
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 **December 2021**

Commission File Number: **001-36187**

EVOGENE LTD.

(Translation of Registrant's Name into English)

**13 Gad Feinstein Street, Park Rehovot, Rehovot
P.O.B 4173, Ness Ziona, 7414002, 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

On December 14, 2021, Evogene Ltd., or Evogene, announced advancement to the pre-commercial development stage in the bio-fungicide program targeting fruit rot diseases of its subsidiary, Lavie Bio Ltd., or Lavie Bio. A copy of the press release is furnished as Exhibit 99.1 to this Report of Foreign Private Issuer on Form 6-K, or this Form 6-K, and is incorporated herein by reference.

The contents of Exhibit 99.1 to this Form 6-K, excluding the statements of Lavie Bio's Vice President Research and of its Active Chairman and Evogene's President & CEO contained therein, are incorporated by reference into the registration statements on Form F-3 (File No. 333-253300) and on Form S-8 (File Nos. 333-193788, 333-201443, 333-203856 and 333-259215) of Evogene, filed with the Securities and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

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)

Date: December 14, 2021

By: /s/ Dorit Kreiner

Dorit Kreiner
Chief Financial Officer

EXHIBIT INDEX

EXHIBIT NO.

99.1

DESCRIPTION

[Press Release Lavie Bio Reports Advancement in its Bio-Fungicide Program for Fruit Rots.](#)



Lavie Bio Reports Advancement in its Bio-Fungicide Program for Fruit Rots

Advancement to the pre-commercial stage follows positive results from three consecutive years of vineyard trials for fruit rot diseases

Rehovot, Israel – December 14, 2021 - Lavie Bio Ltd., a leading ag-biologicals company focusing on improving food quality and agricultural productivity and sustainability through the introduction of microbiome-based products, and a subsidiary of Evogene Ltd. (NASDAQ: EVGN, TASE: EVGN), announced today advancement to the pre-commercialization development stage¹ in its bio-fungicide program targeting fruit rot diseases. Today's announcement follows the completion of three consecutive years of vineyard trials, including promising 2021 results, conducted in Europe and the U.S., for two of its leading bio-fungicide product candidates, LAV.311 and LAV.312. Lavie Bio has prioritized LAV.311 as its lead candidate for final development and submission of a regulatory dossier, expected to be filed with the federal U.S. Environmental Protection Agency (EPA) and California EPA during 2022.

The annual expenditure on chemical fungicide crop protection was estimated at approximately \$18.7 billion in 2019², out of which the annual global expense of fruit rot control usually exceeds \$1 billion³. Increasing disease resistance to existing chemicals and sustainability concerns may encourage the use of biological products⁴, which could be integrated into the farmer's existing IPM (Integrated Pest Management)⁵. The target market for Lavie Bio's fruit rot bio-fungicide is expected to be in the greater U.S. market and California in particular, targeting a variety of fruits, and may include grapes, tomatoes and berries.

Lavie Bio conducted these vineyard trials in a variety of geographies in Europe and the U.S., with different grapes varieties, agro-practices and several product formulations and applications. The results indicate that LAV.311 and LAV.312 provided better efficacy and consistency than the commercial biological benchmark control and in some cases may even be comparable to commonly used benchmark chemical solutions. The positive results achieved provide the required empirical foundation for the continued development of both product candidates, and Lavie Bio has prioritized LAV.311 to enter the regulatory process.

Looking forward, pre-commercial activities are expected to include LAV.311 undergoing additional optimization of product formulation and additional trials via third parties towards preparation of a regulatory dossier to be filed to the federal U.S. EPA and California EPA during 2022. Given the regulatory process and seasonality of fruit, Lavie Bio aims to launch its first bio-fungicide product for controlling fruit rots for use in fruit in 2024.

¹ For more information about the development process of ag-biological products, please see the section titled "Market Segments – Agriculture – Lavie Bio Ltd. – Product Development Programs – Product Development Cycle" under "Item B. Business Overview" in Evogene Ltd.'s Annual Report on Form 20-F for the year ended December 31, 2020.

² <https://www.marketsandmarkets.com/Market-Reports/fungicides-356.html>

³ Dean, R., et al. (2012). The top 10 fungal pathogens in molecular plant pathology. *Molecular Plant Pathology* 13:414-430 (<https://academic.oup.com/fqs/article/2/3/111/5057759>)

⁴ <https://lpress.clemson.edu/publication/biological-control-strategies-in-integrated-pest-management-ipm-programs/>,
https://ec.europa.eu/research/bioeconomy/pdf/20150429_1_ki0213360enc_web_en.pdf

⁵ <https://lpress.clemson.edu/publication/biological-control-strategies-in-integrated-pest-management-ipm-programs/>,
https://ec.europa.eu/research/bioeconomy/pdf/20150429_1_ki0213360enc_web_en.pdf

This program has been supported by the Israeli Innovation Authority (IIA) for the last 4 years. This support was instrumental in allowing Lavie Bio to utilize its technology and apply it in this target market.

Dr. Michael Ionesco, Vice President Research of Lavie Bio, stated: “I am very happy with the results we received from our 2021 vineyard trials. LAV.311 and LAV.312 are optimized formulations of live microbial strains, developed through the utilization of Lavie Bio’s *BDD (Biology Driven Design)* platform, powered by Evogene’s MicroBoost AI engine. With the results now achieved, Lavie Bio will continue optimization of LAV.311’s formulation in parallel to trials for the regulatory process.”

Mr. Ofer Haviv, Active Chairman of Lavie Bio and President & CEO of Evogene, stated: “I am excited to see the progress achieved in Lavie Bio’s bio-fungicide program. Bio-fungicides could provide a valuable opportunity for implementing sustainable practices in valuable fruit and vegetable categories. Advancement to the pre-commercial stage in this program represents the very beginning of the robust pipeline Lavie Bio is developing.”

About Lavie Bio Ltd.:

Lavie Bio, a subsidiary of Evogene Ltd., aims to improve food quality, sustainability and agriculture productivity through the introduction of microbiome-based ag-biological products. Lavie Bio utilizes a proprietary computational predictive platform, the BDD platform, harnessing the power of big data and advanced informatics, for the discovery, optimization and development of bio-stimulant and bio-pesticide products. Corteva, Inc. holds approximately 28% in Lavie Bio. For more information, please visit www.lavie-bio.com.

About Evogene Ltd.:

Evogene (NASDAQ: EVGN, TASE: EVGN) is a leading computational biology company focused on revolutionizing product discovery and development in multiple life-science based industries, including human health and agriculture, through the use of its broadly applicable Computational Predictive Biology (CPB) platform. The CPB platform, incorporating a deep understanding of biology leveraged through the power of Big Data and Artificial Intelligence, has been designed to computationally discover and uniquely guide the development of life-science products based on microbes, small molecules and genetic elements. Utilizing the CPB platform, Evogene and its subsidiaries are now advancing product pipelines for human microbiome-based therapeutics through Biomica Ltd., medical cannabis through Canonic Ltd., ag-biologicals through Lavie Bio Ltd., ag-chemicals through AgPlenus Ltd., and ag-solutions for castor oil production through Casterra Ag Ltd. **For more information, please visit:** www.evogene.com.

Forward Looking Statements:

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. For example, Evogene and Lavie Bio are using forward-looking statements in this press release when they discuss future product development activities, regulatory filings, and commercialization plans, including the timing thereof, the potential benefits of Lavie Bio's product candidates, target markets, including target and potential crops and territories, and trends and expected expenditures in the ag-biological markets. Such statements are based on current expectations, estimates, projections and assumptions, describe opinions about future events, and 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 and its subsidiaries may differ materially from what is expressed or implied by such forward-looking statements due to a variety of factors, many of which are beyond the control of Evogene and its subsidiaries, including, without limitation, those risk factors contained in Evogene's reports filed with the applicable securities authorities. Evogene and its subsidiaries disclaim 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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