Lavie Bio Advances its Bio-Fungicide LAV321, Targeting Downy Mildew, to Pre-Commercial Stage Following Successful 2024 Field Trial Results

LAV321demonstrated strong results in its third consecutive year of field trials in Europe

REHOVOT, ISRAEL – November 19, 2024 – Lavie Bio Ltd., a leading ag-biologicals company and subsidiary of Evogene Ltd. (Nasdaq: EVGN, TASE: EVGN), today announced significant progress in the development of its LAV321 bio-fungicide, targeting downy mildew. Over three years of field trials across Europe, evaluating the efficacy of LAV321 in protecting crops from fungal diseases, LAV321 demonstrated an impressive average efficacy rate of 70% against downy mildew in grapes. These results lead to the decision to advance it to the last stage of product development toward commercialization.

Downy mildew is a damaging foliar disease of grapes, leading to yield losses of up to 75% in key growing areas[1]. The global fungicide market, valued at over $24.5 billion in 2024, is projected to grow to $33.27 billion by 2028, with a compound annual growth rate (CAGR) of 7.9%[2]. As public interest in environmentally friendly farming practices rises and concerns about fungal resistance to chemical solutions increase, ag-biologicals like LAV321 are emerging as preferred solutions to address these challenges and promote sustainable agriculture.

In addition to the field trials targeting downy mildew, during 2024 Lavie Bio also conducted trials evaluating LAV321 for the control of late blight in tomato. The trials demonstrated an average efficacy rate exceeding 60%, equivalent to commonly used copper products, which LAV321 is intended to substitute. Late blight is a key disease in management of tomato and potato crops, creating an estimated $6.7 billion in global damages annually[3].

LAV321 was discovered and optimized through Lavie Bio's Biology Driven Design (BDD) platform, powered by Evogene's *MicroBoost AI* tech-engine. It is designed to integrate seamlessly into farmers' existing Integrated Pest Management (IPM) practices, enhancing productivity and sustainability while helping to prevent the development of resistance to conventional fungicides.

Amit Noam, Lavie Bio's CEO, expressed his satisfaction with the announced advancement: "We are very pleased with LAV321's performance over the last three years of our field trials, as well as in numerous trials conducted by several of our multinational partners. Our target of reaching 70% efficacy against downy mildew this year was successfully achieved, providing validation to our effective solution for key fruit and vegetable diseases, while fitting easily into current IPM practices. I am proud to announce that LAV321 has completed its development and is now entering the pre-commercial stage, with regulatory processes set to begin."

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[1] Plasmopara viticola the Causal Agent of Downy Mildew of Grapevine: From Its Taxonomy to Disease Management, Kseniia Koledenkova et al. Frontiers in Microbiology, May 2022

[2] EINPresswire: Fungicides Market Growth Analysis With Investment Opportunities For 2024-2033

[3] https://www.ars.usda.gov/news-events/news/research-news/2021/wild-potatoes-tapped-for-late-blight-guard-duty/

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, powered by Evogene's proprietary MicroBoost AI tech-engine, harnessing the power of big data, artificial intelligence, and advanced informatics, for the discovery, optimization and development of bio-stimulant and bio-pesticide products.
For more information, please visit www.lavie-bio.com.

About Evogene Ltd.

Evogene (Nasdaq: EVGN, TASE: EVGN) is a computational biology company aiming to revolutionize the development of life-science based products by utilizing cutting edge technologies to increase the probability of success while reducing development time and cost. Evogene established three unique tech-engines - MicroBoost AI, ChemPass AI and GeneRator AI – leveraging Big Data and Artificial Intelligence and incorporating deep multidisciplinary understanding in life sciences. Each tech-engine is focused on the discovery and development of products based on one of the following core components: microbes (MicroBoost AI), small molecules (ChemPass AI), and genetic elements (GeneRator AI).
Evogene uses its tech-engines to develop products through subsidiaries and strategic partnerships. Evogene's subsidiaries currently utilize the tech-engines to develop human microbiome-based therapeutics by Biomica, ag-biologicals by Lavie Bio, ag-chemicals by AgPlenus, medical cannabis products by Canonic and castor varieties, for the biofuel and other industries, by Casterra.
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", "hopes" "intends", "anticipates", "plans", "believes", "scheduled", "estimates", "demonstrates" or words of similar meaning. For example, Evogene and its subsidiaries are using forward-looking statements in this press release when they discuss public interest in environmentally friendly solutions and the adoption of ag-biologicals like LAV321 as preferred solutions, the integration of farmers of LAV321 and successful achievement of regulatory approvals. 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 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, the current war between Israel and Hamas and any worsening of the situation in Israel such as further mobilizations or escalation in the northern border of Israel and those risk factors contained in Evogene's reports filed with the applicable securities authority. In addition, Evogene and its subsidiaries rely, and expect to continue to rely, on third parties to conduct certain activities, such as their field-trials and pre-clinical studies, and if these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, Evogene and its subsidiaries may experience significant delays in the conduct of their activities. Evogene and its subsidiaries disclaim any

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