

COMPUGEN LTD  
Form 20-F  
March 27, 2018

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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, 2017

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  
\_\_\_\_\_

Compugen Ltd.  
(Exact name of registrant as specified in its charter and translation of registrant's name into English)  
\_\_\_\_\_

Israel  
(Jurisdiction of incorporation or organization)

Azrieli Center, 26 Harokmim Street, Building D, Holon 5885849 Israel  
(Address of principal executive offices)  
\_\_\_\_\_

Ari Krashin, Chief Financial Officer  
Phone: +972-3-765-8585, Fax: +972-3-765-8555  
Azrieli Center, 26 Harokmim Street, Building D, Holon 5885849 Israel  
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)  
\_\_\_\_\_

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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:

51,293,070 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    Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act

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 “will,” “may,” “assume,” “expect,” “anticipate,” “could,” “project,” “estimate,” “possible,” “potential,” “believe,” “intend,” and describe opinions about future events. We have based these forward-looking statements on information available to us as of 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 -D. Risk Factors,” the information about us set forth under “Item 4. Information on 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.

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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, 2017 and 2016 and for the years ended December 31, 2017, 2016 and 2015 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, 2015, 2014 and 2013 and for the years ended December 31, 2014 and 2013 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,				
	2013	2014	2015	2016	2017
	(US\$ in thousands, except share and per share data)				
Consolidated Statement of Operations Data					
Revenues	\$3,549	\$12,367	\$9,277	\$712	\$-
Cost of revenues	2,509	3,344	1,633	223	-
Total operating expenses <sup>(1)</sup>	18,083	21,360	28,562	33,072	37,405
Operating loss	(17,043 )	(12,337 )	(20,918 )	(32,583 )	(37,405 )
Financial and other income, net	3,460	1,758	1,145	1,097	339
Equity loss	-	(155 )	-	-	-
Losses before taxes on income	(13,583 )	(10,734 )	(19,773 )	(31,486 )	(37,066 )
Taxes on income	(500 )	(360 )	(390 )	(20 )	0
Net loss	(14,083 )	(11,094 )	(20,163 )	(31,506 )	(37,066 )
Realized and unrealized gain (loss) from investment in marketable securities and from foreign currency derivative contracts	(739 )	(3,406 )	(801 )	(414 )	10
Total comprehensive loss	(14,822 )	(14,500 )	(20,964 )	(31,920 )	(37,056 )
Basic net loss per share	\$(0.36 )	\$(0.23 )	\$(0.40 )	\$(0.62 )	\$(0.72 )
Weighted average number of ordinary shares used in computing basic net loss per share	38,869,438	47,808,855	50,437,040	50,855,908	51,179,694
Diluted net loss per share	\$(0.36 )	\$(0.26 )	\$(0.40 )	\$(0.62 )	\$(0.72 )
Weighted average number of ordinary shares used in computing diluted net loss	38,869,438	48,387,063	50,437,040	50,855,908	51,179,694

per share

(1) Includes stock based compensation – see Note 7 to our 2017 consolidated financial statements.

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	As of December 31,				
	2013	2014	2015	2016	2017
	(US\$ in thousands)				
Consolidated Balance Sheet Data					
Cash and cash equivalents, short-term bank deposits and restricted cash	\$46,920	\$73,328	\$81,421	\$61,527	\$30,438
Trade receivable	-	-	7,800	-	-
Investment in marketable securities	4,565	1,054	426	-	-
Long-term bank deposits	-	35,026	-	-	-
Total assets	56,711	114,986	99,307	71,139	38,746
Deferred Revenues	6,772	1,789	312	-	-
Research and development funding arrangements and others	13,189	421	-	-	-
Accumulated deficit	(208,202)	(219,296)	(239,459)	(270,965)	(308,242)
Total shareholders' equity	\$31,888	\$106,116	\$89,897	\$63,519	\$29,297

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

## B. CAPITALIZATION AND INDEBTEDNESS

Not applicable.

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

Not applicable.

## D. RISK FACTORS

An investment in our ordinary shares involves a high degree of risk and many factors could affect our financial condition, cash flows and results of operations. You should carefully consider the following risk factors, as well as the other information in this Annual Report. 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 and you could lose all or part of your investment. 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

Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern.

We have incurred losses in the amount of \$37.1 million during the year ended December 31, 2017, have an accumulated deficit of \$308.2 million as of December 31, 2017 and have accumulated negative cash flow from operating activities amounting to \$30.7 million for the year ended December 31, 2017. We expect to continue incurring losses and negative cash flows from operations. As described in our accompanying audited financial statements, our auditors have issued a going concern opinion on our December 31, 2017 financial statements, expressing substantial doubt that we can continue as a going concern. Our ability to continue to operate is dependent upon raising additional funds to finance our activities and commercialization of our product candidates through collaboration agreements. There are no assurances, however, that we will be successful in obtaining an adequate level of financing needed for the long-term development and commercialization of our product candidates. Our financial statements do not include any adjustments with respect to the carrying amounts of assets and liabilities and their classification that might be necessary should we be unable to continue as a going concern. If we cannot continue as a viable entity, our shareholders may lose all or part of their investment in us.

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

Our business model is primarily based on expected future revenues in the form of fees, research revenues, milestone payments, royalties on product sales and other revenue sharing payments from commercialization of products by third parties, pursuant to various forms of collaborations for our novel targets and related therapeutic product candidates at various stages of research and development. In 2010, we began to focus our discovery efforts primarily on the prediction and selection of novel drug target candidates in specific areas of high interest in immuno-oncology, and in particular, immune checkpoint candidates and myeloid targets. The resulting predicted target candidates undergo initial target validation studies and, in selected cases, are advanced to therapeutic product candidate discovery and early development. Such target candidates and their related product candidates serve as the basis for proposed licensing and other forms of third party collaborations. To date, third party collaborations have only been entered into at early validation or preclinical stages, which have an inherent risk of high failure rates. 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, 2017, we had an accumulated deficit of approximately \$308.2 million and had incurred net losses of approximately \$20.2 million in 2015, approximately \$31.5 million in 2016 and approximately \$37.1 million in 2017, in large part due to the expenditures related to the long-term establishment and continuing enhancement of our predictive discovery infrastructure, and since late 2010, expenditures associated with our pipeline. In addition, we expect to continue to incur net losses in the future due to our anticipated costs and expenses, primarily associated with our pipeline preclinical and clinical activities, including significantly increasing our activities in the United States, and to a lesser degree, associated with the development, validation and integration of additional discovery platforms. To date, we have entered into only one commercial arrangement with respect to our pipeline candidates under which to date we have received a total amount of \$25.4 million. Otherwise, we have received only minimal revenues from limited commercialization efforts, including with respect to discoveries made during our infrastructure building period. We cannot be certain that we will receive additional revenues under our existing collaborations or enter into additional arrangements for our pipeline 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 will need to raise additional funds in the future, and if we are unable to raise such additional funds, we may need to limit or 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 do not believe that our existing cash and cash equivalents and short-term bank deposits will be sufficient to fund our current level of operations for the coming 12 months, without considering the possible receipt of any additional funds, such as proceeds from existing or additional licensing and/or commercialization agreements, or from financings. 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 and future operating plans.

Additional funds, including proceeds from commercialization agreements, or from other financings, may not be available to us on acceptable terms when needed, 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 other investors that may require us to enter into arrangements on terms that would otherwise not be acceptable to us. Any failure to raise funds when needed would materially harm our business, financial condition and results of operations.

We are currently pursuing our business model primarily in the field of immuno-oncology with one program targeting autoimmunity treatment, and this limitation may not yield sufficient revenues to support our increasing level of activities.

Following the development, validation and integration of our relevant individual predictive discovery capabilities, we initiated our pipeline program to predict and select novel drug target candidates with a primary focus on immuno-oncology. To date, we have entered into only one commercial arrangement, with Bayer Pharma AG (“Bayer”), with respect to our pipeline program drug target candidates (the “Bayer Collaboration”), under which we have received thus far a total amount of \$25.4 million. We cannot be certain this current focus on our discovery, research and development efforts in the field of immuno-oncology, along with our decision to advance selected programs at our own expense, will generate a stable or significant revenue stream. The inability to derive adequate revenues within our

field of focus 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.

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Our therapeutic pipeline will require additional resources that may not be available.

In 2010, we initiated our pipeline program in which we continuously evaluate our predicted drug target candidates and are taking certain drug target candidates beyond their initial validation stage. This includes disease animal model studies, therapeutic monoclonal antibody (“mAb”) discovery, as applicable, and in selected cases, preclinical and possible clinical development of therapeutic product candidates. This may result in therapeutic product candidates reaching more costly stages of research and development in parallel. If we are not able to secure the funding or the capabilities required for such expanded amount and type of activities, we may be required to abandon, postpone, or attempt to license out certain drug target candidates or therapeutic product candidates at an earlier than anticipated stage, which may result in a substantial reduction in the potential returns from our pipeline, or even result in the inability to have some or all of such therapeutic product candidates further developed towards potential commercialization.

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

Our discovery capabilities rely on an integrated approach of proprietary predictive models, algorithms and other computational tools and proprietary and public expression data. Life science today is a rapidly changing field with substantial research being undertaken on a worldwide basis by both 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 computational 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 collaborations for our current and future novel targets and related therapeutic product candidates at various stages of research and development, 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 the Bayer Collaboration, our first collaboration with respect to our pipeline program drug target candidates, under which we have received to date a total amount of \$25.4 million, and have received only minimal revenues from our earlier collaborations based on discoveries, including with respect to discoveries made during the building of our predictive discovery approach. While we did not recognize revenue in 2017, we recognized \$0.7 million in revenue in 2016 and \$9.3 million in revenue in 2015, approximately 98% of which related to the Bayer Collaboration. Furthermore, in 2010 we implemented our pipeline program pursuant to which we are currently advancing certain therapeutic product candidates past disease animal model proof of concept or other validation studies. We therefore 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. Accordingly, 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, development and anticipated future commercialization of product candidates based on our existing and future novel targets and related therapeutic product candidates.

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

Our predictive discovery activities are primarily focused on the discovery of new drug target candidates and our therapeutic pipeline is based on Compugen discovered targets.

While we believe that our target programs represent a compelling and unique opportunity to generate first-in-class therapeutic products, they require significant investment in the research and validation of the early stage target candidate and its respective therapeutic product candidate. The discovery, through computational prediction, of new drug target candidates and its inherent lack of sufficient published scientific data to support the potential of our novel drug targets to serve as therapeutic target opportunities for immunotherapy, increases the risk of failure. Although Compugen has built the target validation and drug discovery infrastructure required to validate its new drug targets and to later translate them into therapeutic antibody programs, we cannot be assured that our investment in such target programs will result in validated drug targets for immunotherapy, nor that we will realize success in product development or our ability to commercialize such opportunities and generate revenues.

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Major pharmaceutical companies might be hesitant to pursue target validation and development programs based on novel targets lacking robust experimental validation results particularly those discovered through computational predictive discovery approach.

There is a growing recognition of the need for new drug targets generating new treatment options for non-responsive or refractory patients to current immunotherapies, particularly in areas where biologics have become more accessible to develop, as compared with small molecules. Our business model is to selectively enter into collaborations for our novel targets and related therapeutic product candidates at various stages of research and development. Entering into collaborations at an early state in the validation or drug discovery process, generates significant challenges for us and our potential collaborators as opposed to the more traditional later-stage product-based collaborations. In addition, although we have had some success in the validation of our predictive discovery capabilities regarding the discovery of novel drug target candidates, major pharmaceutical companies may be hesitant to enter into early stage collaborations based on novel targets discovered by computer, as opposed to drug targets validated in human clinical trials or being marketed, or even only with significant published experimental validation relevant for linking the target with the disease state. Therefore, we cannot assure that our strategy to enter into commercialization arrangements for our early stage novel targets will be successful.

We are focusing our therapeutic development activities on mAb drug target candidates for uses in immuno-oncology, and an Fc fusion protein product candidate for use in autoimmunity. If these current candidates fail, and we fail to continue to discover and develop drug target candidates of industry interest in these fields our business will likely be materially harmed.

Since late 2010 we have increasingly focused our pipeline therapeutic discovery and development activities on mAb immuno-oncology therapeutics and an Fc fusion protein for autoimmunity. A result of this decision in 2010 is that we are not undertaking internal discovery and development in other areas, including those where we previously demonstrated discovery capabilities, such as other therapeutic areas outside of immuno-oncology and diagnostic products (other than biomarker discovery for selected internal checkpoint programs), and presently intend to pursue such opportunities, if at all, only in collaboration with third parties. With respect to immune checkpoint proteins, although there have been positive clinical results reported by others with respect to a number of products based on certain checkpoint proteins, resulting in substantial industry, academic and medical interest, with some products gaining approval by the U.S. Food and Drug Administration, or FDA, based on this positive data, there can be no assurance that our immune checkpoint target candidates or the more recent myeloid target candidates, which currently are the basis for the majority of our early stage target candidate pipeline, will provide similar clinical advantages or interest, that no long term adverse effects will be seen, or that a different class of targets or other products will not be discovered and developed 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 would likely be reduced in which case our business may be materially harmed. Additionally, although certain of our immune checkpoint target candidates are generating interest from potential partners, to date we have signed only one collaboration involving such discoveries and all our candidates are at early or preclinical stages of research and 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 drug target candidates of industry interest in our fields of focus, or to pursue validation and development efforts in our pipeline on the most promising discoveries, our business will likely be materially harmed. There are many risks associated with this decision of focusing on these areas that include, among others:

- not utilizing all of our target discovery capabilities;
- choosing therapeutic areas with a very high degree of competition;
- choosing therapeutic areas of great biological complexity and with very high failure rates in product development;



having insufficient relevant knowledge in our chosen therapeutic areas to select the right unmet medical needs, or novel target candidates, or to timely, properly and efficiently validate the targets and/or select the appropriate mAb for further development as therapeutic product candidates, or to timely, properly or efficiently further them in development; and

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, delays in our internal research programs or applying the wrong criteria or experimental systems and procedures, or unanticipated scientific, safety or efficacy issues with our selected targets or product candidates, with the possible result that none of our candidates result in licensed or marketable products. If any of these risks should materialize, our business, financial condition and results of operations would be materially harmed.

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Our predictive discovery capabilities remain unproven with respect to yielding novel targets which can serve as the basis for marketable therapeutic products. If in further development and clinical evaluation of such resulting therapeutic candidates, 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 computational predictive approach to drug target discovery remains unproven with respect to yielding novel targets that can serve as the basis for marketable therapeutic products. To date, while we have two product candidates against our discovered novel targets expected to enter the clinic in 2018, the majority of our validation efforts for our initial targets and product candidates 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 novel drug target candidates in many different therapeutic areas of interest, rely on the modeling, by our scientists, of complex biological processes. This modeling is partial and may prove insufficient to result in true predictions of the biological processes as they occur naturally and/or to predict appropriate targets for therapeutic intervention. If after further development and clinical evaluation, all, or a larger percentage than typically seen in industry experience, of our therapeutic product candidates based on our novel drug targets fail to prove sufficiently safe and efficacious for regulatory approval and marketing, our business will be significantly harmed.

Our computational predictive approach to target 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 drug target candidates to validate and/or progress in the therapeutic development, due to either lack of experience or applying the wrong criteria or experimental methodology, the selected target candidates may never result in approvable or marketable therapeutic products and our business, financial condition and results of operations will be materially harmed.

Our computational predictive approach to drug target 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 available scientific and business criteria, which may or may not be correct or sufficient, 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 drug target candidates to validate and/or progress in development, due to either lack of experience or applying the wrong criteria or experimental methodology, the selected candidates may never result in licensable targets or marketable products, and our business, financial condition and results of operations may be materially harmed.

The multiple drug target candidates in our pipeline may dilute the required resources available for each individual candidate and thus result in significant delays or failures.

Our predictive computational methodology results in the availability of a large number of drug target candidates for possible incorporation into our pipeline. Evaluating multiple drug target candidates both for incorporation into the pipeline and for their experimental assessment and drug development limits the resources available to each individual target candidate and might create delays, failures or premature program prioritization. If such delays or premature program prioritization become significant this can make the resulting therapeutic product candidates less competitive or even obsolete as competing products advance or significantly reduce their value due to shorter patent term protection. In addition, allocating our limited resources to multiple programs could result in no single program reaching its intended goal. Therefore, any such insufficient allocation of resources to specific programs may significantly decrease the value of such programs and our business in general.

If our predictive discovery approach does not prove to be successful, our business will be significantly harmed.

Our method of discovering novel drug target candidates involves first identifying unmet needs in the field of immunotherapy, where we believe our predictive capabilities would be relevant, or could be modified to be relevant. Specifically, we focus on treatments for patients non-responsive or refractory to existing immunotherapies. In this approach, we harness all of our relevant predictive discovery capabilities in order to identify novel drug targets for addressing such unmet patient need. Although our approach has resulted in the discovery of a number of novel drug target candidates in an area of significant industry interest, all of these drug target candidates and their related therapeutic product candidates are in early or very early stages of research and development, with the first two expecting to enter the clinic in 2018. Therefore, we cannot predict whether this approach will continue to yield drug target candidates or that any of our existing candidates or future candidate discoveries will be suitable for the successful development of therapeutic products and/or that these will meet patient needs. If our predictive discovery approach does not prove to be successful, or does not lead to successful therapeutic product candidates, our business will be significantly harmed.

Our focus on developing our pipeline has resulted in a substantial increase in activities, certain of which we will undertake for the first time and may result in therapeutic product candidate failures, or fewer therapeutic product candidates being available for partnering or commercialization.

Until recently, our in vitro and in vivo validation studies concluded with the drug target candidate expression profile and/or functional analysis, both in vitro and in vivo. Upon completion of such activities, or earlier, we initiated our efforts to enter into collaborations for such drug target candidates. 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 the increase in our R&D activities, we are conducting additional validation studies and advancing multiple programs in parallel, including advancing our therapeutic pipeline into preclinical activities, with two product candidates against Compugen-discovered novel targets expected to enter the clinic in 2018. This decision to move forward multiple programs in parallel and advance certain therapeutic product candidates further requires us to undertake certain activities for the first time. Any failure to successfully undertake these new activities may result in product candidate delays or failures either due to our lack of expertise, unsupportive findings, or lack of an appropriate technology, or the inherent risk of failure with respect to such activities. Furthermore, due to our limited resources, we must choose which target candidates to advance further into extensive target validation studies, followed by therapeutic product candidate development. This could result in fewer drug target candidates being available for partnering or commercialization, due to our available resources being insufficient to further advance all programs. In addition, if we fail to select the right target candidates or therapeutic product candidates to advance further, due to either lack of experience or applying wrong criteria or experimental methodology, the selected drug target candidates may never result in a licensable, approvable or 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 very limited. In order to successfully develop and commercialize therapeutic products, we must either access such expertise via collaborations, consultants or service providers, and/or continue to enhance and improve our internal expertise, capabilities and facilities. We may not be able to hire the scientists or other personnel with the required expertise in a timely manner, if at all, and/or engage any or all of the collaborators, consultants, 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, or these activities may be significantly delayed and as a result our business would be materially harmed.

Our continued expansion of our California-based therapeutic mAb research and development capabilities contains a number of risks.

In 2012, we established our own therapeutic mAb development capabilities at our U.S. based, wholly owned subsidiary, Compugen USA, Inc., in order to discover and develop mAb therapeutics against the drug target candidates that we discover. The continued expansion of such in-house capabilities contains a number of risks, including, without limitation, the need for additional resources and funding to maintain such capabilities or to acquire additional drug discovery capabilities, and the need to identify additional qualified employees and consultants in order to further advance these capabilities. Furthermore, although the scientists and other personnel we have hired have prior experience with other organizations in the field of therapeutic mAb research and development, we have limited development experience as a company in this field. Therefore, as a result, if we are unsuccessful in any of these required undertakings, our business could be materially harmed.

There are risks that are inherent in the development and commercialization of therapeutic products, and if any of 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 early stage target candidates will prove to be inappropriate targets for mAb therapeutics;
  - our early stage target candidates will prove to be inappropriate targets for immunotherapy;
  - our therapeutic product candidates will fail to progress to preclinical studies or clinical trials;
  - our early stage development efforts may provoke competition by potential partners;
  - our early stage collaborations may face internal competition by our partners within their own organizations;
  - our therapeutic product candidates will be found to be therapeutically ineffective;
  - our therapeutic product candidates will be found to be toxic or to have other unacceptable side effects;
  - our therapeutic product candidates will be inferior, or not show added value, compared to competing products;
  - we or our collaborators will fail to receive required regulatory approvals;
  - we or our collaborators will not be able to generate differentiation for our therapeutic product candidates;
  - we or our collaborators will fail to manufacture our therapeutic product candidates in the quantity or quality needed for preclinical studies or clinical trials on a large scale and in a cost effective manner;
  - the commercialization of our therapeutic product candidates or our drug target candidates may infringe third party intellectual property rights;
  - the development, marketing or sale of our therapeutic 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, inefficient marketing and sales activities or as a result of there being more attractive, less risky or less expensive, products available for the same use; and
  - the product will be withdrawn from the market, or sales limited due to side effects observed in clinical practice.
- If one or more of these risks or any similar risks should materialize, our business and financial results may be materially harmed.

#### Risks Related to Development, Manufacturing, 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 regulation by the FDA, including regulations relating to development, preclinical testing, performance of clinical trials, manufacturing and post-approval commercialization. Preclinical testing, clinical trials and manufacturing, among other activities, will be subjected to an extensive review process before a new therapeutic product may 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 FDA approval, and any other required approvals for therapeutic products is unpredictable but typically requires several years and may never be obtained.

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 foreign 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.

Clinical development involves a lengthy and expensive process, with an uncertain outcome. We may encounter substantial delays or even an inability to begin clinical trials for any specific product, or may not be able to conduct or complete our trials on the timelines we expect.

Obtaining marketing approval from regulatory authorities for the sale of any therapeutic product requires substantial preclinical development and then extensive human clinical trials to demonstrate the safety and efficacy of such product candidates. It is impossible to predict when or if any of our programs or those of our collaborators based on our target discoveries will yield products that will be approved for human testing, or, if such testing is proven sufficiently safe and effective to receive regulatory approval for marketing. Preclinical and clinical testing is expensive, time consuming, and subject to uncertainty. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval for such products.

Preclinical activities performed, and to be performed, by us and third-parties with whom we may engage support the submission to the FDA of Investigational New Drug applications, or IND, for COM701, which was submitted in the first quarter of 2018, and the IND for COM902, anticipated to be submitted in 2019. However, there can be no assurance that we will in fact submit additional INDs, nor if submitted, the actual timing for such submission, nor that such submissions (COM701 or others) will be accepted by the FDA allowing clinical trials to begin. There can be no assurance that clinical trials will begin at any predicted date or will be completed on schedule, if at all. Moreover, even if these clinical trials begin, issues may arise that could result in the suspension of or termination of such clinical trials. A failure of one or more clinical trials can occur at any stage of testing. Events that may prevent successful or timely completion of clinical development include:

- lack of authorization from regulators or institutional review boards, or IRBs, or ethics committees to allow us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation of clinical trials;

- delays in sufficiently developing, characterizing, or controlling a manufacturing process suitable for clinical trials;

- delays in reaching a consensus with regulatory agencies on study design;

- delays in reaching agreement on acceptable terms with prospective contract research organizations (“CROs”) and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and clinical trial sites;

imposition of a temporary or permanent clinical hold by the FDA, or a similar delay imposed by foreign regulatory agencies for a number of reasons, including after review of an IND, other application or amendment; (i) as a result of a new safety finding that presents unreasonable risk to clinical trial participants; (ii) a negative finding from an inspection of our clinical study operations or study sites; (iii) developments on trials conducted by competitors for related technology that raises FDA concerns about risk to patients of the technology broadly; or (iv) if FDA finds that the investigational protocol or plan is clearly deficient to meet its stated objectives;

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clinical trials of any product candidates may fail to show safety or efficacy, produce negative or inconclusive results and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials or we may decide to abandon product development programs;

difficulty collaborating with patient groups and investigators;

failure by our CROs, other third parties, or us to adhere to clinical trial and related regulatory requirements;

failure to perform in accordance with the FDA's Good Clinical Practice, or GCP, requirements, or similar applicable regulatory guidelines in other countries;

the number of patients required for clinical trials of any product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials or fail to return for post-treatment follow-up at a higher rate than we anticipate;

delays in having patients complete participation in a trial or return for post-treatment follow-up;

occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;

changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;

changes in the standard of care on which a clinical development plan was based, which may require new or additional trials;

the cost of clinical trials of our product candidates being greater than we anticipate;

clinical trials of our product candidates producing negative or inconclusive results, which may result in our deciding, or regulators requiring us, to conduct additional clinical trials or abandon product development programs;

- delays or failure to secure supply agreements with suitable reagent suppliers, or any failures by suppliers to meet our quantity or quality requirements for necessary reagents; and

delays in manufacturing, testing, releasing, validating, or importing/exporting sufficient stable quantities of our product candidates for use in clinical trials or the inability to do any of the foregoing.

Our product development costs will increase if we experience delays in clinical trials or in obtaining marketing approvals. We do not know whether any of our preclinical trials or clinical trials will begin as planned, and once begun will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also may allow our competitors to bring products to market before we do, potentially impairing our ability to successfully commercialize our product candidates and harming our business and results of operations. Any delays in our preclinical or future clinical development programs may harm our business, financial condition and prospects significantly.

It may be difficult to manufacture therapeutic products addressing drug target candidates discovered through our discovery capabilities.

Our pipeline program is focused mainly on mAbs generated against our discovered targets, with one Fc-fusion based program. These types of therapeutics can be difficult to manufacture in the quantity and quality needed for preclinical, clinical and commercial use. The production of mAbs and Fc fusion protein therapeutics must be conducted pursuant to a well-controlled and reproducible process and the resulting product testing must conform to defined quality standards. Should it prove to be difficult to manufacture any therapeutics addressing our drug candidates in sufficient

quantities, meeting the required quality standards 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 or other regulatory 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 or other regulatory actions. These actions may include:

- warning letters;
- clinical trial holds;
- recalls, product seizures or medical product safety alerts;
- data lock, for failure to comply with applicable privacy and data security laws;
- restrictions on, or prohibitions against, marketing such products;
- restrictions on importation of such 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; or
- debarment or other exclusions from government programs.

If we or our collaborators become 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. In addition, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from government-funded healthcare programs, such as Medicare and Medicaid, additional integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings and the curtailment or restructuring of our operations, if we are found to be in violation of U.S. federal, U.S. state or foreign healthcare fraud and abuse, transparency, or data privacy and security laws, among others, applicable to our current or future operations.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of regulatory authorities or do not otherwise produce meaningfully positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we or our partners must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidates in humans. Clinical testing is expensive and difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical studies and early clinical trials may not predict the success of later clinical trials and interim results of a

clinical trial do not necessarily predict final results. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety profiles, notwithstanding promising results in earlier trials. Despite the safety results reported from our preclinical studies for COM701, we do not know whether the clinical trials we or potential partners may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market of COM701, or any other of our product candidates when they reach the clinic, in any particular jurisdiction or jurisdictions. If later-stage clinical trials do not produce favorable results, our or our potential partners' ability to achieve regulatory approval may be adversely impacted.

We are subject to a certain manufacturing risks, any of which could either result in additional costs or delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

The process of manufacturing biologics is susceptible to product loss due to contamination, equipment failure, improper installation or operation of equipment, or vendor or operator error leading to process deviations. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects and other supply disruptions. If microbial, viral or other contaminations are discovered in our products or in the manufacturing facilities in which our products are made, the products may need to be manufactured again and/or such manufacturing facilities may need to be closed for an extended time to investigate and remediate the contamination. In May 2017, we announced that our manufacturing service provider for COM701, a global contract development and manufacturing organization (CDMO), informed us that the batch of material they manufactured for our planned GLP toxicity studies was contaminated during the manufacturing process. This contamination was discovered during quality control procedures prior to release of the affected batch and, as such, was not used in any preclinical studies. However, this contamination necessitated the production of a new batch of material for the execution of these studies, and as a result, we experienced a delay of several months in the submission of the COM701 IND.

We have not contracted with alternate suppliers in the event we experience any problems with our current manufacturer. If we are unable to arrange for alternative third-party manufacturing sources, or are unable to do so on commercially reasonable terms or in a timely manner, we may incur additional costs or be delayed in the development or delivery of our current and future product candidates.

Our current and future relationships, and/or the relationships of any future collaborators through which we market, sell, and distribute our products, with healthcare professionals, principal investigators, consultants, customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to penalties.

Our current and future business operations, including, among other things, our clinical research activities and our or our future collaborators' business and financial arrangements and relationships with healthcare providers, physicians and other parties through which we or our future collaborators may market, sell and distribute our products, once approved, may be subject to extensive U.S. federal, U.S. state and foreign healthcare fraud and abuse, transparency, and data privacy and security laws. For example, U.S. federal civil and criminal laws and regulations prohibit, among other things: knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, recommending or arranging for a good or service, for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs; knowingly presenting or causing to be presented, a false or fraudulent claim for payment by a federal healthcare program; and knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program (including a private payor), or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of, or payment for, healthcare benefits, items or services. Many U.S. states and foreign countries have analogous prohibitions that may be broader in scope and apply regardless of payor. In addition, we may be subject to U.S. federal, U.S. state and foreign laws that require us to report information related to certain payments and other transfers of value to certain health care professionals, as well as ownership and investment interests in our company held by those health care professionals and their immediate family members, and data security and privacy laws that restrict our practices with respect to the use and storage of certain data.

Efforts to ensure that our current and future business arrangements with third parties comply with applicable healthcare laws and regulations may involve substantial costs. If we or our future collaborators are found to be in violation of any of these laws, we or our future collaborators could be subject to significant civil, criminal and administrative penalties, including damages, fines, disgorgement, individual imprisonment, exclusion from participation in government healthcare programs, additional integrity oversight and reporting obligations, contractual

damages, reputational harm and the curtailment or restructuring of our operations, any of which, whether enforced against us or our future collaborators, could significantly harm our business and our royalties from any of our products, once approved, that we license to such future collaborators.

Significant disruptions of our information technology systems or breaches of our data security could adversely affect our business.

A significant invasion, interruption, destruction or breakdown of our information technology systems and/or infrastructure by persons with authorized or unauthorized access could negatively impact our business and operations. We could also experience business interruption, information theft and/or reputational damage from cyber-attacks, which may compromise our systems and lead to data leakage either internally or at our third party providers. Although we have invested in measures to reduce these risks, we cannot assure you that these measures will be successful in preventing compromise and/or disruption of our information technology systems and related data.

If a successful liability claim or other claim for damages or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, we could be forced to pay substantial damage awards.

The use of any of our product candidates in clinical trials might expose us to liability. Once we begin clinical trials, we expect to obtain clinical trial insurance coverage in amounts that we believe are reasonable and customary in our industry based on the size and design of such clinical trials. However, there can be no assurance that such insurance coverage will fully protect us against some or all of the claims to which we might become subject. We might not be able to maintain adequate insurance coverage at a reasonable cost or in sufficient amounts or scope to protect us against potential losses. In the event a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a claim brought successfully against us. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to direct financial and managerial resources to such defense and adverse publicity could result, all of which could harm our business.

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

We use human tissue samples and other human biological samples and conduct experiments involving animals for the purpose of development and validation of our technologies, discoveries and product candidates. Our access to and use of human tissue samples and other human biological 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, among other things compliance with the principles of the Helsinki Declaration, the Public Health Regulations (Clinical Trials in Human Subjects) 5740-1980, 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 use of clinical data related to any tissue or other human biological samples must comply with applicable local, national and international privacy law. Our use of animal models for preclinical research must comply with the U.S. Animal Welfare Act, the United States Public Health Service Policy on Humane Care and Use of Laboratory Animals, and applicable state and local laws. Our failure, or the failure of our subcontractors or collaborators, 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 microbial agents, 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 and local 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 may exceed our financial resources and may seriously harm our business. 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 be subject to liability and may be required to comply with new or existing laws and regulations regulating pharmaceuticals or be subject to 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 research, development and commercialization of our therapeutic product candidates. 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 further development and commercialization of products based on our drug target and therapeutic product candidates depends on third parties to carry out and/or finance, research, development and commercialization of such products, principally pharmaceutical, and biotechnology companies and other healthcare related organizations either on their own or in collaboration with us. To date, we have entered into one collaboration with Bayer with respect to our drug target candidates. Although Bayer is expecting to advance the CGEN-15001T/ILDR2 program to the clinic in 2018, we cannot be sure that the agreement will result in the successful development or commercialization of any product. Further, we cannot provide assurance that we will succeed in identifying additional suitable parties or entering into any other additional agreements on satisfactory terms or at all for the discovery, research, development and/or commercialization of our drug target or therapeutic product candidates. If we are unable to identify such additional suitable parties or enter into new agreements on satisfactory terms, or at all, our business will likely be materially harmed.

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We anticipate that we will rely completely on third parties to manufacture certain preclinical and all clinical drug supplies. Our business could be harmed if those third parties fail to provide us with sufficient quantities of drug product, or fail to do so at acceptable quality levels or prices.

We do not currently have, nor do we plan to acquire, the infrastructure or capability internally to manufacture our preclinical and clinical drug supplies for use in the conduct of our clinical trials, and we lack the resources and the capability to manufacture any of our product candidates on a clinical or commercial scale. In order to develop products, apply for regulatory approvals and commercialize our products, we will need to develop, contract for, or otherwise arrange for access to the necessary manufacturing capabilities. We anticipate that we will rely on contract manufacturing organizations, or CMOs, and other third party contractors to manufacture formulations and produce larger scale amounts of drug substance and the drug product required for any clinical trials that we initiate. Such third parties may not be able to deliver in a timely manner, or at all, or may not have the required experience with the FDA's current Good Manufacturing Practice, or cGMP, to manufacture our drugs in the required quality. We have entered into manufacturing and supply agreements with third parties for the manufacturing and respective analytics of each of COM701, for which we filed an IND in March 2018, and COM902, for which we expect to file an IND in 2019. These agreements are sole source agreements. Accordingly, if these third parties breach, terminate or otherwise are unable to fulfill their obligations under the agreements, we would need to identify an appropriately qualified alternative source, which could be time consuming, and we may not be able to do so without incurring material delays and costs in the development of our future products, including COM701 and COM902.

The manufacturing process for any products based on our technologies that we or our partners may develop is subject to the FDA regulation and foreign regulatory authority approval process, and we will need to contract with manufacturers who can meet cGMP requirements and foreign regulatory authority requirements on an ongoing basis. In addition, if we receive the necessary regulatory approval for any therapeutic drug candidate, we also expect to rely on third parties, including our commercial collaborators, to produce materials required for commercial supply. We may experience difficulty in obtaining adequate manufacturing capacity for our needs. If we are unable to obtain or maintain sufficient contract manufacturing for these product candidates, or to do so on commercially reasonable terms, we may not be able to successfully develop and commercialize our products.

To the extent that we enter into manufacturing arrangements with third parties, we will depend on these third parties to perform their obligations in a timely manner and consistent with regulatory requirements, including those related to quality control and quality assurance. The failure of a third-party manufacturer to perform its obligations as expected could adversely affect our business in a number of ways, including:

- we may not be able to initiate or continue preclinical and clinical trials of products that are under development;
- we may need to repeat clinical trials;
- we may be delayed in submitting regulatory applications, or receiving regulatory approvals, for our product candidates;
- we may lose the cooperation of our collaborators;
- we may be required to cease distribution or recall some or all batches of our products; and
- ultimately, we may not be able to meet commercial demands for our products, if approved.

If a third-party manufacturer with whom we contract fails to perform its obligations, we may be forced to manufacture the materials ourselves, for which we do not currently and may not in the future have the capabilities or resources, or identify and qualify a different third-party manufacturer, which we may not be able to do timely or on reasonable terms, if at all. In some cases, the technical skills or processes required to manufacture our product may be unique to the original manufacturer and we may have difficulty transferring such skills or processes to a back-up or alternate manufacturer, or we may be unable to transfer such skills or processes at all. In addition, if we are required to change manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations and guidelines. We will also be required to demonstrate that the newly manufactured material is similar to the previously manufactured material, or we may need to repeat clinical trials with the newly manufactured material. The delays associated with the verification of a new manufacturer could negatively affect our ability to develop product candidates or commercialize approved products in a timely manner or within budget. Furthermore, a manufacturer may possess technology related to the manufacture of our product candidate that such manufacturer owns independently, which would increase our reliance on such manufacturer or require us to obtain a license from such manufacturer in order to have another third party manufacture our products.

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 an agreement with us, the development and commercialization of our therapeutic 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 therapeutic product candidates needed for either clinical trials or for commercial purposes on a sufficiently large scale, in the required quality 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;
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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;

• our collaborators may terminate the program or the agreement and then compete against us in the development or commercialization of similar therapeutics;

• ownership of the intellectual property generated under or incorporated in 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 our novel targets or product candidates to which they have obtained rights from us;

our early stage collaborations may face internal competition by our partners within their own organizations;

prospective collaborators may hesitate to pursue collaborations on novel target candidates that lack robust validation to serve as a basis for the development of therapeutics; and

our collaboration partners may be acquired by, acquire, or merge with, another 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 drug target candidates, and this agreement with Bayer is subject to many risks. If such agreement is terminated by Bayer, 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/ILDR2 and CGEN-15022. This is our first collaboration arrangement for any of our pipeline 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 immune checkpoint target candidates, 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.

The Bayer Collaboration continues until Bayer is no longer required to make payments under the Agreement or until otherwise terminated by either party in accordance with the terms of the Agreement. Bayer may also 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. In July 2017, it was determined that the collaboration would focus solely on CGEN-15001T/ILDR2 and all rights to CGEN-15022 were returned to us. If significant adverse unforeseen events occur in the Bayer collaboration or the agreement is terminated, in whole or in part, particularly prior to 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 business.

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 or materials, including the production of certain biological reagents, which may be significant to us. If these third parties fail to properly or timely perform these activities, or provide us with incorrect or incomplete results, or fail to produce and/or provide certain materials 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.

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Moreover, 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 or activities, may be significantly harmed or delayed.

Additionally, we have entered into an agreement to obtain access to a highly diverse human phage display antibody library to generate antibodies against novel target candidates for our pipeline. The current term of this agreement terminates in June 2018, unless we pay certain renewal fees. In addition, if we fail to comply with the provisions of this agreement, the third party from which we have obtained license to this library may terminate our rights to use the library, which could harm our business, financial condition or results of operations.

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

During 2010, we began to focus our discovery efforts primarily on the prediction and selection of novel drug target candidates in specific areas of high interest in immuno-oncology, and in particular, immune checkpoint candidates and myeloid targets. The predicted target candidates undergo initial target validation studies and, in selected cases, are advanced to therapeutic product candidate discovery and early development and preclinical and 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, and rely on third parties to conduct such trials on our behalf. If these third parties are not successful in carrying out their duties our development of potential products may be delayed.

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 contract research organizations, or 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, if the quality of available information is poor, or if the quantity of the available information is insufficient, our operations and business may be harmed.

In the development, validation and continuing expansion and enhancement of our discovery platforms and other tools, as well as in connection with the resulting drug target and therapeutic 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, if we are granted access to such databases on terms which are not commercially reasonable, 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.

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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, 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 drug target candidates and our therapeutic candidates, we rely on our ability to access and use biological samples whether commercially available or through collaborations with academic research centers. The quality of our discoveries and validation 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, if the quality of available biological samples is poor, if the samples have not been obtained and made available for secondary use in accordance with applicable law, if the clinical annotation of the samples is incorrect, 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 yielded significant revenues.

The success of our business model relies on providing to third parties for commercialization, through licensing agreements and other forms of collaboration, our novel targets and related therapeutic product candidates at various stages of research and development, or the rights to develop such candidates, in each case based on our discovered novel drug target candidates. Additionally, our business model includes research and discovery collaborations aimed at harnessing our infrastructure capabilities towards the partners' specific focus on unmet patient needs. Our objective is that these collaborations, anticipated to be primarily with pharmaceutical and biotechnology companies, will be based on products, mostly derived from our existing and future pipeline of targets, with us having the right to receive fees, research revenues, milestones, royalties and other revenue-sharing payments from such products commercialized by, or on behalf of, such third party. Our partnering efforts are at an early stage of implementation. To date, we have entered into the Bayer Collaboration with respect to one drug target candidate from our pipeline. In addition, in the past, we entered into a number of other small collaboration agreements, none of which provided significant revenues.

There can be no assurance that any current or future agreements based on our discoveries and product candidates based on such discoveries will be successful and thus provide significant revenues to our Company, nor can there be any assurance that we will be able to enter into additional future agreements. If we are unable to succeed in securing additional license agreements or other collaboration arrangements related to our discoveries, our business will be materially harmed.

In addition, the vast majority of our internal programs are in the target discovery, research and validation stage, and/or in the early preclinical development stage. Two product candidates against Compugen-discovered novel targets are expected to enter the clinic in 2018. The research and validation data generated to date for our preclinical and early stage pipeline targets may not be sufficient for prospective collaborators, and furthermore the drug target candidates or prospective therapeutic product candidates may not fit their strategy. These companies may require more data, including their independent testing of our therapeutic product candidate, before considering a collaboration. We are therefore dependent on the fit of our programs with pharmaceutical company strategies and, there can be no assurance that we will be able to identify additional partners interested in our programs at their current stages of research and development. This may adversely affect our ability to enter into additional agreements for the research, development, license or other form of collaboration or commercialization of our therapeutic product candidates, and as a result may harm our business.

Additionally, we may not be able to commercialize our products as monotherapy treatments. We may be required to combine our product candidates with other therapies to provide sufficient efficacy for approval by FDA and other



regulatory authorities. As part of our business strategy, we are looking to establish clinical collaborations with pharmaceutical and biotechnology companies to specifically test the hypothesis that there may be greater effects when combining our products with other products. It may not be possible to establish these clinical collaborations, if our strategies do not match those of our potential pharmaceutical company partners. Failure to enter into combination clinical collaborations, may materially harm our business. These potential combination products may include both marketed as well as investigational products, and as such, adverse events resulting from combining the products or investigational agents are unknown and could be severe, including resulting in death of the patient due to these unknown toxicities. There is an industry trend towards drug combinations in the field of cancer immunotherapy may result in a situation under which our therapeutic product candidates will serve in a combination product and may therefore be entitled to only a fraction of the anticipated product revenues. These trends may adversely affect any revenues we may be entitled to receive and as a result may harm our business.

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 drug target candidate or the therapeutic product candidate or candidates involved, the potential market opportunity 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 therapeutic product candidates, 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, which 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 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 therapeutic 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-oncology field in particular, are highly competitive. Numerous entities in the United States, Europe and elsewhere compete with our efforts to discover, validate, develop and partner with licensees and/or collaborators to commercialize drug target and therapeutic products or other 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 therapeutics;

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more extensive experience in oncology, immunology and immuno-oncology and in the fields of mAb therapy and fusion protein therapeutics;

greater resources and means to compete with us on target discovery and as well as in acquiring or generating technologies complementary to, or necessary for, our programs as well as in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites;

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products that have been approved or are in late stages of development;

reduced reliance on collaborations or partnerships with third parties in order to further develop and commercialize competitive therapeutic products; and

- 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 drug target or therapeutic product candidates 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, or broader than ours, and thereby prevent us from pursuing the development and commercialization of our discoveries. They may also develop products faster than us and therefore limit our market share. 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.

Healthcare policy is volatile and 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 therapeutic 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. Drug prices in particular are under significant scrutiny and continue to be subject to intense political and societal pressures, which we anticipate will continue and escalate on a global basis.

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”), represents the biggest regulatory overhaul to the health care system in decades and substantially changes the way health care is financed by both governmental and private insurers. However, the ACA has faced legislative, judicial, executive and political challenges from Congress, the Trump administration, state governments, consumer groups and business organizations. For example, since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, ACA-related provisions have been enacted as part of tax reform or federal budget legislation that, among other things, affect the implementation of certain taxes under the ACA and increase discounts owed by certain drug manufacturers under Medicare Part D.

In addition, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products that has led to several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. Further, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

It is too early to predict specifically what effect repeal of the ACA and the implementation of any replacement 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. Yet, current and future healthcare reform legislation and policies could have a material adverse effect on our business and financial condition.

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## Risks Related to our Operations

Our operations including research and development are centralized at two sites without significant redundancies. Physical or environmental damages or other reasons making one or both sites non-operational may significantly affect our business.

Our company has two major sites, in Holon, Israel and South San Francisco. Damage to either or both of these sites due to natural calamities or other reasons can significantly disrupt our business, delay our business operations, jeopardize our ability to meet contractual obligations or patent prosecution deadlines and result in significant harm to our business.

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, they can terminate their employment agreements with us at any time without cause. 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, mainly in the field of immuno-oncology.

It can also be difficult for us to find employees with appropriate experience for our business. During 2018, we plan to add additional clinical expertise, which will require increased efforts to attract the required personnel with the required expertise and experience. We require a multidisciplinary approach and some of our researchers require an understanding in both exact and biological sciences. In addition, we require experience in drug development and immuno-oncology, for which there is significant competition, mainly in the U.S.A., for highly qualified personnel in these fields. As a result, we may face higher than average employee turnover or challenges in hiring due to such competition. 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 and 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 or a contractor, 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. Some of our proprietary data is maintained in secured cloud services that may also be subject to security breach, including by employees of the cloud services provider. 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.

## 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 targets, therapeutic and diagnostic product candidates and their method of use, 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 drug targets and product candidates. We design our patent strategy to fit the business competitive landscape and continual legislative changes. In addition, we periodically analyze and examine our patent portfolio to align it with our pipeline strategy and business needs. As of March 1, 2018, we had a total of 60 issued and allowed patents, of which 31 are U.S. patents, six are Australian patents, six are Israeli patents, five are European patents, two are Canadian patent, two are New Zealand patent, three are Japanese patents, one is a Chinese patent, one is a patent in Singapore one is a patent in the Russian Federation, one is a patent in South Africa and one is a patent in Hong Kong. Our issued and allowed patents expire between 2021 and 2036. We also have 94 pending patent applications, which as of March 1, 2018, included 28 patent applications that have been filed in the United States, 11 patent applications that have been filed in Europe, five patent applications that have been filed in Israel, four 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, four patent applications that have been filed in India, four patent applications that have been filed in China, two patent applications that have been filed in Brazil, three patent applications that have been filed in Korea, three patent applications that have been filed in New Zealand, three patent applications that have been filed in the Russian Federation, three patent applications that have been filed in Singapore, 3 patent applications that have been filed in Mexico, four patent applications that have been filed in South Africa, two patent applications that have been filed in Hong Kong, two patent applications that have been filed in Egypt 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 drug target candidates, 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 us to file with insufficient supportive data, possibly making it difficult to obtain patents in jurisdictions that do not accept post filing evidence to support the claims, and thus enabling others to compete with us. This may also cause issuance of a patent at an earlier stage creating a shorter commercialization period under patent protection, possibly enabling others to compete with us. Delays in filing patents may preclude us from obtaining protection on some or all of our drug target candidates and product candidates due to others filing ahead of us. Patent applications filed before us, but yet unpublished may cause us to spend significant resources in areas that due to these previously filed patents or applications we are not able to obtain patent protection or that the scope of protection is much narrower than contemplated.

Because the patent position of biopharmaceutical companies involves complex legal and factual questions, we cannot predict the validity, scope or enforceability of patents with certainty. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability and our patents may be challenged in the courts or patent offices in the United States and abroad which may result in such patents being narrowed, invalidated, or held unenforceable. Our pending patent applications, and those we may file in the future may not result in patents being issued. Furthermore, even if our patents do issue, and even if they are unchallenged, our patents may not adequately protect our intellectual property or prevent others from designing their products to avoid being covered by our claims. If the breadth or strength of protection provided by the patents we hold is threatened, this could dissuade companies from collaborating with us to develop, and could threaten our ability to commercialize, product candidates and expose us to unexpected competition that could have a material adverse impact on our business.

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 inventions involves complex legal issues relating to intellectual property laws, prosecution and enforcement of patent claims across a number of patent jurisdictions, 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 patent claims to certain biologic molecules- and/or use of certain therapeutic targets;

in view of the finite number of human proteins, we face 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 or other modulators 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 patent claims on antibodies or certain proteins or other biologic modulators, or may hinder our ability to obtain sufficiently broad patent claims for our inventions, and/or may limit our freedom to operate;

publication of gene and/or data on gene products 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 circumventing our patent claims;



even if we succeed in obtaining patent protection, we may face freedom to operate (FTO) issues;

even if we succeed in obtaining patent claims protecting our inventions and product candidates, our patents could be subject to challenge and litigation by our competitors, and may be partially or wholly invalidated as a result of such legal/judicial challenges;

there are significant costs that may need to be incurred in registering and filing patents;

our data may be insufficient to support our claims and/or 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 certain patent claims or limit the scope of patent claim coverage;

we may not be able to supply sufficient data to support our claims, within the legally prescribed time following our initial filing in order to support our patent claims and this may harm our ability to get appropriate patent protection or protection at all; and

our claims may be too broad and not have sufficient enablement, in which case such claims might be rejected by patent offices or invalidated in court.

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 USPTO Examination Guidelines, first issued in March 2014 (with updated guidelines issued in December 2014, July 2015 and May 2016), introduced new procedure for determining subject matter eligibility of claims post *Myriad*, and they include specific questions and factors that weigh against or for patent eligibility of other isolated natural products. However, these rules are still in flux, as additional decisions of the Court and/or lower courts impact the USPTO Examination Guidelines, which are then adjusted accordingly. 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. Recent court decisions have clarified that purely DNA-based claims are no longer patentable in the US. However, the patentability of claims toward diagnostic methods based upon antibodies for example is still unclear; the most recent guidance from the USPTO indicates that the patentability of such claims may depend upon the patentability of the underlying reagents. In a 2014 decision rendered by the Court of Appeals for the Federal Circuit in *Abbvie Deutschland v. Janssen Biotech and Centocor Biologics*, Fed. Cir. July 1, 2014, the jury found both Abbvie's patents on fully humanized antibodies to IL-12 invalid as failing the written description requirement. There are no clear rules regarding the number of species that must be disclosed to describe a genus claim, as this number necessarily changes with each invention, and it changes with progress in the field. Although it is well-settled that the written description requirement does not require actual reduction to practice of all of the representative species, a patentee must provide a clear correlation between common structural elements and function across the whole genus. 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.

The patent eligibility of antibodies has been further challenged by recent court cases and also by USPTO guidelines. In regard to the former, *Amgen Inc. et al v. Sanofi et al.* has challenged the ability to obtain broad genus claims for antibodies binding to a particular epitope. The case is still ongoing.

We may also be affected by decisions regarding the patents of others, which may impact our ability to make, use, sell, license or otherwise engage in business for our own inventions, due to the possibility of patent infringement. For example, BMS (Bristol-Myers Squibb) and partners sued Merck & Co over alleged infringement of the BMS partner's patent for anti-PD-1 antibody treatment of metastatic melanoma. The case settled and we do not know how this will impact our own business.

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If we do not succeed in obtaining patent protection for our inventions (should it be discoveries, drug targets candidates and product candidates) to the fullest extent for which we seek protection, or if we fail to select the best inventions to seek such protection, our business and financial results could be materially harmed.

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

Aside from our patented information, we also rely on a combination of patents, trade secrets, know-how, technology and trademarks to maintain our competitive position. 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. 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.

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 or antibodies directed thereat. 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 drug target candidates and 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. Moreover, when patents ultimately are issued, the claims may be substantially different from those that were originally published, and may vary from country to country. Furthermore, there may be issue patents or pending patent applications that we are aware of, but that we think are irrelevant to our therapeutic or diagnostic product candidates, but which may ultimately be found to be infringed by the manufacture, sale, or use of such product candidates. 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 or, to the extent such third party right has not expired, obtain a license which may involve substantial financial resources.

In addition, due to changes in U.S. law referred to as patent reform, new procedures including inter partes review and post-grant review have been implemented to enable third-party challenges of the validity of a patent. This reform adds uncertainty to the possibility of a challenge to our patents in the future. We may also become involved in similar opposition proceedings in the European Patent Office or similar offices in other jurisdictions regarding our intellectual property rights with respect to our products and technology. Since patent applications are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our product candidate.

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We, or a potential collaborators and licensees, may infringe third party rights and may become involved in litigation, which may materially harm our business.

If a third party accuses us or a potential collaborator and licensee of infringing its intellectual property rights or if a third party commences litigation against us or a potential collaborator and licensee for the infringement of patent or other intellectual property rights, we may incur significant costs in obtaining a license or defending such action, whether or not we ultimately prevail. Typically, patent litigation in the pharmaceutical and biotechnology industry is expensive and prolonged. Some claimants may have substantially greater resources than we do and may be able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. Costs that we may 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 or a potential collaborator and licensee, we may be required to pay damages, including treble damages and attorney's fees if we are found to be willfully infringing a third party's patent, or obtain one or more licenses from the prevailing third party (if not obtained prior to such litigation), which may not be available to us on commercially reasonable terms, if at all. Even if we were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property. If we are not able to obtain such a license or not able to obtain such a license at a reasonable cost, we could be prevented from commercializing a product until the relevant patents expired, or we could be forced to redesign our products, or to cease some aspect of our business operations, and 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, and would divert management's attention from our core business.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property, which could be expensive, time consuming and unsuccessful.

Competitors may infringe, misappropriate or otherwise violate our patents, trademarks, copyrights or other intellectual property, or those of our licensors. To counter infringement, misappropriation, unauthorized use or other violations, we may be required to file legal claims, which can be expensive and time consuming and divert the time and attention of our management and scientific personnel.

We may not be able to prevent, alone or with our licensees or any future licensors, infringement, misappropriation or other violations of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, there is a risk that a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patents do not cover the invention. An adverse outcome in a litigation or proceeding involving our patents could limit our ability to assert our patents against those parties or other competitors, and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Any of these occurrences could adversely affect our competitive business position, business prospects and financial condition. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

In any infringement, misappropriation or other intellectual property litigation, any award of monetary damages we receive may not be commercially valuable. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. Moreover, there can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings.

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

Changes in either the patent laws or interpretation of the patent laws in the U.S. or other jurisdictions could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued 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 a new procedure of the Inter Partes Review, which replaces a previous inter partes reexamination procedure, for challenging the validity of a U.S. patent. The procedure is conducted by the Patent Trial and Appeal Board, and must be completed within 12 months from institution. The Inter Partes Review can be used to challenge the patentability of one or more claims in a US patent on a ground that could be raised under 35 U.S.C. §§ 102 or 103, and on the basis of prior art consisting of patents or printed publications. Second, the Act provides for a period of ex parte post-grant review with expanded grounds for challenging validity, including §§101, 102, 103 and 112, 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 may not be able to 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 product 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). As an increasing amount of scientific knowledge is becoming available for various proteins and their potential use as drug targets, with time we may be limited or 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. Decisions by the Committee and Israeli courts have created some uncertainty in this area. 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.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The USPTO and various foreign patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions to maintain patent applications and issued patents. Noncompliance with these requirements can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

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We may be subject to claims that we or our employees, consultants, contractors or advisors have infringed, misappropriated or otherwise violated the intellectual property of a third party, or claiming ownership of what we regard as our own intellectual property.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the intellectual property and other proprietary information, know-how or trade secrets of others in their work for us, we may be subject to claims that we or these employees have used or disclosed such intellectual property or other proprietary information. Litigation may be necessary to defend against these claims.

In addition, while we typically require our employees, consultants and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. To the extent that we fail to obtain such assignments, such assignments do not contain a self-executing assignment of intellectual property rights or such assignments are breached, we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property. If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products. Such a license may not be available on commercially reasonable terms or at all. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to our management and scientific personnel.

Patent terms may be inadequate to protect our competitive position on our product candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our product candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Intellectual property rights do not necessarily address all potential threats to our business.

Once granted, patents may remain open to opposition, interference, re-examination, post-grant review, inter partes review, nullification or derivation action in court or before patent offices or similar proceedings for a given period after allowance or grant, during which time third parties can raise objections against such grant. In the course of such proceedings, which may continue for a protracted period of time, the patent owner may be compelled to limit the scope of the allowed or granted claims thus attacked, or may lose the allowed or granted claims altogether. In addition, the degree of future protection afforded by our intellectual property rights is uncertain because even granted intellectual property rights have limitations, and may not adequately protect our business. The following examples are illustrative:

- others may be able to make products that are similar to our products but that are not covered by the claims of our patent rights

- the patents of third parties may have an adverse effect on our business;

we or our licensors or any future strategic partners might not have been the first to file patent applications on the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed

others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights

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It is possible that our pending patent applications will not lead to issued patents

issued patents that we may own or that we exclusively license in the future may not provide us with any competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by our competitors

our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets

third parties performing manufacturing or testing for us using our product candidates or technologies could use the intellectual property of others without obtaining a proper license;

we may not develop additional proprietary technologies that are patentable and

the patents of others may have an adverse effect on our business.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations and prospects.

#### Risks Related to Operations in Israel

Conditions in the Middle East and in Israel may adversely affect our operations.

Our headquarters and part of our research and development facilities are located in Israel. Accordingly, we are directly influenced by the political, economic and military conditions affecting Israel. Specifically, we could be adversely affected by:

hostilities involving Israel;

the interruption or curtailment of trade between Israel and its present trading partners;

a downturn in the economic or financial condition of Israel; and

a full or partial mobilization of the reserve forces of the Israeli army.

Israel has been subject to a number of armed conflicts that have taken place between it and its Arab neighbors. While Israel has entered into peace agreements with both Egypt and Jordan, Israel has no peace arrangements with any other Arab country. Further, all efforts to improve Israel's relationship with the Palestinian Authority have failed to result in a permanent solution, and there have been numerous periods of hostility in recent years. This state of hostility, varying from time to time in intensity and degree, has led to security and economic problems for Israel.

The high level of uncertainty in the region continued to intensify in 2017 with the continuation of the civil war and state of chaos experienced in Syria, adjacent to Israel's northern border, the continued involvement of regional extremist Islamic groups, based in Syria, in hostile activities against Israel, and the continued hostile activities of ISIS, the Islamic State, in Syria, and in the Sinai Peninsula – which all contribute to the tension in the region. Also, relations between Israel and Iran continue to be strained, especially due to the fact that Iran is perceived by Israel as a sponsor of these regional extremist Islamic groups and with regard to Iran's nuclear program.

All of the above raise a concern as to the stability in the region which may affect the political and security situation in Israel and therefore could adversely affect our business, financial condition and results of operations.

Furthermore, the continued conflict with the Palestinians is already disrupting some of Israel's trading activities. Certain countries, primarily in the Middle East but also in Malaysia and Indonesia, as well as certain companies and organizations in different parts of the world, continue to participate in a boycott of Israeli firms and others doing business with Israel and Israeli companies. The boycott, restrictive laws, policies or practices directed towards Israel or Israeli businesses could, individually or in the aggregate, have a material adverse effect on our business in the future. Further deterioration of our relationship with the Palestinians or countries in the Middle East could expand the disruption of international trading activities in Israel, may materially and negatively affect our business conditions and could harm our results of operation. In addition, a number of our employees who are Israeli citizens are subject to an obligation to perform reserve military service. In case of further regional instability such employees who may include one or more of our key employees may be absent for extended periods of time which may materially adversely affect our business.

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We can give no assurance that the political and security situation in Israel, as well as the economic situation, will not have a material impact on our business in the future.

Our results of operations may be adversely affected by the exchange rate fluctuations between the dollar and the New Israeli Shekel.

We hold most of our cash, cash equivalents and short-term and long-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 exchange rate fluctuations between the U.S. dollar and the NIS, which may have a material adverse effect on our financial condition. In 2015 the U.S. Dollar appreciated against the NIS by 0.3%, in 2016 and 2017 the U.S. Dollar depreciated against the NIS by 1.5% and 9.8%, respectively, and, as a result, our NIS denominated expenses were affected by these fluctuations. We entered into foreign currency derivative contracts to hedge a portion of our anticipated NIS payroll and certain operation expenses. For more information, see Note 2u of our 2017 consolidated financial statements.

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.

We are incorporated under the laws of the State of Israel. Service of process upon our directors and officers, almost all of whom reside outside the United States, may be difficult to obtain within the United States. Furthermore, because the majority of our assets and investments, and almost all of our directors and officers are located outside the United States, any judgment obtained in the United States against us or any of them may not be collectible within the United States. Additionally, it may be difficult to enforce civil liabilities under U.S. federal securities laws in original actions instituted in Israel.

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 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.

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

Israeli corporate law regulates mergers and requires that a tender offer be effected when certain thresholds of percentage ownership of voting power in a company are exceeded (subject to certain conditions). Further, Israeli tax considerations may make potential transactions undesirable to us or to some of our shareholders whose country of

residence does not have a tax treaty with Israel granting tax relief to such shareholders from Israeli tax. With respect to mergers, Israeli tax law allows for tax deferral in certain circumstances but makes the deferral contingent on the fulfillment of numerous conditions, including a holding period of two years from the date of the transaction during which certain sales and dispositions of shares of the participating companies are restricted. Moreover, with respect to certain share swap transactions, the tax deferral is limited in time, and when such time expires, the tax becomes payable even if no actual disposition of the shares has occurred. See “Item 10. Additional Information - B. Memorandum and Articles of Association — Change of Control.”

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Furthermore, due to our receipt of grants from the Israel Innovation Authority, or the IIA (formerly known as the Office of Chief Scientist, or the OCS), we are subject to the Restrictive Trade Practices Law, 1988 and under the Israeli law for the Encouragement of Industrial Research and Development of 1984 and regulations promulgated thereunder, which we refer to as the R&D Law. Under these laws, approvals regarding a change in control (such as a merger or similar transaction) may be required in certain circumstances. For more information regarding such required approvals please see “Item 5. Operating and Financial Review and Prospects– C. Research and Development, Patents and Licenses – The Israel Innovation Authority.”

These provisions of Israeli law could have the effect of delaying or preventing a change in control and may make it more difficult for a third party to acquire us or our shareholders to elect different individuals to our board of directors, even if doing so would be beneficial to our shareholders, and may limit the price that investors may be willing to pay in the future for our ordinary shares.

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

We have received research and development grants from the IIA. Therefore, even following full repayment of any IIA grants, and unless agreed otherwise by the applicable authority of the IIA, we must nevertheless continue to comply with the requirements of the R&D Law. Accordingly, the transfer of know-how or technologies developed under the programs submitted to the IIA and as to which we received the grants, or manufacturing or rights to manufacture based on and/or incorporating such know-how to third parties, might require the prior consent of the IIA, and may require certain payments of increased royalties to the IIA. 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 involving product or other asset transfers with our affiliates, customers or other third parties outside Israel, involving product or other asset transfers, which might otherwise be beneficial to us. For more information regarding such restrictions please see “Item 5. Operating and Financial Review and Prospects– C. Research and Development, Patents and Licenses – The Israel Innovation Authority.”

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; and

- 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, we may follow home country practice in Israel in lieu of certain NASDAQ listing requirements with regard to, among other things, director nomination procedure, shareholder approval for certain matters, composition of the compensation committee and approval of equity-based incentive plans for our employees. Following our home country governance practices as opposed to the requirements that would otherwise apply to a United States company listed on NASDAQ may provide less protection than is accorded to investors under the NASDAQ Listing Rules

applicable to domestic issuers. For more information regarding specific exemptions we chose to adopt, please see “Item 16G — Corporate Governance.”

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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.

Because we are incorporated under Israeli law, the rights and responsibilities of our shareholders are governed by our Articles of Association (“Articles”) and Israeli law. These rights and responsibilities differ in some 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 the general meeting of shareholders on certain matters, such as an amendment to a company’s articles of association, an increase of a company’s authorized share capital, a merger of a company and approval of related party transactions that require shareholder approval. A shareholder also has a general duty to refrain from discriminating against other shareholders. In addition, a controlling shareholder or a shareholder who knows that it possesses the power to determine the outcome of a shareholders’ vote or to appoint or prevent the appointment of an office holder in a company or has another power with respect to a company, has a duty to act in fairness towards such company. Israeli law does not define the substance of this duty of fairness and 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 our shareholders that are not typically imposed on shareholders of U.S. corporations.

#### Risks Related to our Ordinary Shares

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 believe that we were a PFIC for the taxable year ended December 31, 2017. 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 will be a PFIC in future years, including 2018. 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 are 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.”

Recent changes to tax laws could materially adversely affect our company and reduce net returns to our shareholders

On December 22, 2017, new legislation was signed into law (H.R. 1, “An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018”, informally titled the Tax Cuts and Jobs Act, or the Tax Act) that significantly revises the Code. The Tax Act, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), implementation of a “base erosion anti-abuse tax” which requires U.S. corporations to make an alternative determination of taxable income without regard to tax deductions for certain payments to affiliates, taxation of certain non-U.S. corporations’ earnings considered to be “global intangible low taxed income” (also referred to as “GILTI”), repeal

of the alternative minimum tax, or AMT, for corporations and changes to a taxpayer's ability to either utilize or refund the AMT credits previously generated, changes in the attribution rules relating to shareholders of certain "controlled foreign corporations", limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, one-time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. Notwithstanding the reduction in the U.S. corporate income tax rate, the overall impact of the Tax Act is uncertain and our business and financial condition could be adversely affected. We are unable to predict what federal tax law may be proposed or enacted in the future or what effect such changes would have on our business, but such changes, to the extent they are brought into tax legislation, regulations, policies or practices, could affect our effective tax rates in the future in countries where we have operations and have an adverse effect on our overall tax rate in the future, along with increasing the complexity, burden and cost of tax compliance. We urge holders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our shares.

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Our ability to use net operating losses to offset future taxable income may be subject to limitations.

As of December 31, 2017, our U.S. subsidiary, Compugen USA, Inc. had estimated federal net operating loss carryforwards of \$9.2 million. The federal net operating loss carryforwards will begin to expire, if not utilized, beginning in 2020. These net operating loss carryforwards could expire unused and be unavailable to offset future income tax liabilities. Under the newly enacted federal income tax law, federal net operating losses incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such federal net operating losses is limited. It is uncertain if and to what extent various states will conform to the newly enacted federal tax law.

If we sell ordinary shares in future financings, shareholders may experience immediate dilution and, as a result, our stock price may decline.

In order to raise additional capital, we may at any time offer additional ordinary shares or other securities convertible into or exchangeable for our ordinary shares at prices that may not be the same as the price you paid for our ordinary shares. We may sell ordinary shares or other securities in any other offering at a price per share that is less than the price per share paid by our existing shareholders, and investors purchasing shares or other securities in the future could have rights superior to existing shareholders. The price per share at which we sell additional ordinary shares, or securities convertible or exchangeable into ordinary shares, in future transactions may be higher or lower than the price per share paid by our existing shareholders. If we issue ordinary shares or securities convertible into ordinary shares, our shareholders would experience additional dilution and, as a result, our stock price may decline.

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 2016 and 2017, our stock price on NASDAQ has traded from a low of \$2.25 to a high of \$7.57 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;
- our ability (or lack thereof) to disclose key discoveries or developments due to competitive concerns or need to secure our intellectual property position;
- 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 preclinical 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; and
- 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.

Shareholder activism can negatively affect our business.

In recent years, shareholder activists have become involved in numerous public companies. Shareholder activists could propose to involve themselves in the governance, strategic direction and operations of a company. We have recently encountered such activism. Before our 2017 annual general shareholders' meeting, we received a formal request from an individual private shareholder, holding approximately 1.3% of the Company's voting rights, to add to the agenda of the meeting the proposed appointment of two new director candidates, both of whom were not recommended by management. This proposal was rejected by the shareholders at the meeting. Shareholder activism, including potential proxy contests, could divert our management's and board of directors' attention and resources from our business, could give rise to perceived uncertainties as to our future direction and could result in the loss of potential business opportunities and make it more difficult to attract and retain qualified personnel for positions in both management and on the board level. If nominees advanced by activist shareholders are elected or appointed to our board of directors with a specific agenda, it may adversely affect our ability to effectively and timely implement our strategic plans or to realize long-term value from our assets. Also, we may be required to incur significant expenses including legal fees related to activist shareholder matters. Further, our share price could be subject to significant fluctuations or otherwise be adversely affected by the events, risks and uncertainties of any shareholder activism.

#### 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 and operate under the Israeli Companies Law, 5759-1999, as amended together with all regulations promulgated thereunder (the “Companies Law”). Our principal offices are located at 26 Harokmim Street, Holon 5885849, Israel, and our telephone number is +972-3-765-8585. Our web address is [www.cgen.com](http://www.cgen.com). Information contained on our website does not constitute a part of this Annual Report.

Our agent for service of process in the United States is Compugen USA, Inc., our wholly owned U.S. subsidiary located at 250 E. Grand Avenue, Suite 65, South San Francisco, CA 94080, 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, 2017, 2016 and 2015, our capital expenditures were \$0.2 million, \$2.6 million and \$3.1 million, respectively, and for the year 2016 were spent primarily on leasehold improvements for the new facilities in Holon, Israel (see “Item 4. Information on the Company – D. Property, Plants and Equipment”), laboratory equipment, general computer software and hardware. As of December 31, 2017, we have no current significant commitments for capital expenditures.

## B. BUSINESS OVERVIEW

### Summary

Compugen is a therapeutic discovery and development company utilizing its broadly applicable predictive discovery infrastructure to identify novel drug targets and develop first-in-class therapeutics in the field of cancer immunotherapy. Our therapeutic pipeline consists of immuno-oncology programs against novel drug targets we have discovered, including T cell immune checkpoints and myeloid target candidates, which serve for the development of first-in-class cancer immunotherapy drugs. By diversifying our pipeline with the discovery of new target pathways having the potential to address multiple immune suppressive components in the tumor microenvironment, we aim to broadly address cancer treatment and provide first-in-class treatment solutions in areas of unmet medical needs in various cancer types and patient populations, both as monotherapy and in combination with other drugs. Currently, we have four preclinical stage programs in our pipeline, originating from our discovery capabilities, as well as a portfolio of earlier stage programs mostly focused on myeloid targets, a newly-rising and promising field in cancer immunotherapy. Our preclinical stage pipeline currently consists of three immuno-oncology product candidates, of which two are expected to enter the clinic in 2018 and a preclinical stage fusion protein for autoimmunity. Our business model is to selectively enter into collaborations for our novel targets and related drug product candidates at various stages of research and development. Compugen is headquartered in Holon, Israel, with R&D facilities located in both Holon and South San Francisco. At the U.S. facilities, therapeutic monoclonal antibodies (mAbs) are discovered and developed against our novel drug target candidates.

### Fields of Focus

Our fields of focus are oncology and autoimmunity, with substantial emphasis on immuno-oncology. Oncology and autoimmunity are medical fields with significant unmet medical needs, and both are of high interest to the biopharmaceutical industry with numerous efforts being made to identify novel therapeutic solutions. Within oncology, our primary focus area of immuno-oncology is of particularly high interest, and is seen as providing a major breakthrough in cancer treatment.

Biologic therapies have revolutionized patients’ treatment in our selected disease areas of focus and have demonstrated substantial clinical benefit and commercial success. As a result, biologics are one of the fastest growing segments in the drug industry and made up 26% of 2017 FDA approvals. Biologics to treat cancer represented three of the top ten best-selling drugs in 2017, and included Rituxan®, Herceptin® and Avastin®. Additionally, seven of the top ten selling drugs in 2017 were biologics including Humira® (adalimumab), the top selling drug in 2017 with sales of \$18.4 billion, Remicade® (infliximab) and Rituxan/MabThera® (rituximab), all indicated for the treatment of arthritis, one of the therapeutic conditions in autoimmunity.

For these reasons, oncology and autoimmunity continue to be disease areas of high interest to pharmaceutical companies with numerous efforts to identify novel therapeutic solutions. Our science-driven predictive discovery capabilities are well suited for the identification of novel target candidates suitable for therapeutic intervention for these complex diseases.

### · Oncology

Our primary focus is immuno-oncology, and specifically in immune checkpoint targets, and more recently, we expanded to include myeloid targets present in the tumor microenvironment (TME), in both cases with the objective of unleashing the potential of the natural anti-tumor immune response.

Immune checkpoints:

Immune checkpoints are negative regulators of the immune system that play critical roles in maintaining self-tolerance, preventing autoimmunity and protecting tissues from immune collateral damage. These immune checkpoints are often “hijacked” by tumors to restrain the ability of the immune system to mount an effective anti-tumor response.

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The activity of the immune system is mostly regulated by immune cells called T cells. One protein family which is responsible for regulating immune cells, including T cells, is the B7/CD28 family of co-stimulatory and co-inhibitory receptors and ligands. Naïve T cells are initially activated by antigens derived from invading pathogens or from malfunctioning cells, such as cancer cells. The magnitude and efficacy of the immune response is determined by a delicate balance between co-stimulatory and co-inhibitory signals. Tumors exploit this regulatory mechanism by continuously inducing co-inhibitory signals (immune checkpoints) to evade immune destruction. Therefore, the ultimate goal of cancer immunotherapy is to enable the immune system to detect cancerous cells, destroy them and prevent further tumor development.

Checkpoint-blocking antibodies have demonstrated impressive clinical benefits and long-term survival, even for end-stage patients, raising hopes that this novel approach might lead to effective therapeutic strategies and valuable additions in the fight against cancer. There are currently six therapies approved for the treatment of cancer that target immune checkpoint proteins. Yervoy®, an antibody treatment targeting CTLA-4, was approved by the FDA in 2011 and registered 2017 sales of \$1.2 billion. In September 2014, Keytruda®, an antibody therapy targeting PD-1, received accelerated approval from the FDA for the treatment of advanced melanoma and has since been approved for the treatment of non-small cell lung cancer, head and neck squamous cell carcinoma, classical Hodgkin's lymphoma, gastric cancer, microsatellite instability-high cancer and urothelial cancer. In 2017, Keytruda® registered sales of \$3.8 billion. Opdivo®, an antibody therapy targeting PD-1 was first approved for the treatment of advanced melanoma in December 2014 and has since been approved for the treatment of multiple cancers including: advanced lung cancer, metastatic renal cell carcinoma, Hodgkin's lymphoma, head & neck cancer, bladder cancer, micro satellite-high colorectal cancer and liver cancer. In 2017, Opdivo® registered sales of nearly \$5 billion. Several antibody therapies targeting PD-L1 have also been approved including Tecentriq®, approved for bladder and lung cancer, Imfinzi®, approved for lung cancer, and Bavencio®, approved for bladder cancer and merkel cell carcinoma. These therapies, along with many additional immune checkpoint targeting programs, are currently in advanced clinical trials in a large number of cancer indications with significant unmet need. Sales of therapies targeting immune checkpoint proteins registered \$10.5 billion in sales in 2017. Industry analysts estimate that the cancer immunotherapy market has a significant growth potential and annual sales' projections of some of these analysts range between \$28 billion and \$40 billion.

Despite the success of CTLA4 and PD-1 blockers, many patients do not respond to these treatments and the clinical benefit is still limited to a subset of cancer indications. In those indications where a response is seen, it is typically only a minority of patients that achieve the promise of long-term survival. It is therefore clear there are additional immune evasion mechanisms mediated by other immune checkpoint proteins.

#### Myeloid Targets:

Myeloid biology is a critical component of immune suppression with myeloid cells now recognized as a key factor in the pathophysiology of cancers. Myeloid biology is an emerging and promising area within the field of immuno-oncology and myeloid target blockade offers the potential for efficacy in patients with cancers possessing a strong immuno-suppressive environment, or cold tumors. Myeloid cells affect T cell immunity through various immunosuppressive mechanisms, and these cells are often at the basis of resistance to various therapies. Therefore, targeting such myeloid targets holds the potential treatment for patients refractory to available T cell immune checkpoint inhibitors. The majority of the industry efforts in the myeloid space has been focused on CSF1R, CD40 & CD47 targeting antibodies, which are currently in early clinical testing. A limited number of known myeloid targets are currently pursued in clinical trials with only initial efficacy results presented to date. Therefore, discovery of additional myeloid targets is anticipated to provide opportunities for the development of powerful new immuno-oncology therapeutics for patients with cancers possessing a strong immune suppressive environment or that are refractory to available immune checkpoint inhibitors.



## Monoclonal Antibody Therapy for Oncology

mAb therapeutics are a class of biological drugs that harness the high specificity and potent binding properties of antibodies to create mono-specific antibody drugs that bind to the drug target of interest with high specificity and thereby limits the potential for off-target toxicity that is often seen with small molecule drugs. The extremely large repertoire of possible antibody sequences means that one can generate highly specific mAb drug candidates that can: a) bind to almost any extracellular or cell surface target protein; b) bind and antagonize the function of the target of interest or c) bind and agonize the function of the target of interest. Due to the versatility and high specificity of this approach, mAb therapies are being intensively researched, developed and commercialized as treatments for numerous serious diseases with the belief that they have the potential to be more effective treatments with fewer off-target side effects compared to traditional small molecule chemical drugs. During the past two decades, mAbs have emerged as an important and rapidly growing drug class, with over 60 mAbs already approved for therapeutic use in the United States 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) or as a targeting agent to direct T cells to directly kill tumor cells (known as BITE or CAR-T 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 small molecule 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 of mAb therapeutics is the identification of novel extracellular or cell surface targets that can translate into clinically relevant therapies for a variety of disease indications. We have developed several proprietary target discovery platforms through focusing on and integration of various aspects of our unique predictive discovery capabilities to identify novel drug targets for mAb therapies. We employ in-house two antibody discovery platforms for the discovery of antibodies targeting the novel drug target candidates we discover computationally. One of these platforms involves a highly diverse human phage display antibody library. The second platform involves traditional mouse hybridoma approach.

### · Autoimmunity

Within the field of autoimmunity, we have committed our resources to a single program based on one of the checkpoint targets discovered by us.

In the absence of autoimmune disease, the immune system is programmed to avoid attacking the body's own cells and tissues in a mechanism known as self-tolerance. Advances in the treatment of autoimmune diseases include biologic drugs that specifically target inflammation mediators, known as cytokines, that cause chronic inflammation. Although biologic drugs, such as Fc fusion proteins, have achieved significant clinical and commercial success as exemplified by the anti-rheumatic biologics ENBREL® (etanercept) with sales of about \$8 billion in 2017, and ORENCIA® (abatacept) with about \$2.5 billion in sales in 2017, significant unmet needs remain. There currently are no cures for autoimmune diseases, and existing therapeutic approaches rely mostly on general suppression of the immune system. In addition, many autoimmune diseases have no or few treatment options, and in others, patients have limited benefit from existing therapies. Due to the limitations of existing therapies, the induction of immune tolerance and long-lasting remission remains a major unmet need and tolerance inducing agents is an area of increasing industry interest and focus.

Immune checkpoints, the negative regulators of the immune system, play a critical role in the maintenance of self-tolerance. Our one program for autoimmune diseases is CGEN-15001/ILDR2-Fc, an Fc fusion protein drug candidate for the treatment of autoimmune diseases, consisting of the extracellular domain of ILDR2 fused to an IgG Fc domain. CGEN-15001 was previously shown to be effective in treating several autoimmune diseases in animal models, including models of multiple sclerosis, rheumatoid arthritis, type 1 diabetes and psoriasis. In addition, in some

of these models, CGEN-15001 was shown to induce a durable long-term response suggestive of an immune tolerance mechanism. Additional studies demonstrated that CGEN-15001 has an immuno-modulatory function manifested in attenuating inflammatory responses and promoting regulatory and anti-inflammatory activities, including the differentiation of regulatory T cells (Tregs), a population of immune cells that plays a pivotal role in induction and maintenance of immune tolerance.

#### Therapeutic Proteins for Autoimmunity

Therapeutic proteins are another type of biological drug, typically a large biological molecule or a fragment derived from a relevant extracellular or cell surface protein and usually engineered and produced by recombinant technologies to have drug-like properties. For example, a cell surface or extracellular protein could be engineered to be fused to the Fc domain of an IgG (antibody) protein to provide a longer half-life in the blood. Therapeutic proteins are clinically used to treat a wide range of diseases including cancer, autoimmune diseases, infectious diseases, blood-related disorders and others. Fc fusion proteins, have achieved significant clinical and commercial success as exemplified by the anti-rheumatic biologics ENBREL® (etanercept) with sales of about \$8 billion in 2017, and ORENCIA® (abatacept) with about \$2.5 billion in sales in 2017.

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## Predictive Discovery of Novel Targets

The establishment of our computational discovery approach evolved over more than a decade of pioneering multidisciplinary research. This long-term focused research effort primarily involved in-depth understanding of key biological phenomena combined with the development of superior algorithmic and other computational capabilities. This approach, which is constantly enhanced and broadened, allows us to focus on various selected biomedical fields, and discover potentially novel drug target candidates specifically for unmet medical needs in such fields. Throughout the years, we have demonstrated the discovery capability of this unique approach in multiple therapeutic and diagnostic areas. More recently we have demonstrated the competitive advantage of our methodologies through our ability to discover novel drug targets in our fields of focus – immuno-oncology, with four of our programs commencing with computational discovery and progressing to proof of concept and continuing into preclinical studies. Our drug targets discovered through our computational discovery approach are generally lacking large amounts of scientific support usually present for other novel drug targets. Therefore, our targets subsequently undergo a rigorous target validation process, and selected targets are advanced to therapeutic development. This process is designed to continuously replenish our pipeline with new pipeline programs.

### Predictive discovery of novel immune checkpoints:

A key Compugen established capability in this field was the development and use of our predictive discovery platforms for the discovery of novel protein members belonging to various known and clinically important protein families. These discovery platforms incorporate two key Compugen proprietary infrastructure capabilities: a sequence analysis platform –LEADS, and a disease-association platform – MED, a capability which was further enhanced in the LINKS platform (described in more detail below). 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 B7/CD28 proteins belong to the Ig superfamily (IgSF). The Ig superfamily consists of hundreds of proteins, yet only a few of them are annotated as immune checkpoints. Proteins of the IgSF tend to evolve quickly, and therefore sequence similarity among these proteins tends to be low and cannot be used for identifying novel immune checkpoints within the IgSF. Therefore, we developed specialized algorithms based on similar genomic and proteomic characteristics among known immune checkpoints, such as gene structure, protein domains, predicted cellular localization and expression pattern to identify novel immune checkpoints. We believe new proteins belonging to this family could have significant therapeutic potential in many pathological conditions, including oncology, infectious disease, and autoimmune diseases. Applying the predictive discovery platforms resulted in the identification of a number of putative immune checkpoint B7/CD28-like protein candidates, some of those we have disclosed are CGEN-15001T/ILDR2, PVRIG, and TIGIT.

Our initial results in identifying potential B7/CD28-like immune checkpoint candidates and the high industry interest in this class of proteins, led us to expand our discovery efforts to the identification of additional sets of immunomodulatory proteins beyond this family. By enhancing our predictive discovery capabilities, we developed additional methodologies designed to discover additional immunomodulators, which constitute our early stage myeloid target programs which have not yet been disclosed.

### Predictive discovery of myeloid targets:

In order to identify myeloid targets, we have used a combination of our discovery approaches, principally the disease-associated platforms MED and LINKS for the discovery of targets that are expressed within the suppressive myeloid lineages, such as tumor associated macrophages (TAMs). TAMs are an important component of the tumor microenvironment and play a major role in creating the immunosuppressive environment that enables tumor development. Proteins having the potential to modulate the tumor microenvironment may serve as potential targets for cancer immunotherapy.



## Pipeline Program

### Overview

Our pipeline program, which is based on our novel drug targets, is designed to validate our drug target candidates, to generate therapeutic mAb drug candidates against such targets and to further advance selected therapeutic mAb candidates into preclinical and clinical testing. The new drug targets discovered through our computational discovery approach are generally lacking large amounts of scientific support usually present for novel drug targets. Therefore, the newly discovered target candidates enter the pipeline when they begin experimental evaluation following their computational prediction and selection and undergo various validation studies to confirm their therapeutic potential. The experimental validation studies are conducted at our facilities or at external expert laboratories, selected specifically for each relevant field. This is followed by the generation of a therapeutic candidate to be selected and confirmed by in vitro and in vivo proof of concept studies in disease animal models, as applicable. mAb therapeutic candidates (or in the case of our one therapeutic Fc fusion program), then enter the stage of lead candidate selection and optimization, with a final lead to be advanced to investigational new drug application (IND) with the FDA. For selected therapeutic product candidates, we intend to continue preclinical development into clinical development. Our strategy is to partner our novel drug target candidates and their respective therapeutic product candidates at different stages of the drug development process, under collaborative and/or licensing arrangements of different types with third parties. Our pipeline activities are primarily focused on mAbs as the therapeutic modality for cancer immunotherapy.

Our pipeline program is focused on the field of immuno-oncology (see "Fields of Focus – Oncology", above) and consists of a preclinical stage pipeline, focused on immune checkpoints and an earlier stage pipeline, mostly focused on myeloid target programs. We have one preclinical stage program, which is also based on immune checkpoints, that is designed to address autoimmune diseases treatment.

### Preclinical Stage Pipeline

#### Overview

Our pipeline consists of biologic therapeutic candidates targeting novel targets identified through our computational predictive discovery. Four programs, have moved from computer prediction to successful preclinical studies, all of which are at various stages of research and therapeutic development, internally or with a partner. Of these four programs, two product candidates against Compugen-discovered novel targets are expected to enter the clinic in 2018. Additional undisclosed immune checkpoint candidates are undergoing target validation or early stage drug discovery.

## Immuno-oncology

COM701/PVRIG: COM701 is the lead therapeutic antibody candidate for our PVRIG program. In January 2018, we presented new preclinical data demonstrating the distinctive features of the PVRIG pathway in immuno-oncology and the potential of COM701, our first-in-class therapeutic antibody targeting PVRIG for treating multiple solid tumors. PVRIG was discovered by Compugen as a novel B7/CD28-like immune checkpoint target and was shown to present a new and separate pathway within the TIGIT axis. Initial validation studies show that expression of PVRIG in T-cells inhibits their activation by melanoma cells, consistent with an immune suppressive role of the target in the tumor microenvironment. The target possesses signature immune-checkpoint receptor characteristics, including expression in relevant subsets of T- and NK-cells, with particularly high expression in lymphocytes that populate the tumor microenvironment (known as tumor infiltrating lymphocytes, or TILs).

COM701 is a high affinity monoclonal antibody designed to block the interaction of PVRIG with its cognate ligand, PVRL2. The antibody was shown to induce T cell activation in multiple in vitro assay systems and a surrogate antibody targeting the mouse orthologue of PVRIG demonstrated reduced tumor growth in in vivo systems. Preclinical studies conducted by us provide indication for a dominant role of the PVRIG/TIGIT axis in cancer evasion of immune response in specific cancers. The expression profiles of PVRIG and TIGIT and their ligands, suggest clinical opportunities for COM701 in endometrial, ovarian, breast, lung, kidney, colorectal, and head & neck cancers, possibly as a monotherapy treatment and in dual and triple drug combination treatment with COM902, Compugen's therapeutic antibody candidate targeting TIGIT (see "COM902/TIGIT" below), and with PD-1 pathway blockers. Following the IND filed in March 2018, COM701 is expected to begin clinical trials later in 2018.

CGEN-15001T/ILDR2: An immuno-oncology therapeutic program with Bayer Pharma AG ("Bayer") pursuant to a research and discovery collaboration and license agreement signed in August 2013, which is currently dedicated to the development of antibody-based therapeutics targeting ILDR2, designated by Compugen as CGEN-15001T. ILDR2 was discovered by Compugen as an immune checkpoint target, and is now in late preclinical development at Bayer under their full control. Bayer is expecting to advance the CGEN-15001T/ILDR2 program to the clinic in 2018 for cancer immunotherapy.

COM902/TIGIT: COM902 is the lead therapeutic antibody candidate for our TIGIT program. TIGIT was identified and validated as a putative immune checkpoint in the B7/CD28 family by Compugen's predictive target discovery platform in 2009. Recently, and based on our discovery of PVRIG and the pathway association of PVRIG with TIGIT, we explored whether combined inhibition of both PVRIG and TIGIT would lead to greater activation of T cells beyond inhibition of each separately. This has been borne out in multiple in vitro systems, leading to the initiation of a therapeutic TIGIT program. The application of our TIGIT program in a possible drug combination treatment with our COM701 program, provides unique clinical differentiation for our anti TIGIT program and allows us to extract the full clinical and commercial potential of our COM701 program. In March 2017, we announced the selection of COM902 as the lead clinical antibody candidate for the TIGIT T cell checkpoint inhibitor program in immuno-oncology. PVRIG and TIGIT represent two distinct but complementary arms of the same biological pathway, and our data indicates that inhibition of the two results in increased activation of tumor infiltrating lymphocytes (TILs). The clinical candidate is a high affinity blocking antibody that increases T cell activation, both alone and in combination with COM701. This provides strong clinical rationale for the combination of COM701 and COM902, in addition to monotherapy use, as immunotherapies to treat various cancer types. COM902 follows COM701 into the Company's preclinical development pipeline and has been advanced into manufacturing and process development in anticipation of filing an IND application in 2019. Other antibodies directed against TIGIT are currently being investigated in early clinical testing by Bristol-Myers Squibb Company, OncoMed Pharmaceuticals, Inc., F. Hoffmann-La Roche Ltd, Merck Sharp & Dohme Corp, and Astellas Pharma Inc. Additionally, other companies with disclosed preclinical stage programs include Arcus Biosciences Inc, iTeos Therapeutics S.A., Seattle Genetics, Inc. and Agenus Inc.





## Autoimmunity

CGEN-15001/ILDR2-Fc: CGEN-15001 is an Fc fusion protein drug candidate for autoimmune diseases, consisting of the extracellular domain of ILDR2 and an IgG Fc domain. ILDR2-Fc has a unique mechanism of action underlying its ability to ameliorate autoimmunity, which combines immunomodulation with regulation of immune homeostasis and with re-establishment of immune tolerance. CGEN-15001 was previously shown to be effective in treating several autoimmune diseases in animal models, including models of multiple sclerosis, rheumatoid arthritis, type 1 diabetes and psoriasis. Additional studies demonstrated that CGEN-15001 has an immuno-modulatory function manifested in attenuating inflammatory responses and promoting regulatory and anti-inflammatory activities, including the differentiation of regulatory T cells (Tregs) a population of immune cells that plays a pivotal role in induction and maintenance of immune tolerance. CGEN-15001 was previously shown to have anti-inflammatory effects in translational studies both in healthy donors' cells as well as in cells from RA patients, thereby suggesting that the CGEN-15001 pathway is functional and responsive in these autoimmune patients. In February 2018, we announced the publication of two peer-reviewed papers, which describes our computational discovery approach leading to the discovery and confirmation of ILDR2 as a novel immune checkpoint. The experimental validation of the role of this protein as a negative regulator of T cell activity was established both internally by us as well as in collaboration with scientists from four leading academic institutions.

## Early Stage Pipeline

### Overview

We continuously utilize our computational predictive discovery engine to identify novel targets for earlier stage pipeline and for potential collaborations. In 2016, the early stage pipeline activities were focused on immuno-oncology and consists of multiple programs including myeloid targets. Drug candidates against these myeloid targets could have the potential to treat both PD-1 responsive and non-responsive patients (see Fields of Focus, Myeloid Targets, above). The early stage pipeline is designed to replenish our preclinical pipeline with additional programs and to diversify our drug opportunities.

### Target characterization and validation:

We continue to enhance our target characterization and validation infrastructure, in order to be able to advance multiple target programs in our early stage pipeline. This enhancement of infrastructure is accomplished through both internal efforts as well as through agreements with leading contract research organizations and academic research centers.

In October 2017, we disclosed CGEN-15032, a target belonging to our portfolio of novel myeloid and lymphoid target candidates that are expressed within the TME of multiple cancers. These various targets were discovered using various discovery platforms developed by us, including the immune checkpoint discovery platform and immuno-modulatory protein discovery platforms. A number of these targets have demonstrated in vitro checkpoint activity, and a knockout mouse strain for CGEN-15032 demonstrated reduced tumor growth in vivo relative to wild type mice. Furthermore, the reduced tumor growth was observed in both the knockout mice alone and when the mice were treated with an anti-PD-L1 inhibitor. Together, these data suggest that CGEN-15032 may serve as an immuno-suppressive component of the tumor microenvironment, and that drugs inhibiting CGEN-15032 either alone or in combination with checkpoint inhibitors may activate anti-cancer immune responses.

In December 2014, we signed a multi-year research collaboration with Johns Hopkins University, School of Medicine, currently under the direction of Prof. Drew Pardoll. Prof. Pardoll, chairman of Compugen's Scientific Advisory Board (SAB), is a pioneer in the field of immuno-oncology. The collaboration, which was extended in October 2017 to include new additional targets we discovered, focuses on further evaluation of selected novel B7/CD28-like immune

checkpoint candidates discovered by us for the potential treatment of cancer. This evaluation includes the candidates' differentiation profile with respect to known checkpoints and their potential to serve either for monotherapy or in combination with other cancer treatments. This collaborative research expands our ongoing assessment of the biology and mechanism of actions of our novel B7/CD28-like immune checkpoint candidates, and provides access to the world-class immuno-oncology research tools and expertise at Johns Hopkins University.

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In November 2017, we signed a multi-year cancer immunotherapy research collaboration with the Mount Sinai Hospital, under the direction of Miriam Merad, MD, Ph.D., a member of our SAB. The collaboration with Mount Sinai focuses on the research and target validation of selected myeloid candidates Compugen discovered for their potential to serve as a basis for cancer immunotherapy treatments, including validation of their role in innate immunity and involvement in tumor biology. These agreements and collaborations provide us with various new capabilities and technologies to advance in parallel multiple early stage target programs toward the development of first-in-class biologics.

#### Our Predictive Discovery Approach

We discover novel drug targets through a unique, predictive, computational process that combines human biology predictions derived from genome analysis combined with disease information derived from analysis of vast amounts of publicly available, as well as proprietary, data. Our comprehensive data analysis is designed to identify first-in-class drug target candidates, which are difficult to identify using traditional computational or experimental approaches. This effort is performed on an ongoing basis by a multidisciplinary research team of scientists, who have vast experience in handling such data analysis approaches, and who over time have generated dozens of peer reviewed publications of certain of our findings and capabilities in scientific journals. This approach has been designed to allow us to focus on a selected biomedical field of research, and to emerge with a set of novel drug targets that otherwise would have been challenging to identify. We have internally demonstrated the applicability of our discovery approach in multiple therapeutic and diagnostic areas and have demonstrated significant advantages of our methodologies to identify new drug targets.

We call our unique, computational process “Predictive Discovery” because our computational findings predict the biological function and therapeutic relevance of novel proteins which, in most cases, were not previously considered as drug target candidates. For over a decade, we have been developing predictive platforms for a variety of biological processes and phenomena, which are continuously being improved and diversified to address the need for novel targets in areas of interest to the industry.

**Biological knowledge:** For each biological phenomenon or process, we first review the available biological literature on the topic. Our scientists study and critically evaluate the publicly available information to discern the key components from a computational perspective.

**Genome and proteome analysis:** The genome is the most complex encryption system known to mankind, and our discovery team has made exceptional progress in understanding and deciphering its code. Our proprietary genome and protein analysis platforms generate accurate, robust and comprehensive data sources which have proven successful in a variety of internal and collaborative programs. Our genome and proteome analysis tools are employed depending on the biological phenomenon or process of interest, and are one of the pillars of our discovery process.

**Experimental and disease data:** The increased availability of molecular data and exponential growth in expression data are presenting a significant challenge alongside an extraordinary discovery opportunity. Our discovery team is focused on collecting these data, analyzing them, evaluating their quality and utility, and integrating relevant studies in a format that is appropriate for predictive discovery. MED and LINKS are examples of internal infrastructures that were created to integrate gene expression data.

The model is tested and continuously refined to identify with high accuracy key differentiating attributes from the three domains of known biology, genome and experimental and disease data.

#### Primary Technology Platforms

An important aspect of our predictive development efforts was the creation of our three main technology platforms, LEADS, MED and LINKS, which integrate our scientific understandings and predictive models. These infrastructure platforms serve as key components in the discovery of our pipeline candidates.

LEADS provides a comprehensive computational 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 and protein prediction through modeling of various biological phenomena such as alternative splicing, antisense, fusion gene, RNA editing and polymorphisms. This infrastructure, originally 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. The LEADS platform is now being leveraged for discovery by efficiently integrating genome annotation data and genome-aligned gene expression data from RNA Sequencing (RNASeq) data (using Next Generation Sequencing technology).

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MED & LINKS are both computational disease expression infrastructures that integrate a vast amount of both microarray and RNASeq data. This allows a comprehensive analysis of gene expression across multiple data sets, in contrast to a commonly used single experiments analysis approach, LINKS was designed to allow comprehensive characterization and differentiation of drug target candidates. LINKS was designed to integrate and analyze extremely large amounts of patients' disease and clinical data to associate novel drug targets with specific disease conditions, clinical attributes and disease-associated mechanisms of action. LINKS was applied to analyze our pipeline of immune checkpoint target candidates and to compare them to one another as well as to differentiate them from known immune checkpoints. This analysis includes expression in immune subpopulations, regulatory mechanisms and cancer-specific immune signatures, and enables us to compare and differentiate our large portfolio of novel immune checkpoint programs. In 2016 we disclosed that LINKS has been enhanced to include the computational discovery of new immuno-oncology drug targets, with a specific focus on the discovery of myeloid targets within the TME. LINKS now allows the Company to broaden its immune-oncology targets, predicted by algorithms and methodologies previously developed by us.

### Business Strategy and Partnerships

Our business strategy is to seek collaborations on programs in our pipeline with pharmaceutical or biotechnology partners at various stages of development (early target discovery/validation through clinical development). Through these collaborations we seek to create and further develop and commercialize therapeutic product candidates directed to our novel targets. Such collaborations or partnering arrangements might include one or more of our therapeutic pipeline programs, including CGEN-15001 for autoimmune diseases, our novel myeloid target candidates, as well as COM701 - together with or without COM902. Potential revenue sources in line with this business model could include upfront fees, equity investment, research funding, milestones payments, option exercise fees, license fees, royalties and other revenue sharing payments. We may also seek co-development arrangements and/or co-promotion pursuant to which we would further advance partnered programs under any such partnership in order to retain higher value from future sales revenues.

Additionally, our discovery capabilities are designed to allow for research and discovery collaborations aimed at harnessing our infrastructure capabilities towards a potential partners' pipeline needs. In these arrangements we would utilize our discovery approaches to identify novel proteins and/or targets addressing a specific unmet need of interest to our partner.

Our predictive discovery infrastructure has broad applicability and is not limited to a certain indication or therapeutic field. However, we have focused our activities on novel target discovery in the fields of oncology and immunology.

### Bayer Collaboration

On August 5, 2013, Compugen and Bayer entered into the Bayer Collaboration for the research, development, and commercialization of antibody-based therapeutics against two novel, Compugen-discovered immune checkpoint regulators, CGEN 15001T/ILDR2 and CGEN 15022.

Under the terms of the Bayer Collaboration, we received an upfront payment of \$10 million, and, following the return of the CGEN 15022 program, see below, we are eligible to receive an aggregate of over \$250 million in potential milestone payments for both programs, not including aggregate preclinical milestone payments of approximately \$15 million. Additionally, we are eligible to receive mid- to high single digit royalties on global net sales of any approved products under the collaboration.

In 2014, we achieved the first and second preclinical milestones and in 2015 we achieved the third preclinical milestone with respect to CGEN 15001T/ILDR2, one of the two immune checkpoint regulators licensed to Bayer, and received a total of \$15 million in milestone payments. Pursuant to the terms of the Bayer Collaboration, this program

was transferred to Bayer's full control for further preclinical and clinical development activities, and worldwide commercialization under milestone and royalty bearing licenses from Compugen. To date, Bayer is expecting to advance the CGEN-15001T/ILDR2 program into the clinic in 2018.

In July 2017, it was determined that the Bayer Collaboration would focus solely on CGEN-15001T/ILDR2 and all rights to CGEN-15022, the second of two checkpoint protein candidates discovered by us and the subject of the Bayer Collaboration, were returned to us. Before this second program ceased, we achieved the first preclinical milestone for CGEN 15022 in April 2016 for which we received a \$400,000 payment.

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The Bayer Collaboration continues until Bayer is no longer required to make payments under the Agreement or until otherwise terminated by either party in accordance with the terms of the Agreement. Bayer may also terminate the Bayer Collaboration, 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 Collaboration, 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.

## Competition

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

We face, and expect to continue to face, ongoing competition from entities that discover novel targets and develop novel products, and that have therapeutic product candidates or products that act by similar, or possibly identical, mechanism of action (MOA) as well as by different mechanisms, but address the same clinical unmet need. Our potential competitors are also comprised of companies that discover and develop monoclonal antibody therapies and/or therapeutic proteins to novel targets for oncology and autoimmune diseases. Specifically in the field of immune checkpoints and myeloid drug targets for cancer immunotherapy, there are several leading pharmaceutical and biotechnology companies as well as smaller biotechnology companies and academic institutions that are developing cancer immunotherapies to enhance immune response towards tumors, some of which may be based on the same targets we have discovered. The product candidates being developed by such 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 fields.

Our discovery program depends, in large part, on our discovery platforms and other capabilities and our proprietary data to make inventions and establish intellectual property rights in protein-based products, including proteins and antibodies. There are a number of other means by which such inventions and intellectual property can be generated. We believe that our computational capabilities, and specifically our discovery platforms, provide us with a competitive advantage in predicting new protein functions and linking proteins to specific diseases, and as a result, predicting new drug targets. We believe that this advantage is made possible by building an infrastructure for predictive discovery based on the integration of scientific understands and predictive models and the resultant better research capabilities that we have developed, as well as our unique team of multidisciplinary research scientists, who have vast experience in handling such data analysis approaches, and who over time have generated dozens of peer reviewed publications of certain of our findings and capabilities in scientific journals.

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 of products. Accordingly, our competitors may be more successful than we may be in identifying product candidates, protecting them with patent applications, developing them, accelerating their development process, obtaining FDA and other regulatory approvals 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. 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 targets and product candidates, maintain the confidentiality of our proprietary know-how and trade secrets, and otherwise protect our intellectual property. We design our patent strategy to fit the business competitive landscape and continual legislative changes. In addition, we periodically analyze and examine our patent portfolio to align it with our pipeline strategy and business needs. We seek patent protection for certain promising inventions that relate to our product candidates. As of March 1, 2018, we had a total of 60 issued and allowed patents, of which 31 are U.S. patents, six are Australian patents, six are Israeli patents, five are European patents, two are Canadian patents, two are New Zealand patents, three are Japanese patents, one is a Chinese patent, one is a patent in Singapore, one is a patent in the Russian Federation, one is a patent in South Africa and one is a patent in Hong Kong. The patent issued in the U.S. for COM701 was issued in 2017 under the USPTO's pilot program providing early review for patent applications pertaining to cancer immunotherapy in support of the White House Cancer Moonshot program. Our issued and allowed patents expire between 2021 and 2036. We also have 94 pending patent applications, which as of March 1, 2018, included 28 patent applications that have been filed in the United States, 11 patent applications that have been filed in Europe, five patent applications that have been filed in Israel, four 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, four patent applications that have been filed in India, four patent applications that have been filed in China, two patent applications that have been filed in Brazil, three patent applications that have been filed in Korea, three patent applications that have been filed in New Zealand, three patent applications that have been filed in the Russian Federation, three patent applications that have been filed in Singapore, three patent applications that have been filed in Mexico, four patent applications that have been filed in South Africa, two patent applications that have been filed in Hong Kong, two patent applications that have been filed in Egypt 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 targets and product candidates, only with respect to candidates or programs 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 programs 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 rely on contract manufacturers or our collaborative partners to produce materials and drug substances for drug products required for our research and development activities. We do not currently own or operate manufacturing facilities for the production of clinical or commercial quantities of our therapeutic drug candidates. We do not have and we do not currently plan to acquire or develop the facilities or capabilities to manufacture bulk drug substance or filled drug product for use in human clinical trials. We expect to rely on CMOs and third party contractors to generate formulations and produce larger scale amounts of cGMP drug substance and the drug product required for our clinical trials for the foreseeable future. We also plan to contract with CMOs and third party contractors for the labeling, packaging, storage and distribution of investigational drug products.

In 2016 and 2017, we entered into agreements for the manufacturing and respective analytics of COM701 and COM902, respectively. Our manufacturing strategy is currently structured to support our U.S. drug development plans. Although we believe the general manufacturing strategy developed for the United States will be applicable in other geographies, specific strategies for other geographies will be developed as part of our clinical and commercial plans for such other geographies. See “Item 3. Key Information – D. Risk Factors – Risks Related to Our Dependence on Third Parties - We anticipate that we will rely completely on third parties to manufacture certain preclinical and all clinical drug supplies. Our business could be harmed if those third parties fail to provide us with sufficient quantities of drug product, or fail to do so at acceptable quality levels or prices.”

## Government Regulation

### Regulation of Therapeutic Product Candidates

In the United States, the FDA regulates pharmaceutical and biologic products under the Federal Food, Drug, and Cosmetic Act, or FDCA, the Public Health Service Act, other statutes and regulations and implementing regulations. We anticipate that our product candidates will be regulated as biologics. 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 biologic 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 GLP 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 product for its intended use;

- submission to the FDA of a biologics license application, or BLA;

- 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 product's identity, strength, quality and purity; and

- FDA review and approval of the 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, among other information, to the FDA as part of the IND. The sponsor will also include a clinical 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 a clinical trial due to, among other things, safety concerns or non-compliance with applicable requirements.

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 study 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 reviews the information regarding the trial, participant recruiting materials and the informed consent form that must be provided to each trial subject or his or her legal representative before participating in the trial. In addition, the IRB will monitor the trial until completed.

Each new clinical protocol must be submitted to the FDA, and to the IRBs. 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 and determine efficacy.

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

- Phase 1: The product candidate 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 may be 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 trial 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 for serious and unexpected adverse events must be submitted to the FDA and the investigators more frequently. 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 applicable regulations or IRB 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 product within required specifications and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product does not undergo unacceptable deterioration over its shelf life.

#### United States Review and Approval Processes

The results of product development, nonclinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests, proposed labeling, and other relevant information are submitted to the FDA as part of a BLA requesting approval to market the product for one or more indications. The FDA initially reviews all 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 a BLA for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA may refer the 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 a BLA if the applicable regulatory criteria are not satisfied or may require the submission of additional clinical or other data and information. Even if such data and information are submitted, the FDA may ultimately decide that the BLA does not satisfy the criteria for approval.

If a product receives regulatory approval, the approval will 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 and clinical trials, to further assess a product's safety and effectiveness after 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) programs to ensure that the benefits of a product outweigh its risks.

#### Post-approval Requirements

Approved biologics are subject to extensive and continuing regulation by the FDA, including, among other things, cGMP compliance, record-keeping requirements, reporting of adverse experiences, 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. Biologics 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. In addition, we may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment, possible exclusion from government-funded healthcare programs, such as Medicare and Medicaid, additional integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings and the curtailment or restructuring of our operations, if we are found to be in violation of U.S.

federal, U.S. state or foreign healthcare fraud and abuse, transparency, or data privacy and security laws, among others, applicable to our current or future operations.

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## Other Healthcare Laws

Our current and future business operations, including, among other things, our clinical research activities and our business and financial arrangements and relationships with healthcare providers, physicians and other parties through which we may market, sell and distribute our products, once approved, may be subject to extensive U.S. federal, U.S. state and foreign healthcare fraud and abuse, transparency, and data privacy and security laws. For example, U.S. federal civil and criminal laws and regulations prohibit, among other things: knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, recommending or arranging for a good or service, for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs; knowingly presenting or causing to be presented, a false or fraudulent claim for payment by a federal healthcare program; and knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program (including a private payor), or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of, or payment for, healthcare benefits, items or services. Many U.S. states and foreign countries have analogous prohibitions that may be broader in scope and apply regardless of payor. In addition, we may be subject to U.S. federal, U.S. state and foreign laws that require us to report information related to certain payments and other transfers of value to certain health care professionals, as well as ownership and investment interests in our company held by those health care professionals and their immediate family members, and data security and privacy laws that restrict our practices with respect to the use and storage of certain data.

Efforts to ensure that our current and future business arrangements with third parties comply with applicable healthcare laws and regulations may involve substantial costs. If we are found to be in violation of any of these laws, we could be subject to significant civil, criminal and administrative penalties, including damages, fines, disgorgement, individual imprisonment, exclusion from participation in government healthcare programs, additional integrity oversight and reporting obligations, contractual damages, reputational harm and the curtailment or restructuring of our operations.

## Healthcare Policy and Reform

Our ability to commercialize our future therapeutic 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. Drug prices in particular are under significant scrutiny and continue to be subject to intense political and societal pressures, which we anticipate will continue and escalate on a global basis.

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”), represents the biggest regulatory overhaul to the health care system in decades and substantially changes the way health care is financed by both governmental and private insurers. However, the ACA has faced legislative, judicial, executive and political challenges from Congress, the Trump administration, state governments, consumer groups and business organizations. For example, since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the ACA or otherwise circumvent some of the requirements for health insurance mandated by the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, ACA-related provisions have been enacted as part of tax reform or federal budget legislation that, among other things, affect the implementation of certain taxes under the ACA and increase discounts owed by certain drug manufacturers under Medicare Part D.

In addition, there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products that has led to several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. Further, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

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## Non-U.S. Regulations

In addition to regulations in the United States, biologics 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 from 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. In some countries, we will also have to get pricing approval.

## Environmental Regulation

Some of our research and development activities involve the controlled use of biologic 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 biologic 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 non-human 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. The use of clinical data associated with human tissue samples is also heavily regulated in the United States, Israel and elsewhere. United States and other governmental agencies may also impose restrictions on the use of data derived from human or other tissue samples.

## 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 INDs. Nonclinical animal studies conducted by us or third parties on our behalf may be subject to the U.S. Animal Welfare Act, the U.S. Public Health Service Policy on Humane Animal Care and Use, 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 Israel Innovation Authority.”

## 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

In December 2015, we moved to new facilities in Holon, Israel where we lease an aggregate of approximately 34,440 square feet of office and biology laboratory facilities under a lease that expires on March 15, 2021, with an option to extend the lease for two consecutive additional five-year periods. In addition, Compugen USA, Inc. currently subleases 12,560 square feet of office and biology laboratory facilities in South San Francisco, California, under a sublease that expires on May 31, 2021.

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 FINANCE

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, 2017, and with any other selected financial data included elsewhere in this annual report.

Background

Compugen is a therapeutic discovery and development company utilizing its broadly applicable predictive discovery infrastructure to identify novel drug targets and develop first-in-class therapeutics in the field of cancer immunotherapy. Our therapeutic pipeline consists of immuno-oncology programs against novel drug targets we have discovered, including T cell immune checkpoints and myeloid target candidates, which serve for the development of first-in-class cancer immunotherapy drugs. By diversifying our pipeline with the discovery of new target pathways having the potential to address multiple immune suppressive components in the tumor microenvironment, we aim to broadly address cancer treatment and provide first-in-class treatment solutions in areas of unmet medical needs in various cancer types and patient populations, both as a monotherapy and in combination with other drugs. . Our business model is to selectively enter into collaborations for our novel targets and related therapeutic product candidates at various stages of research and development. Compugen is headquartered in Holon, Israel, with R&D facilities located in both Holon and South San Francisco, CA. At the U.S. facilities, therapeutic monoclonal antibodies (mAbs) are discovered and developed against our novel target candidates.

A. OPERATING RESULTS

Overview

Since our inception, we have incurred significant losses and, as of December 31, 2017, we had an accumulated deficit of \$308 million. We expect to continue to incur net losses for the foreseeable future.

In 2010, we began to focus our discovery efforts primarily on the prediction and selection of novel drug target candidates in specific areas of high interest in immuno-oncology, and in particular, immune checkpoint candidates. We continuously utilize our computational predictive discovery engine to identify novel targets for earlier stage pipeline and for potential collaborations. Our pipeline program, which is based on our novel drug targets, is designed to advance the validation of our drug target candidates, to generate therapeutic mAb drug candidates against such targets and to further advance selected therapeutic mAb candidates into preclinical and clinical testing. The early stage pipeline is designed to replenish our preclinical pipeline with additional programs and to diversify our drug opportunities. 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 drug target candidates with Bayer (the “Bayer Collaboration”). Beginning in late 2013, we significantly increased our research activities in the field of immuno-oncology in order to allow for a larger number of immune checkpoint target and product candidates for cancer immunotherapy to move forward in parallel. During 2015, 2016 and continuing into 2017, we enhanced our target characterization and validation infrastructure, in order to be able to advance multiple immune checkpoint candidates in our pipeline. We added personnel, equipment, new experimental systems and technologies to increase expertise and workload throughput.

We incurred net losses of approximately \$20.2 million in 2015, approximately \$31.5 million in 2016 and approximately \$37.1 million in 2017. We expect to continue to incur net losses for the foreseeable future due in part to the costs and expenses associated with our research, development and discovery activities. Our business model

primarily involves establishing collaborations for our novel targets and related therapeutic product candidates at various stages of research and development providing us with potential milestone payments and royalties on product sales or other forms of revenue sharing payments.

Our research and development expenses are expected to continue to be our major operating expense in 2018, accounting for more than 78% of our expected total 2018 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 10% in 2018 compared to 2017.

We believe that we currently do not have sufficient working capital in order to sustain our operations for the coming 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.”

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## 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 loss.

We 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 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.

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 505-50, "Equity-Based Payments to Non-Employees" ("ASC 505-50") with respect to options and warrants issued to non-employees. ASC 505-50 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 was approximately \$3.8 million, \$3.1 million and \$2.6 million for the years ended December 31, 2015, 2016 and 2017, respectively.

We adopted ASU No. 2016-09 commencing January 1, 2017 at which time it changed its accounting policy to account for forfeitures as they occur. The change was applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. The impact of the adoption was to reduce retained earnings and to increase additional paid-in capital by \$211 as of January 1, 2017.

## Revenue recognition

Our revenues were generated mainly from the Bayer Collaboration. The revenues are derived mainly from the upfront license payment, research and development services and contingent payments related to milestone achievements.

We apply 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". 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.

Revenues from upfront license payments and research and development services are recognized according to the proportional performance method along the research and development services period in accordance with ASC 605-10, "Revenue Recognition".

Contingent payments related to milestone achievements and royalties are recognized immediately upon the accomplishment of futures events, in accordance with ASC 605-28, “Revenue Recognition – Milestone Method”.

On December 14, 2015, we achieved the third substantive milestone with respect to one licensed program, under the Bayer Collaboration according to which we recognized revenues in the total amount of \$7.8 million in accordance with the criteria prescribed under ASC 605-28.

On April 17, 2016, we achieved the first substantive milestone with respect to the second licensed program, which was terminated in July 2017, under the Bayer Collaboration according to which we recognized revenues in total amount of \$0.4 million in accordance with the criteria prescribed under ASC 605-28. See Note 2 to our 2017 consolidated financial statements.

#### 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,		
	2015	2016	2017
	(US\$ in thousands, except share and per share data)		
<b>Consolidated Statements of Operations Data</b>			
Revenues	\$9,277	\$712	\$-
Cost of revenues	1,633	223	-
Gross profit	7,644	489	-
Research and development expenses, net	21,245	24,549	28,583
Marketing and business development expenses	1,309	1,174	1,189
General and administrative expenses	6,008	7,349	7,633
Total operating expenses (*)	28,562	33,072	37,405
Operating loss	(20,918 )	(32,583 )	(37,405 )
Financial income, net	1,145	1,097	339
Loss before taxes on income	(19,773 )	(31,486 )	(37,066 )
Taxes on income	(390 )	(20 )	-
Net loss	\$(20,163 )	\$(31,506 )	\$(37,066 )
Unrealized gain (loss) arising during the period from investment in marketable securities	(205 )	-	-
Realized gain arising during the period from investment in marketable securities	(436 )	(440 )	-
Unrealized gain (loss) from foreign currency derivative contracts	(19 )	7	17
Realized loss (gain) arising during the period from foreign currency derivative contracts	(141 )	19	(7 )
Total comprehensive loss	\$(20,964 )	\$(31,920 )	\$(37,056 )
Basic net loss per share	(0.40 )	(0.62 )	(0.72 )
Weighted average number of shares used in computing basic net loss per share	50,437,040	50,855,908	51,179,694

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Diluted net loss per share	(0.40	)	(0.62	)	(0.72	)
Weighted average number of shares used in computing diluted net loss per share	50,437,040		50,855,908		51,179,694	

(\*) Includes stock based compensation – see Note 7 to our 2017 consolidated financial statements.

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	As of December 31,		
	2015	2016	2017
(US\$ in thousands)			
Consolidated Balance Sheet Data			
Cash and cash equivalents, short-term bank deposits and restricted cash	\$81,421	\$61,527	30,438
Trade receivable	7,800	-	-
Investment in marketable securities	426	-	-
Total assets	99,307	71,139	38,746
Deferred revenues	312	-	-
Accumulated deficit	(239,459)	(270,965)	(308,242)
Total shareholders' equity	89,897	63,519	29,297

Years Ended December 31, 2017 and 2016

Revenues. During 2017, we did not recognize any revenues compared to approximately \$0.7 million in 2016. Our revenues during 2016 were attributed to milestones achieved in 2016 in the amount of \$0.4 million, as well as the remaining portion of the non-refundable upfront payment in the amount of \$0.3 million relating to the Bayer Collaboration.

Cost of Revenues. During 2017, we did not recognize any revenues and related cost of revenues. Our cost of revenues during 2016 were approximately \$0.2 million attributable to product candidate research and collaboration agreements/the Bayer Collaboration.

Research and Development Expenses. Research and development expenses increased by 16%, to approximately \$28.6 million for 2017, from approximately \$24.5 million for 2016. The increase was primarily due to a substantial increase in preclinical activities involving certain of our pipeline program candidates mainly related to COM701 and COM902. These activities include manufacturing costs, toxicology studies, regulatory consultants to support the preclinical activities and other related expenses. Research and development expenses, as a percentage of total operating expenses, were 76% and 74% in 2017 and 2016, respectively.

Marketing and Business Development Expenses. Marketing and business development expenses were approximately \$1.2 million in each of 2017 and 2016. Marketing and business development expenses, as a percentage of total operating expenses, were 3% in 2017 compared to 4% in 2016.

General and Administrative Expenses. General and administrative expenses increased by 4% to approximately \$7.6 million for 2017, from approximately \$7.3 million for 2016. The increase is attributed mainly to headcount related expenses as well expenses associated with the engaging of additional advisers to the Company. General and administrative expenses, as a percentage of total operating expenses, were 20% in 2017 and 22% in 2016.

Financial Income (loss), Net. Financial income decreased to approximately \$0.3 million in 2017 from approximately \$1.1 million in 2016. The decrease is attributed mainly to reduction in interest income due to lower levels of cash deposits in 2017 and approximately \$0.4 million of realized gain from the sale of a portion of our holdings of Evogene Ltd. ("Evogene") ordinary shares in 2016.

Years Ended December 31, 2016 and 2015

Revenues. Revenues totaled approximately \$0.7 million in 2016 compared to \$9.3 million in 2015. The decrease in revenues for 2016 is attributable mainly to the lower amount of milestones achieved in 2016 compared to 2015 in the

amount of \$0.4 million and \$7.8 million respectively, as well as a decrease in the relevant portions of the non-refundable upfront payment recognized in each year relating to the Bayer Collaboration.

**Cost of Revenues.** Cost of revenues attributable to product candidate research and collaboration agreements decreased by 88% to approximately \$0.2 million for 2016, from approximately \$1.6 million for 2015. The decrease in the cost of revenues in 2016 is primarily due to a decrease in expenses attributed to the Bayer Collaboration.

**Research and Development Expenses, Net.** Research and development expenses, net increased by 16%, to approximately \$24.5 million for 2016, from approximately \$21.2 million for 2015. The increase was primarily due to a substantial increase in preclinical activities involving certain of our pipeline program candidates mainly related to COM701 and CGEN-15137/TIGIT, including the hiring of additional professional employees and manufacturing and regulatory consultants to support preclinical activities. Research and development expenses, net, as a percentage of total operating expenses, were 74% in 2016 and 2015.

**Marketing and Business Development Expenses.** Marketing and business development expenses decreased by 8% to approximately \$1.2 million in 2016, from approximately \$1.3 million in 2015. The decrease is attributed mostly to headcount changes during the year. Marketing and business development expenses, as a percentage of total operating expenses, were 4% in 2016 compared to 5% in 2015.

**General and Administrative Expenses.** General and administrative expenses increased by 22% to approximately \$7.3 million for 2016, from approximately \$6.0 million for 2015. The increase is attributed mainly to headcount related expenses as well expenses associated with the engaging of additional strategic advisers to the Company. General and administrative expenses, as a percentage of total operating expenses, were 22% in 2016 and 21% in 2015.

**Financial Income (loss), Net.** Financial income, net was approximately \$1.1 million in both 2016 and 2015, and reflects mostly interest income from bank deposits in the amount of approximately \$0.7 million and approximately \$0.4 million of realized gain from the sale of a portion of our holdings of Evogene ordinary shares.

**Income tax expenses.** Income tax expenses were \$20,000 in 2016 compared with \$390,000 in 2015. These expenses were attributed to withholding tax related to the Bayer Collaboration.

#### 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 was 24% in 2017 compared with 25% in 2016 and 26.5% in 2015.

In accordance with the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years) 2016, corporate income tax for 2018 will be reduced to 23% (instead of 24%) effective from January 1, 2018.

In the future, if and when we generate taxable income, our effective tax rate may be influenced by, among others: (a) the split of taxable income between the various tax jurisdictions; (b) the availability of tax loss carry forwards and the extent to which valuable 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; (d) the changes in the exchange rate of the U.S. dollar to the NIS and (e) the Company's election to submit its tax returns for 2014 and onwards on a dollar basis, which may not be accepted by the Israeli Tax Authority. 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 IIA. For more information, please see “Item 5 Operating and Financial Review and Prospects – C. Research and Development, Patents and Licenses – The Israel Innovation Authority.” There can be no assurance that these programs and tax legislation will continue 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, 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. As of January 1, 2014, dividends distributed from Preferred Income would subject the recipient to a 20% tax (or lower, if so provided under an applicable tax treaty), which would generally be withheld by the distributing company, provided however that dividends distributed from 'Preferred Income' from one Israeli corporation to another, would not be subject to tax. 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.

In December 2016, the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), 2016 which includes Amendment 73 to the Law ("Amendment 73") was published.

According to Amendment 73, a Preferred Enterprise located in development area A will be subject, under certain conditions, to a tax rate of 7.5% instead of 9% effective from January 1, 2017 and thereafter (the tax rate applicable to preferred enterprises located in other areas remains at 16%). The Amendment also prescribes special tax tracks for Technological Enterprises, which are subject to regulations issued by the Minister of Finance on May 16, 2017.

The new tax tracks under the Amendment are as follows:

Technological Preferred Enterprise - an enterprise for which total consolidated revenues of its parent company and all subsidiaries are less than NIS 10 billion. A Technological Preferred Enterprise, as defined in the Law, which is located in the center of Israel will be subject to tax at a rate of 12% on profits deriving from intellectual property (in development area A - a tax rate of 7.5%).

Special Technological Preferred Enterprise - an enterprise for which total consolidated revenues of its parent company and all subsidiaries exceed NIS 10 billion. Such enterprise will be subject to tax at a rate of 6% on profits deriving from intellectual property, regardless of the enterprise's geographical location.

Any dividends distributed to "foreign companies", as defined in the Law, deriving from income from the Technological Enterprises will be subject, under certain conditions, to tax at a rate of 4%.

As of December 31, 2017, our net operating loss carry-forwards for Israeli tax purposes amounted to approximately \$227.0 million. Under Israeli law, these net operating losses may generally be carried forward indefinitely and offset against certain future taxable income.

As of December 31, 2017, the net operating loss carry-forwards of our U.S. subsidiary for federal income tax purposes amounted to approximately \$9.2 million. These losses are available to offset any future U.S. taxable income of our U.S. subsidiary and will expire between 2020 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 – The Israel Innovation Authority."

## B. LIQUIDITY AND CAPITAL RESOURCES

### Public Offering of Ordinary Shares

On March 5, 2014 we closed an underwritten public offering of 6,900,000 ordinary shares, including 900,000 shares sold pursuant to the full exercise of the underwriters' option to purchase additional shares, at a price to the public of \$10.50 per share (the "2014 Offering").

Gross proceeds to Compugen from the 2014 Offering were approximately \$72.5 million, before deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The 2014 Offering was made pursuant the effective shelf registration statement on Form F-3 (File No. 333-185910), which was filed with the Securities and Exchange Commission (the "Commission") on January 7, 2013 and declared effective by the Commission on January 16, 2013.

Jefferies LLC acted as the sole bookrunner for the 2014 Offering. JMP Securities LLC, Oppenheimer & Co. Inc. and Chardan Capital Markets acted as co-managers.

### Cash resources

In 2017, our primary sources of cash were:

- proceeds from the 2014 Offering;
- preclinical milestones payments under the Bayer Collaboration; and
- exercise of stock options.

We used these funds primarily to finance our business operations.

We expect that our sources of cash for 2018 will include cash held in our bank accounts, and may include proceeds generated from license, collaborative and/or research agreements 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 \$25.6 million in 2015, approximately \$19.8 million in 2016 and approximately \$ 30.7 million in 2017. Net cash used in 2017 reflects higher levels of research and development expenses and the preclinical activities which include manufacturing cost, toxicology studies, regulatory consultants to support the preclinical activities and other related expenses associated with COM701 and COM902.



### Net Cash Provided By Investing Activities

Net cash provided by investing activities was approximately \$10.3 million in 2015, approximately \$16.2 million in 2016 and approximately \$46.3 million in 2017. Changes in net cash during 2017 as compared to 2016 was attributed to the net effect of higher levels of proceeds from maturity of short-term bank deposits, offset by investment in short-term and long-term bank deposits.

### Net Cash Provided by Financing Activities

Net cash provided by financing activities was approximately \$1.0 million in 2015, approximately \$2.5 million in 2016 and approximately \$0.2 million in 2017. The principal source of cash provided by financing activities were proceeds received from 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, 2017, we had total cash and cash equivalents and short-term bank deposits of approximately \$29.4 million. We expect that our sources of cash for 2018 will include cash held in our bank accounts, and may include proceeds generated from license, collaborative and/or research agreements and proceeds from issuance of ordinary shares as a result of the exercise of stock options or from financing transactions.

We had cash and cash equivalents and short term bank deposits of \$29.4 million at December 31, 2017 compared to \$60.5 million at December 31, 2016.

Our existing cash resources will not be sufficient to meet our operating plan for the full 12-month period after the date of this filing. Based on available resources, not including potential milestones from the Bayer Collaboration, we believe we can maintain our current operations into the third quarter of 2018. As a result, to continue to fund our ongoing operations beyond the third quarter of 2018, we would need to (1) raise additional capital through the issuance of equity, debt or other securities, (2) enter into strategic partnerships, collaborations or other similar transactions or (3) a combination thereof.

We have incurred losses in the amount of \$37.1 million during the year ended December 31, 2017, have an accumulated deficit of \$308.2 million as of December 31, 2017 and have accumulated negative cash flow from operating activities amounting to \$30.7 million for the year ended December 31, 2017. We expect to continue incurring losses and negative cash flows from operations. As described in our accompanying audited financial statements, our auditors have issued a going concern opinion on our December 31, 2017 financial statements, expressing substantial doubt that we can continue as a going concern. Our ability to continue to operate is dependent upon raising additional funds to finance our activities and commercialization of our product candidates through collaboration agreements. There are no assurances, however, that we will be successful in obtaining an adequate level of financing needed for the long-term development and commercialization of our product candidates. Our financial statements do not include any adjustments with respect to the carrying amounts of assets and liabilities and their classification that might be necessary should we be unable to continue as a going concern.

If we are unable to raise additional capital or successfully complete a strategic partnership, collaboration or other similar transaction, we will need to delay or reduce expenses or limit or curtail operations, any of which would have a material adverse effect on our business. Further, if we are unable to raise additional capital or successfully complete a strategic partnership, collaboration or other similar transaction on a timely basis and on terms that are acceptable to us, we may also be required to sell or license our assets, sell the Company or otherwise liquidate all or a portion of our assets and/or cease our operations altogether. If we cannot continue as a viable entity, our stockholders might lose

some or all of their investment in us.

On August 9, 2016, 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 \$200.0 million. This registration statement was declared effective by the SEC on October 11, 2016. 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.

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## C. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES

We invest heavily in research and development. Research and development expenses were our major operating expenses representing more than 70% of total operating expenses for each of 2017, 2016 and 2015. Our research and development expenses, net, were approximately \$28.6 million in 2017, compared to approximately \$24.5 million in 2016 and approximately \$21.2 million in 2015. As of December 31, 2017, 78 of our employees were engaged in research and development on a full-time basis. This represents approximately 77% of our entire work force.

We focus our efforts on the development of our discovery platforms and related technologies, and the discovery, validation and early stage development of our drug targets and our mAb product candidates and, to a much lesser extent, therapeutic Fc fusion proteins product candidates. During 2010 we initiated our pipeline program in which we continuously evaluate our predicted drug target candidates and are taking certain drug target candidates beyond their initial validation stage. This includes disease animal model studies, therapeutic mAb discovery, as applicable, and in selected cases, preclinical and possible clinical development of therapeutic product candidates. We expect that in 2018 our research and development expenses will continue to be our major operating expense, representing more than 75% of our total operating expenses.

We believe that our future success will depend, in large part, on our ability to discover promising drug target candidates and therapeutic product candidates and to successfully advance the research and development of certain of our product candidates under our internal pipeline towards preclinical and clinical studies and 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 and pursuant to research and discoveries collaborations.

### Research and Development Grants

We have participated in programs offered by the IIA that support research and development activities, and under the Israel-U.S. Binational Industrial Research and Development Foundation (“BIRD Foundation”). See note 2 to our 2017 consolidated financial statement. We did not apply for additional grants from the IIA for research and technological development in 2017.

### The Israel Innovation Authority

The government of Israel encourages research and development projects in Israel through the Israel Innovation Authority (formerly known as the Office of the Chief Scientist), pursuant to and subject to the provisions of the R&D Law. We received grants from the IIA for several projects, and may receive additional grants in the future. Under the terms of the grants received, we will be required to pay royalties ranging between 3% to 5% of the revenues we generate from our products which incorporate know how developed with funds received from the IIA (“IIA Products”) until 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, 2017, we received grants from the IIA in the amount of \$7.3 million. Therefore our contingent obligation for royalties, net of royalties already paid in the sum of \$1 million, along with the accumulated LIBOR interest to date of approximately \$2.8 million, totaled to approximately \$9.1 million.

The R&D Law requires that the manufacture of IIA Products will be carried out in Israel, unless the IIA provides its approval to the contrary. This approval may be subject to various conditions, including the repayment of increased royalties equal to up to 300% of the total grant amount plus applicable interest and an increase of 1% in the royalty rate. 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 IIA and any right derived therefrom to third parties is prohibited, unless such transfer was approved in accordance with the R&D Law. The Research Committee operating under the IIA may approve the transfer of know how between Israeli entities, provided

that the transferee undertakes all the obligations in connection with the grant as prescribed under the R&D Law. The transfer of know how outside of Israel may be approved by the Research Committee operating under the IIA, at its discretion, in special cases, subject to the receipt of certain payments calculated according to a formula set forth in the R&D Law and regulations promulgated thereunder up to an amount equal to six (6) times the total amount of IIA grants plus applicable interest; and three (3) times such total amount, should the R&D activity related to the know how remain in Israel.

These restrictions may impair our ability to sell or partner our technological assets or to outsource or transfer developments or manufacturing activities with respect to any technology. These restrictions continue to apply even after full repayment of the IIA grants. However, we believe that these restrictions do not apply to licensing of product candidates that we discover by using our knowhow developed with funds received from the IIA.

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## D. TREND INFORMATION

### Trend towards biologics

Biologics and monoclonal antibodies represent one of the fastest growing segments in the drug industry, making up a quarter of recently approved drugs (26% in 2017). The growth of this class has driven a large number of companies to invest in new technologies (e.g., bi-specific monoclonal antibodies, multi-specific antibodies, antibody fragments) and new approaches to fully exploit the potential of this class. In addition, the striking efficacy and recent approval of cell therapies for the treatment of cancer, such as CAR-T therapies, has also captured much attention in the pharma industry. Despite the increasing number of companies active in these areas, the majority of these technologies are directed towards a limited set of targets, which may provide more potential companies interested to license our discoveries and products.

### 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.

Over the last few years, 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 to fill their pipelines.

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 future product candidates to later stages 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 drug target candidates and/or our future 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 entered into forward contracts to hedge against the risk of overall changes in future cash flow from payments of salaries and related expenses as well as other expenses denominated in NIS. As of December 31, 2017, we had one outstanding forward contract in the notional amount of approximately \$177,000. This contract was for a period which ended January 12, 2018.

## F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The table below summarizes our contractual obligations as of December 31, 2017, and should be read together with the accompanying comments that follow.

	Payments due by period (US\$ in thousands)				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating Lease Obligations <sup>(1)</sup>	\$5,437	\$1,671	\$3,351	\$415	\$-
Accrued Severance Pay, net <sup>(2)</sup>	445	-	-	-	445
Total	\$5,882	\$1,671	\$3,351	\$415	\$445

<sup>(1)</sup> Consists of operating leases for our facilities and for motor vehicles. Excluding an option to extend the lease of the Israeli facility for two consecutive additional five-year periods, following expiration of the current lease period.

<sup>(2)</sup> Severance pay obligations to our Israeli employees, for more information please see “Item 6. Directors, Senior Management and Employees – D. Employees.”

The above table does not include royalties that we may be required to pay to the IIA. 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 Compugen's senior management as of March 1, 2018:

Name	Age	Positions
Prof. Yair Aharonowitz <sup>(1)(2)</sup>	77	Director
Prof. Ruth Arnon <sup>(2)</sup>	83	Director
Anat Cohen-Dayag, Ph.D.	51	President and Chief Executive Officer, Director
Dov Hershberg	78	Director
Arie Ovadia, Ph.D. <sup>(1)(2)</sup>	68	Director (Chairman of the Audit Committee)
Paul Sekhri	60	Chairman of the Board of Directors
Dr. Michal Preminger	53	Director
Ari Krashin	45	Chief Financial and Operations Officer
Kirk Christoffersen	50	Senior Vice President – Corporate and Business Development
Yona Geffen	52	Vice President, Research and Validation
John Hunter	55	Vice President, Antibody Research and Development
Zurit Levine	50	Vice President, Research and Discovery

- (1) An external director pursuant to the Companies Law
- (2) Member of our Audit Committee

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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, 2013 and 2016. 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 served as its President until September 2015. 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 the AESKU Prize for Life Contribution to Autoimmunity awarded by the 6th International Congress on Autoimmunity. She is also a Member of the American Philosophical Society. Prof. Arnon 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. joined Compugen's Board of Directors in February 2014. Dr. 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 CEO. 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 Orgenics 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 a director of Ramot at Tel Aviv University Ltd., and a director of the IATI (Israeli Advanced Technologies Industries).

Dov Hershberg joined Compugen's Board of Directors in 2009 and served as Chairman of the Board until 2010. Prior to Compugen, Mr. Hershberg co-founded Powermat Technologies Ltd., a pioneer wireless electrical charging company, and served as its CEO and later as board and management team member until September 2014. From 1997 through 2006 Mr. Hershberg managed the Israel US (BIRD) R&D Foundation and the Israel US Jordan (TRIDE) R&D Foundation, supporting and funding hundreds of successful hi-tech and bio tech joint projects, facilitating cooperation on an international scale. Prior to joining the BIRD Foundation Mr. Hershberg was the founder, with colleagues from Stanford University, and the CEO of Molecular Applications Group, a biomedical software company, which was located in Palo Alto, California. 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.

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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, 2013 and 2016. 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., Bazan Ltd., Maxtech Technologies 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.

Dr. Michal Preminger joined Compugen's Board of Directors in May 2017. Dr. Preminger is the Executive Director at Harvard University's Office of Technology Development's Harvard Medical School site, overseeing industry partnerships, startup formation and development of scientific programs and discoveries emerging from research at Harvard Medical School from 2010 until today. Dr. Preminger served as a Senior Director of Business Development from 2007 through 2009 and as a Director of Business Development from 2005 from 2007 at Harvard Medical School. She is the founder of Anima Cell Metrology, Basking Ridge, NJ and served there as a Board Member in 2004 through 2005. From 1998 to 2004 she served as a member of Compugen's Management and Corporate Business Development, including as Vice President of Protein Therapeutics from 2003 until 2004, as Vice President of New Research Directions from 2002 until 2003 and as Vice President of Proteomics Business from 2000 until 2001. From 1997 until 1998 Dr. Preminger as a Director of Marketing and Business Development at Lucent Technologies/Madge Networks/LANNET. In addition she currently plays part time roles in the following companies and not-for-profit entities: Member of the Board of Directors at BioArray Genetics; Member of Scientific Advisory Board at Futurx Accelerator (Takeda/J&J/Orbimed); Member of Scientific Advisory Board at Prize for Life; Member of the Board of Directors at Israel Brain Technology; Member of Advisory Board at SipNose; Member of Advisory Board at Medaware; Member of Business Board at Center for Genomic Regulation (CRG), Barcelona; Co-chair at Weizmann Institute Alum Association of New England. Dr. Preminger holds graduate degrees in MBA from INSEAD, Fontainebleau, France (Dean's list) (1995), a Ph.D., in Biological Sciences from Weizmann Institute of Science, M.Sc. in Biological Sciences from Weizmann Institute of Science and Bachelor of Medicine, Hadassah Medical School, Hebrew University, Jerusalem (1984-1987).

Paul Sekhri joined Compugen's Board of Directors as its Chairman in October 2017. Paul Sekhri was appointed the President and CEO of Lycera Corp. in February 2015. Prior to joining Lycera, he served as Senior Vice President, Integrated Care for Sanofi from April 2014 through January 2015. Previously, from May 2013 through March 2014, he served as Group Executive Vice President, Global Business Development and Chief Strategy Officer for Teva Pharmaceutical Industries, Ltd. Prior to joining Teva, he spent five years as Operating Partner and Head of the Biotechnology Operating Group at TPG Biotech, the life sciences venture capital arm of TPG Capital. From 2004 to 2009, Mr. Sekhri was Founder, President, and Chief Executive Officer of Cerimon Pharmaceuticals, Inc. Prior to founding Cerimon, Mr. Sekhri was President and Chief Business Officer of ARIAD Pharmaceuticals, Inc. Previously, Mr. Sekhri spent four years at Novartis, as Senior Vice President, and Head of Global Search and Evaluation, Business Development and Licensing for Novartis Pharma AG. Mr. Sekhri also developed the Disease Area Strategy for Novartis, identifying those specific therapeutic areas upon which the company would focus. His first role at Novartis was as Global Head, Early Commercial Development. Mr. Sekhri completed graduate work in Neuroscience at the University of Maryland School of Medicine, where he also received his BS in Zoology. Mr. Sekhri is currently a member of the Board of Directors of Veeva Systems Inc., Chairman of the Board of Supervisory Directors of Pharming N.V. and Topas Therapeutics GmbH, and was recently nominated as Chairman of the Board of Petra Pharma. Additionally, he is on the Board of Directors of the TB Alliance, and, as an avid classical music enthusiast, is Vice Chairman of Young Concert Artists, Inc., and is on the Board of Trustees of Caramoor Center for Music and the Arts. Mr. Sekhri is also an active member of the Patrons Council of Carnegie Hall.

Ari Krashin was appointed Chief Financial Officer of Compugen in September 2014. Beginning March 1, 2016, Mr. Krashin also served as Chief Operating Officer, being additionally responsible for the Company's administrative, operational and IT activities. Mr. Krashin has over 15 years of experience in capital markets, finance and business development. He served as a chief financial officer for both public and private companies the most recent being AnyClip Media and Spacenet Inc. From 2000 – 2013, Mr. Krashin also served in various financial positions at Gilat Satellite Networks (NASDAQ: GILT), including his last position as chief financial officer, where he led the company's global finance and related operations, including business development, M&A activities, investor relations and administration. Mr. Krashin is a certified public accountant and began his professional career with Kesselman and Kesselman, PWC, Israel.

Kirk Christoffersen joined Compugen as Senior Vice President, Corporate and Business Development in December 2016. Prior to joining Compugen, Mr. Christoffersen was President of Apollo BioConsulting, a boutique life science consulting firm. From 2004-2015, he led corporate development at GlobeImmune, Inc., initially as Senior Director and then as Vice President, Corporate Development. Prior to GlobeImmune, Mr. Christoffersen held leadership positions in corporate development and marketing at three biotechnology companies, including OSI pharmaceuticals, Gilead Sciences and NeXstar Pharmaceuticals. Mr. Christoffersen earned an undergraduate degree from the University of Michigan, and an M.B.A. from the Daniels College of Business at the University of Denver.

Yona Geffen joined Compugen as Vice President, Research and Validation in February 2017 and brings to Compugen more than 20 years of experience in clinical and preclinical drug development in the biopharmaceutical industry. Before Compugen, Dr. Geffen served as Chief Executive Officer of Avraham Pharmaceuticals, a clinical stage company developing novel products for treatment and prevention of neurodegenerative disorders, from 2012 until 2017, and as its VP Clinical Development from 2011 to 2012. Previously, she held senior positions at BioLineRx, Proneuron Biotechnologies, and Maccabi HMO. Dr. Geffen holds a B.Sc. in biology, an M.Med.Sc. and Ph.D. in immunology and microbiology, all from Ben Gurion University. In addition, she holds an M.Sc. in business management from Ben Gurion University.

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 18 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.

Zurit Levine, Ph.D. joined Compugen in 1999 and has held several positions in Compugen's Research & Development department. In 2004, she was appointed Director of Therapeutic Selection & Validation, which position she held until 2007 when she was appointed Director of Therapeutic Discovery. In 2009, she was appointed Executive Director of Research & Development. From January 2010 to August 2011, she held the position of Vice President, Research and Development. In August 2011 she was appointed Vice President, Research and Discovery. Dr. Levine holds a B.Sc. in Biology, a M.Sc. in Biochemistry and a Ph.D. in Biochemistry, all from the Tel Aviv University, Israel.

#### Arrangements Involving Directors and Senior Management

There are no arrangements or understandings of which we are aware relating to the election of our directors or the appointment of executive officers in our Company. In addition, there are no family relationships among any of the individuals listed in this Item 6.A.

B. COMPENSATION

Aggregate Executive Compensation -

During 2017, the aggregate compensation paid or accrued by us to all persons listed in Item 6.A above, as well as two directors who served in 2017 but have each since ceased to serve on the board of directors (Directors and Senior Management) was approximately \$3.35 million. This amount includes approximately \$0.4 million set aside or accrued to provide pension, severance, retirement or similar benefits, but excludes expenses (including business travel, professional and business association dues and expenses) reimbursed to our executives and other fringe benefits commonly reimbursed or paid by companies in Israel.

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During 2017, we granted to our Directors and Senior Management a total of 1,060,000 options to purchase ordinary shares. These options are exercisable at \$3.03 per share, and generally expire ten years after their respective dates of grant. As of December 31, 2017, there were a total of 4,577,833 outstanding options to purchase ordinary shares that were held by our Directors and Senior Management.

#### Individual Compensation of Covered Office Holders

The table below outlines the compensation granted to our five most highly compensated Office Holders (as such term is defined in the Companies Law – see below under “– Approval Required for Directors’ and Officers’ Compensation”) with respect to the year ended December 31, 2017. All amounts reported in the table reflect the cost to the Company, as recognized in our financial statements for the year ended December 31, 2017. We refer to the five individuals for whom disclosure is provided herein as our “Covered Office Holders”.

Information Regarding the Covered Office Holders Name and Principal Position <sup>(1)</sup>	Compensation for Services <sup>(2)</sup>			Total(\$)
	Base Salary(\$)	Benefits and Perquisites (\$) <sup>(3)</sup>	Stock-Based Compensation(\$) <sup>(4)</sup>	
Dr. Anat Cohen-Dayag President & CEO	391,753	102,133	245,791	739,677
Ari Krashin Chief Financial and Operations Officer	226,486	69,049	199,720	495,255
John Hunter VP Antibody Development	291,667	54,461	129,180	475,308
Kirk Christoffersen Senior VP – Corporate and Business Development	288,460	97,278	67,510	453,248
Zurit Levine VP Research and Discovery	175,010	60,335	120,670	356,015

1) All Covered Office Holders listed in the table are full-time employees of the Company.

2) Cash compensation amounts denominated in currencies other than the U.S. dollar were converted into U.S. dollars at an exchange rate of NIS 3.5998 = \$1.00, which reflects the average conversion rate for 2017.

Amounts reported in this column include benefits and perquisites, including those mandated by applicable law.

Such benefits and perquisites may include, to the extent applicable to the Covered Office Holders, bonuses,

3) payments, contributions and/or allocations for savings funds, pension, severance, vacation, car or car allowance, medical insurances and benefits, risk insurance (e.g., life, disability, accident), phone, convalescence pay, payments for social security, tax gross-up payments and other benefits and perquisites consistent with the Company’s policies.

Amounts reported in this column represent the expense recorded in our financial statements for the year ended

4) December 31, 2017 with respect to options to purchase our ordinary shares granted to our Covered Office Holders.

Assumptions and key variables used in the calculation of such amounts are discussed in Note 7 to our 2017 consolidated financial statements set forth elsewhere in this report.

## Approval Required for Directors' and Officers' Compensation

As required by the Companies Law ("Amendment 20"), our shareholders, following the approval of the Board of Directors and the recommendation of the Audit Committee (sitting as a compensation committee), approved and adopted an amended compensation policy (the "Compensation Policy") at the 2017 Special General Meeting of Shareholders, which sets forth the Company's policy regarding the Terms of Office and Employment (as defined below) of our Office Holders (as defined below). The Compensation Policy provides our Compensation Committee and our Board of Directors with adequate measures and flexibility to tailor each of our Office Holder's compensation package based, among other matters, on geography, tasks, role, seniority and capability. Moreover, the Compensation Policy is intended to motivate our Office Holders to achieve ongoing targeted results in addition to a high level business performance in the long term, all, without encouraging excessive risk taking. The Company draws upon a pool of talent that is highly sought after by large and established global pharmaceutical and biotechnology companies as well as by other development-stage life science companies which operate both within and outside of the Company's geographic areas, most notably in the United States. The Company believes that it therefore must offer compensation terms, both to its executives and to its directors that are competitive with the compensation standards that exist in the companies with whom it competes for such talents.

The term "Office Holder" as defined in the Companies Law includes a director, the chief executive officer, an executive vice president, a vice president, any other person fulfilling or assuming any of the foregoing positions without regard to such person's title, and any manager who is directly subordinated to the chief executive officer. In addition to each person listed in the table under "Item 6. Directors, Senior Management and Employees – A. Directors and Senior Management", four other individuals have been Office Holders as of December 31, 2017. "Terms of Office and Employment" means the terms of office and employment of our Office Holders, 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.

Pursuant to the Companies Law, arrangements with respect to the Terms of Office and Employment of Office Holders who are not directors must generally be approved by the compensation committee and the board of directors, and be consistent with the compensation policy (amendment of Terms of Office and Employment of such Office Holders requires the approval of the compensation committee only, if the committee determines that the amendment is not material). However, under certain circumstances and conditions, the compensation committee and 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 a simple majority, and provided that (i) such majority includes a majority of the votes cast by shareholders who are present and voting (abstentions are disregarded) and are not controlling shareholders and who do not have a personal interest in the matter, 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").

Furthermore, in special circumstances, to the extent the Terms of Office and Employment of Office Holders who are not directors are not approved by the shareholders (where such approval is required), the compensation committee and the board of directors may subsequently override the resolution of the shareholders following a new discussion of the matter and for specified reasons.

Compensation for Office Holders who are Directors or Chief Executive Officers. The Terms of Office and Employment of directors, other than directors who serve as chief executive officers and/or who possess a controlling interest in a company, require the approval of the compensation committee, board of directors and shareholders by a simple majority. With respect to our President and Chief Executive Officer, who is also a director, or with respect to any chief executive officer who is not a director (to the extent applicable in the future), further approval of the shareholders by the Compensation Majority is required. However: (i) under certain circumstances, and to the extent that the proposed Terms of Office and Employment are in compliance with the compensation policy, a company may be exempt from receiving shareholder approval with respect to the Terms of Office and Employment of a candidate for the position of chief executive officer; and (ii) a company's compensation committee and board of directors are permitted to approve Terms of Office and Employment of a chief executive officer or of a director, without convening a general meeting of shareholders, provided that such terms: (a) are not more beneficial than the former terms, or are essentially the same in their effect; (b) are in line with the compensation policy; and (iii) are brought for shareholder approval at the next general meeting of shareholders.

Under the Companies Law, 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 and Independent Directors under the Companies Law."

Variable Compensation and Annual Cash Bonuses of Office Holders. The Companies Law requires that all variable compensation of directors and chief executive officers be based on measurable criteria, with the exception of a non-substantial portion of up to 3 monthly salaries. With respect to Office Holders who are not directors or chief executive officers, the Companies law allows that 100% of the variable compensation be based on non-measurable criteria. Our Compensation Policy allows for a non-substantial portion of up to 20% of the bonus objectives for each year to be based on non-measurable criteria, provided, however, that with respect to our Office Holders who are not directors or our Chief Executive Officer, our Compensation Committee and Board of Directors may increase the portion of targets based on non-measurable criteria above the rate of 20%, up to 50%. Further, the annual cash bonus of each of our Office Holders who are not directors is determined according to a formula that is consistent with the Compensation Policy and that links the bonus payment score to measurable and qualitative objectives relating to both the Company's performance and to the performance by each such Office Holder of his responsibilities. The measurable criteria include a financial target which is uniform with respect to all of our Office Holders, including our Chief Executive Officer. In the case of our Office Holders other than the Chief Executive Officer, assuming that the bonus terms conform to the Compensation Policy, the annual bonus objectives and subsequent payment scores are determined by the Compensation Committee and Board of Directors, while the bonus terms for our Chief Executive Officer generally require the additional approval by our shareholders. For each fiscal year, our Board of Directors determines the maximum target bonus for each of our Office Holders, including our Chief Executive Officer.

Compensation to our Non-Management Directors (other than Dr. Michal Preminger and Mr. Paul Sekhri)

On September 17, 2013, our shareholders approved, following previous resolutions made by our Compensation Committee and the Board of Directors, and consistent with our Compensation Policy, to compensate each of our then serving non-management directors (including external directors) and each additional or other director (including external directors) who may be appointed from time to time in the future and who is not, in addition to his or her office as a director an employee or service provider of the Company (each a "non-management director") as follows:

(i) an annual fee equal to the "Annual Minimum Amount" (as such term is defined under regulations promulgated under the Companies Law governing the terms of remuneration for external directors, the "Remuneration Regulations") (the "Annual Base Fee"); 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 (the "Annual Additional Fee"). The Annual Base Fee together with the Annual Additional Fee are referred to as the "Annual Fees";



(ii) a per meeting fee of NIS 3,597 (provided such amount shall not be lower than the applicable “Participation Minimum Amount” under the Remuneration Regulations) for participation in any Board and/or committee meetings (the “Participation Fee”). If such participation is by means of telephonic communication then the Participation Fee shall be 60% of a per meeting fee; and in the event a resolution is adopted in writing, without convening a meeting, then the Participation Fee shall be 50% of the per meeting fee;

(iii) each of the Annual Base Fee, the Annual Additional Fee and the Participation Fee are to be adjusted annually to reflect increases in the Israeli Consumer Price Index, and the Annual Base Fee is further adjusted to reflect changes in the Company's shareholders equity;

(iv) the Annual Fees and the Participation Fee are paid 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 Remuneration Regulations; and

(v) a grant of options to purchase 10,000 of the Company's ordinary shares on July 31 of each calendar year, 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 will vest 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 (a "Corporate Transaction"). Further, 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 options 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.

Currently, the fees paid to each of our non-management directors (except for Dr. Michal Preminger and Mr. Paul Sekhri) stand at NIS 52,685 for the Annual Base Fee, NIS 18,311 for the Annual Additional Fee and NIS 3,662 for the Participation Fee (approximately \$15,118, \$5,254 and \$1,051 respectively according to the representative rate of exchange on March 1, 2018, of \$1.00 = NIS 3.485, the "Representative Rate").

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

#### Compensation to Dr. Michal Preminger, a Non-Management Director

Notwithstanding the amount set forth above for the Annual Base Fee for non-management directors, on July 13, 2017, our shareholders approved, following previous resolutions made by our Audit Committee (sitting as a compensation committee) and Board of Directors, and consistent with our Compensation Policy, that the Annual Base Fee for Dr. Preminger, a resident of the United States, shall be in the amount of \$30,000. Dr. Preminger is also entitled to Annual Additional Fee (if applicable), Participation Fee and a yearly grant of options, as previously approved by our shareholders for each of our Non-Management Directors.

#### Compensation to our External Directors

Israeli law sets minimum and maximum amounts and other rules regarding compensation that may be paid to an external director. A company may also compensate an external director in shares or rights to purchase shares subject to certain limitations set forth under the Remuneration Regulations.

Israeli law further provides that the remuneration of these external directors may be determined in relativity to that of other directors of the company so that such remuneration shall not be higher than the weighted average of the total remuneration paid to all of the Company's directors and be no less than: (i) the "Minimum Amount" that must be paid to external directors of the Company in accordance with the Remuneration Regulations; and (ii) the lowest remuneration paid to any of the directors of the Company (the "Relative Remuneration"). According to the Remuneration Regulations,

the “Minimum Amounts” are adjusted annually based on the Israeli Consumer Price Index and may also be adjusted as a result of changes in the Company's shareholders' equity. Under arrangements ratified and approved by the Compensation Committee, the Board of Directors and the shareholders, and consistent with our Compensation Policy, the Companies Law and the Remuneration Regulations, each of our external directors is entitled to receive fees in amounts equivalent to the cash compensation payable to other non-management directors, as detailed above, provided that such cash compensation is consistent with the rules applying to Relative Remuneration, and is also eligible to an annual grant of options in similar number and terms as described above with respect to our non-management directors.

### Compensation to the Company's Chairman of the Board of Directors, a Non-Management Director

On October 17, 2017, our shareholders approved, following previous resolutions made by our Audit Committee (sitting as a compensation committee) and the Board of Directors, and consistent with our Compensation Policy, the following compensation for our non-management Chairman of the Board, Mr. Paul Sekhri:

**Cash Fees:** An annual cash fee in the amount of \$150,000. No per meeting fees will be paid in addition to such annual cash fee.

**Grant of Options to Purchase Ordinary Shares:** a one-time initial grant of options to purchase 500,000 Ordinary Shares. These options are subject to the terms and conditions applicable to options granted under the Company's 2010 Option Plan. Such grant vests over a four-year period as follows: twenty five percent (25%) will vest on the first day of the quarter one calendar year immediately following the quarter in which the options were granted; and an additional 6.25% will vest each quarter thereafter for the next 36 months. These options will expire ten years after the grant date, unless they expire earlier in accordance with the terms of the Company's 2010 Option Plan. In their respective resolutions, our Audit Committee (sitting as a compensation committee) and Board took into consideration the fact that such grant of options to Mr. Sekhri is exceptional and is significantly higher than the usual annual grants provided by the Company to its Office Holders, and as such, approved it as a one-time exception that is made for an initial grant, and not intended to be provided to Mr. Sekhri on a yearly basis. Despite the fact that such grant of options to Mr. Sekhri exceeded the applicable cap for annual equity grants under both the Compensation Policy (which is set at 300% of a non-executive director's total annual cash compensation), our Audit Committee (sitting as a compensation committee) and Board of Directors deemed it appropriate under these certain and unique circumstances and in the best interest of the Company and therefore the deviation from the cap set under the Compensation Policy was deemed merited under the circumstances. The acceleration provisions applicable to options granted to other non-management directors also apply to the options granted to Mr. Sekhri.

### Compensation to our President and Chief Executive Officer

Pursuant to Dr. Anat Cohen-Dayag's employment agreement, as the President and Chief Executive Officer of the Company she is entitled to a gross monthly salary of NIS 118,800 (approximately \$33,993 according to the Representative Rate), adjusted from time to time in accordance with changes in the Israeli Consumer Price Index, which shall be reviewed annually. Dr. Cohen-Dayag is also entitled to certain benefits and perquisites customary in Israel, including those mandated by applicable law. In addition, Dr. Anat Cohen-Dayag is eligible for an annual grant of equity based compensation and to an annual cash bonus based upon achievement of objectives determined by the Company, both subject to receipt of all approvals required by applicable law and to the terms of our Compensation Policy. On July 13, 2017, our shareholders approved that Dr. Cohen-Dayag shall be eligible to receive an annual cash bonus for the calendar year 2017, without the need for further shareholder approval, subject to the fulfillment of certain terms, including the Company entering into a new collaboration by the last day of the 2017 calendar year ("Special Requirement"). As the Special Requirement was not met, Dr. Cohen-Dayag is not entitled to an annual cash bonus for 2017.

Dr. Cohen-Dayag's employment agreement may generally be terminated by either party by providing six (6) months advance written notice, provided that in the event of termination by the Company for "justifiable cause" (as such term is defined in her employment agreement as shall be in effect from time to time) the Company may terminate Dr. Cohen-Dayag's employment without advance notice and that Dr. Cohen-Dayag may resign with advance notice of only two (2) months in the event of resignation for "good reason" (as such term is defined in her employment agreement as shall be in effect from time to time). Upon termination, Dr. Anat Cohen-Dayag will be entitled to receive certain payments associated with termination.

In the event that Dr. Cohen-Dayag's employment is: (a) terminated by the Company, other than for "justifiable cause"; or (b) terminated by Dr. Cohen-Dayag for "good reason" (hereinafter, (a) and (b) shall be referred to together as "Dismissal"), Dr. Cohen-Dayag will also be entitled to an additional one-time payment equal to six (6) monthly salaries (the "Termination Payment") and upon Dismissal within one year following certain "change of control" events (as defined in her employment agreement as shall be in effect from time to time), Dr. Cohen-Dayag will be entitled to a special termination payment (in addition to the Termination Payment) in an amount equal to six (6) monthly salaries.

In addition, upon Dismissal, or in the event of a “change of control”, all outstanding unvested options granted to Dr. Cohen-Dayag as of such time will be accelerated and become immediately exercisable as of the effective date of such Dismissal/change of control. Upon acceleration due to an event of a Dismissal, Dr. Cohen-Dayag will also be entitled to exercise all outstanding vested options for a period of one (1) year from the date of such Dismissal, provided that such period does not extend beyond ten (10) years from the date of grant. Upon acceleration due to an event of change of control, following which Dr. Cohen-Dayag's employment is, within 12 months of the closing of such an event: (a) terminated by the Company, other than for “justifiable cause”; or (b) terminated by Dr. Cohen-Dayag for any reason, Dr. Cohen-Dayag will be entitled to exercise all outstanding vested options (including those vested as a result of such accelerated vesting) for a period of one (1) year from the date of termination of her employment, provided that such period does not extend beyond ten (10) years from the date of grant.

Dr. Cohen-Dayag is not entitled to any compensation (including in connection with her role as a director) in addition to that being paid to her as the President and Chief Executive Officer of the Company. However, in the event of termination of Dr. Cohen-Dayag employment agreement, she will be entitled to receive such compensation to the extent and for as long as she will serve as a non-management director of the Company.

As of December 31, 2017, Dr. Cohen-Dayag held options to purchase a total of 1,220,000 ordinary shares, of which options to purchase 100,000 ordinary shares were granted during 2017. Out of the options to purchase 1,220,000 ordinary shares: (i) options to purchase 995,000 ordinary shares, with a weighted average exercise price of \$4.39 per share, were exercisable as of December 31, 2017; and (ii) options to purchase 225,000 ordinary shares, with a weighted average exercise price of \$4.94 per share, had not vested as of December 31, 2017. Of the unvested options at December 31, 2017, options to purchase 75,000 ordinary shares are expected to vest during 2018, options to purchase 75,000 ordinary shares are expected to vest during 2019 and options to purchase the remaining 75,000 ordinary shares are expected to vest during the period between January 1, 2020 and October 1, 2021. These options were granted under the Company's 2010 Plan. For additional information on Dr. Cohen-Dayag's holdings see “Item 6. Directors, Senior Management and Employee – E. Share Ownership – Share Ownership by Directors and Other Executive Officers.”

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

Mr. Martin Gerstel served as our Active Chairman of the Board of Directors until October 2, 2017, when he was replaced in this position by Mr. Paul Sekhri. Following termination of service as Active Chairman, Mr. Gerstel continued to serve as a non-management director of the Company until he resigned effective February 2, 2018. As of such date, Mr. Gerstel is no longer associated with, nor provides any services to, the Company in any capacity.

Pursuant to Mr. Gerstel's employment agreement, for his role as Active Chairman for the Company, he was entitled to a gross monthly salary of NIS 48,000 (approximately \$13,773 according to the Representative Rate) which was subject to adjustment from time to time in accordance with changes in the Israeli Consumer Price Index, and to certain other employment terms customary in Israel. In addition, Mr. Gerstel was eligible for an annual grant of equity based compensation and an annual cash bonus based upon achievement of objectives determined by the Company. Mr. Gerstel's employment agreement was terminable by either party by providing 90 days' prior written notice, which was provided on February 15, 2017 when the Company announced Mr. Martin Gerstel's request to initiate a process to replace him as chairman of the board.

On July 13, 2017, our shareholders approved that Mr. Gerstel shall be eligible to receive an annual cash bonus for the calendar year 2017, without the need for further shareholder approval, subject to certain terms, including his continuous employment as the Company's Active Chairman of the Board through the last day of the 2017 calendar year; provided however, that if he ceases to be actively employed as a result of his request to retire, and subject to meeting the terms of his annual cash bonus, then he would be eligible to receive a pro-rata portion of the annual cash bonus for the calendar year 2017 through the date his employment ceases (i.e. October 2, 2017). Pursuant to the shareholder approval, Mr. Gerstel will not be entitled to any annual cash bonus for 2017 in the event that no new

collaboration is entered into by the last day of the 2017 calendar year ("Special Requirement"). As the Special Requirement was not met, Mr. Gerstel is not entitled to annual cash bonus for 2017.

Upon termination of his employment on October 2, 2017, and in accordance with the terms of his employment agreement and applicable law, Mr. Gerstel was entitled to severance payments accumulated in his severance fund since January 1, 2010, which on October 2, 2017 was equal to approximately NIS 47,000.

Mr. Gerstel was not entitled to any compensation in addition to that paid to him as the Active Chairman of the Board of the Company. However, for the period of October 3, 2017 until February 2, 2018, when he served as a non-management director, he was entitled to receive the same compensation as paid to our other non-management directors (except for Dr. Michal Preminger and Mr. Paul Sekhri).

As of December 31, 2017, Mr. Gerstel held options to purchase a total of 947,500 ordinary shares, of which options to purchase 50,000 ordinary shares were granted during 2017. Out of the options to purchase 947,500 ordinary shares (i) options to purchase 835,000 ordinary shares, with a weighted average exercise price of \$2.64 per share, were exercisable as of December 31, 2017; and (ii) options to purchase 112,500 ordinary shares, with a weighted average exercise price of \$4.94 per share, had not vested as of December 31, 2017. Of the unvested options at December 31, 2017, options to purchase 6,250 ordinary shares vested through February 2, 2018, the date Mr. Gerstel ceased to be associated with the Company. All unvested options after that date were cancelled in accordance with the terms of the Plans. These options were granted under the Company's 2010 Plan. Notwithstanding the terms of the relevant plan, the options granted to Mr. Gerstel described above have terms substantially similar to those of the non-management directors as described above. For additional information on Mr. Gerstel's holdings see "Item 6. Directors, Senior Management and Employee – E. Share Ownership - Share Ownership by Directors and Other Executive Officers."

#### Insurance, Indemnification and Exemption

Pursuant to the Companies Law and the Israeli Securities Law, the Israeli Securities Authority is authorized to impose administrative sanctions, including monetary fines, against companies like ours and their officers and directors for certain violations of the Israeli Securities Law or the Companies Law (for further details see "Administrative Enforcement" below); and the Companies Law provides that companies like ours may indemnify their officers and directors, purchase an insurance policy to cover certain liabilities and exempt them in advance from liability to the company for a breach of their duty of care, if provisions for that purpose are included in their articles of association.

Our Office Holders' Insurance. Our Articles provide that, subject to the provisions of the Companies Law, we may enter into contracts to insure the liabilities of our Office Holders for any liabilities or expenses incurred by or imposed upon them as a result of any act (or omission) carried out by them as our Office Holders, including with respect to any of the following:

- a breach of duty of care to us or to another person;
- a breach of duty of loyalty to us, provided that the Office Holder acted in good faith and had reasonable grounds to assume that such act would not prejudice our interests; and
- a financial liability imposed upon him or her in favor of another person.

Without derogating from the above, subject to the provisions of the Companies Law and the Israeli Securities Law, we may also enter into a contract to insure an office holder, in respect of expenses, including reasonable litigation expenses and legal fees, incurred by an Office Holder in relation to an administrative proceeding instituted against him or her, or payment required to be made to an injured party, pursuant to certain provisions of the Israeli Securities Law.

Under the Companies Law, exemption and indemnification of, and procurement of insurance coverage for, our Office Holders, must be approved by our Audit Committee, (sitting as a compensation committee) and our Board of Directors and, with respect to an Office Holder who is the CEO or a director, also by our shareholders. However, according to regulations promulgated under the Companies Law, shareholders' and Board approvals for the procurement of such insurance are not required if the insurance policy is approved by our Audit Committee, (sitting as a compensation committee) and: (i) the terms of such policy are within the framework for insurance coverage as approved by our shareholders and set forth in our Compensation Policy; (ii) the premium paid under the insurance



policy is at fair market value; and (iii) the insurance policy does not and may not have a substantial effect on the Company's profitability, assets or obligations.

At the 2017 Special General Meeting of Shareholders, our shareholders approved an increase in the insurance coverage and the annual premium of policies that may be purchased by the Company, so that the coverage may be up to \$50 million with an annual premium of up to \$350,000. Accordingly, we currently hold directors' and officers' liability insurance policy for the benefit of our Office Holders, which was approved by our Audit Committee, (sitting as a compensation committee) on November 6, 2017, in accordance with these regulations.

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Our Office Holder's Indemnification. Our Articles provide that, subject to the provisions of the Companies Law, we may indemnify any of our 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, including as follows:

- a financial liability imposed on him or her in favor of another person by any court judgment, including a settlement or an arbitration award approved by a court;

- reasonable litigation expenses, including attorney's fees, incurred by the Office Holder as a result of an investigation or proceeding instituted against him or her by a competent authority which concluded without the filing of an indictment and without the imposition of any financial liability in lieu of criminal proceedings, or which concluded without the filing of an indictment but with the imposition of a financial liability in lieu of criminal proceedings concerning a criminal offense that does not require proof of criminal intent or in connection with a financial sanction;

- reasonable litigation expenses, including attorneys' fees, expended by an Office Holder or charged to the Office Holder by a court, in a proceeding instituted against him or her by the Company or on its behalf or by another person, or in a criminal charge from which the Office Holder was acquitted, or in a criminal proceeding in which the Office Holder was convicted of an offense that does not require proof of criminal intent; and

- expenses, including reasonable litigation expenses and legal fees, incurred by an Office Holder in relation to an administrative proceeding instituted against him or her, or payment required to be made to an injured party, pursuant to certain provisions of the Israeli Securities Law.

The Company may undertake to indemnify an office holder as mentioned above: (a) prospectively, provided that with respect of the first act (financial liability) the undertaking is limited to events which in the opinion of the Board are foreseeable in light of the Company's actual operations when the undertaking to indemnify is given, and to an amount or criteria set by the Board as reasonable under the circumstances, and further provided that such events and amount or criteria are set forth in the undertaking to indemnify, and (b) retroactively.

Indemnification letters, covering indemnification of those liabilities discussed above, were granted to each of our present Office Holders and were approved for any future Office Holders. Hence, we indemnify our Office Holders to the fullest extent permitted under the Companies Law.

Our Office Holder's Exemption. Our Articles provide that, subject to the provisions of the Companies Law, we may exempt and release our Office Holders, including in advance, from all or part of such Office Holder's liability for monetary or other damages due to a breach of their duty of care to the Company. Our directors are released and exempt from all liability as aforesaid to the fullest extent permitted by law with respect to any such breach, which has been or may be committed.

Limitations on Insurance, Indemnification and Exemption. The Companies Law provides that a company may not insure, exempt or indemnify an office holder for any breach of his or her liability arising from any of the following:

- a breach by the office holder of his or her duty of loyalty, except that the company may enter into an insurance contract or indemnify an office holder if the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;

- a breach by the office holder of his or her duty of care if such breach was intentional or reckless, but unless such breach was solely negligent;

- any act or omission done with the intent to derive an illegal personal benefit; or

any fine, civil fine, financial sanction or monetary settlement in lieu of criminal proceedings imposed on such office holder.

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## Administrative Enforcement

The Israeli Securities Law includes an administrative enforcement procedure that may be used by the Israeli Securities Authority, to enhance the efficacy of enforcement in the securities market in Israel. This administrative enforcement procedure may be applied to any company or person (including director, officer or shareholder of a company) performing any of the actions specifically designated as breaches of law under the Israeli Securities Law. Furthermore, the Israeli Securities Law requires that the CEO of a company supervise and take all reasonable measures to prevent the company or any of its employees from breaching the Israeli Securities Law. The CEO is presumed to have fulfilled such supervisory duty if the company adopts internal enforcement procedures designed to prevent such breaches, appoints a representative to supervise the implementation of such procedures and takes measures to correct the breach and prevent its reoccurrence.

As detailed above, under the Israeli Securities Law, a company cannot obtain insurance against or indemnify a third party (including its officers and/or employees) for any administrative procedure and/or monetary fine (other than for payment of damages to an injured party). The Israeli Securities Law permits insurance and/or indemnification for expenses related to an administrative procedure, such as reasonable legal fees, provided that it is permitted under the company's articles of association.

We have adopted and implemented an internal enforcement plan to reduce our exposure to potential breaches of sections in the Companies Law and the Israeli Securities Law, applicable to us. Our Articles and letters of indemnification permit, among others, insurance and/or indemnification as contemplated under the Israeli Securities Law (see "Insurance, Indemnification and exemption" above).

## C. BOARD PRACTICES

We are incorporated in Israel, and, therefore, are generally subject to various corporate governance practices under Israeli law such as with respect to external directors, independent directors, audit committee, compensation committee, an internal auditor and approvals of interested party transactions. 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, 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. We currently comply with all the above-mentioned requirements. See "Item 3. Key Information – D. Risk Factors – Risks related to operations in Israel – Being a foreign private issuer exempts us from certain SEC and NASDAQ requirements". For information regarding home country practices followed by us see "Item 16G - Corporate Governance".

### Board of Directors

Our Board of Directors consists of seven members, two of whom were elected as external directors under the provisions of the Companies Law (discussed below). Other than our two external directors, who are elected for a fixed term of three years, our directors are elected by a simple majority of our 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 or upon earlier termination in circumstances referred to under the Companies Law or our Articles. Our Articles provide that we may have no less than five nor more than fourteen directors.

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 former active Chairman of the Board of Directors, Mr. Martin Gerstel, and our President and Chief Executive Officer, Dr. Anat Cohen-Dayag, with each of whom we entered into an employment agreement. For additional information on the employment agreement entered into with each of Mr. Gerstel and Dr. Cohen-Dayag, and the cessation of the employment agreement with Mr. Gerstel, please see "Item 6 –

Directors, Senior Management and Employees – B. Compensation – Compensation to our Former Active Chairman of the Board of Directors and Compensation to our President and Chief Executive Officer.”

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.

## External Directors and Independent Directors under the Companies Law

Under the Companies Law, Israeli public companies are generally required to have on their board of directors at least two external directors meeting certain independence criteria, provided under Israeli law. We, as an Israeli public company with no controlling shareholder (within the meaning of the Companies Law), whose shares are listed on the NASDAQ global market, may exempt ourselves from the requirement of having external directors on our Board of Directors and the related obligations concerning such external directors, provided that we continue to comply with applicable U.S. securities laws and NASDAQ Listing Rules. We have so far chosen not to do so.

External directors are elected for a term of three years at the general meeting of shareholders by a disinterested majority of the shareholders, and may be re-elected for additional terms of three years each, subject to certain conditions; each committee of a company's board of directors that has the authority to exercise powers of the board of directors must include at least one external director. For additional requirements related to the inclusion of external directors in the composition of certain mandatory committees, see below in – "Board Committees."

Among other requirements, a person may not be elected as an external director of a company if such person, his or her relative, partner, employer, anyone to whom he or she is directly or indirectly subordinate, or any entity under his or her control, has or had, on or within the two years preceding the date of his or her election, any 'affiliation' (as defined in the Companies Law) with the company, any controlling shareholder of the company, a relative of a controlling shareholder, or any entity controlled by the company or by a controlling shareholder of the company; and if the company has no controlling shareholder or a shareholder or an affiliated group of shareholders holding 25% or more of the company's voting rights, also with the chairman of the board of directors, the chief executive officer or the most senior financial officer of the company, or with a shareholder holding 5% or more of the outstanding shares or voting rights of 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.

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 under the Companies Law and regulations promulgated there under, and at least one of the external directors is required to have 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.

Professor Yair Aharonowitz and Dr. Arie Ovadia 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 and Dr. Arie Ovadia 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 for further three-year terms on each of April 15, 2010, April 22, 2013 and April 20, 2016. Their current term expires on April 19, 2019.

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. However, as our shares are listed on the NASDAQ Global Market, we may also classify directors who qualify as independent directors under the relevant non-Israeli rules, as 'independent directors' under the Companies Law even if they serve for a period longer than 9 consecutive years. Prof. Ruth Arnon, Mr. Dov

Hershberg, Dr. Michal Preminger and Mr. Paul Sekhri meet the 'independent directors' criteria under the Companies Law.

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External directors and independent directors may receive compensation solely as provided for in the Companies Law and the Remuneration Regulations. In addition, the Companies Law includes specific provisions with respect to the manner in which external directors and independent directors may be dismissed from office. Following termination of service, external directors and independent directors and their relatives are generally subject to certain restrictions with respect to receipt of benefits, service as an Office Holder, employment and provision of professional services to the company, a controlling shareholder thereof or any entity controlled by a controlling shareholder.

#### 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 six of the seven members of our Board of Directors - Professor Yair Aharonowitz, Professor Ruth Arnon, Mr. Dov Hershberg, Dr. Arie Ovadia, Dr. Michal Preminger and Mr. Paul Sekhri - have been determined by our Board of Directors to meet the NASDAQ independence requirements.

#### Board Committees

##### Audit Committee

The Companies Law requires public companies such as ours to appoint an audit committee comprised of at least three directors. The audit committee must include all of the external directors, if applicable, one of whom shall serve as the chairman of the committee, and the majority of its members must be independent directors (as described above under “- External Directors and Independent Directors under the Companies Law”). Further, the chairman of the Board of Directors and any director employed by us or who regularly provides services to us (“Non-Permitted Members”), may not be members of the audit committee. Generally, persons not eligible to be audit committee members may not be present at the audit committee's meetings during discussion and resolutions, unless the chairman of the audit committee determines that such person or persons are required for the purpose of presenting a certain item on the meeting's agenda.

Under the NASDAQ Listing Rules, we are 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 our 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 responsibilities of the Audit Committee include among other things: (i) identifying flaws in the management of the Company's business and making recommendations to the Board of Directors as to how to correct them, and providing for arrangements regarding employee complaints with respect thereto, (ii) reviewing and considering certain related party transactions and certain actions involving conflicts of interest (as well as deciding whether certain actions specified in the Companies Law are considered material or non-material and whether certain transactions are considered exceptional or ordinary), (iii) reviewing the internal auditor's work program performance and examining the company's internal control structure and processes, (iv) 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 and (v) overseeing the accounting and financial reporting processes 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 our external auditors the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in our 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 our 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 our independent auditors is approved by our shareholders at the Audit Committee's recommendation and their compensation for audit services and non-audit services is required to be approved by the Board of Directors following the Audit Committee's recommendation.

As the composition of our Audit Committee satisfies the requirements of the Companies Law regarding the composition of a compensation committee, in accordance with the decision of our Board of Directors, under authorization provided in the Companies Law, an additional purpose of our Audit Committee is to fulfill the legal role and duties as ascribed to a compensation committee under the applicable NASDAQ Listing Rules, the Companies Law or otherwise pursuant to the Board's authorization. Therefore, our Audit Committee has the following additional responsibilities: (i) reviewing and making recommendations to the Board of Directors with respect to our Compensation Policy, (ii) reviewing and considering arrangements with respect to the Terms of Office and Employment of Office Holders, and (iii) overseeing, subject to applicable law, the administration of the Company's various compensation plans and arrangements, including, incentive compensation and equity based plans. In carrying out these duties, the Audit Committee, sitting as a compensation committee, meets on an ad hoc basis (usually several times in each fiscal year). Under the Companies Law, the compensation committee may need to seek the approval of the board of directors and the shareholders for certain compensation-related decisions, (see "Item 6 - Directors, Senior Management and Employees – B. Compensation – Approval Required for Directors' and Officers' Compensation").

We have an Audit Committee consisting of three directors, Dr. Arie Ovadia, who serves as the chairman of our Audit Committee and Professors Yair Aharonowitz and Prof. Ruth Arnon, all of whom are financially literate and one of whom has accounting or related financial management expertise and is financially sophisticated. All of the members of our Audit Committee qualify as independent directors under the NASDAQ Listing Rules and under the Companies Law. We have adopted a charter for the Audit Committee, which sets forth the purpose and responsibilities of such committee.

#### Compensation Committee

The Companies Law generally provides that public companies such as the Company must appoint a compensation committee comprised of at least three directors, including all of the external directors, if applicable, which shall be the majority of its members and one of whom must serve as the chairman of the committee. All other members of the compensation committee, who are not external directors, must be directors who receive compensation that is in compliance with the Companies Law and the Remuneration Regulations and may not be Non-Permitted Members.

As the composition of our Audit Committee satisfies the composition requirements set out in the Companies Law with respect to a compensation committee (see "Audit Committee" above), our Board of Directors resolved to unify our compensation and audit committees and our Audit Committee also serves as a compensation committee. This practice is compliant with Israeli law. Additionally, as all of the members of the Audit Committee meet the independence requirements for compensation committee members set forth in NASDAQ Listing Rule 5605(d)(2), 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 certain provisions of NASDAQ Listing Rule 5605(d), requiring us to have a separate compensation committee.

Generally, persons not eligible to be compensation committee members may not present at the committee's meetings during discussion and resolutions, unless the chairman of the committee determines that such person or persons are

required for the purpose of presenting a certain item on the meeting's agenda.

#### Nominating Committee

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 5605(e).

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## 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.

Ms. Hila Barr of Brightman Almagor Zohar & Co., a member firm of Deloitte Touche Tohmatsu, serves as our internal auditor since 2010. Ms. Hila Barr is not an employee, affiliate or Office Holder of the Company, or affiliated with the Company's independent auditors.

## Fiduciary Duties and Approval of Related Party Transactions under Israeli Law

### Fiduciary Duties of Office Holders

The Companies Law codifies the fiduciary duties that office holders owe to a company. Each person listed in the table under "Item 6. Directors, Senior Management and Employees – A. Directors and Senior Management" is an Office Holder. In addition to those persons listed in the table under Item 6.A, four other individuals were Office Holders as of December 31, 2017.

An Office Holders' fiduciary duties 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 relevant 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.

#### Disclosure of Personal Interests of Office Holders and Approval of Certain Transactions

The Companies Law requires that an Office Holder promptly disclose to the company any personal interest that the Office Holder may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. In addition, if the transaction is an extraordinary transaction, as defined under Israeli law, the Office Holder must also disclose any personal interest held by the Office Holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants and the spouses of any of the foregoing (a "Relative"). In addition, the Office Holder must also disclose any interest held by any corporation in which the Office Holder: (i) holds at least 5% of the company's outstanding share capital or voting rights; (ii) is a director or general manager; or (iii) has the right to appoint at least one director or the general manager. An extraordinary transaction is defined as a transaction which is either not in the ordinary course of business, not on market terms, or likely to have a material impact on the company's profitability, assets or liabilities.

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Under the Companies Law, unless the articles of association of a company provide otherwise, a transaction in which an Office Holder has a personal interest and which is not an extraordinary transaction, requires Board approval, after the Office Holder complies with the above disclosure requirement and provided the transaction is not adverse to the company's interest. Our Articles do not provide for a different method of approval. Furthermore, if the transaction is an extraordinary transaction, then, in addition to any approval stipulated by the articles of association, it also must be approved by the company's audit committee and then by the board of directors, and, under certain circumstances, by the shareholders of the company.

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 such matter is being considered, and if he or she is a member of the committee or a director, he or she may not generally vote on such matter at the applicable meeting.

#### Disclosure of Personal Interest of Controlling Shareholders and Approval of certain Transactions

The Companies Law extends the disclosure requirements applicable to an Office Holder to a 'controlling shareholder' in a public company. For this purpose, a 'controlling shareholder' is a shareholder who has the ability to direct the activities of a company, including a shareholder or a group of shareholders who together own 25% or more of the voting rights if no other shareholder holds more than 50% of the voting rights.

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 each 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, in that order. The shareholder approval must fulfill one of the following requirements: (i) it received the positive vote of at least a majority of the voting rights in the company who are present and voting in the meeting and held by shareholders who do not have a personal interest in the transaction; (abstentions are disregarded) or (ii) the voting rights held by shareholders who have no personal interest in the transaction and who have voted against the transaction, do not exceed two percent of the voting rights in the company.

Any extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest with a term of more than three years generally need to be brought for re-approval in accordance with the above procedure every three years, unless the audit committee determined that the duration of the transaction is reasonable given the circumstances related thereto and has been approved by the shareholders for such longer duration.

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.

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."

#### Shareholders Duties

Pursuant to the Companies Law, a shareholder has a duty to: (i) act in good faith in fulfilling his obligations towards the company and the other shareholders; and (ii) refrain from abusing his or her power with respect to the company, including, when voting at a general meeting with respect to the following matters: (a) an amendment to the company's articles of association; (b) an increase of the company's authorized share capital; (c) a merger; or (d) interested party transactions that require shareholders' approval.

In addition, any controlling shareholder, any shareholder who knows that it possesses power to determine the outcome of a shareholder vote and any shareholder who, pursuant to the provisions of a company's articles of association has the power to appoint or prevent the appointment of an office holder in the company is under a duty of fairness towards the company. The Companies Law does not describe the substance of such duty of fairness but states that the remedies generally available upon a breach of contract will also apply in the event of a breach of the duty of fairness, taking into account such shareholder's position.

#### Approval of Significant Private Placement

Under the Companies Law, a significant private placement of securities requires approval by the board of directors and the shareholders by a simple majority. A private placement is considered a significant private placement if it results in a person becoming a controlling shareholder, or if all of the following conditions are met: the securities issued amount to 20% or more of the company's outstanding voting rights before the issuance; some or all of the consideration is other than cash or listed securities or the transaction is not on market terms; and the transaction will increase the relative holdings of a shareholder who holds 5% or more of the company's outstanding share capital or voting rights or that will cause any person to become, as a result of the issuance, a holder of more than 5% of the company's outstanding share capital or voting rights.

#### D. EMPLOYEES

The following table sets out the number of our full-time employees engaged in specified activities, at the end of the fiscal years 2017, 2016 and 2015 (the numbers include employees of our wholly owned U.S. subsidiary Compugen USA, Inc.):

	December 31, 2017	December 31, 2016	December 31, 2015
Research & Development	78	74	74
Administration, Accounting and Operations	20	21	16
Marketing and Business Development	3	3	3
Total	101	98	93

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, 2015, 66 of our employees were located in Israel and 27 were located in the U.S. and for the year ended December 31, 2016, 66 of our employees were located in Israel and 32 were located in the U.S. and for the year ended December 31, 2017, 71 of our employees were located in Israel and 30 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.

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Our severance pay liability to our Israeli employees, based upon the number of years of service and the latest monthly salary, is in the 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 5723-1963, certain of our liabilities for employee severance rights upon termination 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 2o to our 2017 consolidated financial statements.

Our employees are not represented by a labor union. We have written employment contracts (including signed offers of employment) with each of our employees.

## E. SHARE OWNERSHIP

### Share Ownership by Directors and Other Executive Officers

All of the persons listed above under the caption “Directors and Senior Management” own ordinary shares of the Company and/or options to purchase ordinary shares of the Company. Except as set forth in the table below, none of the directors or executive officers beneficially owns ordinary shares and/or ordinary shares underlying options amounting to 1% or more of the outstanding ordinary shares. The following table sets forth certain information as of March 1, 2018, regarding the beneficial ownership by our directors and executive officers. All numbers quoted in the table are inclusive of options to purchase shares that are exercisable within 60 days after March 1, 2018. The information in this table is based on 51,793,070 ordinary shares outstanding as of March 1, 2018.

Beneficial Owner	Amount Owned	Percent of Class
Anat Cohen-Dayag <sup>(1)</sup>	1,030,000	1.95 %
All directors and executive officers as a group (15 persons) <sup>(2)</sup>	2,770,946	5.10 %

Includes (i) 10,000 shares held by Dr. Cohen-Dayag and (ii) 1,020,000 shares subject to options that are exercisable <sup>(1)</sup>within 60 days after March 1, 2018 with a weighted average exercise price of \$4.44 per share, and which expire between November 2018 and August 2026.

See Note 1 above. Also includes (i) a total of 2,569,007 shares subject to options that are beneficially owned by <sup>(2)</sup>directors and executive officers that are exercisable within 60 days after March 1, 2018 with a weighted average exercise price of \$5.13 per share and which expire between November 218 and August 2026 and (ii) a total of 201,939 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 to our 2017 consolidated financial statements.

Our 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. Approval Required for Directors' and Officers' Compensation”), our Audit Committee currently 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 2000 Option Plan. As of December 31, 2017, options to purchase 1,607,289 ordinary shares at a weighted average exercise price of approximately \$2.55 per share were outstanding (i.e., were granted but not canceled, expired or exercised) under the 2000 Option Plan. Options to purchase 6,063,985 ordinary shares under the plan have previously been exercised at a weighted average exercise price of approximately \$2.80.

### Compugen 2010 Share Incentive Plan

On July 25, 2010, our Board of Directors adopted the Compugen 2010 Share Incentive Plan or the “2010 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. 10,133,931 shares are reserved for 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. Subject to applicable law, our Board of Directors may amend the Plan, provided that any action by our Board of Directors which will alter or impair the rights or obligations of an option holder requires the prior consent of that option holder. Our Board of Directors last amended the Plan in August 2017, to increase the number of shares available under the 2010 Plan. See “Item 16G. Corporate Governance.”

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, 2017, options to purchase 7,834,294 ordinary shares at a weighted average exercise price of approximately \$5.27 per share were outstanding (i.e., were granted but not canceled, expired or exercised) under the 2010 Plan. Options to purchase 786,579 ordinary shares under the plan have previously been exercised at a weighted average exercise price of approximately \$4.65. Options to purchase 1,513,058 ordinary shares remain available for future grant as of December 31, 2017.

### 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 grantees.

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, or part of them, may under certain circumstances also be considered part of an employee's regular salary and subject to such employee's regular tax rate applicable to such salary. 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 share ownership information as of March 1, 2018 (unless otherwise noted below) with respect to each person who is known by us to be the beneficial owner of more than 5% of our outstanding ordinary shares. The information contained in the table below has been obtained from the Company's records or from information furnished by an individual or entity to the Company or disclosed in public filings with the SEC. Except where otherwise indicated, and except pursuant to community property laws, we believe, based on information furnished by such owners, that the beneficial owners of the ordinary shares listed below have sole investment and voting power with respect to such shares. As of March 1, 2018, there were a total of 43 holders of record of our ordinary shares, of which 37 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 99.9% 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.

Total "Number of Ordinary Shares Beneficially Owned" in the table below include shares that may be acquired by an individual or group upon the exercise of options that are either currently exercisable or will become exercisable within 60 days of March 1, 2018. The shares that may be issued under these options are deemed to be outstanding for the purpose of computing the percentage of ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage of ownership of any other individual or group shown in the table.

The shareholders listed below do not have any different voting rights from any of our other shareholders.

Beneficial Owner	Number of Ordinary Shares Beneficially Owned	Percent of Ordinary Shares Beneficially Owned <sup>(1)</sup>	
Raging Capital Management, LLC <sup>(2)</sup>	3,669,955	7.06	%
Martin Gerstel <sup>(3)</sup>	2,695,018	5.17	%

(1) Based upon 51,793,070 ordinary shares issued and outstanding as of March 1, 2018.

(2) Based upon information provided by the shareholder in its Schedule 13G/A filed with the SEC on February 14, 2018. In such filing, Raging Capital Management LLC (Raging Capital) and William C. Martin are indicated as having shared voting and dispositive power with respect to the ordinary shares reported in the Schedule 13G and, as a result, may be deemed to have beneficial ownership of such shares. However, each of Raging Capital and Mr. Martin specifically disclaim beneficial ownership in the shares reported in the Schedule 13G. The address of the principal business office of Raging Capital is Ten Princeton Ave., P.O.B. 228, Rocky Hill, New Jersey 08553.

(3) Based upon information provided by the shareholder in its Schedule 13G filed with the SEC on February 1, 2017 and information provided to the Company by Martin Gerstel. 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, (iv) 615,495 shares held in a trust for which Mr. Gerstel is trustee and a member his immediate family is the beneficiary, and (v) 500,000 shares held in a trustee bank account for the benefit of Mr. Gerstel. Also includes 341,250 shares subject to options that are currently exercisable or that become exercisable within 60 days after March 1, 2018 with a weighted average exercise price of \$5.84 per share and which expire between May 2018 and February 2019.



## B. RELATED PARTY TRANSACTIONS

Other than as set forth below and transactions related to compensation of our executive officers and directors as described under “Item 6. Directors, Senior Management and Employees — B. Compensation,” since January 1, 2017, 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 related to 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 was to be made available to Keddem. Under the agreement, the new investor obtained a majority equity interest in Keddem. Martin Gerstel, our former Chairman of the Board of Directors is also Chairman of the Board of Keddem. In October 2016, Keddem ceased activities. As of the date of this annual report, we owned 29.4% of the outstanding securities of Keddem.

See also Note 2 to our 2017 consolidated 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, which was focused on the discovery and development of novel biomarkers for the prediction of drug-induced toxicity. Neviah operates out of the Merck Serono Israel Bioincubator. Pursuant to our agreement, Merck provided the initial funding for Neviah and its expertise in the validation and development of biomarkers into a diagnostic test, and we utilized 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 December 2014, we invested together with Merck an amount in addition to Merck’s original investment in order to finance the further validation of the assay and remaining product development costs (“2014 Loan”). In 2015, we recognized \$32,000 in research revenues under this agreement. In 2017 each of Compugen and Merck converted their portion of the 2014 Loan into equity. Following this conversion into equity, the equity ownership ratio of each shareholder remained the same. Following the biomarker discovery phase and the completion of the validation and development of an assay for the early detection of drug induced hepatotoxicity, Merck decided to not enter into commercialization of the products. As a result, Neviah will cease to exist. Merck will have the right to utilize the assay internally but not to provide it to third parties, and all commercialization rights and intellectual property generated by Neviah will become property of Compugen.

Dr. Zurit Levine our VP Research and Discovery, and Ari Krashin our Chief Financial and Operations Officer are directors in Neviah on behalf of the Company. As of the date of this annual report, we owned 25.12% of the outstanding securities of Neviah.

See also Note 2 to our 2017 consolidated financial statements.

### Indemnification Agreements

Our Articles permit us to exculpate, indemnify and insure our Office Holders to the fullest extent permitted by the Companies Law. Accordingly, we release our Office Holders from liability and indemnify them to the fullest extent permitted by law, and provide them with letters of indemnification and exemption and release for this purpose, in the form approved at a Special General Meeting of the shareholders which took place in September 2013. Under the letters of indemnification and exemption and release, (i) Compugen’s undertaking to indemnify each Office Holder for monetary liabilities or obligations imposed by a court judgment (including a settlement or an arbitrator’s award

approved by a court) shall be limited to matters that result from or are connected to those events or circumstances set forth therein, and (ii) the indemnification that the Company undertakes towards all persons whom it resolved to indemnify for the matters and circumstances described therein, jointly and in the aggregate, shall not exceed \$5 million.

Our Office Holders are also covered by directors' and officers' liability insurance. For more information see "Item 6. Directors, Senior Management and Employees — B. Compensation – Insurance, Indemnification and Exemption."

#### C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

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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 8 to our 2017 consolidated financial statements and “Item 10. Additional Information – E. Taxation.”

B. SIGNIFICANT CHANGES

Not applicable.

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:

<u>Year Ended</u>	High	Low
December 31, 2013	\$11.92	\$4.56
December 31, 2014	\$14.32	\$6.27
December 31, 2015	\$9.65	\$4.64
December 31, 2016	\$7.57	\$4.32
December 31, 2017	\$5.40	\$2.25

Quarter Ended

March 31, 2016	\$6.92	\$4.32
June 30, 2016	\$7.14	\$5.48
September 30, 2016	\$7.57	\$6.25
December 31, 2016	\$6.80	\$5.05
March 31, 2017	\$5.40	\$4.20
June 30, 2017	\$5.40	\$3.50
September 30, 2017	\$4.25	\$2.60
December 31, 2017	\$4.15	\$2.25

Month Ended

September 30, 2017	\$4.15	\$2.80
October 31, 2017	\$4.15	\$2.93
November 30, 2017	\$3.15	\$2.35
December 31, 2017	\$2.90	\$2.25
January 31, 2018	\$3.65	\$2.50
February 28, 2018	\$4.15	\$2.42

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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.

<u>Year Ended</u>	High*	Low*
December 31, 2013	\$11.80	\$4.57
December 31, 2014	\$13.48	\$6.40
December 31, 2015	\$9.66	\$4.59
December 31, 2016	\$7.38	\$4.31
December 31, 2017	\$5.32	\$2.36

Quarter Ended

March 31, 2016	\$6.93	\$4.31
June 30, 2016	\$7.29	\$5.51
September 30, 2016	\$7.38	\$6.30
December 31, 2016	\$6.70	\$5.11
March 31, 2017	\$5.32	\$4.18
June 30, 2017	\$5.37	\$3.52
September 30, 2017	\$3.99	\$2.76
December 31, 2017	\$3.95	\$2.36

Month Ended

September 30, 2017	\$3.95	\$2.84
October 31, 2017	\$3.95	\$3.04
November 30, 2017	\$3.13	\$2.49
December 31, 2017	\$2.85	\$2.36
January 31, 2018	\$3.26	\$2.52
February 28, 2018	\$3.97	\$2.41

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 our Memorandum of Association (“Memorandum”) and our Articles. This description does not purport to be complete and is qualified in its entirety by reference to the full text of our Memorandum and Articles.

Objects and Purposes

We are incorporated under the Companies Law under the name Compugen Ltd. Our Memorandum was registered in 1993, and was amended by our shareholders at our 2014 Annual General Meeting. At our 2017 Annual General Meeting, the shareholders adopted and restated the Articles. 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.

## 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.

## 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, by proxy or by proxy card. Alternatively, shareholders who hold shares through members of the Tel Aviv Stock Exchange may vote electronically via the electronic voting system of the Israel Securities Authority (“Electronic Vote”). 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. As our ordinary shares do not have cumulative voting rights in the election of directors, 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.

## 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. The declaration of dividends does not require shareholders’ approval.

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.

#### 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 Class Rights

Our Memorandum provides that we may amend the Memorandum in order to increase, consolidate or divide or otherwise amend our share capital by a simple majority of the voting power present at a shareholders meeting as currently provided in our Articles or by such other majority as shall be set forth in our Articles from time to time.

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.

### 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 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 a simple majority of our shareholders at a general meeting by voting on such change in the capital.

### 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 special shareholders 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. All demands for shareholders meetings must set forth the items to be considered at that meeting.

The chairman of the Board of Directors, or any other director or office holder of the Company which may be designated for this purpose by 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 thirty (30) 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.

According to regulations promulgated pursuant to the Companies Law and governing the terms of notice and publication of shareholder meetings of public companies (the “General Meeting Regulations”), holder(s) of one percent or more of the Company’s voting rights may propose any matter appropriate for deliberation at a shareholder meeting to be included on the agenda of a shareholder meeting, generally by submitting a proposal within seven days of publicizing the convening of a shareholder meeting, or, if the Company publishes a preliminary notice at least 21 days prior to publicizing the convening of a meeting, stating its intention to convene such meeting and the agenda thereof, within fourteen days of such preliminary notice. Any such proposal must further comply with the information requirements under applicable law and the Articles. 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 the General Meeting Regulations shareholder meetings generally require prior notice of not less than 21 days, and not less than 35 days in certain cases. Pursuant to the Articles, we are 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, we will publicize the convening of a general meeting in any manner reasonably determined by us, 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 us in our 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, by proxy card or by electronic voting, and holding shares conferring in the aggregate twenty-five percent (25%) 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, shall stand adjourned to the same day in the following week at the same time and place or to such other later day, time and place as the Board of Directors may determine. At the adjourned meeting, any number of participants will constitute a quorum present, in person, by proxy, by proxy card or by electronic voting; provided, however, that Special General Meeting which was convened by the Board upon the demand of shareholders or Directors then in office, or directly by such shareholders or Directors, in accordance the terms of the Companies Law, shall be cancelled.

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, by proxy card or by electronic voting, 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 at the meeting.

#### Change of Control

#### Merger

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 approving a merger, the board of directors of both merging companies must determine that there is no reasonable concern that, as a result of the merger, the surviving company will not be able to satisfy its obligations to its creditors. Similarly, upon the request of a creditor of either party to the proposed merger, an Israeli court may prevent or delay the merger if it concludes that there exists a reasonable concern that, as a result of the merger, the surviving company will not be able to satisfy the obligations of the merging parties. A court may also issue other instructions for the protection of the creditors' rights in connection with a merger. Further, a merger may not be completed unless at least (i) 50 days have passed from the time that the requisite proposals for the approval of the merger were filed with the

Israeli registrar of companies; and (ii) 30 days have passed since the merger was approved by the shareholders of each party.

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### Special Tender Offer

The Companies Law provides that an acquisition of shares of an Israeli public company must be made by means of a special tender offer if as a result of the acquisition the purchaser would become a holder of 25% or more of the voting rights in the company. This rule does not apply if there is already another holder of 25% or more of the voting rights in the company. Similarly, the Companies Law provides that an acquisition of shares in a public company must be made by means of a tender offer if as a result of the acquisition the purchaser would become a holder of more than 45% of the voting rights in the company, if there is no other shareholder of the company who holds more than 45% of the voting rights in the company. These requirements do not apply if the acquisition (i) occurs in the context of a private placement by the company that received shareholder approval, (ii) was from a shareholder holding 25% or more of the voting rights in the company and resulted in the acquirer becoming a holder of 25% or more of the voting rights in the company, or (iii) was from a holder of more than 45% of the voting rights in the company and resulted in the acquirer becoming a holder of more than 45% of the voting rights in the company. A special tender offer may be consummated only if (i) at least 5% of the voting power attached to the company's outstanding shares will be acquired by the offeror and (ii) the number of shares tendered in the offer exceeds the number of shares whose holders objected to the offer (excluding controlling shareholders, holders of 25% or more of the voting rights in the company and any person having a personal interest in the acceptance of the tender offer).

In the event that a special tender offer is made, a company's board of directors is required to express its opinion on the advisability of the offer, or shall abstain from expressing any opinion if it is unable to do so, provided that it gives the reasons for its abstention. An office holder in a target company who, in his or her capacity as an office holder, performs an action the purpose of which is to cause the failure of an existing or foreseeable special tender offer or is to impair the chances of its acceptance, is liable to the potential purchaser and shareholders for damages, unless such office holder acted in good faith and had reasonable grounds to believe he or she was acting for the benefit of the company. However, office holders of the target company may negotiate with the potential purchaser in order to improve the terms of the special tender offer, and may further negotiate with third parties in order to obtain a competing offer.

If a special tender offer is accepted, then shareholders who did not respond to or that had objected the offer may accept the offer within four days of the last day set for the acceptance of the offer. In the event that a special tender offer is accepted, then the purchaser or any person or entity controlling it or under common control with the purchaser or such controlling person or entity may not make a subsequent tender offer for the purchase of shares of the target company and may not enter into a merger with the target company for a period of one year from the date of the offer, unless the purchaser or such person or entity undertook to effect such an offer or merger in the initial special tender offer.

### Full Tender Offer

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 for 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.

## C. MATERIAL CONTRACTS

Please see “Item 4. Information on the Company — B. Business Overview — Business Strategy and Partnerships — Bayer Collaboration” 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

#### 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 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). An additional tax at a rate of 3% on the capital gain tax rate may be imposed upon shareholders whose annual taxable income exceeds NIS 640,000 (in 2017) (hereinafter “Surcharge Tax”).

With respect to corporate investors, capital gain tax equal to the corporate tax rate (24% in 2017) will be imposed on the sale of our 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 so long as the shares were not held through a permanent establishment that the non-Israeli tax resident investor maintains in Israel.

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 and other requirements, to withhold tax upon the sale of publicly traded securities at a rate of 25% for individuals and at the corporate tax rate (24% in 2017) for corporations.

Israeli law also generally exempts non-Israeli residents from capital gains tax on the sale of securities of Israeli companies that are not traded on stock exchange in Israel, provided that the securities were acquired on or after January 1, 2009 and that (i) such gains are not generated through a permanent establishment that the non-Israeli resident maintains in Israel; (ii) the shares were not purchased from a relative; (iii) the sale of shares is not subject to real estate tax.

## Income Taxes on Dividend Distribution to Non-Israeli Shareholders

In principle, non-Israeli residents (whether individuals or corporations) are generally subject to Israeli income tax on the receipt of dividends paid for publicly traded at the rate of 25% so long as the shares are registered with a Nominee Company which is a company incorporated to be a holder of record and distribution agent of publicly traded or other securities in accordance with the Israeli Securities Law, and at the rate of 30% on dividends paid to Substantial Shareholders whose shares are not registered with a Nominee Company, 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 20% unless a different tax rate is provided under an applicable tax treaty.

A non-resident of Israel who has dividend income derived from or accrued in Israel, from which the full amount of tax was withheld, 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.

### 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, 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.

### 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 Regulations”). Section 85A of the Tax Ordinance and the TP Regulations generally require 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 Regulations 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 (generally, property held for investment). 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 (including an entity classified as a partnership for U.S. federal income tax purposes) holds our ordinary shares, the tax treatment of a partner (including a person classified as a partner for U.S. federal income tax purposes) 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, all as of the date hereof, and such authorities may be replaced, revoked or modified so as to result in U.S. federal income tax consequences different from those discussed below. 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. Our ordinary shares are listed and readily tradeable on NASDAQ, which United States Treasury Department guidance treats as 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. U.S. holders should consult their own tax advisors regarding the application of these rules given their particular circumstances.

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, for U.S. federal income tax purposes, be treated as 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.

Instead of claiming a credit, a U.S. holder may, at its election, deduct such otherwise creditable Israeli withholding taxes in computing its taxable income, but only for a taxable year in which such holder elects to do so with respect to all foreign income taxes paid or accrued in such taxable year and subject to generally applicable limitations under U.S. law.

To the extent that the amount of any distribution (including amounts withheld to reflect Israeli withholding taxes) exceeds our current and accumulated earnings and profits for a taxable year, as determined under U.S. federal income

tax principles, the distribution will first be treated as a tax-free return of capital, causing a reduction in the adjusted basis of the shares, and the balance in excess of 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 an ordinary share 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 share. 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 eligible for reduced rates of tax. 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 –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.

## Passive Foreign Investment Company

Based on our financial statements and the projected composition of our income and valuation of our assets, including goodwill, we believe that we were classified as a passive foreign investment company, or PFIC, for 2017. We may also be classified as a PFIC in future taxable years.

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, cash is a passive asset and 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. 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 and could suffer adverse tax consequences.

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. Distributions received in a taxable year that are greater than 125.0% of the average annual distributions received during the shorter of the three preceding taxable years or the U.S. holder’s holding period for the shares will be treated as excess distributions. 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. Furthermore, non-corporate U.S. Holders will not be eligible for reduced rates of taxation on any dividends received from us in a PFIC Year or in the taxable year following a PFIC Year.

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. A separate election may be made for undistributed income 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 a U.S. holder makes a mark-to-market election it will be effective for the taxable year for which the election is made and all subsequent taxable years unless the shares are no longer regularly traded on a qualified exchange or the Internal Revenue Service consents to the revocation of the election. U.S. holders are urged to consult their tax advisor about the availability of the mark-to-market election, and whether making the election would be advisable in such holder’s particular circumstances.

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.

Individuals who own "specified foreign financial assets" with an aggregate value in excess of \$50,000 may be required to file an information report on IRS Form 8938, "Statement of Specified Foreign Financial Assets," 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.

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## 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. As a “foreign private issuer” we are exempt from the rules and regulations under the Securities Exchange Act prescribing the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and “shortswing” profit recovery provisions contained in Section 16 of the Securities Exchange Act, with respect to their purchase and sale of our shares. In addition, we are not required to file reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Securities Exchange Act. NASDAQ rules generally require that companies send an annual report to shareholders prior to the annual general meeting, however we rely upon an exception under the NASDAQ Listing Rules and follow the generally accepted business practice for companies in Israel. Specifically, we file annual reports on Form 20-F, which contain financial statements audited by an independent accounting firm, electronically with the SEC and post a copy on our website. We also furnish to the SEC reports on Form 6-K containing unaudited financial information after the end of each of the first three quarters.

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, 2017, we had \$30.4 million in cash, cash equivalents, restricted cash 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 2 to our 2017 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 (deflation) rate in Israel was (0.4%), (0.2%) and (1.0%), in 2017, 2016 and 2015, respectively. The appreciation (devaluation) of the NIS against the U.S. dollar amounted to 9.8%, 1.5% and (0.3%) in 2017, 2016 and 2015, respectively. For 2017 assuming a 10% appreciation of the NIS against the U.S. dollar, we would experience exchange rate losses of approximately \$1.0 million, while assuming a 10% devaluation of the NIS against the U.S. dollar, we would experience an exchange rate gain of approximately \$1.4 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. We currently have no foreign currency derivative contracts to hedge against currency exchange risk fluctuation but may consider entering into such contracts in the future. For more information, see Note 2 of our 2017 consolidated financial statements.

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ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

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

Material Modifications to the Rights of Security Holders

Not applicable.

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.

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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, 2017 that are included in this annual report, has issued an attestation report on our internal control over financial reporting as of December 31, 2017.

#### 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, 2017 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 our Audit Committee 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 Business 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 persons performing similar functions at our subsidiary.

The Code of Ethics for Senior Financial Officers is available on our website, [www.cgen.com](http://www.cgen.com). However, information contained on our website does not constitute a part of this annual report.

We intend to post on our website all disclosures that are required by law or NASDAQ Listing Rules concerning any amendments to, or waivers from, any provision of the Code of Business Conduct or the Code of Ethics.

#### ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table presents the fees billed or accrued to us by our principal accountant for professional services rendered in the years ended December 31, 2017 and 2016:

	2017	2016
Audit Fees	\$155,000	\$135,000
Audit Related Fees	\$15,000	\$-
Tax Fees	\$2,500	\$18,300
All Other Fees	\$2,500	\$9,000
Total	\$175,000	\$162,300

“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;

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“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 2017 and 2016 were consultancy relating to VAT consultation, Social Security consultation, international tax aspect of the Bayer, submission of a request to enforce benefits under Section 20A to the Israeli tax act and Annual Israeli tax reports; and

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

#### Pre-Approval Policies for non-Audit Services

Our Audit Committee is in charge of a policy and procedures for approval of audit and non-audit services rendered by our independent auditors. This policy generally provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our Audit Committee or the engagement is entered into pursuant to the pre-approval procedure described below. Annually, our Audit Committee pre-approves specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount. All of the fees listed in the table above were approved by our Audit Committee.

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

Not Applicable.

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

Not applicable.

#### 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 that 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. Consistent with Israeli law, our Board of Directors handles this process. 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. For example, on December 19, 2016 our board of directors elected to follow Israel's practices in lieu of Nasdaq Listing Rule 5635(c) which requires that companies obtain shareholder approval for certain dilutive events, such as for the establishment or amendment of certain equity based compensation plans. We seek shareholder approval in specified situations, including upon issuance of options to directors in their capacity as directors or to controlling shareholders, as required by Israeli law.

Quorum at an Adjourned General Meeting of Shareholders: Consistent with Israeli law, generally, a quorum for an adjourned general meeting of shareholders of the Company is any two shareholders present in person, by proxy, by proxy card or by electronic vote at such meeting. As such, the Israeli 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.

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**Compensation Committee:** Consistent with Israeli law, our Audit Committee has been authorized to assume the functions and responsibilities of a compensation committee. While all of the members of the Audit Committee meet the independence requirements for compensation committee members set forth in NASDAQ Listing Rule 5605(d)(2), 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 remaining provisions of NASDAQ Listing Rule 5605(d) requiring us to have a separate compensation committee.

**Distribution of Annual Reports:** We have chosen to follow our home country practice in lieu of the requirements of NASDAQ Rule 5250(d)(1), relating to an issuer's furnishing of its annual report to shareholders. Specifically, we file annual reports on Form 20-F, which contain financial statements audited by an independent accounting firm, electronically with the SEC and post a copy on our website.

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 Number	Description
<u>1.1*</u>	<u>Articles of Association of Compugen, as amended.</u>
<u>1.2</u>	<u>Memorandum of Association of Compugen, as amended (incorporated by reference to Exhibit 99.2 to Compugen's report on Form 6-K filed with the SEC on October 29, 2014 (File No. 000-30902)).</u>
4.1	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)).
<u>4.2</u>	<u>Compugen Ltd. 2010 Share Incentive Plan (incorporated by reference to Exhibit 4.6 to Compugen's annual report on Form 20-F for the year ended December 31, 2014, filed with the SEC on March 12, 2015 (File No. 000-30902)).</u>
<u>4.3@</u>	<u>Research and Development Collaboration and License Agreement, dated August 5, 2013, by and between Compugen Ltd. and BayerPharma AG ("Bayer") (incorporated by reference to Exhibit 4.7 to Compugen's annual report on Form 20-F, filed with the SEC on February 18, 2014 (File No. 000-30902)).</u>
<u>4.4@</u>	<u>First Amendment to the Research and Development Collaboration and License Agreement, by and between Compugen Ltd and Bayer dated as of February 5, 2014 (incorporated by reference to Exhibit 10.1 to Compugen's 6-K, filed with the SEC on August 9, 2016 (File No. 000-30902)).</u>



Second Amendment to the Research and Development Collaboration and License Agreement, by and between 4.5@ Compugen Ltd and Bayer, dated as of July 27, 2015 (incorporated by reference to Exhibit 10.2 to Compugen's 6-K, filed with the SEC on August 9, 2016 (File No. 000-30902)).

Third Amendment to Research and Development Collaboration and License Agreement, by and between 4.6@ Compugen Ltd and Bayer, dated as of April 17, 2016 (incorporated by reference to Exhibit 10.3 to Compugen's 6-K, filed with the SEC on August 9, 2016 (File No. 000-30902)).

Lease, dated December 12, 2013, by and between Britannia Pointe Grand Limited Partnership and Compugen 4.7 USA, Inc. (incorporated by reference to Exhibit 4.8 to Compugen's annual report on Form 20-F for the year ended December 31, 2013, filed with the SEC on February 18, 2014 (File No. 000-30902)).

Form of Indemnification Undertaking and Exemption and Release between Compugen Ltd. and its directors and 4.8 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)).

Office Lease Agreement ("Holon Lease"), dated March 2015, by and between Kanit Hashalom Investments Ltd 4.9 and Compugen Ltd. (incorporated by reference to Exhibit 99.2 to Compugen's 6-K filed with the SEC on May 5, 2015 (File No. 000-30902)).

Amendment to Holon Lease made and entered into on November 26, 2015 by and between Kanit Hashalom 4.10 Investments Ltd and Compugen Ltd. (incorporated by reference to Exhibit 4.10 to Compugen's annual report on Form 20-F for the year ended December 31, 2015, filed with the SEC on March 7, 2016 (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\* The following financial information from Compugen Ltd.'s Annual Report on Form 20-F for the year ended December 31, 2017, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the years ended December 31, 2017, 2016 and 2015; (ii) Consolidated Balance Sheets at December 31, 2017 and 2016; (iii) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2017, 2016 and 2015; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015; and (v) Notes to Consolidated Financial Statements.

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\* Filed herewith.

@ Confidential treatment has been granted by the Securities and Exchange Commission as to certain portions.



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.**

Signature: /s/ Dr. Anat Cohen-Dayag

Name: Dr. Anat Cohen-Dayag

Title: President and Chief Executive Officer, Director

Date: March 27, 2018

COMPUGEN LTD. AND ITS SUBSIDIARY

CONSOLIDATED FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2017

U.S. DOLLARS IN THOUSANDS

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Kost Forer Gabbay & Kasierer                      Tel: +972-3-6232525  
144 Menachem Begin Road, Building A,      Fax: +972-3-5622555  
Tel-Aviv 6492102, Israel                      ey.com

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**  
To the Shareholders and Board of Directors of COMPUGEN LTD.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Compugen Ltd. and its subsidiary (the "Company") as of December 31, 2017 and 2016 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, 2017, and related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, 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) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March XX, 2018 expressed an unqualified opinion thereon.

**The Company's Ability to Continue as a Going Concern**

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses, negative cash flow from operations, and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

**Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

**KOST FORER GABBAY & KASIERER**



A Member of Ernst & Young Global

We have served as the Company's auditor since 2002

Tel-Aviv, Israel

March 27, 2018

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Kost Forer Gabbay & Kasierer                      Tel: +972-3-6232525  
144 Menachem Begin Road, Building A,      Fax: +972-3-5622555  
Tel-Aviv 6492102, Israel                      ey.com

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**  
To the Shareholders and Board of Directors of COMPUGEN LTD.

**Opinion on Internal Control over Financial Reporting**

We have audited Compugen Ltd. and its subsidiary's (the "Company") internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2017 consolidated financial statement of the Company and our report dated March XX, 2018 expressed an unqualified opinion thereon that included an explanatory paragraph regarding the Company's ability to continue as a going concern.

**Basis for Opinion**

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 Annual 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 are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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.

**Definition and Limitations of Internal Control Over Financial Reporting**

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.

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.

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

Tel-Aviv, Israel  
March 27, 2018

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands

	December 31,	
	Note 2017	2016
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$25,470	\$9,709
Restricted cash	1,050	993
Short-term bank deposits	3,918	50,825
Other accounts receivable and prepaid expenses 3	741	1,153
<u>Total</u> current assets	31,179	62,680
<b>NON-CURRENT ASSETS:</b>		
Long-term prepaid expenses	110	92
Severance pay fund	2,810	2,402
Property and equipment, net 4	4,647	5,965
<u>Total</u> non- current assets	7,567	8,459
<u>Total</u> assets	\$38,746	\$71,139

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

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## COMPUGEN LTD. AND ITS SUBSIDIARY

## CONSOLIDATED BALANCE SHEETS

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

	December 31,	
	Note 2017	2016
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Trade payables	\$3,445	\$1,274
Other accounts payable and accrued expenses	5      2,749	3,466
<u>Total</u> current liabilities	6,194	4,740
<b>NON- CURRENT LIABILITIES:</b>		
Accrued severance pay	3,255	2,880
<u>Total</u> non-current liabilities	3,255	2,880
<b>COMMITMENTS AND CONTINGENT LIABILITIES</b>	6	
<b>SHAREHOLDERS' EQUITY:</b>	7	
Share capital:		
Ordinary shares of NIS 0.01 par value: 100,000,000 shares authorized at December 31, 2017 and 2016; 51,293,070 and 51,131,534 shares issued and outstanding at December 31, 2017 and 2016, respectively	140	140
Additional paid-in capital	337,382	334,337
Accumulated other comprehensive income	17	7
Accumulated deficit	(308,242)	(270,965)
<u>Total</u> shareholders' equity	29,297	63,519
<u>Total</u> liabilities and shareholders' equity	\$38,746	\$71,139

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)

		Year ended December 31,		
	Note	2017	2016	2015
Revenue	10	\$-	\$712	\$9,277
Cost of revenue		-	223	1,633
Gross profit		-	489	7,644
Operating expenses:				
Research and development expenses, net		28,583	24,549	21,245
Marketing and business development expenses		1,189	1,174	1,309
General and administrative expenses		7,633	7,349	6,008
<u>Total</u> operating expenses		37,405	33,072	28,562
Operating loss		(37,405 )	(32,583 )	(20,918 )
Financial and other income, net	11	339	1,097	1,145
Loss before taxes on income		(37,066 )	(31,486 )	(19,773 )
Taxes on income	8	-	(20 )	(390 )
Net loss		\$(37,066 )	\$(31,506 )	\$(20,163 )
Basic net loss per share		\$(0.72 )	\$(0.62 )	\$(0.40 )
Diluted net loss per share		\$(0.72 )	\$(0.62 )	\$(0.40 )
Other comprehensive loss:				
Unrealized loss arising during the period from marketable securities		\$-	\$-	\$(205 )
Realized gain arising during the period from marketable securities		\$-	\$(440 )	\$(436 )
Unrealized gain (loss) arising during the period from foreign currency derivative contracts		\$17	\$7	\$(19 )
Realized loss (gain) arising during the period from foreign currency derivative contracts		\$(7 )	\$19	\$(141 )
Total comprehensive loss		\$(37,056 )	\$(31,920 )	\$(20,964 )
Weighted average number of ordinary shares used in computing basic net loss per share		51,179,694	50,855,908	50,437,040

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Weighted average number of ordinary shares used in computing diluted net loss per share	51,179,694	50,855,908	50,437,040
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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, 2015	50,254,492	\$ 137	\$ 324,053	\$ 1,222	\$ (219,296 )	\$ 106,116
Options exercised	317,752	1	971	-	-	972
Stock-based compensation relating to options issued to non-employees	-	-	299	-	-	299
Stock-based compensation relating to options issued to employees and directors	-	-	3,474	-	-	3,474
Changes in other comprehensive income from marketable securities	-	-	-	(641 )	-	(641 )
Changes in other comprehensive income (loss) from foreign currency derivative contracts	-	-	-	(160 )	-	(160 )
Net loss	-	-	-	-	(20,163 )	(20,163 )
Balance as of December 31, 2015	50,572,244	138	328,797	421	(239,459 )	89,897
Options exercised	559,290	2	2,456	-	-	2,458
Stock-based compensation relating to options issued to non-employees	-	-	152	-	-	152
Stock-based compensation relating to options issued to employees and directors	-	-	2,932	-	-	2,932
Changes in other comprehensive income from marketable securities	-	-	-	(440 )	-	(440 )
Changes in other comprehensive income (loss) from foreign currency derivative contracts	-	-	-	26	-	26
Net loss	-	-	-	-	(31,506 )	(31,506 )
Balance as of December 31, 2016	51,131,534	140	334,337	7	(270,965 )	63,519
Options exercised	161,536	(* )	201	-	-	201
Stock-based compensation relating to options issued to non-employees	-	-	23	-	-	23
Stock-based compensation relating to options issued to employees and directors	-	-	2,610	-	-	2,610
	-	-	-	10	-	10



Changes in other comprehensive income (loss) from foreign currency derivative contracts						
Cumulative effect adjustment from adoption of ASU 2016-09 , Note 2x	-	-	211	-	(211 )	-
Net loss	-	-	-	-	(37,066 )	(37,066 )
Balance as of December 31, 2017	51,293,070	\$ 140	\$ 337,382	\$ 17	\$(308,242 )	\$ 29,297

(\*) Representing amount lower than \$1.

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,		
	2017	2016	2015
<u>Cash flows from operating activities:</u>			
Net loss	\$(37,066)	\$(31,506)	\$(20,163)
Adjustments required to reconcile net loss to net cash used in operating activities:			
Stock-based compensation	2,633	3,084	3,773
Depreciation	1,593	1,484	1,106
Increase (decrease) in Severance pay, net	(33 )	101	120
Gain from sale of marketable securities	-	(383 )	(436 )
Loss from property and equipment disposals	-	-	37
Amortization of the Research and Development Component within research and development funding arrangement	-	-	(421 )
Decrease (increase) in interest receivables from short-term bank deposits	247	303	(399 )
Decrease (increase) in trade receivable	-	7,800	(7,800 )
Decrease (increase) in other accounts receivable and prepaid expenses	422	206	(777 )
Decrease (increase) in long-term prepaid expenses	(18 )	9	7
Increase (decrease) in trade payables and other accounts payable and accrued expenses	1,564	(605 )	823
Decrease in deferred revenues	-	(312 )	(1,477 )
Net cash used in operating activities	(30,658)	(19,819)	(25,607)
<u>Cash flows from investing activities:</u>			
Proceeds from maturity of short-term bank deposits	71,560	69,000	47,000
Investment in short-term and long-term bank deposits	(24,900)	(50,561)	(34,000)
Purchase of property and equipment	(385 )	(2,599 )	(3,120 )
Proceeds from sale of marketable securities	-	369	423
Net cash provided by investing activities	46,275	16,209	10,303

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,		
	2017	2016	2015
<u>Cash flows from financing activities:</u>			
Proceeds from exercise of options	201	2,458	972
Net cash provided by financing activities	201	2,458	972
Increase (decrease) in cash, cash equivalents and restricted cash	15,818	(1,152)	(14,332)
Cash, cash equivalents and restricted cash at the beginning of the year	10,702	11,854	26,186
Cash and cash equivalents and restricted cash at the end of the year	\$26,520	\$10,702	\$11,854
<u>Supplemental disclosure of non-cash investing and financing activities:</u>			
Change in receivables from foreign currency derivative contracts	\$(10 )	\$7	\$(141 )
Changes in other accounts payable from foreign currency derivative contracts	\$-	\$19	\$(19 )
Purchase of property and equipment	\$33	\$143	\$1,321
<u>Cash paid (received) during the year for:</u>			
Income taxes	\$-	\$20	\$-
Interest payments received from bank short-term deposits and cash equivalents	\$640	\$(1,032)	\$(415 )

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

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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

Compugen ("The Company") is a therapeutic discovery and development company utilizing its broadly applicable predictive discovery infrastructure to identify novel drug targets and develop first-in-class therapeutics in the field of cancer immunotherapy. The Company's therapeutic pipeline consists of immuno-oncology programs against novel drug targets it has discovered, including T cell immune checkpoints and myeloid target programs. The Company business model is to selectively enter into collaborations for its novel targets and related drug product candidates at various stages of research and development.

The Company is headquartered in Holon, Israel, with R&D facilities located in both Holon and South San Francisco. At the U.S. facilities, therapeutic monoclonal antibodies are discovered and developed against our novel target candidates.

The Company has incurred losses in the amount of \$37,066 during the year ended December 31, 2017, has an accumulated deficit of \$308,242 as of December 31, 2017 and has accumulated negative cash flow from operating activities amounted to \$30,658 for the year ended December 31, 2017. The Company expects to continue incurring losses and negative cash flows from operations. These conditions raise substantial doubts about the Company's ability to continue as a going concern. The Company's ability to continue to operate is dependent upon raising additional funds to finance its activities and commercialization of its products through collaborations agreements. There are no assurances, however, that the Company will be successful in obtaining an adequate level of financing needed for the long-term development and commercialization of its products. The financial statements do not include any adjustments with respect to the carrying amounts of assets and liabilities and their classification that might be necessary should the Company be unable to continue as a going concern.

On August 5, 2013, the Company entered into a Research and Development Collaboration and License Agreement ("Bayer 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 Bayer Agreement, the Company received an upfront payment of \$ 10,000, and was 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.

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.)

Under the Bayer 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 agree 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.

On July 26, 2017 it has been determined that the current collaboration will focus solely on only one of the immune-checkpoint and all rights related to the other immune check point will be returned to the Company. As a result, the Company is now eligible to receive an aggregate of over \$ 250,000 in potential milestone payments on the remaining program.

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 the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates, judgments and assumptions. The Company's management believes that the estimates, judgments and assumptions used are reasonable based upon information available at the time they are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

b. Financial statements in U.S. dollars:

The reporting and 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.

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 from the re-measurement of monetary balance sheet items are reflected in the consolidated statement of comprehensive loss as financial income or expenses, as appropriate.

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

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 equivalents:

Cash equivalents are short-term highly liquid investments that are readily convertible to cash with original maturities of three months or less at acquisition.

e. Restricted cash:

Restricted cash held in interest bearing saving accounts which are used as a security for the Company's Israeli facility leasehold bank guarantee, foreign currency derivative contracts, and credit card security for Compugen Inc.

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.

The short-term bank deposits as of December 31, 2017 and 2016 are in U.S. dollar and bear an annual average interest rate of 1.46% and 1.35%, respectively.

g. Marketable securities:

The Company accounts for its investment in Evogene Ltd. ("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, reported in "accumulated other comprehensive income (loss)" in shareholders' equity. Realized gains and losses on sale of investments are included in "financial and other 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 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. During the years 2016 and 2015 no impairment losses have been identified.

As of December 31, 2016 the Company sold its entire holdings in its marketable securities.

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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.)

## i. Property and equipment, net:

Property and equipment are stated at cost, net of 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 - 20 (mainly 20)
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 2017, 2016 and 2015, no impairment losses have been identified.

## k. Revenue recognition:

The Company generates revenues mainly from its Research and Development Collaboration and License Agreement. The revenues are derived mainly from upfront license payments, research and development services and contingent payments related to milestones achievements.

The Company applies 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". 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.

Revenues from upfront license payments and research and development services are recognized according to the proportional performance method along the research and development services period in accordance with ASC 605-10, "Revenue Recognition".



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.)

k. Revenue recognition (Cont.):

As of December 31, 2016 the Company recognized the entire amount of the upfront license payment and consequently there is no deferred revenues balance as of such date.

Contingent payments related to milestones achievement and royalties are recognized immediately upon the accomplishment of futures events, in accordance with ASC 605-28, "Revenue Recognition - Milestone Method".

On June 27, 2014, and October 14, 2014 the Company achieved the first and second substantive milestones with respect to one licensed program, under the Bayer Agreement according to which the Company recognized revenues in total amount of \$ 7,200 in accordance with the criteria prescribed under ASC 605-28.

On December 14, 2015 the Company achieved the third substantive milestone with respect to one licensed program, under the Bayer Agreement according to which the Company recognized revenues in total amount of \$ 7,800 in accordance with the criteria prescribed under ASC 605-28.

On April 17, 2016 the Company achieved the first substantive milestone with respect to the second licensed program, under the Bayer Agreement according to which the Company recognized revenues in total amount of \$ 400 in accordance with the criteria prescribed under ASC 605-28.

l. Cost of revenues:

Cost of revenues consist mainly of research and development expenses attributed to the Bayer Agreement, as well as certain royalties paid.

m. Research and development expenses, net:

Research and development costs are charged to the statement of comprehensive loss as incurred and are presented net of the amount of any grants the Company receive for research and development in the period in which the grant was received.

n. 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 deposits and 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.)

n.(Cont.)

Pursuant to Section 14 of the Israeli Severance Pay Law, for Israeli employees under this section, the Company's contributions for severance pay have replaced its severance obligation. Upon contribution of the full amount of the employee's monthly salary for each year of service, no additional calculations are conducted between the parties regarding the matter of severance pay and no additional payments are made by the Company to the employee. Further, the related obligation and amounts deposited on behalf of the employee for such obligation are not stated on the balance sheet, as the Company is legally released from the obligation to employees once the deposit amounts have been paid.

Severance expenses for the years ended December 31, 2017, 2016 and 2015 amounted to approximately \$ 365, \$ 486 and \$ 484, respectively.

o. 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.

The Company selected the Black-Scholes-Merton ("Black-Scholes") option-pricing model as the most appropriate fair value method for its share-options awards. 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.

The Company used the following weighted-average assumptions for options granted to employees and directors:

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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.)

## o. Stock-based compensation (Cont.):

	Year ended December 31,		
	2017	2016	2015
Volatility	50.7%	50.7%	51%
Risk-free interest rate	1.86%	1.17%	1.49%
Dividend yield	0%	0%	0%
Expected life (years)	4.8	4.7	4.7

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.

## q. 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, restricted cash, short-term bank deposits and foreign currency derivative contracts.

Cash, cash equivalents, restricted cash and short-term bank deposits are invested in major banks in Israel and in the U.S. Generally, these deposits may be redeemed upon demand and bear minimal risk.

As of December 31, 2016, the Company has major customer which constitute 100%, of total revenues. The management of the Company performed risk assessment on an ongoing basis and believes it bears low risk.

The Company entered into forward contracts to hedge against the risk of overall changes in future cash flow from payments of payroll and related expenses as well as other expenses denominated in NIS. The derivative instruments hedge a portion of the Company's non-dollar currency exposure. Counterparty to the Company's derivative instruments is major financial institution.

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.)

r. Basic and diluted loss per share:

Basic 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 and warrants for the years ended December 31, 2017, 2016 and 2015 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, 2017, 2016 and 2015 the total weighted average number of shares related to outstanding options excluded from the calculations of diluted net loss per share were 8,774,219, 7,943,914 and 7,228,011, respectively.

s. 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, 2017 and 2016, a full valuation allowance was provided by the Company.

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. The Company believes that its income tax filing positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material change to its financial position. Therefore, no reserves for uncertain income tax positions have been recorded pursuant to ASC 740-10.

t. 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.

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.)

t. Fair value of financial instruments (Cont.):

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 Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company can access at the measurement date.

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 fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

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

The Company measures its investment in foreign currency derivative contracts at fair value (see also Note 9).

u. Derivative instruments:

The Company accounts for derivatives and hedging based on ASC 815, "Derivatives and Hedging". ASC 815 requires the Company to recognize all derivatives on the balance sheet at fair value. The accounting for changes in the fair value (i.e., gains or losses) of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and on the type of hedging relationship. For those derivative instruments that are designated and qualify as hedging instruments, the Company must designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge, or a hedge of a net investment in a foreign operation.

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.)

u. Derivative instruments (Cont.):

If the derivatives meet the definition of a hedge and are so designated, depending on the nature of the hedge, changes in the fair value of such derivatives will either be offset against the change in fair value of the hedged assets, liabilities, or firm commitments through earnings, or recognized in other comprehensive income until the hedged item is recognized in earnings. The ineffective portion of a derivative's change in fair value is recognized in earnings.

The Company entered into forward contracts to hedge against the risk of overall changes in future cash flow from payments of payroll and related expenses as well as other expenses denominated in NIS. As of December 31, 2017 and 2016, the Company had outstanding forward contracts in the notional amount of \$ 177 and \$ 6,548, respectively. These contracts were for a period of half a month ended January 12, 2018 and twelve months ended December 31, 2017, respectively. The Company measured the fair value of the contracts in accordance with ASC 820 (classified as level 2).

These contracts met the requirement for cash flow hedge accounting and as such during 2017, 2016 and 2015 total gains in the amounts of \$ 422, \$ 75 and \$ 202, respectively, were recognized, of which \$ 422, \$ 75 and \$ 177, respectively, were classified to operating expenses as effective hedge and \$ 25 in the year ended December 31, 2015 were recorded as financial and other income, net for the ineffective portion. As of December 31, 2017, 2016 and 2015 an unrealized gain (loss) in the amount of \$ 17, \$ 7 and \$ (19), respectively, were recognized under other comprehensive income (loss). The fair value of the Company's outstanding forward contracts at December 31, 2017 and 2016 amounted to unrealized gain of \$ 17 and \$ 7, respectively.

v. 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.

The Company has two investments in affiliates, Neviah Genomics Ltd. ("Neviah") and Keddem BioScience Ltd. ("Keddem"). The Company does not have control over either Neviah or Keddem, however has significant influence through holding rights of 25.12% and 29.41%, respectively. The Company accounts for its investment in Neviah and Keddem under the equity method. Both Neviah and Keddem are in accumulated loss position through December 31, 2017 and because the Company has no commitment to fund Neviah's and Keddem's operations, no investment account was recorded in the Company's consolidated financial statements as of December 31, 2017 and 2016.

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.)

v. Investment in affiliates (Cont.):

On December 17, 2014 ("Loan Grant Date") the Company, Merck Holdings Netherlands B.V. ("Merck Holdings") and Neviah entered into Convertible Bridge Loan ("Loan") Agreement ("Loan Agreement") in total amount of Euro 500 thousand ("Loan Amount") to finance Neviah's operations.

Under the agreement, the Company provided an amount of \$ 155 reflecting its respective portion of the Loan Amount. The Loan was granted for a period of 18 months from the Loan Grant Date ("Loan Term") and bears interest at an annual rate of 2%.

Following the financing of the Loan as described above, the Company recorded equity losses of \$ 155 in respect to the total amount provided to Neviah.

On April 2, 2017 the Company and Merck Holdings converted their portions of the Loan into equity. Following this conversion, the equity ownership ratio of each shareholder remained the same.

w. Comprehensive income (loss):

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

The Company determined that its items of other comprehensive income (loss) relate to unrealized gains (losses) on foreign currency derivative contracts and unrealized gains (losses) on available- for- sale marketable securities.

x. Recently adopted Accounting Standards:

In March 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-09, Compensation-Stock Compensation (Topic 718); Improvements to Employee Share-Based Payment Accounting. The standard simplifies several aspects of accounting for employee share-based payment transactions, including the accounting for income taxes, forfeitures and statutory tax withholding requirements, as well as classification in the statements of cash flows. The ASU is effective for periods beginning after December 15, 2016, including interim periods within those annual reporting periods. The Company adopted ASU No. 2016-09 commencing January 1, 2017 at which time it changed its accounting policy to account for forfeitures as they occur. The change was applied on a modified retrospective basis through a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. The impact of the adoption was to reduce retained earnings and to increase additional paid-in capital by \$211 as of January 1, 2017.

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.)

x. Recently adopted Accounting Standards (Cont.):

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash, which requires, among other things, an explanation of the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. The standard is effective for fiscal years beginning after December 15, 2017. The Company early adopted ASU 2016-18 retrospectively during the fourth quarter of 2017. The Company has restricted cash in the amount of \$1,050, \$993 and \$1,077 as of December 31, 2017, 2016 and 2015, respectively, which was included in the ending balance of cash, cash equivalents and restricted cash in the statement of cash flows for the year ended December 31, 2017, 2016 and 2015.

Recently issued accounting standards, not yet adopted.

In August 2017, the FASB issued ASU 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities, which expands the activities that qualify for hedge accounting and simplifies the rules for reporting hedging transactions. The standard is effective for the Company beginning January 1, 2019. Early adoption is permitted. The Company does not expect that the adoption of this standard will have a material impact on its consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The standard requires lessees to recognize almost all leases on the balance sheet as a right-of-use asset and a lease liability and requires leases to be classified as either an operating or a finance type lease. The standard excludes leases of intangible assets or inventory. The standard becomes effective for the Company beginning January 1, 2019. Early adoption of the standard is allowed. The Company is currently evaluating the effect that the standard will have on its consolidated financial statements and related disclosures.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. ASU 2016-01 amends various aspects of the recognition, measurement, presentation, and disclosure of financial instruments, and is effective for the Company beginning January 1, 2018. The Company expects no material impact on its consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The standard will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective and may be applied retrospectively to each prior period presented, or applied using a modified retrospective method with the cumulative effect recognized in the beginning retained earnings during the period of initial application. Subsequently, the FASB has issued several additional ASUs related to ASU No. 2014-09, collectively they are referred to as the "new revenue standards," which become effective for the Company beginning January 1, 2018. The Company expects to adopt the new revenue standards using the modified retrospective method. There is no material effects on its consolidated financial statements.



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 3:- OTHER ACCOUNTS RECEIVABLE AND PREPAID EXPENSES

	December 31,	
	2017	2016
Prepaid expenses	\$690	\$1,071
Government authorities	34	75
Receivables from foreign currency derivative contracts	17	7
	\$741	\$1,153

## NOTE 4:- PROPERTY AND EQUIPMENT, NET

	December 31,	
	2017	2016
Cost:		
Computers, software and related equipment	\$1,346	\$1,198
Laboratory equipment and office furniture	5,752	5,691
Leasehold improvements	2,531	2,477
	9,629	9,366
Accumulated depreciation:		
Computers, software and related equipment	958	690
Laboratory equipment and office furniture	3,369	2,399
Leasehold improvements	655	312
	4,982	3,401
Depreciated cost	\$4,647	\$5,965

During 2017 and 2016 total cost of \$ 12 and \$ 230, respectively and total accumulated depreciation of \$ 12 and \$ 230, respectively related to certain nonfunctional Lab and computer equipment were disposed from the consolidated balance sheets.

For the years ended December 31, 2017, 2016 and 2015, depreciation expenses were approximately \$ 1,593, \$ 1,484 and \$ 1,106, respectively.

## NOTE 5:- OTHER ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	December 31,	
	2017	2016
Employees and related accruals	\$1,673	\$2,074
Accrual for withholding taxes and royalties payments related to Milestone payments from Bayer	-	4
Accrued expenses	1,076	1,388

\$2,749 \$3,466

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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:- 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,

2018	\$1,671
2019	1,696
2020	1,655
2021	415
	\$5,437

Operating lease expenses for the Company and Compugen Inc. were approximately \$ 1,379, \$ 1,337 and \$ 988 in the years ended December 31, 2017, 2016 and 2015, respectively.

The above annual minimum future rental commitments exclude an option to extend the lease of the Company facility for two consecutive additional five year periods, following expiration of the current lease period.

- b. The Company provided bank guarantees in the amount of \$ 1,057 in favor of its offices' lessor in Israel, foreign currency derivative contracts and credit card security for its U.S. subsidiary.

Under the Office of the Israel Innovation Authority of the Israeli Ministry of Industry, Trade and Labor, formerly known as the Office of the Chief Scientist, (the "IIA"), the Company is not obligated to repay any amounts received from the IIA if it does not generate any income from the results of the funded research program(s). If income is generated from a funded research program, the Company is committed to pay royalties at a rate of between 3% to c.5% of future revenue arising from such research program(s), 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 years ended December 31, 2017, 2016 and 2015, the Company has an aggregate of paid and accrued royalties to the IIA, recorded as cost of revenue in the consolidated statement of comprehensive loss, in the amount of \$ 0, \$ 25 and \$ 325, respectively.

As of December 31, 2017, the Company's aggregate contingent obligations for payments to IIA, based on royalty-bearing participation received or accrued, net of royalties paid or accrued, totaled approximately to \$ 9,093.

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 6:- COMMITMENTS AND CONTINGENCIES (Cont.)

Under the Israel-U.S. Binational Industrial Research and Development (" 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 d. of the funded research program. The Company received \$ 500 under BIRD plan in the period between December 2005 and March 2012. As of December 31, 2017 and 2016 the Company does not expect any income to be generated from the outcome of the funded research BIRD plan and as such no obligation was recorded.

On June 25, 2012 the Company and its U.S subsidiary entered into an Antibodies Discovery Collaboration Agreement (the " Antibodies Discovery Agreement") with a U.S. antibody technology company ("mAb Technology Company"), providing an established source for fully human mAbs. Under the Antibodies Discovery Agreement, e. 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, 2017 and 2016 the Company did not incur any obligation for such Contingent Fees.

On May 9, 2012, the Company entered into agreement (the "May 2012 Agreement") with a U.S. Business f. 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 to at least 4% of the cash considerations that may be received under such transactions.

On February 27, 2014, the Company entered into a new agreement (the "New Agreement") (replacing the May 2012 Agreement, which is terminated on that date except for certain payments arising from the Bayer Agreement which survive termination) with the Advisor for certain services with respect to financing, strategic and other agreements. Under the New Agreement the Advisor shall be entitled to up to 1% of cash considerations that may be received under financing agreements and a fee that will be determined in good faith in respect to all other transactions.

NOTE 7:- 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.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 7:- SHAREHOLDERS' EQUITY (Cont.)

## b. Share option plans:

Under the Company's 2000 and 2010 Share Option Plans as amended ("the Plan"), options may be granted to employees, directors and non-employees of the Company and Compugen Inc.

Under the 2010 Share Option Plan the Company reserved for issuance up to an aggregate of 8,433,931 ordinary shares. Our Board of Directors last amended the Plan in August 2017, to increase the number of shares available under the 2010 Plan. As of December 31, 2017, an aggregate of 1,513,058 options under the 2010 Share Option Plan of the Company are still available for future grant.

In general, options granted under the 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 Company's 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 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.

Transactions related to the grant of options to employees and directors under the above plans during the year ended December 31, 2017, were as follows:

	Number of options	Weighted average exercise price \$	Weighted average remaining contractual life Years	Aggregate intrinsic value \$
Options outstanding at beginning of year	7,604,651	5.17	6.27	6,535
Options granted	1,842,900	2.98		
Options exercised	161,536	1.25		
Options forfeited	637,432	6.01		
Options expired	-			
Options outstanding at end of year	8,648,583	4.72	6.03	1,364
Exercisable at end of year	5,542,991	4.86	4.33	1,364



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 7:- SHAREHOLDERS' EQUITY (Cont.)

Weighted average fair value of options granted to employees and directors during the years 2017, 2016 and 2015 was \$ 1.66, \$ 2.79 and \$ 2.83 per share, respectively.

Aggregate intrinsic value of exercised options by employees and directors during the years 2017, 2016 and 2015 was \$ 351, \$ 941 and \$ 1,147, respectively. The Aggregate intrinsic value of the exercised options represents the total intrinsic value (the difference between the sale price of the Company's share at the date of exercise, and the exercise price) multiplied by the number of options exercised.

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 calendar 2017 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, 2017. This amount is impacted by the changes in the fair market value of the Company's shares.

## d. Options to non-employees:

	Year ended December 31, 2017		Weighted average remaining contractual life Years
	Number of options	Weighted average exercise price \$	
Options outstanding at beginning of year	736,820	6.31	4.38
Options granted	170,000	3.31	
Options exercised	-	-	
Options expired	103,820	5.46	
Options forfeited	10,000	4.65	
Options outstanding at end of year	793,000	5.80	4.39
Exercisable at end of year	345,500	6.79	4.12

The unvested 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.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 7:- SHAREHOLDERS' EQUITY (Cont.)

The Company used the following weighted-average assumptions for general options granted to non-employees:

	Year ended December 31,		
	2017	2016	2015
Volatility	52.09 %	49.92 %	51 %
Risk-free interest rate	2.21 %	1.98 %	1.85 %
Dividend yield	0 %	0 %	0 %
Expected life (years)	5.23	5.29	5.6

As of December 31, 2017, the total unrecognized estimated compensation cost related to non-vested share options e. granted prior to that date was \$ 5,961 which is expected to be recognized over a weighted average period of approximately 3.07 years.

The stock-based compensation expenses are included as follows in the expense categories:

	Year ended December 31,		
	2017	2016	2015
Cost of revenue	\$-	\$23	\$110
Research and development expenses	1,331	1,522	2,157
Marketing and business development expenses	187	147	255
General and administrative expenses	1,115	1,392	1,251
	\$2,633	\$3,084	\$3,773

## NOTE 8:- INCOME TAXES

## a. Israeli taxation

## 1. Tax rates applicable to the income of the Company.

Taxable income of the Company is subject to a corporate tax rate as follow: 2015 - 26.5%, 2016 – 25% and 2017- 24%.

In December 2016, the Israeli Parliament approved the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2017 and 2018 Budget Years), 2016 which reduces the corporate income tax rate to 24% (instead of 25%) effective from January 1, 2017 and to 23% effective from January 1, 2018.

The deferred tax balances as of December 31, 2017 and 2016 have been calculated based on the revised tax rates.





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:- INCOME TAXES (Cont.)

2. Measurement of taxable income in US dollars:

The Company has elected to measure its taxable income and file its tax return under the Israeli Income Tax Regulations (Principles Regarding the Management of Books of Account of Foreign Invested Companies and Certain Partnerships and the Determination of Their Taxable Income), 1986. Accordingly, results for tax purposes are measured in terms of earnings in dollars.

3. Tax benefits under the Israeli Law for the Encouragement of Capital Investments, 1959 (the "Investment Law"):

The Company's production facilities in Israel have been granted the status of an "Approved Enterprise" in accordance with the Investment Law under five separate investment programs. According to the provisions of the Investment Law, the Company has been granted the "Alternative Benefit Plan", under which the main benefits are tax exemptions and reduced tax rates.

Therefore, the Company's income derived from the "Approved Enterprise" will be entitled to a tax exemption for a period of two years from the first year of taxable income and to an additional period of five to eight years of reduced tax rates of 10% - 25% (based on the percentage of foreign ownership). The duration of tax benefits of reduced tax rates is subject to a limitation of the earlier of 12 years from commencement of production, or 14 years from the approval date.

Tax-exempt income attributable to the "Approved Enterprise" cannot be distributed to shareholders without subjecting the Company to taxes except upon complete liquidation of the Company. If such retained tax-exempt income is distributed in a manner other than upon the complete liquidation of the Company, it would be taxed (grossed up to reflect such pre-tax income that it would have had to earn in order to distribute the dividend) at the reduced corporate tax rate between 10%-25%, applicable to such profits as if the Company had not been tax-exempted under the alternative tax benefits.

The entitlement to the above benefits is conditional upon the Company fulfilling the conditions stipulated by the Investment Law, regulations published thereunder and the certificate of approval for the specific investments in "Approved Enterprises". In the event of failure to comply with these conditions, the benefits may be canceled and the Company may be required to refund the amount of the benefits, in whole or in part, including interest. As of December 31, 2017, management believes that the Company is in compliance with all of the aforementioned conditions.

Income from sources other than the "Approved Enterprise" during the benefit period will be subject to tax at the regular tax rate prevailing at that time.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

NOTE 8:- INCOME TAXES (Cont.)

On April 1, 2005, an amendment to the Investment Law came into effect (the "Amendment 60") that significantly changed the provisions of the Investment Law. The Amendment 60 limits the scope of enterprises that may be approved by the Investment Center by setting criteria for the approval of a facility as a "Beneficiary Enterprise" including a provision generally requiring that at least 25% of the Beneficiary Enterprise's income will be derived from export.

Another condition for receiving the benefits under the alternative track in respect of expansion programs pursuant to Amendment 60 is a minimum qualifying investment. The Company was eligible under the terms of minimum qualifying investment and elected 2008, and 2012 as its "years of election".

Additionally, the Amendment 60 enacted major changes in the manner in which tax benefits are awarded under the Investment Law so that companies no longer require Investment Center approval in order to qualify for tax benefits. However, the Investment Law provides that terms and benefits included in any certificate of approval already granted will remain subject to the provisions of the Investment Law as they were on the date of such approval.

As of December 31, 2017, there was no taxable income attributable to the Beneficiary Enterprise.

In January 2011, another amendment to the Investment Law came into effect ("the 2011 Amendment"). According to the 2011 Amendment, the benefit tracks in the Investment Law were modified and a flat tax rate applies to the Company's entire income subject to this amendment (the "Preferred Income").

In August 2013, the Law for Changing National Priorities (Legislative Amendments for Achieving Budget Targets for 2013 and 2014), 2013 which includes Amendment 71 to the Law ("Amendment 71") was enacted. According to Amendment 71, the tax rate on preferred income from a preferred enterprise in 2014 and thereafter will be 16% (in development area A - 9%). As for changes in tax rates resulting from the enactment of Amendment 73 to the Law, see below.

The Amendment also prescribes that any dividends distributed to individuals or foreign residents from the preferred enterprise's earnings as above will be subject to tax at a rate of 20%.

In December 2016, the Economic Efficiency Law (Legislative Amendments for Applying the Economic Policy for the 2016 and 2017 Budget Years), 2016 which includes Amendment 73 to the Law ("Amendment 73") was published. According to Amendment 73, a preferred enterprise located in development area A will be subject to a tax rate of 7.5% instead of 9% effective from January 1, 2016 and thereafter (the tax rate applicable to preferred enterprises located in other areas remains at 16%).

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:- INCOME TAXES (Cont.)

Commencing from the 2011 tax year, the Company can elect (without possibility of reversal) to apply the Amendment in a certain tax year and from that year and thereafter, it will be subject to the amended tax rates.

The Company does not currently intend to adopt the 2011 Amendment and intends to continue to comply with the Investment Law as in effect prior to enactment of the 2011 Amendment. The Company has evaluated the effect on its financial statements of the transition to the preferred enterprise tax track, and as of the date of the approval of the financial statements, the Company believes that it will not transition to the preferred enterprise tax track. Accordingly, the Company did not adjust its deferred tax balances as of December 31, 2017. The Company's position may change in the future.

Amendment 73 also prescribes special tax tracks for technological enterprises, which are subject to rules that were issued by the Minister of Finance by May 2017. The new tax tracks under the Amendment are as follows:

Preferred Technological Enterprise ("PTE") - an enterprise for which total consolidated revenues of its parent company and all subsidiaries are less than NIS 10 billion in a tax year. A PTE, as defined in the Law, which is located in the center of Israel will be subject to tax at a rate of 12% on profits deriving from intellectual property (in development area A - a tax rate of 7.5%).

Special Technological Preferred Enterprise ("SPTE") - an enterprise for which total consolidated revenues of its parent company and all subsidiaries exceed NIS 10 billion in a tax year. Such enterprise will be subject to tax at a rate of 6% on profits deriving from intellectual property, regardless of the enterprise's geographical location.

The above changes in the tax rates relating to PTE tax track were not taken into account in the computation of deferred taxes as of December 31, 2017, since the Company estimates that it will not implement the PTE tax track.

4. Tax benefits under the law for the Encouragement of Industry (taxes), 1969 (the "Encouragement Law"):

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

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:- INCOME TAXES (Cont.)

Management believes that the Company is currently qualified as an "industrial company" under the Encouragement Law and, as such, is entitled to 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 companies and an industrial holding company; (3) accelerated depreciation rates on equipment and buildings; and (4) expenses related to a public offering on the Tel-Aviv Stock exchange and on recognized stock markets outside of Israel, are deductible in equal amounts over three years.

Eligibility for benefits under the Encouragement Law is not subject to receipt of prior approval from any Governmental authority. No assurance can be given that the Israeli tax authorities will agree that the Company qualifies, or, that the Company will continue to qualify as an industrial company or that the benefits described above will be available to the Company in the future

5. Net operating losses carryforward and capital loss:

As of December 31, 2017, Compugen Ltd.'s net operating losses carryforward for tax purposes in Israel amounted to approximately \$ 227,000. These net operating losses may be carried forward indefinitely and may be offset against future taxable income.

b. Non-Israeli subsidiary, Compugen Inc.:

On December 22, 2017, the Tax Cuts and Jobs Acts was enacted into law. The new legislation contains several key tax provisions that will impact the Company. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, a one-time repatriation tax on accumulated foreign earnings, a limitation on the tax deductibility of interest expense, an acceleration of business asset expensing, and a reduction in the amount of executive pay that could qualify as a tax deduction. The lower corporate income tax rate will require the Company to remeasure its U.S. deferred tax assets and liabilities as well as reassess the realizability of its deferred tax assets and liabilities. ASC 740 requires the Company to recognize the effect of the tax law changes in the period of enactment. However, the SEC staff has issued SAB 118 which will allow the Company to record provisional amounts during a measurement period.

The Company has concluded that a reasonable estimate could be developed for the effects of the tax reform. However, due to the short time frame between the enactment of the reform and the year end, its fundamental changes, the accounting complexity, and the expected ongoing guidance and accounting interpretations over the next 12 months, the Company considers the accounting of the deferred tax remeasurement and other items to be incomplete. These effects have been included in the consolidated financial statements for the year ended December 31, 2017 as provisional amounts, which had no effect on the benefit from taxes on income due to the valuation allowance.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 8:- INCOME TAXES (Cont.)

During the measurement period, the Company might need to reflect adjustments to the provisional amounts upon obtaining, preparing, or analyzing additional information about facts and circumstances that existed as of the enactment date that, if known, would have affected the income tax effects initially reported as provisional amounts.

The measurement period will end when the Company obtains, prepares, and analyzes the information needed in order to complete the accounting requirements under ASC Topic 740 or on December 22, 2018, whichever is earlier. The Company expects to complete its analysis within the measurement period in accordance with SAB 118.

As of December 31, 2017, Compugen Inc. has net operating loss carryforwards for federal income tax purposes of approximately \$ 9,200 which expires in the years 2020 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.

Neither Israeli income taxes, foreign withholding taxes nor deferred income taxes were provided in relation to undistributed earnings of the Company's foreign subsidiary. This is because the Company has the intent and ability to reinvest these earnings indefinitely in the foreign subsidiary and therefore those earnings are continually redeployed in those jurisdictions.

c. Loss (income) before taxes is comprised as follows:

	Year ended December 31,		
	2017	2016	2015
Domestic (Israel)	\$37,939	\$32,246	\$20,410
Foreign	(873 )	(760 )	(637 )
	\$37,066	\$31,486	\$19,773

d. Taxes on income for the years ended December 31, 2016 and 2015 are comprised from withholding tax payments amounted of \$ 20 and \$ 390 respectively, which were deducted from milestone payments of \$ 400 and \$ 7,800, respectively (see also Note 1c) by the German tax authorities. There were no milestone payments and no withholding tax payments for the year ended December 31, 2017.

## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 8:- INCOME TAXES (Cont.)

## e. 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,	
	2017	2016
Operating loss carryforward	\$54,093	\$48,663
Research and development	9,298	7,921
Accrued social benefits and other	874	530
Property and equipment	(46 )	(135 )
Deferred tax asset before valuation allowance	64,219	56,979
Valuation allowance	(64,219)	(56,979)
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.

## f. 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 loss carryforward among the Company and Compugen Inc. due to the uncertainty of the realization of such tax benefits.

## g. Tax assessments:

The Company has tax assessments through 2012 that are deemed to be final.

## NOTE 9:- FAIR VALUE MEASUREMENTS

In accordance with ASC 820 "Fair Value Measurements and Disclosures", the Company measures its investment in foreign currency derivative contracts at fair value. Foreign currency derivative contracts are classified within Level 2 as the valuation inputs are based on quoted prices and market observable data of similar instruments.

The Company's financial assets and liabilities measured at fair value on a recurring basis, consisted of the following types of instruments as of the following dates:

Description	December 31, 2017			
	Fair value	Level 1	Level 2	Level 3
Foreign currency derivative contracts	17	-	17	-
Total financial assets	\$17	\$ -	\$ 17	\$ -

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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 9:- FAIR VALUE MEASUREMENTS (Cont.)

Description	December 31, 2016		
	Fair value measurements		
	Fair Level	Level	Level
	valued	2	3
Foreign currency derivative contracts	7	-	7
Total financial assets	\$7	\$ -	\$ 7

## NOTE 10:- 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, 2017, 2016 and 2015 and long-lived assets as of December 31, 2017 and 2016:

	Year ended		
	December 31,		
	2017	2016	2015
Revenue from sales to customers:			
Israel	\$-	\$-	\$32
Europe	\$-	712	9,245
Total revenue	\$-	\$712	\$9,277
		December 31,	
		2017	2016
Long-lived assets:			
Israel	\$3,523	\$4,227	
United States	1,124	1,738	
Total long-lived assets	\$4,647	\$5,965	
		Year ended	
		December 31,	
		2017	2016
Sales to a single customer exceeding 10%:			
Customer A	-	100 %	99 %



## COMPUGEN LTD. AND ITS SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

## NOTE 11:- FINANCIAL AND OTHER INCOME, NET

	Year ended December 31,		
	2017	2016	2015
Interest income	\$523	\$728	\$815
Bank fees and other finance expenses	(15 )	(23 )	(60 )
Gain from sales of marketable securities	-	383	436
Foreign currency translation adjustments	(169)	9	(46 )
Financial and other income, net	\$339	\$1,097	\$1,145

## NOTE 12:- RELATED PARTY BALANCES AND TRANSACTIONS

	December 31,	
	2017	2016
Trade payables and accrued expenses	\$78	\$97

Related parties' expenses:

	Year ended December 31,	
	2017	2016
Amounts charged to:		
Research and development expenses	\$447	\$284

For the year ended December 31, 2017 and 2016 the Company received research and development services related with cancer studies in animal models, and breeding and maintenance of animals (mice) to support such studies.

## NOTE 13:- LOSSES PER SHARE

The following table sets forth the computation of basic and diluted losses per share:

	Year ended December 31,		
	2017	2016	2015
Numerator:			
Net loss for basic loss per share	\$(37,066 )	\$(31,506 )	\$(20,163 )
Net loss for basic loss per share	\$(37,066 )	\$(31,506 )	\$(20,163 )

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Denominator:

Weighted average number of ordinary shares used in computing basic net loss per share	51,179,694	50,855,908	50,437,040
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Basic and diluted earnings per ordinary share	\$(0.72	) \$(0.62	) \$(0.40	)
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