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

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF
THE SECURITIES EXCHANGE ACT OF 1934**

For the month of **February 2018**

Commission File Number: **001-36187**

EVOGENE LTD.

(Translation of Registrant's Name into English)

**13 Gad Feinstein Street
Park Rehovot P.O.B 2100
Rehovot 7612002 Israel**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

CONTENTS

Attached hereto and incorporated by reference herein is the following exhibit:

99.1 Press Release: Evogene Announces Positive Results in its Novel Mode-of-Action Herbicide Program.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

EVOGENE LTD.
(Registrant)

By: /s/ Alex Taskar

Alex Taskar
Chief Financial Officer

Date: February 27, 2018

EXHIBIT INDEX

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>
<u>99.1</u>	<u>- Press Release: Evogene Announces Positive Results in its Novel Mode-of-Action Herbicide Program.</u>



Evogene Announces Positive Results in its Novel Mode-of-Action Herbicide Program

*Multiple 'families' of novel Evogene predicted chemical compounds
demonstrated improved herbicidal effectiveness*

Rehovot, Israel – 27 February, 2018 – Evogene Ltd. (NASDAQ, TASE: EVGN), a leading biotechnology company developing novel products for life science markets through the use of a unique Computational Predictive Biology (CPB) platform, announced today that its Ag-Chemical division achieved positive results in its internal novel Mode-of-Action (MoA) herbicide program with multiple 'families' of Evogene predicted chemical compounds demonstrating improved herbicidal effectiveness in lab and greenhouse experiments.

Herbicides are weed killing chemicals, part of the general pesticide and crop protection market. The market size attributed to herbicides reached \$21B in 2016¹. Herbicide protection plays an important role in global food security and, for instance, without herbicide protection approximately 20% of the global crop yield of wheat would be lost². Current herbicide products are based on MoA's introduced to market over 30 years ago, while weed resistance to these solutions is globally on the rise, creating a growing need for a novel MoA herbicide.

Evogene initiated its herbicide program in 2015, and last year disclosed the identification of several novel herbicide targets, representing a new MoA, and over 10 inhibiting chemical compounds demonstrating initial weed-killing effectiveness. Following these achievements, the Ag-Chemical division, using the CPB platform, predicted and synthesized chemical 'families'. A chemical 'family' includes chemical compounds which are related to a specific, previously discovered and positively validated chemical compounds. Today's announcement discloses that in lab and greenhouse experiments, these chemical 'families' showed various levels of weed-killing effectiveness for individual members of each 'family', in some cases significantly in excess of the initial chemical compound.

¹ Phillips McDougall

² According to industry estimates

During 2018, these 'families' of chemical compounds will continue to undergo additional optimization for advancement to the next phase in the herbicidal product pipeline. In parallel, Evogene continues to establish biological proof that these chemical compounds indeed inhibit the identified novel herbicide targets, representing a novel MoA.

Eran Kosover, EVP and GM, Ag-Chemicals stated: *"These positive results are an important step for achieving our goal of developing multiple new modes-of-action herbicide solutions based on our biology-driven computational-chemistry approach. Achieving chemical 'families' with varying level of efficacy around an initial chemical compound indicates a strong basis for further optimization toward a candidate that meets commercialization standards, as well as creates a basis for solid IP protection. We intend to further advance our internal pipeline, and also enter into additional collaborations with leading Ag-Chemical companies."*

Ofer Haviv, Evogene's President and CEO stated: *"I am excited with the results we disclosed today, as they represent multiple validations of the broad applicability and accuracy of our unique CPB platform's ability to produce novel discoveries, and to create a robust pipeline in new fields of focus in a short time. Through the use of the CPB platform we were able to improve herbicidal effectiveness, with the identification of chemical 'families' that serve as the basis for progressing to the next stage."*

About Evogene:

Evogene (NASDAQ, TASE: EVGN) is a leading biotechnology company developing novel products for major life science markets through the use of a unique predictive biology platform incorporating deep scientific understandings and advanced computational technologies. This platform is utilized by the Company to discover and develop innovative ag-chemical, ag-biological and ag-seed products (GM and non GM), and by two subsidiaries; Evofuel, focused on castor seeds, and Biomica, focused on human microbiome therapeutics. Through its collaborations with world-leading agricultural companies such as BASF, Bayer, DuPont, Monsanto and Syngenta, Evogene has licensed genes, small molecules and microbes to partners under milestone and royalty bearing agreements. For more information, please visit www.evogene.com

This press release contains "forward-looking statements" relating to future events. These statements may be identified by words such as "may", "could", "expects", "intends", "anticipates", "plans", "believes", "scheduled", "estimates" or words of similar meaning. Such statements are based on current expectations, estimates, projections and assumptions, describe opinions about future events, involve certain risks and uncertainties which are difficult to predict and are not guarantees of future performance. Therefore, actual future results, performance or achievements of Evogene may differ materially from what is expressed or implied by such forward-looking statements due to a variety of factors, many of which beyond Evogene's control, including, without limitation, those risk factors contained in Evogene's reports filed with the appropriate securities authority. Evogene disclaims any obligation or commitment to update these forward-looking statements to reflect future events or developments or changes in expectations, estimates, projections and assumptions.

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