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 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of October 2023

Commission File Number: 001-39950

Evaxion Biotech

(Translation of registrant's name into English)

Dr. Neergaards Vej 5f DK-2970 Hoersholm Denmark

(Address of principal executive office)

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 [X] Form 40-F []

INCORPORATION BY REFERENCE

This report on Form 6-K shall be deemed to be incorporated by reference in Evaxion Biotech A/S's registration statements on Form S-8 (File No. 333-255064), on Form F-3 (File No. 333-265132) and on Form F-1 (File No. 333-266050), including any prospectuses forming a part of such registration statements and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

On October 31, 2023, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated October 31, 2023

SIGNATURES

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.

Evaxion Biotech (Registrant)

Date: October 31, 2023

/s/ Sabine Mølleskov Sabine Mølleskov VP Investor Relations

Evaxion Announces Encouraging Initial Phase 2 Clinical Data on Its Personalized Cancer Vaccine EVX-01

- Initial EVX-01 Phase 2 data confirms the strong Phase 1 results
- After undergoing EVX-01 treatment, a significant and continuous tumor reduction was observed in a metastatic melanoma
 patient with initial progressive disease

COPENHAGEN, Denmark, Oct. 31, 2023 (GLOBE NEWSWIRE) -- Evaxion Biotech A/S (NASDAQ: EVAX) ("Evaxion" or the "Company"), a clinical-stage TechBio company specializing in the development of AI-Immunology[™] powered vaccines, is pleased to announce initial results from the EVX-01 Phase 2 clinical trial, confirming previous successful Phase 1 findings. A comprehensive clinical update will be presented at the Society for Immunotherapy of Cancer (SITC) 38th annual meeting, taking place in San Diego, California, from November 1-5, 2023.

Key highlights of the initial Phase 2 results for the first five metastatic melanoma patients treated with EVX-01 include:

- Phase 2 data confirm the favorable safety profile of EVX-01 observed in the Phase 1 trial
- Promising immunological and clinical outcomes align with the Phase 1 outcomes
- Upon EVX-01 treatment, a pronounced and ongoing tumor reduction was observed in a patient with progressive disease
- Phase 2 data confirms Evaxion's AI-Immunology platform's ability to identify therapeutically relevant cancer vaccine targets

Christian Kanstrup, CEO of Evaxion, stated, "We firmly believe that our AI-Immunology $^{\text{TM}}$ platform has the potential to revolutionize the field of oncology and infectious diseases. Today's update underscores its promise in immuno-oncology, with our EVX-01 vaccine safely eliciting robust immune responses in all patients. Notably, a pronounced tumor reduction in a metastatic patient with initial progressive disease following EVX-01 treatment offers hope for those with life-threatening cancer. We are looking forward to discussing these results with potential partners."

Join us at the SITC meeting to explore the poster titled "Effects of an AI-generated personalized neopeptide-based immunotherapy, EVX-01, in combination with pembrolizumab in patients with metastatic melanoma. A clinical trial update", presented on Saturday, November 4, between 9 a.m. - 8:30 p.m. PDT.

Additionally, don't miss an in-depth presentation of Evaxion's EVX-01 Phase 2 clinical results by joining an online webinar featuring the study's principal investigator, Professor Adnan Khattak, held on November 8 at 11:30 a.m. EST. To register for the event, please follow this link.

Earlier this year, Evaxion reported a successful Phase 1 clinical trial for EVX-01 in combination with a checkpoint inhibitor. The trial demonstrated a 67% clinical response rate while meeting safety standards and reporting only mild adverse events. Further, high-quality neoantigens predicted by AI-ImmunologyTM were associated with longer progression-free survival. To learn more, please read here.

About EVX-01 Phase 2 Clinical Trial

EVX-01 is Evaxion's lead clinical asset and constitutes a peptide-based personalized cancer vaccine. The Phase 2 clinical study is a self-sponsored open-label, single-arm, multi-center trial carried out in collaboration with Merck Sharp & Dohme LLC, and together with leading principal investigators and research centers from Italy and Australia aims at evaluating the efficacy and safety of EVX-01 vaccination in combination with anti-PD1 treatment (pembrolizumab) in treatment-naive patients with metastatic or unresectable malignant stage III or IV melanoma. More information can be accessed under clinical trial ID NCT05309421.

About EVAXION

Evaxion Biotech A/S is a pioneering TechBio company based upon its AI platform: AI-ImmunologyTM. Evaxion's proprietary and scalable AI prediction models harness the power of artificial intelligence to decode the human immune system and develop novel immunotherapies for cancer, bacterial diseases, and viral infections. Based upon AI-ImmunologyTM, Evaxion has developed a clinical-stage oncology pipeline of novel personalized vaccines and a preclinical infectious disease pipeline in bacterial and viral diseases with high unmet medical needs. Evaxion is committed to transforming patients' lives by providing innovative and targeted treatment options. For more information about Evaxion and its groundbreaking AI-ImmunologyTM platform and vaccine pipeline, please visit our website.

Forward-Looking Statement

This announcement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words "target," "believe," "expect," "hope," "aim," "intend," "may," "might," "anticipate," "contemplate," "continue," "estimate," "plan," "potential," "predict," "project," "will," "can have," "likely," "should," "would," "could," and other words and terms of similar meaning identify forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various

factors, including, but not limited to, risks related to: our financial condition and need for additional capital; our development work; cost and success of our product development activities and preclinical and clinical trials; commercializing any approved pharmaceutical product developed using our AI platform technology, including the rate and degree of market acceptance of our product candidates; our dependence on third parties including for conduct of clinical testing and product manufacture; our inability to enter into partnerships; government regulation; protection of our intellectual property rights; employee matters and managing growth; our ADSs and ordinary shares, the impact of international economic, political, legal, compliance, social and business factors, including inflation, and the effects on our business from the worldwide ongoing COVID-19 pandemic and the ongoing conflict in the region surrounding Ukraine and Russia and the Middle East; and other uncertainties affecting our business operations and financial condition. For a further discussion of these risks, please refer to the risk factors included in our most recent Annual Report on Form 20-F and other filings with the U.S. Securities and Exchange Commission (SEC), which are available at www.sec.gov. We do not assume any obligation to update any forward-looking statements except as required by law.

Source: Evaxion Biotech

Contact Information Evaxion Biotech A/S Christian Kanstrup Chief Executive Officer cka@evaxion-biotech.com