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, 2018

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**

Commission file number 001-36187

EVOGENE LTD.
(Exact name of Registrant as specified in its charter)

N/A
(Translation of Registrant's Name Into English)

Israel
(Jurisdiction of incorporation or organization)

13 Gad Feinstein Street
Park Rehovot P.O.B 2100
Rehovot 7612002, Israel
(Address of principal executive offices)

Ofer Haviv
President and Chief Executive Officer
Telephone: +972-8-931-1900
Facsimile: +972-8-946-6724
13 Gad Feinstein Street, Park Rehovot P.O.B 2100
Rehovot 7612002, Israel
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

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 0.02 per share	**Nasdaq Stock Market LLC**

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None.**

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: **As of December 31, 2018, the registrant had outstanding 25,754,297 ordinary shares, par value NIS 0.02 per share.**

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 ☒

Note—Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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 ☒

FORM 20-F
ANNUAL REPORT FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

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CERTAIN TERMS AND CONVENTIONS

In this annual report, unless the context otherwise requires:

- references to "Evogene," "we," "us," "our," "our company" and "the company" refer to Evogene Ltd. and its consolidated subsidiaries, Evofuel Ltd., Evogene Inc., Biomica Ltd., AgPlenus Ltd., Lavie Bio Ltd. and Canonic Ltd.;
- references to "U.S. dollars," "$" or "dollars" are to United States dollars;
- references to "NIS" or "shekels" are to New Israeli Shekels;
- references to the "U.S. initial public offering" refer to the initial public offering of our ordinary shares in the United States and the listing thereof on the New York Stock Exchange, which offering was consummated on November 26, 2013;
- references to "ordinary shares", "our shares" and similar expressions refer to our Ordinary Shares, par value NIS 0.02 per share;
- references to the "articles of association" or "amended articles" are to our Amended and Restated Articles of Association, which became effective upon the closing of the U.S. initial public offering, as subsequently amended;
- references to the "Companies Law" are to the Israeli Companies Law, 5759-1999, as amended;
- references to the "Securities Act" are to the Securities Act of 1933, as amended;
- references to the "Exchange Act" are to the Securities Exchange Act of 1934, as amended;
- references to the "NYSE" are to the New York Stock Exchange;
- references to the "Nasdaq" are to the Nasdaq Stock Market LLC;
- references to the "TASE" are to the Tel Aviv Stock Exchange; and
- references to the "SEC" are to the United States Securities and Exchange Commission.

Unless derived from our financial statements or otherwise noted, amounts presented in this annual report are translated at the rate of $1.00 = NIS 3.748, the exchange rate between the NIS and the U.S. dollar reported by the Bank of Israel as of December 31, 2018.

This annual report includes other statistical, market and industry data and forecasts which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. Some data is also based on our good faith estimates, which are derived from management's knowledge of the industry and independent sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable and are not aware of any misstatements regarding the industry data presented in this annual report, we have not independently verified the information contained in such publications. Certain estimates and forecasts involve uncertainties and risks and are subject to change based on various factors, including those discussed under the headings "—Special Note Regarding Forward-Looking Statements" and "Item 3. Risk Factors—D. Risk Factors" in this annual report.

Throughout this annual report, we refer to various trademarks, service marks and trade names that we use in our business. The "Evogene" design logo, "Evogene" and other trademarks or service marks of Evogene Ltd. appearing in this annual report are the property of Evogene Ltd. We have several other registered trademarks, service marks and pending applications relating to our computational technologies. Other trademarks and service marks appearing in this annual report are the property of their respective holders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to historical facts, this annual report contains forward-looking statements within the meaning of Section 27A of the Securities Act, Section 21E of the Exchange Act, and the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. We have based these forward-looking statements on our current expectations and projections about future events. Forward-looking statements include information concerning our possible or assumed future results of our business, financial condition, results of operations, liquidity, anticipated growth strategies, anticipated trends in our industry, market size, our potential growth opportunities, plans and objectives. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions that convey uncertainty of future events or outcomes and the negatives of those terms.

These statements include but are not limited to:

- our ability to maintain our holdings in our subsidiary companies in order for our shareholders to benefit from value created in our subsidiary companies;
- our expectation that our discoveries and product candidates will have the desired effect required in order to reach commercial products;
- our ability, and the ability of our collaborators, to allocate the resources needed to develop commercial products based on our discoveries and product candidates;
- our expectation regarding the length and complexity of the process of developing commercial products based on our discoveries and product candidates and the probability of our success, and the success of our collaborators, in developing such products;
- our expectation regarding the future growth of the seeds, ag-chemicals, ag-biologicals, larger agriculture, castor seeds, microbiome-based human therapeutics and medical cannabis markets;
- our ability to maintain our business models, such as the business model in which our partners pay for our research and development costs or the business model in which we pay for our own research and development costs and enter into collaboration agreements only in the later stages of product development;
- our expectation regarding the commercial value of our key product candidates;
- our expectation regarding regulatory approval of product candidates developed by us or our collaborators;
- our expectation that products containing or based on our discoveries and product candidates will be commercialized and we will earn revenues or royalties from the sales of such products;
- our ability to continue to successfully develop our operations, develop product candidates in our fields of operations, whether ourselves or with our partners, and eventually commercialize products in these markets;
- our ability to maintain and recruit knowledgeable or specialized personnel to perform our research and development work;
- our ability to adapt to continuous technological changes in our industries;
- our ability to maintain our collaboration agreements with our current collaborators;
- our ability to enter into new collaboration agreements and expand our research and development to new fields;
- our ability to improve our existing computational technologies and our screening and validation systems and to develop and launch new computational technologies and screening and validation systems; and
- our ability to patent our discoveries and to protect our trade secrets and proprietary know-how.

The preceding list is not intended to be an exhaustive list of all of our forward-looking statements. The forward-looking statements are based on our beliefs, assumptions and expectations of future performance, taking into account the information currently available to us. These statements are only predictions based upon our current expectations and projections about future events. There are important factors that could cause our actual results, levels of activity, performance or achievements to differ materially from the results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements, including, but not limited to, those factors described in "Item 3. Key Information—D. Risk Factors," "Item 4. Information on the Company" and "Item 5. Operating and Financial Review and Prospects."

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that future results, levels of activity, performance and events and circumstances reflected in the forward-looking statements will be achieved or will occur. All of the forward-looking statements we have included in this annual report are based on information available to us on the date of this annual report. Except as required by law, we undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, changes in our expectations or otherwise.

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 Financial Data

The following tables set forth our selected consolidated financial data. You should read the following selected consolidated financial data in conjunction with "Item 5. Operating and Financial Review and Prospects" and our consolidated financial statements and related notes included in this annual report. Historical results are not necessarily indicative of the results that may be expected in the future. Our financial statements have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB.

The selected consolidated statements of profit or loss and other comprehensive income (loss) data for each of the years in the three-year period ended December 31, 2018 and the consolidated statements of financial position data as of December 31, 2017 and December 31, 2018 are derived from our audited consolidated financial statements appearing in this annual report. The consolidated statements of profit or loss and other comprehensive income (loss) data for each of the years ended December 31, 2014 and December 31, 2015 and the consolidated statements of financial position data as of December 31, 2014, 2015 and 2016 are derived from our audited consolidated financial statements that are not included in this annual report.

	Year ended December 31, (in thousands, except share and per share data)				
	2014	**2015**	**2016**	**2017**	**2018**
Consolidated Statements of Profit or Loss and Other Comprehensive Income (Loss):					
Revenues:					
Research and development payments, including up-front payments	$ 14,198	$ 10,956	$ 6,500	$ 3,369	$ 1,747
Share purchase related revenues	313	173	40	12	-
Total revenues	14,511	11,129	6,540	3,381	1,747
Cost of revenues	9,709	8,255	5,639	2,845	1,452
Gross profit	4,802	2,874	901	536	295
Operating expenses:					
Research and development, net	14,022	14,449	16,405	16,987	14,686
Business development	1,851	1,964	1,696	1,686	2,084
General and administrative	4,185	4,382	3,889	3,810	3,514
Total operating expenses	20,058	20,795	21,990	22,483	20,284
Operating loss	(15,256)	(17,921)	(21,089)	(21,947)	(19,989)
Financing income	2,242	2,571	2,424	2,125	1,413
Financing expenses	(1,516)	(1,863)	(891)	(1,005)	(2,206)
Loss before taxes on income	(14,530)	(17,213)	(19,556)	(20,827)	(20,782)
Taxes on income	-	-	36	11	30
Loss	(14,530)	(17,213)	(19,592)	(20,838)	(20,812)
Other comprehensive income (loss):					
Loss from cash flow hedges	(222)	(45)	-	-	-
Amounts transferred to the statement of profit or loss for cash flow hedges	-	267	-	-	-
Total comprehensive loss	$ (14,752)	$ (16,991)	$ (19,592)	$ (20,838)	$ (20,812)
Attributable to:					
Equity holders of the Company	-	-	-	-	(20,758)
Non-controlling interests	-	-	-	-	(54)
	$ (14,752)	$ (16,991)	$ (19,592)	$ (20,838)	$ (20,812)
Basic and diluted loss per share, attributable to equity holders of the Company	$ (0.58)	$ (0.68)	$ (0.77)	$ (0.81)	$ (0.81)
Weighted average number of ordinary shares used in computing basic and diluted loss per share (1)	25,100,556	25,378,325	25,444,733	25,673,276	25,753,411

	As of December 31,				
	2014	2015	2016	2017	2018
Selected Consolidated Statements of Financial Position Data:					
Cash and cash equivalents	$ 5,213	$ 10,221	$ 3,236	$ 3,435	$ 5,810
Marketable securities	80,040	71,807	71,738	59,940	26,065
Short-term bank deposits	30,046	18,603	13,137	8,380	22,592
Trade receivables	1,183	2,675	169	132	160
Total current assets	118,371	104,376	89,490	72,791	55,488
Total assets	127,586	112,595	95,986	77,602	58,694
Net assets	116,082	103,752	87,289	69,378	50,306
Deferred revenues and other advances	1,964	858	1,105	605	440
Total liabilities	11,504	8,843	8,697	8,224	8,388
Working capital (2)	110,452	98,737	84,265	68,127	50,057
Shareholders' equity	116,082	103,752	87,289	69,378	50,306

The issued and outstanding share capital of the company is composed of 25,754,297 ordinary shares as of December 31, 2018.

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(1) Basic and diluted loss per share is computed based on the weighted average number of ordinary shares outstanding during each period, in accordance with IAS 33, "Earnings per Share."

(2) Working capital is defined as total current assets less total current liabilities.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business faces significant risks. You should carefully consider all of the information set forth in this annual report and in our other filings with the SEC, including the following risk factors which we face and which are faced by our industry. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. This report also contains forward-looking statements that involve risks and uncertainties. Our results could materially differ from those anticipated in those forward-looking statements, as a result of certain factors including the risks described below and elsewhere in this report and our other SEC filings. See "Special Note Regarding Forward-Looking Statements" on page 5.

Risks Related to Our Business and Industry

If our holdings in our subsidiary companies are diluted, the benefit recognized by our shareholders from value created in our subsidiary companies may be limited.

We initiated a new corporate strategy and structure at the beginning of 2018, with the intent to make product development more efficient and to better reflect the individual value of each of our market focused business units. Under the new corporate structure, the Evogene group operates with Evogene as a technology hub and a growing group of divisions and subsidiaries that benefit from the unique capabilities of Evogene's CPB technology platform. Each such subsidiary is responsible for advancing its product development and pipeline, establishing its "go-to-market" strategy via direct sales or through existing and new collaborations, and securing additional financial resources, if and when required. Due to our limited financial resources or other investment considerations, our subsidiaries may obtain financing from external resources. External financing may result in a decrease of our percentage shareholdings in our subsidiaries, which, in turn, will reduce the benefit we (and, indirectly, our shareholders) recognize from value established in such subsidiaries, and potentially negatively affect our results of operations, financial condition and the value of our shares.

Our discoveries and product candidates may not achieve the desired effect required in order to create commercially-viable products.

Our success depends on our ability to develop products that have the desired effect on plants and, in our human microbiome and medical cannabis activities, on humans. Research and development in the seed, ag-chemicals, ag-biologicals, castor oil, human microbiome-based therapeutics and medical cannabis entails considerable uncertainty. We may spend many years developing product candidates that will never be commercialized. The science underlying the development of our product candidates is highly complex and, although we use innovative approaches, there is no certainty that our discoveries will result in product candidates that satisfy market requirements. Except in our castor oil activity, none of our discoveries has completed the development process and became commercially available so far. If our discoveries and product candidates will not have the desired effect, we and our collaborators may not develop commercial products that are based on them, which could materially and adversely affect our results of operations and our long-term growth strategy.

Various factors may delay or prevent commercialization of our product candidates.

Our success depends in part on our ability to identify discoveries that will improve crop performance and, in our human microbiome-based therapeutics and medical cannabis activities, to obtain clinical benefits in various indications. To develop these discoveries and product candidates into commercial products, we either license them to collaborators or develop them independently. Pursuant to our collaboration agreements, we are usually entitled, subject to certain conditions, to receive royalties on products that are based on, or integrate, our discoveries. In addition, certain of our agreements entitle us to upfront fees, research and development payments and milestone payments in the event that specified milestones are met. While, except for our castor seed varieties, none of our product candidates has completed the development process and become commercially available and thus we currently do not earn royalties, nor have significant sales revenues, from the sale of products based on our discoveries and product candidates, our long-term growth strategy is based in large part on the expectation that such royalties and revenues from product sales will comprise a significant portion of our revenues in the future. If we or our collaborators never commercialize products based on our discoveries, we will not receive revenues from royalties and may not earn a profit on our discoveries, which could materially and adversely affect our results of operations and our long-term growth strategy.

The manner in which we and our collaborators develop our product candidates, whether seed traits, ag-chemicals, ag-biologicals, castor varieties, human microbiome-based therapeutics or medical cannabis product candidates, affects the period that will pass until such products are commercialized, if ever. Product candidates based on our discoveries may never become commercialized for any of the following reasons:

- our discoveries may not be successfully validated or may not have the desired effect required in order to reach a commercial product;
- the process of developing product candidates based on our discoveries is lengthy and expensive. We or our partners may not be able to allocate the resources needed to complete it within the desired timelines;
- we or our collaborators may decide to discontinue, pause, reduce, or alter the scope of the development efforts for our product candidates ;
- we may fail to satisfy, in a timely manner or at all, relevant milestones under our agreements with our collaborators;
- regulatory conditions related to our product candidates may change in different territories, thus negatively affecting the relevant development processes and extending their length or limiting the commercialization of such product candidates;
- we or our collaborators may be unable to obtain the requisite regulatory approvals for product candidates based on our discoveries;
- our competitors may launch competing or more effective products;
- we or our collaborators may be unable to fully develop and commercialize product candidates containing our discoveries or may decide, for whatever reason, not to commercialize, or to delay the commercialization of such product candidates;
- a market may not exist for products containing our discoveries or such products may not be commercially successful or relevant; and
- we may be unable to patent our discoveries in the necessary jurisdictions.

Our product development cycle is lengthy and uncertain, and we may never sell or earn royalties on the sale of commercial products containing our discoveries.

Research and development in the seed, ag-chemicals, ag-biologicals, castor varieties, human microbiome-based therapeutics and medical cannabis industries is expensive and prolonged and entails considerable uncertainty. We may spend many years and dedicate significant financial and other resources developing product candidates that will never be commercialized. The process of discovering, developing and commercializing seed traits, ag-chemical, ag-biological, castor varieties, human microbiome-based therapeutic or medical cannabis product candidates involves several phases and a long development period. The timelines for development of product candidates by ourselves or by our collaborators may extend beyond our expectations for many reasons, such as:

- we or our partners may not be able to allocate the resources needed to develop product candidates based on our discoveries;
- we or our partners may revise the process of product development or make other decisions regarding their product development pipelines that may extend the development period;
- our partners may prioritize other development activities ahead of development activities with respect to the product candidates on which we collaborate;
- our discoveries may not be successfully validated or may not have the desired effect sought by us or by our collaborators; and

§ we or our collaborators may be unable to obtain the requisite regulatory approvals for the product candidates based on our discoveries within expected timelines or at all.

Most of the product candidates we or our collaborators are developing are in early development stages. We have little to no certainty as to which and when, if any, any of these product candidates will eventually reach commercialization. Because of the long product development cycle and the complexities and uncertainties associated with research in our fields of activity, there is significant uncertainty as to whether we will ever generate significant revenues or royalties, if any, from the product candidates that we or our collaborators are developing. For more information on the product development cycle of the product candidates we develop and a description of the phases of development, see the 'Product Development Cycle' paragraph under the description of each of our activity divisions and subsidiaries in "Item 4. Information on the Company—B. Business Overview".

There are only a few companies in our seeds, ag-chemicals and ag-biologicals markets with which we can establish strategic partnerships, and we rely on a limited number of collaborators to develop and commercialize product candidates containing our seed traits, ag-chemicals and ag-biologicals.

The seeds, ag-chemicals and ag-biologicals market is highly consolidated and dominated by a relatively small number of large companies. Until recently, a handful of global firms (known as the "Big Six") had dominated private-sector research on both seeds and crop-protection chemicals: BASF and Bayer, from Germany; the U.S. firms Dow Chemical, DuPont, and Monsanto; and the Swiss firm Syngenta. From 2015 through 2018, the seeds, ag-chemicals and ag-biologicals market has undergone further consolidation: in September 2017, the merger of Dow and DuPont was completed; in October 2017, the acquisition of Syngenta by ChemChina was completed; and in June 2018 the acquisition of Monsanto by Bayer was completed. These mergers have transformed the "Big Six" into the "Big Four": BASF, Bayer, Corteva (the agriculture division of the merged DowDuPont entity) and ChemChina, and further limit the number of potential collaborators available for us to partner with. For more information see "Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Business Industry."

We are currently undertaking collaborations with several of these companies to develop improved seeds, ag-chemical and ag-biological product candidates. Due to the small number of companies in our market, there are limited opportunities for us to grow our business with new collaborators. In addition, if we fail to develop or maintain our relationships with any of our current collaborators, we could not only lose our opportunity to work with that collaborator, but we could also suffer a reputational risk that could impact our relationships with other collaborators in what is a relatively small industry community.

We are currently working either with collaborators or on independent projects to research and develop our different seed trait, ag-chemical and ag-biological product candidates. While we seek to expand our portfolio of product candidates in the future, the research and development required to discover and develop new product candidates is costly, time-intensive and requires significant infrastructure resources. Therefore, in order to discover and develop new seed trait, ag-chemical and ag-biological product candidates, we must either enter into new collaborations with seed, ag-chemicals and ag-biologicals companies or develop such product candidates ourselves, independent of any collaborators. If we are unable to enter into new collaborations, or if we do not have the resources to develop the capabilities necessary to discover and develop such product candidates independently, we may not be able to expand our portfolio of these product candidates, which could have a material adverse effect on our business prospects.

A decrease in research expenditures in our target markets may jeopardize the continuation, or scope, of our collaborations with companies in these markets and adversely impact our ability to continue or extend existing collaborations or enter into new collaborations on favorable financial terms.

The research and development expenditures of our existing and potential collaborators in the seed, ag-chemicals, ag-biologicals, castor oil, human microbiome-based therapy or medical cannabis markets may be reduced for reasons beyond our control. For example, a decrease in the prices of agricultural commodities, such as the decrease in corn price from approximately US$7 per bushel in mid-2013 to less than US$4 per bushel in late 2014 (with similarly low prices sustained since 2014) or the consolidation trend in the seeds and ag-chemicals industries may result in decreased research and development expenditures in the markets relevant for our seed trait, ag-biological and ag-chemical product candidates. This development may, in turn, adversely impact our ability to maintain or extend our existing collaborations or enter into new collaborations on favorable financial terms. For example, we may not be able to enter into new collaborations under which our collaborators cover our expenses through research and development payments. For more information see "Item 5. Operating and Financial Review and Prospects—D. Trend Information."

We or our collaborators may fail to perform obligations under the collaboration agreements.

We are obligated under our collaboration agreements to perform research activities over a particular period of time. If we fail to perform our obligations under these agreements, in some cases our collaborators may terminate our agreements with them and in other cases our collaborators' obligations may be reduced and, as a result, our anticipated revenues may decrease. In addition, any of our collaborators may fail to perform their obligations, which may hinder development and commercialization of products containing the product candidates we develop and materially and adversely affect our future results of operations. Furthermore, the various payments we receive from our collaborators are currently our primary source of revenues. If our collaborators do not make these payments, either due to financial hardship, disagreement under the relevant collaboration agreement or for any other reason, our results of operations and business could be materially and adversely affected. If disagreements with a collaborator arise, any dispute with such collaborator may negatively affect our relationship with one or more of our other collaborators and may hinder our ability to enter into future collaboration agreements, each of which could negatively impact our business and results of operations.

Competition in the fields of our operations is intense and requires continuous technological development. If we are unable to compete effectively, our financial results will suffer.

We currently face significant competition in the markets in which we operate. The markets for seeds, seed traits, ag-chemicals, ag-biologicals, castor oil, human microbiome-based therapeutics and medical cannabis are intensely competitive and rapidly changing. Many companies engage in research and development of products in such markets, and speed in getting a new product candidate to market can be a significant competitive advantage. As an example, over the past decade some of our competitors have enhanced research and development budgets allocated for seeds that are more significant than our budget. In most segments of the seed, ag-chemicals and ag-biologicals market, the number of products available to the consumer is steadily increasing as new products are introduced. At the same time, an increasing number of products are coming off patent and are thus available to generic manufacturers for production. We may be unable to compete successfully against our current and future competitors, which may result in lower prices and margins and the inability to achieve market acceptance for products containing our discoveries. In addition, many of our competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and some of our collaborators have more experience in research and development, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technologies may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our technologies.

Our collaborators have significant resources and development capabilities and may develop their own products that compete with or negatively impact the advancement or sale of products based on discoveries we develop and license to them.

While we strive to protect the discoveries and product candidates we develop and license to our collaborators through both legal and contractual provisions, any of our collaborators could develop or pursue competing products that may ultimately prove more commercially viable than those that we develop. Our collaborators are significantly larger than us and may have substantially greater resources and development capabilities. The development or launch of a competing product by a collaborator may adversely affect the advancement and commercialization of any competing product candidates that we develop with such collaborator and any associated research and development payments, milestone and royalty payments.

We are working to develop novel seed-trait products, and our efforts to enter this market may be unsuccessful.

We are developing seed-trait and insect control product candidates, where we fund early stages of research and development efforts ourselves in order to potentially capture more value. Our efforts to develop novel product candidates may fail for a variety of reasons, including:

- Our failure to identify and develop candidate genes having the desired effect on the target trait when inserted into the plants of interest;
- Our failure to identify and develop toxin candidates having the desired effect on the target insects when inserted into the plants of interest;
- Our failure to successfully complete development of our seed trait product candidates; and
- Our failure to meet regulation requirements for seed trait and insect control product candidates.

Furthermore, even if we are able to discover and develop an effective product candidate, it may not be successful if we are unable to find collaborators for development and commercialization of the product candidate. If our efforts to develop seed trait product candidates are unsuccessful, our results of operations could be negatively impacted.

We are working to develop novel ag-chemical products, and our efforts may be unsuccessful.

We are currently developing solutions for crop protection through chemistry, or ag-chemistry. We are developing these product candidates through a novel approach, focused on biologically significant proteins called "targets," which is similar to certain approaches pharmaceutical companies undertake to develop new drugs. Our efforts to develop novel ag-chemical product candidates may fail for a variety of reasons, including:

§ The failure of our relatively novel target-based approach to lead to an effective product candidate or failure to identify chemical compounds that will display required level of performance; and

§ Our failure to obtain sufficient funding to fully execute our ag-chemical business plan.

If our efforts to develop ag-chemical product candidates are unsuccessful, our results of operations could be negatively impacted.

We are working to develop novel ag-biologicals products, and our efforts to enter this market may be unsuccessful.

We are developing ag-biologicals product candidates, currently focused mainly on microbial-based bio-stimulants and bio-pesticides, through a novel approach, focused on plant-microbiome relationship which is similar to the growing interest in human microbiome as an effective tool to impact health. In certain of our ag-biological product programs, we fund our early stages of research and development efforts ourselves in order to potentially capture more value while in others we fund the entire development program towards launch of a commercial product. Our efforts to develop novel ag-biological product candidates may fail for a variety of reasons, including:

§ Our failure to establish the needed infrastructure to enable the discovery and development of microbial bio-stimulants;

§ Our failure to identify and develop microbial candidates that enhance plant performance at the desired efficacy and stability;

§ Our failure to successfully complete development of microorganisms to achieve cost-effective and commercially viable products;

§ Our failure to meet regulation requirements in case significant changes occur in the future; and

§ Our failure to establish cost-effective go-to-market models for selling our products.

If our efforts to develop ag-biological product candidates are unsuccessful, our results of operations could be negatively impacted.

Evofuel, our wholly owned subsidiary that develops castor seeds for industrial uses, may not be successful for a number of reasons.

Our wholly owned subsidiary, Evofuel, is currently developing improved, high-yield castor bean seeds for use as a source of non-edible feedstock for the existing industrial uses of castor oil. The supply chain in the market of castor oil for industrial uses is not well established and is evolving. In order for our castor bean seeds to be an attractive feedstock for oil for industrial uses, we will need to demonstrate on a commercial scale that our castor beans can reliably be used as a cost-efficient feedstock for castor oil production. The success of these operations will largely depend on our ability to address several unique challenges, including:

§ the yields of our castor seed varieties on commercial scale under rain-fed conditions, securing economic viability as bio-based oil feedstock;

- § the ability to harvest castor beans in an efficient mechanized manner;
- § the cost of producing castor bean grains, allowing grower profitability;
- § adoption on large scale by growers of castor, including the successful management of diseases, pests and castor volunteers;
- § the health and environmental risks posed by castor bean seeds, which contain a naturally occurring poison called ricin;
- § any regulatory concerns related to sales of castor beans, particularly related to the import of such beans and the potential effects of ricin; and
- § the sustainability of our production.

In addition, we have little prior experience operating as a seed company. We are therefore operating in a new industry, with limited understanding of the dynamics involved in producing and selling seeds. In addition, we may be subject to claims of our partners concerning the quality or performance of the seeds we develop or from third parties concerning damages caused by our seeds.

We have entered into strategic collaborations with several agri-businesses and we have made initial commercial sales of castor seeds, however, we are unable to foresee when significant sales will commence. Furthermore, there can be no assurance that our collaborations will ultimately result in the commercialization of our castor bean varieties. If we are unable to adequately address any of these issues, we may not find a market for our castor bean seeds and our results of operations could be materially and adversely affected.

Biomica, our subsidiary that develops human microbiome-based therapeutic product candidates, may not be successful for a number of reasons.

We are currently developing microbiome-based therapeutic product candidates. We are very early in our development efforts and may not be successful in our efforts to develop our product candidates and develop marketable products for a variety of reasons. Among other parameters, our success depends on the following:

- § completion of pre-clinical studies and clinical trials with positive results;
- § our ability to finance the development and commercialization of our product candidates.
- § receipt of marketing approvals from applicable regulatory authorities;
- § obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- § making arrangements with third-party manufacturers for, or establishing our own, commercial manufacturing capabilities;
- § launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- § entering into new collaborations throughout the development process as appropriate, from pre-clinical studies through to commercialization;
- § acceptance of our products, if and when approved, by patients, the medical community and third-party payors;
- § effectively competing with other therapies, if approved;
- § obtaining and maintaining coverage and adequate reimbursement by third-party payors, including government payors, for our products, if approved;
- § protecting our rights in our intellectual property portfolio;

- § operating without infringing or violating the valid and enforceable patents or other intellectual property of third parties;
- § maintaining a continued acceptable safety profile of the products following approval; and
- § maintaining and growing an organization of scientists and business people who can develop and commercialize our products and technology.

Even if we are entitled to royalties from our collaborators, we may not actually receive these royalties, or we may experience difficulties in collecting the royalties that we believe we are entitled to.

If and when our collaborators launch commercial products containing our licensed discoveries, we will rely on our collaborators to report to us the sales they earn from these products and to accurately calculate the royalties we are entitled to, a process that will involve complicated calculations. Although we seek to address these concerns in our collaboration agreements, such provisions may not be effective. Additionally, we may not be able to achieve our long-term goal of generating revenues from royalties, and in the coming years our revenues will be entirely dependent on fees we earn for our research and development services and milestone payments from our collaborators.

We depend on our key personnel and, if we are not able to attract and retain qualified scientific and business personnel, we may not be able to grow our business or develop and commercialize our product candidates.

The vast majority of our workforce is involved in research and development. Our business is therefore dependent on our ability to recruit and maintain a highly skilled and educated workforce with expertise in a range of disciplines, including biology, chemistry, plant genetics, agronomics, entomology, mathematics, computer science and other subjects relevant to our operations. For example, approximately 33% of our staff holds a Ph.D. The number of qualified and highly educated personnel in the fields upon which our business focuses in Israel, where most of our operations are located, is limited and competition for the services of such persons is intense. Although we have employment agreements with all of our employees, most of these agreements may be terminated upon short notice. The failure to hire and retain skilled and highly educated personnel could limit our growth and hinder our research and development efforts.

We develop certain discoveries independent of our collaborators, and we may need to finance the cost of the development of such technologies ourselves.

In the past, our business plan for our seed traits activity was based primarily on the development of seed traits in collaboration with our collaborators throughout the discovery-development-commercialization process. However, in recent years we have begun to develop certain discoveries and product candidates independent of our collaborators, with a goal of making such discoveries available to collaborators in later phases, including the final product development stage in some cases. While we believe this will allow us to negotiate more favorable license terms with respect to such discoveries and product candidates, the up-front cost to us of developing programs without a collaborator (and therefore without external funding for the research and development expenditures we incur) in these early phases involves higher risks, since we need to fund the research and development of such programs ourselves. If we are unsuccessful in discovering promising product candidates after having invested significant funds, or if we are unable to find collaborators who are interested in such results and willing to fund subsequent phases of development and commercialization, such failures could have a material and adverse effect on our business, financial condition and results of operations. Traditional financing sources such as bank financing or public debt or equity financing would carry with them certain drawbacks, such as imposition of covenants restricting our ability to operate, or substantial dilution to our existing shareholders.

Our business is subject to various government regulations and, if we or our collaborators are unable to obtain the necessary regulatory approvals, we may not be able to continue our operations.

Our business is generally subject to two types of regulations: regulations that apply to how we operate and regulations that apply to products containing our discoveries and product candidates. We apply for and maintain the regulatory approvals necessary for our operations, while our collaborators apply for and maintain regulatory approvals necessary for the commercialization of products containing our discoveries. We may fail to comply with all currently applicable regulations, and we may become subject to new or revised regulations or approvals in the future. Furthermore, any violation of these regulations could expose us to civil and criminal penalties.

The relevant regulatory regimes may be particularly onerous; for example, the U.S. federal government's regulation of biotechnology is divided among the United States Environmental Protection Agency, which regulates activity related to the invention of plant pesticides and herbicides, the United States Department of Agriculture, which regulates the import, field testing and interstate movement of specific technologies that may be used in the creation of transgenic plants, and the United States Food and Drug Administration, or the FDA, which regulates foods derived from new plant varieties. If we or our collaborators are unable to obtain the requisite regulatory approvals or there is a delay in obtaining such approvals as a result of negative market perception or heightened regulatory standards, such product candidates will not be commercialized, which would negatively impact our business and results of operations.

Disruption to our information technology, or IT, system could adversely affect our reputation and have a material adverse effect on our business and results of operations.

Our computational technologies rely on our IT system to collect and analyze the genomic and chemical data we collect and discover. We store significant amounts of data, and to date, have compiled several petabytes of data. There can be no assurance that our back-up storage arrangements will be effective if it becomes necessary to rely on them. Furthermore, we can provide no assurance that our current IT system is fully protected against third-party intrusions, viruses, hacker attacks, information or data theft or other similar threats. Disruption or failure of our IT system due to technical reasons, cyberattacks, natural disasters or other unanticipated catastrophic events, including power interruptions, storms, fires, floods, earthquakes, terrorist attacks and wars could significantly impair our internal development efforts and materially and adversely affect our collaborations, our business and our results of operations.

As we continue to develop our computational technologies and expand our genomic and other datasets, we may need to update our IT system and storage capabilities. However, if our existing or future IT system does not function properly, or if the IT system proves incompatible with our new technologies, we could experience interruptions in data transmissions and slow response times, preventing us from completing routine research and business activities, which could adversely affect our business and results of operations.

Development of our product candidates, particularly during our validation and testing activities, may be adversely affected by circumstances caused by us or those beyond our control.

The industries we are engaged in are subject to various factors that make our operations relatively unpredictable from period to period. For example, the testing of our product candidates may be adversely affected by circumstances both caused by us and those beyond our control. Factors caused by us include any failure by us or our collaborators to follow proper agronomic practice or suggested protocols for growing the model validation plants and crops for our trials, and failure to identify and address diseases, insects and pests. Factors beyond our control include weather and climatic variations, such as droughts or heat stress, or other factors we are unable to identify. For example, if there was prolonged or permanent disruption to the electricity, climate control or water supply operating systems in our greenhouses or laboratories, the plants and pests on which we test our discoveries and product candidates and the samples we store in freezers, both of which are essential to our research and development activities, would be severely damaged or destroyed, adversely affecting our research and development activities and thereby our business and results of operations. We have also experienced crop failures in the past for then-unknown reasons, causing delays in our achievement of milestones and delivery of results, and necessitating that we re-start the trials. Any test failure we may experience is not covered by our insurance policy, and therefore could result in increased cost of the trials and development of our product candidates, which may negatively impact our business and results of operations.

Consumer and government resistance to genetically modified organisms may negatively affect our public image and reduce sales of plants containing our traits.

We are active in the field of biotechnology research and development in seeds, including genetically modified, or "GM" seeds. Foods made from such seeds are not accepted by many consumers and in certain countries production of certain GM crops is effectively prohibited, including throughout the European Union, due to concerns over such products' effects on food safety and the environment. The high public profile of biotechnology in food production and lack of consumer acceptance of products to which we have devoted substantial resources could negatively affect our public image and results of operations. The prohibition on the production of certain GM crops in select countries and the current resistance from consumer groups, particularly in Europe, to GM crops not only limits our access to such markets but also has the potential to spread to and influence the acceptance of products developed through biotechnology in other regions of the world and may also influence regulators in other countries to limit or ban production of GM crops, which could limit the commercial opportunities to exploit biotechnology.

GM crops are grown principally in the United States, Brazil and Argentina where there are fewer restrictions on the production of GM crops. If these or other countries where GM crops are grown enact laws or regulations that ban the production of such crops or make regulations more stringent, we could experience a longer product development cycle for our product candidates and may even have to abandon projects related to certain crops or geographies, both of which would negatively affect our business and results of operations. Furthermore, any changes in such laws and regulations or consumer acceptance of GM crops could negatively impact our collaborators, who in turn might terminate or reduce the scope of their collaborations with us or seek to alter the financial terms of our agreements with them.

Our medical cannabis activity exposes us to legal and reputational risks associated with the cannabis industry.

Although our Canonic Ltd. subsidiary currently has limited operations, our current and potential involvement in cannabis-related activity may expose us to legal and reputational risks. Such risks include:

§ Changes in laws, regulations and guidelines related to cannabis may result in significant additional compliance costs for us or limit our ability to operate in certain jurisdictions;

§ Certain banks will not accept deposits from or provide other bank services to businesses involved with cannabis;

§ Third parties with whom we do business may perceive that they are exposed to reputational risk as a result of our cannabis-related business activities and may ultimately elect not to do business with us.]

Any of the foregoing factors could adversely affect our business and results of operations.

We have a history of operating losses and negative cash flow, and we may never achieve or maintain profitability.

We have a history of losses, and incurred operating losses of $ 20.0 million, $ 21.9 million, and $21.1 million for the years ended December 31, 2018, 2017, and 2016, respectively. There is no assurance that our efforts in developing our product candidates will result in commercially successful products. We expect to continue to incur losses in future periods, until we begin earning royalties on the product candidates we are currently developing and any new product candidates we develop in the future, if at all. Because we will incur significant costs and expenses for these efforts before we obtain any incremental revenues from them, our losses in future periods could be significant. In addition, we may find that these efforts are more expensive than we anticipate or that they do not result in profitability in the time period we anticipate, which would further increase our losses. If we are unable to adequately control the costs associated with operating our business, including our costs of development and sales we may deplete our cash resources and may be unable to continue to finance our business from our existing cash resources, and, our business, financial condition, operating results and prospects will suffer. For more information concerning our cash resources, please see “Liquidity and Capital Resources” in Item 5.B below.

The licenses we grant to our collaborators to use our discoveries are exclusive. This limits our opportunities to license our discoveries to more than one collaborator.

Most of the licenses we grant our collaborators to use our discoveries are exclusive. That means that once these discoveries are licensed to a collaborator, we are generally prohibited from licensing those discoveries to any third party. The limitations imposed by these exclusive licenses could prevent us from expanding our business and increasing our exposure to new licensees, both of which could adversely affect our business and results of operations.

We may be required to pay substantial damages as a result of product liability claims for which insurance coverage is not available.

Once products integrating our discoveries and product candidates reach commercialization, product liability claims will be a commercial risk for our business, particularly as we are involved in the supply of biotechnological seeds, ag-chemical, ag-biological, human microbiome-based and medical cannabis products, some of which can be harmful to humans and the environment. Courts have levied substantial damages in the United States and elsewhere against a number of companies in the agriculture industry in past years based upon claims for injuries allegedly caused by the use of their products. Product liability claims against us or our collaborators selling products that contain our product candidates or allegations of product liability relating to products containing our discoveries could damage our reputation, harm our relationships with our collaborators and materially and adversely affect our business, results of operations, financial condition and prospects. We do not have product liability insurance coverage. Furthermore, while our collaboration agreements typically require that our collaborators indemnify us for the cost of product liability claims brought against us, such indemnification provisions may not always be enforced, and we may receive no indemnification if our own misconduct led to the claims.

Our facilities, in Israel and in the U.S., are located on leased properties. Termination of any of the leases, changes in lease terms, and long-term leases that may not be terminated at will may jeopardize our activity and materially affect our financial condition or results of operations.

Our office spaces, labs, facilities, and farm are all situated on properties that we lease pursuant to lease agreements, in Israel and in the U.S. Once a lease agreement ends, we may not be able to renew it on favorable terms, or not at all, which may require us to increase our lease payments or take a new lease in another property, adversely affecting our business and results of operations. In addition, a long-term lease may mean no or limited possibility to terminate the lease at will before the completion of the lease period, which may lead to continued holding of an un-needed space or entry into a sub-lease, which may adversely affect our results of operations. For more information regarding our facilities, please see "Item 4. Information on the Company—D. Property, Plants and Equipment."

Our R&D facility in the U.S., our contracts with foreign businesses and any other current or future international operations expose us to additional market and operational risks, and failure to manage these risks may adversely affect our business and operating results.

Our research and development facility in St. Louis, Missouri may expose us to some of the operational risks that accompany doing business internationally, including:

- § fluctuations in foreign currency exchange rates;
- § potentially adverse tax consequences;
- § difficulties in staffing and managing foreign operations;
- § hiring and retention of employees and/or consultants under foreign employment laws with which are not familiar to us;
- § laws and business practices that sometimes favor local business;
- § compliance with foreign legislation, being subject to laws, regulations and the court systems of multiple jurisdictions; and
- § tariffs, trade barriers and other regulatory or contractual limitations on our ability to develop (and, when applicable in the future, sell) our solutions in certain foreign markets.

Our failure to manage the market and operational risks associated with international operations effectively could limit the future growth of our business and adversely affect our operating results.

Our operations are subject to various health and environmental risks associated with our use, handling and disposal of potentially toxic materials.

As part of our seed traits operations, we assist in the development of GM crops by inserting new genes into the genomes of certain plants. Though we introduce these genes in order to improve plant traits, we cannot always predict the effect that these genes may have on the plant. In some cases, the genes may render the plant poisonous or toxic, or they may cause the plant to develop other dangerous characteristics that could harm the plant's surrounding environment. Furthermore, while we comply with relevant environmental laws and regulations, there is a risk that, when testing genetically modified plants, the seeds of these plants may escape the greenhouse or field in which they are being tested and contaminate nearby fields. Poisonous or toxic plants may therefore be inadvertently introduced into the wild, or possibly enter the food production system, harming the people and animals who come in contact with them.

As part of our ag–biologicals operations, we develop novel product candidate based on microbial in order to improve plants traits. Although microbial exist naturally in the environment, we cannot always predict the effect that microbial have on the plant and its environment. There may be cases where the microbial render the plant poisonous or toxic, or they may cause the plant to develop other dangerous characteristics that could harm the plant's surrounding environment.

We may be required to pay royalties to employees who develop inventions that have been or will be commercialized by us, even if the rights to such inventions have been assigned to us and the employees have waived their rights to royalties or other additional compensation.

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 in the course and as a result of or arising from 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 proprietary rights. The Patent Law also provides under Section 134 that if there is no agreement between an employer and an employee as to whether the employee is entitled to consideration for service inventions, and to what extent and under which conditions, the Israeli Compensation and Royalties Committee, or the Committee, a body constituted under the Patent Law, shall determine these issues. Section 135 of the Patent law provides criteria for assisting the Committee in making its decisions. According to decisions of the Committee, an employee's right to receive consideration for service inventions is a personal right and is entirely separate from the proprietary rights in such invention. Therefore, this right must be explicitly waived by the employee. A decision handed down in May 2014 by the Committee clarifies that the right to receive consideration under Section 134 can be waived and that such waiver can be made orally, in writing or by behavior like any other contract. The Committee will examine, on a case by case basis, the general contractual framework between the parties, using interpretation rules of the general Israeli contract laws. Further, the Committee has not yet determined one specific formula for calculating this remuneration, nor the criteria or circumstances under which an employee's waiver of his right to remuneration will be disregarded. Similarly, it remains unclear whether waivers by employees in their employment agreements of the alleged right to receive consideration for service inventions should be declared as void being a depriving provision in a standard contract. All of our employees execute invention assignment agreements upon commencement of employment, in which they assign their rights to potential inventions and acknowledge that they will not be entitled to additional compensation or royalties from commercialization of inventions. Although our employees have agreed to assign to us service invention rights and have specifically waived their right to receive any special remuneration for such service inventions beyond their regular salary and benefits, we may face claims demanding remuneration in consideration for assigned inventions.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected and our business would be harmed.

We treat our proprietary computational technologies, including unpatented know-how and other proprietary information, as trade secrets. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with any third parties who have access to them, such as our consultants, independent contractors, advisors, corporate collaborators and outside scientific collaborators. We also enter into confidentiality and invention or patent assignment agreements with employees and certain consultants. Any party with whom we have executed such an agreement may breach that agreement and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such third party, or those to whom they communicate such technology or information, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, or if we otherwise lose protection for our trade secrets or proprietary know-how, the value of this information may be greatly reduced and our business and competitive position could be harmed.

Changes in laws and regulations to which we are subject, or to which we may become subject in the future, may materially increase our costs of operation, decrease our operating revenues and disrupt our business.

Laws and regulatory standards and procedures that impact our business are continuously changing. Responding to these changes and meeting existing and new requirements may be costly and burdensome. Changes in laws and regulations may occur that could:

- impair or eliminate our ability to research and develop our product candidates, including validating our product candidates through field trials;
- increase our compliance and other costs of doing business through increases in the cost to patent or otherwise protect our intellectual property or increases in the cost to our collaborators to obtain the necessary regulatory approvals to commercialize and market the product candidates we develop with them;

- require significant product redesign or systems redevelopment;
- render our product candidates less profitable, obsolete or less attractive compared to competing products;
- affect our collaborators' willingness to do business with us;
- reduce the amount of revenues we receive from our collaborators through milestone payments or royalties; and
- discourage our collaborators from offering, and consumers from purchasing, products that incorporate our discoveries.

Any of these events could have a material adverse effect on our business, results of operations and financial condition. For example, legislators and regulators have increased their focus on plant biotechnology in recent years, with particular attention paid to GM crops as well as on ag-chemicals.

While none of our product candidates are currently available for sale, other than our Evofuel products, our future growth relies on our ability and the ability of our collaborators to commercialize and market our product candidates, and any restrictions on such activities could materially and adversely impact our business and results of operations. Any changes in regulations in countries where our product candidates are used could result in our collaborators being unable or unwilling to develop, commercialize or sell products that incorporate our discoveries. In addition, we rely on patents and other forms of intellectual property protection. Legislation and jurisprudence on patent protection in the key target markets where we seek patent protection, such as the United States and the European Union, is evolving and changes in laws could affect our ability to obtain or maintain patent protection for our product candidates. Any changes to these existing laws and regulations may materially increase our costs of operation, decrease our operating revenues and disrupt our business. For more information please see 'Government Regulation of our Operations' and 'Government Regulation of Product Candidates' paragraphs under the description of each of our activity divisions and subsidiaries under "Item 4. Information on the Company—B. Business Overview."

Our success depends on our ability to protect our intellectual property and our proprietary technologies.

Our commercial success depends in part on our ability to obtain and maintain patent protection and trade secret protection for our proprietary computational technologies, our discoveries and their uses, as well as our ability to operate without infringing upon the proprietary rights of others. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability.

While we expect our patent applications to receive approval, and our trademark applications to mature into registrations, we cannot be certain that we will obtain such results. Despite our efforts to protect our proprietary rights, unauthorized third parties may attempt to use, copy or otherwise obtain and market or distribute our intellectual property rights or technology or otherwise develop products or solutions with the same functionality as our solutions. In addition, the laws of some foreign countries provide less protection for proprietary rights than U.S. law. We face the occasional risk, moreover, that third parties may assert copyright, trademark and other intellectual property rights against us. Such claims may result in direct or indirect liability as we have contractually agreed to indemnify certain parties for any damages suffered as a result of infringement by us of any third-party intellectual property rights.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

As is the case with other biotechnology companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing biotechnology patents involves technological and legal complexity, and is costly, time consuming, and inherently uncertain. In addition, the U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the U.S. Patent and Trademark Office, the laws and regulations governing patents could change in unpredictable ways that may weaken or undermine our ability to obtain new patents or to enforce our existing patents and patents we might obtain in the future.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, maintaining and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States are less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we are unable to prevent third parties from using our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the jurisdictions in which we do not have patent protection. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products, and we may be unable to prevent such competitors from importing those infringing products into territories where we have patent protection but enforcement is not as strong as in the United States. These products may compete with our product candidates and our patents and other intellectual property rights may not be effective or sufficient to prevent them from competing in those jurisdictions. Moreover, farmers or others in the chain of commerce may raise legal challenges against our intellectual property rights or may infringe upon our intellectual property rights, including through means that may be difficult to prevent or detect. For example, the practice by some farmers of saving seeds from non-hybrid crops (such as soybeans, canola and cotton) containing biotechnological traits may prevent us from realizing the full value of our intellectual property in countries outside of the United States.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions, including China, where we have filed patent applications. The legal systems of certain countries, including China, have not historically favored the enforcement of patents or other intellectual property rights, which could hinder us from preventing the infringement of our patents or other intellectual property rights and result in substantial risks to us. Proceedings to enforce our patent rights in the United States or foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert patent infringement or other claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license from third parties.

If we or one of our collaborators are sued for infringing the intellectual property rights of a third party, such litigation could be costly and time consuming and could prevent us or our collaborators from developing or commercializing our product candidates.

Our ability to generate significant revenues from our product candidates depends on our and our collaborators' ability to develop, market and sell our product candidates and utilize our proprietary technology without infringing the intellectual property and other rights of any third parties. In the United States and abroad there are numerous third party patents and patent applications that may be applied toward our proprietary technology, business processes or product candidates, some of which may be construed as containing claims that cover the subject matter of our product candidates or intellectual property. Because of the rapid pace of technological change, the confidentiality of patent applications in some jurisdictions, and the fact that patent applications can take many years to issue, there may be currently pending applications that are unknown to us that may later result in issued patents upon which our product candidates or proprietary technologies infringe. Similarly, there may be issued patents relevant to our product candidates of which we are not aware. These patents could reduce the value of the product candidates we develop or, to the extent they cover key technologies on which we have unknowingly relied, require that we seek to obtain licenses or cease using the technology, no matter how valuable to our business. We may not be able to obtain such a license on commercially reasonable terms. There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology industry generally. If any third party patent or patent application covers our intellectual property or proprietary rights and we are not able to obtain a license to it, we and our collaborators may be prevented from commercializing products containing our discoveries.

As the biotechnology industry continues to develop, we may become party to, or threatened with, litigation or other adverse proceedings regarding intellectual property or proprietary rights in our technology, processes or product candidates. Third parties may assert claims based on existing or future intellectual property rights and the outcome of any proceedings is subject to uncertainties that cannot be adequately quantified in advance. Any litigation proceedings could be costly and time consuming and negative outcomes could result in liability for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. There is also no guarantee that we would be able to obtain a license under such infringed intellectual property on commercially reasonable terms or at all. A finding of infringement could prevent us or our collaborators from developing, marketing or selling a product candidate or force us to cease some or all of our business operations. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel may be diverted as a result of these proceedings, which could have a material adverse effect on us. Claims that we have misappropriated the confidential information or trade secrets of third parties could similarly have a negative impact on our business.

We and our collaborators may disagree over our right to receive payments under our collaboration agreements, potentially resulting in costly litigation and loss of reputation.

Our ability to generate royalty payments from our collaboration agreements depends on our ability to clearly delineate our intellectual property rights under those agreements. We often license patented genes or other intellectual property to our collaborators, who use or will use such intellectual property to develop and commercialize products with our discoveries. However, a collaborator may use our intellectual property without our permission, dispute our ownership of certain intellectual property rights or argue that our intellectual property does not cover their marketed product. If a dispute arises, it may result in costly litigation, and our collaborator may refuse to pay us royalty payments while the dispute is ongoing. Furthermore, regardless of any resort to legal action, a dispute with a collaborator over intellectual property rights may damage our relationship with that collaborator, and may also harm our reputation in the industry.

Our employment agreements with our employees and other agreements with our collaborators and third parties may not adequately prevent disclosure of trade secrets, know-how and other proprietary information.

A substantial portion of our technologies and intellectual property is protected by trade secret laws. We rely on a combination of patent and other intellectual property laws as well as our employment agreements with our employees and other agreements with our collaborators and third parties to protect and otherwise seek to control access to, and distribution of, our proprietary information. These measures may not prevent disclosure, infringement or misappropriation of our confidential information. Our confidentiality, nondisclosure and assignment agreements or covenants may be breached, and we may not have adequate remedies for such a breach that would effectively prevent the further dissemination of our confidential information. We have limited control over the protection of trade secrets used by our collaborators and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, others may independently discover our trade secrets and proprietary information, and in such cases we could not assert any trade secret rights against such parties. Laws regarding trade secret rights in certain markets where we operate may afford little or no protection of our trade secrets. Failure to obtain or maintain trade secret protection could adversely affect our business, sales and competitive position.

We may not be able to fully enforce covenants not to compete with our key employees, and therefore we may be unable to prevent our competitors from benefiting from the expertise of such employees.

Our employment agreements with key employees, which include executive officers, contain non-compete provisions. These provisions prohibit our key employees, if they cease working for us, from competing directly with us or working for our competitors for one year. Under applicable U.S. and Israeli laws, we may be unable to enforce these provisions. If we cannot enforce the non-compete provisions with our key employees, we may be unable to prevent our competitors from benefiting from the expertise of such employees. Even if these provisions are enforceable, they may not adequately protect our interests. The defection of one or more of our employees to a competitor could materially adversely affect our business, results of operations and ability to capitalize on our proprietary information.

If a United States person is treated as owning at least 10% of our ordinary shares, such holder may be subject to adverse U.S. federal income tax consequences.

If a United States person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our ordinary shares, such person may be treated as a "United States shareholder" with respect to each "controlled foreign corporation" in our group (if any). If our group includes one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as controlled foreign corporations (regardless of whether we are or are not treated as a controlled foreign corporation). A United States shareholder of a controlled foreign corporation may be required to annually report and include in its U.S. taxable income its pro rata share of "Subpart F income", "global intangible low-taxed income" and investments in U.S. property by controlled foreign corporations, whether or not we make any distributions. An individual that is a United States shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a United States shareholder that is a U.S. corporation. A failure to comply with these reporting obligations may subject you to significant monetary penalties and may prevent the statute of limitations with respect to your U.S. federal income tax return for the year for which reporting was due from starting. We cannot provide any assurances that we will assist investors in determining whether any of our non-U.S. subsidiaries are treated as a controlled foreign corporation or whether such investor is treated as a United States shareholder with respect to any of such controlled foreign corporations or furnish to any United States shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. A United States investor should consult their own advisors regarding the potential application of these rules to its investment in the ordinary shares.

Risks Relating to Our Incorporation and Location in Israel

Conditions in Israel could adversely affect our business.

We are incorporated under Israeli law and our principal offices and research and development facilities are located in Israel. Accordingly, political, economic and military conditions in Israel directly affect our business. Since the State of Israel was established in 1948, a number of armed conflicts have occurred between Israel and its Arab neighbors. In recent years there has been an increase in unrest and terrorist activity, and several times since 2005 (when Israel withdrew from the Gaza Strip) conflicts arose due to Hamas' rocket attacks against Israeli civilian targets, during which Israel responded to rocket attacks by engaging in an armed conflict with Hamas in the Gaza Strip. Our principal place of business is located in Rehovot, Israel, which is approximately 30 miles from the nearest point of the border with the Gaza Strip. There can be no assurance that attacks launched from the Gaza Strip will not reach our facilities, or that hostilities will not otherwise cause a significant disruption to our operations, such as preventing our employees from reaching our facilities and limiting our ability to monitor and otherwise conduct the crop and other experiments we conduct at the facilities.

Several countries, still restrict doing business with Israel and Israeli companies, and additional countries may impose restrictions on doing business with Israel and Israeli companies if hostilities in Israel or political instability in the region continues or increases. These restrictions may limit materially our ability to sell our product candidates to companies in these countries. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners, or significant downturn in the economic or financial condition of Israel, could adversely affect our operations and research and development, cause our revenues to decrease and adversely affect the share price of publicly traded companies having operations in Israel, such as ours. Further, the political and security situation in Israel may result in parties with whom we have agreements involving performance in Israel claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions in such agreements. In addition, there have been increased efforts by activists to cause companies and consumers to boycott Israeli goods for political reasons. Such actions, particularly if they become more widespread, may adversely impact our ability to conduct business.

Furthermore, our business insurance does not cover losses that may occur as a result of events associated with the security situation in the Middle East. Although the Israeli government currently covers the reinstatement value of direct damages that are caused by terrorist attacks or acts of war, we cannot assure that this government coverage will be maintained. Any losses or damages incurred by us could have a material adverse effect on our business and financial condition.

Our operations may be disrupted by the obligations of personnel to perform military service.

Many Israeli citizens are obligated to perform several days, and in some cases more, of annual military reserve duty each year until they reach the age of 40 (or older, for reservists who are military officers or who hold certain military positions) and, in the event of a military conflict, may be called to active duty. In response to increases in terrorist activity, there have been periods of significant call-ups of military reservists. It is possible that there will be military reserve duty call-ups in the future. Our operations could be disrupted by such call-ups, which may include the call-up of our key employees and members of our management. Such disruption could materially adversely affect our business, financial condition and results of operations.

Exchange rate fluctuations between the U.S. dollar and the NIS may negatively affect our earnings.

Most of our revenues are denominated in U.S. dollars. As a result, any appreciation of the NIS relative to the U.S. dollar would adversely impact our profitability due to the significant portion of our expenses that are incurred in NIS. Future currency exchange rate fluctuations could adversely affect our profitability. If we enter into hedging contracts in the future, we may be unsuccessful in protecting against currency exchange rate fluctuations. See "Item 11. Quantitative and Qualitative Disclosure About Market Risk—Foreign Currency Risk."

Interest rate fluctuations may devalue our investments and could have a material adverse impact on our financial condition.

We have a considerable investment in marketable securities that consist of corporate bonds and government treasury notes denominated in Israeli Shekels and in U.S. dollars having an aggregate value of approximately $26.1 million as of December 31, 2018. These investments expose us to the risk of interest rate fluctuations. An increase in Israeli or in U.S. interest rates could cause the fair value of these investments to decrease. As of December 31, 2018, we did not have any hedge arrangements in place to protect our exposure to interest rate fluctuations. See "Item 11. Quantitative and Qualitative Disclosure About Market Risk—Foreign Currency Risk."

We have received Israeli government grants for certain of our research and development activities. The terms of these grants may require us to satisfy specified conditions in order to manufacture products and transfer technologies supported by such grants outside of Israel. In addition, in some circumstances, we may be required to pay penalties in addition to repaying the grants.

Our research and development operations have been partly financed through certain governmental grants, which impose certain restrictions on the transfer outside of Israel of the underlying know-how and the manufacturing or manufacturing rights of the underlying products and technologies. As of December 31, 2018, we had received from Israeli National Authority for Technological Innovation, or the IIA (formerly known as the Israeli Office of the Chief Scientist of the Ministry of Economy and Industry, or the OCS) approximately $6.8 million (including accrued interest). We may not receive the required approvals should we wish to transfer the know-how, technology or manufacturing rights related to such government grants outside of Israel in the future or, if we receive such required approvals, they may be subject to certain conditions and payment obligations. See "Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Government Grants."

It may be difficult to enforce a U.S. judgment against us, our officers and directors and the Israeli experts named in this annual report in Israel or the United States, or to assert U.S. securities laws claims in Israel or serve process on our officers and directors and these experts.

We are incorporated in Israel. The majority of our directors and executive officers reside outside the Unites States and the majority of our assets are located outside the United States. Therefore, it may be difficult for an investor, or any other person or entity, to enforce a U.S. court judgment based upon the civil liability provisions of the U.S. federal securities laws against us or any of these persons in a U.S. or Israeli court, or to effect service of process upon these persons in the United States. Additionally, it may be difficult for an investor, or any other person or entity, to assert U.S. securities law claims in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws on the grounds that Israel is not the most appropriate forum in which to bring such a claim. Even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact, 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 addressing the matters described above.

Your rights and responsibilities as our shareholder will be governed by Israeli law, which may differ in some respects from the rights and responsibilities of shareholders of U.S. corporations.

Since we are incorporated under Israeli law, the rights and responsibilities of our shareholders are governed by Israeli law and by our amended and restated articles of association, or our "articles of association," approved by our shareholders in May 2014 at our general shareholders meeting. These rights and responsibilities differ in some respects from the rights and responsibilities of shareholders of 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 the company's articles of association, an increase of the company's authorized share capital, a merger of the 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 the company has a duty to act in fairness towards the company. However, Israeli law does not define the substance of this duty of fairness. See "Item 6. Directors, Senior Management and Employees—C. Board Practices—Shareholder Duties." Since Israeli corporate law underwent extensive revisions approximately 18 years ago, the parameters and implications of the provisions that govern shareholder behavior have not been clearly determined. 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.

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

Certain provisions of Israeli law and our articles of association 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 for 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. For example, 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—Acquisitions Under Israeli Law."

Furthermore, under the Encouragement of Research, Development and Technological Innovation in the Industry Law, 5744-1984 (formerly known as the Law for the Encouragement of Research and Development in Industry 5744-1984), and the regulations, guidelines, rules, procedures and benefit tracks thereunder, collectively, the Innovation Law, to which we are subject due to our receipt of grants from the Israeli National Authority for Technological Innovation, or the IIA (formerly known as the Israeli Office of the Chief Scientist of the Ministry of Economy and Industry, or the OCS), a recipient of IIA grants such as our company must report to the IIA regarding any change in the holding of any means of control of our company which transforms any non-Israeli citizen or resident into an "interested party", as defined in the Israeli Securities Law 5728-1968, and that such non-Israeli citizen or resident shall execute an undertaking in favor of IIA, in a form prescribed by IIA.

Risks Related to Our Ordinary Shares and the Ownership and Trading of Our Ordinary Shares

The price of our ordinary shares may fluctuate significantly.

Our ordinary shares were first offered publicly in the United States after our public offering in the United States in November 2013, at a price of $14.75 per share, and our ordinary shares have subsequently traded on the NYSE (until December 2016) and on the Nasdaq (since December 2016) as high as $19.99 per share and as low as $1.67 and as of April 28, 2019 were trading at $2.20 per share.

The market price of our ordinary shares could be highly volatile and may fluctuate substantially as a result of many factors, including:

- actual or anticipated fluctuations in our results of operations;
- variance in our financial performance from the expectations of market analysts;
- announcements by us or our competitors of significant business developments, changes in relationships with our collaborators, acquisitions or expansion plans;
- our involvement in litigation;
- our sale, or the sale by our significant shareholders, of ordinary shares or other securities in the future;
- failure to publish research or the publishing of inaccurate or unfavorable research;
- market conditions in our industry and changes in estimates of the future size and growth rate of our markets;
- changes in key personnel;
- the trading volume of our ordinary shares; and
- general economic and market conditions.

Although our ordinary shares are listed on the Nasdaq, an active trading market on the Nasdaq for our ordinary shares may not be sustained. If an active market for our ordinary shares is not sustained, it may be difficult to sell ordinary shares in the U.S.

In addition, the stock markets have recently experienced extreme price and volume fluctuations. Broad market and industry factors may materially harm the market price of our ordinary shares, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted against that company. If we were involved in any similar litigation, we could incur substantial costs and our management's attention and resources could be diverted.

Any inability to meet the Nasdaq listing requirements may have an adverse effect on our share price and lead to our delisting from Nasdaq.

We are required to meet the continued listing requirements of Nasdaq, including those regarding minimum share price. In particular, we are required to maintain a minimum bid price for our listed ordinary shares of $1.00 per share. If we do not meet Nasdaq's continued listing requirements, Nasdaq could initiate delisting proceedings and our ordinary shares could be delisted.

If Nasdaq initiates delisting proceedings or delists our ordinary shares from trading on its exchange, we could face significant material adverse consequences including: reduced liquidity with respect to our ordinary shares; limited amount of news and analyst coverage for our company; reputational damage; diminish investor, supplier and employee confidence; and decreased ability to issue additional securities or obtain additional financing in the future.

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

Our ordinary shares have been traded on the TASE since 2007, and are currently listed on Nasdaq. Trading in our ordinary shares on these markets will 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 the TASE could cause a decrease in the trading price of our ordinary shares on Nasdaq.

We could become subject to parallel reporting obligations in Israel and the United States, which could increase compliance costs and divert management attention.

On July 28, 2013, our shareholders approved our plan to transition solely to U.S. reporting standards under the rules and regulations of the SEC. However, should this change, in the future, we may become subject to parallel reporting obligations in Israel and the United States. While similar in many respects, certain differences between Israeli and U.S. reporting schemes may impose on us disclosure obligations that are more stringent than those generally applied to foreign private issuers whose securities are listed only in the United States. In addition, a requirement to comply with the separate reporting obligations under U.S. and Israeli securities laws would require additional management attention and could burden us with additional costs.

The requirements of being a public company in the United States and Israel may strain our resources and distract our management, which could make it difficult to manage our business, particularly after we are no longer an "emerging growth company."

Changing laws, regulations and standards, in the United States or Israel, relating to corporate governance and public disclosure and other matters, may be implemented in the future, which may increase our legal and financial compliance costs, make some activities more time consuming and divert management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. Being a publicly traded company in the United States and Israel and being subject to U.S. and Israeli rules and regulations make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee, and qualified executive officers.

As a public company whose ordinary shares are listed in the United States, we will continue to incur significant accounting, legal and other expenses, including costs associated with our reporting requirements under the Exchange Act. We also incur additional costs associated with corporate governance requirements, including requirements under Section 404 and other provisions of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, rules implemented by the SEC and the Nasdaq, and provisions of Israeli corporate and securities laws applicable to public companies. The Exchange Act requires that we file annual and current reports with respect to our business and financial condition. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal controls over financial reporting. These rules and regulations could continue to increase our legal and financial compliance costs, such as the cost of hiring consultants or testing compliance processes, and make some activities more time-consuming and costly. These activities may divert management's attention from other business concerns, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

As a foreign private issuer we are not subject to the provisions of Regulation FD or U.S. proxy rules and are exempt from filing certain Exchange Act reports.

As a foreign private issuer, we are exempt from compliance with the rules and regulations under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors, and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file annual and current reports and financial statements with the SEC as frequently or as promptly as U.S. domestic companies whose securities are registered under the Exchange Act, we are permitted to disclose limited compensation information for our executive officers on an individual basis and we are generally exempt from filing quarterly reports with the SEC under the Exchange Act. Moreover, we are not required to comply with Regulation FD, which restricts the selective disclosure of material nonpublic information to, among others, broker-dealers and holders of a company's securities under circumstances in which it is reasonably foreseeable that the holder will trade in the company's securities on the basis of the information. These exemptions and leniencies will reduce the frequency and scope of information and protections to which you may otherwise have been eligible in relation to a U.S. domestic issuer.

As a foreign private issuer, we follow home country corporate governance practices instead of certain Nasdaq corporate governance requirements, which may result in less protection than is accorded to investors under rules applicable to domestic U.S. issuers.

As a foreign private issuer whose shares are listed on the Nasdaq Global Market, we are permitted to follow certain home country corporate governance practices instead of those otherwise required under the corporate governance standards for U.S. domestic issuers listed on the Nasdaq. We currently follow Israeli home country practices, rather than the requirements under the Nasdaq corporate governance rules, with regard to the (i) quorum requirement for shareholder meetings, (ii) executive sessions for independent directors and non-management directors and (iii) the requirements to obtain shareholder approval for certain dilutive events (such as for the establishment or amendment of certain equity-based compensation plans, issuances that will result in a change of control of the company, certain transactions other than a public offering involving issuances of a 20% or more interest in the company and certain acquisitions of the stock or assets of another company). See "Item 16G. Corporate Governance." Furthermore, we may in the future elect to follow Israeli home country practices with regard to other matters such as the requirement to have a majority independent board of directors, have a compensation committee and have a nominating committee. Accordingly, our shareholders may not be afforded the same protection as provided under Nasdaq corporate governance rules. 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 of domestic issuers. For further discussion, see "Item 16G. Corporate Governance."

We may lose our status as a foreign private issuer, which would increase our compliance costs and could thereby negatively impact our results of operations.

We would lose our foreign private issuer status if (a) a majority of our outstanding voting securities were either directly or indirectly owned of record by residents of the United States and (b)(i) a majority of our executive officers or directors were United States citizens or residents, (ii) more than 50 percent of our assets were located in the United States, or (iii) our business were administered principally outside the United States. Our loss of foreign private issuer status would make U.S. regulatory provisions mandatory. The regulatory and compliance costs to us under U.S. securities laws as a U.S. domestic issuer may be significantly higher. If we are not a foreign private issuer, we will be required to file periodic reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive than the forms available to a foreign private issuer. We would also be required to follow U.S. proxy disclosure requirements, including the requirement to disclose, under U.S. law, more detailed information about the compensation of our senior executive officers on an individual basis. We may also be required to modify certain of our policies to comply with accepted governance practices associated with U.S. domestic issuers. Such conversion and modifications will involve additional costs. In addition, we would lose our ability to rely upon exemptions from certain corporate governance requirements on U.S. stock exchanges that are available to foreign private issuers, as described in the previous risk factor above.

If a United States person is treated as owning at least 10% of our ordinary shares, such holder may be subject to adverse U.S. federal income tax consequences.

If a United States person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our ordinary shares, such person may be treated as a "United States shareholder" with respect to each "controlled foreign corporation" in our group (if any). If our group includes one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as controlled foreign corporations (regardless of whether we are or are not treated as a controlled foreign corporation). A United States shareholder of a controlled foreign corporation may be required to annually report and include in its U.S. taxable income its pro rata share of "Subpart F income", "global intangible low-taxed income" and investments in U.S. property by controlled foreign corporations, whether or not we make any distributions. An individual that is a United States shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a United States shareholder that is a U.S. corporation. A failure to comply with these reporting obligations may subject you to significant monetary penalties and may prevent the statute of limitations with respect to your U.S. federal income tax return for the year for which reporting was due from starting. We cannot provide any assurances that we will assist investors in determining whether any of our non-U.S. subsidiaries are treated as a controlled foreign corporation or whether such investor is treated as a United States shareholder with respect to any of such controlled foreign corporations or furnish to any United States shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. A United States investor should consult their own advisors regarding the potential application of these rules to its investment in the ordinary shares.

We believe we were a passive foreign investment company for U.S. federal income tax purposes (PFIC) in 2018, and there is significant risk we will be a PFIC in 2019 as well. U.S. shareholders who held our ordinary shares at any time during a taxable year in which we are a PFIC may suffer adverse tax consequences.

Generally, if for any taxable year 75% or more of our gross income is passive income, or at least 50% of the average quarterly value of our assets (which may be determined in part by the market value of our ordinary shares, which is subject to change) are held for the production of, or produce, passive income, we would be characterized as a passive foreign investment company, or PFIC, for United States federal income tax purposes. According to these rules, a publicly traded non-U.S. corporation may treat the aggregate fair market value of its assets as being equal to the sum of the aggregate value of its outstanding shares ("Market Capitalization") and the total amount of its liabilities. We intend to take the position that the excess of our Market Capitalization plus liabilities over the book value of all of our assets may generally be treated as attributable to non-passive assets. Based on the book value of our assets and liabilities and our Market Capitalization in 2018, we believe that we met the PFIC asset test described above for 2018 and, as a result, we were classified as a PFIC in 2018. Furthermore, because we currently hold, and expect to continue to hold, a substantial amount of cash and cash equivalents and other passive assets used in our business, and because our Market Capitalization is currently below the level necessary to avoid PFIC status for 2019, there is substantial risk we will be classified as a PFIC for the 2019 taxable year as well. However, because PFIC status is determined after the close of each taxable year, we will not be able to determine whether we will be a PFIC for the 2019 taxable year or for any future taxable year until after the close of such year.

U.S. shareholders who held our ordinary shares at any time in 2018 or during any other taxable year in which we are a PFIC may suffer adverse tax consequences, including having gains realized on the sale of our ordinary shares treated as ordinary income, rather than capital gain, the loss of the preferential rate applicable to dividends received on our ordinary shares by individuals who are U.S. Holders (as defined in "Item 10. Additional Information—E. Taxation—United States Federal Income Taxation"), and having interest charges apply to distributions by us and the proceeds of share sales. Certain elections may be available that would alleviate some of the adverse consequences of PFIC status and result in an alternative treatment (such as mark-to-market treatment) of our ordinary shares; however, we do not intend to provide the information necessary for U.S. holders to make qualified electing fund elections. See "Item 10. Additional Information—E. Taxation—United States Federal Income Taxation—Passive Foreign Investment Company Considerations."

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our History

We are a leading biotechnology company developing novel products for life science markets through the use of a unique Computational Predictive Biology (CPB) platform.

Our company was founded on October 10, 1999 as Agro Leads Ltd., a division of Compugen Ltd. In 2002, our company was spun-off as an independent corporation under the laws of the State of Israel, and changed its name to Evogene Ltd. In 2018 and early 2019, we reorganized certain of our divisions into wholly-owned subsidiaries of the Company, as described elsewhere in this Form 20-F. In addition, in April 2019 we announced that we will develop next generation medical cannabis products through a new subsidiary.

Our shares have been listed for trading on the TASE since 2007, and were listed for trading on the NYSE commencing with our U.S. initial public offering in November 2013 until December 2016, at which point we transferred the listing to the Nasdaq.

We are registered with the Israeli Registrar of Companies in Jerusalem. Our registration number is 51-283872-3. Our purpose as set forth in our articles of association is to engage in any lawful business. Our principal executive offices are located at 13 Gad Feinstein Street, Park Rehovot P.O.B 2100, Rehovot 7612002, Israel, and our telephone number is +972-8-931-1900.

Our authorized representative in the United States and agent for service of process in the United States, Puglisi & Associates, is located at 850 Library Avenue, Suite 204, Newark, Delaware 19711. Our website address is *www.evogene.com*. Information contained on, or that can be accessed through, our website does not constitute a part of this annual report and is not incorporated by reference herein.

The SEC maintains an internet site, http://www.sec.gov, that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Principal Capital Expenditures

Our capital expenditures for fiscal years 2018, 2017 and 2016 amounted to $0.4 million, $0.6 million and $0.8 million, respectively. Our capital expenditures during those years consisted of investments in property, plant and equipment. We anticipate our capital expenditures in fiscal year 2019 to include payments for maintenance and improvements of our facilities in Israel in order to support our activities, which we anticipate that we will finance with our current cash.

B. Business Overview

Overview

We are a leading biotechnology company developing novel products for life science markets through the use of a proprietary CPB platform. The CPB platform represents a revolutionary approach for product development in life science industries by computationally decoding the biological world. Our unique approach is accomplished by computationally identifying and integrating the critical biological criteria for a successful product upon initiation of a program.

We currently apply this approach to three general areas:

(i) Agriculture, where we develop improved seed traits, ag-chemical products and ag-biological products. In 2018, these product development efforts were organized according to three product-oriented core activity divisions: ag-seeds, ag-chemicals, and ag-biologicals. In November 2018 we announced that our ag-chemicals activity is being transferred to a new subsidiary – AgPlenus Ltd., and in February 2019 we announced that our ag-biologicals activity is being transferred to a new subsidiary – Lavie Bio Ltd;

(ii) Human health, focusing on human microbiome-based therapeutics, through our subsidiary Biomica Ltd.; and

(iii) Life-science based industrial applications, currently focusing on castor seed varieties and agro-technical capabilities, through our subsidiary Evofuel Ltd.

In addition, in April 2019 we announced that we will develop next generation medical cannabis products through a new subsidiary, Canonic Ltd.

We are continuously evaluating new substantial markets with well-recognized development road-blocks for which we can leverage our capabilities and assets for the development of next generation products. We select the most sutable markets to focus on, based on a number of criteria, including: (i) market size; (ii) a well-recognized, unmet need for next-generation products; (iii) an understanding of the scientific or technical road-blocks that prevent others from developing next-generation products; and, most importantly, (iv) the expectation that our CPB platform and unique approach provide a significant competitive advantage in addressing these roadblocks.

With respect to our corporate structure, we recognized that a traditional corporate structure would not be the most efficient and productive framework for gaining maximum and timely value from our on-going multi-market, leveraging of our CPB-based capabilities. Therefore, the Evogene group now operates with a structure consisting of Evogene as a technology hub, which is responsible for both maintaining and expanding the CPB platform and providing R&D services, and a growing group of divisions and subsidiaries that benefit from the CPB platform's unique capabilities.

We decide to convert market-focused divisions to subsidiaries when we believe this structure will provide more value to Evogene shareholders as a standalone company with access to the CPB rather than as an internal division. We believe this will allow the new company to pursue its individual mission and meet the following objectives:

(i) Advance its product development and pipeline;

(ii) Establish its "go-to-market" via direct sales or through existing and new collaborations; and

(iii) Secure additional financial resources, if and when required.

Except for initial seed sales under our Evofuel activity, our activities are still in the development stages and no products have been commercialized based on our discoveries. Our revenues consist primarily of research and development payments under our strategic collaborations in the field of seed traits and ag-chemical products. A breakdown of our revenues by business activity and geographic markets for each of the last three financial is provided in "Item 5. Operating and Financial Review and Prospects—Key Measures of Our Performance—Revenues." In the future, we expect to receive, and that our subsidiaries receive, milestone payments and royalty revenues under such collaborations, as well as revenues from the sale of end-products or commercialization of product candidates.

In 2019, we expect to continue to develop our product pipelines and initiate new collaborations with an increased focus on strategic relationships for joint product development. We also expect to continue to evolve our organization, and to continue to examine new areas in which additional value can be created in a relatively short time.

The following are major occurrences and developments in the Company during 2018 and until the date of this report, reflecting advancement in all areas of activity:

Lavie Bio (previously our ag-biologicals division)

- In January 2018 – in the corn bio-stimulant program, positive 2nd year field results were achieved;
- In July 2018 – in the wheat bio-stimulant program, we announced phase advancement following positive results; and
- In February 2019 – we announced that Evogene's Ag-Biologicals activities are being transferred to a new subsidiary – Lavie Bio Ltd.

AgPlenus (previously our ag-chemicals division)

- In February 2018 – in the novel Mode-of-Action (MoA) herbicide program, multiple 'families' of novel chemical compounds demonstrated herbicidal effectiveness;
- In May 2018 – in the novel insecticide program, we announced a multiyear collaboration with BASF and achievement of the collaboration's first milestone with the nomination of new Sites-of-Action to be advanced to the discovery stage of bioactive chemical compounds;
- In September 2018 – in the novel Mode-of-Action herbicide program, we announced biological proof of a new Mode-of-Action; and
- In November 2018 – we announced that Evogene's ag-chemicals activity is being transferred to a new subsidiary – AgPlenus Ltd.

Ag-Seeds (our improved seed traits activity)

- In November 2018 – insect control genes demonstrated effectiveness against insects with resistance to current solutions, indicating new Modes-of-Action;
- In July 2018 – we announced a collaboration with IMAmt, a leading Brazilian developer and marketer of cotton seeds, in the field of insect control traits in cotton; and
- In December 2018 – we announced a collaboration with TMG, a leading Brazilian plant breeder, to develop nematode-resistant soybean through genome editing.

Evofuel (our activity in the area of castor seed varieties and agro-technical capabilities)

- In October 2018 – Evofuel and an agricultural equipment manufacturer, Fantini, announced a breakthrough in mechanical harvesting for castor bean, which we expect to assist in the commercialization of the castor bean crop.

Biomica (our human microbiome based therapeutics activity)

- In November 2018 – Biomica announced its focus on the following areas of therapeutics: immuno-oncology, multi drug resistant organisms and gastrointestinal, or GI, related disorders.

Canonic (our medical cannabis activity)

- In April 2019 – we announced that we will develop next generation medical cannabis products through a new subsidiary, Canonic Ltd.

Approach, Science & Technology

Approach

The mission of the CPB platform is to revolutionize the product development approach in life science industries by decoding the biological world. This platform is a result of a decade long, multidisciplinary effort to integrate scientific concepts with semi-structured big data and the most advanced computational analytics in order to develop predictions of potential products that later undergo experimental validation.

These efforts have been enabled by two parallel revolutions:

(i) the data revolution – allowing the creation of enormous amounts of biological and chemical data in a cost-effective manner, and

(ii) the computational processing revolution – allowing the integration and analysis of data with advanced algorithms such as machine learning and other artificial intelligence.

The CPB platform represents a revolutionary approach for the design and prediction of novel products, based on four pillars: first, computationally modeling the specific biological challenges in the discovery and development of each product into pre-defined criteria, based on profound scientific understanding and know-how; second, designing genomic, chemical and microbial databases holding diverse types of curated data specifically aimed at addressing the biological challenges identified; third, developing state of the art computational tailored analytics, including artificial intelligence algorithms, designed to provide more accurate predictions to those challenges; and fourth, screening and validation systems comprised of multiple tailored bioassays.

This approach enables the CPB platform to first predict the most relevant candidates from our comprehensive databases to begin the candidate selection, validation and product development process, and thereafter to guide the process. The ability to make and evaluate candidate selection and prioritization according to these pre-defined criteria upon the initiation of a program significantly increases the probability of successful product development while decreasing time and cost.

This approach is broadly applicable to various life science industries. We continuously evaluate new substantial markets with well-recognized development roadblocks where we can leverage our capabilities and assets for the development of next generation products.

Science and Know-how

The underlying driver of the CPB platform's unique approach is deep scientific understanding of the life sciences combined with computer sciences and tailored experimental tools. Our multidisciplinary scientific teams play a pivotal role in our unique product development approach.

As of December 31, 2018, our research and development activities involve 109 employees amounting to approximately 78% of our total full-time workforce, of which 85 are employed at Evogene and 24 are employed via our subsidiaries. Our staff possesses multidisciplinary and wide-ranging expertise, with employees specializing in biology, chemistry, plant genetics, agronomics, mathematics, computer science and other related fields. 49 of our employees hold a Ph.D.

Furthermore, we have a Scientific Advisory Board composed of representatives from the Faculty of Agriculture of the Hebrew University in Jerusalem, the Weizmann Institute of Science in Rehovot and other global academic institutions, as well as experienced scientists from the industry.

Computational Technologies

Our computational technologies, utilized for data integration and analysis, are comprised of two main proprietary components: (i) our databases generated via data integration capabilities; and (ii) our computational analysis platforms, utilized to mine these databases within our ongoing activities.

Proprietary Databases

To date, Evogene's databases leverage multiple sources and types of tailored "big data" in order to support the different research and development activities across the company. Specifically, we focus on four different entities: plant genes, microbial genes, microbial organisms and small molecules. Our information databases on these different entities are rich and highly interconnected, enabling our analysis platforms to maximize their predictive power.

Our databases draw in part on the public domain (primarily from academic institutions and research publications), and in part compile increasing amounts of proprietary data, generated either in-house or received from our collaborators.

Our current database framework consists of the following:

- *Our plant and microbial gene databases* are focused on the gene entity, linking available data relevant to a gene in a single assembled database. Our plant gene databases cover over 16 million genes from more than 200 plant species, and accounts for various data types, including phenotypic data (*i.e.*, data related to a plant's observable characteristics, morphology, development and physiological properties) and genotypic data (*i.e.*, data from the molecular level, derived from DNA, RNA or other sources). Our microbial gene database, currently incorporates microbial genes from both public and proprietary resources. To date, we have more than 250 million microbial genes in our database. In the scope of our efforts to expand our databases to include novel genetic material, we established a pipeline for assembling gene models from samples containing bacterial populations, or metagenomics. Utilizing this approach, we have unveiled millions of genes, some of which have never been observed before, as well as a multitude of bacteria never previously cultured.

- *Microbial strain database (microbial organisms)* – This database comprises data on microbial strains isolated from plant and human sources. It includes several tens of thousands of microbial strains that are key to plant and human life cycles.

- *Our chemical database (small molecules)* is structured as molecule-centric, covering broad chemical collections and derived from publicly available sources of synthetic and natural chemistry. This database currently comprises over 400 million chemicals, integrating multiple layers of data describing the chemicals' properties.

Computational Analysis Platforms

We have developed advanced proprietary computational analysis platforms, comprised of novel algorithms and methodologies designed to handle immense amounts of data. Our computational analysis platforms are designed to deliver innovative solutions to key bottlenecks in the product development process. In recent years, we have increasingly focused on machine learning driven approaches to provide effective predictions for key questions. As our predictions undergo validation via dedicated validation systems, this allows us to continuously improve our predictions by feeding back these results into our systems.

Currently, we operate and develop the following computational analysis platforms:

ATHLETE™

The ATHLETE™ computational analysis platform that is our central computational analysis platform for plant gene identification is comprised of unique algorithmic tools and novel data-mining concepts that allow generation of rapid and reliable lists of genes relevant to a target trait.

Gene2Product™

Gene2Product™ is a unique computational analysis platform used to develop biotechnology seed traits by high throughput optimization of a selected gene function in a target crop (which we refer to as "mode of use"). This technology complements our ATHLETE™ platform: efficacy of a gene depends not only on the presence or absence of the gene of interest, which is determined by ATHLETE™, but also on the optimization of the gene with other factors related to the mode of use of such gene, which is determined by Gene2Product™. Gene2Product™ is designed to improve trait efficacy for certain genes identified (for example by ATHLETE™) by predicting desired gene combinations, preferred gene variants, optimal gene regulation mode, and a gene's performance under changing environmental conditions.

PoinTar

PoinTar specializes in the identification of plant targets (proteins) for development of ag-chemicals such as herbicides, and examines data aimed to indicate the potential impact that a target, when inhibited, would have on a weed. Both our gene-centric database and its integrated chemical-centric database are mined by PoinTar to achieve this goal. PoinTar addresses the structural characteristics of a target in order to predict the target's likelihood of binding to a small chemical molecule for use as a herbicide.

PointHit

PointHit, is a computational analysis platform for identifying chemical molecules that are predicted to be potential inhibiting chemicals. This analysis platform leverages biological rationale, discovering chemical molecules by optimizing between three key considerations: (i) predicted binding to molecular targets, (ii) compliance with product desired attributes such as low cost of production, low toxicity and others, and (iii) mainly for ag-applications – potential for activity, namely probability to be absorbed by the plant and transported within the plant to reach a specific molecular target within it. Overall, relying on "big data" computational approaches, the PointHit platform is capable of prioritizing tens of millions of chemicals to a selected library of candidate hits.

BiomeMiner

BiomeMiner is a computational analysis platform for identifying microbial insecticidal toxins, *i.e.* microbial genes that can be specifically toxic to insects that lead to substantial crop damage. This unique computational technology platform consists of a newly developed vast proprietary microbial-based gene centric database, the underlying data assembly pipelines, as well as a dedicated analysis platform, BiomeMiner. The BiomeMiner platform utilizes advance machine learning methods in order to identify toxins with novel modes of action in order to overcome the rising resistance to current products' modes of action.

MicrobeMiner

MicrobeMiner is a computational platform addressing key challenges in the discovery and development of microbial products. The core of the analysis platform relies on the ability to identify the genetic functions within the microbe responsible for important aspects of product development including, efficacy, stability of effect across conditions and shelf life. This platform leverages the vast digital catalog of microbial functions within our microbial gene database along with our proprietary plant-microbe phenotypic data in our microbial strain database.

PRISM

PRISM (Predictive High-Resolution Integrative Selection of Microbes) is a computational analysis platform that combines a high-resolution profiling of the microbiome, based on accurate strain-level taxonomy and comprehensive functional analyses, and the efficient correlation of the microbiome to host physiological and genomic profiles.

Screening and validation systems

Our screening and validation systems support two key aspects of our unique research and development approach: (i) generating data sets to enable development of tailored computational modules and their prediction performance evaluation; and (ii) screening, validating and characterizing selected product candidates by the divisions/subsidiary's scientific teams.

Our experimental technologies include bioassays as well as screening and validation pipelines (set of bioassays organized in a cascade of tests). They relate to diverse scientific fields including plant tissue culture, plant pathology greenhouse and field activities, molecular biology, microbiology, organic chemistry and insect biology.

Ag-Business Units

Ag-Business Industry

Background

The global population is projected to reach 10 billion inhabitants by 2050, which is expected to lead to a necessary 50% expansion in food, feed and biofuel production[1]. Moreover, changing diets in BRIC countries (Brazil, Russia, India and China) to more protein and dairy heavy diets, are leading to a rising need for grain for animal feed. On the supply side, 17% of harvest is lost to climate change, while 12 million hectare of agricultural land is lost, annually. This results in the need to increase in food production by increasing yields and cropping intensity as there is limited arable land left to expand planting.[2]

In light of historical and current needs to improve crop productivity, technological inventions have been incorporated into agriculture since the dawn of humanity. The most advanced and recent technological tool available is biotechnology, which aims to enhance crop performance and productivity. During the last decade, the biological world has witnessed a dramatic increase in the availability of data, which is used to drive agricultural product innovation. This increase in the availability of biological and chemical data has primarily been a result of the introduction of new technologies that facilitate the rapid generation of quality data at a significantly lower cost. As a result, the key opportunity, and challenge, for enhancing crop productivity has shifted from the generation of quality data to data integration and the analysis of large volumes of data.

Mergers and Acquisitions in the Agricultural Industry

Until recently, a handful of global firms (known as the "Big Six") dominated private-sector research on both seeds and crop-protection chemicals: BASF and Bayer, from Germany; the U.S. firms Dow Chemical, DuPont, and Monsanto; and the Swiss firm Syngenta. Each firm combined pest control and seed businesses. Their pest control products consisted primarily of chemical pesticides, but also included biological products and seed treatments. The seed businesses included sales of crop seeds, as well as genetically modified seed traits placed in their own seeds or licensed to other seed firms.[3]

[1] Source: FAO 2017, The Future of Food and Agriculture
[2] Source: Piper Jaffray, Industry Note August 27, 2013, Agriculture
[3] Source, USDA https://www.ers.usda.gov/amber-waves/2017/april/mergers-and-competition-in-seed-and-agricultural-chemical-markets/

During the last two years, three significant mergers and acquisitions took place in the agricultural industry, significantly changing the market landscape: (i) in September 2017, Dow Chemical and DuPont merged with the intention of separating their combined agriculture, materials science, and specialty products businesses into three independent and specialized corporations; (ii) in October 2017, the acquisition of Syngenta by the State-owned Chinese company, ChemChina, was completed; and (iii) in June 2018, the acquisition of Monsanto by Bayer was completed. These mergers have transformed the "Big Six" into the "Big Four": BASF, Bayer, Corteva (the agriculture division of the merged DowDuPont entity) and ChemChina.

These mergers may further limit the number of potential collaborators available for us to partner with. Due to the small number of companies in our market, there are limited opportunities for us to grow our business with new collaborators. For further information, please see "Item 3. Key Information—D. Risk Factors—Risks Related to our Business and Industry—There are only a few companies in our seeds, ag-chemicals and ag-biologicals markets with which we can establish strategic partnerships, and we rely on a limited number of collaborators to develop and commercialize product candidates containing our seed traits, ag-chemicals and ag-biologicals."

Competition

The agricultural markets, as described above, are highly consolidated and dominated by a relatively small number of large companies. In order to provide their end-clients (mostly farmers) with cutting-edge products, these companies invest substantial resources in the development of seeds, seed traits, ag-chemical products, ag-biological products and agronomic methods and products. Part of these companies' research and development activity is conducted in-house and part of it is outsourced or conducted through collaborations.

Generally, the competitors in our industry can be divided into three groups:

(i) Major seed and ag-chemical companies, including BASF, Bayer, ChemChina, Corteva and others, with internal research and development units dedicated to development of seed traits and seed external products. As the Company's business model is based in part on collaborations, we view the major seed and ag-chemical companies in the ag market as potential collaborators and not only as direct competition;

(ii) Small to mid-size biotech companies specializing in ag-products with their own product development programs. For example, these include Ag-Biome in the area of ag-biologicals, Nimbus Therapeutics in the area of ag-chemicals, and Arcadia Biosciences in the area of seed traits; and

(iii) Academic and agricultural research institutions that grant licenses to third parties to use their seed trait and ag-chemical and ag-biological discoveries.

Lavie Bio (previously our ag-biologicals division)

Overview

In 2015 we initiated our ag-biologicals activity for developing ag-biological products as a division within Evogene and in February 2019 we announced that it is being organized under Lavie-Bio Ltd., a separate company that is a wholly owned subsidiary of Evogene.

Ag-biologicals are externally-applied products from biological sources, such as microbial (micro-organisms) and naturally derived biochemistries, designed to improve crop productivity. A sub-segment within the microbial biologicals is the "microbiome", the microbial population living close or within the plant or other organisms such as pests, and is a promising source for novel ag-biologicals. The ag-biologicals activity aims to improve food quality and sustainability through the introduction of microbiome-based ag-biologicals products.

Our ag-biologicals activity focuses on developing (i) bio-stimulants, which are ag-biologicals for crop enhancement, directly impacting crop yield or abiotic stress tolerance and (ii) bio-pesticides, which are ag-biologicals for crop protection, addressing biotic stresses such as insects, diseases and weeds. In addition, we are also exploring new product types, such as consumer traits (i.e. improvement of product attributes associated with consumer preferences).

In April 2019, Evogene decided to fund Lavie Bio's ongoing activity in a total amount of $10 million, comprised of an equity investment and a convertible loan.

Market

The market for ag-biological products was estimated at approximately $3.2 billion in 2015 and is expected to demonstrate a substantial annual growth rate of 10%-15% year over year until 2022[4]. From a niche segment in the past, it is increasingly becoming a standard part of the farmers 'solution' which includes seeds, chemistry and biologicals. The increased acceptance of such products is attributed to the need for new solutions to increase agriculture productivity, consumer demand for more sustainable and healthier practices, and the expectation that regulatory requirements will follow suit. The ag-biologicals market is attracting interest from industry leading players owing to its potential impact by providing a new type of product to improve crop productivity, as well as the relatively inexpensive and rapid regulatory process.

Business Model

The main focus of our ag-biologicals activity is development of bio-stimulant and bio-pesticide products for row crops as well as specialty crops, balancing different go-to-market approaches. In addition, we develop enabling fermentation & formulation technologies to improve product stability.

We have defined two main models for accessing the ag-biologicals products market, if our product candidates are approved:

(i) Indirect market access – where the target market is dominated by large companies, we expect to gain market access through collaborations with leading industry partners, either through co-development or through commercialization.

(ii) Direct market access – in fragmented markets, such as high-value specialty crops markets, we expect to complete product development independently, and then establish a tailored market access strategy per specific product and territory.

Until 2018, we have not yet generated any revenues from our ag-biologicals business. Longer term, as our product candidates advance through development and to the extent that they are commercialized, we expect our revenues to include revenues from direct sales as well as milestone payments and royalty payments from products developed and commercialized by our partners.

Product Development Programs

Scientific Approach

Our activity is focused on discovery, optimization and development of effective, stable and cost-effective microbial based ag-biologicals. Our approach is based on converging the plant, microbial and environmental factors to decode their complex interactions in order to enable the amplification of the positive, elimination of the negative and retrieval of lost interactions within the biological system. This activity relies on two major scientific and technological developments of recent years, namely: (i) the evolution in understanding of microbiome science, obtained originally in humans and translated into the plant kingdom, and (ii) the establishment of technologies to generate relevant genomic data in a cost-effective manner, both in plants and microbial.

[4] According to industry publications

Our technological platform includes end-to-end capabilities for product discovery, optimization and development:

(i) First and foremost, access to Evogene's CPB platform, harnessing the power of 'big data' and advanced informatics to implement a genomic-based biology-driven design approach during discovery and optimization,

(ii) A proprietary validation platform to support the validation of our predictions and to generate highly relevant data for the creation of predictions, and

(iii) A formulation and fermentation platform that allows us to address development requirements such as shelf life, microbial establishment, upscale and product manufacturing needs.

Product Development Cycle

We estimate that developing ag-biological products based on microbial sources takes, on average, between six to eight years. The length of the process may vary depending on several factors, including the target market (with each region currently applying different regulatory or registration procedures), the type of application (with different regulatory requirements for bio-stimulants and bio-pesticides), the type of natural source serving as active ingredient (microbial and plant extracts, for instance, undergo different upscaling and formulation procedures) as well as the number of active ingredients (e.g. strains) within the final products, which impacts the development activities required to reach a commercially viable product.

The development process for microbial-based ag-biologicals is divided into four discrete steps, or phases, which generally include *discovery*, *pre-development*, *development*, *pre-commercialization*, and ending with registration approval and commercial launch. As this is a relatively young industry, the process is not yet well established and standardized and the below outline was structured based on our experience and estimations.

- ***Discovery***: The first step in the microbial ag-biologicals development process is Discovery, or the identification of a candidate microbial strain, or microbial strain teams, having the potential to improve the target trait. A collection of selected microbial strains, or strain teams, is typically tested on the crop(s) of choice in greenhouse screens or limited field experiments. Microbial strains, or strain teams, that meet the testing criteria are referred to as "Hits". Based on industry benchmarks and our experience, the Discovery phase typically lasts approximately 12-18 months.

- ***Pre-development***: Upon successful validation of the Hits (microbial strains, or strain teams), promising candidates, which meet various efficacy, stability and commercial viability criteria, are advanced to Pre-development. In this phase we preform optimization to improve shelf life, efficacy and stability, applying various approaches derived from our biology driven design approach and technology. The Pre-development activity also includes initial fermentation and formulation development. The microbial strains Hits are further tested in field trials, including in the target territory, to examine their efficacy in improving plant performance and stability across locations, germplasm, etc. The Predevelopment phase assesses the product potential with respect to efficacy, stability and commercial viability, and successfully performing microbial strain, or strain team, is referred to as an "Advanced Hit". Based on industry benchmarks and our experience, this stage typically lasts approximately 12-18 months.

- ***Development***: In this phase, the fermentation and formulation procedures are further optimized to allow for further testing and validation of efficacy and stability in the field as well as for commercial scale production. Field tests commenced in pre-development are expanded and repeated, aiming to test efficacy and stability of the candidate product. The Development phase is usually divided into Development stage 1 – resulting with a "Lead" and Development stage 2 resulting with a "Pre Product". Based on industry benchmarks and our estimates, this stage typically lasts approximately 24 months.

- ***Pre-commercialization***: In this phase, extensive field tests are undertaken to demonstrate the effectiveness of a candidate product in enhancing the target trait, including production of data to support product positioning. Additional activities towards launch are performed, including packaging development, upscale manufacturing protocol, registration and regulation. Based on industry benchmarks and our estimates, in the U.S. we expect this stage to last approximately 24 months for bio-stimulants and 36-48 months for bio-pesticides due to longer regulation processes.

Product Development Pipeline

To date, in our various product development programs, we have assembled a broad microbiome-derived strain collection, validated tens of microbial strains that we have identified for improving desired traits or yield of a target crop in greenhouse or field experiments. The best performing microbial strains are currently undergoing pre-development activities such as optimization, formulation and fermentation development.

The following table sets forth our main current product development programs in the ag-biologicals activity:

Program	Ag-biological product	Crop/Target	Development phase *
1	Bio-stimulants – Yield & abiotic stress tolerance	Corn	Pre-Development **
2	Bio-stimulants – Yield & abiotic stress tolerance	Wheat	Development stage 1
3	Bio-pesticides – Fusarium and seedling disease resistance	Row crops, seed treatment	Pre-development
4	Bio-pesticides – Mildew and fruit rots resistance	Row and specialty Crop, foliar application	Discovery

* Please see "—Product Development Cycle" for a description of the product development cycle of ag-biological products.

** Part of our bio-stimulants program for yield and abiotic stress tolerance in Corn is conducted in collaboration with Corteva (originally with 'DuPont-Pioneer'), pursuant to a multiyear collaboration initiated in 2017. For more information on such collaboration, see "—Key Collaborations—Corteva".

In addition to the main product development programs listed in the table above, our product development pipeline further includes the following:

(i) Insect control candidate products under discovery phase (Hits) identified under our bio-pesticide activity. We are assessing the opportunity to license these candidates to third parties and we currently do not plan to further develop these assets internally.

(ii) A new product concept comprised of a microbial treatment that addresses certain consumer traits.

Key Collaborations

Corteva (originally with DuPont-Pioneer)

Background and Duties

In July 2017 we entered into a multiyear collaboration with DuPont Pioneer (now Corteva, following the merger of Dow Chemicals and DuPont in September 2017 and the establishment of Corteva as the agriculture division of the merged DowDuPont entity, as detailed in "Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Business Industry—Mergers & Acquisitions in the Agricultural Industry.") for the research and development of novel microbial bio-stimulant seed treatments for the improvement of corn productivity globally.

Product development efforts under the collaboration utilize our proprietary microbial candidate strains discovered by Evogene and our CPB platform that supports the optimization process including the design of formulation technologies and fermentation protocols, while Corteva provides access to its field platform, extensive product development expertise and in the future, potentially, its go-to-market channel.

License Grants

The multi-year collaboration has an extension option if certain milestones are met. Corteva has agreed to obtain worldwide marketing rights for any products, with milestone payments and royalties to be paid to us.

Termination

Either party may terminate the agreement upon a material breach by the other party.

Consideration and Costs

Under the agreement, we are entitled to milestone payments for advancement of candidate strains, and royalties from products sales.

Intellectual Property

Our intellectual property rights are important to our business, as they generally determine our eligibility to receive royalties for product candidates under the licenses we grant our collaborators and exclude our competitors from commercializing products similar to our product candidates. We actively seek to protect the intellectual property and proprietary technology that we believe is important to the development of our business.

Our success will depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties.

We file patents to cover the use of microbial strains, or strain teams, that are the core active ingredients of the products we develop. Other innovative and proprietary technologies that we develop, can be protected as 'trade secrets' (such as computational predictive and design technologies) or by patent.

Raw Materials

We do not significantly rely upon any sources of raw materials for our operations.

Seasonality

As field trials are highly dependent on crop seasonality and the time windows for conducting such trials are rigid, our research and development activities are dependent on crop seasonality. Although we currently do not have any commercialized products, our expectation is that in the future, sales cycles of the products we develop will be dependent on crop seasonality.

Government Regulation of our Operations and of Product Candidates

In general, the regulatory landscape in the evolving field of ag-biological products is still developing. As a result, it may face additional changes in the next few years. In most countries, regulatory approvals for ag-biological products (bio-stimulants and bio-pesticides) are required for three main activities: (i) importing microbial into the country, (ii) field testing, and (iii) commercialization of ag-biological end-products.

Complexity of regulatory processes vary between bio-stimulants and bio-pesticides and between regulatory organizations.

We are working directly and through dedicated consulting firms with the governmental regulators in our key target geographies – the U.S. and Europe.

In the United States, the key focus market for the ag-biological products we are currently developing, USDA APHIS (Animal and Plant Health Inspection Service) is responsible for importation and field release permits for ag-biological products and the EPA is in charge of the registration of plant protection products. Most US states also require some registration process for such products.

Under current EPA guidance, bio-stimulants are regarded as plant inoculants, which currently does not require any regulatory action at the federal level, but requires registration at the state level. Bio-pesticides require registration at both federal and the state level. State level regulation processes vary between states.

In the European Union, bio-stimulants are currently regulated as fertilizers, and bio-pesticides are regulated and registered as plant protection products.

Both American and European regulators are in the process of establishing a more defined regulation process for bio-stimulants.

AgPlenus (previously our ag-chemicals division)

Overview

Our ag-chemicals activity was initiated in 2015 as a division within Evogene and is being organized under AgPlenus Ltd., a separate company that is a wholly owned subsidiary of Evogene. The ag-chemicals activity aims to design effective and sustainable crop protection products by leveraging predictive biology. The ag-chemicals activity focuses on developing four types of products: (i) herbicides, (ii) insecticides, (iii) fungicides, and (iv) crop enhancers.

Market

According to industry publications, the ag-chemical market was estimated at approximately $56 billion in 2017, out of which approximately 42%, 28% and 27% are attributed to herbicides, insecticides and fungicides, respectively, and is expected to grow to over $70 billion by 2022.

Lack of available solutions for pest control and increasing pest resistance to existing pesticide solutions lead to a pressing need for novel pesticides. However, due to current technological limitations and increasing regulatory requirements, the development of next-generation crop protection products is lengthy and complicated.

Business Model

The ag-chemicals activity's business model is to reach high-value, revenue-sharing deals based on our internal product development pipeline and, in parallel, to initiate early stage collaborations, while providing a tailored product offering per partner and market.

High value revenue sharing deals – based on our internal pipeline of novel MoA herbicides and new Site-of-Action (SoA) insecticides.

Early collaborations – we aim to enter such collaborations in order to build long-term relationships in the industry and to mitigate the risk associated with building an independent pipeline. Currently, revenues of the ag-chemicals activity derive from research and development payments under such collaborations. Longer term, as our product candidates advance through development and to the extent that they are commercialized by our collaboration partners, we expect our revenues to include milestone payments and royalty payments.

Product Development Programs

Scientific Approach

Our ag-chemicals discovery and optimization platforms are designed to disrupt the traditional methods of ag-chemical discovery and optimization by implementing a target-based approach for identifying and developing novel herbicides and insecticides with new MoA's or SoA's to address the growing resistance of weeds and insects to existing products. We utilize the CPB platform's capabilities, namely our expertise in plant and insect genomics, as well as our advanced technologies and know-how, leveraging biology, to drive chemical discovery with the target of ultimately developing new herbicides and insecticides that display new MoA's or SoA's.

Our discovery and optimization platforms may be used for developing novel ag-chemicals in a sequential manner, beginning with the identification of protein "targets", meaning proteins that are essential to the plant/insect function and performance, utilizing our proprietary computational platform, PoinTar and our chemical database. The targets we seek are those that, when inhibited (for instance by a chemical), lead to plant/insect death. We then identify "candidate hits", which are chemical compounds that potentially inhibit these targets, through our PointHit computational platform and screen candidate chemical compound hits to identify those capable of achieving the desired impact on plants or insects. Hits displaying confirmed activity in such the initial validation screens will enter the Hit-to-Lead process, which include computational optimization using the PointLead platform and additional more advanced validation experiments. In addition, our discovery and optimization platforms are also used independent of each other to discover new hits for known targets, optimize an existing Hit-to-Lead and optimize a commercial molecule.

For more information on PoinTar, PointHit and PointLead computational platforms, see "Item 4. Information on the Company—B. Business Overview— Approach, Science & Technology—Computational Technologies—Computational Analysis Platforms."

Product Development Cycle

The product development cycle of ag-chemicals is comprised of several stages, described as follows:

Discovery stage

§ Identification of Targets - Identification of vital targets or proteins that when inhibited (for instance by a chemical), lead to plant/insect death.

§ Identification of Hits - Screening of chemical compounds for the identification of candidate 'Hits' that potentially inhibit identified vital targets and are capable of achieving the desired impact on plants or insects. The development process includes in-silico as well as biological screenings and validations.

§ Hit-to-Lead process - Hits displaying confirmed activity in the initial validation screens will enter the Hit-to-Lead process, which includes computational optimization and additional more advanced validation experiments.

§ Initial Lead - Hits displaying a certain level of efficacy in specific crucial validation screens (e.g. dose response).

Pre-development stage

§ Lead – A lead is a validated hit that has confirmed activity in advanced validation screens proving commercial level efficacy.

§ Optimized Lead – An Optimized lead is a Lead compound that was validated further to include additional regulatory data, providing validation for safety in certain aspects.

Development, Regulation & Registration

§ In the final development phases, new chemical products are registered with the proper regulatory authorities and then launched for commercialization. According to publications of key industry players, such development processes are likely to last 10-12 years. We expect that these last stages of development will be conducted by our current and future collaboration partners.

Product Development Pipeline

(i) Our internal product development pipeline includes the following two main product development programs:

Program	Ag-chemical Product	Target Organism / Crop	Stage
1	Non-selective & selective herbicides	Key crops	Discovery
2	Broad spectrum insecticides	Lepidoptera, Coleoptera and Hemiptera	Discovery

(ii) Product development under collaborations:

Program	Ag-chemical Product	Target Organism / Crop	Collaborator	Stage
1	Non-selective & selective herbicides	Key crops	BASF	Undisclosed
2	Broad spectrum insecticides	Lepidoptera, Coleoptera and Hemiptera	BASF	Undisclosed
3	Crop enhancers	Key crops	ICL	Undisclosed

Key Collaborations

BASF SE (BASF) – Herbicides

Background and Duties

In December 2015, we entered into a multi-year collaboration with BASF for the discovery and development of novel herbicides. Under the terms of the collaboration agreement, we utilize our biology-driven computational discovery approach to identify potential candidate chemicals for novel herbicides while BASF uses its proprietary advanced plant platform to screen the candidate chemicals in order to experimentally validate their biological effects on weeds. Successful candidates from this collaboration will be further developed by BASF.

License Grants

Pursuant to the agreement, BASF obtains a worldwide, royalty-bearing, exclusive license to use and modify chemical compounds that we identify under the collaboration to develop and commercialize weed control products containing such compounds.

Termination

Either party may terminate the agreement upon a material breach by the other party, whereupon the licenses granted to BASF shall terminate.

Consideration and Costs

Under the terms of the agreement, we are entitled to milestone payments upon achievement of certain development milestones as well as royalty payments from sales of products developed under the collaboration.

BASF SE (BASF) – Insecticides

Background and Duties

In May 2018, we announced that we entered into a two-year collaboration with BASF for the development of novel insecticides based on new binding areas (SoAs).

Under the terms of the collaboration agreement, in the initial phase of the collaboration, we utilized our biology-driven computational methods to identify potential novel compounds that act on new proteins and binding sites. In the next phase of the collaboration, starting in the second half of 2018, we utilize our CPB platform for the discovery of relevant chemistry to address the new SoAs. Compounds we discover will then enter BASF proprietary insecticides discovery platform for efficacy screening and testing and to validate the chemistry's ability to modulate the respective target proteins.

Consideration and Costs

Under the terms of the agreement, we are entitled to milestone payments upon achievement of certain development milestones. Commercial arrangements concerning further development and commercialization are subject to further agreement between the parties.

Intellectual Property

With respect to our ag-chemicals activities, we expect in the future to file patent applications with respect to our discoveries, either ourselves or together with our collaborators. Our ongoing operations take into consideration various aspects of such future filings, and our filing policy follows industry standards with respect to the preferred timing for filing.

Government Regulation of our Operations

Our activities in the area of ag-chemicals are performed at our labs in Israel and are regulated by the provisions of several Israeli governmental agencies. Violation of these regulations may expose us to criminal or civil actions and may impose liability on us.

Government Regulation of Product Candidates

Regulatory approvals are required prior to the commercialization and importation of ag-chemical products in most countries. Most of the key target markets where we anticipate our collaborators will sell ag-chemical products containing our compounds, including the United States, the European Union, Brazil and Argentina, will require such regulatory approvals prior to the commercialization of such products. Pursuant to our collaboration agreement in the field of ag-chemicals, our collaborators will apply for all required regulatory approvals prior to commercialization of the product candidates we develop with them.

Examples of regulations our collaborators may need to apply for include tests assessing the potential effects of the new active ingredient on mammals. These include tests on acute toxicity, carcinogenicity, mutagenicity and reproduction. Results from this stage will be fed into the chemistry and formulation development stages. In order to sell a crop protection ag-chemical product in most countries, both the product and its active ingredient first need to be registered. This process may require the submission of over 100 toxicology and ecotoxicology studies, as well as detailed information on the chemistry of the active ingredient and the product. In the United States, collaborators may need to seek regulatory approval from the EPA, which regulates the marketing and use of new plant pesticides and herbicides. In addition, in Brazil, the commercialization of ag-chemical products is regulated by Anvisa, the federal agency in charge of evaluating pesticide health risks. The approval process involves data collection and analysis, environmental impact assessments and public hearings on certain products, and is similarly costly and time-intensive.

Raw Materials

We do not significantly rely upon any sources of raw materials for our operations.

Seasonality

At this stage of development, our ag-chemicals business in general, and revenues in particular, are not subject to variations based on seasonality. In more advanced stages of product development our activities are expected to include field trials which are highly dependent on crop seasonality. Although we currently do not have any commercialized products, our expectation is that in the future sales cycle of the products we develop will be dependent on crop seasonality.

Ag-Seeds Division

Overview

Initiated in 2004, our seed traits activity is focused on the development of products improving seed traits that have a direct impact on crop productivity through the use of genetically modified (GM) and non-GM approaches. We mainly target key commercial crops such as corn, soy, wheat, rice and cotton and their relevant pests. The activities of this division are divided into three sub-categories, as further detailed below: (i) increased yield and improved abiotic stress tolerance (Y&ABST), (ii) disease resistance and (iii) insect control.

(i) Y&ABST – increase crop performance and productivity by enhancing yield, tolerance to abiotic stresses such as drought, heat and salinity and fertilizer use efficiency (*i.e.*, yield stability over varying environmental conditions and tolerance to environmental stress factors, such as drought);

(ii) Disease resistance – increase crop resistance to diseases such as fungi; and

(iii) Insect control – increase crop tolerance to insects

We utilize several biotechnology approaches including: (i) genetic modification of plants, which involves the direct manipulation of a plant's genome by inserting a gene into the plant's DNA, (ii) advanced breeding methods, whereby plants with favorable characteristics are selectively crossed through genomic-guided breeding schemes, with the goal of eventually improving seed traits and (iii) genome editing technologies – in the last few years the maturity of technologies that enable deletion or modification of specific genomic regions in the crop's genome has provided for an expanded technological toolbox for genomic manipulation, allowing for a broad variety of changes potentially resulting in trait improvement without inserting foreign DNA to the plant. Genome editing technologies may present an opportunity for introducing valuable traits, in shorter time to market and significantly lower development and regulation costs.

Market

According to industry publications, the seeds market size was estimated at approximately $37 billion in 2015, out of which approximately 53% is attributed to biotech seeds.[5]

According to industry publications, the market potential for traits addressing plant insects and diseases was estimated in 2015 to be between $7.5 billion to $8.5 billion, out of which the commercial value of insect control products available in the market today is approximately $4.5 billion.[6] We estimate that the potential value of improving non-existent commercial seed traits such as yield, drought or fertilizer utilization in the major crops of corn and soybean alone could be significant.

Major seed companies have declared their goal to significantly increase crop yield to meet the growing needs of the world population. We believe that improved seeds will play an important role in supporting the ambitious goal of substantially increasing crop yields in the future.

Business Model

We collaborate with world-leading seed companies, including Bayer and Corteva, as well as regional seed companies such as Tropical Melhoramento & Genética S/A (TMG) and Instituto Mato-grossense do Algodão (IMAmt). Typically, under these collaborations we discover and validate candidate trait-improving genes and other genetic elements, and subsequently our collaborators, under license from us, test and further develop these discoveries in their product development pipelines with the goal of introducing them into commercial crop seeds.

In most cases, we expect to generate revenue from our collaboration agreements at two different points: first, we receive milestone payments when certain specified results are achieved, such as when a candidate gene progresses to a later phase in the product development cycle, or when a product candidate containing our traits is submitted for regulatory approval; second, we expect to receive royalty payments once a commercial product containing our traits is launched into the market. Under several collaboration agreements, we also receive research and development services payments to cover the costs of our research, including our discovery and validation efforts.

In the Ag-Seeds division, we currently generate revenues from research and development payments for discovery and optimization activities. In the future, we expect to receive milestone payments upon advancement of our seed traits through the product development pipelines of our collaborators and royalties from sales of product candidates by our collaborators.

All of our product development programs under our seed traits activity are currently either in the Discovery or in Phase I stages and a substantial majority of them focus on improving traits through genetic modification. For more information on our collaborations in this field, see "—Product Development Programs—Key Collaboration."

Product Development Programs

Scientific Approach

The division's scientific approach is to use our expertise in plant understanding and genomics to improve plant performance utilizing our CPB platform. Evogene's proprietary CPB platform, validation techniques and other capabilities enable us to identify and optimize promising candidate genes and other genetic elements (such as genetic markers or precise edits of the crop's genes) that have the potential to improve our traits of interest in target crops. The most promising candidates will be used to develop improved seeds through genetic modification, advanced breeding or genomic editing.

[5] According to Industry publications

[6] According to Industry publications.

We have accumulated substantial scientific knowledge on plant mechanisms and biological pathways associated with yield, abiotic stress, fertilizer use efficiency and disease resistance traits. Currently, we maintain proprietary genomic data from over 200 different plant species, and have two model validation plants that can validate over 1,000 genes annually under different validation assays in greenhouse and controlled growth chambers.

During the last few years, we have expanded our offering and capabilities with our entry into the field of insect control traits. Enhancement of our capabilities in this field includes the incorporation of large amounts of microbial genomic data to our databases, including metagenomics microbial data that represents an untapped diversity of uncultured bacteria, in order to enable discovery of microbial genes that may assist plants to cope with insects. We have completed testing of approximately 900 genes discovered using BiomeMiner, our dedicated computational technology infrastructure consisting of a proprietary microbial-based database and a dedicated analysis platform for identifying microbial insecticidal toxins. Using our insect validation capabilities at our U.S. site, we validated dozens of genes for important target insects, representing potential new toxin families. Overall, we have established five discovery programs for toxins predicted to provide resistance to three key insect orders, Coleoptera, Lepidoptera and Hemiptera.

Product Development Cycle

The product development cycle for seed traits via genetic modification is comprised of five phases. Currently, we specialize in the upstream portion of the development cycle, particularly in the discovery phase (*i.e.*, when candidate genes are identified and validated in model plants), as well as in Phase I supporting development activities via gene optimization and stacking activities to increase trait efficacy, stability and avoid unintended effects, aiming to increase probability to reach commercialization.

Developing and integrating seed traits into commercial seeds through biotechnology takes, based on estimations, between eight and sixteen years. The length of the process may vary depending on the technology being applied, the complexity of the trait and the type of crop involved. The length of the seed traits development process enhances the uncertainty of product development; for example, during the development process changes in the competitive landscape or developments of new seed improvement technologies may affect product advancement decisions. The development process for seed traits is divided into several discrete steps, or phases, which generally include discovery, validation and development, and end with regulatory approval and commercial launch of a seed product containing the trait.

While the process for developing seed traits is similar in some aspects for the various approaches: genetic modification, advanced breeding or genome editing, the development process differs significantly in later phases of development and may be considerably shorter when applying advanced breeding and genomic editing technologies rather than genetic modification. For example, receiving regulatory approval for genetically-modified seeds is a far more comprehensive and lengthy process than doing the same for advanced breeding seeds. For seed traits developed via genome editing, the technology is in its rather early stages of adoption, with remaining uncertainties regarding regulatory developments and other aspects of product development.

The development process of genetically-modified seed traits and their integration into commercial seeds is generally divided into five key phases, as described below. Based on industry benchmarks, analyst assessments and the company's internal estimations, the process typically ranges between ten and sixteen years. This process may vary among different companies and depending on the specific crop and trait of interest. For example, with respect to development phase I ("Proof of Concept", as further detailed below), in our experience, the process of testing genes and other genetic elements by our partners may vary in terms of experimental set up, scope of activity, success criteria, and other aspects, which ultimately have an effect on the duration of such phase.

- ***Discovery***: The identification of candidate genes potentially capable of enhancing specified plant traits. These genes are usually introduced into model plants to determine whether the gene (or gene combination) will enhance the specified trait. We usually employ our own advanced greenhouse facilities in Israel to perform model plant validation utilizing *Arabidopsis* for dicots, such as soybean, canola, cotton and sunflower, and *Brachypodium* for monocots, such as corn and wheat. In our experience, the Discovery phase typically lasts approximately 18-24 months.

- ***Phase I, or "Proof of Concept"***: Promising candidate genes are advanced to Phase I, or "proof of concept." In this phase, the genes or gene combinations are inserted into target plants and their efficacy in improving plant performance, including specific plant attributes or target traits such as yield, is tested through greenhouse trials, field trials, or both. During this phase, the genes are also optimized to improve their efficacy, with improved gene constructs then tested again in target crops. Phase I is typically conducted by our collaborators in their own facilities, although we conduct certain proof of concept tests in some of our projects, and in our experience, typically lasts between four to six years.

- ***Phase II, or "Early Development"***: In this phase, the field tests are expanded, and our collaborators evaluate various modes of use of the genes as well as other characteristics in order to optimize performance on a large scale across various geographical locations and varieties, to reach commercially viable success rates. We expect Phase II to last between two to four years.

- ***Phase III, or "Advanced Development and Regulation"***: In Phase III, extensive field tests are used to demonstrate the effectiveness of selected genes in enhancing particular traits, and the process for obtaining regulatory approvals from government authorities is initiated, including conducting tests for potential environmental impact assessments of possible toxicity and allergenicity. Based on current available estimates, we expect Phase III to last between one to two years.

- ***Phase IV, or "Pre-Launch"***: Involves finalizing the regulatory approval process and preparing for the launch and commercialization. The range of activities here includes preparing the seeds for commercial sales, formulation of a marketing strategy and preparation of marketing materials. Based on current available estimates, we expect Phase IV to last between one to two years.

As indicated, the estimated timeframes of phase duration and probability of success are mainly based on our experience and estimates according to available information. The development phases may overlap during the product development cycle, and the total development time for a particular product may be longer or shorter than the duration presented above depending on a range of factors, including the type of crop and trait involved, the specifics of the development process undertaken by our partner, the amount of resources available, or devoted to, particular research or collaboration projects, and changes to the product development process implemented by our partner.

Product Development Pipeline

The following table sets forth our key product development programs in the segment of Y&ABST seed traits under development with our collaborators:

Program	Crop	Technology	Collaborator	Phase
1	Corn	Genetic modification	Bayer	Phase I
2	(1)	Advanced breeding	A consumer goods company (1)	Undisclosed

(1) Crop and collaborator name not disclosed.

Our most significant collaboration in the area of Y&ABST in recent years has been with Bayer (previously Monsanto), addressing yield enhancement, drought tolerance and fertilizer utilization in corn, soybean, cotton and canola through biotechnology. Under this collaboration, Bayer funded a research program in which we applied our proprietary computational technologies first to identify genes with the potential to improve the target traits in the target crops and then to optimize gene performance. In 2017, we announced the successful completion of the gene discovery stage of the collaboration, which now focuses on progressing selected gene candidates through additional testing in Bayer's product development pipeline. For more information on our collaboration with Bayer please see "—Key Collaborations—Bayer."

In April 2019, Biogemma provided us with a notice of termination of the license agreement we entered into in 2010 with respect to several Evogene genes we licensed to Biogemma for yield and abiotic stress improvement in corn, due to lack of viability.

The following table sets forth our key product development programs in the segment of disease resistance traits, under development with our collaborators or as internal product development programs:

Program	Crop	Trait	Technology	Collaborator / Internal Program	Phase
1	Corn	Fusarium	Genetic modification	Bayer	Undisclosed
2	Soybean	Asian Soybean Rust	Genetic modification	Corteva	Undisclosed
3	Soybean	Nematodes	Genome editing	Tropical Melhoramento & Genética S/A (TMG) *	Undisclosed
4	Banana	Black sigatoka	Genetic modification & genome editing	Rahan Meristem	Undisclosed

* The nematode resistance soybean product program commenced as an internal program and during 2018 has become the subject of our collaboration with TMG. For more information on such collaboration, please see "—Key Collaboration—TMG."

The following table sets forth our key product development programs in the segment of insect control traits, under development with our collaborators or as internal product development programs:

Program	Crop	Trait	Technology	Collaborator / Internal Program	Phase
1	Corn	Lepidoptera	Genetic modification	Internal program	Phase I
2	Corn	Coleoptera	Genetic modification	Internal program	Phase I
3	Soybean	Hemiptera	Genetic modification	Internal program	Phase I
4	Soybean	Lepidoptera	Genetic modification	Internal program	Phase I
5	Cotton	Lepidoptera	Genetic modification	Internal program	Discovery
6	Cotton	Coleoptera / Lepidoptera	Genetic modification	Instituto Mato-grossense do Algodão (IMAmt)	Undisclosed

Key Collaborations

Certain of our seed trait projects are conducted through collaborations with leading seed companies, with whom we share the development process of improving plant performance.

Bayer (originally with Monsanto)

Background and Duties

In August 2008, we entered into a Collaboration and License Agreement with Monsanto (now Bayer, following the completion of the acquisition of Monsanto by Bayer in June 2018, as detailed in "Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Business Industry—Mergers & Acquisitions in the Agricultural Industry."), which we refer to as the Monsanto Collaboration Agreement. This agreement was amended and restated on two occasions, first in November 2011 and again in October 2013, in both cases extending and expanding the original agreement executed in 2008. Pursuant to the Monsanto Collaboration Agreement, we identified and optimized genes with the potential to improve yield and abiotic stress tolerance (Y&ABST) in corn, soybean, cotton and canola. As part of the October 2013 amendment and restatement, we further apply our computational technologies in the field of biotic stress in corn. The term of our activities under the Y&ABST part of the Monsanto Collaboration Agreement expired at the end of 2017, while our activities under the biotic stress part of the collaboration are scheduled to continue through August 2019.

Y&ABST program

Pursuant to the Monsanto Collaboration Agreement, Monsanto funded a research program under which we identified and optimized genes with the potential to improve Y&BST in corn, soybean, cotton and canola. In July 2017 we announced completion of candidate gene discovery stage in this collaboration, and currently more than 1,000 of our genes have entered Phase I in Monsanto's product development pipeline for yield and abiotic stress traits in target crops, a subset of which is now being tested.

Biotic stress program - Fusarium

As part of the October 2013 amendment and restatement of the Monsanto Collaboration Agreement, we apply our computational technologies in the field of biotic stress to identify and offer optimization recommendations for genes providing resistance to *Fusarium*, a type of fungi that is a main pathogen responsible for Stalk Rot disease in corn (a widespread, yield-reducing disease). We test all of the genes that we discover in our model plant validation systems. The collaboration period for the biotic stress activities is six years, scheduled to expire in August 2019.

In July 2017 we announced that we have reached an important milestone in the collaboration with the demonstration of positive Fusarium resistance results with Evogene-discovered genes.

License Grants

We have granted Monsanto an exclusive, royalty-bearing, worldwide license under our patents and know-how to commercially exploit and conduct research on the genes we discovered and the gene-optimization recommendations we made under the collaboration, each solely for transgenic applications in the specified crops.

Diligence Obligations

We and Monsanto both have minimum diligence obligations under the Monsanto Collaboration Agreement: our diligence obligations surrounded the discovery and research of candidate genes and of recommendations supporting gene-optimization and advancement, while Monsanto is obligated to test a specified number of these genes and recommendations for the purpose of ultimately developing and commercializing products containing the genes.

Consideration and Costs

Under the Monsanto Collaboration Agreement, Monsanto is obligated to provide us with research and development payments, development milestone payments, which we are entitled to when our product candidates reach significant milestones at Monsanto's development pipeline, as well as royalty payments on any sales or other transfers of products it develops containing our licensed genes.

A Multinational Consumer Goods Company

Background and Duties

In October 2014, we entered into a Collaboration Agreement with a multinational consumer goods company, focusing on improving yield in a certain field crop through non-GM methods. The agreement significantly limits the parties' freedom to disclose information on the nature of and the parties to the agreement.

In the framework of the collaboration, we identified genes with the potential to improve the desired trait in the target crop when the expression of such genes in the plant is modified. Under this collaboration we generate new varieties of the target crop using molecular methods, and further test the performance of these new varieties. These activities were performed over a period of approximately four years before we delivered these varieties to our partner for further development as part of their breeding pipeline.

License Grants

Under the agreement, we granted the partner an exclusive worldwide license to our patents and know-how with respect to the genes we identify under the collaboration and to our rights in the varieties of the target crop we deliver under the collaboration in order to develop and commercialize varieties of the target crop through non-GM methods.

Consideration and Costs

The agreement provides for several one-time research and development payments to cover our research and development efforts, payable in increments subject to our deliveries under the collaboration, as well as for milestone payments by the partner upon achievement of certain development milestones. The agreement does not provide for payment of royalties to us following commercialization of a product containing our trait.

Corteva (originally with DuPont-Pioneer)

Background and Duties

In 2011, we entered a multi-year research and development collaboration with DuPont-Pionner (now Corteva, following the merger of Dow Chemicals and DuPont in September 2017 and the establishment of Corteva as the agriculture division of the merged DowDuPont entity, as detailed in “Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Business Industry—Mergers & Acquisitions in the Agricultural Industry.”) to improve resistance to Asian Soybean Rust, or ASR, a devastating fungal disease in soybean. We amended and expanded the agreement with DuPont in October 2013. Pursuant to this collaboration, we identified relevant genes having the potential to improve in-plant resistance to ASR. The collaboration period under this agreement, including testing by DuPont, is expected to continue throughout 2019.

License Grants

Under the agreement, we granted DuPont a worldwide, royalty-bearing, exclusive license to develop and commercialize soybean products containing our licensed genes. We also granted DuPont an option, limited in time, to obtain an exclusive license to use the licensed genes for certain products other than soybean.

Diligence Obligations

Pursuant to the research program under this agreement, we have diligence obligations that required us to identify a minimum number of genes intended to improve the target trait (*i.e.*, ASR in-plant resistance). DuPont's diligence obligations, on the other hand, require it to test a specified number of genes before advancing any qualified genes through its product development pipeline. If DuPont fails to meet its obligations, some or all of the licenses it received under the agreement may terminate.

Consideration and Costs

Our compensation under the 2011 agreement with DuPont is in the form of milestone payments and royalty payments based on the sales of resulting products. According to the agreement, each party funds its expenses in performing its activities using its own resources and a grant from the Israel-U.S. Binational Industrial Research and Development Foundation, or BIRD. We hold a contractual option to co-invest in the development costs for greater royalty percentages downstream if a product is successfully commercialized.

Rahan Meristem

Background and Duties

In 2007, we entered a multi-year collaboration with Rahan Meristem, or Rahan, with the target of developing banana varieties expressing tolerance to Black Sigatoka, the most damaging disease threatening commercial banana plantations. Black Sigatoka disease affects over 50% of banana crops, reducing yields by 35%-50% and leading to an estimated addition of 15-20% to final retail prices. The agreement is focused on identifying and developing genes targeting this trait in banana. The joint program focuses on the discovery and validation of genes identified by Evogene's ATHLETE computational technology. Transformation to banana plants and further validation in infected areas is conducted by Rahan.

In 2013, we announced that, in field trials conducted by Rahan, banana crops consisting of Evogene-discovered genes demonstrated a lower infection rate than banana crops which did not contain the selected genes.

In September 2017, we announced positive results in 2nd year field trials as well as the utilization of genome editing technologies to leverage genomic knowledge gained from the field trials.

License Grants

Pursuant to the agreement, Rahan holds an exclusive license to develop and commercialize banana products containing genes identified and prioritized under the collaboration.

Consideration and Costs

Each of Rahan and us bears its costs in performing its activities under the program, using its own resources. Under the terms of the agreement, we are entitled to royalty payments from sales by Rahan of commercial products containing genes identified under the collaboration.

TMG

Background and Duties

In December 2018, we entered into a multi-year collaboration and license agreement with Tropical Melhoramento e Genetica S.A. (TMG) a major Brazilian developer and marketer of soybean varieties. The collaboration is dedicated to the development of nematode resistant soybean varieties using genome editing technologies.

Under the terms of the agreement, we utilize the CPB platform to identify genome edits to attribute nematode resistance in soybean and perform such edits on TMG's proprietary commercial soybean germplasm, resulting in edited seeds, which will be provided to TMG. In turn, TMG will validate the efficacy of the edited soybean varieties in greenhouse assays and field trials in Brazil and will incorporate the edited varieties in its breeding pipeline.

License Grants

Pursuant to the agreement, TMG obtains a worldwide, royalty-bearing license to incorporate genome edits originating from the collaboration in its soybean varieties. Evogene, on the other hand, obtains a non-exclusive, royalty-bearing license to commercialize the genome edits and soybean lines resulting from the collaboration, subject to certain exclusivity restrictions.

Consideration and Costs

According to the agreement, each party is entitled to receive royalty payments from the other party when the products of the collaboration are commercialized. In addition, Evogene received from TMG an up-front payment in consideration for its R&D costs and is entitled to success-based payments upon achievement of pre-defined development milestones.

IMAmt

Background and duties

In July 2018 we entered into a research and testing agreement with Instituto Matogrossense do Algodão (IMAmt), a crop research company, owned by Mato Grosso Cotton Grower Association, a leading developer and marketer of cotton seeds, with the objective of discovering and testing toxins against major cotton pests, such as the Cotton Boll Weevil and the Fall Armyworm, which threaten the viability of the cotton industry in Brazil.

According to the agreement, we will screen our extensive, already tested insecticidal gene database and select genes predicted to have desired insecticidal activity against Cotton Boll Weevil and Fall Armyworm, and IMAmt will validate their activity in lab assays against the target pests.

Consideration and Costs

Under the terms of the agreement, we are entitled to R&D funding from IMA for the initial discovery phase. Commercial arrangements for development and commercialization of the genes are subject to further agreement between the parties.

Intellectual Property

Our intellectual property rights are important to our business, as they generally determine our eligibility to receive royalties for seed traits under the licenses we grant our collaborators. We actively seek to protect the intellectual property and proprietary technology that we believe is important to the development of our business.

Our success will depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties.

To date, we have identified and sought patent protection for over 4,600 plant genes linked to traits such as improved yield and drought tolerance. These genes are currently protected through more than 220 patents and 225 national patent applications. In recent years we initiated a new type of patent submission referring to microbial genes as part of our insect control traits activities.

Government Regulation of Product Candidates

Regulatory approvals are required prior to the commercialization and importation of biotechnologically enhanced seeds in most countries. Most of the key target markets where we anticipate our collaborators will sell seeds containing our traits, including the United States, the European Union, Brazil and Argentina, will require such regulatory approvals prior to the commercialization of such products. Additional regulatory approvals will be required for countries importing grain produced from seeds containing our traits, such as China, India and certain countries in the European Union. Pursuant to our collaboration agreements in the field of seed traits, our collaborators will apply for all requisite regulatory approvals prior to commercialization of the product candidates we are developing with them.

Examples of regulatory approvals our collaborators may need to apply for include, in the United States, approvals required by the United States Department of Agriculture, or USDA, prior to the commercial sale of genetically modified products. The USDA's review and deregulation process for biotech products is costly and time-intensive, with no guarantee of success. In the United States, collaborators may also need to seek regulatory approval from the United States Environmental Protection Agency, or EPA, which regulates the marketing and use of new plant pesticides and herbicides. In addition, in Brazil, the commercialization of biotech products is regulated by the National Technical Commission of Biosafety, Comissão Técnica Nacional de Biossegurança or CTNBio under the Ministry of Science and Technology. The approval process involves data collection and analysis, environmental impact assessments and public hearings on certain products, and is similarly costly and time-intensive.

The regulatory status of products developed via genome editing technologies is currently unclear. In the United States, approvals are required by the United States Department of Agriculture, or USDA, prior to field testing of genomic edited seeds. A 'non-regulated organism' approval has been issued by the USDA for some products currently under development, however the regulatory status of all changes this technology allows, has yet to be determined.

Government Regulation of our Operations

Our business is subject to regulation related to agriculture, health and the environment. To operate, we must obtain various permits and licenses from government authorities and municipalities in our active jurisdictions, and we must maintain our compliance with the terms of those permits, licenses and other government standards as necessary. These laws and regulations, particularly in relation to biotechnology, are not fully settled, but continue to evolve in order to keep pace with technological advances.

As an Israeli company, our activities in the fields of biotechnology and plant genomics are regulated by the Israel Ministry of Agriculture and Rural Development, or ISARD, and more specifically by the ISARD's Plants Protection and Inspection Services, or PPIS. Our activities are subject to various laws, regulations, orders and procedures, which require us, among other things, to obtain permits for conducting experiments on genetically enhanced plants and to satisfy special conditions determined by the ISARD regarding the growing procedures of such seeds and plants. Violation of these regulations may expose the company to criminal penalties. Pursuant to these regulations, we are also obligated to obtain separate permits to own and operate our greenhouses and testing fields in Israel and we are routinely inspected by ISARD.

Raw Materials

We do not significantly rely upon any sources of raw materials for our operations.

Seasonality

Our seed traits business in general, and our revenues in particular, are not subject to variations based on crop seasonality. Our revenues from our seed traits business are generated from our strategic collaborations, based on research and development and milestone payments as the seed traits we discover advance in the product development pipeline of our collaborators, and are therefore not season-dependent.

Subsidiaries

Biomica

Overview

In 2017, we established Biomica, a subsidiary focused on the discovery and development of innovative human microbiome-based therapeutics.

The human microbiome is an array of more than 100 trillion microorganisms that live on and in our bodies, creating a community of symbiotic, commensal and pathogenic bacteria, all of which call the human body home. These microbes have numerous beneficial functions relevant to supporting life, such as digesting food, preventing disease-causing pathogens from invading the body, and synthesizing essential nutrients and vitamins. Numerous studies have shown the connection between the human microbiome and various medical disorders, and the search for microbiome therapies and treatments is a rapidly growing focus for biotherapeutics research and development.

Biomica focuses on the development of human-microbiome based therapies utilizing either rationally-designed microbial consortia or small molecule approaches for (i) antibiotic resistant bacteria (Clostridium Difficile Infection - CDI), (ii) immuno-oncology and (iii) GI related disorders.

Market

Biomica's product development is currently focused in three main markets:

Clostridium Difficile Infection (CDI) – The US Center for Disease Control (CDC) has identified CDI as one of the top three most urgent antibiotic-resistant bacterial threats in the United States. CDI is most often caused by the use of broad spectrum antibiotics which induce dysbiosis of the microbiome causing susceptibility to infection by C. difficile, a spore forming bacterium. It is the most common cause of hospital acquired infection in the United States and has overtaken methicillin-resistant Staphylococcus aureus (MRSA).

CDI is responsible for the deaths of approximately 29,000 Americans each year. Based on an epidemiological study conducted by the CDC, the incidence of CDI in the US, was estimated to be over 600,000. CDI space across the seven major markets of the US, France, Germany, Italy, Spain, the UK and Japan, is set to grow from just under $630 million in 2016 to almost $1.7 billion by 2026, representing a compound annual growth rate of 10.2%. Global Clostridium difficile infections market to approach $1.7 billion by 2026.[7]

Immune-Oncology – In oncology, checkpoint inhibitor antibodies, including those targeting the programmed cell death protein/ligand 1, or PD-1/PD-L1 pathways, block the tumor's ability to suppress the immune response. They have significantly improved the treatment of many cancers and are expected as a class to reach peak annual net sales of $30 billion by 2025.

Even in cancers, where checkpoint inhibition is considered the frontline standard of care, a significant percentage of the patients do not respond to PD-1 + CTLA-4 inhibitor combination and part of responders relapse within a few years. In all approved cancer indications, agents with differentiated immune mechanisms of action may be complementary to checkpoint inhibitors by both augmenting existing effects and testing alternative pathways of immunotherapy in checkpoint inhibitor non-responsive tumor types and patients.

Given a growing body of literature, it is becoming increasingly clear that modulation of the gut microbiota may represent a novel and important adjunct to current anti-cancer therapeutic modalities. Sales of the PD-1/PD-L1 therapy class have grown from $84 million in 2014 to $6.3 billion in 2016, and it is expected to grow at a compound annual growth rate, or CAGR, of 23.4% from 2017 to 2025. Checkpoint inhibitors are projected to generate $30 billion in revenues by 2025.[8]

GI related disorders –

- *Irritable Bowel Syndrome (IBS)*, a common disorder that affects the large intestine. Signs and symptoms include cramping, abdominal pain, bloating, gas, and diarrhea or constipation, or both. It is estimated that the total market for IBS will reach $1.5 billion by 2023, with 45 million patients in the US alone. Existing drugs for IBS mainly treat the symptoms of the condition, leaving patients exposed to cycles of remission and relapse that characterize this chronic condition.[9]

- *Inflammatory Bowel disease (IBD)* is a group of gastrointestinal inflammatory diseases, mainly comprised of Ulcerative colitis and Crohn's disease. Inflammatory bowel diseases cause long terms chronic as well as severe inflammation in the gastrointestinal tract without any known cause. According to the Center for Disease Control and Prevention (CDC), in 2015 an estimated 3.1 million people (1.3% of the entire population) in the United States were diagnosed either with Crohn's disease or with Ulcerative Colitis. The global inflammatory bowel diseases (IBD) drug market is estimated to grow from $6.7 billion in 2017 to $7.6 billion in 2023.[10]

[7] https://www.globaldata.com/global-clostridium-difficile-infections-market-approach-1-7-billion-2026/

[8] https://www.prnewswire.com/news-releases/global-492-billion-programmed-death-1-pd-1--programmed-death-ligand-1-pd-l1-inhibitors-pipeline-analysis-2017-2025---research-and-markets-300422553.html; https://markets.businessinsider.com/news/stocks/pd-1-pd-l1-inhibitors-market-report-2017-sales-of-the-pd-1-pd-l1-therapy-class-have-grown-from-84m-in-2014-to-6-292m-in-2016-1012901702.

[9] https://www.drugstorenews.com/pharmacy/ibs-market-reach-15-billion-2023/

[10] https://www.prnewswire.com/news-releases/the-global-inflammatory-bowel-diseases-ibd-drug-market-is-estimated-at-6-7bn-in-2017-and-7-6bn-in-2023--300688523.html

Competition

The biotechnology and pharmaceutical industries are characterized by rapid growth and a dynamic landscape of proprietary therapeutic candidates. The development and commercialization of new drug and biologic products is highly competitive and is characterized by rapid and substantial technological development and product innovations. While we believe that our computational platform and microbial drug candidates, coupled with our resources and industry expertise, give us a competitive advantage in the field, we face competition from a variety of institutions, including larger pharmaceutical companies with more resources. Specialty biotechnology companies, academic research institutions, governmental agencies, as well as public and private institutions are also potential sources of competitive products and technologies.

In both inflammatory diseases and oncology, we anticipate intensifying competition as new therapies are approved and advanced technologies become available. Many of our competitors, either alone or with strategic partners, have considerably greater financial, technical, and human resources than we do.

Significant competition exists in the immuno-oncology & inflammatory diseases field, where we are developing our first product candidates in oncology and IBD. Although our rationally-designed microbial consortium approach is unique relative to most other existing or investigational therapies in immuno-oncology, we will need to compete with all currently or imminently available therapies within the indications where our development is focused. Although there is a wide range of potentially competitive mechanisms, possible synergies between these and rationally-designed microbial consortia will also be evaluated.

Business Model

Our goal (through Biomica) is to become a leading biopharmaceutical company developing and commercializing microbiome therapeutics to address significant unmet medical needs, through strategic collaborations with world-leading pharmaceutical companies.

Product Development Programs

Scientific Approach

Biomica aims to identify unique microbiome-based therapeutic entities through multilayered analysis and integration of high resolution big-data originating from the human gut microbiome. Employing a holistic approach, we combine a profound understanding of the microbiome and its functions and their intricate relations with the human host.

Biomica’s approach relies on a multi-layered analysis of omic and clinical / phenotypic data using an extensive nexus of modules in four key areas: (i) Creation of microbial classifications – enabling high-resolution taxonomy analysis of the microbial community down to the strain level, (ii) Identification of microbial functions – functional-level microbial community analysis profiling microbial genes, pathways and metabolites, (iii) Identification of host genomics – profiling of patients' genomic information (genetics and expression patterns), and (iv) Clinical data – integrate relevant phenotypic and physiological information manifested in patient.

Biomica's discovery and development efforts are powered by *PRISM* (Predictive, high Resolution, Integrative Selection of Microbes) platform, a facet of Evogene's CPB platform. *PRISM* is a proprietary metagenomics analysis platform for functional genomics profiling, utilizing internal comprehensive databases. These databases have been specifically developed to allow the processing of large amounts of sequencing data, obtain high-resolution profiling of microbial communities both at the taxonomic and the functional levels, and correlate them with specific clinically relevant host expression and phenotypic profiles, enabling us to achieve the following:

- At the taxonomic level our analysis allows strain-level resolution and relies on an extensive proprietary strain database.
- At the functional level, our proprietary resources rely on a comprehensive catalog of microbial genes enabling mapping of an average of 90% of the functions of the human gut microbiome obtained through metagenomics sequencing.

In addition to its comprehensive computational solutions to profile the microbiome, Biomica utilizes Evogene's *PointHit* platform for virtual screening of small molecular inhibitors to specifically target bacterial proteins of interest. This platform combines the physiochemical requirements for binding a specific protein target and utilizes a comprehensive proprietary database of roughly 200 million small-molecules for the discovery of potential therapeutics.

Product Development Pipeline

We expect to promote part of our discovery stage programs for Biomica to pre-clinical Proof-of-Concept (POC) studies in 2019.

Clostridium Difficile Infection (CDI) – Using our microbiome therapeutics platform, we are developing a small-molecule drug candidate (BMC201), designed to target the main toxin secreted by the bacterium and hence repair dysbiosis in the colonic microbiome in the setting of primary or recurrent CDI. BMC201 is being developed as an orally available drug.

Immune-Oncology – Using our computational analysis and predictive capabilities we identified BMC121 and BMC127: potent rationally-designed consortiums with potential to enhance immunologic therapeutic responses and facilitate anti-tumor immune activity.

GI disorders - IBD and functional GI and motility disorders (e.g., IBS). Using our computational predictive biology capabilities we identified BMC321: a rationally-designed microbial consortium with potential anti-inflammatory activity in IBD. For IBS we utilize proprietary data from several clinical trials conducted in the US to develop a novel microbiome based drug. Biomica aims to push the barriers posed by existing therapies and address the underlying cause of the disorder, rather than the symptoms, using bacteria/bacterial-associated factors affecting symptoms and underlying pathophysiology.

Intellectual Property

We aim to protect the proprietary intellectual property that we believe is important to our Biomica business, including seeking international patent protection for our product candidates and promptly file patent applications for new commercially valuable inventions of our Biomica business. We also rely on trade secrets to protect aspects of our Biomica business that we do not consider appropriate for patent protection. Our success with Biomica will depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, as well as defend and enforce any patents that we may obtain.

Raw Materials

Biomica does not significantly rely upon any sources of raw materials for its operations.

Seasonality

Biomica's business in general is not subject to variations based on seasonality.

Government Regulation of our Operations

The FDA and other regulatory authorities at federal, state and local levels, as well as in other countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring and post-approval reporting of drugs and biologics such as those Biomica is developing. We, along with our contract manufacturers, will be required to navigate the various preclinical, clinical and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval for our product candidates. The process of obtaining regulatory approvals and ensuring subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources.

Government Regulation of Product Candidates

The development of therapeutic products targeting the underlying biology of the human microbiome is an emerging field, and it is possible that the FDA and other regulatory authorities could issue regulations or new policies in the future affecting our microbiome therapeutics that could adversely affect our product candidates. All of our product candidates are based on microbiome therapy, a therapeutic approach that is designed to treat disease by restoring the function of a dysbiotic microbiome. We have not, nor to our knowledge has any other company, received regulatory approval for a therapeutic based on this approach.

Evofuel

Overview

In 2007, Evogene initiated its activities related to castor beans, which were spun-off in 2012 as Evofuel, a wholly owned subsidiary. Evofuel focuses on the development of advanced high-yielding castor bean varieties that are non-GM and that can serve for industrial uses, such as bio-polymers and lubricants. Our initial target market is Latin America, particularly Brazil, Argentina and Mexico, where large scale castor agriculture is well established.

We aim to achieve the development of high-yielding castor bean varieties by developing castor beans into a modernized crop and by introducing new protocols for growth.

Market

Castor beans are grown today for their high-quality oil, which is used for the production of bio-polymers and lubricants for various industries such as the cosmetics, electronics, automotive and aerospace industries, to name a few.

Currently treated as a "low-tech" crop in its key production areas around the world (for example, in India the castor bean is grown using traditional techniques such as hand picking), according to industry estimations, the castor oil extracted from the castor bean plant may hold great promise as an input for industrial markets. The market for castor oil and its derivatives is rapidly growing and according to market publications, is expected to reach $2.3 billion by 2024[11]. The growth in this market is expected to be further supported by the conversion of the castor bean plant to a modernized commercial crop.

Competition

Evofuel's competition includes a few other relatively small companies that supply castor seeds to growers worldwide. Evofuel differentiates itself by providing rain-fed varieties while its competitors offer irrigation-based varieties.

Business Model

Evofuel's business model is to sell proprietary improved castor seed varieties, together with targeted agro-technical growth protocols, to castor growers. These seed varieties and growth protocols are adapted and targeted to localized characteristics.

[11] Grand View Research, August 2016, http://www.grandviewresearch.com/industry-analysis/castor-oil-derivatives-industry.

Product Development Programs

Scientific approach

We believe that by leveraging our advanced breeding capabilities and methods we can turn castor into a modernized crop. Our offering includes: (i) high yielding varieties with plant structure suitable for mechanized harvest; and (ii) best practices and recommendations to growers on how to grow castor efficiently in large scale.

Product development pipeline

We develop proprietary castor seed varieties and growth protocols adapted to specific target markets. During 2018, we completed semi-commercial field trials of certain castor varieties with partners in multiple target locations.

Product development cycle

The castor seeds product development process includes three main steps: (i) research and pre-breeding, which we typically undertake in Israel and which takes between one to two years, resulting in experimental varieties for market location trials; (ii) yield field trials in the target markets, which take between two to four years and yield varieties for pre-commercial field trials; and (iii) semi-commercial field trials, which take approximately two years in the target markets.

Key Collaborations

We have entered into collaboration agreements with leading companies in our targeted markets.

Castor Oil Argentina

In October 2016, we entered into a three-year collaboration agreement with Castor Oil Argentina S.A., or CASA, an Argentinian corporation aiming to establish a castor oil industry in Argentina, to evaluate the performance of Evofuel's castor varieties in CASA's fields in Argentina, as well as share agronomic know-how.

Domrep Energia

In March 2017, we entered into a three-year collaboration agreement with Domrep Energia srl, or Domrep, a Dominican Republic corporation engaged in the development of conventional and renewable energy projects in Latin America and Caribbean regions to evaluate the performance of Evofuel's castor varieties in Domrep's fields in the Dominican Republic, as well as share agronomic know-how.

Fantini s.r.l.

In October 2018, we announced a breakthrough achieved in the mechanical harvesting of castor beans with Fantini s.r.l., a leading manufacturer and distributor of agricultural equipment. The lack of an available solution for mechanical harvesting has been a major challenge in the conversion of castor bean to a fully modernized commercial crop, and the combination of the Fantini s.r.l Harvester with Evofuel's proprietary varieties demonstrated significant improvement in yield loss in field trials.

The new mechanical harvester is being developed by a consortium of Evofuel and Fantini s.r.l, together with CASA, and *BioFields SAPI de CV*, a Mexican company focused on delivering innovative castor-based bio-products.

The harvester will be commercialized by Fantini s.r.l to Evofuel's global partners.

Intellectual Property

Our policy is to register relevant castor varieties in the destination territories. To date we have registered, and are in the process of registering, several of our varieties in several Latin America countries.

Government Regulation of our Operations

Evofuel's activities in the field of seeds, are regulated by the Ministry of Environmental Protection. Pursuant to these regulations, we are required, among other things, to (i) obtain toxins permits, which allow us to conduct experiments using "hazardous materials," as such term is defined in the applicable regulations, and (ii) follow specific rules regarding waste disposal. Violation of these regulations may expose the company to criminal penalties, administrative sanctions and responsibility to compensate those injured for any environmental damages.

Government Regulation of Product Candidates

All seed production designated for export to our partners is subject to field and warehouse inspection by the regulator in the country of destination for compliance with the local regulations, including sampling and inspection for pests and diseases.

Raw Materials

We do not significantly rely upon any sources of raw materials for our operations.

Seasonality

Our castor business in general, and our revenues in particular, generated from our collaborations with castor growers, are subject to variations based on crop seasonality. The timing of our seed production field trials, as well as the delivery of castor seeds to our partners and revenue recognition with respect to such seed sales, derive substantially from the seasonality of castor growing in the locations where we produce seeds and in our target markets.

Canonic

In April 2019, we announced the establishment of a new subsidiary, Canonic Ltd. for the development of next-generation medical cannabis products.

During 2018, Evogene evaluated the medical cannabis field, including market evaluation, obtaining governmental approvals for its research program and the establishment of a research facility, technology assessment and initial product line planning. Canonic's current workplan focuses on three main product types, through a non-GMO approach: (i) high metabolite yield cannabis varieties; (ii) stable varieties with consistent metabolite performance; and (iii) cannabis varieties with a unique metabolite profile tailored to specific medical indications. The indications that the company will currently address are post-traumatic stress disorder (PTSD), severe chronic pain and cancer.

C. Organizational Structure

As of the date of this report, we held directly and indirectly the percentage indicated of the outstanding capital stock of the following subsidiaries:

Name of Subsidiary	Jurisdiction	Ownership Interest
AgPlenus Ltd.	Israel	100%
Biomica Ltd.	Israel	90.9% (1)
Canonic Ltd.	Israel	100%
Evofuel Ltd.	Israel	100%
Evogene Inc.	Delaware	100%
Lavie Bio Ltd.	Israel	100%

(1) Remaining 9.1% of Biomica Ltd.'s outstanding share capital is held by Biomica's Chief Technology Officer.

D. Property, Plants and Equipment

Our principal facility is located in Rehovot, Israel and consists of 3,209 square meters (approximately 34,500 square feet) of leased office space accommodating our corporate offices and our molecular, microbial and crop protection labs. The lease for these offices and labs has been recently extended and will expire on December 31, 2021, and we hold an option to renew such lease for an additional 36 months.

We perform most of our research and plant validation work at our "Evogene Farm," located on two adjacent lots that we lease outside Rehovot. The first lease covers approximately 13,500 square meters (or approximately 145,000 square feet) of land, and expires on July 21, 2025, and we hold an option to renew such lease for an additional 36 months. The second lease covers approximately 10,000 square meters (approximately 108,000 square feet) of land and expires on May 14, 2021, and we hold an option to renew such lease for an additional 60 months. The Evogene Farm contains greenhouses, which are used for gene validation in model and target plants, plant propagation, and plant nurseries. In addition, the Evogene Farm contains warehouses, office facilities and seed banks. In January 2018, we entered a three year sublease of a portion of the leased space, comprising approximately 8,200 square meters (approximately 88,000 square feet) of land, with an agriculture-tech start-up company.

In 2015, we established a research and development facility in the Bio-Research and Development Growth (BRDG) Park, developed by Wexford Science & Technology, a BioMed Realty Company, at the campus of the Donald Danforth Plant Science Center in St. Louis, Missouri. We signed a six year lease, expiring November 1, 2021 and covering approximately 5,745 square feet lab facility to accommodate our insect resistance research. In December 2017, we entered a three-year sublease of a portion of the leased space with a biotech company, comprising approximately 1,200 square feet of lab and office space.

During 2019, we intend to convert part of the Evogene Farm to growing cannabis as part of the activities of Canonic, our newly established subsidiary in the area of medical cannabis, at an estimated cost ranging from $600,000 to 700,000.

Unless otherwise stated, all of our facilities are fully utilized. We have no material tangible fixed assets apart from the leased properties described above.

ITEM 4A. UNRESOLVED STAFF COMMENTS

There are no unresolved staff comments.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The information contained in this section should be read in conjunction with our consolidated financial statements for the year ended December 31, 2018 and related notes and the information contained elsewhere in this annual report. Our financial statements have been prepared in accordance with IFRS as issued by the IASB. This discussion contains forward-looking statements that are subject to known and unknown risks and uncertainties. As a result of many factors, such as those set forth under "Item 3. Key Information—D. Risk Factors" and "Special Note Regarding Forward-Looking Statements," our actual results may differ materially from those anticipated in these forward-looking statements.

Summary

We are a biotechnology company developing novel products for life science markets through the use of a proprietary Computational Predictive Biology (CPB) platform. The CPB platform represents a revolutionary approach for product development in life science industries by computationally decoding the biological world. Our unique approach is accomplished by computationally decoding the biological world. Our unique approach is accomplished by computationally identifying and integrating the critical biological criteria for a successful product upon initiation of a program.

We currently apply this approach to three general areas:

(i) Agriculture, where we develop improved seed traits, ag-chemical products and ag-biological products. In 2018, these product development efforts were organized according to three product-oriented core activity divisions: ag-seeds, ag-chemicals, and ag-biologicals. In November 2018 we announced that our ag-chemicals activity is being transferred to a new subsidiary – AgPlenus Ltd., and in February 2019 we announced that our ag-biologicals activity is being transferred to a new subsidiary – Lavie Bio Ltd;

(ii) Human health, focusing on human microbiome based therapeutics, through our subsidiary Biomica Ltd.; and

(iii) Life-science based industrial applications, currently focusing on castor seed varieties and agro-technical capabilities, through our subsidiary Evofuel Ltd.

In addition, in April 2019 we announced that we will develop next generation medical cannabis products through a new subsidiary, Canonic Ltd.

In each of our subsidiaries and divisions, we decide upon our commercialization approach, according to which we proceed with our research and development activities independently or initiate collaborations for the co-development of our product candidates. For example, in ag-biologicals, we defined two main models for accessing the targeted end market: (i) direct market access – in fragmented markets, such as high value specialty crops markets, we expect to complete product development independently, and then establish a tailored market access strategy with respect to specific products and territories; and (ii) indirect market access – where the target market is dominated by large companies, we expect to gain market access through collaborations with leading industry partners. In recent years our relative investment in independent research and development activities has gradually increased, from 74% of total research and development investment in 2016, to 86% in 2017, and 91% in 2018. We are still in the development stages and no product has been commercialized based on our discoveries.

Key Measures of Our Performance

Revenues

Our revenues are principally derived from research and development payments under our collaboration agreements and related arrangements with our collaborators. Revenues from our collaboration with Monsanto (now Bayer) accounted for approximately 38% of our revenues for the year ended December 31, 2018. See "Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Seeds Division—Key Collaborations." We have not yet generated any revenues from our ag-biologicals business and Biomica. Most of our agreements with collaborators also provide for success-based payments, such as milestone payments paid by our collaborators upon the occurrence of certain specified events and royalty revenues based on the sales or transfer of products our collaborators develop that contain, or are based on, our discoveries, which we license to them. We have not yet generated revenues from royalty payments.

Payments

Under our collaboration agreements and related arrangements, our revenues, principally derived from research and development services, are paid to us in one or more of the following different forms of payment:

On-Going Payments

On-going payments for research and development services are payments we receive from our collaborators as consideration for the research and development services we provide to them.

In accordance with the terms of the relevant agreements, these payments are recognized as revenues either over the duration of the relevant contract based on the proportion of actual costs incurred for each reporting period to the estimated total costs of the collaboration, or at certain specific time points. Revenues from payments for research and development services performed under our collaboration agreements, amounted to $1.6 million and accounted for approximately 94% of our total revenues for the year ended December 31, 2018.

Up-front Payments

We also receive a portion of our revenues as up-front payments made under our agreements with our collaborators. Up-front payments primarily represent payments we received upon entering into collaboration agreements for research and development services.

In accordance with the terms of the relevant agreement, up-front payments are recognized either as revenues over the duration of the relevant contract based on the proportion of actual costs incurred for each reporting period to the estimated total costs of the collaboration or at certain specific time points.

Share Purchases

We also entered into share purchase agreements with Monsanto and Bayer, which were signed in contemplation of our collaboration agreements with them. We attribute the proceeds from arrangements under these agreements to the value of our ordinary shares issued to Monsanto and Bayer at the time of the investments as well as to the services we perform under the collaboration agreements. As a result, we recognize as revenues the excess payment, which is the consideration investors paid for our ordinary shares over the market value of our ordinary shares traded on the TASE at the time of the investment. We did not record such revenues for the year ended December 31, 2018.

Breakdown of Revenues by Business Activity:

The following table presents breakdown of net revenues by business activity as a percentage of net revenues for the periods indicated.

	Year ended December 31,		
Operating Segment:	**2018**	**2017**	**2016**
Evogene	$ 1,641	$ 3,247	$ 6,540
Evofuel	106	134	-
Biomica	-	-	-
Total	**1,741**	**3,381**	**6,540**

Geographical Breakdown of Revenues

The following table presents net revenues by geographic breakdown of customers as a percentage of net revenues for the periods indicated. This data refers to the location of the customer and does not take into consideration the location of the end-user (to the extent it is different).

	Year ended December 31,		
Geographical Region:	**2018**	**2017**	**2016**
United States	57%	76%	89%
Germany	13%	10%	11%
Israel	12%	6%	-
Other	18%	8%	-
Total	**100%**	**100%**	**100%**

Cost of Revenues

Cost of revenues primarily consists of development costs incurred in conjunction with our collaborations, which include salaries and related personnel costs (including share-based compensation) for our research and development employees working on the collaborations, payments to third party suppliers that assist us in producing genomic data and the cost of disposable materials (such as seeds, laboratory supplies, fertilizer, water and soil). Cost of revenues also includes operational overhead costs such as depreciation of our property, plant and equipment, costs related to leasing and operating our office and laboratory facilities and greenhouses and expenses related to retaining advisors, which primarily consist of biological experts.

Operating Expenses

Research and Development Expenses: Research and development expenses primarily consist of costs related to our internal or independent research and development activities, as opposed to development costs incurred in connection with our collaborations (which are included in cost of revenues). These activities include developing and improving our computational, scientific and validation technologies, know-how and capabilities used by our product divisions as well as research and development conducted mainly under our ag-chemicals, ag-biologicals, seeds and Biomica operations. Research and development costs include salaries and related personnel costs (including share-based compensation), payments to third party suppliers mainly with respect to producing genomic data, cost of disposable materials, expenses associated with participation in professional conferences, operational overhead costs, which include costs related to leasing and operating our office, laboratory facilities and greenhouses, and depreciation of property, plant and equipment. Expenses related to our intellectual property, such as legal and other costs associated with patent applications, are also included as research and development expenses. We expect that our research and development expenses will remain at the current level during 2019.

Business Development Expenses: Business development expenses consist of costs primarily related to maintaining our relationships with our collaborators and establishing new collaborations. These costs include salaries and related personnel costs (including share-based compensation), expenses incident to business travel, legal and professional services. We expect our business development expenses will remain at the current level during 2019.

General and Administrative Expenses: General and administrative expenses mainly include salaries and related personnel costs (including share-based compensation) for our general and administrative employees, HR activities and employee benefits and welfare, consulting, insurance, legal and professional services and other expenses associated with being a U.S. listed entity. We expect that our general and administrative expenses will remain at the current level during 2019.

Financing Income and Expenses

Financing income consists primarily of interest income on our cash bank deposits and securities, income related to a revaluation of the marketable securities we hold, which consist of corporate bonds and government treasury notes, and foreign currency exchange income. Financing expenses consist primarily of expenses related to bank charges and commissions, expenses related to a revaluation of the marketable securities we hold, and foreign currency exchange expense. The interest due on government grants is also considered a financial expense and is recognized beginning on the date on which we receive the grant until the date on which the grant is expected to be repaid.

Taxes on Income

We do not generate taxable income in Israel, as we have historically incurred operating losses resulting in carryforward tax losses totaling approximately $91 million as of December 31, 2018, to be carried forward indefinitely to future tax years. Accordingly, we do not expect to pay taxes in Israel until we have taxable income after the full utilization of our carryforward tax losses.

Our U.S. subsidiary, Evogene Inc., is subject to U.S. income taxes. In 2018, the weighted tax rate applicable to Evogene Inc. was approximately 27.5% (federal tax and state tax where the company operates).

Segment Data

We divide our operations into three operating segments – Evogene, Evofuel and Biomica, as follows:

§ *Evogene*: Our Evogene segment includes our division and subsidiaries engaged in agricultural activities, including seed traits activity, ag-chemicals activity (now through our subsidiary AgPlenus) and ag-biologicals activity (now through our subsidiary Lavie Bio).

§ *Evofuel*: Our Evofuel segment focuses on the development and commercialization of improved castor bean seeds for industrial uses.

§ *Biomica:* Our Biomica segment focuses on discovery and development of human microbiome-based therapeutics.

The following table presents our revenues and operating loss by segment for the periods presented:

	Evogene	Evofuel	Biomica	Total
	(in thousands)			
Year ended December 31, 2018				
Revenues	$ 1,641	$ 106	$ -	$ 1,747
Operating loss	(18,473)	(453)	(1,063)	(19,989)
Year ended December 31, 2017				
Revenues	3,247	134	-	3,381
Operating loss	(21,430)	(313)	(204)	(21,947)
Year ended December 31, 2016				
Revenues	6,540	-	-	6,540
Operating loss	(20,168)	(921)	-	(21,089)

A. Operating Results

Comparison of Period-to-Period Results of Operations

The following table sets forth our results of operations as a percentage of revenues for the periods indicated:

	Year Ended December 31,					
	2016		2017		2018	
	Amount	% of Revenues	Amount	% of Revenues	Amount	% of Revenues
	(in thousands)					
Consolidated Statements of Comprehensive loss:						
Total Revenues	$ 6,540	100%	$ 3,381	100%	$ 1,747	100%
Cost of revenues	5,639	86.2	2,845	84.1	1,452	83.1
Gross profit	901	13.8	536	15.9	295	16.9
Operating Expenses:						
Research and development, net	16,405	250.8	16,987	502.4	14,686	840.6
Business development	1,696	25.9	1,686	49.9	2,084	119.3
General and administrative	3,889	59.5	3,810	112.7	3,514	201.1
Total operating expenses	21,990	336.2	22,483	665	20,284	1,161.1
Operating loss	(21,089)	(322.5)	(21,947)	(649.1)	(19,989)	(1,144.2)
Financing income	2,424	37.1	2,125	62.9	1,413	80.9
Financing expenses	(891)	(13.6)	(1,005)	(29.7)	(2,206)	(126.3)
Loss before taxes on income	(19,556)	(299.0)	(20,827)	(616.0)	(20,782)	(1,189.6)
Taxes on income	36	0.6	11	0.3	30	1.7
Loss	$ (19,592)	(299.6)	$ (20,838)	(616.3)	$ (20,812)	(1,191.3)

Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

Revenues

Our total revenues decreased by $1.7 million, or 48.3%, to $1.7 million for the year ended December 31, 2018 from $3.4 million for the year ended December 31, 2017. This decline is mainly due to the advancement of our collaboration agreement with Monsanto, from gene discovery to pre-development efforts, resulting in reduction of activity scope. Such decline also contributed to the decline in our gross profit.

Revenues primarily consist of research and development payments, reflecting R&D cost reimbursement under our collaboration agreements. The majority of these agreements also provide for development milestone payments and royalties or other forms of revenue sharing from successfully developed product.

Cost of Revenues

Cost of revenues decreased by $1.3 million, or 49.0%, to $1.5 million for the year ended December 31, 2018 from $2.8 million for the year ended December 31, 2017. The decrease related primarily to the decrease in revenues from R&D cost reimbursement.

Gross Profit

Gross profit decreased by $0.2 million, or 45.0%, to $0.3 million for the year ended December 31, 2018 from $0.5 million for the year ended December 31, 2017.

Operating Expenses

Research and Development Expenses, net. Research and development expenses decreased by $2.3 million, or 13.5%, to $14.7 million for the year ended December 31, 2018 from $17.0 million for the year ended December 31, 2017. This decrease in large part reflects operating efficiencies achieved as a result of the ongoing implementation of our new corporate structure, which was initiated at the beginning of 2018.

Business Development Expenses. Business development expenses increased by $0.4 million, or 24%, to $2.1 million for the year ended December 31, 2018 from $1.7 million for the year ended December 31, 2017. This increase in large part reflects the business development efforts resulting from the implementation of our new corporate structure.

General and Administrative Expenses. General and administrative expenses decreased by $0.3 million, or 7.8%, to $3.5 million for the year ended December 31, 2018 from $3.8 million for the year ended December 31, 2017.

Financing Income and Expenses

Financing Income. Financing income decreased by $0.7 million, or 33.5%, to $1.4 million for the year ended December 31, 2018 from $2.1 million for the year ended December 31, 2017. This decrease is due to the decrease in the interest received on Company's funds.

Financing Expenses. Financing expenses increased by $1.2 million, or 119.5%, to $2.2 million for the year ended December 31, 2018 from $1.0 million for the year ended December 31, 2017. The increase is mostly due to the conversion of US dollar-denominated marketable securities to NIS.

Taxes on Income

We did not record or pay taxes on income for the year ended December 31, 2018 in Israel due to our loss for the year. We recorded an insignificant amount of taxes with respect to Evogene Inc.

Year Ended December 31, 2017 Compared to Year Ended December 31, 2016

Revenues

Our total revenues decreased by $3.1 million, or 48.3%, to $3.4 million for the year ended December 31, 2017 from $6.5 million for the year ended December 31, 2016.

Revenues primarily consisted of research and development payments, reflecting R&D cost reimbursement under certain of our collaboration agreements. The majority of these agreements also provide for development milestone payments and royalties or other forms of revenue sharing from successfully developed product candidates, and therefore, longer term, we anticipate that our future revenues and profitability will largely reflect the receipt of such payments from existing and future collaborations.

The decline in revenues reflects the net decrease in research and development cost reimbursement, in accordance with the work plans under Evogene's various collaboration agreements. This decline was mainly due to the advancement of our collaboration agreement with Monsanto, from gene discovery to pre-development efforts, resulting in reduction of activity scope.

Cost of Revenues

Cost of revenues decreased by $2.8 million, or 49.5%, to $2.8 million for the year ended December 31, 2017 from $5.6 million for the year ended December 31, 2016. The decrease related primarily to the decrease in revenues from R&D cost reimbursement.

Gross Profit

Gross profit decreased by $0.4 million, or 40.5%, to $0.5 million for the year ended December 31, 2017 from $0.9 million for the year ended December 31, 2016. This decrease was mainly a result of the decrease in the activity under our collaborations, as described above.

Operating Expenses

Research and Development Expenses, net. Research and development expenses increased by $0.6 million, or 3.5%, to $17.0 million for the year ended December 31, 2017 from $16.4 million for the year ended December 31, 2016.

Business Development Expenses. Business development expenses remained stable at $1.7 million for the year ended December 31, 2017 and for the year ended December 31, 2016, as the Company continued its business development activities.

General and Administrative Expenses. General and administrative expenses decreased by $0.1 million, or 2.0%, to $3.8 million for the year ended December 31, 2017 from $3.9 million for the year ended December 31, 2016.

Financing Income and Expenses

Financing Income. Financing income decreased by $0.3 million, or 12.3%, to $2.1 million for the year ended December 31, 2017 from $2.4 million for the year ended December 31, 2016. This decrease is due to relatively high capital gains derived mainly from the company's marketable securities in the first half of 2016.

Financing Expenses. Financing expenses increased slightly by $0.1 million, or 12.8%, to $1.0 million for the year ended December 31, 2017 from $0.9 million for the year ended December 31, 2016.

Taxes on Income

We did not record or pay taxes on income for the year ended December 31, 2017 in Israel due to our loss for the year. We recorded an insignificant amount of taxes with respect to Evogene Inc.

Application of Critical Accounting Policies and Estimates

Our accounting policies affecting our financial condition and results of operations are more fully described in our consolidated financial statements included elsewhere in this annual report. The preparation of our financial statements requires management to make judgments, estimates and assumptions that affect the amounts reflected in the consolidated financial statements and accompanying notes, and related disclosure of contingent assets and liabilities. We base our estimates upon various factors, including past experience, where applicable, external sources and on other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making 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, and could have a material adverse effect on our reported results.

In many cases, the accounting treatment of a particular transaction, event or activity is specifically dictated by accounting principles and does not require management's judgment in its application, while in other cases, management's judgment is required in the selection of the most appropriate alternative among the available accounting principles, that allow different accounting treatment for similar transactions.

We believe that the accounting policies discussed below are critical to our financial results and to the understanding of our past and future performance as these policies relate to the more significant areas involving management's estimates and assumptions. We consider an accounting estimate to be critical if: (1) it requires us to make assumptions because information was not available at the time or it included matters that were highly uncertain at the time we were making our estimate; and (2) changes in the estimate or different estimates that we could have selected may have had a material impact on our financial condition or results of operations.

Revenue Recognition

We recognize revenues when the control over the goods or services is transferred to the customer. The transaction price is the amount of the consideration that is expected to be received based on the contract terms, excluding amounts collected on behalf of third parties (such as taxes).

We have entered into collaboration agreements under which we grant to our collaborators an exclusive license to intellectual property rights for the development and commercialization of our proprietary product candidates. The agreements contain multiple performance obligations, including funding from periodic payments for research and development services, payments based on achievement of specified milestones and royalties on sales of products sold by our collaborators that include the licensed traits.

Revenues from research and development services as part of the Company's collaboration agreements are recognized over time, during the period the customer simultaneously receives and consumes the benefits provided by the Company's performance. Recognition of the service is throughout the services period and is determined based on the proportion of actual costs incurred for each reporting period to the estimated total costs, subject to the enforceable rights. The Company charges its customers based on payment terms agreed upon in specific agreements. When payments are made before or after the service is performed, the Company recognizes the resulting contract asset or liability.

Revenues from milestone events stipulated in the agreements are recognized upon the occurrence of event or achievement of the milestone specified in the agreement.

Share-Based Compensation

We account for share-based compensation in accordance with the fair value recognition provision of IFRS guidance on share-based compensation. Under these provisions, share-based compensation is measured at the grant date based on the fair value of the award and is recognized as an expense, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. Share-based compensation expense was $1.7 million in 2018. We selected the binomial option-pricing model as the most appropriate method for determining the estimated fair value of our share-based compensation. The determination of the grant date fair value of options using an option-pricing model is affected by estimates and assumptions regarding a number of complex and subjective variables. These variables include the estimated period of time that we expect employees to hold their options, the expected volatility of our share price over the expected term of the options (estimated using historical data from prior years, including historical forfeiture rates), share option exercise and cancellation behaviors, risk-free interest rates, expected dividend yields (assumed to be zero as we have historically not paid and do not intend to pay dividends on our ordinary shares) and the price of our ordinary shares. In addition, our compensation expense is affected by our estimate of the number of awards that will ultimately vest. In the future, if the number of equity awards that are forfeited by employees is lower than expected, the expense recognized in future periods will be higher.

Government Grants

Government grants received from the Israeli National Authority for Technological Innovation (IIA), Israel-U.S. Binational Industrial Research and Development Foundation (BIRD) and Canada-Israel Industrial Research and Development Foundation (CIIRDF) are recognized as a liability if future economic benefits are expected from the projects that will result in royalty-bearing sales.

A liability for the grant is first measured at fair value using a discount rate that reflects a market rate of interest. The difference between the amount of the grant received and the fair value of the liability is accounted for as a government grant and recognized as a reduction of research and development expenses. After initial recognition, the liability is measured at amortized cost using the effective interest method. Royalty payments we make to repay the grant are treated as a reduction of the liability. If no economic benefits are expected from the research activity, the grant receipts are recognized as a reduction of research and development expenses, in which case, the royalty obligation is treated as a contingent liability.

There is uncertainty regarding the estimates of future cash flows and the estimate of the capitalization rate that is used for determining the amount of the liability recognized. At the end of each reporting period, we evaluate whether there is reasonable assurance that the liability recognized, in whole or in part, will not be repaid (since we will not be required to pay royalties) based on the best estimate of future sales, and if so, the appropriate amount of the liability is recognized as a reduction of research and development expenses.

Recently Issued Accounting Standards

A number of new standards, amendments to standards and interpretations were not yet in effect for the year ended December 31, 2018, and have not been applied in preparing our consolidated financial statements as of that date. For more information on these accounting standards, please see Note 4 to the financial statements included in this annual report under Item 18.

Impact of Israeli Tax Policies and Government Programs on our Operating Results

Tax regulations have a material impact on our business, particularly in Israel where we have our headquarters. The following summary describes the current tax structure applicable to companies in Israel, with special reference to its effect on us.

General Corporate Tax Structure in Israel

Israeli companies are generally subject to corporate tax on their taxable income. In 2017, the corporate tax rate was 24% and in 2018, the corporate tax rate is 23%. Capital gains derived by an Israeli company are generally subject to tax at the prevailing regular corporate tax rate.

Law for the Encouragement of Industry (Taxes), 5729-1969

The Law for the Encouragement of Industry (Taxes), 5729-1969, generally referred to as the Industry Encouragement Law, provides several tax benefits for an "Industrial Company".

The Industry Encouragement Law defines an "Industrial Company" as an Israeli resident company which was incorporated in Israel, of which 90% or more of its income in any tax year, other than income from certain government loans, is derived from an "Industrial Enterprise" owned by it and located in Israel. An "Industrial Enterprise" is defined as an enterprise that is held by an Industrial Company whose principal activity in a given tax year is industrial production.

The following tax benefits, among others, are available to Industrial Companies:

- amortization over an eight-year period of the cost of purchased know-how and patents and rights to use a patent and know-how which are used for the development or advancement of the Industrial Enterprise, commencing in the year in which such rights were first exercised;
- under limited conditions, an election to file consolidated tax returns together with Israeli Industrial Companies controlled by it; and
- expenses related to a public offering are deductible in equal amounts over a three-year period, commencing in the year of the offering.

Eligibility for benefits under the Industry Encouragement Law is not contingent upon the approval of any governmental authority. We believe that we currently qualify as an Industrial Company within the meaning of the Industry Encouragement Law. There can be no assurance that we will continue to qualify as an Industrial Company or that the benefits described above will be available in the future.

Law for the Encouragement of Capital Investments, 5719-1959

The Law for the Encouragement of Capital Investments, 5719-1959, generally referred to as the Investment Law, provides certain incentives for capital investments in production facilities (or other eligible assets) by "Industrial Enterprises" (as defined under the Investment Law).

The Investment Law was significantly amended effective April 1, 2005 (which we refer to as the 2005 Amendment), further amended as of January 1, 2011 (which we refer to as the 2011 Amendment) and further amended as of January 1, 2017 (which we refer to as the 2017 Amendment). Pursuant to the 2005 Amendment, tax benefits granted in accordance with the provisions of the Investment Law prior to its revision by the 2005 Amendment remain in force but any benefits granted subsequently are subject to the provisions of the 2005 Amendment. Similarly, the 2011 Amendment introduced new benefits to replace those granted in accordance with the provisions of the Investment Law in effect prior to the 2011 Amendment. However, companies entitled to benefits under the Investment Law as in effect prior to January 1, 2011 were entitled to choose to continue to enjoy such benefits, provided that certain conditions are met, or elect instead irrevocably to forego such benefits and have the benefits of the 2011 Amendment apply. The 2017 Amendment introduced new benefits for Technological Enterprises, alongside the existing tax benefits.

On October 24, 2010, we received a tax ruling from the Israel Tax Authority, according to which, among other things, our activity has been qualified as an "industrial activity", as defined in the Investment Law and is also eligible to tax benefits as a Beneficiary Enterprise, which will apply to the turnover attributed to such enterprise. The benefit period under this tax ruling ended in 2018, and since we did not generate any taxable income in tax year 2018, we were not entitled to any tax benefits under this tax regime.

In addition, we have reviewed and evaluated the implications and effect of the benefits under the 2011 and 2017 Amendments, and, while potentially eligible for such benefits, we have not yet chosen to be subject to the tax benefits introduced by the 2011 or the 2017 Amendments.

B. Liquidity and Capital Resources

Our working capital requirements generally reflect the growth in our business and have historically been provided by cash raised from our investors, payments from our collaborators and government grants. As of December 31, 2018, we had cash, marketable securities and short term bank deposits of $54.5 million and working capital of $50.1 million, which is calculated by subtracting our current liabilities from our current assets. As of December 31, 2018, we had $2.9 million of outstanding long-term indebtedness related to government grants.

We expect that our working capital and capital investment needs will be funded for the foreseeable future mainly by our cash and cash equivalents, marketable securities and bank deposits we hold as well as from payments from our collaborators. Currently, our principal uses of cash are to fund our operations. In the future, cash may serve us in effecting M&A transactions for achieving inorganic growth in our different segments of operation. We believe that our existing cash and cash equivalents, marketable securities and short-term bank deposits as of December 31, 2018 will be sufficient to meet our projected cash requirements for at least 12 months. During 2019, we intend to convert part of the Evogene Farm (our research and development site located outside Rehovot, where we perform most of our research and plant validation work) to growing cannabis as part of the activities of Canonic, our newly established subsidiary in the area of medical cannabis, at an estimated cost ranging from $600,000 to 700,000.

To the extent that existing cash, and cash equivalents, marketable securities and short-term bank deposits are insufficient to fund our future activities, we may need to raise additional funding through debt and equity financing. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, scale back or cease our research and development activities, establishment and maintenance of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates.

Cash Flows

The following table presents the major components of net cash flows used in and provided by operating, investing and financing activities for the periods presented:

	Year Ended December 31,		
	2016	2017	2018
	(in thousands)		
Net cash used in operating activities	$ (11,693)	$ (15,929)	$ (15,161)
Net cash provided by investing activities	4,028	15,245	17,353
Net cash provided by financing activities	655	814	297
Exchange rate differences - cash and cash equivalents	25	69	(114)
Net increase (decrease) in cash and cash equivalents	$ (6,985)	$ 199	$ 2,375

Cash Used in Operating Activities

Cash used in operating activities for the year ended December 31, 2018 was $15.1 million and was impacted primarily by a loss of $20.8 million, a decrease of $0.2 million in deferred revenues and other advances, partially offset by $1.7 million in share-based compensation expenses, $2.0 million in depreciation expenses, net financing expenses of $0.7 million and by $1.4 million in interest received during the year ended December 31, 2018.

Cash used in operating activities for the year ended December 31, 2017 was $15.9 million and was impacted primarily by a loss of $20.8 million, net financing income of $1.5 million, a decrease of $0.5 million in deferred revenues and other advances, partially offset by $2.2 million in share-based compensation expenses, $2.1 million in depreciation expenses and by $2.2 million in interest received during the year ended December 31, 2017.

Cash used in operating activities for the year ended December 31, 2016 was $11.7 million and resulted primarily from a loss of $19.6 million, net financing income of $1.7 million, a decrease of $0.5 million in trade and other payables, partially offset by $2.9 million in share-based compensation expenses, a net decrease of $2.4 million in trade and other receivables, $2.3 million in depreciation and amortization expenses and by $2.4 million in interest received during the year ended December 31, 2016.

Cash Provided by Investing Activities

Cash provided by investing activities was $17.4 million for the year ended December 31, 2018. This was primarily attributable to the net proceeds from the sale of marketable securities and withdrawal of bank deposits, partially offset by purchases of property, plant and equipment.

Cash provided by investing activities was $15.2 million for the year ended December 31, 2017. This was primarily attributable to the net proceeds from the sale of marketable securities and withdrawal of bank deposits, partially offset by purchases of property, plant and equipment.

Cash provided by investing activities was $4.0 million for the year ended December 31, 2016. This was primarily attributable to withdrawal of bank deposits, partially offset by net purchases of marketable securities and purchases of property, plant and equipment.

Cash Provided by Financing Activities

Cash provided by financing activities was $0.3 million for the year ended December 31, 2018. This was primarily attributable to net proceeds from government grants.

Cash provided by financing activities was $0.8 million for the year ended December 31, 2017. This was primarily attributable to proceeds from the exercise of options and to net proceeds from government grants.

Cash provided by financing activities was $0.7 million for the year ended December 31, 2016. This was primarily attributable to proceeds from the exercise of options and to net proceeds from government grants.

Government Grants

Our research and development efforts are financed, in part, through grants from IIA, BIRD, CIIRDF and the EU. From our inception through 2018, we received grants totaling $6.8 million (including accrued interest) from IIA and repaid $3.4 million; we received grants totaling $1.0 million (linked to the U.S. Consumer Price Index) from BIRD and repaid $50 thousand (during 2019 we have repaid an additional amount of $546 thousand to BIRD, as detailed in Note 22 to the financial statements included in this annual report under Item 18; and we received grants totaling $0.6 million from EU, which are not required to be repaid. As of December 31, 2018, we had four active research grants under which we received funding: three from the IIA and one from the EU.

Under the Innovation Law, research and development programs that meet specified criteria and are approved by a committee of the IIA are eligible for grants. The grants awarded are typically up to 50% of the project's expenditures, as determined by the IIA committee and subject to the benefit track under which the grant was awarded. A company that receives a grant from the IIA, is typically required to pay 3% royalties to IIA on income generated from products incorporating know-how developed using such grants (including income derived from services associated with such products), until 100% of the U.S. dollar-linked grant plus annual London Interbank Offered Rate, or LIBOR, interest is repaid. Certain benefit tracks do not require payment of royalties.

The obligation to pay royalties is contingent on actual income generated from such products and services. In the absence of such income, no payment of royalties is required. It should be noted that the restrictions under the Innovation Law, including restrictions on the sale, transfer or assignment outside of Israel of know-how developed as part of the programs under which the grants were given will continue to apply even after the repayment of such royalties in full.

The terms of the grants under the Innovation Law also require that the products developed as part of the programs under which the grants were given be manufactured in Israel and that the know-how developed thereunder may not be transferred outside of Israel, unless prior written approval is received from the IIA (such approval is not required for the transfer of a portion of the manufacturing capacity which does not exceed, in the aggregate, 10% of the manufacturing (in which case only notification is required)), and additional payments are required to be made to IIA, as described below. It should be noted that this does not restrict the export of products that incorporate the funded know-how.

Ordinarily, as a condition to obtaining approval to manufacture outside Israel, we may be required to pay royalties at an increased rate and up to an increased cap amount of up to three or six times the total amount of the IIA grants, plus interest accrued thereon, depending on the manufacturing volume to be performed outside Israel.

The Innovation Law restricts the ability to transfer know-how funded by IIA outside of Israel. Transfer of IIA-funded know-how outside of Israel requires prior approval and is subject to payment of a redemption fee to the IIA calculated according to a formula provided under the Innovation Law. A transfer for the purpose of the Innovation Law is generally interpreted very broadly and includes, inter alia, any actual sale of the IIA-funded know-how, any license to develop the IIA-funded know-how or the products resulting from such IIA-funded know-how or any other transaction, which, in essence, constitutes a transfer of the IIA-funded know-how.

The IIA approval to transfer know-how created, in whole or in part, in connection with an IIA-funded project to a third party outside Israel is subject to payment of a redemption fee to IIA calculated according to a formula provided under the Innovation Law that is based, in general, on the value of the transferred know how, multiplied by the amount of grants received from the IIA (including the accrued interest), divided by the total amounts expended by the grant recipient on R&D. To the extent any royalties were paid on account of the grants, such royalties will be deducted from the calculation. The redemption fee is subject to a cap of six times the total amount of the IIA grants, plus interest accrued thereon, namely the total liability to the IIA, including the accrued interest, multiplied by six. If the grant recipient undertakes that for a period of not less than three years, at least 75% of its relevant R&D positions will remain in Israel, then the cap will be reduced to three times (rather than six times) the total liability to the IIA, calculated as set out above.

Subject to prior approval of the IIA, we may transfer the IIA-funded know-how to another Israeli company. If the IIA-funded know-how is transferred to another Israeli entity, the transfer would still require IIA approval but will not be subject to the payment of the redemption fee (although there will be an obligation to pay royalties to the IIA from the income of such sale transaction as part of the royalty payment obligation). In such case, the acquiring company would have to assume all of the selling company's restrictions and obligations towards the IIA (including the restrictions on the transfer of know-how and manufacturing capacity outside of Israel) as a condition to IIA approval.

We are required to pay up to 100% of the amount of grants received by us from IIA plus interest at the LIBOR. In addition to paying any royalty due, we must abide by other restrictions associated with receiving such grants under the Innovation Law. These restrictions may impair our ability to outsource development of products containing our traits, engage in change of control transactions or otherwise transfer our know-how outside Israel and may require us to obtain the approval from IIA for certain actions and transactions and pay additional royalties and other amounts to IIA. We cannot be certain that any approval of IIA will be obtained on terms that are acceptable to us, or at all. We may not receive the required approvals should we wish to transfer IIA-funded know-how, manufacturing and/or development outside of Israel in the future. Furthermore, in the event that we undertake a transaction involving the transfer to a non-Israeli entity of know-how developed with IIA-funding pursuant to a merger or similar transaction, the consideration available to our shareholders may be reduced by the amounts we are required to pay to IIA. Any approval, if given, will generally be subject to additional financial obligations. Failure to comply with the requirements under the Innovation Law may subject us to mandatory repayment of grants received by us (together with interest and penalties), as well as expose us to criminal proceedings. In addition, IIA may from time to time conduct royalties audits and such audits may lead to additional royalties being payable on additional products. Such grants may be terminated or reduced in the future, which would increase our costs. IIA approval is not required for the marketing of products resulting from the IIA-funded research or development in the ordinary course of business.

We have two BIRD grants: (i) a joint development program with DuPont-Pioneer (now Corteva) of research and development improvements to soybean rust resistance and (ii) a joint research and development program with Marrone Bio Innovations, or MBI, for discovery of novel modes of biological action for insect control.

Under these two BIRD programs, the grant for the joint development will be repaid either (a) from revenues received for the licensing of products developed under the project, (b) from revenues generated from sales of products developed under the project, (c) from proceeds received from the outright sale of the technology developed under the project, (d) if we and our partner have concluded the development of a product within the period of development defined under each of the programs, or (e) if within 66 months from the original grant date, in the case of our program with DuPont, or 60 months, in the case of our program with MBI, we and our partner to the development program did not conclude the development of a product but nevertheless decide to continue the project, and in each such case the repayment shall be in an amount of up to 150% of the total grant received, depending on the timing of the repayment.

The CIIRDF grant was also provided as part of a previous joint project of ours with Saskatchewan Wheat Pool Inc., operating under the name of Viterra, to develop canola with improved yield and abiotic stress tolerance. This grant will be repaid from income resulting from the commercialization of a product developed pursuant to the grant project, at a rate of 2.5% of royalties on sales of such product, in an amount up to 100% of the total grant received. Alternatively, we may repay the grant as royalties of 2.5% of the income we receive from licensing the product developed pursuant to the grant. Payment of such royalties is not required if commercial revenues are not generated as a result of the project.

In early 2016, a grant application for a consortium for research in photosynthesis in which we participate within the EU Horizon 2020 Program for Research and Innovation was confirmed. The consortium's research program is focused on an innovative approach to modulate photosynthesis related pathways aiming to improve photosynthetic efficiency. Beyond us, the consortium includes academic institutions such as the Max Planck Institute of Molecular Plant Physiology and the Institute of Terrestrial Microbiology, the Weizmann Institute of Science, and the Imperial College of Science, Technology and Medicine. We will receive €0.9 million for our participation in the consortium during the five-year project.

In January 2018, we announced participation in a three-year IIA sponsored Phenomics Consortium to develop tools and systems for precision agriculture and innovative development of agriculture products. In addition to Evogene, the Phenomics Consortium consists of several Israeli industrial companies and academic institutions. The goal of the consortium is to develop plant phenotyping technologies, including the generation of comprehensive agricultural 'Big-Data' and the development of artificial intelligence algorithms for real time analysis of phenotypic data. The grant for the consortium was originally approved for calendar year 2018 in the amount of approximately $5 million, of which approximately $1.4 million were granted to Evogene. By the end of 2018 the grant was extended by an additional 6 months to a total period of 18 months until mid-2019, and the grant amount was updated to approximately $7.6 million, of which approximately $2.1 million were granted to Evogene. The continuation of the consortium following such 18-month period to complete its three-year workplan is subject to re-approval in mid-2019.

See "Item 3. Key Information—D. Risk Factors—Risks Relating to Our Incorporation and Location in Israel—We have received Israeli government grants for certain of our research and development activities. The terms of these grants may require us to satisfy specified conditions in order to manufacture products and transfer technologies supported by such grants outside of Israel. We may be required to pay penalties in addition to repayment of the grants."

C. Research and Development, Patents and Licenses, etc.

We continuously invest, and have historically invested, in maintaining the technological capabilities of our CPB platform, which includes tailored 'Big-Data' databases, interconnected data hubs and proprietary analysis and prediction algorithms. We also maintain laboratories, greenhouses and fields for conducting biological validation activities for our computational predictions.

Our ongoing research and development activities are funded mainly by internal resources, collaboration research and development payments and governmental grants. As of December 31, 2018, 109 of our employees, representing approximately 75% of our entire work force, were engaged in research and development on a full-time basis. For more information regarding our research and development activities, intellectual property and licenses, please see Item 4.B. "Information on the Company—Business Overview."

D. Trend Information

We experienced a decline in revenues, which has continued through 2018 and which reflects the net decrease in research and development cost reimbursement, in accordance with the work plans under our various collaboration agreements. This decline was mainly due to the advancement of our collaboration agreement with Monsanto (now Bayer), from gene discovery to pre-development efforts, resulting in reduction of activity scope. We expect that revenue levels will continue to reflect that stage of our activity scope during 2019.

We also expect that macro-economic factors will continue to impact our results of operations in 2019. The world market has experienced a decrease in agricultural commodity prices since 2014. For more information on the effect of agricultural commodity on us, please see "Item 11. Quantitative and Qualitative Disclosures About Market Risk—Commodity Price Risk".

Commencing in 2015 and continuing throughout 2016, 2017 and 2018, the seeds and ag-chemicals markets, which are highly consolidated and dominated by a relatively small number of large companies, have undergone further consolidation. For more information on the effect of agricultural commodity on us, please see "Item 4. Information on the Company—B. Business Overview—Ag-Business Units—Ag-Business Industry— Mergers and Acquisitions in the Agricultural Industry".

These trends have been adversely impacting, and may continue to adversely impact, the size of research and development expenditures of our existing and potential collaborators, which, in turn, adversely impacts the size of the research payments that we may receive, as well as our ability to extend existing collaborations or enter into new ones. For further information, please see "Item 3. Key Information—D. Risk Factors—Risks Related to our Business and Industry—A decrease in research expenditures in our target markets may jeopardize the continuation, or scope, of our collaborations with companies in these markets and adversely impact our ability to continue or extend existing collaborations or enter into new collaborations on favorable financial terms."

Other than as described immediately above or disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events during our current fiscal year that are reasonably likely to have a material adverse effect on our net revenue, income, profitability, liquidity or capital resources, or that would cause the financial information included in this annual report to be not necessarily indicative of our future operating results or financial condition.

E. Off-Balance Sheet Arrangements

We do not currently engage in off-balance sheet financing arrangements. In addition, we do not have any interest in entities referred to as variable interest entities, which includes special purpose entities and other structured finance entities.

F. Contractual Obligations

Our significant contractual obligations and commitments as of December 31, 2018 are summarized in the following table:

	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
			(in thousands, unaudited)		
Trade payables	$ 1,015	$ -	$ -	$ -	$ 1,015
Other payables(1)	3,016	-	-	-	3,016
Liabilities in respect of government grants (undiscounted)(2)	1,003	311	719	2,634	4,667
Non-cancellable operating leases(3)	760	1,408	-	-	2,168
Total	$ 5,794	$ 1,719	$ 719	$ 2,634	$ 10,866

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(1) Consists of liabilities to employees for salaries and payroll accruals, liabilities to government authorities and accrued expenses.

(2) Consists of the projected repayments of government grants that partly fund our research and development activities.

(3) Consists of non-cancellable operating leases of our offices, laboratory facilities, greenhouses and motor vehicles.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

The following table sets forth the name, age and position of each of our executive officers and directors as of the date of this annual report.

Name	Age	Position
Executive officers		
Mr. Ofer Haviv	52	President and Chief Executive Officer
Mr. Ido Dor	43	Chief Executive Officer of Lavie Bio Ltd.
Mr. Assaf Dotan	47	Chief Executive Officer of Evofuel Ltd.
Dr. Eyal Emmanuel	45	Chief Scientific Officer
Dr. Elran Haber	38	Chief Executive Officer of Biomica Ltd.
Dr. Arnon Heyman	42	Vice President & General Manager Ag-Seeds
Mr. Mark Kapel	42	Executive Vice President Technology
Mr. Eran Kosover	42	Chief Executive Officer of AgPlenus Ltd.
Ms. Dorit Kreiner	47	Chief Financial Officer
Directors		
Mr. Martin S. Gerstel(3)(4)	77	Chairman of the Board
Ms. Sarit Firon(1)(2)(4)	52	Director
Mr. Ziv Kop(1)(2)(3)(4)	48	Director
Dr. Adina Makover(1)(2)(4)	67	Director
Dr. Adrian Percy(4)	53	Director
Mr. Leon Y. Recanati(3)(4)	70	Director
Dr. Oded Shoseyov(3)(4)	52	Director

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(1) Member of our Audit Committee.

(2) Member of our Compensation and Nominating Committee.

(3) Member of our Corporate Development Committee.

(4) Independent director under the Nasdaq Listing Rules.

Executive Officers

Mr. Ofer Haviv has served as Evogene's President and Chief Executive Officer since December 2004 after having joined the company in January 2002 as Chief Financial Officer. Mr. Haviv serves as Chairman of the Board of Directors of our subsidiaries. From 2006 to 2007, Mr. Haviv served as a director of the company. Mr. Haviv is a Certified Public Accountant and holds a BA in Accounting and Economics from Tel Aviv University.

Mr. Ido Dor has served as Chief Executive Officer of Lavie Bio Ltd., a subsidiary of Evogene, from February 2019. In January 2018, Mr. Dor was appointed Executive Vice President & General Manager ag-biologicals, responsible for the overall management of the division. Previously, Mr. Dor has served as Executive Vice President & General Manager Crop Enhancement from November 2015, responsible for the overall management of the Crop Enhancement division. Mr. Dor joined Evogene in 2011 as a Director of Business Development and led the business activity of the Ag-Chemicals division. Prior to joining Evogene, Mr. Dor headed the Small & Mid-Size Enterprise business unit at the Israeli branch of SAP, the world leading organizational software company. Prior to his role at SAP Israel, Mr. Dor led a business unit at Niram Gitan Group, a leading Israeli management-consulting firm. Mr. Dor holds an M.B.A. and a BSc in Industrial Engineering - both from Tel Aviv University.

Mr. Assaf Dotan has served as Chief Executive Officer of Evofuel Ltd., a subsidiary of Evogene, since May 2016. Mr. Dotan previously served in key management positions at Adama agricultural solutions, including in the marketing and strategy departments. In addition, Mr. Dotan serves as an investment advisor to Rafael Development Corporation Ltd. and has previously served as an advisor to Fortisimo capital – an Israeli private equity. Mr. Dotan holds an MBA in business administration from the Kellog business school and a B.Sc. from the University of Jerusalem.

Dr. Eyal Emmanuel has served as Chief Scientific Officer of Evogene since January 2019 and previously served as Evogene's VP of Corporate Strategy from September 2018 until January 2019. In parallel Dr. Emmanuel is serving as the CEO of EcoBreed an Israeli startup company and as the Chief Technology Officer of Agrinnovation – the Hebrew University's internal fund for agriculture. From September 2017 to September 2018, Dr. Emmanuel served as the VP Ideation and technology evaluation of Yissum, the 's technology transfer office of the Hebrew University. From 2014 to January 2017, Dr. Emmanuel served as the Chief Science Officer & Head of R&D Crop Protection of Evogene. From May 2006 to September 2017, Dr. Emmanuel served in various managerial R&D positions, leading several of the Company's key research programs. Prior to joining Evogene, Dr. Emmanuel served as a researcher at LSRI, Israel's premier life sciences research center. Dr. Emmanuel holds a Ph.D. and an MSc from the Weizmann Institute's Department of Plant Science as well as a BSc from the Hebrew University of Jerusalem, Faculty of Agriculture. Dr. Emmanuel also holds an M.B.A. from the College of Management - Academic Studies (COMAS), majoring in Bio-Medical Management.

Dr. Elran Haber has served as Chief Executive Officer of Biomica Ltd., a subsidiary of Evogene, since January 2018. Dr. Haber previously served as Chief Executive Officer of Therapix BioSciences (Nasdaq, TASE: "TRPX") beginning in November 2015. Prior to that, from March 2014, Dr. Haber served as our Vice President of Business Strategy and Innovation. Dr. Haber served for more than 10 years as Chairman and board member of several publicly traded and privately held companies, including Issta Lines Ltd. (TASE: "ISTA") from 2007 to 2012, and American Express Global Business Travel – Israel (Histour-Eltive Ltd.) from 2010 to 2012, and has been a member of various board committees and has served in senior executive roles in various life science companies. Dr. Haber holds a Ph.D. in Pharmaceutical Science and an M.B.A. in Finance & Financial Engineering, both from The Hebrew University of Jerusalem, Israel.

Dr. Arnon Heyman has served as Chief Executive Officer of Canonic Ltd. since April 2019 and as Vice President & General Manager of Ag-Seeds since January 2018, previously serving as director of project management crop protection. Dr. Heyman's team was in charge of all collaboration and internal project in the fields of disease control, insect control and chemistry. Prior to Evogene, Dr. Heyman served as CTO of BondX Technologies Ltd. from 2009-2014. Dr. Heyman holds a PhD. in Biotechnology from the Hebrew University in Jerusalem (2008) and a MBA from the College of Management (2015).

Mr. Mark Kapel was appointed as Executive Vice President Technology in February 2018, previously serving as Director of Information Technologies & Data Management from 2013. Mr. Kapel joined Evogene in 2005 and has held various positions in the company over the years. Mr. Kapel holds a B.Sc. in Physics & Computers from the Ben Gurion University of Negev, an MBA specializing in Management of Technology from Tel Aviv University's Faculty of Management – Recanati Graduate School of Business Administration.

Mr. Eran Kosover has served as Chief Executive Officer of AgPlenus Ltd., a subsidiary of Evogene, since November 2018. In January 2018, Mr. Kosover was appointed Executive Vice President & General Manager ag-chemicals, responsible for the overall management of the division. Previously, Mr. Kosover has served as the Executive Vice President & General Manager Crop Protection from November 2015 to January 2018, responsible for the overall management of the Crop Protection division. Prior to that, Mr. Kosover served as Evogene's VP Project Management from April 2014 to November 2015, and was responsible for managing all company collaborations and internal projects. From January 2009 to May 2011 Mr. Kosover served as a Business Development Manager. Prior to joining the company, Mr. Kosover was in charge of Sales, Business Development and Operations in Atera Networks, an Israeli Hi-tech start-up in the field of SMB IT. Prior to Atera, Mr. Kosover worked as a Project Manager in various strategic consulting projects for Teva Pharmaceuticals (mainly Teva EU division). Mr. Kosover holds an M.A. in Economics and a B.A. in Economics and Management, both from the Tel Aviv University.

Ms. Dorit Kreiner has served as Chief Financial Officer of Evogene since February 2019. Ms. Kreiner has previously served as CFO of a number of companies, including NRGene between 2014 and 2018 and Therapix biosciences between 2011 and 2014 (TASE: THXBY). Ms. Kreiner also previously filled the position of Director of Finance of Evogene between 2004 and 2011. Ms. Kreiner holds a BA in accounting and economics from Tel Aviv University, a Bachelors of Law from the College of Management and an MBA in Finance and Marketing from Tel Aviv University.

Directors

Ms. Sarit Firon has served as a director of our Company since she was appointed by the Board on August 10, 2016. Ms. Firon is the Managing Partner of Cerca Partners, a Venture Capital, co-investment fund. Previously, Ms. Firon was the Chief Executive Officer of Extreme Reality (XTR3D), a company that provides real time software-based, 3D motion capture technology, using a single standard webcam. Prior to her role at Extreme Reality (XTR3D), Ms. Firon held roles as Chief Financial Officer at each of Kenshoo, MediaMind (NSDQ: MDMD, acquired by DG corp.), OLIVE SOFTWARE, P-CUBE (acquired by Cisco) and RADCOM, LTD. (NSDQ: RDCM). Ms. Firon serves as the Chairperson of myThings, a global leader in customized programmatic ad solutions, which runs personalized retargeting campaigns on desktop, mobile and Facebook, since July 2015. Ms. Firon also holds other board positions at DTORAMA and Protected Media. Ms. Firon holds a Bachelor's degree in accounting and economics, and a Diploma in Accounting Advanced Studies, both from Tel Aviv University.

Mr. Martin S. Gerstel has served as our chairman of the board of directors since December 2004 and as a director since February 2004. In addition, Mr. Gerstel has served as the chairman of Compugen Ltd., a predictive drug discovery and development company, from 1997 to 2017; chairman of Keddem Bioscience Ltd., a drug discovery company, from 2004 to 2016, co-founder and co-chairman of Itamar Medical Ltd., a medical device company, from 1997 to 2017, where he now serves as a director. In addition, Mr. Gerstel has been a board member of Yeda Ltd., the technology transfer company of the Weizmann Institute of Science, since 1994 and was a board member of Yissum Ltd., the technology transfer company of the Hebrew University, from 2003 to 2015. He is a member of the board of governors and the executive committee of the Weizmann Institute of Science and the board of governors of The Hebrew University of Jerusalem. Prior to relocating to Israel, Mr. Gerstel was co-chairman and chief executive officer of ALZA Corporation, a U.S. pharmaceutical company specializing in advanced drug delivery, which he helped to found in 1968. Mr. Gerstel holds a B.S. from Yale University and an M.B.A. from Stanford University.

Mr. Ziv Kop has served as a director of our company since 2014. Mr. Kop serves as a director of Dynamic Yield Ltd., Outbrain Inc. and Outbrain LTD. Mr. Kop currently serves as General Partner at Israel Growth Partners fund. Prior to IGP Ziv served as a Partner at Marker/Innovation Endeavors VC. From February 2014 to June 2016 Mr. Kop served as chief operating officer and Active Board Member of Outbrain Inc. a web-based content discovery platform. Previously, and since its inception in 2003 until June 2013, Mr. Kop was a Managing Partner at GlenRock Israel., a private equity investment firm, where he managed a portfolio of growth companies in the fields of advanced technologies and healthcare, and served on the board of more than ten private and public companies. Prior to his role at GlenRock, Mr. Kop served as Chief Executive Officer of POC Management Consulting, a leading Israeli consultancy in the field of strategic planning. Mr. Kop holds an LL.B. and M.B.A. from Tel Aviv University Law School and Business School, and is a graduate of INSEAD's Young Managers Program.

Dr. Adina Makover has served as a director of our company since February 2003. Dr. Makover also serves as a director of the following companies: GeneGrafts, a biotechnology company, since 2006; EarlySense Ltd., a medical device company, since 2006; PerfAction Technologies Ltd., a medical device company, since 2007. She has also served as a board observer at Argo Medical Ltd., a medical device company in the rehabilitation field, since 2011. From 2006 to present, Dr. Makover has served as the investment manager of the Life Sciences ventures at ProSeed Venture Capital Fund Ltd. Dr. Makover holds a Ph.D. in Life Sciences earned jointly from the Weizmann Institute of Science and Columbia University, and an M.B.A. from Bar-Ilan University.

Dr. Adrian Percy has served as a director of our company since February 2019. Dr. Percy serves on the board of directors of BioLumic, HiFidelity Genetics, AgroSavfe, AgPlenus (our subsidiary), and EnkoChem. He is a member of the science and technology boards of Terramera, Zasso, Agrimetis and Rothamsted Research. Dr. Percy currently serves as the CTO of Finistere Ventures, and frequently acts as an agricultural advisor or independent director to companies through his own consultancy company, Nomad Technology Consulting. Previously, Dr. Percy served as the head of research and development for the Crop Science division of Bayer as part of its executive committee. During his 16-year tenure at Bayer, he also led crop protection development activities for Bayer in North America and regulatory affairs activities across the entire division of Crop Science. Dr. Percy has held positions in the research and development departments of Rhone Poulenc, Aventis CropScience and Bayer in France, Germany and the United States. Dr. Percy earned a bachelor's degree in pharmacology at the University of Liverpool, as well as a master's degree in toxicology and a doctorate in biochemistry at the University of Birmingham.

Mr. Leon Y. Recanati has served as a director of our company since May 2005. Mr. Recanati has served as chairman and chief executive officer of GlenRock Israel Ltd. since 2003. Previously, Mr. Recanati was chief executive officer and/or chairman of IDB Holding Corporation; Clal Industries Ltd.; Azorim Investment Development and Construction Co Ltd.; Delek Israel Fuel Corporation; and Super-Sol Ltd. He also founded Clal Biotechnologies Industries Ltd., a biotechnology investment company operating in Israel. Mr. Recanati holds an M.B.A. degree from the Hebrew University of Jerusalem and Honorary Doctorates from the Technion Institute of Technology and Tel Aviv University.

Dr. Oded Shoseyov has served as a director of our company since November 2018. Dr. Shoseyov is the scientific founder of 12 companies, including: Futuragene Ltd., Collplant Ltd., Biobetter Ltd., GemmaCert Ltd., SP-Nano materials Ltd. Melodea Ltd., Valentis Nanotech. Ltd., Paulee CleanTec Ltd., Smart Resilin Ltd., Sensogenic Ltd., and Karme Yosef Winery. Dr. Shoseyov is a faculty member of the Hebrew University of Jerusalem, where he conducts research in plant molecular biology protein engineering and nano-biotechnology. His group focus is on Bio-Inspired Nanocomposite materials. He has authored or co-authored more than 180 scientific publications and is the inventor or co-inventor of 62 patents. Dr. Shoseyov is a TED speaker and a co-owner and winemaker of BRAVDO winery. Dr. Shoseyov received the Outstanding Scientist Polak Award for 2002, the 1999 and 2010 Kay Award for Innovative and Applied Research, the 2012 Israel Prime Minister Citation for Entrepreneurship and Innovation, and the 2018 Presidential Award for his contribution to the Economy and Society of Israel. Dr. Shoseyov holds a BSc from the Hebrew University (1981), MSc from the Hebrew University (1982), and a Ph.D. from the Hebrew University (1987).

Arrangements for Election of Directors and Members of Management; Family Relationships

There are no arrangements or understandings with major shareholders, customers, suppliers or others related to the election of our board of directors or the appointment of members of our senior management. There are furthermore no family relationships among any directors or members of our senior management.

B. Compensation

Aggregate and Individual Compensation of Officers and Directors

The aggregate compensation, including non-cash share-based compensation (consisting of expenses related to option grants), accrued by us in respect of the year ended December 31, 2018 to all persons who served as directors and/or executive officers during that year, was approximately $2.9 million. That amount includes approximately $0.4 million of gross compensation set aside or accrued for executive officers for purposes of pension, severance, retirement, car, phone or similar benefits or expenses, but does not include business travel, relocation, professional and business association dues and expenses reimbursed to executive officers, and other expenses commonly reimbursed by companies in Israel.

During 2018 we granted to our executive officers and directors an aggregate amount of 295,000 options, of which 2,500 options were granted with an exercise price of NIS 13.82, 110,000 were granted with an exercise price of NIS 14.24, 10,000 were granted with an exercise price of NIS 11.59, 2,500 were granted with an exercise price of NIS 11.08, 85,000 were granted with an exercise price of NIS 10.67 and 85,000 were granted with an exercise price of NIS 9.64. All of such options generally expire within ten (10) years from the date of grant.

The following table presents information regarding compensation accrued in our financial statements for the year ended December 31, 2018 for our five most highly compensated executive officers.

	(in thousands, US$)(1)			
Name and Position	**Salary and related benefits**	**Bonus(2)**	**Value of Options Granted (3)**	**Total**
Ofer Haviv				
President and Chief Executive Officer	324	79	114	517
Eran Kosover				
EVP & General Manager Ag Chemicals	206	34	169	409
Ido Dor				
EVP & General Manager Ag biologicals	214	40	134	388
Hagai Karchi				
Chief Technology Officer	212	32	93	337
Mark Kapel				
EVP Technology	206	39	65	310

(1) All amounts reported in the table are in terms of cost to the Company, as recorded in our financial statements.

(2) Bonus amounts shown in this table reflect bonuses that were paid in 2019 relating to the officers' service in our company in 2018 and approved by our compensation and nominating committee and board of directors, and with respect to our Chief Executive Officer also by our shareholders.

(3) Consists of amounts recognized as non-cash expenses in our statement of profit or loss for the year ended December 31, 2018 ("Share based-compensation" expenses).

Compensation Policy

As required by the Companies Law, we have adopted a policy regarding the terms of engagement of office holders (which include directors and senior executive officers), or a compensation policy. The compensation policy serves as the basis for determining the financial terms of employment or engagement of office holders, including exculpation, insurance, indemnification or any monetary payment or obligation of payment in respect of employment or engagement. The compensation policy must relate to certain factors specified in the Companies Law, including advancement of the company's objectives, the company's business and its long-term strategy, and creation of appropriate incentives for executives. It must also consider, among other things, the company's risk management, size and the nature of its operations. The Companies Law describes what factors have to be considered by, and what principles must be included in, the compensation policy.

Our compensation policy was last updated in January 2017, at a special general meeting of our shareholders, following the recommendation of our compensation committee and our board of directors.

Approvals Required for Compensation of Directors and Officers

Under the Companies Law, the compensation of each of our directors and our Chief Executive Officer requires the approval of our compensation committee, the subsequent approval of the board of directors and, unless exempted under the regulations promulgated under the Companies Law, the approval of our shareholders at a general meeting (in the case of a company's chief executive officer, the shareholder approval must include the special majority described under "Item 6. Board Practices—C. Approval of Related Party Transactions under Israeli Law— Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions"). The compensation of any other office holder (who is neither a director nor our Chief Executive Officer), if consistent with our compensation policy, requires the approval of our compensation committee, followed by our board of directors. Compensation of any such office holder that deviates from our compensation policy also requires shareholder approval, including by the special majority described under "Item 6. Board Practices—C. Approval of Related Party Transactions under Israeli Law—Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions."

Compensation of Executive Officers

Our compensation for our executive officers is paid pursuant to written employment agreements that we have entered with each of our executive officers and is based, in part, on each executive officer's personal contribution to our management, operations and success. Such compensation is determined consistent with our compensation policy. For more information on our compensation policy, please see "—Compensation Policy".

Each executive officer's entitlement to an annual bonus is determined according to a formula that is consistent with the compensation policy and that links financial and qualitative target-based goals and metrics related to the specific objectives within the responsibility of the relevant executive officer. The goals and objectives of our executive officers are determined by the compensation and nominating committee and our board of directors. For each fiscal year, our board of directors determines the maximum target bonus for each of our executive officers, including our Chief Executive Officer. In the case of our executive officers other than the Chief Executive Officer, assuming that the bonus terms conform to the compensation policy, such terms only require approval by the compensation and nominating committee followed by the board of directors. For our Chief Executive Officer, all terms of employment, including bonus terms, require in general approval by a majority of our shareholders present and voting (in person or by proxy) at a meeting of shareholders, subject to the additional condition that either: (i) the majority voted in favor includes a majority of the shares held by shareholders who are neither controlling shareholders of our Company nor have a conflict of interest (referred to as a "personal interest" under the Companies Law) in such matter, or (ii) the shares held by the foregoing non-conflicted, non-controlling shareholders that are voted against the terms of compensation do not constitute more than two percent of the outstanding voting rights in our company.

Each of the employment agreements with our executive officers contains provisions regarding non-competition, confidentiality of information and assignment of inventions. The non-competition provision applies for a period that is generally 12 months following termination of employment. The enforceability of covenants not to compete in Israel and in the United States is subject to limitations. The employment agreement of each executive officer is terminable at will, upon 60 days written notice, by either party to the agreement, except for the employment agreement with Mr. Ofer Haviv, our President and Chief Executive Officer, which is terminable at will, upon 90 days written notice, by either party to the agreement.

Director Compensation

Our directors are entitled to cash compensation and equity compensation as follows:

Cash Compensation to Directors

All of our directors receive annual fees and per-meeting fees for their service on our board and its committees, in the following amounts:

- Annual fees in an amount of approximately $16,700 for directors not classified as experts and approximately $22,300 for directors classified as experts;
- Per-meeting fees in an amount of approximately $900 for directors not classified as experts and approximately $1,200 for directors classified as experts; 60% of such amounts for participation in meetings via phone and 50% of such amounts for resolutions adopted in writing.

Such amounts are within the range for cash compensation for external and unaffiliated directors of a company of our size (based on level of shareholders' equity) under the Companies Law.

Cash Compensation to Chairman of the Board

Under our compensation policy, a chairman of the board who is determined by the Board to be an "active chairman" in light of increased involvement in our activities and increased time investment in the performance of the duties accompanying the chairman's position compared to the other directors, may be entitled to increased compensation relative to our other directors. If so determined, an active chairman of our board will be entitled to (i) an annual fee of up to three times the average annual fee of the other directors and (ii) a per-meeting fee of up to two times the average per-meeting fee of the other directors.

Our Board has determined that Mr. Martin Gerstel, our chairman of the board, is an active chairman, and our shareholders have approved setting Mr. Gerstel's fees as active chairman at approximately $5,300 per month. Mr. Gerstel has waived his right to receive the per-meeting fees that are payable to our other directors for so long as he serves as the Company's active chairman of the board.

Equity Compensation to Directors

In accordance with our compensation policy, each new non-employee director who is appointed to the board of directors is granted options to purchase 10,000 ordinary shares of the Company. These options vest over a period of four years, with one-sixteenth of the options vesting at the end of each successive three-month period following the director's appointment, subject to continued service through each vesting date. In accordance with our compensation policy, the chairman of the board was granted options to purchase twice the number of ordinary shares, on similar terms.

In addition, each non-employee director is granted annually, upon the anniversary of such director's original election to the board, options to purchase 2,500 ordinary shares of the Company. These options vest over a period of one year commencing three years following such anniversary of the director's appointment to the board, with one fourth of the options vesting at the end of each successive three-month period during such year, subject to continued service through each vesting date. The chairman of the board is granted options to purchase twice the number of ordinary shares, on similar terms. All of our currently serving directors were granted options accordingly.

Under our compensation policy, all option grants to directors are subject to the terms of our 2013 Share Option Plan, are granted at an exercise price equal to the higher of (i) the closing price of our ordinary shares on the TASE on the date of option allocation and (ii) the average closing price of our ordinary shares on the TASE during the 30 trading days prior to the date of option allocation, plus 5%. All options expire 10 years following the date of grant thereof.

Information regarding the options to purchase our ordinary shares (including number of options, exercise price and expiration date of all such options) held by each of our directors and executive officers who beneficially owns our ordinary shares, after including ordinary shares underlying options held by them, which, as of April 28, 2019, were exercisable or exercisable within 60 days, appears in the beneficial ownership table in Item 7.A below and in the footnotes thereto.

Share Option and Incentive Plans

Company Option and Incentive Plans

We maintain three share option and incentive plans: our Evogene Share Option Plan (2002), our Evogene Ltd. Key Employee Share Incentive Plan, 2003, and our Evogene Ltd. 2013 Share Option Plan, or the 2013 Plan. All such option and incentive plans provide for the grant of options to purchase our ordinary shares. The plans are administered by our board.

As of April 28, 2019, options to purchase 4,275,395 ordinary shares were outstanding under our option and incentive plans, having a weighted average exercise price of NIS 32.79 per share, of which, options to purchase 2,926,097 ordinary shares were exercisable. An additional 1,503,331 ordinary shares remained available for future grant under our option and incentive plans (all of which are available under our 2013 Plan) as of that date.

Among other types of option awards, our share option and incentive plans provide for granting options in compliance with Section 102 of the Israeli Income Tax Ordinance, 1961, or the Ordinance, which provides to employees, directors and officers, who are not controlling shareholders (*i.e.*, who hold less than 10% of our share capital) and are Israeli residents, favorable tax treatment for compensation in the form of shares or options issued or granted, as applicable, to a trustee under the "capital gains track" for the benefit of the relevant employee, director or officer and are (or were) to be held by the trustee for at least two years after the date of grant or issuance. Under the "capital gains track", we are not allowed to deduct an expense with respect to the grant or issuance of the options or shares.

The 2013 Plan also permits us to grant options to U.S. residents. Under an addendum to the 2013 Plan, or the U.S. Addendum, that our shareholders approved at a special general meeting of our shareholders on March 15, 2016 following adoption by our board in March 2015, the board may grant options to U.S. residents to purchase ordinary shares, in accordance with the applicable provisions of the U.S. Internal Revenue Code of 1986, as amended, or the Code.

Options granted under our plans are subject to vesting schedules and generally expire 10 years from the grant date. The plans address the treatment of vested and unvested options upon the termination of employment of the option holder as well as upon consummation of a merger or consolidation of our company, or sale of all or substantially all of our shares or assets.

Subsidiary Equity Incentive Plans

In addition to the share option and incentive plans at our parent company level, certain of our subsidiaries have adopted their own equity incentive plans. Specifically, Biomica Ltd., or Biomica, and Evofuel Ltd., or Evofuel, have adopted equity incentive plans under which up to 25% and 8%, respectively, of the equity of those companies may be granted to employees, directors or service providers of those companies. Shares constituting 9.1% and options exercisable for an additional 8.8% of the outstanding share capital (after including shares underlying options) of Biomica have been granted to date. Options exercisable for 3.9% of the outstanding share capital (after including shares underlying options) of Evofuel have been granted to date. A third subsidiary, AgPlenus Ltd., has also adopted an equity incentive plan, the size of which has not yet been determined, under which no equity grants have been made to date.

Grants under our subsidiaries' equity incentive plans may qualify for favorable treatment under the tax law provisions of the United States or Israel.

The share based payments under our subsidiary equity incentive plans are presented as non-controlling interests in the financial statements and were $0.3 million in 2018, as detailed in Note 2.b. to the financial statements included in this annual report under Item 18.

C. Board Practices

Board of Directors

Under the Companies Law and our articles of association, the supervision of the management of our business is vested in our board of directors. Our board of directors may exercise all powers and may take all actions that are not specifically granted to our shareholders or to executive management. Our Chief Executive Officer (referred to as a "general manager" under the Companies Law) is responsible for our day-to-day management. Our Chief Executive Officer is appointed by, and serves at the discretion of, our board of directors, subject to the employment agreement that we have entered into with him. All other executive officers are appointed by the Chief Executive Officer and are subject to the terms of any applicable employment agreements that we may enter into with them.

Under our articles of association and the Companies Law, our board of directors must consist of not less than three and no more than seven directors. Currently our board of directors consists of seven directors.

Our directors are elected annually, by a simple majority vote of holders of our voting shares participating and voting at the annual meeting of our shareholders, for a one-year term, from the annual general meeting of our shareholders at which they are elected until the next annual general meeting and until their respective successors are elected and qualified or until their earlier removal by our shareholders at a general meeting, or upon the occurrence of certain events, in accordance with the Companies Law and our articles of association. The terms of service of each of our current directors can be found in their respective biographies in Item 6.A. above.

In addition, under our articles of association, our board of directors may appoint directors to fill vacancies or as new directors for a term of office that lasts until the next annual meeting of our shareholders. In the event of a vacancy resulting in the board consisting of less than the minimum number of directors required by our articles of association, our board of directors may only act in order to convene a general meeting of our shareholders for the purpose of electing such additional number of directors.

Pursuant to the terms of a put option agreement we entered into with Monsanto (now Bayer) in October 2013, Monsanto has the right to nominate a non-voting observer to our board of directors so long as Monsanto holds at least 5% of our voting rights. In addition, pursuant to a share purchase agreement we entered into with Bayer in December 2010 and as amended in June 2013, Bayer also has the right to appoint one observer to our board of directors so long as Bayer holds at least 3% of our issued and outstanding shares. In each case, the observer is entitled to be advised reasonably in advance of board meetings, and is to receive copies of all material distributed in connection with such meetings. The observer would not have any voting rights. To date, neither Monsanto nor Bayer has appointed an observer.

Chairman of the Board

Our articles of association provide that the chairman of the board is appointed by the members of the board of directors and serves as chairman of the board throughout his term as a director, unless resolved otherwise by the board of directors. Under the Companies Law, the general manager or a relative of the general manager may not serve as the chairman of the board of directors, and the chairman or a relative of the chairman may not be vested with authorities of the general manager, in each case without shareholder approval consisting of a majority vote of the shares present and voting at a shareholders meeting, provided that either:

- such majority includes at least 2/3 of the shares held by all shareholders who are not controlling shareholders and do not have a personal interest in such appointment, present and voting at such meeting; or

- the total number of shares of non-controlling shareholders who do not have a personal interest in such appointment voting against such appointment does not exceed two percent of the aggregate voting rights in the company.

In addition, a person subordinated, directly or indirectly, to the general manager may not serve as the chairman of the board of directors; the chairman of the board may not be vested with authorities that are granted to those subordinated to the general manager; and the chairman of the board may not serve in any other position in the company or a controlled company, except that he may serve as a director or chairman of a subsidiary.

External Directors

In general, under the Companies Law, the board of directors of an Israeli public company (such as ours) is required to include at least two external directors. According to regulations promulgated under the Companies Law, a person may be appointed as an external director if such person has either professional qualifications or accounting and financial expertise. In addition, at least one of the external directors must be determined by our board of directors to have accounting and financial expertise.

However, pursuant to regulations enacted under the Companies Law in 2016, the board of directors of a company whose shares are listed on certain non-Israeli stock exchanges (including the Nasdaq Global Market), which company does not have a controlling shareholder (as such term is defined in the Companies Law), may elect not to comply with the requirements of the Companies Law relating to the election of external directors and to the composition of the audit committee and compensation committee. Such an election may be made by the board of directors, and is contingent upon the company's satisfaction, in an ongoing manner, of the applicable foreign country stock exchange rules that apply to companies organized in that country relating to the appointment of independent directors and the composition of the audit and compensation committees.

Because our company did not have, in May 2016, and still does not have, a controlling shareholder, and as we comply with the Nasdaq listing rules applicable to domestic U.S. companies with respect to a majority of our directors being independent and with respect to the composition of our audit committee and compensation committee, our board of directors determined, in May 2016, to opt out of the requirement to elect external directors. If in the future we were to have a controlling shareholder, we would likely again be required to comply with the Companies Law requirements relating to external directors and composition of the audit committee and compensation committee.

The term controlling shareholder, as used in the Companies Law for purposes of all matters related to external directors and for certain other purposes, means a shareholder that has the ability to direct the activities of the company, other than by virtue of being an office holder. For purposes of all matters related to external directors, a shareholder is presumed to be a controlling shareholder if the shareholder holds 50% or more of the voting rights in the company or has the right to appoint the majority of the directors of the company or its general manager (chief executive officer).

Directors' Service Contracts

There are no arrangements or understandings between us, on the one hand, and any of our directors, on the other hand, providing for benefits upon termination of their service as directors of our company.

Financial Statements Review and Audit Committee

Our financial statements review and audit committee, or audit committee, consists of Ms. Sarit Firon, Mr. Ziv Kop and Ms. Adina Makover. Ms. Firon serves as the Chairperson of the audit committee.

Requirements as to Composition

Following the promulgation of the regulations described above, we may comply with the requirements of the Companies Law by appointing an audit committee whose composition complies with the Nasdaq Listing Rules. Under the Nasdaq Listing Rules, we are required to maintain an audit committee consisting of at least three independent directors, each of whom is financially literate and at least one of whom has accounting or related financial management expertise.

All members of our audit committee meet the requirements for independence and financial literacy under the Nasdaq Listing Rules. Our board of directors has determined that that each of Ms. Sarit Firon and Mr. Ziv Kop is furthermore an audit committee financial expert, as defined by the SEC rules, and has the requisite financial experience required under the Nasdaq Listing Rules.

Each of the members of the audit committee is also "independent" as required by, and as such term is defined in, Rule 10A-3(b)(1) under the Exchange Act, which is different from the general test for independence of board and committee members under the Nasdaq Listing Rules.

Audit Committee Role

Our board of directors (following the approval by our audit committee) has adopted an audit committee charter setting forth the required composition, meeting procedures and other matters related to the terms of operation of the committee. The charter also describes the responsibilities of the audit committee consistent with the rules of the SEC and the Nasdaq Listing Rules, which include, among others:

- retaining and terminating the services of our independent auditors, subject to the approval of the board of directors and shareholders;
- pre-approval of audit and non-audit services to be provided by the independent auditors;
- reviewing with management and our independent directors our financial reports prior to their submission to the SEC; and
- approval of certain transactions with office holders and other related-party transactions.

The charter of the audit committee is available on our website at http://www.evogene.com/wp-content/uploads/2017/07/evogene-audit-committee-charter.pdf.

Additionally, under the Companies Law, an audit committee is required, among other things, to (i) identify deficiencies in the administration of the company (including by consulting with the internal auditor), and recommend remedial actions with respect to such deficiencies, (ii) review and approve certain related party transactions, including determining whether or not such transactions are extraordinary transactions or insignificant transactions, and (iii) adopt procedures with respect to processing employee complaints in connection with deficiencies in the administration of the company, and the appropriate means of protection afforded to such employees. In addition, the audit committee is responsible for overseeing the internal control procedures of the company. Under the Companies Law, the approval of the audit committee is required for specified actions and transactions with office holders and controlling shareholders. See "— Approval of Related Party Transactions under Israeli Law."

Compensation and Nominating Committee

Our compensation and nominating committee, or compensation committee, consists of Ms. Sarit Firon, Mr. Ziv Kop and Ms. Adina Makover. Ms. Makover serves as the Chairperson of the committee.

Requirements as to Composition

Following the promulgation of the regulations described above, we may comply with the requirements of the Companies Law by appointing a compensation committee whose composition complies with the Nasdaq Listing Rules. Under the Nasdaq Listing Rules, we are required to maintain a compensation committee consisting of at least two members, each of whom qualifies as an independent director (as defined under the Nasdaq Listing Rules). Each compensation committee member must furthermore be deemed by our board of directors to meet the enhanced independence requirements for members of the compensation committee under the Nasdaq Listing Rules, which require that our board consider (among other things) the source of each such committee member's compensation in determining whether he or she is independent.

Our board of directors has determined that each of the members of our compensation committee is considered "independent" under the Nasdaq Listing Rules and meets the enhanced independence requirements for members of the compensation committee under the Nasdaq Listing Rules.

Compensation Committee Role

Our board of directors (following approval by our compensation committee) has adopted a compensation and nominating committee charter setting forth the required composition, meeting procedures and other matters related to the terms of operation of the committee. The charter also describes the responsibilities of the compensation committee consistent with the Nasdaq Listing Rules and the Companies Law, which include, among others:

- reviewing and recommending an overall compensation policy with respect to our Chief Executive Officer and other executive officers, as described above under "Item 6. Directors, Senior Management and Employees—B. Compensation—Compensation Policy";
- reviewing and approving corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers, including evaluating their performance in light of such goals and objectives;
- reviewing and approving the granting of options and other incentive awards;
- reviewing, evaluating and making recommendations regarding the compensation and benefits for our non-employee directors; and
- advising our board of directors in selecting individuals who are best able to fulfill the responsibilities of a director or executive officer of our company.

The charter of the compensation and nominating committee is available on our website at http://www.evogene.com/wp-content/uploads/2017/07/9b-evogene-comp-nominating-committee-charter.pdf

Corporate Development Committee

Our board of directors has formed a corporate development committee, of which Mr. Martin Gerstel, Mr. Ziv Kop and Mr. Leon Recanati serve as members. Mr. Gerstel serves as the Chairperson of the committee. The corporate development committee assists our board of directors in fulfilling its oversight responsibilities across the principal areas of corporate development for our company and its subsidiaries. This committee may also assist the board by reviewing such matters as corporate and division strategy and M&A opportunities and making recommendations for consideration by our board of directors.

Internal Auditor

Under the Companies Law, the board of directors of an Israeli public company must appoint an internal auditor recommended by the audit committee. Under the Companies Law, the internal auditor may be an employee of the company but not an office holder, an affiliate, or a relative of an office holder or affiliate, and may not be the company's independent accountant or its representative.

The role of the internal auditor is to examine, among other things, our compliance with applicable law and orderly business procedures. The audit committee is required to oversee the activities and to assess the performance of the internal auditor as well as to review the internal auditor's work plan. Mr. Yisrael Gewirtz, CPA, has been appointed as our internal auditor. Mr. Gewirtz is a certified internal auditor and a partner of Fahn Kanne Control Management Ltd, an affiliate of Grant Thornton LLP.

Our internal auditor also provides management and the audit committee ongoing assessments of our risk management processes and of our internal controls.

Approval of Related Party Transactions under Israeli Law

Fiduciary Duties of Directors and Executive Officers

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 under the Companies Law. An office holder's 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 level of care with which a reasonable office holder in the same position would have acted under the same circumstances. The duty of loyalty requires that an office holder act in good faith and in the best interests of the company. The duty of care includes a duty to use reasonable means to obtain (i) information on the appropriateness of a given action submitted for his or her approval or performed by virtue of his or her position; and (ii) all other important information pertaining to these actions. The duty of loyalty includes a duty to (i) refrain from any conflict of interest between the performance of his or her duties in the company and his or her personal affairs; (ii) refrain from any activity that is competitive with the business of the company; (iii) refrain from exploiting any business opportunity of the company in order to receive a personal gain for himself or herself or others; and (iv) disclose to the company any information or documents relating to the company's affairs which the office holder received as a result of his or her position as an office holder.

Disclosure of Personal Interests of an Office Holder and Approval of Certain Transactions

The Companies Law requires that an office holder promptly disclose to the board of directors any conflict of interest (referred to under the Companies Law as a "personal interest") that he or she may have and all related material information known to him or her concerning any existing or proposed transaction with the company. If it is determined that an office holder has a personal interest in a transaction, approval by the board of directors is required for the transaction, unless the company's articles of association provide for a different method of approval. Our articles of association provide that for non-extraordinary interested party transactions, the board of directors may delegate its approval, or may provide a general approval to certain types of non-extraordinary interested party transactions. Every interested party transaction requires that our board of directors determine affirmatively that the transaction is favorable to the company. Approval first by the company's audit committee and subsequently by the board of directors is required for an extraordinary transaction, meaning any transaction that is not in the ordinary course of business, not on market terms or that is likely to have a material impact on the company's profitability, assets or liabilities. A director and any other office holder who has a personal interest in a transaction which is considered at a meeting of the board of directors or the audit committee may generally (unless it is with respect to a transaction which is not an extraordinary transaction) not be present at such a meeting or vote on that matter unless a majority of the directors or members of the audit committee, as applicable, have a personal interest in the matter. If a majority of the members of the audit committee or the board of directors has a personal interest in the approval of such a transaction then all of the directors may participate in deliberations of the audit committee or board of directors, as applicable, with respect to such transaction and vote on the approval thereof and, in such case, shareholder approval is also required.

Pursuant to the Companies Law, extraordinary transactions with our office holders who are not directors require audit committee approval and subsequent approval by our board of directors. Compensation, insurance, indemnification or exculpation arrangements for office holders who are not directors require approval by our compensation committee, followed by our board of directors and, if deviating from our compensation policy, our shareholders as well, via a special majority. Compensation arrangements with directors, including in their capacities as executive officers, or with our Chief Executive Officer, as well as insurance (unless exempted under the applicable regulations), indemnification or exculpation of directors or our Chief Executive Officer, require the approval of the compensation committee, the board of directors and our shareholders, in that order. In the case of our Chief Executive Officer, the shareholder approval must fulfill, in addition to an ordinary majority, one of the following two special majority requirements:

- at least a majority of the voting rights in the company held by non-controlling shareholders who have no conflict of interest (referred to under the Companies Law as a "personal interest") in the transaction or arrangement and who are present and voting (in person or by proxy) at the general meeting, must be voted in favor of approving the transaction or arrangement (for this purpose, abstentions are disregarded); or

- the voting rights held by non-controlling, non-conflicted shareholders (as described in the previous bullet point) who are present and voting (in person or by proxy) at the general meeting, and who vote against the transaction, do not exceed two percent of the voting rights in the company.

As described above (concerning votes related to external directors), a shareholder is presumed to be a controlling shareholder if the shareholder holds 50% or more of the voting rights in the company or has the right to appoint the majority of the directors of the company or its general manager (chief executive officer). In addition, as it relates to the approval of related party transactions, a controlling shareholder is furthermore deemed to include any shareholder possessing 25% or more of the voting rights if no other shareholder possesses more than 50% of the voting rights.

If the transaction or compensation arrangement of the office holder brought for approval amends an existing arrangement, then only the approval of the audit committee or compensation committee (as appropriate) is required if that committee determines that the amendment is not material in relation to the existing arrangement.

Disclosure of Personal Interests of Controlling Shareholders and Approval of Certain Transactions

Pursuant to the Companies Law, the disclosure requirements regarding personal interests that apply to directors and executive officers also apply to a controlling shareholder of a public company. In the case of an extraordinary transaction between a public company and a controlling shareholder, or in which a controlling shareholder has a personal interest, the shareholder approval requirement—by a special majority—that applies to a compensation arrangement for the chief executive officer (as described above) also applies to the extraordinary transaction (except that a controlling shareholder's vote is not excluded from the special majority determination, unless the controlling shareholder possesses a conflict of interest/ personal interest). We currently do not have a controlling shareholder.

Shareholder Duties

Pursuant to the Companies Law, a shareholder has a duty to act in good faith and in a customary manner toward the company and other shareholders and to refrain from abusing his, her or its power with respect to the company, including, among other things, in voting at a general meeting and at shareholder class meetings with respect to the following matters:

- an amendment to the company's articles of association;
- an increase of the company's authorized share capital;
- a merger; or
- an interested party transaction that requires shareholder approval.

In addition, a shareholder has a general duty to refrain from discriminating against other shareholders. Certain shareholders also have a duty of fairness toward the company. These shareholders include any controlling shareholder, any shareholder who knows that it has the power to determine the outcome of a shareholder vote and any shareholder who has the power to appoint or to prevent the appointment of an office holder of the company or exercise any other rights available to it under the company's articles of association with respect to the company. The Companies Law does not define the substance of this duty of fairness, except to state that the remedies generally available upon a breach of contract will also apply in the event of a breach of the duty of fairness. Israeli courts have not yet interpreted the scope or nature of any of these duties.

Approval of Private Placements

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 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.

Exculpation, Insurance and Indemnification of Office Holders

Under the Companies Law, a company may not exculpate an office holder from liability for a breach of the duty of loyalty. An Israeli company may exculpate an office holder in advance from liability to the company, in whole or in part, for damages caused to the company as a result of a breach of duty of care but only if a provision authorizing such exculpation is included in its articles of association. Our articles of association include such a provision. An Israeli company may not exculpate a director from liability arising out of a prohibited dividend or distribution to shareholders.

An Israeli company may indemnify an office holder in respect of the following liabilities and expenses incurred for acts performed as an office holder, either in advance of an event or following an event, provided a provision authorizing such indemnification is contained in its articles of association:

- financial liability imposed on him or her in favor of another person pursuant to a judgment, settlement or arbitrator's award approved by a court. However, if an undertaking to indemnify an office holder with respect to such liability is provided in advance, then such an undertaking must be limited to events which, in the opinion of the board of directors, can be foreseen based on the company's activities when the undertaking to indemnify is given, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances, and such undertaking shall detail the abovementioned events and amount or criteria;

- reasonable litigation expenses, including attorneys' fees, incurred by the office holder as a result of an investigation or proceeding instituted against him or her by an authority authorized to conduct such investigation or proceeding, provided that (i) no indictment was filed against such office holder as a result of such investigation or proceeding; and (ii) no financial liability, such as a criminal penalty, was imposed upon him or her as a substitute for the criminal proceeding as a result of such investigation or proceeding or, if such financial liability was imposed, it was imposed with respect to an offense that does not require proof of criminal intent; and

- reasonable litigation expenses, including attorneys' fees, incurred by the office holder or imposed by a court in proceedings instituted against him or her by the company, on its behalf or by a third party or in connection with criminal proceedings in which the office holder was acquitted or as a result of a conviction for an offense that does not require proof of criminal intent.

An Israeli company may insure an office holder against the following liabilities incurred for acts performed as an office holder if and to the extent provided in the company's articles of association:

- a breach of the duty of loyalty to the company, to the extent that the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;

- a breach of the duty of care to the company or to a third party, including a breach arising out of the negligent conduct of the office holder;

- a financial liability imposed on the office holder in favor of a third party;

- a financial liability imposed on the office holder in favor of a third party harmed by a breach in an administrative proceeding; and

- reasonable litigation expenses, including attorneys' fees, incurred by the office holder as a result of an administrative proceeding instituted against him or her.

An Israeli company may not indemnify or insure an office holder against any of the following:

- a breach of the duty of loyalty, except to the extent that the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice the company;

§ a breach of the duty of care committed intentionally or recklessly, excluding a breach arising out of the negligent conduct of the office holder;

§ an act or omission committed with intent to derive illegal personal benefit; or

§ a fine or forfeit levied against the office holder.

Under the Companies Law, exculpation, indemnification and insurance of office holders must be approved by the compensation and nominating committee and the board of directors and, with respect to directors and our Chief Executive Officer, also by our shareholders (in the case of our Chief Executive Officer, by a special majority, as described above under "—Approval of Related Party Transactions under Israeli Law—Disclosure of Personal Interests of an Officer Holder and Approval of Certain Transactions", unless an applicable exemption applies).

Our articles of association allow us to indemnify and insure our office holders for any liability imposed on them as a consequence of an act which was performed by virtue of being an office holder. Our shareholders have approved an amendment to our articles of association that extends such indemnification and insurance to cover omissions by our office holders (in their role as such) as well. Our office holders are currently covered by a directors' and officers' insurance policy.

We have entered into agreements with each of our directors and executive officers. Each such agreement exculpates our director or officer, to the fullest extent permitted by law, from liability to us for damages caused to us as a result of a breach of duty of care, and undertaking to indemnify them to the fullest extent permitted by law. This indemnification is limited to events determined as foreseeable by the board of directors based on our activities, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances.

The maximum indemnification amount set forth in such agreements is limited to an amount equal to 25% of our shareholders' equity as reflected in our most recent consolidated financial statements prior to the date on which the indemnity payment is made. If the amount equal to 25% of our shareholders' equity is insufficient to cover all indemnity amounts payable with respect to all indemnifiable directors and executive officers, such amount will be allocated among our directors and executive officers pro rata, in accordance with their relative culpabilities, as finally determined by a court with respect to a particular claim. The maximum amount set forth in such agreements is in addition to any amount paid (if paid) under insurance and/or by a third party pursuant to an indemnification arrangement. In the opinion of the SEC, indemnification of directors and office holders for liabilities arising under the Securities Act is against public policy and therefore unenforceable.

D. Employees

The total number of employees in Evogene and its subsidiaries as of December 31, 2016, 2017 and 2018 was 185, 165 and 150, respectively. As of April 28, 2019 the total number of employees in Evogene and its subsidiaries was 142. This net decrease over the course of the last three years mainly relates to adjustment of the workforce to our activities, and hiring new employees relevant to certain activities while reducing workforce in other areas of activity.

Until 2015, all of our employees were based in Israel. Starting in 2015, we had employees of our U.S. subsidiary, Evogene Inc., who are based at our U.S. research and development site in St. Louis, Missouri. In addition, during 2018, we had on average approximately 21 hourly employees who are based in Israel. The following table shows the breakdown of our employees by category of activity as of December 31, 2018, excluding hourly employees:

	As of December 31, 2018		
	Evogene Ltd. (Israel)	Evogene Inc. (U.S.)	Total
Executive Management	7	-	7
Ag-Biologicals	9	-	9
Ag-Chemicals	14	-	14
Ag-Seeds	8	-	8
Evofuel	3	-	3
Biomica	6	-	6
Technology Platform	72	6	78
General and administrative	25	-	25
Total	144	6	150

Israeli labor laws govern the length of the workday, minimum wages for employees, procedures for hiring and dismissing employees, determination of severance pay, annual leave, sick days, advance notice of termination of employment, equal opportunity and anti-discrimination laws and other conditions of employment. Subject to certain exceptions, Israeli law generally requires severance pay upon the retirement, death or dismissal of an employee, and requires us and our employees to make payments to the National Insurance Institute, which is similar to the U.S. Social Security Administration. Our employees have pension plans that comply with the applicable Israeli legal requirements.

While none of our employees is party to any collective bargaining agreements, certain provisions of the collective bargaining agreements between the "*Histadrut*" (the General Union of Workers in Israel) and the Coordination Bureau of Economic Organizations (including the Industrialists' Associations) are applicable to our employees in Israel by order of the Israeli Ministry of the Economy and Industry. These provisions primarily concern pension fund benefits for all employees, insurance for work-related accidents, recuperation pay and travel expenses.

None of our employees is represented by a labor union or covered under a collective bargaining agreement. We have never experienced any employment-related work stoppages and believe our relationships with our employees are good.

The employees of our U.S. subsidiary are subject to the U.S. labor laws and have insurance coverage, health benefits and are covered by certain plans, such as (i) medical and dental care; (ii) long term disability protection plans; (iii) life insurance; and (iv) a 401k savings plan.

Our staff possesses multidisciplinary and wide-ranging expertise, with employees specializing in biology, chemistry, plant genetics, agronomics, mathematics, computer science and other related fields. Additionally, 49 of our employees hold a Ph.D.

E. Share Ownership

For information regarding the share ownership of our directors and executive officers, please refer to the table in "Item 7. Major Shareholders and Related Party Transactions—A. Major Shareholders."

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

The following table sets forth information with respect to the beneficial ownership of our shares as of April 28, 2019 (unless otherwise indicated) by:

- each person or entity known by us to own beneficially more than 5% of our outstanding shares;
- each of our directors and executive officers individually; and
- all of our executive officers and directors as a group.

The beneficial ownership of ordinary shares is determined in accordance with the rules of the SEC, and generally includes any ordinary shares over which a person exercises sole or shared voting or investment power, or the right to receive the economic benefit of ownership. For purposes of the table below, we deem shares subject to options or warrants that are currently exercisable or exercisable within 60 days of April 28, 2019, to be outstanding and to be beneficially owned by the person holding the options or warrants for the purposes of computing the percentage ownership of that person but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person.

For the purpose of calculating the percentage of shares beneficially owned by any shareholder, this table lists applicable percentage ownership based on 25,754,297 ordinary shares outstanding as of April 28, 2019. Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares, except to the extent that authority is shared by spouses under community property laws.

Unless otherwise noted below, each shareholder's address is c/o Evogene Ltd., 13 Gad Feinstein Street, Park Rehovot P.O.B 2100, Rehovot 7612002, Israel. The shareholders listed below (including our directors and executive officers) do not have any different voting rights than any of our other shareholders. We know of no arrangements that would, at a subsequent date, result in a change of control of our company. A description of any material relationship that our principal shareholders have had with us or any of our predecessors or affiliates within the past three years is included under "Item 7. Major Shareholders and Related Party Transactions—B. Related Party Transactions."

Name of Beneficial Owner	Shares Beneficially Held	
	Number	Percentage of Class
Principal Shareholders		
Entities affiliated with Waddell & Reed Financial, Inc. (1)	2,795,676	10.9%
Entities affiliated with Migdal Insurance & Financial Holdings Ltd. (2)	1,897,877	7.4%
Entities affiliated with The Phoenix Holding Ltd. (3)	1,760,348	6.8%
Entities affiliated with Senvest Management, LLC (4)	1,741,754	6.8%
Monsanto Company (5)	1,636,364	6.4%
Entities affiliated with UBS Group AG (6)	1,372,414	5.3%
Executive Officers and Directors		
Ofer Haviv	833,434 (7)	3.1%
Ido Dor	199,875 (8)	*
Assaf Dotan	0 (9)	*
Dr. Eyal Emmanuel	0	*
Dr. Elran Haber	0 (10)	*
Dr. Arnon Heyman	53,185 (11)	*
Mark Kapel	66,275 (12)	*
Eran Kosover	182,500 (13)	*
Dorit Kreiner	0	*
Martin S. Gerstel	471,506 (14)	1.8%
Sarit Firon	6,875 (15)	*
Ziv Kop	13,125 (16)	*
Dr. Adina Makover	17,814 (17)	*
Dr. Adrian Percy	625 (18)	*
Leon Y. Recanati	856,359 (19)	3.3%
Dr. Oded Shoseyov	1,250 (20)	*
All directors and executive officers as a group (16 persons)	2,702,823	9.9%

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* Less than 1%.

(1) This information is based upon a Schedule 13G/A filed jointly with the SEC on February 14, 2019 by (i) Waddell & Reed Financial, Inc., or WDR; and (ii) Ivy Investment Management Company, or IICO, an investment advisory subsidiary of WDR, each of which reported sole voting and dispositive power with regard to all 2,795,676 shares. According to this Schedule 13G, the investment advisory contracts grant IICO investment power over securities owned by their advisory clients and the investment sub-advisory contracts grant IICO investment power over securities owned by their sub-advisory clients and, in most cases, voting power. Any investment restriction of a sub-advisory contract does not restrict investment discretion or power in a material manner. Therefore, IICO may be deemed the beneficial owner of the securities under Rule 13d-3 of the Exchange Act. These ordinary shares are held by WDR and IICO. The principal address for these entities is 6300 Lamar Avenue, Overland Park, KS 66202.

(2) This information is based upon a Schedule 13G filed by Migdal Insurance & Financial Holdings Ltd., or Migdal, with the SEC on February 14, 2019. Migdal has shared voting and dispositive power with respect to all 1,897,877 shares. According to this Schedule 13G, of the ordinary shares beneficially owned by Migdal: (i) 1,897,877 ordinary shares are held for members of the public through, among others, provident funds, mutual funds, pension funds and insurance policies, which are managed by subsidiaries of Migdal; and (ii) 58,136 ordinary shares are held by companies for the management of funds for joint investments in trusteeship, each of which operates under independent management and makes independent voting and investment decisions. The principal address of Migdal is 4 Efal Street; P.O. Box 3063; Petach Tikva 49512, Israel.

(3) This information is based upon a Schedule 13G/A filed jointly with the SEC on February 14, 2019 by (i) Itzhak Sharon (Tshuva); (ii) Delek Group Ltd. and (iii) The Phoneix Holding Ltd. According to this Schedule 13G/A, 1,760,348 ordinary shares are held by various direct or indirect, majority or wholly-owned subsidiaries of the Phoneix Holding Ltd. (referred to as the Subsidiaries), and each reporting person possesses shared voting and dispositive power with regard to such ordinary shares. The Subsidiaries manage their own funds and/or the funds of others, including for holders of exchange-traded notes or various insurance policies, members of pension or provident funds, unit holders of mutual funds, and portfolio management clients. Each of the Subsidiaries operates under independent management and makes its own independent voting and investment decisions. The Phoenix Holding Ltd. is a majority-owned subsidiary of Delek Group Ltd. The majority of Delek Ltd.'s outstanding share capital and voting rights are owned, directly and indirectly, by Itzhak Sharon (Tshuva) though private companies wholly-owned by him, and the remainder is held by the public. The principal address of the Phoenix Holding Ltd. is 53, Derech Hashalom, Givataim, 53454, Israel. The address of Itzhak Sharon (Tshuva) and Delek Investments and Properties Ltd. is 7, Giborei Israel Street, P.O.B 8464, Netanya, 42504, Israel.

(4) This information is based upon a Schedule 13G filed jointly with the SEC on April 12, 2019 by (i) Senvest Management LLC. and (ii) Richard Mashaal. According to this Schedule 13G, 1,741,754 ordinary shares are held in the accounts of Senvest Master Fund, LP, Senvest Technology Partners Master Fund, LP and Senvest Global (KY), LP (collectively, the "Investment Vehicles"). Senvest Management, LLC may be deemed to beneficially own the securities held by the Investment Vehicles by virtue of Senvest Management, LLC's position as investment manager of each of the Investment Vehicles. Mr. Mashaal may be deemed to beneficially own the securities held by the Investment Vehicles by virtue of Mr. Mashaal's status as the managing member of Senvest Management, LLC. None of the foregoing should be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of the securities reported herein. The principal address of Senvest Management, LLC is 540 Madison Avenue, 32nd Floor New York, New York 10022. The address of Mr. Richard Mashaal is c/o Senvest Management, LLC 540 Madison Avenue, 32nd Floor New York, New York 10022.

(5) This information is based upon a Schedule 13G/A filed by Monsanto Company with the SEC on February 12, 2016. Monsanto Company is a Delaware corporation and is listed on the NYSE and possesses sole voting and dispositive power over these ordinary shares. The principal address for Monsanto Company is 800 North Lindbergh Boulevard, St. Louis, Missouri 63167, USA.

(6) This information is based upon a Schedule 13G filed with the SEC on February 15, 2019 by UBS Group AG, or UBS. UBS is a Swiss corporation and a bank, as defined under Section 3(a)(6) of the Exchange Act, and shares voting and dispositive investment power over these ordinary shares with its wholly-owned subsidiaries, UBS Financial Services Inc., UBS Securities LLC and UBS AG London Branch. The principal address of UBS is Bahnhofstrasse 45, PO Box CH-8021, Zurich, Switzerland.

(7) Consists of 833,434 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 150,000 on August 24, 2019, 200,000 on June 19, 2020, 215,000 on July 17, 2023, 170,000 on March 22, 2025, and 98,434 on August 8, 2027. The weighted average exercise price of these options is NIS 34.14.

(8) Consists of 199,875 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 21,875 on September 21, 2021, 7,500 on July 15, 2023, 25,000 on November 9, 2024, 23,000 ordinary on March 22, 2025, 70,000 on November 17, 2025, and 52,500 on August 8, 2027. The weighted average exercise price of these options is NIS 30.91.

(9) Assaf Dotan serves as the CEO of our subsidiary company Evofuel Ltd., and, as such, he holds options to purchase shares of Evofuel rather than our company itself. For a description of our subsidiaries' equity incentive plans, please see Item 6 "Directors, Senior Management and Employees—B. Compensation—Share Option and Incentive Plans—Subsidiary Equity Incentive Plans".

(10) Elran Haber serves as the CEO of our subsidiary company Biomica Ltd., and, as such, he holds options to purchase shares of Biomica rather than our company itself. For a description of our subsidiaries' equity incentive plans, please see Item 6 "Directors, Senior Management and Employees—B. Compensation—Share Option and Incentive Plans—Subsidiary Equity Incentive Plans".

(11) Consists of 53,185 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 10,000 on November 9, 2024, 13,500 on May 18, 2026, 21,875 on August 8, 2027, and 7,810 on February 26, 2028. The weighted average exercise price of these options is NIS 24.87.

(12) Consists of 66,275 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 10,000 on June 19, 2020, 13,500 on July 15, 2023, 9,000 on March 22, 2025, 4,350 on August 8, 2027, 3,750 on February 26, 2028, and 3,750 on February 5, 2029. The weighted average exercise price of these options is NIS 27.18.

(13) Consists of 182,500 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 25,000 on May 7, 2024, 25,000 on November 11, 2024, 10,000 on March 22, 2025, 70,000 on November 17, 2025, and 52,500 on August 8, 2027. The weighted average exercise price of these options is NIS 34.70.

(14) Includes 35,000 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 5,000 on April 9, 2020, 5,000 on June 11, 2020, 5,000 on September 17, 2021, 5,000 on November 10, 2022, and 5,000 on September 14, 2023, 5,000 on August 16, 2024, and 5,000 on July 2, 2025. The weighted average exercise price of these options is NIS 37.66. Also includes 436,506 ordinary shares, consisting of: (a) 37,500 ordinary shares held by a trustee in favor of Mr. Gerstel; (b) 183,815 ordinary shares held by Martin Gerstel; and (c) 215,191 ordinary shares held by Shomar Corporation with respect to which Martin Gerstel and his wife Mrs. Shoshana Gerstel possess voting and investment power.

(15) Consists of 6,875 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, which expire on August 10, 2026. The weighted average exercise price of these options is NIS 26.89.

(16) Consists of 13,125 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 10,000 on March 20, 2024, 2,500 on March 22, 2025, and 625 on February 28, 2026. The weighted average exercise price of these options is NIS 63.08.

(17) Includes 17,500 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 2,500 on April 9, 2020, 2,500 on June 11, 2020, 2,500 on September 17, 2021, 2,500 on June 11, 2022, 2,500 on September 15, 2023, 2,500 on August 16, 2024, and 2,500 on July 2, 2025. The weighted average exercise price of these options is NIS 37.66. Also includes 314 ordinary shares held by Dr. Makover.

(18) Consists of 625 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, which expire on December 23, 2028. The weighted average exercise price of these options is USD $2.56.

(19) Includes 838,859 ordinary shares held by Mr. Recanati. Also includes 17,500 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, of which, options to purchase the following number of shares expire on the following dates, respectively: 2,500 on April 9, 2020, 2,500 on June 11, 2020, 2,500 on September 17, 2021, 2,500 on June 11, 2022, 2,500 on September 15, 2023, 2,500 on August 16, 2024, and 2,500 on July 2, 2025. The weighted average exercise price of these options is NIS 37.66.

(20) Consists of 1,250 ordinary shares issuable upon exercise of options that are currently exercisable or exercisable within 60 days of April 28, 2019, which expire on November 13, 2028. The weighted average exercise price of these options is NIS 10.67.

Changes in Percentage Ownership by Major Shareholders

Over the course of 2018, there were increases in the percentage ownership of some of our major shareholders, including (i) entities affiliated with The Phoenix Holding Ltd. (from 6.67% to 6.84%); and (ii) entities affiliated with UBS (from 5.16% to 5.33%); while there were decreases in the percentage ownership of (i) entities affiliated with Migdal (from 7.59% to 7.37%), (ii) entities affiliated with Harel Insurance, Investments & Financial Services Ltd., or Harel (from 5.2% to 4.53%), and (iii) entities affiliated with Morgan Stanley (from 5.36% to 3.90%).

Over the course of 2017, there were increases in the percentage ownership of some of our major shareholders, including (i) entities affiliated with The Phoenix Holding Ltd. (from 5.05% to 6.67%); and (ii) entities affiliated with Harel (from 5.06% to 5.2%); while there were decreases in the percentage ownership of (i) entities affiliated with Migdal (from 7.63% to 7.59%), (ii) entities affiliated with Psagot Investment House Ltd., or Psagot (from 6.07% to 4.7%), (iii) Monsanto Company (from 6.38% to 6.35%), and (iv) entities affiliated with WDR (from 11.91% to 10.86%).

Over the course of 2016, there were decreases in the percentage ownership of some of our major shareholders, including (i) entities affiliated with Harel (from 5.7% to 5.06%), (ii) entities affiliated with Migdal (from 8.36% to 7.63%), (iii) entities affiliated with Psagot (from 9.31% to 6.07%), (iv) Monsanto Company (from 6.43% to 6.38%), (v) entities affiliated with The Phoenix Holding Ltd. (from 5.10% to 5.05%) and (vi) entities affiliated with WDR (from 12.66% to 11.91%).

Record Holders

As of April 28, 2019, all of our ordinary shares were held of record in the United States, in the name of a single record shareholder — Cede & Co., as nominee for the Depository Trust Company. The number of record holders is not representative of the number of beneficial holders of our ordinary shares, nor is it representative of where such beneficial holders reside, since the shares held in the name of Cede & Co. are listed for trading on Nasdaq and the TASE and are beneficially owned by a wide range of underlying beneficial shareholders who hold their shares in "street name," including Israeli and other non-U.S. shareholders. In particular, we are aware, based on public filings, that Migdal, the Phoneix Holding Ltd. and UBS, which hold 7.4%, 6.8% and 5.3%, respectively, of our ordinary shares, have addresses outside of the United States.

B. Related Party Transactions

Except as described below or elsewhere in this annual report, since January 1, 2018, we have had no transaction, nor do we have any presently proposed transaction, and neither we nor our subsidiaries have had any loan, nor do we or our subsidiaries have any presently proposed loan, involving any related party described in Item 7.B of Form 20-F promulgated by the SEC.

Agreements with Directors and Officers

Employment Agreements

We have entered into written employment agreements with all of our executive officers. Each of these agreements contains provisions regarding non-competition, confidentiality of information and assignment of inventions. The non-competition provision applies for a period that is generally 12 months following termination of employment. The enforceability of covenants not to compete in Israel and in the United States is subject to limitations.

Options

See "Item 6. Directors, Senior Management and Employee—B. Compensation—Share Option and Incentive Plans".

Indemnification Agreements

Our articles of association allow us to indemnify and insure our office holders for any liability imposed on them as a consequence of an act which was performed by virtue of being an office holder. They also allow us to exculpate an office holder in advance from liability to the company, in whole or in part, for damages caused to the company as a result of a breach of duty of care. In furtherance of such allowance, we have entered into agreements with each of our directors and executive officers exculpating them, to the fullest extent permitted by law, from liability to us for damages caused to us as a result of a breach of duty of care, and undertaking to indemnify them to the fullest extent permitted by law. See "Item 6. Directors, Senior Management and Employees—C. Board Practices—Exculpation, Insurance and Indemnification of Office Holders."

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Consolidated financial statements

We have appended our consolidated financial statements at the end of this annual report, together with the reports of our independent auditor on those financial statements and on our management's assessment of our internal control over financial reporting, beginning on page F-2, as part of this annual report.

Legal Proceedings

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. We are currently not involved in any pending or contemplated legal proceedings that could reasonably be expected to have a material adverse effect on our financial position or profitability. We may become involved in material legal proceedings in the future. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Dividend Policy

Since our inception, we have not declared or paid any cash or other form of dividends on our ordinary shares. We currently intend to retain any earnings for use in our business and do not currently intend to pay cash dividends on our ordinary shares. Dividends, if any, on our outstanding ordinary shares will be declared by and subject to the discretion of our board of directors. Even if our board of directors decides to distribute dividends, the form, frequency and amount of such dividends will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors our board of directors may deem relevant.

In addition, the distribution of dividends may be limited by Israeli law, which permits the distribution of dividends only out of distributable profits. See "Item 10. Additional Information—B. Memorandum and Articles of Association—Dividend and Liquidation Rights."

B. Significant Changes

No significant changes have occurred since December 31, 2018, except as otherwise disclosed in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Listing Details

Our ordinary shares have been listed for trading on the TASE since 2007, and were listed for trading on the NYSE commencing with our U.S. initial public offering in November 2013 until December 2016, at which point we transferred the listing to the Nasdaq, where they have been listed from December 2016 to the present time. "EVGN" has served as the trading symbol for each such listing.

B. Plan of Distribution

Not applicable.

C. Markets

See "—A. Listing Details" above.

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

For a discussion of the provisions of the company's articles of association with respect to the powers of directors, see "Item 6. Directors, Senior Management and Employees—C. Board Practices."

Objects and Purposes

Our registration number with the Israeli Registrar of Companies is 51-283872-3. Our purpose as set forth in article 4 of our articles of association is to engage in any legal business.

Voting

Holders of our ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders at a shareholder meeting. Shareholders may vote at shareholder meetings either in person, by proxy or by written ballot. Israeli law does not allow public companies to adopt shareholder resolutions by means of written consent in lieu of a shareholder meeting. Shareholder 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. Except as otherwise disclosed herein, an amendment to our articles of association to change the rights of our shareholders requires the prior approval of a simple majority of our shares represented and voting at a general meeting and of the holders of a class of shares whose rights are being affected.

Share Ownership Restrictions

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

Transfer of Shares

Fully paid ordinary shares are issued in registered form and may be freely transferred under our articles of association unless the transfer is restricted or prohibited by another instrument, Israeli law or the rules of a stock exchange on which the shares are traded.

Election of Directors

Our ordinary shares do not have cumulative voting rights for the election of directors. Rather, under our articles of association, our directors, other than external directors (to the extent required to be elected), are elected at each annual general meeting of the shareholders, upon expiration of the term of office, by the holders of a simple majority of our ordinary shares present in person or by proxy at such meeting (excluding abstentions). As a result, the holders of our ordinary shares that represent more than 50% of the voting power represented at a shareholder meeting and voting thereon (excluding abstentions) have the power to elect any or all of our directors. Vacancies on our board of directors, resulting from a resignation or other termination of service by a then serving director, or an additional authorized seat on our board of directors, may be filled by a vote of a simple majority of the directors then in office as described under "Item 6. Directors, Senior Management and Employees—C. Board Practices—Board of Directors." For additional information regarding the election of and voting by directors, please refer to "Item 6. Directors, Senior Management and Employees—C. Board Practices—Board of Directors."

Dividend and Liquidation Rights

Under Israeli law, we may declare and pay a dividend only if, upon the reasonable determination of our board of directors, the distribution will not prevent us from being able to meet the terms of our existing and contingent obligations as they become due. Under the Companies Law, the distribution amount is further limited to the greater of retained earnings or earnings generated over the two most recent years according to our then last reviewed or audited financial statements, provided that the date of the financial statements is not more than six months prior to the date of distribution. In the event that we do not have retained earnings and earnings legally available for distribution, as defined in the Companies Law, we may seek the approval of the court in order to distribute a dividend. The court may approve our request if it is convinced that there is no reasonable concern that the payment of a dividend will prevent us from satisfying our existing and foreseeable obligations as they become due.

In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of ordinary shares on a pro-rata basis. Dividend and liquidation rights may be affected by the grant of preferential dividend or distribution rights to the holders of a class of shares with preferential rights that may be authorized in the future. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Dividend Policy."

Shareholder Meetings

Under the Companies Law, we are required to convene an annual general meeting of our shareholders once every calendar year, not more than 15 months following the preceding annual general meeting. Our board of directors may convene a special general meeting of our shareholders and is required to do so at the request of two directors or one quarter of the members of our board of directors, or at the request of one or more holders of 5% or more of our share capital and 1% of our voting power, or the holder or holders of 5% or more of our voting power. All shareholder meetings require prior notice of at least 21 days and, in certain cases, 35 days. The chairperson of our board of directors or another one of our directors authorized by our board of directors presides over our general meetings. If either of such persons is not present within 15 minutes from the appointed time for the commencement of the meeting, the directors present at such meeting shall appoint one of our directors as the chairperson for such meeting, and if they fail to do so, then the shareholders present shall appoint one of our directors to act as chairperson, and if no director is present, then one of the shareholders present at such meeting shall act as chairperson. Subject to the provisions of the Companies Law and the regulations promulgated thereunder, only shareholders of record on a date decided upon by the board of directors, which may be between four and 40 days prior to the date of the meeting (depending on the type of meeting and whether written proxies are being used) are entitled to participate and vote at a general meeting of shareholders.

Quorum

Under our articles of association, the quorum required for a meeting of shareholders consists of at least two shareholders present in person, by proxy or by written ballot, who hold or represent between them at least 25% of our voting power. A meeting adjourned for lack of a quorum generally is adjourned to the same day in the following week at the same time and place (without requirement of additional notification to the shareholders), or to a later time, if indicated in the notice to the meeting or to such other time and place as determined by the board of directors in a notice to our shareholders. At the reconvened meeting, if a quorum is not present within half an hour from the appointed time for the commencement of the meeting, the meeting will take place so long as at least one shareholder is present (regardless of the voting power held or represented by any such shareholder(s)), unless the meeting was called pursuant to a request by our shareholders, in which case the quorum required is the number of shareholders required to call the meeting as described under "—Shareholder Meetings" above.

Resolutions

Under the Companies Law, unless otherwise provided in the articles of association or applicable law, all resolutions of the shareholders require a simple majority of the voting rights represented at the meeting, in person, by proxy or by written ballot, and voting on the resolution (excluding abstentions).

Access to Corporate Records

Under the Companies Law, all shareholders generally have the right to review minutes of our general meetings, our shareholder register, including with respect to material shareholders, our articles of association, our financial statements and any document we are required by law to file publicly with the Israeli Companies Registrar or the Israeli Securities Authority. Any shareholder who specifies the purpose of its request may request to review any document in our possession that relates to any action or transaction with a related party which requires shareholder approval under the Companies Law. We may deny a request to review a document if we determine that the request was not made in good faith, that the document contains a trade secret or patent or that the document's disclosure may otherwise impair our interests.

Modification of Class Rights

The rights attached to any class of share (to the extent that we may have separate classes of shares in the future), such as voting, liquidation and dividend rights, may be amended by adoption of a resolution by the holders of a majority of our shares represented at the meeting and the holders of a majority of the shares of that class present at a separate class meeting, or otherwise in accordance with the rights attached to such class of shares, as set forth in our articles of association.

Acquisitions under Israeli Law

Full Tender Offer

A person wishing to acquire shares of a public Israeli company and who could as a result hold over 90% of the target company's voting rights or the target company's issued and outstanding share capital (or of a class thereof), is required by the Companies Law to make a tender offer to all of the company's shareholders for the purchase of all of the issued and outstanding shares of the company (or of the applicable class). If (a) the shareholders who did not accept the offer hold less than 5% of the issued and outstanding share capital of the company (or the applicable class) and the shareholders who accept the offer constitute a majority of the offerees that do not have a personal interest in the acceptance of the tender offer or (b) the shareholders who did not accept the tender offer hold less than 2% of the issued and outstanding share capital of the company (or of the applicable class), all of the shares that the acquirer offered to purchase will be transferred to the acquirer by operation of law. A shareholder who had its shares so transferred may petition the court within six months from the date of acceptance of the full tender offer, regardless of whether such shareholder agreed to the offer, to determine whether the tender offer was for less than fair value and whether the fair value should be paid as determined by the court. However, an offeror may provide in the offer documents that a shareholder who accepted the offer will not be entitled to appraisal rights as described in the preceding sentence, as long as the offeror and the company disclosed the information required by law in connection with the tender offer. If (a) the shareholders who did not accept the tender offer hold 5% or more of the issued and outstanding share capital of the company (or of the applicable class) or the shareholders who accept the offer constitute less than a majority of the offerees that do not have a personal interest in the acceptance of the tender offer, or (b) the shareholders who did not accept the tender offer hold 2% or more of the issued and outstanding share capital of the company (or of the applicable class), the acquirer may not acquire shares of the company that will increase its holdings to more than 90% of the company's issued and outstanding share capital (or of the applicable class) from shareholders who accepted the tender offer.

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 either express its opinion on the advisability of the offer, or 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 to 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.

Merger

The Companies Law permits merger transactions if approved by each party's board of directors and, unless certain conditions described under the Companies Law are met, a majority of each party's shareholders. The board of directors of a merging company is required pursuant to the Companies Law to discuss and determine whether in its opinion there exists a reasonable concern that as a result of a proposed merger, the surviving company will not be able to satisfy its obligations towards its creditors, such determination taking into account the financial status of the merging companies. If the board of directors determines that such a concern exists, it may not approve a proposed merger. Following the approval of the board of directors of each of the merging companies, the boards of directors must jointly prepare a merger proposal for submission to the Israeli Registrar of Companies.

For purposes of the shareholder vote, unless a court rules otherwise, if one of the merging companies (or any person who holds 25% or more of the outstanding shares or the right to appoint 25% or more of the directors of one of the merging companies) holds shares in the other merging company, the merger will not be deemed approved if a majority of the shares voted at the shareholders meeting by shareholders other than the other party to the merger, or by any person who holds 25% or more of the outstanding shares or the right to appoint 25% or more of the directors of the other party, vote against the merger. In addition, if the non-surviving entity of the merger has more than one class of shares, the merger must be approved by each class of shareholders. If the transaction would have been approved but for the separate approval of each class or the exclusion of the votes of certain shareholders as provided above, a court may still approve the merger upon the request of holders of at least 25% of the voting rights of a company, if the court holds that the merger is fair and reasonable, taking into account the value of the parties to the merger and the consideration offered to the shareholders. If a merger is with a company's controlling shareholder or if the controlling shareholder has a personal interest in the merger, then the merger is instead subject to the same special majority approval that governs all extraordinary transactions with controlling shareholders (as described above under "Item 6. Directors, Senior Management and Employees—C. Board Practices—Approval of Related Party Transactions under Israeli Law—Disclosure of Personal Interests of Controlling Shareholders and Approval of Certain Transactions").

Under the Companies Law, each merging company must inform its secured creditors of the proposed merger plans. Upon the request of a creditor of either party to the proposed merger, the court may delay or prevent the merger if it concludes that there exists a reasonable concern that, as a result of the merger, the surviving company will be unable to satisfy the obligations of any of the parties to the merger, and may further give instructions to secure the rights of creditors.

In addition, a merger may not be completed unless at least 50 days have passed from the date that a proposal for approval of the merger is filed with the Israeli Registrar of Companies and 30 days have passed from the date that shareholder approval of both merging companies is obtained.

Antitakeover Measures under Israeli Law

Besides the requirements described above with respect to tender offers and mergers, Israeli law and our articles of association enable the implementation of additional measures that may delay or prevent a takeover attempt and thereby preclude our shareholders from realizing a potential premium over the market value of our ordinary shares that they hold. Our articles of association allow our company to increase its registered share capital and provide that the increased capital will be divided into shares having ordinary, preferred or deferred rights or any other special rights, or may be subject to terms and restrictions in respect of dividend, repayment of capital, voting or other terms, in each case provided that the general meeting of our shareholders approves via a simple majority of shares present (in person or by proxy) and voting. Israeli law also permits the issuance of preferred stock. However, the TASE rules and regulations prohibit a listed company from having more than one class of shares listed, and the TASE's current position is that a listed company may not issue or list preferred shares. Therefore, assuming that the TASE's current position does not change, as long as our ordinary shares are listed on the TASE, we will be prohibited from issuing preferred stock.

To date, the legality of a poison pill as an additional antitakeover measure has not been examined in Israel.

C. Material Contracts

Collaboration and License Agreements

We have entered into collaboration and license agreements with Bayer (formerly Monsanto). Information on the collaboration and license agreements may be found in this annual report on Form 20-F under "Item 4 – Information on the Company" and is incorporated herein by reference.

Indemnification Agreements

We have entered into indemnification agreements with our office holders. Information on the indemnification agreements may be found in this annual report on Form 20-F under "Item 7. Major Shareholders and Related Party Transactions—B.Related Party Transactions—Agreements with Directors and Officers—Indemnification Agreements" and is incorporated herein by reference.

D. Exchange Controls

Other than general anti-money laundering regulations, there are currently no Israeli currency control regulations in effect that restrict our import or export of capital to or from the State of Israel, or the availability of cash and cash equivalents for use by our affiliated companies. Under the Bank of Israel Law, 5770-2010, the Governor of the Bank of Israel, with the approval of the monetary policy committee of the Bank of Israel, is authorized to issue an administrative order restricting the transfer of funds to or from Israel. However, such an order is only likely to be issued under emergency circumstances and only for a temporary period, if necessary for the achievement of the goals of the Bank of Israel or the carrying out of its responsibilities under Israeli law. Furthermore, Israel has agreed, pursuant to international agreements to which it is a party (including incident to Israel's having joined the International Monetary Fund) to allow for the free flow of capital to and from within its borders. Certain transactions nevertheless require the filing of reports with the Bank of Israel.

Similarly, there are no currently effective Israeli governmental laws, decrees, regulations or other legislation that restrict the payment of dividends or other distributions with respect to our ordinary shares or the proceeds from the sale of the shares, except for the obligation of Israeli residents to file reports with the Bank of Israel regarding some transactions. However, legislation remains in effect under which currency controls can be imposed by administrative action at any time.

E. Taxation

Israel Income Tax Consequences

This section discusses the material Israeli income tax consequences concerning the ownership and disposition of our ordinary shares by our Non-Israeli shareholders. This summary does not discuss all the aspects of Israeli tax law that may be relevant to a particular investor in light of his or her personal investment circumstances or to some types of investors subject to special treatment under Israeli law. Examples of such investors include traders in securities who are subject to special tax regimes not covered in this discussion. Because parts of this discussion are based on new tax legislation that has not yet been subject to judicial or administrative interpretation, we cannot assure you that the appropriate tax authorities or the courts will accept the views expressed in this discussion. The discussion below is subject to change, including due to amendments under Israeli law or changes to the applicable judicial or administrative interpretations of Israeli law, which change could affect the tax consequences described below.

Taxation of Our Non-Israeli Shareholders

Capital Gains Taxes Applicable to Non-Israeli Resident Shareholders. A non-Israeli resident (whether individual or corporation) who derives capital gains from the sale of shares in an Israeli resident company that were purchased after the company was listed for trading on a stock exchange outside of Israel should generally be exempt from Israeli tax so long as the shares were not held through a permanent establishment that the non-resident maintains in Israel and that such shareholder is not subject to the Israeli Income Tax Law (Inflationary Adjustments) 5745-1985. However, non-Israeli corporations will not be entitled to the foregoing exemption if Israeli residents: (i) have a controlling interest of more than 25% in such non-Israeli corporation or (ii) are the beneficiaries of, or are entitled to, 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly. Additionally, such exemption is not applicable to a person whose gains from selling or otherwise disposing of the shares are deemed to be business income.

A sale of shares by a non-Israeli resident may be exempt from Israeli capital gains tax under the provisions of an applicable tax treaty (subject to the receipt in advance of a valid certificate from the Israel Tax Authority allowing for an exemption). For example, under the United States-Israel Tax Treaty, the disposition of shares by a shareholder who is a United States resident (for purposes of the United States-Israel Tax Treaty) holding the shares as a capital asset and is entitled to claim the benefits afforded to such person by the treaty, is generally exempt from Israeli capital gains tax unless, among other things, (i) the capital gain arising from the disposition can be attributed to a permanent establishment of the shareholder which is maintained in Israel; (ii) the shareholder holds, directly or indirectly, shares representing 10% or more of the voting capital during any part of the 12-month period preceding such sale, exchange or disposition, subject to certain conditions; or (iii) such U.S. resident is an individual and was present in Israel for a period or periods aggregating to 183 days or more during the relevant taxable year. In each case, the sale, exchange or disposition of such shares would be subject to Israeli tax, to the extent applicable; however, under the United States-Israel Tax Treaty, the United States resident would be permitted to claim a credit for the Israeli tax against the United States federal income tax imposed with respect to the sale, exchange or disposition, subject to the limitations in United States laws applicable to foreign tax credits. The United States-Israel Tax Treaty does not relate to U.S. state or local taxes.

In some instances, where our shareholders may be liable for Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to the withholding of Israeli tax at source. Shareholders may be required to demonstrate that they are exempt from tax on their capital gains in order to avoid withholding at source at the time of sale. Specifically, in transactions involving a sale of all of the shares of an Israeli resident company, in the form of a merger or otherwise, the Israel Tax Authority may require from shareholders who are not liable for Israeli tax to sign declarations in forms specified by this authority or obtain a specific exemption from the Israel Tax Authority to confirm their status as non-Israeli resident, and, in the absence of such declarations or exemptions, may require the purchaser of the shares to withhold taxes at source.

Taxation of Non-Israeli Shareholders on Receipt of Dividends. Non-Israeli residents (whether individuals or corporations) are generally subject to Israeli income tax on the receipt of dividends paid on our ordinary shares at the rate of 25%. With respect to a person who is a "substantial shareholder" at the time of receiving the dividend or on any time during the preceding twelve months, the applicable tax rate is 30%. A "substantial shareholder" is generally a person who alone or together with such person's relative or another person who collaborates with such person on a permanent basis, holds, directly or indirectly, at least 10% of any of the "means of control" of the corporation. "Means of control" generally include the right to vote, receive profits, nominate a director or an executive officer, receive assets upon liquidation, or order someone who holds any of the aforesaid rights how to act, regardless of the source of such right. Dividends paid on publicly traded shares, which are registered with and held by a nominee company, to non-Israeli residents are generally subject to Israeli withholding tax at a rate of 25% (whether the recipient is a "substantial shareholder" or not), unless a lower rate is provided under an applicable tax treaty between Israel and the shareholder's country of residence and provided that a certificate from the Israel Tax Authority allowing for a reduced withholding tax rate is obtained in advance.

In this regard, under the United States-Israel Tax Treaty, the maximum rate of tax withheld at source in Israel on dividends paid to a holder of our ordinary shares who is a United States resident (for purposes of the United States-Israel Tax Treaty) is 25%. However, generally, the maximum rate of withholding tax on dividends, not generated by an Approved Enterprise or a Beneficiary Enterprise, that are paid to a United States corporation holding at least 10% or more of our outstanding voting capital throughout the tax year in which the dividend is distributed as well as during the previous tax year, is 12.5%, provided that no more than 25% of our gross income for such preceding year consists of certain types of dividends and interest. We cannot assure you that we will designate the profits that we may distribute in a way that will reduce shareholders' tax liability. United States residents who are subject to Israeli withholding tax on a dividend may be entitled to a credit or deduction for Untied States federal income tax purposes in the amount of the taxes withheld, subject to detailed rules contained in United States tax legislation.

A non-Israeli resident who receives dividends from which tax was withheld is generally exempt from the obligation to file tax returns in Israel with respect to such income, provided that (i) such income was not derived from a business conducted in Israel by the taxpayer, (ii) the taxpayer has no other taxable sources of income in Israel with respect to which a tax return is required to be filed, and (iii) the taxpayer is not obliged to pay excess tax (as further explained below).

Excess Tax

Individuals who are subject to tax in Israel are also subject to an additional tax at a rate of 3% on annual taxable income (including, but not limited to, dividends, interest and capital gain) exceeding a certain threshold (NIS 640,000 for 2017 and NIS 641,880 for 2018), which amount is linked to the annual change in the Israeli consumer price index.

United States Federal Income Taxation

The following is a description of the material United States federal income tax consequences to U.S. Holders (as defined below) of the acquisition, ownership and disposition of our ordinary shares. This description addresses only the United States federal income tax consequences to holders of our ordinary shares that hold such ordinary shares as capital assets. This description does not address tax considerations applicable to holders that may be subject to special tax rules, including, without limitation:

- § banks, financial institutions or insurance companies;
- § real estate investment trusts, regulated investment companies or grantor trusts;
- § dealers or traders in securities, commodities or currencies;
- § tax-exempt entities;
- § certain former citizens or long-term residents of the United States;
- § persons that received our shares as compensation for the performance of services;
- § persons that will hold our shares as part of a "hedging," "integrated" or "conversion" transaction or as a position in a "straddle" for United States federal income tax purposes;

- partnerships (including entities classified as partnerships for United States federal income tax purposes) or other pass-through entities, or holders that will hold our shares through such an entity;

- persons subject to special tax accounting rules as a result of any item of gross income with respect to the ordinary shares being taken into account in an "applicable financial statement" pursuant to Section 451(b) of the Code (as defined below);

- U.S. Holders (as defined below) whose "functional currency" is not the U.S. dollar; or

- holders that own directly, indirectly or through attribution 10.0% or more of the voting power or value of our shares.

Moreover, this description does not address the United States federal estate, gift or alternative minimum tax consequences, or any state, local or foreign tax consequences, of the acquisition, ownership and disposition of our ordinary shares.

This description is based on the United States Internal Revenue Code of 1986, as amended (the "Code"), existing, proposed and temporary United States Treasury Regulations and judicial and administrative interpretations thereof, in each case as in effect and available on the date hereof. Each of the foregoing is subject to change, which change could apply retroactively and could affect the tax consequences described below. There can be no assurances that the U.S. Internal Revenue Service will not take a different position concerning the tax consequences of the acquisition, ownership and disposition of our ordinary shares or that such a position would not be sustained.

For purposes of this description, a "U.S. Holder" is a beneficial owner of our ordinary shares that, for United States federal income tax purposes, is:

- a citizen or resident of the United States;

- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States or any state thereof, including the District of Columbia;

- an estate the income of which is subject to United States federal income taxation regardless of its source; or

- a trust if such trust has validly elected to be treated as a United States person for United States federal income tax purposes or if (1) a court within the United States is able to exercise primary supervision over its administration and (2) one or more United States persons have the authority to control all of the substantial decisions of such trust.

A "Non-U.S. Holder" is a beneficial owner of our ordinary shares that is neither a U.S. Holder nor a partnership (or other entity treated as a partnership for United States federal income tax purposes).

If a partnership (or any other entity treated as a partnership for United States federal income tax purposes) holds our ordinary shares, the tax treatment of a partner in such partnership will generally depend on the status of the partner and the activities of the partnership. Such a partner or partnership is encouraged to consult its tax advisor as to its tax consequences.

You are encouraged to consult your advisor with respect to the United States federal, state, local and foreign tax consequences of acquiring, owning and disposing of our ordinary shares.

Distributions

Subject to the discussion below under "Passive Foreign Investment Company Considerations," if you are a U.S. Holder, the gross amount of any distribution that we pay you with respect to our ordinary shares before reduction for any Israeli taxes withheld therefrom generally will be includible in your income as dividend income to the extent such distribution is paid out of our current or accumulated earnings and profits as determined under United States federal income tax principles. To the extent that the amount of any cash distribution exceeds our current and accumulated earnings and profits as determined under United States federal income tax principles, it will be treated first as a tax-free return of your adjusted tax basis in our ordinary shares and thereafter as capital gain. We do not expect to maintain calculations of our earnings and profits under United States federal income tax principles. Therefore, if you are a U.S. Holder you should expect that the entire amount of any cash distribution generally will be reported as dividend income to you; provided, however, that distributions of ordinary shares to U.S. Holders that are part of a pro rata distribution to all of our shareholders generally will not be subject to United States federal income tax. Subject to the PFIC rules discussed below, non-corporate U.S. Holders may qualify for the lower rates of taxation with respect to dividends on ordinary shares applicable to long-term capital gains (*i.e.*, gains from the sale of capital assets held for more than one year), provided that certain conditions are met, including certain holding period requirements and the absence of certain risk reduction transactions. Moreover, such reduced rate shall not apply if we are a PFIC for the taxable year in which we pay a dividend, or were a PFIC for the preceding taxable year. As discussed below, we believe we were classified as a PFIC for the year ending December 31, 2018. Dividends will not be eligible for the dividends received deduction generally allowed to corporate U.S. Holders.

If you are a U.S. Holder, dividends that we pay you with respect to our ordinary shares will be treated as foreign source income, which may be relevant in calculating your foreign tax credit limitation. Subject to certain conditions and limitations, Israeli tax withheld on dividends may be deducted from your taxable income or credited against your United States federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. For this purpose, dividends that we distribute generally should constitute "passive category income." A foreign tax credit for foreign taxes imposed on distributions may be denied if you do not satisfy certain minimum holding period requirements. The rules relating to the determination of the foreign tax credit are complex, and you are encouraged to consult your tax advisor to determine whether and to what extent you will be entitled to this credit.

Sale, Exchange or Other Disposition of Ordinary Shares

Subject to the discussion below under "Passive Foreign Investment Company Considerations," if you are a U.S. Holder, you generally will recognize an amount of gain or loss on the sale, exchange or other disposition of our ordinary shares equal to the difference between the amount realized on such sale, exchange or other disposition and your tax basis in our ordinary shares, and such gain or loss will be capital gain or loss. The tax basis in an ordinary share generally will equal the cost of such ordinary share. If you are a non-corporate U.S. Holder, capital gain from the sale, exchange or other disposition of ordinary shares generally will be eligible for a preferential rate of taxation applicable to capital gains, if your holding period for such ordinary shares exceeds one year. The deductibility of capital losses for United States federal income tax purposes is subject to limitations under the Code. However, as discussed below, we believe we were classified as a PFIC for the year ending December 31, 2018, in which case special rules may apply as explained below. Any such gain or loss that a U.S. Holder recognizes generally will be treated as U.S. source income or loss for foreign tax credit limitation purposes.

Passive Foreign Investment Company Considerations

Based on certain estimates of our gross income and gross assets and the nature of our business, we believe that we were classified as a PFIC for the taxable year ending December 31, 2018. As a result, a U.S. Holder who held our ordinary shares at any time during 2018 would be subject to special rules generally intended to reduce or eliminate any benefits from the deferral of U.S. federal income tax that a U.S. Holder could derive from investing in a non-U.S. company that does not distribute all of its earnings on a current basis.

A non-U.S. corporation will be classified as a PFIC for federal income tax purposes in any taxable year in which, after applying certain look-through rules, either:

- at least 75% of its gross income is "passive income"; or
- at least 50% of the average quarterly value of its gross assets (which may be determined in part by the market value of our ordinary shares, which is subject to change) is attributable to assets that produce "passive income" or are held for the production of passive income.

Passive income for this purpose generally includes dividends, interest, royalties, rents, gains from commodities and securities transactions, the excess of gains over losses from the disposition of assets which produce passive income, and includes amounts derived by reason of the temporary investment of funds raised in offerings of our ordinary shares. If a non-U.S. corporation owns at least 25% by value of the stock of another corporation, the non-U.S. corporation is treated for purposes of the PFIC tests as owning its proportionate share of the assets of the other corporation and as receiving directly its proportionate share of the other corporation's income. For publicly traded corporations, the PFIC asset test described above is applied using the fair market value of the non-U.S. corporation's assets. For purposes of a the PFIC asset test, a publicly traded non-U.S. corporation may treat the aggregate fair market value of its assets as being equal to the sum of the aggregate value of its outstanding stock ("Market Capitalization") and the total amount of its liabilities. We intend to take the position that the excess of our Market Capitalization plus liabilities over the book value of all of our assets may generally be treated as attributable to non-passive asset. If we are classified as a PFIC in any year with respect to which a U.S. Holder owns our ordinary shares, we will continue to be treated as a PFIC with respect to such U.S. Holder in all succeeding years during which the U.S. Holder owns our ordinary shares, regardless of whether we continue to meet the tests described above.

Based on the book value of our assets and liabilities and our Market Capitalization in 2018, we believe that we met the PFIC asset test described above for 2018 and, as a result, we were classified as a PFIC in 2018. Furthermore, because we currently hold, and expect to continue to hold, a substantial amount of cash and cash equivalents and other passive assets used in our business, and because our Market Capitalization is currently below the level necessary to avoid PFIC status for 2019, there is substantial risk we will be classified as a PFIC for the 2019 taxable year as well. However, because PFIC status is based on our income, assets and activities for the entire taxable year, and our Market Capitalization, it is not possible to determine whether we will be characterized as a PFIC for the 2019 taxable year until after the close of the year. Moreover, we must determine our PFIC status annually after the close of each taxable year based on tests which are factual in nature, and our status in future years will depend on our income, assets, activities and Market Capitalization in those years. Thus, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable year.

If we are a PFIC for any taxable year during which a U.S. Holder owns ordinary shares, we will generally continue to be treated as a PFIC with respect to such U.S. Holder for all succeeding years during which such U.S. Holder owns such ordinary shares, unless we cease to be a PFIC and the U.S. Holder makes a "deemed sale" election with respect to such ordinary shares. If such election is made, the U.S. Holder will be deemed to have sold the ordinary shares it holds at their fair market value and any gain from the deemed sale would be subject to the rules described in the following paragraph. After the deemed sale election, so long as we do not become a PFIC in a subsequent taxable year, the ordinary shares with respect to which such election was made will not be treated as shares in a PFIC and will not be subject to the rules described below with respect to any "excess distribution" the U.S. Holder receives from us or any gain from an actual sale or other disposition of such ordinary shares. U.S. Holders are strongly urged to consult their tax advisors as to the possibility and consequences of making a deemed sale election if we were to become and then cease to be a PFIC, and such election becomes available.

If you are a U.S. Holder that owns our ordinary shares during 2018 or any other taxable year for which we are a PFIC, then unless you make one of the elections described below, a special tax regime will apply to both (a) any "excess distribution" by us to you (generally, your ratable portion of distributions in any year which are greater than 125% of the average annual distribution received by you in the shorter of the three preceding years or your holding period for our ordinary shares) and (b) any gain realized on the sale or other disposition of the ordinary shares. Under this regime, any excess distribution and realized gain will be treated as ordinary income (even if you hold the ordinary shares as capital assets) and will be subject to tax as if (a) the excess distribution or gain had been realized ratably over your holding period, (b) the amount deemed realized in each year had been subject to tax in each year of that holding period at the highest marginal rate for such year (other than income allocated to the current period or any taxable period before we became a PFIC, which would be subject to tax at the U.S. Holder's regular ordinary income rate for the current year and would not be subject to the interest change discussed below), and (c) the interest charge generally applicable to underpayments of tax had been imposed on the taxes deemed to have been payable in those years. The tax liability for amounts allocated to years prior to the year of disposition or excess distribution cannot be offset by any net operating losses for such years.

If we are a PFIC for any taxable year during which a U.S. Holder holds our ordinary shares, then in lieu of being subject to the tax and interest charge rules discussed above, a U.S. Holder may make an election to include gain on the stock of a PFIC as ordinary income under a mark-to-market method, provided that such ordinary shares are "regularly traded" on a "qualified exchange." In general, our ordinary shares will be treated as "regularly traded" for a given calendar year if more than a *de minimis* quantity of our ordinary shares are traded on a qualified exchange on at least 15 days during each calendar quarter of such calendar year. Our ordinary shares are listed, and we expect them to continue to be listed for the foreseeable future, on the New York Stock Exchange, which is a qualifying exchange for this purpose. However, no assurance can be given that our ordinary shares will continue to be regularly traded on a "qualified exchange" for purposes of the mark-to-market election. In addition, because a mark-to-market election cannot be made for any lower-tier PFICs that we may own, a U.S. Holder may continue to be subject to the PFIC rules discussed above with respect to such holder's indirect interest in any investments we hold that are treated as an equity interest in a PFIC for United States federal income tax purposes.

If a U.S. Holder makes an effective mark-to-market election, in each year that we are a PFIC, such U.S. Holder will include in each year that we are a PFIC as ordinary income the excess of the fair market value of such U.S. Holder's ordinary shares at the end of the year over such U.S. Holder's adjusted tax basis in the shares. Such U.S. Holder will be entitled to deduct as an ordinary loss in each such year the excess of such U.S. Holder's adjusted tax basis in the ordinary shares over their fair market value at the end of the year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. If a U.S. Holder makes an effective mark-to-market election, in each year that we are a PFIC, any gain such U.S. Holder recognizes upon the sale or other disposition of such U.S. Holder's ordinary shares will be treated as ordinary income and any loss will be treated as ordinary loss, but only to the extent of the net amount of previously included income as a result of the mark-to-market election.

A U.S. Holder's adjusted tax basis in the ordinary shares will be increased by the amount of any income inclusion and decreased by the amount of any deductions under the mark-to-market rules discussed above. If a U.S. Holder makes an effective 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 ordinary shares are no longer regularly traded on a qualified exchange or the IRS consents to the revocation of the election. U.S. Holders are encouraged to consult their tax advisers about the availability of the mark-to-market election, and whether making the election would be advisable in their particular circumstances.

In certain circumstances, a U.S. equity holder in a PFIC may avoid the adverse tax and interest-charge regime described above by making a "qualified electing fund" election to include in income its share of the corporation's income on a current basis. However, a U.S. Holder may make a qualified electing fund election with respect to the ordinary shares only if we agree to furnish you annually with a PFIC annual information statement as specified in the applicable Treasury regulations.

We do not intend to provide the information necessary for U.S. Holders to make qualified electing fund elections if we are classified as a PFIC. U.S. Holders are encouraged to consult their tax advisors to determine whether any of these elections would be available and if so, what the consequences of the alternative treatments would be in their particular circumstances.

If we are determined to be a PFIC for any year in which a U.S. Holder holds our ordinary shares, the general tax treatment for the U.S. Holder described in this paragraph would apply to indirect distributions and gains deemed to be realized by the U.S. Holders in respect of any of our subsidiaries that also may be determined to be PFICs.

If a U.S. Holder owns ordinary shares during any year in which we are a PFIC and the U.S. Holder recognizes gain on a disposition of our ordinary shares or receives distributions with respect to our ordinary shares, the U.S. Holder generally will be required to file an IRS Form 8621 with respect to the company, generally with the U.S. Holder's federal income tax return for that year. If our company were a PFIC for a given taxable year, then you are encouraged to consult your tax advisor concerning your annual filing requirements.

U.S. Holders are strongly encouraged to consult their tax advisors regarding the consequences of our classification as a PFIC for our 2018 taxable year, our potential classification as a PFIC in 2019 and future taxable years, and the application of the PFIC rules on their investment.

Backup Withholding Tax and Information Reporting Requirements

United States backup withholding tax and information reporting requirements may apply to certain payments to certain holders of stock. Information reporting generally will apply to payments of dividends on, and to proceeds from the sale or redemption of, our ordinary shares made within the United States, or by a United States payor or United States middleman, to a holder of our ordinary shares, other than an exempt recipient (including a payee that is not a United States person that provides an appropriate certification and certain other persons). A payor will be required to withhold backup withholding tax from any payments of dividends on, or the proceeds from the sale or redemption of, ordinary shares within the United States, or by a United States payor or United States middleman, to a holder, other than an exempt recipient, if such holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with, or establish an exemption from, such backup withholding tax requirements. Any amounts withheld under the backup withholding rules will be allowed as a credit against the beneficial owner's United States federal income tax liability, if any, and any excess amounts withheld under the backup withholding rules may be refunded, provided that the required information is timely furnished to the Internal Revenue Service.

Foreign Asset Reporting

Certain U.S. Holders who are individuals are required to report information relating to an interest in our ordinary shares, subject to certain exceptions (including an exception for shares held in accounts maintained by financial institutions). U.S. Holders are encouraged to consult their tax advisors regarding their information reporting obligations, if any, with respect to their ownership and disposition of our ordinary shares.

Medicare Tax

Certain U.S. Holders that are individuals, estates or trusts are subject to a 3.8% tax on all or a portion of their "net investment income," which may include all or a portion of their dividend income and net gains from the disposition of ordinary shares. Each U.S. Holder that is an individual, estate or trust is encouraged to consult its tax advisors regarding the applicability of the Medicare tax to its income and gains in respect of its investment in the ordinary shares.

The above description is not intended to constitute a complete analysis of all tax consequences relating to acquisition, ownership and disposition of our ordinary shares. You are encouraged to consult your tax advisor concerning the tax consequences of your particular situation.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are currently subject to the informational requirements of the Exchange Act applicable to foreign private issuers and fulfill the obligations of these requirements by filing reports with the SEC. As a foreign private issuer, we are exempt from the rules under the Exchange Act relating to the furnishing and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act. However, we intend to file with the SEC, within 120 days after the end of each subsequent fiscal year, an annual report on Form 20-F containing financial statements which will be examined and reported on, with an opinion expressed, by an independent public accounting firm. We also intend to furnish the SEC reports on Form 6-K containing unaudited quarterly financial information.

The SEC maintains an Internet website at http://www.sec.gov that contains reports, including this annual report on Form 20-F and the documents referred to herein, proxy statements, information statements and other material that are filed through the SEC's Electronic Data Gathering, Analysis and Retrieval, or "EDGAR" system.

We also file annual and special reports and other information with the Israeli Securities Authority through its fair disclosure electronic system called MAGNA. You may review these filings on the website of the MAGNA system operated by the Israeli Securities Authority at www.magna.isa.gov.il or on the website of the TASE at www.tase.co.il.

Our ordinary shares are quoted on the TASE and, since December 2016, on Nasdaq (after being listed on the NYSE from November 2013 until December 2016). Information about us is also available on our website at http://www.evogene.com. Our website and the information contained therein or connected thereto will not be deemed to be incorporated into this annual report and you should not rely on any such information in making your decision whether to purchase our ordinary shares.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to a variety of risks, including foreign currency exchange fluctuations, changes in interest rates, inflation, and other risks. We regularly assess the risks to minimize any adverse effects on our business. For sensitivity analysis of our exposure to foreign currency exchange fluctuations and changes in market prices of listed securities, see Note 12d to our consolidated financial statements as of, and for the year ended, December 31, 2018 included elsewhere in this annual report.

Foreign Currency Risk

Most of our revenues are denominated in U.S. dollars. By contrast, we incur expenses primarily denominated in NIS. As a result, any appreciation of the NIS relative to the U.S. dollar adversely impacts our profitability due to the portion of our expenses that are incurred in NIS. As of December 31, 2018, we did not have any open forward currency contracts. In the future we may enter into hedging transactions in order to decrease our foreign currency risk; however, these transactions may not fully protect us from such risk.

The following table presents information about the changes in the exchange rates of the NIS against the U.S. dollar:

Period	Depreciation (Appreciation) of the NIS against the U.S. dollar (%) Based on Average of Daily Exchange Rates Throughout Year Compared to Previous Year
2018	(0.1)
2017	(6.3)
2016	(1.1)
2015	8.6
2014	(0.9)

Our exposure related to exchange rate changes on our net asset position denominated in currencies other than U.S. dollars varies with changes in our net asset position. Net asset position refers to financial assets, such as trade receivables and cash and cash deposits, less financial liabilities, such as trade payable and other payables. The impact of any such transaction gains or losses is reflected in financing expenses or income. Our most significant exposure relates to a potential change in the U.S. dollar-NIS exchange rates. Assuming a 10% decrease in the U.S. dollar relative to the NIS, and assuming no other change, our financing expenses would have increased by $2.1 million in 2018, decreased by $0.3 million in 2017, and decreased by $0.2 million in 2016 due to our positive current net asset position denominated in NIS as of December 31, 2018 and negative current net asset position denominated in NIS as of December 31, 2017 and 2016. As of December 31, 2018, we did not have any hedge arrangements in place to protect our exposure to foreign currency risk.

Commodity Price Risk

Because we operate in the agribusiness sector, changes in certain commodity prices may affect our reported operating results and cash flows. The budget for, and size of, research and development expenditures of our existing and potential collaborators may be reduced as a result of a decrease in commodity prices. For example, corn prices decreased from around US$7 per bushel in mid-2013 to less than US$4 per bushel in late 2014 and thereafter maintained that price level throughout 2015, 2016, 2017 and 2018[12]. Such developments may, in turn, adversely impact the size of the research payments that we may receive from these collaborators, as well as our ability to extend existing collaborations or enter into new ones. Further, the royalties we may receive from our collaborators on the sales and transfers of seeds containing the traits we develop could be affected by fluctuations in seed commodity prices. As of December 31, 2018, we did not have any hedge arrangements in place to protect our exposure to commodity price fluctuations.

Interest rate risk

We have a considerable investment in marketable securities that consist of corporate bonds and government treasury notes denominated in NIS and in U.S. dollars. These investments expose us to the risk of interest rate fluctuations. An increase in Israeli or U.S. interest rates could cause the fair value of these investments to decrease. As of December 31, 2018, the fair value of these investments was $26.1 million. The potential loss in fair value from a hypothetical 0.5% increase in the interest rate would be approximately $0.2 million. As of December 31, 2018, we did not have any hedge arrangements in place to protect our exposure to interest rate fluctuations.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

[12] Grand View Research, August 2016, http://www.grandviewresearch.com/industry-analysis/castor-oil-derivatives-industry.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

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

The effective date of the registration statement, File No. 333-191315, for our U.S. initial public offering of ordinary shares, par value NIS 0.02 per share, was November 20, 2013. The offering commenced on November 21, 2013 and was closed on November 26, 2013. Credit Suisse Securities and Deutsche Bank Securities acted as joint book-running managers for the offering, and Oppenheimer & Co. and Piper Jaffray & Co. acted as co-managers. We registered and sold 5,750,000 of our ordinary shares in our U.S. initial public offering. The aggregate offering price of the shares registered was approximately $84.8 million, as was the aggregate price of the shares sold. The total expenses of the offering, including underwriting discounts and commissions, were approximately $8 million. The net proceeds that we received from the offering were approximately $76.8 million.

A portion of the net proceeds from our U.S. initial public offering has been used to enhance our seed traits operation, to develop and expand our ag-chemicals operations, to further develop and commercialize our Evofuel activities, to develop our ag-biologicals operations, to develop our human microbiome activities, and to fund our working capital and capital expenditures. The balance is held in cash, short term deposit and marketable securities.

None of the net proceeds of our U.S. initial public offering was paid directly or indirectly to any director, officer, general partner of ours or to their associates, persons owning ten percent or more of any class of our equity securities, or to any of our affiliates.

ITEM 15. CONTROLS AND PROCEDURES

(a) Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of December 31, 2018. Our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and our management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2018, to provide reasonable assurance that the information required to be disclosed in filings and submissions under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms, and that such information related to us and our consolidated subsidiaries is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions about required disclosure.

(b) Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our 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

Our management recognizes that there are inherent limitations in the effectiveness of any system of internal control over financial reporting, including the possibility of human error and the circumvention or override of internal control. Accordingly, even effective internal control over financial reporting can provide only reasonable assurance with respect to financial statement preparation and may not prevent or detect all misstatements. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In conducting its assessment of internal control over financial reporting, management used the framework and criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) as of the end of the period covered by this report. Based on that evaluation, our management has concluded that our internal control over financial reporting was effective as of December 31, 2018.

Our independent registered public accounting firm has included its attestation report on the Company's internal control over financial reporting in this Form 20-F, as noted below.

(c) Attestation Report of Registered Public Accounting Firm

The attestation report of Kost, Forer, Gabbay & Kasierer (a member of Ernst & Young Global), the Company's independent registered public accounting firm that audited the financial statements included in this annual report on Form 20-F, on the Company's internal control over financial reporting, is provided on Page F-3 of this Annual Report.

(d) Changes in internal control over financial reporting

During the period covered by this annual report, no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act), have occurred 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 each of Ms. Sarit Firon and Mr. Ziv Kop qualifies as an audit committee financial expert, as defined by the rules of the SEC, and has the requisite financial experience required by the Nasdaq Listing Rules. In addition, each of Ms. Firon and Mr. Kop is independent, as such term is defined in Rule 10A-3(b)(1) under the Exchange Act and under the Nasdaq Listing Rules.

ITEM 16B. CODE OF ETHICS

We have adopted a Code of Ethics and Proper Business Conduct applicable to our executive officers, directors and all other employees, which is a "code of ethics" as defined in this Item 16B of Form 20-F promulgated by the SEC. We have also implemented a training program for new and existing employees concerning our Code of Ethics and Proper Business Conduct. A copy of the code is delivered to every employee of Evogene Ltd. and all of its subsidiaries, and is available to investors and others, without charge, on our website at http://www.evogene.com/investor-relations/corporate-governance/ or by contacting our investor relations department. Information contained on, or that can be accessed through, our website does not constitute a part of this Form 20-F and is not incorporated by reference herein. Under Item 16B of Form 20-F, if a waiver or amendment of the Code of Business Conduct and Ethics applies to our principal executive officer, principal financial officer, principal accounting officer, controller or other persons performing similar functions and relates to standards promoting any of the values described in Item 16B(b) of Form 20-F, we will disclose such waiver or amendment on our website within four business days following the date of amendment or waiver in accordance with the requirements of the Nasdaq listing rules and Instruction 4 to such Item 16B . We granted no waivers under our Code of Ethics and Proper Business Conduct in 2018. We intend to disclose any amendments to, or waivers of, the Code of Ethics and Proper Business Conduct on our Web site.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Principal Accountant Fees and Services.

We paid or accrued the following fees for professional services rendered by Kost, Forer, Gabbay & Kasierer, a member of Ernst & Young Global and an independent registered public accounting firm, for the years ended December 31, 2018 and 2017:

	2018	2017
Audit Fees	$ 155,000	$ 105,000
Audit-Related Fees	-	-
Tax Fees	23,000	15,000
All Other Fees	-	-
Total	$ 178,000	$ 120,000

"Audit fees" are the aggregate fees billed for the audit of our annual financial statements. This category also includes services that generally the independent accountant provides, such as consents and assistance with and review of documents filed with the SEC.

There were no "Audit-related fees" "Audit-related fees" or "All Other Fees" during the years ended December 31, 2018 or 2017.

"Tax fees" include fees for professional services rendered by our auditors for tax compliance and tax consulting in connection with international transfer pricing.

Our audit committee has adopted a pre-approval policy for the engagement of our independent accountant to perform certain audit and non-audit services. Pursuant to this policy, which is designed to assure that such engagements do not impair the independence of our auditors, the audit committee pre-approves annually any specific audit and non-audit services, audit-related services and tax services that may be performed by our independent accountants. Pursuant to that policy, our audit committee pre-approved all fees paid to our auditors for the year ended December 31, 2018.

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

Except as otherwise indicated, we are in compliance with corporate governance standards as currently applicable to us under Israeli, U.S., SEC and Nasdaq laws, rules and/or regulations, as applicable. Under the Nasdaq Listing Rules, as a foreign private issuer, we may elect to follow certain corporate governance practices permitted under the Companies Law in lieu of compliance with corresponding corporate governance requirements otherwise imposed by the Nasdaq Listing Rules for U.S. domestic issuers. We currently follow the provisions of the Companies Law, rather than the Nasdaq Listing Rules, solely with respect to the following requirements:

§ *Quorum.* As permitted under the Companies Law pursuant to our articles of association, the quorum required for an ordinary meeting of shareholders will consist of at least two shareholders present in person, by proxy or by other voting instrument in accordance with the Companies Law, who hold at least 25% of the voting power of our shares (and in an adjourned meeting, with some exceptions, at least two shareholders), instead of 33 1/3% of the issued share capital, as required under the Nasdaq Listing rules.

§ *Executive sessions of independent directors*. Israeli law does not require executive sessions of independent directors. Although all of our current directors are "independent directors" under the applicable Nasdaq criteria, we do not intend to comply with this requirement if we have directors who are not independent.

§ *Shareholder approval*. We will seek shareholder approval for all corporate actions requiring such approval under the Companies Law, which include (i) transactions with directors concerning the terms of their service or indemnification, exemption and insurance for their service (or for any other position that they may hold at a company), (ii) transactions concerning the compensation, indemnification, exculpation and insurance of the chief executive officer; (iii) the compensation policy recommended by the compensation committee of our board of directors and approved by our board of directors (and any amendments thereto); (iv) extraordinary transactions with, and the terms of employment or other engagement of, a controlling shareholder (if and when this becomes relevant to our company), (v) amendments to our articles of association, and (vi) certain non-public issuances of securities. In addition, under the Companies Law, a merger requires approval of the shareholders of each of the merging companies. We will not be required to, however, seek shareholder approval for any of the following events described in the Nasdaq Listing Rules:

- certain issuances of shares in excess of 20% of the outstanding shares of the Company;
- an issuance that will result in a change of control of our company; and
- adoption of, or material changes to, our equity compensation plans.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III

ITEM 17. FINANCIAL STATEMENTS

Not applicable.

ITEM 18. FINANCIAL STATEMENTS

See pages F-2 through F-45 of this annual report.

ITEM 19. EXHIBITS

ANNUAL REPORT ON FORM 20-F
INDEX OF EXHIBITS

Exhibit No.	Description
1.1	Amended and Restated Articles of Association of the Registrant (incorporated by reference to Exhibit 1.1 to Evogene's Annual Report on Form 20-F for the year ended December 31, 2017, filed with the SEC on March 30, 2018)
4.1	Form of Indemnification Agreement (incorporated by reference to Exhibit 10.9 to Evogene's Registration Statement on Form F-1, as amended (Registration No. 333-191315))
4.2	Evogene Share Option Plan (2002) (incorporated by reference to Exhibit 10.10 to Evogene's Registration Statement on Form F-1, as amended (Registration No. 333-191315))
4.3	Evogene Ltd. Key Employee Share Incentive Plan, 2003 (incorporated by reference to Exhibit 10.11 to Evogene's Registration Statement on Form F-1, as amended (Registration No. 333-191315))
4.4.1	Evogene Ltd. 2013 Share Option Plan (incorporated by reference to Exhibit 10.12 to Evogene's Registration Statement on Form F-1, as amended (Registration No. 333-191315))
4.4.2	2015 U.S. Addendum to Evogene Ltd. 2013 Share Option Plan (incorporated by reference to Exhibit A to the proxy statement for Evogene's special general meeting of shareholders held on March 15, 2016, annexed as Exhibit 99.1 to Evogene's Report of Foreign Private Issuer on Form 6-K, furnished to the SEC on February 4, 2016)
4.5	Second Amended and Restated Collaboration Agreement, dated October 27, 2013, by and between Monsanto Company and Evogene Ltd., (incorporated by reference to Exhibit 10.1 to Evogene's Registration Statement on Form F-1, as amended (Registration No. 333-191315)) †
4.6.1	Evogene Ltd. Officers Compensation Policy (incorporated by reference to Appendix A to Evogene's proxy statement for its special general meeting of shareholders held on January 17, 2017, annexed as Exhibit 99.2 to Evogene's Report of Foreign Private Issuer on Form 6-K, furnished to the SEC on December 12, 2016)
4.6.2	Amendment to Evogene Ltd. Officers Compensation Policy (incorporated by reference to Appendix A to Evogene's proxy statement for its 2018 annual general meeting of shareholders held on July 24, 2018, annexed as Exhibit 99.2 to Evogene's Report of Foreign Private Issuer on Form 6-K, furnished to the SEC on June 14, 2018)
8.1	List of subsidiaries of the Registrant
12.1	Certificate of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002
12.2	Certificate of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002
13.1	Certificate of Chief Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002
13.2	Certificate of Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002
15.1	Consent of Kost Forer Gabbay and Kasierer, a member of Ernst & Young Global

† Confidential treatment has been requested for portions of this document. The omitted portions of this document have been filed with the SEC.

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.

Evogene Ltd.

Date: April 29, 2019

By: /s/ Ofer Haviv
Name: Ofer Haviv
Title: President and Chief Executive Officer

EVOGENE LTD. AND ITS SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

AS OF DECEMBER 31, 2018

U.S. DOLLARS IN THOUSANDS

INDEX

Kost Forer Gabbay & Kasierer
144 Menachem Begin Road, Building A
Tel-Aviv 6492102, Israel

Tel: +972-3-6232525
Fax: +972-3-5622555
ey.com

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of

EVOGENE LTD.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Evogene Ltd. and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of profit or loss, changes in equity and cash flows for each of the three years in the period ended December 31, 2018, and the 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, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

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, 2018, 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 April 29, 2019, expressed an unqualified opinion thereon.

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
April 29, 2019

Kost Forer Gabbay & Kasierer
144 Menachem Begin Road, Building A
Tel-Aviv 6492102, Israel

Tel: +972-3-6232525
Fax: +972-3-5622555
ey.com

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of

EVOGENE LTD.

Opinion on Internal Control over Financial Reporting

We have audited Evogene Ltd. ("the Company") and its subsidiaries' internal control over financial reporting as of December 31, 2018, 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 and its subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, 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 consolidated statements of financial position of the Company as of December 31, 2018 and 2017, the related consolidated statements of profit or loss, changes in equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes, and our report dated April 29, 2019, expressed an unqualified opinion thereon.

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.

Building a better working world

Kost Forer Gabbay & Kasierer
144 Menachem Begin Road, Building A
Tel-Aviv 6492102, Israel

Tel: +972-3-6232525
Fax: +972-3-5622555
ey.com

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
April 29, 2019

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

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

	Note	December 31, 2018	December 31, 2017
CURRENT ASSETS:			
Cash and cash equivalents	6	$ 5,810	$ 3,435
Marketable securities	7	26,065	59,940
Short-term bank deposits		22,592	8,380
Trade receivables		160	132
Other receivables and prepaid expenses	8	861	904
		55,488	72,791
LONG-TERM ASSETS:			
Long-term deposits		19	19
Property, plant and equipment, net	9	3,187	4,792
		3,206	4,811
		$ 58,694	$ 77,602
CURRENT LIABILITIES:			
Trade payables		$ 1,015	$ 1,110
Liabilities in respect of government grants	11	988	104
Deferred revenues and other advances	5	412	516
Other payables	10	3,016	2,934
		5,431	4,664
LONG-TERM LIABILITIES:			
Liabilities in respect of government grants	11	2,898	3,438
Deferred revenues and other advances	5	28	89
Severance pay liability, net	13	31	33
		2,957	3,560
SHAREHOLDERS' EQUITY:	16		
Ordinary shares of NIS 0.02 par value: Authorized − 150,000,000 ordinary shares; Issued and outstanding – 25,754,297 and 25,750,547 shares at December 31, 2018 and 2017, respectively		142	142
Share premium and other capital reserves		187,701	186,268
Accumulated deficit		(137,790)	(117,032)
Equity attributable to equity holders of the Company		50,053	69,378
Non-controlling interests		253	-
Total equity		50,306	69,378
		$ 58,694	$ 77,602

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

CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

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

	Note	Year ended December 31, 2018	2017	2016
Revenues		$ 1,747	$ 3,381	$ 6,540
Cost of revenues	18a	1,452	2,845	5,639
Gross profit		295	536	901
Operating expenses:				
Research and development, net	18b	14,686	16,987	16,405
Business development	18c	2,084	1,686	1,696
General and administrative	18d	3,514	3,810	3,889
Total operating expenses		20,284	22,483	21,990
Operating loss		(19,989)	(21,947)	(21,089)
Financing income	18e	1,413	2,125	2,424
Financing expenses	18e	(2,206)	(1,005)	(891)
Financing income (expenses), net		(793)	1,120	1,533
Loss before taxes on income		(20,782)	(20,827)	(19,556)
Taxes on income		30	11	36
Loss		$ (20,812)	$ (20,838)	$ (19,592)
Attributable to:				
Equity holders of the Company		(20,758)	(20,838)	(19,592)
Non-controlling interests		(54)	-	-
		$ (20,812)	$ (20,838)	$ (19,592)
Basic and diluted loss per share, attributable to equity holders of the Company	19	$ (0.81)	$ (0.81)	$ (0.77)
Weighted average number of shares used in computing basic and diluted loss per share		25,753,411	25,673,276	25,444,733

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

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

U.S. dollars in thousands

	Attributable to equity holders of the Company					
	Share capital	Share premium and other capital reserves	Accumulated deficit	Total	Non-controlling interests	Total equity
Balance as of January 1, 2016	$ 140	$ 180,214	$ (76,602)	$ 103,752	$ -	$ 103,752
Loss	-	-	(19,592)	(19,592)	-	(19,592)
Exercise of options	1	185	-	186	-	186
Share-based compensation	-	2,943	-	2,943	-	2,943
Balance as of December 31, 2016	$ 141	$ 183,342	$ (96,194)	$ 87,289	$ -	$ 87,289
Loss	-	-	(20,838)	(20,838)	-	(20,838)
Exercise of options	1	682	-	683	-	683
Share-based compensation	-	2,244	-	2,244	-	2,244
Balance as of December 31, 2017	$ 142	$ 186,268	$ (117,032)	$ 69,378	$ -	$ 69,378
Loss	-	-	(20,758)	(20,758)	(54)	(20,812)
Exercise of options	*) -	9	-	9	-	9
Share-based compensation	-	1,424	-	1,424	307	1,731
Balance as of December 31, 2018	$ 142	$ 187,701	$ (137,790)	$ 50,053	$ 253	$ 50,306

*) Represents an amount lower than $1

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2018	**2017**	**2016**
Cash flows from operating activities:			
loss	$ (20,812)	$ (20,838)	$ (19,592)
Adjustments to reconcile loss to net cash used in operating activities:			
Adjustments to the profit or loss items:			
Depreciation	2,020	2,145	2,279
Share-based compensation	1,731	2,244	2,943
Net financing expenses (income)	694	(1,454)	(1,688)
Loss from sale of property, plant and equipment	-	-	39
Taxes on income	30	11	36
	4,475	2,946	3,609
Changes in asset and liability items:			
Decrease (increase) in trade receivables	(28)	37	2,506
Decrease (increase) in other receivables	95	221	(100)
Decrease (increase) in long term deposits	-	(6)	9
Decrease in trade payables	(114)	(86)	(215)
Decrease (increase) in other payables	51	138	(298)
Decrease in deferred revenues and other advances	(165)	(500)	(81)
Increase in liabilities in respect of government grants	-	-	115
	(161)	(196)	1,936
Cash received (paid) during the year for:			
Interest received	1,360	2,173	2,360
Taxes paid	(23)	(14)	(6)
Net cash used in operating activities	(15,161)	(15,929)	(11,693)

CONSOLIDATED STATEMENTS OF CASH FLOWS

U.S. dollars in thousands

	Year ended December 31,		
	2018	**2017**	**2016**
Cash flows from investing activities:			
Purchase of property, plant and equipment	$ (374)	$ (590)	$ (808)
Proceeds from sale of marketable securities	63,639	22,737	23,926
Purchase of marketable securities	(31,700)	(11,659)	(24,561)
Proceeds from (investment in) bank deposits, net	(14,212)	4,757	5,466
Proceeds from sale of property, plant and equipment	-	-	5
Net cash provided by investing activities	17,353	15,245	4,028
Cash flows from financing activities:			
Proceeds from exercise of options	9	683	186
Proceeds from government grants	354	339	802
Repayment of government grants	(66)	(208)	(333)
Net cash provided by financing activities	297	814	655
Exchange rate differences on cash and cash equivalent balances	(114)	69	25
Increase (decrease) in cash and cash equivalents	2,375	199	(6,985)
Cash and cash equivalents at the beginning of the year	3,435	3,236	10,221
Cash and cash equivalents at the end of the year	$ 5,810	$ 3,435	$ 3,236
Significant non-cash activities			
Acquisition of property, plant and equipment	$ 80	$ 39	$ 150

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

NOTE 1: – GENERAL

a. Evogene Ltd. together with its subsidiaries ("the Company" or "Evogene") is a leading biotechnology company developing novel products for major life science markets through the use of a unique computational predictive biology (CPB) platform incorporating deep scientific understandings and cutting-edge computational technologies. This platform is utilized by the Company and its subsidiaries to discover and develop innovative products in the following areas: ag-chemicals, ag-biologicals, seed traits, castor bean varieties and human microbiome-based therapeutics.

Evogene Ltd. was founded on October 10, 1999, as Agro Leads Ltd., a division of Compugen Ltd. In 2002, the Company was spun-off as an independent corporation under the laws of the State of Israel, and changed its name to Evogene Ltd.

The Company's shares have been trading on the Tel Aviv Stock Exchange ("TASE") since 2007, on the New York Stock Exchange ("NYSE") from November 2013 until December 2016, and on the Nasdaq Stock Market ("NASDAQ") since December 2016.

b. The Company principally derives its revenues from collaboration arrangements, see Note 5. As to major customers, see Note 20c. In a case of termination of collaboration agreement with a major customer, the Company may not be able to make up for the lost revenue and this may have a material adverse effect on its results of operations.

c. The Company has four active subsidiaries – Evofuel Ltd., Evogene Inc., Biomica Ltd. and AgPlenus Ltd.

Evofuel Ltd. was incorporated on January 1, 2012, currently focusing on the development of improved castor bean seeds for industrial uses.

Evogene Inc. was incorporated in Delaware, United States. Since 2015, Evogene Inc. is engaged in research and development in the field of insect control and located in the Bio-Research and Development Growth (BRDG) Park, in St. Louis, Missouri, United States.

Biomica Ltd. was incorporated on March 2, 2017, with the mission of discovering and developing human microbiome-based therapeutics.

AgPlenus Ltd. was incorporated on June 10, 2018, with the mission to design effective and sustainable crop protection products by leveraging predictive biology.

d. Definitions

In these Financial Statements –

Subsidiary - Company that is controlled by the Company (as defined in IFRS 10) and whose accounts are consolidated with those of the Company.

Related parties - As defined in IAS 24.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies have been applied consistently in the financial statements for all periods presented, unless otherwise stated.

a. Basis of presentation of the financial statements:

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board.

The Company's financial statements have been prepared on a cost basis, except for financial assets and liabilities (including derivatives) which are presented at fair value through profit or loss.

The Company has elected to present profit or loss items using the function of expense method.

b. Consolidated financial statements:

The consolidated financial statements comprise the financial statements of companies that are controlled by the Company (subsidiaries). Control is achieved when the Company is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Potential voting rights are considered when assessing whether an entity has control. The consolidation of the financial statements commences on the date on which control is obtained and ends when such control ceases.

The financial statements of the Company and of the subsidiaries are prepared as of the same dates and periods. The consolidated financial statements are prepared using uniform accounting policies by all companies in the Group. Significant intragroup balances and transactions and gains or losses resulting from intragroup transactions are eliminated in full in the consolidated financial statements.

Non-controlling interests in subsidiaries represent the equity in subsidiaries not attributable, directly or indirectly, to a parent. Non-controlling interests are presented in equity separately from the equity attributable to the equity holders of the Company. Profit or loss and components of other comprehensive income are attributed to the Company and to non-controlling interests. Losses are attributed to non-controlling interests even if they result in a negative balance of non-controlling interests in the consolidated statement of financial position.

c. Functional currency, presentation currency and foreign currency:

1. Functional currency and presentation currency:

The presentation currency of the financial statements is the U.S. dollar.

The Company and its subsidiaries determine the functional currency of each entity, and this currency is used to separately measure each entity's financial position and operating results. The Company's functional currency is the U.S. dollar.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

2. Transactions, assets and liabilities in foreign currency:

Transactions denominated in foreign currency are recorded upon initial recognition at the exchange rate at the date of the transaction. After initial recognition, monetary assets and liabilities denominated in foreign currency are translated at each reporting date into the functional currency at the exchange rate at that date. Exchange rate differences, other than those capitalized to qualifying assets or accounted for as hedging transactions in equity, are recognized in profit or loss. Non-monetary assets and liabilities denominated in foreign currency and measured at cost are translated at the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currency and measured at fair value are translated into the functional currency using the exchange rate prevailing at the date when the fair value was determined.

d. Cash equivalents:

Cash equivalents are considered as highly liquid investments, including unrestricted short-term bank deposits with an original maturity of three months or less from the date of investment or with a maturity of more than three months, but which are redeemable on demand without penalty, and which form part of the Group's cash management.

e. Short-term deposits:

Short-term bank deposits are deposits with an original maturity of more than three months from the date of investment and which do not meet the definition of cash equivalents. The deposits are presented according to their terms of deposit.

f. Government grants:

Government grants are recognized when there is reasonable assurance that the grants will be received, and the Company will comply with the attached conditions.

Government grants received from the Israel Innovation Authority (“IIA”, former “Office of the Chief Scientist in Israel” ("OCS")), the Israel-U.S. Binational Industrial Research and Development Foundation ("BIRD") and the Canada-Israel Industrial Research and Development Foundation ("CIIRDF") are recognized upon receipt as a liability if future economic benefits are expected from the research project that will result in royalty-bearing sales.

A liability for the loan is first measured at fair value using a discount rate that reflects a market rate of interest. The difference between the amount of the grant received and the fair value of the liability is accounted for as a government grant and recognized as a reduction of research and development expenses. After initial recognition, the liability is measured at amortized cost using the effective interest method. Royalty payments are treated as a reduction of the liability. If no economic benefits are expected from the research activity, the grant receipts are recognized as a reduction of the related research and development expenses. In that event, the royalty obligation is treated as a contingent liability in accordance with IAS 37.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

In each reporting date, the Company evaluates whether there is reasonable assurance that the liability recognized, in whole or in part, will not be repaid (since the Company will not be required to pay royalties) based on the best estimate of future sales and using the original effective interest method, and if so, the appropriate amount of the liability is derecognized against a corresponding reduction in research and development expenses.

Amounts paid as royalties are recognized as settlement of the liability.

Non-refundable grants from the IIA and the European Union Horizon 2020 ("EU") for funding research and development projects are recognized at the time the Company is entitled to such grants on the basis of the related costs incurred and recorded as a deduction from research and development expenses.

g. Leases:

The criteria for classifying leases as finance or operating leases depend on the substance of the agreements and are made at the inception of the lease in accordance with the following principles as set out in IAS 17.

The Company is only involved in operating lease transaction as a lessee.

Leases in which substantially all the risks and rewards of ownership of the leased asset are not transferred to the Company are classified as operating leases. Lease payments are recognized as an expense in profit or loss on a straight-line basis over the lease term.

h. Property, plant and equipment:

Property, plant and equipment are measured at cost, including directly attributable costs, less accumulated depreciation, accumulated impairment losses and any related investment grants and excluding day-to-day servicing expenses.

Depreciation is calculated on a straight-line basis over the useful life of the assets at annual rates as follows:

	%	Mainly %
Laboratory equipment	9-30	15
Computers and peripheral equipment	15-33.33	33.33
Office equipment and furniture	6-20	6
Leasehold improvements	see below	

Leasehold improvements are depreciated on a straight-line basis over the shorter of the lease term (including the extension option held by the Company and intended to be exercised) and the expected life of the improvement.

The useful life, depreciation method and residual value of an asset are reviewed at least each year-end and any changes are accounted for prospectively as a change in accounting estimate. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale and the date that the asset is derecognized.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

i. Impairment of non-financial assets:

The Company evaluates the need to record an impairment of non-financial assets whenever events or changes in circumstances indicate that the carrying amount is not recoverable.

If the carrying amount of non-financial assets exceeds their recoverable amount, the assets are reduced to their recoverable amount. The recoverable amount is the higher of fair value less costs of sale and value in use. In measuring value in use, the expected future cash flows are discounted using a pre-tax discount rate that reflects the risks specific to the asset. The recoverable amount of an asset that does not generate independent cash flows is determined for the cash-generating unit to which the asset belongs. Impairment losses are recognized in profit or loss.

j. Revenue recognition:

Effective of January 1, 2018, the Company adopted IFRS 15, "Revenue from Contracts with Customers" ("the Standard"). The Company elected to adopt the provisions of the Standard using the modified retrospective method with the application of certain practical expedients and without restatement of comparative data.

The Standard introduces a five-step model that applies to revenue earned from contracts with customers:

Step 1: Identify the contract with a customer, including reference to contract combination and accounting for contract modifications.

Step 2: Identify the distinct performance obligations in the contract

Step 3: Determine the transaction price, including reference to variable consideration, significant financing components, non-cash consideration and any consideration payable to the customer.

Step 4: Allocate the transaction price to the distinct performance obligations on a relative stand-alone selling price basis using observable prices, if s available, or using estimates and assessments.

Step 5: Recognize revenue when a performance obligation is satisfied, either at a point in time or over time.

The Standard has been applied for the first time in these financial statements and the initial application of the Standard did not affect the Company's financial statements.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

Revenue from contracts with customers is recognized when the control over the goods or services is transferred to the customer. The transaction price is the amount of the consideration that is expected to be received based on the contract terms, excluding amounts collected on behalf of third parties (such as taxes).

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations such as license, services, royalties and milestone events require an allocation of the transaction price to each performance obligation based on a relative standalone selling price ("SSP") basis. The Company establishes SSP based on management judgment, considering internal factors such as margin objectives, pricing practices and historical sales.

Revenue from each performance obligation is recognized when the performance obligation related to that revenue is satisfied and only to the extent of the consideration that is not contingent upon completion or satisfaction of future performance obligations in the contract.

Revenues from research and development services as part of the Company's collaboration agreements are recognized over time, during the period the customer simultaneously receives and consumes the benefits provided by the Company's performance. Recognition of the service is throughout the services period and is determined based on the proportion of actual costs incurred for each reporting period to the estimated total costs, subject to the enforceable rights. The Company charges its customers based on payment terms agreed upon in specific agreements. When payments are made before or after the service is performed, the Company recognizes the resulting contract asset or liability.

Revenues from milestone events stipulated in the agreements are recognized upon the occurrence of event or achievement of the milestone specified in the agreement.

Costs to fulfill a contract:

Costs incurred in fulfilling contracts or anticipated contracts with customers are recognized as an asset when the costs are expected to be recovered. Costs to fulfill a contract comprise direct identifiable costs and indirect costs that can be directly attributed to a contract based on a reasonable allocation method. Costs to fulfill a contract are expensed consistently with the recognition of revenues under the specific contract.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

k. Taxes on income:

Current or deferred taxes are recognized in profit or loss, except to the extent that they relate to items which are recognized in other comprehensive income (loss) or equity.

1. Current taxes:

The current tax liability is measured using the tax rates and tax laws that have been enacted or substantively enacted by the reporting date as well as adjustments required in connection with the tax liability in respect of previous years.

2. Deferred taxes:

Deferred taxes are computed in respect of temporary differences between the carrying amounts in the financial statements and the amounts attributed for tax purposes.

Deferred taxes are measured at the tax rate that is expected to apply when the asset is realized or the liability is settled, based on tax laws that have been enacted or substantively enacted by the reporting date.

Deferred tax assets are reviewed at each reporting date and reduced to the extent that it is not probable that they will be utilized. Temporary differences for which deferred tax assets had not been recognized are reviewed at each reporting date and a respective deferred tax asset is recognized to the extent that their utilization is probable.

l. Financial instruments:

Effective of January 1, 2018, the Company adopted IFRS 9, "Financial Instruments" ("the Standard"), which replaced IAS 39. The Company elected to adopt the provisions of the Standard retrospectively without restatement of comparative data.

1. Financial assets:

Financial assets are classified, at initial recognition, and subsequently measured at amortized cost, fair value through other comprehensive income (OCI), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset’s contractual cash flow characteristics and the Company’s business model for managing them. The Company initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

2. Financial liabilities:

Financial liabilities within the scope of IFRS 9 are initially measured at fair value.

After initial recognition, the accounting treatment of financial liabilities is based on their classification as follows:

Financial liabilities measured at amortized cost:

Loans and other contingent liabilities are measured at amortized cost using the effective interest method taking into account directly attributable transaction costs.

3. Fair value measurement:

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair value measurement is based on the assumption that the transaction will take place in the asset's or the liability's principal market, or in the absence of a principal market, in the most advantageous market.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

Fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

4. Classification of financial instruments by fair value hierarchy:

All assets and liabilities measured at fair value or for which fair value is disclosed are categorized into levels within the fair value hierarchy based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable directly or indirectly.

Level 3 - Inputs that are not based on observable market data (valuation techniques which use inputs that are not based on observable market data).

5. Offsetting financial instruments:

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

6. De-recognition of financial instruments:

a) Financial assets:

A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire or the Company has transferred its contractual rights to receive cash flows from the financial asset or assumes an obligation to pay the cash flows in full without material delay to a third party and has transferred substantially all the risks and rewards of the asset, or has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

b) Financial liabilities:

A financial liability is derecognized when it is extinguished, that is when the obligation is discharged or cancelled or expires. A financial liability is extinguished when the debtor (the Company) discharges the liability by paying in cash, other financial assets, goods or services; or is legally released from the liability.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

7. Contingent consideration for purchase of shares:

The contingent consideration liability for purchase of shares is measured at fair value (Level 3 of the fair value hierarchy) and initially recorded against equity. Subsequent changes in the fair value are recognized in profit or loss.

m. Provisions:

A provision in accordance with IAS 37 is recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

n. Employee benefit liabilities:

The Company has several employee benefit plans:

1. Short-term employee benefits:

Short-term employee benefits are benefits that are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related services. These benefits include salaries, paid annual leave, paid sick leave, recreation and social security contributions and are recognized as expenses as the services are rendered. A liability in respect of a cash bonus or a profit-sharing plan is recognized when the Company has a legal or constructive obligation to make such payment as a result of past service rendered by an employee and a reliable estimate of the amount can be made.

2. Post-employment benefits:

The plans are normally financed by contributions to insurance companies and classified as defined contribution plans or as defined benefit plans.

The Company has defined contribution plans pursuant to section 14 to the Severance Pay Law under which the Company pays fixed contributions and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient amounts to pay all employee benefits relating to employee service in the current and prior periods.

Contributions to the defined contribution plan in respect of severance or retirement pay are recognized as an expense when contributed concurrently with performance of the employee's services.

In respect of its severance pay obligation to certain of its employees, the Company makes current deposits in pension funds and insurance companies ("the plan assets"). Plan assets comprise assets held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the Company's own creditors and cannot be returned directly to the Company.

NOTE 2: - SIGNIFICANT ACCOUNTING POLICIES (Cont.)

o. Share-based payment transactions:

The Company's employees and consultants are entitled to remuneration in the form of equity-settled share-based payment transactions.

Equity-settled transactions:

The cost of equity-settled transactions with employees is measured at the fair value of the equity instruments granted at grant date. The fair value is determined using an acceptable option pricing model.

As for consultants, the cost of the transactions is measured at the fair value of the services received as consideration for equity instruments granted.

The cost of equity-settled transactions is recognized in profit or loss together with a corresponding increase in equity during the period which the performance and/or service conditions are to be satisfied ending on the date on which the relevant employees become entitled to the award ("the vesting period"). The cumulative expense recognized for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Company's best estimate of the number of equity instruments that will ultimately vest. No expense is recognized for awards that do not ultimately vest.

If the Company modifies the conditions on which equity-instruments were granted, an additional expense is recognized for any modification that increases the total fair value of the share-based payment arrangement or is otherwise beneficial to the employee or other service provider at the modification date.

p. Loss per share:

Loss per share is calculated by dividing the loss attributable to equity holders of the Company by the weighted number of ordinary shares outstanding during the period.

Potential ordinary shares are included in the computation of diluted earnings per share when their conversion decreases earnings per share from continuing operations.

NOTE 3: - SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUPMTIONS USED IN THE PREPARATION OF THE FINANCIAL STATEMENTS

In the process of applying the significant accounting policies, the Company has made the following judgments which have the most significant effect on the amounts recognized in the financial statements:

a. Judgments:

Revenues:

- Determining the timing of satisfaction of performance obligations:

In order to determine the timing of recognizing revenues from contracts with customers at a point in time or over time, the Company evaluates the date of transfer of control over the assets or services promised in the contracts. Among others, the Company evaluates whether the customer obtains control of the asset at a specific point in time or consumes the economic benefits associated with the contract simultaneously with the Company's performance. In determining the timing of revenue recognition, the Company also considers the provisions of applicable laws and regulations.

b. Estimates and assumptions:

The preparation of the financial statements requires management to make estimates and assumptions that have an effect on the application of the accounting policies and on the reported amounts of assets, liabilities, revenues and expenses. Changes in accounting estimates are reported in the period of the change in estimate.

The key assumptions made in the financial statements concerning uncertainties at the reporting date and the critical estimates computed by the Company that may result in a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

- Government grants:

Government grants received from the IIA, BIRD and CIIRDF are recognized as a liability if future economic benefits are expected from the research and development activity that will result in royalty-bearing sales. There is uncertainty regarding the estimated future cash flows used to measure the amount of the liability.

- Legal claims:

In estimating the likelihood of outcome of legal claims filed against the Company and its investees, the companies rely on the opinion of their legal counsel. These estimates are based on the legal counsel's best professional judgment, taking into account the stage of proceedings and legal precedents in respect of the different issues. Since the outcome of the claims will be determined in courts, the results could differ from these estimates.

NOTE 3: - SIGNIFICANT ACCOUNTING JUDGMENTS, ESTIMATES AND ASSUPMTIONS USED IN THE PREPARATION OF THE FINANCIAL STATEMENTS (Cont.)

- Determining the fair value of share-based payment transactions:

  The fair value of share-based payment transactions is determined upon initial recognition by an acceptable option pricing model. The inputs to the model include share price and exercise price and assumptions regarding expected volatility, expected life of share option and expected dividend yield.

NOTE 4: - DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION

IFRS 16, "Leases":

In January 2016, the IASB issued IFRS 16, "Leases" ("the new Standard"). According to the new Standard, a lease is a contract, or part of a contract, that conveys the right to use an asset for a period of time in exchange for consideration.

The effects of the adoption of the new Standard are as follows:

According to the new Standard, lessees are required to recognize all leases in the statement of financial position (excluding certain exceptions, see below). Lessees will recognize a liability for lease payments with a corresponding right-of-use asset, similar to the accounting treatment for finance leases under the existing standard, IAS 17, "Leases". Lessees will also recognize interest expense and depreciation expense separately.

Variable lease payments that are not dependent on changes in the Consumer Price Index ("CPI") or interest rates, but are based on performance or use are recognized as an expense by the lessees as incurred and recognized as income by the lessors as earned.

In the event of change in variable lease payments that are CPI-linked, lessees are required to remeasure the lease liability and record the effect of the remeasurement as an adjustment to the carrying amount of the right-of-use asset.

The accounting treatment by lessors remains substantially unchanged from the existing standard, namely classification of a lease as a finance lease or an operating lease.

The new Standard includes two exceptions which allow lessees to account for leases based on the existing accounting treatment for operating leases - leases for which the underlying asset is of low financial value and short-term leases (up to one year).

NOTE 4:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION (Cont.)

The new Standard is effective for annual periods beginning on or after January 1, 2019.

The new Standard permits lessees to use one of the following approaches:

1. Full retrospective approach - according to this approach, a right-of-use asset and the corresponding liability will be presented in the statement of financial position as if they had always been measured according to the provisions of the new Standard. Accordingly, the effect of the adoption of the new Standard at the beginning of the earliest period presented will be recorded in equity. Also, the Company will restate the comparative data in its financial statements. Under this approach, the balance of the liability as of the date of initial application of the new Standard will be calculated using the interest rate implicit in the lease, unless this rate cannot be easily determined in which case the lessee's incremental borrowing rate of interest on the commencement date of the lease will be used.

2. Modified retrospective approach - this approach does not require restatement of comparative data. The balance of the liability as of the date of initial application of the new Standard will be calculated using the lessee's incremental borrowing rate of interest on the date of initial application of the new Standard. As for the measurement of the right-of-use asset, the Company may choose, on a lease-by-lease basis, to apply one of the two following alternatives:

    Recognize an asset in an amount equal to the lease liability, with certain adjustments.

    Recognize an asset as if the new Standard had always been applied.

Any difference arising on the date of first-time recorded in equity.

The Company believes that it will apply the modified retrospective approach upon the initial adoption of the new Standard by measuring the right-of-use asset at an amount equal to the lease liability, as measured on the transition date.

The Company has a substantial number of lease contracts, mainly leases of its principal facility in Rehovot, "Evogene's Farm", research and development facility in St. Louis, Missouri and car leases (see also Note 15a). In assessing the impact of the new Standard on the financial statements, the Company is evaluating the following matters:

Options to extend the lease- according to the new Standard, the non-cancellable period of a lease includes periods that are covered by options to extend the lease if the lessee is reasonably certain to exercise the option. The Company is reviewing whether such options exist in its lease agreements and whether it is reasonably certain that it will exercise the options. As part of its assessment, the Company is evaluating all relevant facts and circumstances that create an economic incentive to exercise the option, including significant leasehold improvements that have been or are expected to be undertaken, the importance of the underlying asset to the Company's operations and past experience in connection with the exercise of such options.

NOTE 4:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION (Cont.)

Separation of lease components - according to the new Standard, all lease components within a contract should be accounted for separately from non-lease components. A lessee is allowed a practical expedient according to which it can elect, by class of underlying asset, not to separate non-lease components from lease components, and instead account for them as a single lease component. The Company is reviewing whether such non-lease components, such as management and maintenance services, exist in its current lease contracts and whether the above practical expedient should be applied to each class of underlying asset.

Incremental borrowing rate - the Company estimates the incremental borrowing rate to be used for measuring the lease liability and right-of-use asset on the date of initial adoption of the new Standard, based on the lease term and nature of the leased asset.

The Company is also evaluating the need for making adjustments to its information systems, internal control, policies and procedures that will be necessary in order to apply the provisions of the new Standard.

The Company has performed a detailed impact assessment of IFRS 16. In summary the impact of IFRS 16 adoption is expected to be, as follows:

Impact on the statement of financial position (increase/(decrease)) as of January 1, 2019:

Assets:	
Property, plant and equipment (right-of-use assets)	3,228
Liabilities:	
Lease liabilities	3,228
Net impact on equity	-

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

NOTE 4:- DISCLOSURE OF NEW STANDARDS IN THE PERIOD PRIOR TO THEIR ADOPTION (Cont.)

Impact on the statement of profit or loss (increase/(decrease)) for 2019:

Depreciation expenses (included in research and development expenses)	712
Operating lease expenses (included in research and development expenses)	(935)
Operating loss	(223)
Financing expenses	281
Loss before taxes on income	58

In addition, as a result of the adoption of the new Standard, in 2019, the Company's cash flows from operating activities are expected to increase by approximately $935 and its cash flows from financing activities are expected to decrease by approximately $935.

NOTE 5: - COLLABORATION AGREEMENTS-

Below is information regarding collaboration agreements each of which amounts to 10% or more of our total revenues in 2018:

a. In August 2008, The Company entered into a Collaboration and License Agreement with Bayer (previously Monsanto, here and after "Monsanto"), whereby the Company had identified and optimized genes with the potential to improve yield and abiotic stress tolerance (Y&ABST) in corn, soybean, cotton and canola. In 2011 and 2013 the collaboration was extended and expanded, where part of the 2013 amendment was to apply our computational technologies in the field of biotic stress (resistance to Fusarium) in corn. The term of the Company's activities under the Y&ABST part of the Monsanto Collaboration Agreement has expired at the end of 2017, while the Company's activities under the biotic stress part of the collaboration are scheduled to continue through August 2019.

b. In 2014, The Company entered into a collaboration with a multinational consumer goods company, addressing yield improvement in a certain field crop through non-GM methods. In this collaboration, the Company generated new varieties of the target crop using molecular methods with the goal that its partner includes such new varieties in its breeding pipeline. The Company's activities under this agreement were completed in 2018.

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

NOTE 5: - COLLABORATION AGREEMENTS (Cont.)

c. In May 2018, the Company announced that it entered into a collaboration with BASF for the development of novel insecticides based on new binding areas (Site-of-Action or SoA). In the initial phase of the collaboration, the Company utilized its biology-driven computational methods to identify potential novel compounds that act on new proteins and binding sites. In the next phase of the collaboration starting the second half of 2018, the Company utilizes its computational predictive biology (CPB) platform for the discovery of relevant chemistry to address the new SoAs. Compounds discovered by the Company is entered into BASF proprietary insecticides discovery platform for efficacy screening and testing and to validate the chemistry's ability to modulate the respective target proteins.

NOTE 6: - CASH AND CASH EQUIVALENTS

	December 31,	
	2018	2017
Cash for immediate withdrawal in USD	$ 2,069	$ 2,609
Cash for immediate withdrawal in NIS	3,415	748
Cash for immediate withdrawal in Euro and other currencies	326	78
	$ 5,810	$ 3,435

NOTE 7: - MARKETABLE SECURITIES

	December 31,	
	2018	2017
Financial assets measured at fair value through profit or loss:		
Participation certificates in trust funds	$ 21,208	$ -
Corporate bonds and government treasury notes	4,857	59,940
	$ 26,065	$ 59,940

NOTE 8: - OTHER RECEIVABLES AND PREPAID EXPENSES

	December 31,	
	2018	2017
Government authorities	$ 122	$ 134
Grant receivables	190	-
Patent cost reimbursement	89	337
Accrued bank interests	114	62
Prepaid expenses	275	223
Restricted cash	47	47
Other	24	101
	$ 861	$ 904

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

NOTE 9: - PROPERTY, PLANT AND EQUIPMENT, NET

Balance at December 31, 2018:

	Laboratory equipment	Computers and peripheral equipment	Office equipment and furniture	Leasehold improvements	Total
Cost:					
Balance at January 1, 2018	$ 4,756	$ 3,749	$ 224	$ 12,666	$ 21,395
Additions	96	146	1	172	415
Balance at December 31, 2018	4,852	3,895	225	12,838	21,810
Accumulated Depreciation:					
Balance at January 1, 2018	3,514	3,275	129	9,685	16,603
Additions	320	318	15	1,367	2,020
Balance at December 31, 2018	3,834	3,593	144	11,052	18,623
Depreciated cost at December 31, 2018	$ 1,018	$ 302	$ 81	$ 1,786	$ 3,187

Balance at December 31, 2017:

	Laboratory equipment	Computers and peripheral equipment	Office equipment and furniture	Leasehold improvements	Total
Cost:					
Balance at January 1, 2017	$ 4,559	$ 3,550	$ 224	$ 12,608	$ 20,941
Additions	197	199	-	58	454
Balance at December 31, 2017	4,756	3,749	224	12,666	21,395
Accumulated Depreciation:					
Balance at January 1, 2017	3,160	2,856	114	8,328	14,458
Additions	354	419	15	1,357	2,145
Balance at December 31, 2017	3,514	3,275	129	9,685	16,603
Depreciated cost at December 31, 2017	$ 1,242	$ 474	$ 95	$ 2,981	$ 4,792

NOTE 10: - OTHER PAYABLES

	December 31,	
	2018	2017
Employees and payroll accruals	$ 1,776	$ 1,881
Accrued expenses	935	717
Government authorities	305	336
	$ 3,016	$ 2,934

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

NOTE 11: - LIABILITIES IN RESPECT OF GOVERNMENT GRANTS

	2018	2017
Balance at January 1,	$ 3,542	$ 3,428
Grants received	354	302
Royalties paid	(66)	(158)
BIRD repayment	-	(50)
Amounts recorded in profit or loss	56	20
Balance at December 31,	$ 3,886	$ 3,542

The Company received research and development grants from the IIA, and undertook to pay royalties of 3% of revenues derived from research and development projects that were financed by the IIA, of up to 100% of the grants received. As of December 31, 2018, the Company received grants amounting to $6,808, (including accrued interest), of which $3,399 were repaid to date.

The Company received research and development grants from BIRD, and undertook to pay royalties of 5% of revenues derived from research and development projects that were financed by BIRD, of up to 150% of all grants received. As of December 31, 2018, the Company received grants in the amount of $996 (linked to the US CPI). No royalties have yet been paid through December 31, 2018 as no revenues were derived from products developed using these grants. The Company repaid $50 from the grant during 2017 and is expected to repay an additional amount of $546 during 2019 (see also Note 22).

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

NOTE 12: - FINANCIAL INSTRUMENTS

a. Classification of financial instruments by fair value hierarchy:

	December 31,	
	2018	2017
Financial assets:		
Marketable securities – Level 1	$ 21,208	$ -
Marketable securities – Level 2	4,857	59,940
	$ 26,065	$ 59,940

During 2018, there were no transfers due to the fair value measurement of any financial instrument to or from Levels 1, 2 and 3.

b. Financial risk factors:

The Company's operations are exposed to various financial risks, such as market risk (foreign currency risk, price risk), credit risk and liquidity risk. The Company's comprehensive risk management plan focuses on measures to minimize possible negative effects on the financial performance of the Company.

The Company's Board of Directors has provided guidelines for risk management, and specific policies for various risk exposures, such as foreign currency risk, interest-rate risk, credit risk, and the use of derivative financial instruments, non-derivative financial instruments, and excess-liquidity investments.

1. Market Risk:

a) Foreign currency risk:

The Company operates primarily in Israel, and has an exchange rate risk as it incurs fixed expenses in New Israel Shekels, which differs from its functional currency.

b) Price risk:

The Company has investments in bonds, classified as financial instruments, which are measured at fair value through profit and loss. Accordingly, the Company is exposed to a risk from changes in the fair value of these investments.

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

NOTE 12: - FINANCIAL INSTRUMENTS (Cont.)

2. Credit Risk:

The Company holds cash and cash equivalents, short-term investments and other financial instruments with various financial institutions. Its policy is to spread its investments among various institutions. In accordance with this policy, the Company invests its funds with stable financial institutions.

The Company has no trade receivables balances past due, and accordingly has not recognized any provision for doubtful accounts.

3. Liquidity Risk:

The following table presents the repayment dates of the Company's financial liabilities, by contractual terms, in nominal amounts (including interest payments):

Balance at December 31, 2018:

	Up to 1 year	1 year to 2 years	2 years to 3 years	3 years to 4 years	4 years to 5 years	Over 5 years	Total
Trade payables	$ 1,015	$ -	$ -	$ -	$ -	$ -	$ 1,015
Other payables	3,016	-	-	-	-	-	3,016
Liabilities in respect of government grants	1,003	79	232	456	263	2,634	4,667
	$ 5,034	$ 79	$ 232	$ 456	$ 263	$ 2,634	$ 8,698

Balance at December 31, 2017:

	Up to 1 year	1 year to 2 years	2 years to 3 years	3 years to 4 years	4 years to 5 years	Over 5 years	Total
Trade payables	$ 1,110	$ -	$ -	$ -	$ -	$ -	$ 1,110
Other payables	2,934	-	-	-	-	-	2,934
Liabilities in respect of government grants	106	1,100	208	372	501	1,941	4,228
	$ 4,150	$ 1,100	$ 208	$ 372	$ 501	$ 1,941	$ 8,272

c. Fair Value:

The carrying amounts of cash and cash equivalents, short-term investments, other receivables, trade payables and other payables approximate their fair values due to the short-term maturities of such instruments.

The fair value of the liabilities in respect of government grants is measured using a discount rate that reflects the applicable market rate of interest at the date the grants are received which approximates the fair value at the respective balance sheet date. The fair value measurement is categorized into Level 3.

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

NOTE 12: - FINANCIAL INSTRUMENTS (Cont.)

d. Sensitivity tests relating to changes in market factors:

	December 31,	
	2018	2017
Sensitivity test to changes in the USD/NIS exchange rate:		
Gain (loss) from the change:		
Increase of 5% in exchange rate	$ (1,059)	$ 133
Decrease of 5% in exchange rate	$ 1,059	$ (133)
Sensitivity test to changes in the market price of listed securities:		
Gain (loss) from the change:		
Increase of 5% in market price	$ 1,303	$ 2,997
Decrease of 5% in market price	$ (1,303)	$ (2,997)

Sensitivity tests and principal work assumptions:

The selected changes in the relevant risk variables were determined based on management's estimate as to reasonable possible changes in these risk variables.

e. Hedging activities and derivatives:

Cash flow hedges:

As of December 31, 2016, the Company held NIS/USD forward contracts designated as hedges of expected future employee wages and for expected future payments to government authorities. The main terms of these positions were set to match the terms of the hedged items.

Cash flow hedges of the expected employee wages and government authorities' payments in January through March 2017, were not estimated as highly effective, and as result on December 31, 2016 financing income in the amount of $7, was recorded in profit or loss.

As of December 31, 2017 and 2018, there were no hedging contracts held by the Company.

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

NOTE 13: - SEVERANCE PAY LIABILITY, NET

Labor laws and the Severance Pay Law in Israel (the "Severance Law") require the Company to pay compensation to employees upon dismissal or retirement, or to make routine contributions in defined contribution plans pursuant to Section 14 of the Severance Pay Law, as described below. The Company's liability is accounted for as a post-employment benefit. The Company's employee benefit liability is based on a valid labor agreement, the employee's salary, and the applicable terms of employment, which together generate a right to severance compensation.

Post-employment employee benefits are financed by deposits with defined deposit plans, as detailed below.

Contributions in accordance with Section 14 to the Severance Law release the Company from any additional liability to employees for whom said contributions were made. These contributions represent defined contribution plans.

	Year ended December 31,		
	2018	2017	2016
Expenses - defined contribution plan	$ 712	$ 759	$ 769

NOTE 14: - TAXES ON INCOME

a. Tax rates applicable to the Company:

1. 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), 2017 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 Israeli corporate income tax rate was 23% in 2018, 24% in 2017 and 25% in 2016.

2. Evogene Inc, a company incorporated in the U.S., is subject to U.S. income taxes. In 2018 the weighted tax rate applicable to Evogene Inc. was approximately 27.5% (Federal tax and state tax where the company operates).

3. We are subject to taxation in the United States, as well as a number of foreign jurisdictions. On December 22, 2017, the U.S. President signed into law federal tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Tax Act”). The Tax Act provides for significant and wide-ranging changes to the U.S. Internal Revenue Code. As the Company tax expenses comprise 0.1% of the Loss for 2018, the impact of these reforms is immaterial.

NOTE 14: - TAXES ON INCOME (Cont.)

b. Tax assessments:

The Company received assessments that are considered final, up to and including the 2013 tax year.

c. Carryforward losses for tax purposes and other temporary differences:

As of December 31, 2018, Evogene Ltd. and its Israeli subsidiaries have carryforward operating tax losses amounting to approximately $91 million, which can be carried forward for an indefinite period.

d. Deferred taxes:

The Company did not recognize deferred tax assets for carry-forward losses and other temporary differences, because their utilization in the foreseeable future is not probable.

e. Theoretical tax:

The reconciliation between the tax expense, assuming that all the income and expenses, gains and losses in the statement of income were taxed at the statutory tax rate and the taxes on income recorded in profit or loss, does not provide significant information and therefore is not presented.

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

NOTE 15: - COMMITMENTS AND CONTINGENT LIABILITIES

a. The Company leases facilities for its offices and research and development activities, as well as motor vehicles under operating leases. Future minimum lease payments under non-cancelable operating leases for the years ended December 31, are as follows:

2019	760
2020	700
2021	708
	$ 2,168

The Company has provided bank guarantees in the amount of $297 to secure compliance with its facilities rental payment requirements.

b. Claims:

As of December 31, 2018, the Company is not involved in any claims.

c. Government grants:

The Company received research and development grants from the IIA, BIRD and CIIRDF, see Note 11. If no economic benefits are expected from the research activity, the royalty obligation is not recorded as a liability and instead is treated as a contingent liability in accordance with IAS 37. The grants from the IIA impose certain restrictions on the transfer outside of Israel of the underlying know-how and the manufacturing or manufacturing rights of the underlying products and technologies.

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

NOTE 16: - SHAREHOLDERS' EQUITY

a. Share capital:

	December 31,			
	2018		2017	
	Authorized	Issued and Outstanding	Authorized	Issued and Outstanding
	Number of shares			
Ordinary shares of NIS 0.02 par value each	150,000,000	25,754,297	150,000,000	25,750,547

b. Changes in share capital:

Share capital issued and outstanding:

	Number of shares	NIS par value
Outstanding at January 1, 2017	25,480,809	509,616
Exercise of options	269,738	5,395
Outstanding at December 31, 2017	25,750,547	515,011
Exercise of options	3,750	75
Outstanding at December 31, 2018	25,754,297	515,086

c. Rights attached to shares:

Voting rights at the general meeting, rights to dividends, rights upon liquidation of the Company and the right to nominate directors in the Company.

d. Capital management in the Company:

The Company's objectives in managing capital are as follows:

To maintain its ability to ensure the continuity of the business, and thus to generate a return to equity holders, investors and other parties.

The Company manages its capital structure and makes adjustments following changes in economic conditions and the risk-nature of its operations. In order to maintain or to adjust the necessary capital structure, the Company takes various steps, such as raising funds by capital issues.

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

NOTE 16: - SHAREHOLDERS' EQUITY (Cont.)

e. Composition of non-controlling interests in the statement of financial position:

	December 31,	
	2018	2017
Shares issuance to non-controlling interests	$ 160	$ -
Share-based compensation	147	-
Share-based compensation – Attributable to non-controlling interests	307	-
Accumulated loss attributed to non-controlling interests	(54)	-
	$ 253	$ -

NOTE 17: - SHARE- BASED COMPENSATION

a. Expenses recognized in the financial statements:

The expense recognized in the Company's financial statements for services provided by employees and service-providers is as follows:

	Year ended December 31,		
	2018	2017	2016
Share-based compensation – Attributable to equity holders of the Company	$ 1,424	$ 2,244	$ 2,943
Share-based compensation – Attributable to non-controlling interests (see Note 16e)	307	-	-
	$ 1,731	$ 2,244	$ 2,943

Evogene Ltd. maintains three share option and incentive plans: the Evogene Share Option Plan (2002), the Evogene Ltd. Key Employee Share Incentive Plan, 2003, and the Evogene Ltd. 2013 Share Option Plan. All such option and incentive plans provide for the grant of options to purchase the Company's ordinary shares and generally expire 10 years from the grant date.

b. Evogene Ltd. share-based payment plan for employees, directors and consultants:

During 2018, 2017 and 2016 the board of directors of Evogene Ltd. approved to grant its employees, directors and consultants 555,000, 1,537,250 and 377,500 options, respectively. The fair value of the options determined at their grant date using binomial model was approximately $536, $2,182 and $924, respectively.

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

NOTE 17: - SHARE- BASED COMPENSATION (Cont.)

c. Evogene Ltd. share options activity:

The following table summarizes the number of share options, the weighted average exercise price, and the changes that were made in the option plans to employees, consultants and directors of Evogene Ltd.:

	2018		2017		2016	
	Number of options	Weighted average exercise prices ($)	Number of options	Weighted average exercise prices ($)	Number of options	Weighted average exercise prices ($)
Outstanding at January 1,	5,106,300	8.47	4,439,884	9.50	4,970,028	9.65
Grants	555,000	3.16	1,537,250	5.08	377,500	6.94
Exercised	(3,750)	2.64	(269,738)	2.18	(76,447)	2.45
Forfeited	(1,268,027)	9.66	(601,096)	10.22	(831,197)	9.87
Outstanding at December 31,	4,389,523	7.46	5,106,300	8.47	4,439,884	9.50
Exercisable at December 31,	2,843,582	8.95	3,146,823	10.73	3,203,850	9.18

The following table summarizes information about share options outstanding at December 31, 2018:

	Options outstanding		
Range of exercise prices ($)	Number outstanding	Average remaining contractual life	Weighted average exercise price
2.55 – 4.95	1,183,623	8.85	4.07
5.18 – 6.65	983,000	5.15	5.63
6.81 – 7.83	703,760	3.08	7.37
8.14 – 9.78	715,640	5.79	9.17
10.03 – 13.75	718,500	4.44	12.59
17.65 – 20.39	85,000	5.37	18.79
Total	4,389,523	5.81	7.46

d. The weighted average outstanding remaining contractual term of the options as of December 31, 2018 is 5.81 years (as of December 31, 2017, it was 6.69 years).

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

NOTE 17: - SHARE- BASED COMPENSATION (Cont.)

e. The weighted average fair value of options granted during 2018 was $0.95 (for options granted during 2017, the fair value was $1.72).

f. The fair value of Evogene Ltd. share options granted to employees, directors and consultants for the years ended December 31, 2018, 2017 and 2016 was estimated using the binomial model with the following assumptions:

	2018	2017	2016
Dividend yield (%)	-	-	-
Expected volatility of the share prices (%)	35-42	42-43	45-54
Risk-free interest rate (%)	1.90-2.93	1.89-2.42	1.87-2.35
Suboptimal factor	1.8-2	1.8-2	1.8-2
Post-vesting forfeiture rate (%)	5-10	5-10	5-10

The expected volatility of the share prices reflects the assumption that the historical volatility of the share prices is reasonably indicative of expected future trends.

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

NOTE 18: - STATEMENTS OF COMPREHENSIVE LOSS - ADDITIONAL INFORMATION

a. Cost of revenues:

	Year ended December 31,		
	2018	2017	2016
Salaries and benefits	$ 873	$ 1,668	$ 3,520
Share-based compensation	68	53	231
Materials and sub-contractors	216	572	756
Depreciation	161	309	599
Rentals and maintenance	130	233	448
Other	4	10	85
	$ 1,452	$ 2,845	$ 5,639

b. Research and development, net:

	Year ended December 31,		
	2018	2017	2016
Salaries and benefits	$ 9,599	$ 10,205	$ 9,207
Share-based compensation	960	1,200	1,369
Materials and sub-contractors	1,249	1,636	2,120
Plant growth and greenhouse maintenance	342	405	473
Rentals and office maintenance	1,114	1,430	1,081
Depreciation	1,859	1,836	1,679
Other	828	437	656
Participation in respect of government grants	(1,265)	(162)	(180)
	$ 14,686	$ 16,987	$ 16,405

c. Business development:

	Year ended December 31,		
	2018	2017	2016
Salaries and benefits	$ 1,301	$ 1,038	$ 947
Share-based compensation	381	363	508
Travel	163	109	136
Legal	67	37	16
Other	172	139	89
	$ 2,084	$ 1,686	$ 1,696

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

NOTE 18: - STATEMENTS OF COMPREHENSIVE LOSS - ADDITIONAL INFORMATION (Cont.)

d. General and administrative:

	Year ended December 31,		
	2018	2017	2016
Salaries and benefits	$ 1,755	$ 1,737	$ 1,551
Share-based compensation	322	628	835
Professional fees	1,075	1,065	1,228
Other	362	380	275
	$ 3,514	$ 3,810	$ 3,889

e. Financing income and expenses

Financing income:

	Year ended December 31,		
	2018	2017	2016
Exchange differences, net	$ -	$ -	$ 17
Interest income	1,413	2,125	2,400
Hedging instruments	-	-	7
	$ 1,413	$ 2,125	$ 2,424

Financing expenses:

	Year ended December 31,		
	2018	2017	2016
Bank expenses and commissions	$ 141	$ 129	$ 155
Exchange differences, net	660	82	-
Change in the fair value of marketable securities	1,285	720	703
Hedging instruments	-	7	-
Revaluation of liabilities in respect of government grants	120	67	33
	$ 2,206	$ 1,005	$ 891

NOTE 19: - LOSS PER SHARE

Details of the number of shares and loss used in the computation of loss per share:

	Year ended December 31,					
	2018		2017		2016	
	Weighted number of shares *)	Loss attributable to equity holders of the Company	Weighted number of shares *)	Loss attributable to equity holders of the Company	Weighted number of shares *)	Loss attributable to equity holders of the Company
Number of shares and loss	25,753,411	(20,758)	25,673,276	(20,838)	25,444,733	(19,592)

*) To compute diluted loss per share, potential ordinary shares have not been taken into account due to their anti-dilutive effect.

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

NOTE 20: - OPERATING SEGMENTS

a. General:

Commencing 2017, the Company operates in three segments, Evogene, Evofuel and Biomica. The segments were determined on the basis of information considered by the Chief Operating Decision-Maker ("CODM") for purposes of decision-making on the allocation of resources and evaluation of performance. The following Company's segments are engaged in business activities for which they earn revenues and incur expenses, their results are reviewed by the CODM and discrete financial information is available:

Evogene segment - Develops seed traits, ag-chemical products, and ag-biological products to improve plant performance.

Evofuel segment - Develops improved castor bean seeds to serve as a feedstock source for industrial uses.

Biomica segment - Discovery and development of human microbiome-based therapeutics

Segments performance is determined based on operating loss reported in the financial statements. The results of a segment reported to the CODM include items attributed directly to a segment, as well as other items, which are indirectly attributed using reasonable assumptions.

b. The following table presents our revenues and operating loss by segments:

	Evogene	Evofuel	Biomica	Adjustments	Total
For the Year Ended December 31, 2018					
Revenues	$ 1,641	$ 106	$ -	$ -	$ 1,747
Operating loss	$ (18,473)	$ (453)	$ (1,063)	$ -	$ (19,989)
Net financing expenses					$ (793)
Loss before taxes on income					$ (20,782)

	Evogene	Evofuel	Biomica	Adjustments	Total
For the Year Ended December 31, 2017					
Revenues	$ 3,247	$ 134	$ -	$ -	$ 3,381
Operating loss	$ (21,430)	$ (313)	$ (204)	$ -	$ (21,947)
Net financing income					$ 1,120
Loss before taxes on income					$ (20,827)

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

NOTE 20: - OPERATING SEGMENTS (Cont.)

	Evogene	Evofuel	Adjustments	Total
For the Year Ended December 31, 2016				
Revenues	$ 6,540	$ -	$ -	$ 6,540
Operating loss	$ (20,168)	$ (921)	$ -	$ (21,089)
Net financing income				1,533
Loss before taxes on income				$ (19,556)

c. Major customers:

Revenues from major customers each of whom amounts to 10% or more, of total revenues:

	Year ended December 31,		
	2018	2017	2016
Customer A (shareholder)	38%	66%	77%
Customer B	-	*) -	11%
Customer C	19%	10%	12%
Customer D	13%	*) -	-

*) Represents an amount lower than 10%.

See also Note 21a.

d. Geographical information:

Revenues based on the location of the customers, are as follows:

	Year ended December 31,		
	2018	2017	2016
United States	57%	76%	89%
Germany	13%	10%	11%
Israel	12%	6%	-
Other	18%	8%	-
	100%	100%	100%

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

NOTE 21: - BALANCES AND TRANSACTIONS WITH KEY OFFICERS AND CERTAIN SHAREHOLDERS

a. 2018 shareholders information refers to Monsanto which, to the best of the Company's knowledge, hold approximately 6.4% of the Company's ordinary shares and is also a major customer (see also Notes 5, 20c).

b. Balances:

Balance at December 31, 2018:

	Key officers	Certain shareholder
Receivables	$ -	$ 89
Other payables	$ 439	$ -

Balance at December 31, 2017:

	Key officers	Certain shareholder
Receivables	$ -	$ 337
Other payables	$ 468	$ -

c. Benefits to directors:

	Year ended December 31,		
	2018	2017	2016
Compensation to directors not employed by the Company or on its behalf	$ 261	$ 329	$ 322
Number of directors received the above compensation by the Company	7	6	9

d. Salary and Benefits to key officers:

	Year ended December 31,		
	2018	2017	2016
Salary and related benefits	$ 1,976	$ 1,673	$ 1,714
Share-based compensation	669	959	1,467
	$ 2,645	$ 2,632	$ 3,181
Number of people that received salary and benefits	10	7	10

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

NOTE 21: - BALANCES AND TRANSACTIONS WITH KEY OFFICERS AND CERTAIN SHAREHOLDERS (Cont.)

e. Transactions:

For the year ended December 31, 2018

	Key officers	Certain shareholder
Revenues	$ -	$ (664)
Cost of revenues	-	(1,077)
Research and development expenses	1,056	-
Business development expenses	945	-
General and administrative expenses	644	-
	$ 2,645	$ (1,741)

For the year ended December 31, 2017

	Key officers	Certain shareholder
Revenues	$ -	$ (2,247)
Cost of revenues	141	(948)
Research and development expenses	1,061	-
Business development expenses	547	-
General and administrative expenses	883	-
	$ 2,632	$ (3,195)

For the year ended December 31, 2016

	Key officers	Certain shareholders
Revenues	$ -	$ (5,058)
Cost of revenues	104	(782)
Research and development expenses	1,286	-
Business development expenses	710	-
General and administrative expenses	1,081	-
	$ 3,181	$ (5,840)

NOTE 22: - SUBSEQUENT EVENTS

a. Lavie Bio Ltd. was incorporated on January 21, 2019, with aiming to improve food quality and sustainability through the introduction of microbiome-based ag-biologicals products.

b. Canonic Ltd. was incorporated on March 25, 2019, for the development of next-generation medical cannabis products.

c. On April 1, 2019, the Company repaid $546, out of its current liabilities in respect of government grants.

EXHIBIT 8.1

List of Subsidiaries

Name of Subsidiary	Jurisdiction	Ownership Interest
AgPlenus Ltd.	Israel	100%
Biomica Ltd.	Israel	90.9% (1)
Canonic Ltd.	Israel	100%
Evofuel Ltd.	Israel	100%
Evogene Inc.	Delaware	100%
Lavie Bio Ltd.	Israel	100%

(1) Remaining 9.1% of Biomica Ltd.'s outstanding share capital is held by Biomica's Chief Technology Officer.

EXHIBIT 12.1

CERTIFICATION

I, Ofer Haviv, certify that:

1. I have reviewed this annual report on Form 20-F of Evogene Ltd.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

/s/ Ofer Haviv
Ofer Haviv
President and Chief Executive Officer
(principal executive officer)

Date: April 29, 2019

EXHIBIT 12.2

CERTIFICATION

I, Dorit Kreiner, certify that:

1. I have reviewed this annual report on Form 20-F of Evogene Ltd.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

c. Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

/s/ Dorit Kreiner
Dorit Kreiner
Chief Financial Officer
(principal financial and accounting officer)

Date: April 29, 2019

EXHIBIT 13.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Evogene Ltd. (the "Company") on Form 20-F for the fiscal year ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Ofer Haviv, do certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Ofer Haviv
Ofer Haviv
President and Chief Executive Officer
(principal executive officer)

Date: April 29, 2019

EXHIBIT 13.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Evogene Ltd. (the "Company") on Form 20-F for the fiscal year ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Dorit Kreiner, do certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Dorit Kreiner
Dorit Kreiner
Chief Financial Officer
(principal financial and accounting officer)

Date: April 29, 2019

EXHIBIT 15.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-193788, 333-201443 and 333-203856) of Evogene Ltd., of our reports dated April 29, 2019, with respect to the consolidated financial statements of Evogene Ltd. and the effectiveness of internal control over financial reporting of Evogene Ltd. included in its Annual Report on Form 20-F for the year ended December 31, 2018, filed with the Securities and Exchange Commission.

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

Tel Aviv, Israel
April 29, 2019