source gain or loss, a U.S. holder may not be able to use the foreign tax credit arising from any Israeli tax imposed on the disposition of an ordinary share unless such credit can be applied (subject to applicable limitations) against tax due on other income treated as derived from foreign sources.. U.S. holders should consult their own independent tax advisors regarding the sourcing of any gain or loss on the disposition of our ordinary shares, as well as regarding any foreign currency gain or loss in connection with such a disposition.

### Credit for Foreign Taxes Paid or Withheld

Payments to U.S. holders as dividends or consideration for ordinary shares may in some circumstances be subject to Israeli withholding taxes. See “Item 10. Additional Information – E. Taxation - Certain Material U.S. Federal Income Tax Considerations –Israeli Taxation. U.S. – Israel tax Treaty” above. Generally, such withholding taxes in lieu of Israeli income taxes imposed on such transactions are creditable against the U.S. holder’s U.S. tax liability, subject to numerous U.S. foreign tax credit limitations, including additional limitations in the case of qualified dividends eligible for the maximum rate accorded to capital gains. A corporate U.S. holder may also be eligible for an “indirect” foreign tax credit on dividends to take account of certain Israeli taxes we previously paid to Israel. A U.S. holder should consult its own independent tax advisor regarding use of the U.S. foreign tax credit and its limitations. A U.S. holder (except an individual who does not itemize deductions) may elect to take a deduction rather than a credit for foreign taxes paid.

### Controlled Foreign Corporation

For U.S. federal income tax purposes, a “controlled foreign corporation” is a foreign corporation in which U.S. holders who own at least 10% of the voting power (directly or by constructive ownership through certain related persons) collectively own more than 50% of the voting power or value. If we are or become a controlled foreign corporation, such 10% U.S. holders must include in their current U.S. taxable income their share of the corporation’s undistributed “Subpart F income” (i.e., certain passive income, sales or service income, insurance, shipping, ocean activity, or oil-related income, and income from specified disfavored activities or from ostracized foreign countries) and the amount of the corporation’s investments in U.S. property. These income inclusions are not eligible for the maximum capital gains tax rate on qualified dividends to non-corporate tax payers. We believe that the corporation is not and has not been, and we expect that the corporation will not become, a controlled foreign corporation. There can be no assurance, however, that the corporation will not become a controlled foreign corporation in the future.

### Passive Foreign Investment Company

Based on our financial statements and the projected composition of our income and valuation of our assets, including goodwill, we do not believe we were a passive foreign investment company, or PFIC, for 2013. There can be no assurance that we will not become a PFIC in the future.

In general, we will be a PFIC for any taxable year in which:

- at least 75% of our gross income is passive income, or
- at least 50% of the value (determined on a quarterly basis) of our assets is attributable to assets,

that produce or are held for the production of passive income.

For this purpose, passive income generally includes dividends, interest, royalties and rents (other than royalties and rents derived in the active conduct of a trade or business and not derived from a related person). If we own at least 25% (by value) of the stock of another corporation, we will be treated, for purposes of the PFIC tests, as owning our proportionate share of the other corporation’s assets and receiving our proportionate share of the other corporation’s income.

PFIC status is determined annually and cannot be definitively determined until the close of the year in question. Accordingly, it is possible that we may become a PFIC in the current or any future taxable year due to changes in our asset or income composition. Because we have valued our goodwill based on the market value of our equity, a

decrease in the price of our ordinary shares may also result in our becoming a PFIC. If we are a PFIC for any taxable year during which a U.S. holder holds our ordinary shares, such U.S. holder will be subject to special tax rules discussed below.

If we qualify as a PFIC at any time during a U.S. holder's holding period of our ordinary shares, any subsequent distributions to, or disposition of the shares by, the U.S. holder will be subject to the excess distribution rules (described below), regardless of whether we are a PFIC in the year of distribution or disposition, unless the U.S. holder: (1) made the qualified electing fund ("QEF") election (described below); (2) made the mark-to-market election (described below); or (3) during a year in which the corporation is no longer a PFIC, elected to recognize all gain inherent in the shares on the last day of the last taxable year in which the corporation was a PFIC. If a U.S. holder holds our ordinary shares in a PFIC Year, such ordinary shares will henceforth be considered shares in a PFIC, regardless of whether we meet the PFIC tests in future years, unless the U.S. holder makes a timely QEF or mark-to-market election, or makes the deemed-gain election in a year in which the corporation is no longer a PFIC.

If we are a PFIC, each U.S. holder, upon certain “excess distributions” by us and upon disposition of our ordinary shares at a gain, would be liable to pay tax at the highest then-prevailing income tax rate on ordinary income plus interest on the tax, as if the distribution or gain had been recognized ratably over the holder’s holding period for the ordinary shares. Additionally, if we are a PFIC, a U.S. holder who acquires ordinary shares from a deceased person who was a U.S. holder would not receive the step-up of the income tax basis to fair market value for such ordinary shares. Instead, such U.S. holder would have a tax basis equal to the deceased’s tax basis, if lower.

If a U.S. holder has made a QEF election covering all taxable years during which the holder holds ordinary shares and in which we are a PFIC, distributions and gains will not be taxed as described above, nor will denial of a basis step-up at death described above apply. Instead, a U.S. holder that makes a QEF election is required for each taxable year to include in income the holder’s pro rata share of the ordinary earnings of the QEF as ordinary income and a pro rata share of the net capital gain of the QEF as capital gain, regardless of whether such earnings or gain have in fact been distributed. Undistributed income is subject to a separate election to defer payment of taxes. If deferred, the taxes will be subject to an interest charge. Where earnings and profits that were included in income under this rule are later distributed, the distribution is not a dividend. The basis of a U.S. shareholder’s shares in a QEF is increased by amounts that are included in income, and decreased by amounts distributed but not taxed as dividends. In addition, if a U.S. holder makes a timely QEF election, our ordinary shares will not be considered shares in a PFIC in years in which we are not a PFIC, even if the U.S. holder had held ordinary shares in prior years in which we were a PFIC.

In order to comply with the requirements of a QEF election, a U.S. holder must receive certain information from us. The QEF election is made on a shareholder-by-shareholder basis and can be revoked only with the consent of the IRS. A shareholder makes a QEF election by attaching a completed IRS Form 8621, including the information provided in the PFIC annual information statement, to a timely filed U.S. federal income tax return and by filing a copy of the form with the IRS. There is no assurance that we will provide such information as the IRS may require in order to enable U.S. holders to make the QEF election. Moreover, there is no assurance that we will have timely knowledge of our status as a PFIC in the future. Even if a shareholder in a PFIC does not make a QEF election, if such shareholder is a U.S. holder, such shareholder must annually file with the shareholder’s tax return and with the IRS a completed Form 8621.

If our ordinary shares are “regularly traded” on a “qualified exchange or other market,” as provided in applicable Treasury Regulations, a U.S. holder of our shares may elect to mark the shares to market annually, recognizing as ordinary income or loss each year an amount equal to the difference between the shareholder’s adjusted tax basis in such shares and their fair market value. Losses would be allowed only to the extent of net mark-to-market gain previously included by the U.S. holder under the election in previous taxable years. The adjusted tax basis of a U.S. holder’s ordinary shares is increased by the amount included in gross income under the mark-to-market regime, or is decreased by the amount of the deduction allowed under the regime. As with the QEF election, a U.S. holder who makes a mark-to-market election would not be subject to the general excess distribution rules and the denial of basis step-up at death described above.

If we are a PFIC and, at any time, have a non-U.S. subsidiary that is classified as a PFIC, U.S. holders of our ordinary shares generally would be deemed to own, and also would be subject to the PFIC rules with respect to, their indirect ownership interests in that lower-tier PFIC. If we are a PFIC and a U.S. holder of our ordinary shares does not make a QEF election in respect of a lower-tier PFIC, the U.S. holder could incur liability for the deferred tax and interest charge described above if either (1) we receive a distribution from, or dispose of all or part of our interest in, the lower-tier PFIC or (2) the U.S. holder disposes of all or part of its ordinary shares. There is no assurance that any lower-tier PFIC will provide to a U.S. holder the information that may be required to make a QEF election with respect to the lower-tier PFIC. A mark-to-market election under the PFIC rules with respect to our ordinary shares would not apply to a lower-tier PFIC, and a U.S. holder would not be able to make such a mark-to-market election in respect of its indirect ownership interest in that lower-tier PFIC. Consequently, U.S. holders of our ordinary shares



could be subject to the PFIC rules with respect to income of the lower-tier PFIC the value of which already had been taken into account indirectly via mark-to-market adjustments. Similarly, if a U.S. holder made a mark-to-market election under the PFIC rules in respect of our ordinary shares and made a QEF election in respect of a lower-tier PFIC, that U.S. holder could be subject to current taxation in respect of income from the lower-tier PFIC the value of which already had been taken into account indirectly via mark-to-market adjustments. U.S. holders are urged to consult their own tax advisors regarding the issues raised by lower-tier PFICs.

THE RULES DEALING WITH PFICS AND WITH THE QEF AND MARK-TO-MARKET ELECTIONS ARE VERY COMPLEX AND ARE AFFECTED BY VARIOUS FACTORS IN ADDITION TO THOSE DESCRIBED ABOVE, INCLUDING OUR OWNERSHIP OF ANY NON-U.S. SUBSIDIARIES. AS A RESULT, U.S. HOLDERS OF ORDINARY SHARES ARE STRONGLY ENCOURAGED TO CONSULT THEIR TAX ADVISORS ABOUT THE PFIC RULES IN CONNECTION WITH THEIR PURCHASING, HOLDING OR DISPOSING OF ORDINARY SHARES.

#### Backup Withholding and Information Reporting

In general, information reporting will apply to dividends in respect of our ordinary shares and the proceeds from the sale, exchange or redemption of our ordinary shares that are paid to a U.S. holder within the United States (and in certain cases, outside the United States), unless such holder is an exempt recipient. A backup withholding tax generally would apply to such payments if the U.S. holder fails to provide a taxpayer identification number or certification of other exempt status or, in the case of dividend payments, fails to report in full dividend and interest income.

Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. holder's U.S. federal income tax liability provided the required information is furnished to the Internal Revenue Service in a timely manner.

Under the Hiring Incentives to Restore Employment Act of 2010, individuals that own "specified foreign financial assets" with an aggregate value in excess of US\$50,000 are required to file an information report with respect to such assets with their tax returns. "Specified foreign financial assets" include any financial accounts maintained by foreign financial institutions, as well as any of the following, but only if they are not held in accounts maintained by financial institutions: (i) stocks and securities issued by non-U.S. persons; (ii) financial instruments and contracts held for investment that have non-U.S. issuers or counterparties; and (iii) interests in foreign entities. U.S. holders that are individuals are urged to consult their tax advisors regarding the application of this legislation to their ownership of our ordinary shares.

#### Tax on Net Investment Income

For tax years beginning after December 31, 2012, certain U.S. holders that are individuals, estates or trusts whose income exceeds certain thresholds will be required to pay an additional 3.8% tax on "net investment income", which includes, among other things, dividends and net gain from the sale or other disposition of property (other than property held in a trade or business), which may include our ordinary shares. U.S. holders should consult their own tax advisors regarding the application of the tax on net investment income to their particular circumstances.

#### F. DIVIDENDS AND PAYING AGENTS

Not applicable.

#### G. STATEMENT BY EXPERTS

Not applicable.

#### H. DOCUMENTS ON DISPLAY

We are required to file reports and other information with the SEC under the Securities Exchange Act of 1934 (the "Exchange Act") 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 furnish periodic information to 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, short-swing profit and other rules and provisions under 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 100 F Street N.E., Washington, D.C. 20549 and at offices of the Israel Securities Authority at 22 Kanfei Nesharim St., Jerusalem, Israel. You may also obtain copies of such materials by writing to the Public Reference Section of the SEC, 100 F Street, N.E., 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](http://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](http://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.

## I. SUBSIDIARY INFORMATION

Not applicable.

### 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.

#### Interest Rate Risk

As of December 31, 2013, we had \$46.8 million in cash, cash equivalents and short-term bank deposits. We mostly invest our cash surplus in bank deposits. Since these investments typically carry fixed interest rate, financial income over the holding period is not sensitive to changes in interest rates. For more information, see Note 3 of our 2013 consolidated financial statements.

#### Foreign Currency Exchange Risk and Inflation

The cost of our Israel operations, as expressed in U.S. dollars, is influenced by the extent to which any increase in the rate of inflation in Israel is not offset (or is offset on a lagging basis) by a devaluation of the NIS in relation to the U.S. dollar. The inflation rate in Israel was 1.8%, 1.6%, and 2.2% in 2013, 2012 and 2011, respectively. The appreciation (devaluation) of the NIS against the U.S. dollar amounted to 7%, 2.3%, and (7.7%) in 2013, 2012 and 2011, respectively. For 2013 assuming a 10% appreciation of the NIS against the U.S. dollar, we would experience exchange rate losses of approximately \$1.2 million, while assuming a 10% devaluation of the NIS against the U.S. dollar, we would experience an exchange rate gain of approximately \$1 million. A significant portion of our expenditures is employee compensation-related. Salaries for Israel-based employees are paid in NIS and may be adjusted for changes in the Israeli consumer price index, or CPI, through salary increases or adjustments. These upward adjustments increase salary expenses in U.S. dollar terms. The devaluation/appreciation of the NIS against the U.S. dollar decreases/increases employee compensation expenditures as expressed in dollars proportionally. Some of our other NIS-based expenses are either currently adjusted to U.S. dollars or are adjusted to the CPI. Starting July 2011, following a board decision we maintain available NIS cash for between six to ten months of expected NIS expenditures (depending on the then existing exchange rates).

ITEM 12.

DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

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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

At a special meeting of shareholders held in September 2013, the Company's shareholders resolved to amend the Company's Articles. The amended Articles adopted incorporated non-substantive changes and clarifications to the then current Articles as well as a number of substantive changes. These consisted of the following:

- (a) updating the insurance, indemnification and exemption provisions to reflect recent changes in Israeli law by allowing the Company to insure and indemnify directors and other Office Holders for certain legal fees and expenses and certain payments incurred or imposed in administrative proceedings, as well as allowing insurance, indemnification and release of the Company's directors and other Office Holders to the fullest extent permitted by law;
- (b) allowing the Company to convene a general meeting of shareholders without sending notice to the shareholders but rather by publicizing the convening of general meetings in a manner reasonably determined by the Company;
- (c) clarifying certain notice and publication procedures;
- (d) clarifying that the board of directors has the authority (without the need to receive shareholder approval) to determine the remuneration of the Company's independent auditors, as commonly practiced by companies in Israel and in the United States;
- (e) clarifying that all resolutions of shareholders, except with respect to those matters which require a special majority under the Companies Law, but including with respect to those matters which require a special majority under the Companies Law due only to the Company's status as a company that was incorporated prior to the effective date of the Companies Law, require a simple majority of the voting power present and voting at any general meeting of shareholders, as the Company has conducted itself to date;
- (f) providing that certain related party transactions may be approved by committees of the board of directors if so authorized by the board of directors; and
- (g) implementing certain other non-substantive changes to the Articles, including correcting certain linguistic inconsistencies and ambiguities.

This description does not purport to be complete and is qualified in its entirety by reference to the full text of the Articles.

Use of Proceeds

Not applicable.

ITEM 15. CONTROLS AND PROCEDURES

A. DISCLOSURE CONTROLS AND PROCEDURES

Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we are required to file are 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 the effectiveness of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) and 15d-15(e) promulgated under the Exchange Act. 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.

## B. MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management, with the involvement of our board of directors and Audit Committee, is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control system has been designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with generally accepted accounting principles.

Under the supervision of our Chief Executive Officer and Chief Financial Officer, our management conducted an evaluation of the effectiveness of our internal control over financial reporting, as such term is defined under Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act. In making this assessment, our management used the criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our internal control over financial reporting was effective as of the end of the period covered by this annual report.

Notwithstanding the foregoing, all internal control systems no matter how well designed have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, an independent registered public accounting firm in Israel, which has audited our financial statements for the year ended December 31, 2013 that are included in this annual report, has issued an attestation report on our internal control over financial reporting as of December 31, 2013.

## C. ATTESTATION REPORT OF THE REGISTERED PUBLIC ACCOUNTING FIRM

The attestation report of Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, an independent registered public accounting firm in Israel, on internal control over financial reporting as of December 31, 2013 is provided on page F-3, as included under Item 18 of this annual report.

## D. CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

Based on the evaluation conducted by our management, with the participation of our Chief Executive Officer and Chief Financial Officer, pursuant to Rules 13a-15(d) and 15d-15(d) promulgated under the Exchange Act, our management (including such officers) have concluded that, there were no changes in our internal control over financial reporting that occurred during the period covered by this annual report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16.                      RESERVED

ITEM 16A.                    AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. Arie Ovadia, who serves on the audit committee of our board of directors and who meets the “independence” definition under the NASDAQ Listing Rules, qualifies as an “audit committee financial expert” as defined in the instructions to this Item 16A of Form 20-F.

ITEM 16B.                    CODE OF ETHICS



We have adopted a Code of Conduct that applies to all of our employees, officers and directors as well as a Code of Ethics for Senior Financial Officers that applies to our chief executive officer, chief financial officer, director of finance, controller, assistant controller and subsidiaries' controllers.

The Code of Ethics and the Code of Conduct of Ethics for Senior Financial Officers are posted on our website, [www.cgen.com](http://www.cgen.com).

Disclosure regarding any amendments to, or waivers from, provisions of the Code of Ethics for Senior Financial Officers will be included in a Form 6-K following the date of the amendment or waiver, unless website posting of such amendments or waivers is then permitted by the rules of the NASDAQ Listing Rules, in which case we will post it on our website. No such amendment was adopted, nor waiver provided, by us during the fiscal year ended December 31, 2012

## ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table presents the fees billed to us by our principal accountant for professional services rendered in the years ended December 31, 2013 and 2012:

	2013	2012
Audit Fees	\$ 106,000	\$ 104,000
Audit Related Fees	\$ -	\$ -
Tax Fees	\$ 17,000	\$ 15,000
All Other Fees	\$ 10,000	\$ 51,000
Total	\$ 133,000	\$ 170,000

“Audit Fees” are fees for professional services rendered by our principal accountant in connection with the integrated audit (including review of internal control over financial reporting) of our consolidated annual financial statements and review of our unaudited interim financial statements;

“Audit Related Fees” are fees for professional services rendered by our principal accountant in connection with the audit and other assignments.

“Tax Fees” are fees for services rendered by our principal accountant in connection with tax compliance tax advice and tax planning which in year 2013 and 2012 were consultancy relating to international tax aspect of the Bayer agreement, Annual Israeli tax reports, Approved Enterprise request submission, Foreign vendors withholding tax exempt request and consultancy relating to Israeli tax withholding assessment; and

“All Other Fees” are fees for other consulting services rendered by our principal accountant to us including consultancy and consents with respect to Forms F-3 filed with the SEC.

## Policy on Audit Committee Pre-Approval of Audit and Non-Audit Services of Independent Auditors

The Audit Committee is responsible for the oversight of our independent auditors’ scope of work. The Audit Committee pre-approves all audit and non-audit services provided by our independent auditors, Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global. These services may include audit services, tax services and other consulting services, as described above. Our Audit Committee sets forth the basis for its pre-approval in detail, listing the particular services or categories of services which are pre-approved, and setting forth a specific budget for such services. Additional services may be pre-approved by the Audit Committee on an individual basis. Once services have been pre-approved, our independent auditor and management then report to the Audit Committee on a periodic basis regarding the extent of services actually provided in accordance with the applicable pre-approval, and regarding the fees for the services performed. Such fees for 2012, 2013 and the first quarter of 2014 were pre-approved by the Audit Committee in accordance with these procedures.

On April 22, 2013, our shareholders approved the engagement of Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global, as our independent auditors for the fiscal year ended December 31, 2013 and until the next annual shareholder meeting. Such approval followed the pre-approval by our audit committee and board of directors of such engagement (in the case of the audit committee, as described above).

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

Not Applicable.

ITEM 16E.  
PURCHASERS

PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED

Not applicable.

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ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE

The NASDAQ Listing Rules require companies with securities listed thereon to comply with its corporate governance standards. As a foreign private issuer, whose shares are listed on Nasdaq we are permitted to follow certain home country corporate governance practices instead of those followed by U.S. companies under The NASDAQ Listing Rules, including:

**Independent Director Oversight of Nominations:** Under Israeli law, there is no requirement to have an independent nominating committee or the independent directors of a company select (or recommend for selection) director nominees, as is required under NASDAQ Listing Rule 5605(e) for a U.S. domestic issuer. Our board of directors handles this process, as is permitted under our Articles and the Companies Law. We also need not adopt a formal board resolution or charter addressing the director nominations process and such related matters as may be required under the U.S. federal securities laws, as NASDAQ requires for a U.S. issuer.

**Shareholder Approval:** Pursuant to Israeli law, we seek shareholder approval for all corporate actions requiring such approval under the requirements of the Companies Law, which are different from the requirements for seeking shareholder approval under NASDAQ Listing Rule 5635. See "Item 10. Additional Information — B. Memorandum and Articles of Association — Conflict of interest" in this annual report for a description of the transactions requiring shareholder approval under the Companies Law.

**Quorum at an Adjourned General Meeting of Shareholders:** If a quorum is not present within half an hour from the time stated for an adjourned general meeting of shareholders of the Company, any shareholders present in person or by proxy at such meeting shall constitute a quorum, consistent with Israeli law. As such, the quorum requirements for an adjourned meeting are different from the NASDAQ requirement that an issuer listed on NASDAQ have a quorum requirement that in no case be less than 33 1/3% of the outstanding shares of the company's common voting stock.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

See Item 18.

ITEM 18. FINANCIAL STATEMENTS

Our consolidated financial statements and related notes are included in this Annual Report beginning on page F-1.

ITEM 19. EXHIBITS

Index to Exhibits

Exhibit Description  
Number

- 1.1 Articles of Association of Compugen, as amended (incorporated by reference to Exhibit 1.1 to Compugen's report on Form 6-K filed with the SEC on September 23, 2014 (File No. 000-30902)).
- 1.2 Memorandum of Association of Compugen, as registered on January 29, 1993 (incorporated by reference to Exhibit 1.2 to Compugen's annual report on Form 20-F for the year ended December 31, 2012, filed with the SEC on March 21, 2013 (File No. 000-30902)).
- 4.1 Funding Agreement entered into on December 29, 2010 between Compugen and Baize Investments (Israel) Ltd. (incorporated by reference to Exhibit 10.1 to Compugen's annual report on Form 20-F for the year ended December 31, 2010 filed with the SEC on March 21, 2011 (File No. 000-30902)).
- 4.2 Funding Agreement entered into on December 20, 2011 between Compugen and Baize Investments (Israel) Ltd. (incorporated by reference to Exhibit 1 to Compugen's Form 6-K filed with the SEC on December 22, 2011 (File No. 000-30902)).
- 4.2.1 Amendment, dated July 24, 2012, to the Funding Agreement entered into on December 20, 2011 between Compugen and Baize Investments (Israel) Ltd. (incorporated by reference to Exhibit 10.1 to Compugen's Form 6-K filed with the SEC on July 25, 2012 (File No. 000-30902)).
- 4.2.2 Amendment No. 2, dated December 27, 2012, to the Funding Agreement entered into on December 20, 2011 between Compugen and Baize Investments (Israel) Ltd. (incorporated by reference to Exhibit 10.1 to Compugen's Form 6-K filed with the SEC on December 27, 2012 (File No. 000-30902)).
- 4.2.3@ Amendment to Funding Agreement, dated April 21, 2013, between Compugen and Baize Investments (Israel) Ltd. (incorporated by reference to Exhibit 10.1 to Compugen's 6-K filed with the SEC on August 2, 2013 (File No. 000-30902)).
- 4.3 Unprotected Lease Agreement, dated April 21, 1998, by and between Ofer Miretsky (Shikun Dan) Ltd. and Compugen Ltd., as amended by addenda dated December 16, 2002, March 5, 2003, May 2004, August 31, 2005, April 23, 2006, August 2009, April 30, 2012 and May 14, 2012 (incorporated by reference to Exhibit 4.3 to Compugen's annual report on Form 20-F for the year ended December 31, 2012, filed with the SEC on March 21, 2013 (File No. 000-30902)).

- 4.4 Sublease, dated March 1, 2012, by and between Kalobios Pharmaceuticals, Inc. and Compugen USA, Inc. (incorporated by reference to Exhibit 4.4 to Compugen's annual report on Form 20-F for the year ended December 31, 2012, filed with the SEC on March 21, 2013 (File No. 000-30902)).
- 4.5 Compugen Ltd. Share Option Plan (2000) (incorporated by reference to Exhibit 10.17 to Compugen's Registration Statement on Form F-1 filed on August 2, 2000 (File No. 333-12316)).
- 4.6 Compugen Ltd. 2010 Share Incentive Plan (incorporated by reference to Exhibit 1.2 to Compugen's annual report on Form 20-F for the year ended December 31, 2012, filed with the SEC on March 21, 2013 (File No. 000-30902)).
- 4.7\*<sup>@</sup> Research and Development Collaboration and License Agreement, dated August 5, 2013, by and between Compugen Ltd. and BayerPharma AG.
- 4.8\* Lease, dated December 12, 2013, by and between Britannia Pointe Grand Limited Partnership and Compugen USA, Inc.
- 4.9 Form of Indemnification Undertaking and Exemption and Release between Compugen Ltd. and its directors and office holders (incorporated by reference to Exhibit C to Exhibit 99.3 to Compugen's 6-K filed with the SEC on August 2, 2013 (File No. 000-30902)).
- 8.1\* Subsidiaries.
- 12.1\* Certification by Principal Executive Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Exchange Act and Section 302 of the Sarbanes-Oxley Act of 2002.
- 12.2\* Certification by Principal Financial and Accounting Officer pursuant to Rule 13a-14(a)/Rule 15d-14(a) under the Exchange Act and Section 302 of the Sarbanes-Oxley Act of 2002.
- 13.1\* Certification by Principal Executive Officer and Principal Financial and Accounting Officer pursuant to Rule 13a-14(b)/Rule 15d-14(b) under the Exchange Act and 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 15.1\* Consent of Kost Forer Gabbay & Kasierer, a member of Ernst & Young Global.
- 101\*<sup>#</sup> The following financial information from Compugen Ltd.'s Annual Report on Form 20-F for the year ended December 31, 2013, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the years ended December 31, 2013, 2012 and 2011; (ii) Consolidated Balance Sheets at December 31, 2013 and 2012; (iii) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2013, 2012 and 2011; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2013, 2012 and 2011; and (v) Notes to Consolidated Financial Statements.

\* Filed herewith.

<sup>@</sup> Confidential portions of this document have been filed separately with the SEC pursuant to a request for confidential treatment.

<sup>#</sup>Users of this data are advised, in accordance with Rule 406T of Regulation S-T promulgated by the SEC, that this Interactive Data File is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise is not subject to liability under these sections.



SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

COMPUGEN LTD.

By: /s/ Dr. Anat Cohen-Dayag  
Name: Dr. Anat Cohen-Dayag  
Title: President and Chief Executive  
Officer, Director

Date: February 18, 2014



COMPUGEN LTD. AND ITS SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2013

U.S. DOLLARS IN THOUSANDS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of

COMPUGEN LTD.

We have audited the accompanying consolidated balance sheets of Compugen Ltd. (the "Company") and its subsidiary as of December 31, 2013 and 2012, and the related consolidated statements of comprehensive loss, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2013. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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 examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above, present fairly, in all material respects, the consolidated financial position of the Company and its subsidiary as of December 31, 2013 and 2012, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2013, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 18, 2014 expressed an unqualified opinion thereon.

Tel-Aviv, Israel  
February 18, 2014

/s/ Kost Forer Gabbay & Kasierer  
KOST FORER GABBAY & KASIERER  
A Member of Ernst & Young Global

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Shareholders and Board of Directors of

COMPUGEN LTD.

We have audited Compugen Ltd.'s (the "Company") and its subsidiary internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying management's report on internal control over financial reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit 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 effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company and its subsidiary maintained in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company and subsidiary as of December 31, 2013 and 2012, and the related consolidated statements of comprehensive loss, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2013 and our report dated February 18, 2014 expressed an unqualified opinion thereon.

Tel-Aviv, Israel  
February 18, 2014

/s/ Kost Forer Gabbay & Kasierer  
KOST FORER GABBAY & KASIERER  
A Member of Ernst & Young Global

## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands

	Note	December 31,	
		2013	2012
<b>ASSETS</b>			
<b>CURRENT ASSETS:</b>			
Cash and cash equivalents	3	\$ 28,751	\$ 16,374
Restricted cash	8b	154	96
Short-term bank deposits		18,015	3,215
Investment in Evogene		4,565	5,196
Other accounts receivable and prepaid expenses	4, 8d	1,731	690
Total current assets		53,216	25,571
<b>NON-CURRENT INVESTMENTS:</b>			
Severance pay fund		2,129	1,728
Total non- current investments		2,129	1,728
<b>NON-CURRENT PREPAID EXPENSES</b>	8d	158	360
<b>PROPERTY AND EQUIPMENT, NET</b>	5	1,208	1,250
Total assets		\$ 56,711	\$ 28,909

The accompanying notes are an integral part of the consolidated financial statements.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands (except share and per share data)

	Note	December 31,	
		2013	2012
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
<b>CURRENT LIABILITIES:</b>			
Trade payables		\$ 693	\$ 443
Deferred revenue	2k	5,318	-
Other accounts payable and accrued expenses	6	1,728	941
<b>Total current liabilities</b>		<b>7,739</b>	<b>1,384</b>
<b>NON- CURRENT LIABILITIES:</b>			
Research and development funding arrangements and others	7	13,189	7,872
Deferred revenue	2k	1,454	-
Accrued severance pay		2,441	1,981
<b>Total non-current liabilities</b>		<b>17,084</b>	<b>9,853</b>
<b>COMMITMENTS AND CONTINGENT LIABILITIES</b>	8		
<b>SHAREHOLDERS' EQUITY:</b>	9		
Share capital:			
Ordinary shares of NIS 0.01 par value: 100,000,000			
shares authorized at December 31, 2013 and 2012;			
41,002,113 and 36,590,478 shares issued and			
outstanding at December 31, 2013 and 2012, respectively			
		111	99
Additional paid-in capital		235,351	206,325
Accumulated other comprehensive income		4,628	5,367
Accumulated deficit		(208,202 )	(194,119 )
<b>Total shareholders' equity</b>		<b>31,888</b>	<b>17,672</b>
<b>Total liabilities and shareholders' equity</b>		<b>\$ 56,711</b>	<b>\$ 28,909</b>

The accompanying notes are an integral part of the consolidated financial statements.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

U.S. dollars in thousands (except share and per share data)

	Note	Year ended December 31,		
		2013	2012	2011
Revenue	12, 14	\$ 3,549	\$ 242	\$ -
Cost of revenue		2,509	201	-
Gross profit		1,040	41	-
Operating expenses:				
Research and development expenses, net	7b, 8c	12,275	9,442	6,778
Marketing and business development expenses		962	684	610
General and administrative expenses		4,846	3,457	4,591
Total operating expenses		18,083	13,583	11,979
Operating loss		(17,043 )	(13,542 )	(11,979 )
Financial income (loss), net	13	3,460	(86 )	(25 )
Loss before tax expenses		(13,583 )	(13,628 )	(12,004 )
Income taxes	10g	(500 )	-	-
Net loss		\$ (14,083 )	\$ (13,628 )	\$ (12,004 )
Unrealized gain (loss) arising during the period on Investment in Evogene		\$ 2,972	\$ 1,103	\$ (1,902 )
Realized gain (loss) arising during the period on Investment in Evogene		\$ (3,711 )	\$ -	\$ (239 )
Total comprehensive loss		\$ (14,822 )	\$ (12,525 )	\$ (14,145 )
Basic net loss per share		\$ (0.36 )	\$ (0.38 )	\$ (0.35 )
Weighted average number of ordinary shares used in computing basic net loss per share		38,869,438	35,844,496	34,276,697
Diluted net loss per share		\$ (0.36 )	\$ (0.38 )	\$ (0.35 )
Weighted average number of ordinary shares used in computing diluted net loss per share		38,869,438	36,249,262	34,276,697

The accompanying notes are an integral part of the consolidated financial statements.

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

U.S. dollars in thousands (except share data)

	Ordinary shares Number	Amount	Additional paid-in capital	Accumulated other comprehensive income	Accumulated deficit	Total shareholders' equity
Balance as of January 1, 2011	33,915,545	\$ 92	\$ 190,275	\$ 6,405	\$ (168,487)	\$ 28,285
Employee options exercised	792,077	2	2,039	-	-	2,041
Stock-based compensation relating to options and warrants issued to non-employees	-	-	457	-	-	457
Stock-based compensation relating to options issued to employees and directors	-	-	2,943	-	-	2,943
Other comprehensive loss	-	-	-	(2,141 )	-	(2,141 )
Net loss	-	-	-	-	(12,004 )	(12,004 )
Balance as of December 31, 2011	34,707,622	94	195,714	4,264	(180,491)	19,581
Employee options exercised	696,988	2	1,878	-	-	1,880
Issuance of shares	1,185,868	3	6,264	-	-	6,267
Stock-based compensation relating to options and warrants issued to non-employees	-	-	145	-	-	145
Stock-based compensation relating to options issued to employees and directors	-	-	2,324	-	-	2,324
Other comprehensive income	-	-	-	1,103	-	1,103
Net loss	-	-	-	-	(13,628 )	(13,628 )
Balance as of December 31, 2012	36,590,478	\$ 99	\$ 206,325	\$ 5,367	\$ (194,119)	\$ 17,672
Employee options exercised	1,786,473	5	5,626	-	-	5,631
Issuance of shares	2,625,162	7	19,697	-	-	19,704
Stock-based compensation relating to options and warrants issued to	-	-	164	-	-	164

non-employees

Stock-based compensation relating to options issued to employees and directors	-	-	3,379	-	-	3,379
Classification of liability with respect to outstanding options to non-employee to equity	-	-	160	-	-	160
Other comprehensive loss	-	-	-	(739 )	-	(739 )
Net loss	-	-	-	-	(14,083 )	(14,083 )
Balance as of December 31, 2013	41,002,113	\$ 111	\$ 235,351	\$ 4,628	\$ (208,202 )	\$ 31,888

The accompanying notes are an integral part of the consolidated financial statements.

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2013	2012	2011
<b>Cash flows from operating activities:</b>			
Net loss	\$(14,083 )	\$(13,628 )	\$(12,004 )
Adjustments required to reconcile net loss to net cash used in operating activities:			
Non-cash stock-based compensation	3,543	2,469	3,400
Depreciation	370	299	179
Severance pay, net	59	75	(7 )
Gain from sale of Evogene shares	(3,711 )	-	(239 )
Change in fair value of exchange option and embedded derivatives within research and development funding arrangements	811	588	113
Amortization of the Research and Development Component within research and development funding arrangement	(230 )	(130 )	-
Change in the fair value of liability with respect to outstanding options to non-employee	(104 )	(20 )	-
Decrease (increase) in trade receivables and other accounts receivable and prepaid expenses	(1,105 )	(112 )	43
Decrease (increase) in long-term prepaid expenses	202	(301 )	-
Increase (decrease) in trade payables and other accounts payable and accrued expenses	1,037	(86 )	(734 )
Increase in deferred revenue	6,772	-	-
<b>Net cash used in operating activities</b>	<b>(6,439 )</b>	<b>(10,846 )</b>	<b>(9,249 )</b>
<b>Cash flows from investing activities:</b>			
Proceeds from maturity of short-term bank deposits	3,215	16,525	14,524
Investment in short-term bank deposits	(18,015 )	(3,215 )	(16,525 )
Changes in restricted cash	(50 )	-	592
Purchase of property and equipment	(328 )	(1,005 )	(96 )
Decrease (increase) in long-term lease deposits	-	(42 )	47
Proceeds from sale of investment in Evogene	3,603	-	232
<b>Net cash provided by (used in) investing activities</b>	<b>(11,575 )</b>	<b>12,263</b>	<b>(1,226 )</b>

The accompanying notes are an integral part of the consolidated financial statements.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2013	2012	2011
Cash flows from financing activities:			
Proceeds from issuance of ordinary shares, net	19,760	6,211	-
Proceeds from research and development funding arrangements	5,000	1,000	7,000
Proceeds from exercise of options	5,631	1,900	2,021
Net cash provided by financing activities	30,391	9,111	9,021
Increase (decrease) in cash and cash equivalents	12,377	10,528	(1,454 )
Cash and cash equivalents at the beginning of the year	16,374	5,846	7,300
Cash and cash equivalents at the end of the year	\$28,751	\$16,374	\$5,846
Supplemental disclosure of non-cash investing and financing activities:			
Receivables on account of shares	\$-	\$56	\$20
Purchase of property and equipment	\$-	\$47	\$-
Cash paid (received) during the year for:			
Income taxes	\$500	\$-	\$-
Interest payments from bank short-term deposits and cash equivalents	\$(112 )	\$(297 )	\$(351 )

The accompanying notes are an integral part of the consolidated financial statements.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 1:-

## GENERAL

a. Compugen Ltd. (the "Company") is a drug discovery company utilizing a broadly applicable proprietary infrastructure for the in silico (by computer) prediction and selection of human focused on therapeutic product candidates, which are then advanced in its Pipeline Program. The initial fields of focus selected by us are monoclonal antibodies and therapeutic proteins to address major unmet needs in the fields of oncology and immunology. Beginning in late 2010, the Company established the Pipeline Program, consisting of targets and product candidates for applications in oncology and immunology, based largely on novel immune checkpoint regulator candidates discovered by the Company. The Company's business model includes entering into collaborations covering the further development and commercialization of product candidates at various stages from its Pipeline Program and various forms of research and discovery agreements, in both cases providing Compugen with potential milestone payments and royalties on product sales or other forms of revenue sharing.

The Company's headquarters are located in Israel, with research and development facilities in Israel and California through its wholly-owned U.S. subsidiary, Compugen USA, Inc. ("Compugen Inc.").

b. In March 2012, the Company renewed Compugen Inc. activity by establishing a new monoclonal antibody (mAb) research and development operation in South San Francisco, California for the development of oncology and immunology mAb drug candidates against the Company's identified targets.

c. Following a shelf registration on Form F-3 filed and declared effective in January 2011, the Company signed in August 2011 an agreement with an underwriter, to issue and sell up to 6,000,000 ordinary shares under an At-the-Market equity offering ("ATM") program with gross proceeds not to exceed \$ 40,000. During the year ended December 31, 2013 and 2012 the Company had raised approximately \$ 19,704 and \$ 6,267, net of issuance expenses, under this program from the issuance of 2,625,162 and 1,185,868 of its Ordinary shares, respectively.

Subsequent to December 31, 2013 the Company has raised additional gross proceeds of \$ 3,919 through the sale of 363,090 Ordinary shares under the ATM program. On January 21, 2014, the registration statement on Form F-3 under which the Company had been selling ordinary shares pursuant to the agreement with the underwriter terminated.

d. The Company established together with Merck KGaA ("Merck") and Merck Holdings Netherlands B.V. ("Merck Holdings") on June 25, 2012 ("Initial Date"), a start-up company, Neviah Genomics ("Neviah"), focused on the discovery and development of novel biomarkers for the prediction of drug-induced toxicity. According to the agreement with Merck and Merck Holdings, Neviah is expected to receive its initial funding from Merck Holdings in three installments subject to milestones as defined in the agreement. According to the agreement, concurrent with the establishment of Neviah, the Company licensed to Neviah biomarker candidates and in consideration received an equity ownership and a right for future royalties from potential successful commercialization of the product candidates.



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 1:- GENERAL (Cont.)

Pursuant to the collaboration agreement between the parties, Neviah shall pay the Company royalties on net sales (as defined in the agreement) of a licensed product ("Licensed Product"), until the later of (a) the date on which such Licensed Product ceases to be covered by a claim in the country in which such Licensed Product is made and in the country in which such Licensed Product is sold; and (b) fifteen years following the date of the first commercial sale of such Licensed Product in such country.

In addition, Neviah will pay Compugen a certain amount of all sublicense income arising by Neviah from any Licensed Product.

Based on ASC 845, "Nonmonetary Transactions", ("ASC 845"), the Company has elected the carryover basis at the Initial Date of the biomarker candidates in consideration of a non-controlling ownership interest in Neviah.

The Company does not have control over Neviah, however the Company has significant influence over Neviah. Therefore, subject to ASC 323, "Investments-Equity Method and Joint Ventures", ("ASC 323"), the Company accounts for its investment in Neviah under the equity method. For the period since its establishment until December 31, 2013 Neviah has accumulated losses and because the Company has no commitment to fund Neviah's operation, no investment account was recorded in the Company's consolidated financial statements.

In addition, according to the agreement, the Company is providing research and development services to Neviah in consideration for a fee as defined in the agreement (see also Note 14).

e. In August 2004, the Company spun off its computational chemistry activity into a wholly-owned subsidiary, Keddem BioScience Ltd. ("Keddem") which was, until mid-2007, in the phase of validating its technology and building the extensive infrastructure required to implement it. In 2007, Keddem operations were terminated and it became a dormant entity.

On November 19, 2012 ("Effective Date"), the Company signed an agreement with a private U.S.-based investment company pursuant to which up to \$ 15,000 in milestone related equity financing will be made available to Keddem. Under the agreement, the new investor will obtain a majority equity interest in Keddem, with the Company maintaining a minority interest and certain future preferential access rights to utilize the Keddem technology with the Company's discovered drug targets.

As of December 31, 2013 and based on initial investment of \$ 3,000, the holding rights of the Company in Keddem's ordinary share were reduced to less than 50% interest.

As part of the above transaction, warrants have been granted to the Company to purchase from Keddem up to 83,333 ordinary shares of a nominal value of NIS 0.01 each, at an exercise price which might be adjusted subject to terms set forth in the warrant agreement, during the exercise period which expires on the ten-year anniversary of the Effective Date. As of December 31, 2013 the Company did not exercise any of the above warrants.





## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 1:- GENERAL (Cont.)

Based on ASC 845 the Company has elected the carryover basis for its investment in Keddem. Since the Company does not have control over Keddem, and subject to ASC 323, the Company accounts for its investment in Keddem under the equity method. For the period since Effective Date until December 31, 2013 Keddem has accumulated losses and because the Company has no commitment to fund Keddem's operation, no investment account was recorded in the Company's consolidated financial statements.

f. On August 5, 2013, the Company entered into a Research and Development Collaboration and License Agreement ("Agreement") with Bayer Pharma AG ("Bayer") for the research, development, and commercialization of antibody-based therapeutics for antibody based therapeutics against two novel, Compugen-discovered immune checkpoint regulators.

Under the terms of the Agreement, the Company received an upfront payment of \$ 10,000, and is eligible to receive an aggregate of over \$ 500,000 in potential milestone payments for both programs, not including aggregate preclinical milestone payments of up to \$ 30,000 during the research programs. Additionally, the Company is eligible to receive mid to high single digit royalties on global net sales of any approved products under the collaboration.

Under the Agreement, the Company and Bayer will jointly pursue a preclinical research program with respect to each of the two immune checkpoint regulators. A joint steering committee consisting of an equal number of representatives from each party will be responsible for overseeing and directing each such research program pursuant to agreed upon work-plans. Each party will be responsible for the costs and expenses incurred by it in performing its designated activities under the work-plans during the research programs. Following each such research program, Bayer will have full control over further clinical development of any cancer therapeutic product candidates targeting the Company-discovered immune checkpoint regulators and will have worldwide commercialization rights for any approved products.

COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States ("U.S. GAAP").

a. Use of estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

b. Financial statements in U.S. dollars:

The functional currency of the Company is the U.S. dollar, as the Company's management believes that the U.S. dollar is the primary currency of the economic environment in which the Company and Compugen Inc. have operated and expect to continue to operate in the foreseeable future. The majority of the Company's revenues and 2013 financing transactions were made outside Israel in U.S. dollars. The majority of the Company operations are currently conducted in Israel and most of the expenses in Israel are currently paid in new Israeli shekels ("NIS").

Transactions and balances denominated in U.S. dollars are presented at their original amounts. Monetary accounts denominated in currencies other than the dollar are re-measured into dollars in accordance with ASC No. 830, "Foreign Currency Matters". All transaction gains and losses of the re-measurement of monetary balance sheet items are reflected in the consolidated statement of loss as financial income or expenses, as appropriate.

c. Basis of consolidation:

The consolidated financial statements include the accounts of the Company and Compugen Inc. intercompany transactions and balances have been eliminated upon consolidation.

d. Cash and cash equivalents:

The Company and Compugen Inc. consider all highly liquid investments that are convertible to cash with original maturities of three months or less at their acquisition date as cash equivalents.

e. Restricted cash:

Restricted cash is an interest bearing saving account which is used as a security for the Company's Israeli facilities leasehold bank guarantee and credit card security for its U.S. subsidiary.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

## f. Short-term bank deposits:

Bank deposits with maturities of more than three months but less than one year are included in short-term bank deposits. Such short-term bank deposits are stated at cost which approximates market values.

Bank deposits in U.S. dollars for the years ended December 31, 2013 and 2012 bear an annual average interest rate of 0.63% and 1.32%, respectively.

Bank deposits in NIS for the years ended December 31, 2013 and 2012 bear an annual average interest rate of 0% and 2.40%, respectively.

## g. Marketable securities:

The Company accounts for its investment in Evogene in accordance with ASC No. 320, "Investments - Debt and Equity Securities".

Management determines the appropriate classification of its investments at the time of purchase and reevaluates such determinations at each balance sheet date.

The Company classifies its investment in Evogene as available-for-sale securities which are carried at fair value, with the unrealized gains and losses, net of tax, reported in "accumulated other comprehensive income (loss)" in shareholders' equity. Realized gains and losses on sale of investments are included in "financial income (loss), net" and are derived using the specific identification method for determining the cost of securities.

The Company recognizes an impairment charge when a decline in the fair value of its investments in debt securities is below the cost basis of such securities and is judged to be other-than-temporary. Factors considered in making such a determination include the duration and severity of the impairment, the reason for the decline in value, the potential recovery period and the Company's intent to sell, including whether it is more likely than not that the Company will be required to sell the investment before recovery of cost basis.

The Company periodically reviews its marketable securities for impairment. If the Company concludes that any of these investments are impaired, the Company determines whether such impairment is "other-than-temporary" as defined under ASC 320-10-35. On April 1, 2009, the Company adopted a new guidance, ASC 320-10-65-1, "Recognition and Presentation of Other-Than-Temporary Impairments", that changed the impairment and presentation model for debt securities. Under the amended impairment model, an other-than-temporary impairment loss is recognized in earnings if the entity has the intent to sell the debt security, or if it is more likely than not that it will be required to sell the debt security before recovery of its amortized cost basis. However, if an entity does not expect to sell a debt security, it still needs to evaluate expected cash flows to be received and determines if a credit loss exists. In the event of a credit loss, only the amount of impairment associated with the credit loss is recognized currently in earnings. During 2013, 2012 and 2011, no other-than-temporary impairment was recorded.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

As of December 31, 2013, the Company holds 232,292 shares representing less than 1% of Evogene outstanding Ordinary shares.

## h. Non-current prepaid expenses:

Non-current prepaid expenses consist of non-current lease deposits as security for the Compugen Inc.'s facility lease, motor vehicles leases and non-refundable payments for research and developments services (see also Note 8d).

## i. Property and equipment, net:

Property and equipment are stated at cost, net of related investment grants and accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets at the following annual rates:

	%
Computers, software and related equipment	33
Laboratory equipment and office furniture	6 - 30 (mainly 30)
Leasehold improvements	shorter of the term of the lease or useful life

## j. Impairment of long-lived assets:

The long-lived assets of the Company and Compugen Inc. are reviewed for impairment in accordance with ASC 360, "Property, Plant, and Equipment", whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset with the future undiscounted cash flows expected to be generated by the assets. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. During the years 2013, 2012 and 2011, no impairment losses have been identified.

## k. Revenue recognition:

The Company generates revenue mainly from its Research and Development Collaboration and License Agreement.

The Company recognizes revenue in accordance with ASC 605-25, "Multiple-Element Arrangements" pursuant to which each required deliverable is evaluated to determine whether it qualifies as a separate unit of accounting based on whether the deliverable has "stand-alone value" to Bayer. The arrangement's consideration that is fixed or determinable is then allocated to each separate unit of accounting based on the relative selling price of each deliverable which is not contingent based on its vendor specific objective evidence ("VSOE") if available, third party

evidence ("TPE") if VSOE is not available, or estimated selling price ("ESP") if neither VSOE nor TPE is available.

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Under the related Agreement as referred to under Note 1f, the Company considered the novel product candidates license and the related research and development services as single unit of accounting since the license has no value to Bayer on a stand-alone basis. As a consequence, an amount of \$ 6,711 out of the Agreement non-refundable upfront payment has been deferred and is being recognized based on the proportionate performance of research and development services under the Agreement will be performed, in accordance with ASC 605-10, "Revenue Recognition" (See also Note 12).

Contingent payments related to milestones achievement and royalties will be recognized immediately upon the accomplishment of futures events, in accordance with ASC 605-28.

Furthermore, the Company also generated revenue from research and development services for another client. The related revenue is being recognized according to the proportional performance method (See also Note 15).

1. Research and development expenses, net:

Research and development expenses are charged to the statement of comprehensive loss as incurred.

Royalty and non-royalty bearing grants from the Office of the Chief Scientist of the Israel Ministry of Industry, Trade & Labor ("OCS") and the Bi-national Industrial Research ("BIRD") for funding approved research and development projects, are recognized at the time the Company is entitled to such grants, on the basis of the research and development expenses incurred. Such grants are presented as a reduction from research and development expenses in the consolidated statements of comprehensive loss.

The Research and Development component are recognized at the time the Company received the payments under research and development arrangement, which calculated as residual between the payments received and the embedded derivatives, are amortized over the period in which the development is being provided in connection with the relevant designated product candidates. Such component is deducted from research and development expenses in the consolidated statements of comprehensive loss (see also Note 7b).

m. Severance pay:

The Company's liability for severance pay for its Israeli employees is calculated pursuant to Israeli Severance Pay Law based on the most recent salary of the employees multiplied by the number of years of employment as of the balance sheet date, and is in large part covered by regular deposits with recognized pension funds, deposits with severance pay funds and purchases of insurance policies. The value of these policies is recorded as an asset in the Company's balance sheet.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Pursuant to Section 14 of the Israeli Severance Pay Law, certain of the Company's liabilities for employee rights upon retirement are covered by regular contributions to defined contribution plans so that upon termination of employment of the relevant employees, the Company is only required to release the payments made by the Company to such funds on account of severance and by doing so are deemed to have complied with all of the Company's severance payment obligations relating to the service of applicable employees with respect to the period during which the provisions of such section apply.

Severance expenses for the years ended December 31, 2013, 2012 and 2011 amounted to approximately \$ 294, \$ 252 and \$ 257, respectively.

## n. Stock-based compensation:

The Company accounts for stock-based compensation in accordance with ASC 718, "Compensation - Stock Compensation", ("ASC 718"), which requires companies to estimate the fair value of equity-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated statement of comprehensive loss.

The Company recognizes compensation expenses for the value of its awards granted based on the straight-line method over the requisite service period of each of the awards, net of estimated forfeitures. ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Estimated forfeitures are based on actual historical pre-vesting forfeitures.

The Company selected the Black-Scholes-Merton ("Black-Scholes") option-pricing model (except as mentioned in Note 9f) as the most appropriate fair value method for the majority of its share-options awards and values share based on the market value of the underlying shares at the date of grant. The option-pricing model requires a number of assumptions, of which the most significant are the expected share price volatility and the expected option term. Expected volatility was calculated based on actual historical share price movements over a term that is equivalent to the expected term of granted options. The expected term of options granted is based on historical experience and represents the period of time that options granted are expected to be outstanding. The risk-free interest rate is based on the yield from U.S. treasury bonds with an equivalent term. The Company has historically not paid dividends and has no foreseeable plans to pay dividends.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The Company applies ASC 505-50, "Equity-Based Payments to Non-Employees" ("ASC 505") with respect to options and warrants issued to non-employees which requires the use of option valuation models to measure the fair value of the options and warrants at the measurement date.

## o. Concentration of credit risks:

Financial instruments that potentially subject the Company and Compugen Inc. to concentration of credit risk consist principally of cash and cash equivalents, short-term bank deposits, marketable securities and non-current lease deposits.

Cash and cash equivalents are invested in U.S. dollar deposits with major banks in Israel. Generally, these deposits may be redeemed upon demand and bear minimal risk. The Company has no significant off-balance-sheet concentration of credit risk such as foreign exchange contracts, option contracts or other foreign hedging arrangements.

## p. Net loss per share:

Basic net loss per share is calculated based on the weighted average number of Ordinary shares outstanding during each year. Diluted net loss per share is calculated based on the weighted average number of Ordinary shares outstanding during each year, plus dilutive potential in accordance with ASC 260, "Earnings per Share."

All outstanding share options, warrants and shares under the exchange option under the second research and development funding arrangement, as amended (see also Note 8) have been excluded from the calculation of the diluted net loss per share because all such securities are anti-dilutive for all periods presented. As of December 31, 2013, 2012 and 2011 the total weighted average number of shares related to outstanding options excluded from the calculations of diluted net loss per share was 6,271,819, 6,170,554 and 5,722,251, respectively. The total weighted average number of shares related to warrants under the research and development funding arrangements excluded from the calculations of diluted net loss per share was 500,000 for the years ended December 31, 2013, 2012 and 2011. As of December 31, 2013 and 2012 the total weighted average number of shares related to the exchange option under the amended research and development funding arrangement excluded from the calculations of diluted net loss per share was 2,157,293, and 613,350, respectively.

## q. Income taxes:

The Company accounts for income taxes in accordance with ASC No. 740, "Income Taxes", ("ASC 740") which prescribes the use of the liability method whereby deferred tax asset and liability account balances are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company provides a valuation allowance, if necessary, to reduce deferred tax assets to their estimated realizable value. As of December 31, 2013 and 2012, a full valuation allowance was provided by the Company.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

ASC 740 contains a two-step approach to recognizing and measuring a liability for uncertain tax positions. The first step is to evaluate the tax position taken or expected to be taken in a tax return by determining if the weight of available evidence indicates that it is more likely than not that, on an evaluation of the technical merits, the tax position will be sustained on audit, including resolution of any related appeals or litigation processes. The second step is to measure the tax benefit as the largest amount that is more than 50% likely to be realized upon ultimate settlement. As of December 31, 2013 and 2012 no liability for unrecognized tax benefits was recorded as a result of ASC 740.

## r. Fair value of financial instruments:

The Company applies ASC 820, "Fair Value Measurements and Disclosures" ("ASC 820"), pursuant to which fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date.

In determining fair value, the Company uses various valuation approaches. ASC 820 establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

The hierarchy is broken down into three levels based on the inputs as follows:

Level 1 Valuations based on quoted prices in active markets for identical assets that the Company has the ability to access. Valuation adjustments and block discounts are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgment.

Level 2 Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3 - Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary from investment to investment and is affected by a wide variety of factors, including, for example, the type of investment, the liquidity of markets and other characteristics particular to the transaction. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment and the investments are categorized as Level 3.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 2:- SIGNIFICANT ACCOUNTING POLICIES (Cont.)

The carrying amounts of cash and cash equivalents, restricted cash, short-term bank deposits, other accounts receivable, trade payables, and other accounts payable and accrued payables approximate their fair values due to the short-term maturities of such instruments.

The Company measures its investment in Evogene, embedded derivatives with respect to research and development funding arrangements and the liability with respect to outstanding options to non-employee at fair value (see also Note 11).

## s. Derivative instruments:

As of the balance sheet date, none of the Company's derivatives qualify for hedge accounting under ASC 815, "Derivatives and Hedging" ("ASC 815"). As a result all derivatives are recognized on the balance sheet at their fair value, with changes in the fair value carried to the statement of loss and included in financial income (loss), net.

In the year ended December 31, 2013 and 2012, the Company did not record net gain or loss from derivatives transactions compared with net gain in the year ended December 31, 2011 in the amount of \$ 134.

## t. Investment in affiliates:

The Company accounts for its investment in affiliated companies under the equity method in accordance with ASC 323, "Investments-Equity Method". For the purpose of these financial statements, an affiliated company is a company held to the extent of 20% or more, or a company less than 20% held, in which the Company can exercise significant influence over operating and financial policy of the affiliate.

## u. Comprehensive income:

The Company accounts for comprehensive income in accordance with ASC topic 220, "Comprehensive Income". This statement establishes standards for the reporting and display of comprehensive income and its components in a full set of general purpose financial statements. Comprehensive income generally represents all changes in shareholders' equity during the period except those resulting from investments by, or distributions to, shareholders.

## v. Reclassification:

Certain amounts in prior years consolidated balance sheets and consolidated statements of comprehensive loss have been reclassified to conform to the current year presentation. In 2011, the fair value of liability with respect to outstanding options to a non-employee related to Research and Development funding arrangement was presented as a current liability while in 2012 it was decided to reclassify it and present it as a non-current liability. In addition, in 2011, gain from sales of marketable securities was presented other income, net which was reclassified and presented as financial income (loss), net in the same year.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 3:- CASH AND CASH EQUIVALENTS

	December 31,	
	2013	2012
Bank deposits in U.S. dollars (bearing an annual average interest rate of 0.22% and 1.19% for 2013 and 2012, respectively)	\$ 24,731	\$ 9,091
Bank deposits in NIS (bearing an annual average interest rate of 1.32% and 2.19% for 2013 and 2012, respectively)	1,441	6,575
Cash in banks	2,579	708
	\$ 28,751	\$ 16,374

## NOTE 4:- OTHER ACCOUNTS RECEIVABLE AND PREPAID EXPENSES

	December 31,	
	2013	2012
Prepaid expenses	492	516
Government authorities	1,172	60
Accrued interest	57	26
Other	10	88
	\$ 1,731	\$ 690

## NOTE 5:- PROPERTY AND EQUIPMENT, NET

	December 31,	
	2013	2012
<b>Cost:</b>		
Computers, software and related equipment	\$ 5,139	\$ 5,023
Laboratory equipment and office furniture	4,219	4,032
Leasehold improvements	668	643
	10,026	9,698
<b>Accumulated depreciation:</b>		
Computers, software and related equipment	4,978	4,885
Laboratory equipment and office furniture	3,281	3,060
Leasehold improvements	559	503
	8,818	8,448
Depreciated cost	\$ 1,208	\$ 1,250

For the years ended December 31, 2013, 2012 and 2011, depreciation expenses were approximately \$ 370, \$ 299 and \$ 179, respectively.

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 6:- OTHER ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	December 31,	
	2013	2012
Employees and related accruals	\$ 626	\$ 442
Consultants and board of directors members	314	298
Accrual for OCS royalties payment	120	-
Accrued expenses	663	148
Other	5	53
	\$ 1,728	\$ 941

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS

The following table summarizes the balances recorded on the Company's financial statements with respect to the research and development funding arrangements:

	December 31,	
	2013	2012
Embedded Derivatives (a) (b)	\$ 12,431	\$ 6,864
mAb Participation Interest (b)	758	744
Liability with respect to outstanding options to non-employee (c)	-	264
	\$ 13,189	\$ 7,872

a. On December 29, 2010 (the "Issuance Date") the Company signed a funding arrangement (the "Pipeline Funding Arrangement") with an investor in partial support of its research and development activities with respect to novel therapeutic product candidates. According to the Pipeline Funding Arrangement the Company received \$ 5,000 in consideration of:

- (1) Warrants to purchase 500,000 Ordinary shares at a fixed exercise price of \$ 6.00 per share until June 30, 2013 ("Detachable Warrants") and,
- (2) An entitlement to receive a portion of future income received by Compugen related to possible commercialization and post-marketing fees related to certain designated product candidates ("Participation Rights").
- (3) An option to exchange its Participation Rights for a fixed amount of 833,334 Ordinary shares at any time through June 30, 2013 (the "Conversion Alternative").



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)

As of the Issuance Date, all of the five designated product candidates were pursued in the Company's validation pipeline. Furthermore, the Company had an obligation to continue the research and developments activities on a best effort basis and to issue to the investor an "Annual Report" containing a summary report for each such designated product candidate, providing general information with respect to what research was conducted by Compugen since the Issuance Date or the prior Annual Report (as applicable).

In accordance with ASC 730-20, "Research and Development Arrangements" and ASC 815, "Derivative and Hedging" the Company considered the Participation Rights as well as the New Arrangement Rights of the instrument issued to be a research and development arrangement ("Research and Development Component") coupled with embedded derivatives (that are the Conversion Alternative and the New Arrangement Rights) as those instruments do not have fixed settlement provisions.

Consequently, the Company determined that the embedded derivatives in the Research and Development Component should be accounted for as a liability to be measured at fair value at inception. The embedded derivatives will be re-measured to fair value at each reporting period until their exercise or expiration with the change in such calculated value reported in the statement of operations (as part of financial income or expenses). As a result, the fair value of those embedded derivatives would be bifurcated out of the amount to be allocated to the Research and Development Component.

The Company has further determined that the Detachable Warrants should be accounted for and classified as an equity component since the warrants have fixed settlement provisions as stated above.

As per the above, at the issuance date the consideration of \$ 5,000 was allocated as determined by the Company assisted by the work of a third party valuator:

- (1) An amount of \$ 999 was allocated to the equity component net of \$ 61 issuance expenses.
- (2) An amount of \$ 3,940 was allocated to the Research and Development Component and it was entirely assigned to the Participation Rights and the Conversion Alternative measured at fair value. Issuance expenses that were allocated to this component, amounted to \$ 228, were expensed immediately and are included as part of financial expenses in the consolidated statements of operations.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)

b. On December 20, 2011 (the "Effective Date"), the Company entered into an additional funding arrangement ("mAb Funding Arrangement and, together with the Pipeline Funding Arrangement, the "Funding Arrangements") with the same investor, pursuant to which the Company was to receive a total of \$ 8,000 (the "Funding Amount") in order to fund certain research and development activities performed on a best effort basis, in consideration for an entitlement to receive a portion of future income derived from certain monoclonal antibody ("mAb") product candidates ("Products") that are successfully commercialized or are licensed out as defined in the agreement ("mAb Participation Interest").

According to the mAb Funding Arrangement the Funding Amount should have been paid in three installments, \$ 2,000 was paid on December 21, 2011. The investor was committed to invest additional \$ 3,000 on or before June 30, 2012 and additional \$ 3,000 on or before September 30, 2012.

Pursuant to the mAb Funding Arrangement, in the event the remaining funds are not transferred, the Company had the right to exchange the relative Funding Amount for Company's Ordinary Shares, at the price of \$ 6.00 per share (the "Company Option"), and the Company would then have no obligations towards the investor under the mAb Funding Arrangement.

The mAb Participation Interest from the Products, was calculated on a sliding scale mainly as fraction of the Funding Amount, relative to total amount invested both by the investor and the Company in the Products, provided that the investor will be entitled to no less than ten percent of such future payments related to any qualifying Products. The investor had the right, during the first quarter of 2014, to waive its rights to the mAb Participation Interest in exchange for a fixed amount of 1,455,000 Ordinary shares (the "Exchange Option").

On July 24, 2012 the Company entered into an amendment ("First Amendment") to the mAb Funding Agreement, pursuant to which the number of specified Compugen-identified targets in the field of oncology against which mAb product candidates that are subject to the mAb Participation Interest was reduced from twelve to eight, and the payment dates for the \$ 6,000 of the Funding Amount remaining to be paid were amended such that \$ 1,000 was to be paid on or before July 31, 2012 and \$ 5,000 was to be paid on or before December 31, 2012. \$ 1,000 was paid on July 27, 2012.

On December 27, 2012, the Company entered into a second amendment ("Second Amendment") to the mAb Funding Arrangement, pursuant to which:

(1) The number of specified Compugen-identified targets in the field of oncology against which mAb product candidates that are subject to the mAb Participation Interest was reduced from eight to six. However, according to this Amendment, in the event the investor increases its funding in the Company's research and development activities to an aggregate of \$ 10,500 the number of targets that are subject to the mAb Participation Interest will revert to eight.



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)

- (2) The term for the remaining payment of between \$ 5,000 and \$ 7,500 has been revised and this amount is due to be paid no later than April 30, 2013.
- (3) The Exchange Option was postponed to the first quarter of 2015. In addition, the exchange shares amount has been modified and will now be determined by dividing the funding amount that was paid by the investor and the average closing price of the Company's Ordinary shares during twenty trading days prior the actual exchange date as described in the Second Amendment.

On April 19, 2013, the Company received from the research and development funding arrangements investor the remaining final funding amount of \$ 5,000 under the mAb Funding Arrangement. In connection with the payment of the final \$ 5,000 payment under the mAb Funding Arrangement, as amended the Company entered into an amendment ("Third Amendment") to the Funding Arrangements, pursuant to which the following terms would apply to all investments under the Funding Arrangement as amended:

- (1) The mAb Funding Arrangement was terminated.
- (2) Until June 30, 2015, the investor has the right to receive 10% of the Research and Development Component received by the Company or its affiliates from third parties, less certain pass-through amounts, with respect to certain designated product candidates (the "Amended Participation Rights").
- (3) The term of the Conversion Alternative under the Pipeline Funding Arrangement has been extended to June 30, 2015 and the exchange shares amount will be determined based on the aggregate funding amount of \$ 13,000 paid by the investor in connection to the Funding Arrangements, less 50% of any Amended Participation Rights paid to the investor by Compugen, divided by the average closing price of the Company's Ordinary shares during twenty (20) trading days prior the actual exchange date provided however that the exchange price shall not be lower than \$ 3.00 per share, and shall not exceed \$ 12.00 per share.
- (4) The warrants granted to the investor under the Pipeline Funding Arrangements to purchase up to 500,000 of the Company's Ordinary shares has been replaced with a new warrant to purchase up to 500,000 of the Company's Ordinary shares, exercisable at \$ 7.50 per share through June 30, 2015.

In accordance with ASC 730-20, "Research and Development Arrangements" and ASC 815, "Derivative and Hedging" the Company considered the mAb Participation Interest to be a research and development arrangement ("Research and Development Component") coupled with embedded derivatives (the Exchange Option and the Company Option) as those instruments do not have fixed settlement provisions. Consequently, the Company determined that the embedded derivatives in the Research and Development Component should be accounted for as a liability to be measured at fair value at inception. The embedded derivatives are being re-measured to fair value at each reporting period until their exercise or expiration with the change in such calculated value reported in the statement of operations (as part of financial income or expenses).



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

**NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)**

The Research and Development component was calculated as residual between the payments received and the embedded derivatives (as mentioned below), recorded at cost and has been amortized over the period in which the development is being provided in connection with the relevant designated product candidates as deduction from research and development expenses in the consolidated statements of comprehensive loss. As of December 31, 2013 and 2012 the Research and Development Component amounted of \$ 758 and \$ 744. During the years ended December 31, 2013 and 2012 the Company has amortized of the Research and Development Component within research and development funding arrangement amounted of \$ 230 and \$ 130, respectively.

As a result, the fair value of those embedded derivatives would be bifurcated out of the amount to be allocated to the Research and Development Component.

In measuring the fair value the Company considered the various amendments in the terms of the embedded derivatives.

As per the above, the first payment in 2011 of \$ 2,000 was allocated as determined by the Company assisted by the work of a third party valuator:

- An amount of \$ 443 was allocated as Research and Development Component to liability component.
- An amount of \$ 1,557 was allocated to the Research and Development Component and it was entirely assigned to the mAb Participation Interest and the Exchange Option measured at fair value. Issuance expenses that were allocated to this component, amounted to \$ 463, were expensed immediately and are included as part of financial expenses in the consolidated statements of operations.

The second payment in 2012 of \$ 1,000 was allocated as determined by the Company assisted by the work of a third party valuator:

- An amount of \$ 431 was allocated as Research and Development Component to liability component.
- An amount of \$ 569 was allocated to the Research and Development Component and it was entirely assigned to the mAb Participation Interest and the Exchange Option measured at fair value. No additional Issuance expenses were allocated to this component.

The third payment in 2013 of \$ 5,000 was allocated as determined by the Company assisted by the work of a third party valuator:

- An amount of \$ 244 was allocated as Research and Development Component to liability component.





## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)

- An amount of \$ 4,756 was allocated to the Research and Development Component and it was entirely assigned to the mAb Participation Interest and the Exchange Option measured at fair value. No additional issuance expenses were allocated to this component.

As of December 31, 2013, the Company re-measured the embedded derivatives in the Research and Development Component and recorded an accumulated \$ 811 as financial expenses in the consolidated statements of comprehensive loss.

Following the First, Second and Third Amendments, as of December 31, 2013 and 2012, the Company selected the Monte Carlo Simulation model as the methodology for determining the fair value for the embedded derivatives.

These option-pricing models require a number of assumptions, of which the most significant are the expected share price volatility and the expected term.

In estimating the Participation Rights' fair value, the Company used the following assumptions:

	Year ended December 31, 2013	Year ended December 31, 2012	
	Amended Funding Arrangement	mAb Funding Arrangement	Pipeline Funding Arrangement
Risk-free interest rate (1)	0.25%	0.28%	0.11%
Expected volatility (2)	55.65%	47.46%	48.02%
Expected life (in years) (3)	1.5	2.25	0.5
Expected dividend yield (4)	0	0	0

(1) Risk-free interest rate - based on the yields from U.S. treasury bonds with different periods to maturity (according to different projection periods).

(2) Expected volatility - was calculated based on actual historical share price movements of the Company over a term that is equivalent to the expected term of the option.

(3) Expected life - the expected life of the conversion feature was based on the term of the derivative.

(4) Expected dividend yield - was based on the fact that the Company has not paid dividends to Ordinary shareholders in the past and does not expect to pay dividends to Ordinary shareholders.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 7:- RESEARCH AND DEVELOPMENT FUNDING ARRANGEMENTS AND OTHERS (Cont.)

c. As part of issuance expenses the Company granted, and committed to grant upon execution of the remaining payments by the investor, up to 100,000 options to an agent and cash payment of \$ 80. As of December 31, 2011, the Company recorded \$ 453 as finance expenses, net related to these awards, based on its fair value, \$ 284 out of which were classified as part of research and development funding arrangements and others account. Based on ASC 505, the Company re-measured the options which are classified as liability and recorded \$ 104 and \$ 20 as financial income in the consolidated statements of comprehensive loss during the year ended December 31, 2013 and 2012 (See also Note 13), respectively.

Subject to the final \$ 5,000 payment under the mAb Funding Arrangement the liability related to the options of non-employee amounted of \$ 160 was classified to equity.

In April 2013, following receipt of the final funding amount of \$ 5,000 under the mAb Funding Arrangement and grant of the remaining options to an agent, the remaining re-measured outstanding liability was classified to the Company's additional-paid-in-capital (See also Note 11).

## NOTE 8:- COMMITMENTS AND CONTINGENCIES

- a. The Company and Compugen Inc. lease their facilities and motor vehicles under various operating lease agreements that expire on various dates.

Annual minimum future rental commitments under non-cancelable operating leases are approximately as follows:

December 31,

2014	\$ 856
2015	945
2016	569
2017	531
2018	269
	\$ 3,170

Operating lease expenses for the Company and Compugen Inc. were approximately \$ 637, \$ 551 and \$ 383 in the years ended December 31, 2013, 2012 and 2011, respectively.

- b. The Company provided bank guarantees in the amount of \$ 154 in favor of its offices' lessor in Israel and credit card security for its U.S. subsidiary and check deposit in the amount of \$ 40 in favor of its offices' lessor in California, U.S.



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 8:- COMMITMENTS AND CONTINGENCIES

c. Under the OCS royalty-bearing programs, the Company is not obligated to repay any amounts received from the OCS if it does not generate any income from the results of the funded research program. If income is generated from a funded research program, the Company is committed to pay royalties at a rate of between 3% to 5% of future revenue arising from such research programs, and up to a maximum of 100% of the amount received, linked to the U.S. dollar (for grants received under programs approved subsequent to January 1, 1999, the maximum to be repaid is 100% plus interest at LIBOR). For the year ended December 31, 2013, the Company has an aggregate of paid and accrued royalties to the OCS recorded as cost of revenue in the consolidated statement of comprehensive loss in the amount of \$ 120. For the years ended December 31, 2012 and 2011 the Company incurred no obligation to pay or accrue any amounts to the OCS.

As of December 31, 2013, the Company's aggregate contingent obligations for payments to OCS, based on royalty-bearing participation received or accrued, net of royalties paid or accrued, totaled approximately to \$ 8,765.

Under the BIRD plan, the Company is not obligated to repay any amounts previously received from BIRD if it does not generate any income from the outcome of the funded research program. As of December 31, 2013 the Company received proceeds under BIRD plan in total aggregate amount of approximately \$ 500. As of December 31, 2013 and 2012 the Company does not expect any income to be generated from the outcome of the funded research BIRD plan and as such no correlated contingent obligation was recorded (see also Note 2I).

d. On June 25, 2012 the Company and Compugen Inc. added to its mAb enabling technology base by entering into an Antibodies Discovery Collaboration Agreement (the "Agreement") with a U.S. antibody technology company ("mAb Technology Company"), providing an established source for fully human mAbs. The agreement includes time based research and commercial licenses to use specific mAb Technology Company proprietary collections of polynucleotides encoding antibodies, and their associated biological materials, together with the systems and/or licensed know how and/or to practice patent rights to identify, isolate, and modify discovery Fabs (the "Technology"), and to develop and exploit discovery products. According to the Agreement (i) the Company paid \$ 600 in consideration for a three-year access right to the Technology, of which \$ 400 was recorded as long-term prepaid expenses and is being charged to the statement of comprehensive loss over three years, (ii) \$ 150 in consideration for the associated biological materials which was recorded as other accounts receivables and prepaid expenses and will be charged to the statement of comprehensive loss in accordance with actual use of materials during each measured period and (iii) in the event any Compugen mAb programs utilize the Technology, the Company would pay additional fees upon the occurrence of certain development and commercialization milestone up to a maximum cumulative total of \$ 3,250 for each antibody drug product that achieved all such milestone events. In addition, the mAb Technology Company will be entitled to certain royalties that could be eliminated, upon payment of certain one-time fees (all payments referred together as "Contingent Fees"). As of December 31, 2013 and 2012 the Company did not incur any obligation for such Contingent Fees.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 8:- COMMITMENTS AND CONTINGENCIES (Cont.)

During the year ended December 31, 2012, the Company replenished additional associated biological materials to support the research and development activities performed under the Agreement in the amount of \$ 100, which was recorded as other accounts receivables and prepaid expenses. During the year ended December 31, 2013 the Company did not purchase additional biological materials to support research and development activities under the Agreement.

During the year ended December 31, 2013 and 2012, the Company charged research and development expenses to the statement of comprehensive loss in the amount of \$ 294 and \$ 109 related to the Agreement, respectively.

e. As mentioned in Note 7 as of December 31, 2013 under the Third Amendment the investor is entitled to receive Amended Participation Rights, under the Pipeline Funding Arrangement. For the year ended December 31, 2013, the Company has an aggregate of paid and accrued payments under these arrangements recorded as cost of revenue in the consolidated statement of comprehensive loss in the amount of \$ 616.

f. In May 2012 the Company entered into agreement with a U.S. Business Development Strategic Advisor ("Advisor") for the purpose of entering into transactions with Pharma companies related to selected Pipeline Program Candidates. Under the agreement the Advisor shall be entitled for certain payments from cash considerations that may be received under such transactions.

For the year ended December 31, 2013 and 2012, the Company has an aggregate of paid and accrued payments under this agreement recorded as marketing and business development expenses in the consolidated statement of comprehensive loss in the amount of \$ 267 and \$ 0, respectively.

g. On September 29, 2013, the Company's Board of Directors resolved to recommend before the shareholders to approve the grant of bonus payments totaling approximately \$175 to the chairman of the Board of Directors and the Chief Executive Officer ("CEO"). Since such bonus payments remain subject to shareholders' approval, which is expected to take place after the filing date, they were not accounted for during 2013.

## NOTE 9:- SHAREHOLDERS' EQUITY

## a. Ordinary shares:

The ordinary shares confer upon their holders the right to attend and vote at general meetings of the shareholders. Subject to the rights of holders of shares with limited or preferred rights which may be issued in the future, the ordinary shares of the Company confer upon the holders thereof equal rights to receive dividends, and to participate in the distribution of the assets of the Company upon its winding-up, in proportion to the amount paid up or credited as paid up on account of the nominal value of the shares held by them respectively and in respect of which such dividends are being paid or such distribution is being made, without regard to any premium paid in excess of the nominal value, if any.

## b. Share option plans:

In March 2000, the Company adopted the Compugen Ltd. Share Option Plan (2000) (the "2000 Options Plan"), which provides for the grant of options to purchase up to 1,500,000 ordinary shares to employees and non-employees of the Company and its subsidiaries.

The number of shares authorized for issuance under the 2000 Options Plan automatically increased each January 1 by the lesser of 1,500,000 or 4% of the total number of the Company's then outstanding shares or such lower amount as shall be determined by the Board. On July 25, 2010, the Board resolved to cease making grants under the 2000 Options Plan.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 9:- SHAREHOLDERS' EQUITY (Cont.)

In July 2010, the Company adopted the Compugen Ltd. 2010 Share Incentive Plan (the "2010 Options Plan"), and determined to cease making grants under the 2000 Option Plan. In addition, the board of directors and shareholders resolved that the options available for grants under the 2000 Option Plan, at such time, as well as any options that may return to such pool in connection with terminated options, will be made available for future grants under the 2010 Plan. Up to 1,953,851 shares were initially reserved for grant, under the 2010 Options Plan. In keeping with the Company's resolution any shares subject to options granted under the 2000 Option Plan prior to the adoption of the 2010 Plan which terminate unexercised, will also be made available for future grants under the 2010 Plan. On August 6, 2012 the Company adopted certain amendments to the 2010 Plan which, among other things, provided for additional types of awards, namely restricted share and restricted share unit awards.

In general, options granted under the 2000 Options Plan and the 2010 Options Plan vest over a four-year period and expire 10 years from the date of grant and are granted at an exercise price of not less than the fair market value of the Company's ordinary shares on the date of grant, unless otherwise determined by the board of directors. The exercise price of the options granted under the plans may not be less than the nominal value of the shares into which such options are exercised and the expiration date may not be later than 10 years from the date of grant. If a grantee leaves his or her employment or other relationship with the Company, or if his or her relationship with the Company is terminated without cause (and other than by reason of death or disability, as defined in the 2010 Plan), the term of his or her unexercised options will generally expire in 90 days, unless determined otherwise by the Company's board of directors.

Any options that are cancelled or forfeited before expiration become available for future grants. Under the 2010 Options Plan, there were 1,828,885 options to purchase shares available for future grant as of December 31, 2013.

Transactions related to the grant of options to employees, directors and non-employees under the above plans during the year ended December 31, 2013, were as follows:

	Number of options	Weighted average exercise price \$	Weighted average remaining contractual life Years	Intrinsic value \$
Options outstanding at beginning of year	6,589,215	3.34	6.63	10,958,989
Options granted	1,335,200	5.54		4,569,139
Options exercised	(1,786,473)	3.15		8,843,331
Options expired	(16,076 )	4.21		76,131
Options forfeited	(76,713 )	4.71		325,257
Options outstanding at end of year	6,045,153	3.86	6.83	30,789,923

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Options vested and expected to vest at end of year	5,863,150	3.84	6.78	29,989,767
Exercisable at end of year	3,010,708	3.12	5.13	17,544,083

Weighted average fair value of options granted during the years 2013, 2012 and 2011 was \$ 3.79, \$ 2.72 and \$ 2.33 per share, respectively.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 9:- SHAREHOLDERS' EQUITY (Cont.)

The aggregate intrinsic value in the table above represents the total intrinsic value (the difference between the Company's closing share price on the last trading day of fiscal 2013 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2013. This amount is impacted by the changes in the fair market value of the Company's shares.

As of December 31, 2013, the total unrecognized estimated compensation cost related to non-vested share options granted prior to that date was \$ 6,303 which is expected to be recognized over a weighted average period of approximately 2.49 years.

The Company used the following weighted-average assumptions for granted options:

	Year ended December 31,		
	2013	2012	2011
Volatility	67%	82%	83%
Risk-free interest rate	1.20%	0.69%	1.49%
Dividend yield	0%	0%	0%
Expected life (years)	4.2	4.5	4.7

The stock-based compensation expenses are included as follows in the expense categories:

	Year ended December 31,		
	2013	2012	2011
Cost of revenue	\$ 320	\$ 59	\$ -
Research and development expenses, net	1,724	1,239	1,003
Marketing and business development expenses	151	192	178
General and administrative expenses	1,348	979	2,219
	\$ 3,543	\$ 2,469	\$ 3,400

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 9:- SHAREHOLDERS' EQUITY (Cont.)

c.	Options to non-employees:		
	Year ended December 31, 2013		
	Number of options	Weighted average exercise price \$	Weighted average remaining contractual life Years
Options outstanding at beginning of year	321,500	4.71	3.52
Options granted	135,000	5.75	
Options exercised	(40,000 )	2.80	
Options expired	-	-	
Options outstanding at end of year	416,500	5.23	3.60
Options vested and expected to vest at end of year	416,500	5.23	3.60
Exercisable at end of year	392,343	5.14	3.47

The options are re-measured using a Black-Scholes option-pricing model at their then-current fair value at the last date of each reporting period and compensation cost is adjusted for the changes for those fair values. The Company recognized the compensation cost using the straight-line method.

The Company used the following weighted-average assumptions for general options:

	Year ended December 31,		
	2013	2012	2011
Volatility	67%	75%	78%
Risk-free interest rate	1.03%	0.66%	2.56%
Dividend yield	0%	0%	0%
Expected life (years)	4.5	4.3	6.0

As for compensation expenses, see also Note 9b.



## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 9:- SHAREHOLDERS' EQUITY (Cont.)

- d. On May 12, 2011, the shareholders approved a new grant to the former CEO and a former director on the Company's board of directors of a fully vested option to purchase 380,000 shares, exercisable until the earlier to occur of: (i) 180 days after the former CEO and current board member terminates his service as board member for any reason (ii) the date when the options expire had he remained CEO (i.e. after April 19, 2015). The total compensation cost related to this new grant was \$ 1,264 and recorded in the year ended December 31, 2011. As of December 31, 2013, the Company fully recognized those compensation costs.
- e. On December 12, 2011, the Board approved to extend the exercise period of options vested as of December 15, 2010, which were previously granted to the Company's CEO, until October 24, 2016. The Company accounted for the extension of options' terms pursuant to ASC 718 as a modification. Accordingly, additional compensation was calculated by the Company as the fair value of the modified award in excess of the fair value of the original award measured immediately before its terms have been modified based on current circumstances. The total incremental compensation cost related to this modification was \$ 61 and recorded in the year ended December 31, 2011. As of December 31, 2013, the Company fully recognized those compensation costs.
- f. On July 15, 2013, the Board resolved to recommend before the shareholders to grant to its Chairman of the Board and its CEO options to purchase 60,000 and 120,000 shares, respectively, at an exercise price of \$ 5.445 per share, which was the market share price at such date.

On September 17, 2013 the shareholders of the Company approved this grant. The options shall vest on a monthly basis over a period of 12 months commencing January 1, 2016.

The pricing model for the award was estimated using a Binomial model with the following assumptions: risk-free interest rate of 2.96%, dividend yields of 0%, expected volatility of 70%, expected term of the options range between 3.78 – 5.46 years, post-vesting termination rate of 0.51% and suboptimal exercise factor range between 1 -2.11 factoring rate.

Consequently, during the year ended December 31, 2013 the Company recorded stock-based compensation expenses amounted of \$ 108 as part of its general and administrative expenses.

## COMPUGEN LTD. AND ITS SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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U.S. dollars in thousands (except share and per share data)

## NOTE 10:- INCOME TAXES

## a. Tax rates applicable to the income of the Company:

1. Taxable income of the Company is subject to the Israeli corporate at the tax rate as follows: 2011 - 24%, 2012 - 25% and 2013 - 25%.
2. On July 29, 2013, the Israeli Parliament (the Knesset) approved the second and third readings of the Economic Plan for 2013-2014 ("Amended Budget Law") which includes, among others, raising the Israeli corporate tax rate from 25% to 26.5%.

## b. Measurement of taxable income under the Income Tax (Inflationary Adjustments) Law, 1985:

Results for tax purposes are measured in terms of earnings in NIS after certain adjustments for increases in Israeli Consumer Price Index (the "Israeli CPI"). As explained in Note 2b, the financial statements are measured in U.S. dollars. The difference between the annual change in Israeli CPI and in the NIS/dollar exchange rate causes a further difference between taxable income and the income before taxes shown in the financial statements. In accordance with paragraph 9(f) of ASC 740, the Company has not provided deferred income taxes on the difference between the functional currency and the tax basis of assets and liabilities.

According to the law, until 2007 the results for tax purposes were adjusted for changes in the Israeli CPI.

In February 2008 the "Knesset" (Israeli parliament) passed an amendment to the Income Tax (Inflationary Adjustments) Law, 1985, which limits the scope of the law starting 2008 and thereafter. Starting 2008 the results for tax purposes are measured in nominal values, excluding certain adjustments for changes in the Israeli CPI carried out in the period up to December 31, 2007. The amendment to the law includes, inter alia, the elimination of the inflationary additions and deductions and the additional deduction for depreciation starting 2008.

## c. Tax benefits under the Law for the Encouragement of Capital Investments, 1959 (the "Law"):

According to the Law, the Company is entitled to various tax benefits by virtue of the "approved enterprise" and/or "beneficiary enterprise" status granted to part of their enterprises, as implied by this Law. The principal benefits by virtue of the Law are:

According to the provisions of the Law, the Company has chosen to enjoy the "Alternative" track. Under this track, the Company is tax exempt in the first two years of the benefit period and subject to tax at the reduced rate of 10%-25% for a period of several years for the remaining benefit period.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 10:- INCOME TAXES (Cont.)

Another condition for receiving the benefits under the alternative track is a minimum qualifying investment. This condition requires an investment in the acquisition of productive assets such as machinery and equipment which must be carried out within three years. The minimum qualifying investment required for setting up a plant is NIS 300 thousand. As for plant expansions, the minimum qualifying investment is the higher of NIS 300 thousand and an amount equivalent to the "qualifying percentage" of the value of the productive assets. Productive assets that are used by the plant but not owned by it will also be viewed as productive assets. The Company was eligible under the terms of minimum qualifying investment and elected 2008 and 2012 as its "years of election".

The qualifying percentage of the value of the productive assets is as follows:

The value of productive assets before the expansion (NIS in millions)	The new proportion that the required investment bears to the value of productive assets
Up to NIS 140	12%
NIS 140 - NIS 500	7%
More than NIS 500	5%

The income qualifying for tax benefits under the alternative track is the taxable income of a company that has met certain conditions as determined by the Law ("a beneficiary company"), and which is derived from an industrial enterprise. The Law specifies the types of qualifying income that is entitled to tax benefits under the alternative track with respect of an industrial enterprise, whereby income from an industrial enterprise includes, among others, revenue from the production and development of software products and revenue from industrial research and development activities performed for a foreign resident (and approved by the Head of the Administration of Industrial Research and Development).

The benefit period starts with the first year the beneficiary enterprise earns taxable income, provided that 14 years have not passed since the approval was granted and 12 years have not passed since the enterprise began operating. In respect of expansion programs pursuant to Amendment No. 60 to the Law, the benefit period starts at the later of the year elected and the first year the Company earns taxable income provided that 12 years have not passed since the beginning of the year of election. The respective benefit period has not yet begun.

The above benefits are conditional upon the fulfillment of the conditions stipulated by the Law, regulations published thereunder and the letters of approval for the investments in the approved enterprises, as above.

Non-compliance with the conditions may cancel all or part of the benefits and refund of the amount of the benefits, including interest. The management believes that the Company is meeting the aforementioned conditions.





## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 10:- INCOME TAXES (Cont.)

The Company is also a "foreign investors' company", as defined by the Capital Investments Law, and, as such, is entitled to a 10-year period of benefits and may be entitled to reduced tax rates of between 10% to 25% (depending on the percentage of foreign ownership in each tax year).

Income from sources other than the "Approved Enterprise" and "Beneficiary Enterprise" during the benefit period will be subject to the tax at the regular tax rate.

## Amendments to the Law:

In December 2010, the "Knesset" (Israeli Parliament) passed the Law for Economic Policy for 2011 and 2012 (Amended Legislation), 2011, which prescribes, among others, amendments to the Law. The amendment became effective as of January 1, 2011. According to the amendment, the benefit tracks in the Law were modified and a flat tax rate applies to a company's preferred income. The Company will be able to opt to apply (the waiver is non-recourse) the amendment and from then on it will be subject to the amended tax rates that are: 2011 and 2012 - 15% (in development area A - 10%), 2013 and 2014 - 12.5% (in development area A - 7%) and in 2015 and thereafter - 12% (in development area A - 6%).

On July 29, 2013, the Israeli Parliament (the "Knesset") approved the second and third readings of the Economic Plan for 2013-2014 ("Amended Budget Law") which, among others, canceling the lowering of the tax rates applicable to preferred enterprises (9% in development area A and 16% in other areas), taxing revaluation gains and increasing the tax rates on dividends within the scope of the Law for the Encouragement of Capital Investments to 20% effective from January 1, 2014.

The Company estimates that the effect of the change in tax rates will not lead to material change in the amounts on the consolidated financial statements.

## d. Tax benefits under the Law for the Encouragement of Industry (Taxation), 1969:

Management believes that the Company currently qualifies as an "industrial company" under the above law and as such, enjoys tax benefits, including:

- (1) Deduction of purchase of know-how and patents and/or right to use a patent over an eight-year period;
- (2) The right to elect, under specified conditions, to file a consolidated tax return with additional related Israeli industrial company and an industrial holding company; and
- (3) Accelerated depreciation rates on equipment and buildings.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 10:- INCOME TAXES (Cont.)

The Company believes currently is qualified as an "industrial company" under the above law and, as such, is entitled to certain tax benefits, mainly accelerated depreciation of machinery and equipment, and the right to claim public issuance expenses over three years, as a deduction for tax purposes.

## e. Net operating losses carryforward and capital loss:

As of December 31, 2013, the Company's net operating losses carryforward and capital loss for tax purposes in Israel amounted to approximately \$ 177,952 and \$ 727, respectively. These net operating losses may be carried forward indefinitely and may be offset against future taxable income. The Company expects that during the period in which these tax losses are utilized its income will be substantially tax-exempt.

Compugen Inc. is subject to U.S. income taxes. As of December 31, 2013, Compugen Inc. has net operating loss carryforwards for federal income tax purposes of approximately \$ 14,511 which expires in the years 2018 to 2032. Compugen Inc. also has net operating loss carryforwards for state income tax purposes of approximately \$ 15 which expires in the years 2013 to 2032. Utilization of the U.S. 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.

## f. Loss (income) before taxes is comprised as follows:

	Year ended December 31,		
	2013	2012	2011
Domestic (Israel)	\$ 13,859	\$ 13,370	\$ 12,004
Foreign	(276 )	258	-
	\$ 13,583	\$ 13,628	\$ 12,004

g. Taxes on income are comprised from withholding tax payment amounted of \$ 1,585 which was deducted from non-refundable upfront payment of \$ 10,000 (see also Note 1f) by the German tax authorities and from tax receivables as refund from authorities in total amount of \$ 1,085 that the Company expect to receive in the foreseeable future under ASC 450-30-25, "Gain Contingencies."

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 10:- INCOME TAXES (Cont.)

## h. Deferred taxes:

Deferred taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company and Compugen Inc.'s deferred tax assets are comprised of operating loss carryforward and other temporary differences. Significant components of the Company and Compugen Inc. deferred tax assets are as follows:

	December 31,	
	2013	2012
Operating loss carryforward	\$ 52,092	\$ 43,297
Research and development credit	3,265	2,300
Accrued social benefits and other	182	136
Deferred tax asset before valuation allowance	55,539	45,733
Valuation allowance	(55,539 )	(45,733 )
Net deferred tax asset	\$ -	\$ -

The Company and Compugen Inc. have provided full valuation allowances in respect of deferred tax assets resulting from operating loss carryforward and other temporary differences. Management currently believes that since the Company and Compugen Inc. have a history of losses it is more likely than not that the deferred tax regarding the operating loss carryforward and other temporary differences will not be realized in the foreseeable future.

## i. Reconciliation of the theoretical tax expense (benefit) to the actual tax expense (benefit):

The main reconciling items between the statutory tax rate of the Company and the effective tax rate are the non-recognition of tax benefits from accumulated net operating losses carryforward among the Company and Compugen Inc. due to the uncertainty of the realization of such tax benefits and the effect of "approved" and "beneficiary" enterprise.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 11:- FAIR VALUE MEASUREMENTS

In accordance with ASC 820 "Fair Value Measurements and Disclosures", the Company measures its Investment in Evogene and embedded derivatives in connection with research and development funding arrangement at fair value. Investment in Evogene is classified within Level 1 because this asset is valued using quoted market prices or alternative pricing sources and models utilizing market observable inputs. Embedded derivatives are classified within Level 3 because they are valued using valuation techniques. Some of the inputs to these models are unobservable in the market and are significant.

The Company's financial assets measured at fair value on a recurring basis, excluding accrued interest components, consisted of the following types of instruments as of the following dates:

Description	Fair value	December 31, 2013		
		Fair value measurements		
		Level 1	Level 2	Level 3
Investment in Evogene	\$ 4,565	\$ 4,565	\$ -	\$ -
Embedded Derivatives	12,431	-	-	12,431
Total financial assets	\$ 16,996	\$ 4,565	\$ -	\$ 12,431

Description	Fair value	December 31, 2012		
		Fair value measurements		
		Level 1	Level 2	Level 3
Investment in Evogene	\$ 5,196	\$ 5,196	\$ -	\$ -
Embedded Derivatives	6,864	-	-	6,864
Liability with respect to outstanding options to non- employee	264	-	-	264
Total financial assets	\$ 12,324	\$ 5,196	\$ -	\$ 7,128

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 11:- FAIR VALUE MEASUREMENTS (Cont.)

Fair value measurements using significant unobservable inputs (Level 3):

	Fair value of Embedded Derivatives
Balance at January 1, 2012	\$ 5,707
Fair value of Exchange Option within the 2012 proceeds under the mAb research and development arrangement	569
Change in fair value of Exchange Option and embedded derivatives within research and development arrangements	588
Balance at December 31, 2012 *)	6,864
Fair value of Exchange Option within the 2013 proceeds under the mAb research and development arrangement	4,756
Change in fair value of Exchange Option and embedded derivatives within research and development arrangements	811
Balance at December 31, 2013 *)	\$ 12,431

\*)The amount on the balance sheet of the research and development funding arrangements and others includes also Research and Development Component of \$ 758 and \$ 744 as of December 31, 2013 and 2012, respectively, and fair value of liability with respect to outstanding options to non-employee, as mentioned below, in amount of \$ 0 and \$ 264 as of December 31, 2013 and 2012, respectively.

	Fair value of outstanding options to non- employee
Balance at January 1, 2012	\$ 284
Change in fair value of liability with respect to outstanding options to non- employee	(20 )
Balance at December 31, 2012	264
Change in fair value of liability with respect to outstanding options to non- employee	(104 )
Classification of portion liability with respect to outstanding options to non-employee to additional paid in capital	(160 )

Balance at December 31, 2013	\$ -
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## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 12:- GEOGRAPHIC INFORMATION AND MAJOR CUSTOMERS

The Company's business is currently comprised of one operating segment, the research, development and commercialization of therapeutic and product candidates. The nature of the products and services provided by the Company and the type of customers for these products and services are similar. Operations in Israel and the United States include research and development, sales and business development. The Company follows ASC 280, "Segment Reporting." Total revenues are attributed to geographic areas based on the location of the end customer.

The following represents the total revenue for the years ended December 31, 2013, 2012 and 2011 and long-lived assets as of December 31, 2013 and 2012:

	Year ended December 31,		
	2013	2012	2011
Revenue from sales to customers:			
Israel	\$ 260	\$ 242	\$ -
Europe	3,289	-	-
Total revenue	\$ 3,549	\$ 242	\$ -
	December 31,		
	2013	2012	
Long-lived assets:			
Israel	\$ 567	\$ 483	
United States	641	767	
Total long-lived assets	\$ 1,208	\$ 1,250	
	Year ended December 31,		
	2013	2012	2011
Sales to a single customer exceeding 10%:			
Customer A	93 %	100 %	-

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

U.S. dollars in thousands (except share and per share data)

## NOTE 13:- FINANCIAL INCOME (LOSS), NET

	Year ended December 31,		
	2013	2012	2011
Interest income	\$ 169	\$ 301	\$ 421
Bank fees and other finance income (expenses)	(28 )	(61 )	27
Change in fair value of research and development funding arrangements	(811 )	(588 )	(113 )
Change in fair value of liability with respect to outstanding options to non-employee	104	20	-
Funding arrangements issuance expenses	-	-	(463 )
Gain from sales of marketable securities	3,711	-	239
Gain from derivatives transactions	-	-	134
Foreign currency translation adjustments	315	242	(270 )
Financial income (loss), net	\$ 3,460	\$ (86 )	\$ (25 )

## NOTE 14:- RELATED PARTY BALANCES AND TRANSACTIONS

The Company provides research and development services to Neviah in consideration for pre-scheduled determined fees. As of December 31, 2013 and 2012 the Company recognized revenue from the agreement with Neviah in total amount of \$ 260 and \$ 242, respectively (see also Note 1d).

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