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 April 2024

Commission File Number: 001-39950

Evaxion Biotech A/S

(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), on Form F-1, as amended (File No. 333-266050) and Form F-1 (File No. 333-276505), 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of such registration statements and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

Press Release

On April 2, 2024, Evaxion Biotech A/S (the "Company"), a clinical-stage TechBio company specializing in developing AI-ImmunologyTM powered vaccines, issued a press release titled "Evaxion and Undisclosed Collaborator Announce Encouraging Results for EVX-B1 Vaccine Antigens Against Staphylococcus Aureus Infection". A copy of the press release is furnished as Exhibit 99.1 to this report on Form 6-K.

Exhibits

Exhibit No. Description

99.1 Press Release dated April 2, 2024

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 A/S (Registrant)

Date: April 2, 2024 By: /s/ Christian Kanstrup

Christian Kanstrup Chief Executive Officer

Evaxion and Undisclosed Collaborator Announce Encouraging Results for EVX-B1 Vaccine Antigens Against Staphylococcus Aureus Infection

- Evaxion and its collaborator tested Evaxion-designed vaccine antigens against *Staphylococcus aureus* in a clinically relevant animal model of surgical site infections
- The vaccine antigens significantly protected large, non-rodent animals against surgical site infections, indicating promising potential for clinical efficacy in human trials

COPENHAGEN, Denmark, April 02, 2024 (GLOBE NEWSWIRE) -- Evaxion Biotech A/S (NASDAQ: EVAX) ("Evaxion" or the "Company"), a clinical-stage TechBio company specializing in developing AI-ImmunologyTM powered vaccines, is pleased to announce the successful conclusion of a series of large non-rodent animal infection studies, testing antigens from Evaxion's preclinical EVX-B1 vaccine candidate against *Staphylococcus aureus* (S. aureus). In the animal studies, the EVX-B1 antigens significantly reduced disease burden. Currently, the two companies are engaged in discussions regarding the path forward.

Birgitte Rønø, Chief Scientific Officer at Evaxion, expresses enthusiasm: "We are very thrilled about the encouraging data and believe that our EVX-B1 vaccine antigens hold the potential for efficacy in human trials – a milestone that previous vaccine attempts have failed to achieve."

There is no *S. aureus* vaccine available for human use. This pathogen can cause infections of multiple organs and tissues, which can be profoundly severe or even fatal. Most at risk are individuals with chronic conditions and patients undergoing surgeries. Also, the presence of antibiotic-resistant *S. aureus* is limiting available treatment options. The Centers for Disease Control and Prevention (CDC) has reported 120,000 bloodstream infections associated with *S. aureus* in the US annually.

Three separate studies in large, non-rodent animals were conducted with the following conclusions:

- The EVX-B1 vaccine antigens significantly reduced S. aureus bacterial burden in a surgical site infection model
- Induction of meaningful antigen-specific antibody titers in all vaccinated animals
- The ability of the antigens to induce a protective immune response in the animals when being colonized with *S. aureus* mimicking the human situation
- Ability of the immune blood to neutralize clinically relevant *S. aureus* in a whole blood killing assay, holding promise for translational assay readout in early clinical development

About EVX-B1

The EVX-B1 antigens have been designed using Evaxion's AI-ImmunologyTM platform. AI-ImmunologyTM has enabled the identification of novel *Staphylococcus aureus* antigens, paving the way for developing a vaccine with the potential for broad protection against clinically relevant *S. aureus* strains.

About Staphylococcus aureus

According to the CDC, *S. aureus* colonizes about 30% of the human population without causing any harm. However, *S. aureus* can also cause infections that can be serious or even fatal. One of the most serious conditions is bacteremia or sepsis, where the bacteria spread to the bloodstream. This pathogen can also cause pneumonia, endocarditis and osteomyelitis (infection of the lung air sacs, heart valves and bone, respectively). Most at risk are those with chronic conditions such as diabetes, patients in intensive care units, patients who have undergone certain types of surgeries and patients with medical devices inserted in their bodies. The presence of antibiotic-resistant *S. aureus*, particularly Methicillin-resistant *S. aureus* (MRSA), further limits treatment options. In the US, nearly 120,000 bloodstream infections and 20,000 deaths were associated with *S. aureus* in 2017.

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.

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