

Evaxion launches improved AI-Immunology™ platform for vaccine antigen prediction

September 19, 2024

- The new version 5.0 of the AI model EDEN™ features a novel toxin antigen predictor, is trained on an expanded dataset and includes an advanced protein prediction feature
- The launch will expectedly improve Evaxions ability to fast and effectively discover AI-derived novel vaccines and is expected to further solidify the strong interest seen in AI-Immunology™ from potential partners
- New data demonstrating the improved performance of EDEN™ will be presented today at the European Conference on Computational Biology in Turku, Finland

COPENHAGEN, Denmark, Sept. 19, 2024 (GLOBE NEWSWIRE) -- Evaxion Biotech A/S (NASDAQ: EVAX) ("Evaxion"), a clinical-stage TechBio company specializing in developing AI-Immunology™ powered vaccines, launches an enhanced version of its clinically validated AI-Immunology™ platform with an update of its EDEN™ AI prediction model. Among other improvements, the model can now predict toxin antigens, allowing for the development of improved bacterial vaccines.

Bacterial toxins are often key contributors to disease, making their neutralization essential for developing effective vaccines. The upgraded EDEN™ model improves the prediction of bacterial toxins for vaccine development. With greater speed and accuracy, it enables Evaxion to rapidly identify the critical toxin targets to include in vaccines.

"Today's launch of the improved EDEN™ AI prediction model marks an important milestone for Evaxion, further strengthening our AI-Immunology™ platform. As one of the few truly AI-first TechBio companies, our AI-Immunology™ platform is at the forefront of innovation. We will continue to invest in its development and refinement to further improve our ability to discover novel targets and develop advanced vaccines," says Christian Kanstrup, CEO of Evaxion.

The AI-Immunology™ platform uses advanced AI and machine learning technologies to design and develop novel vaccine candidates addressing significant unmet needs. Its AI prediction models are applied in cancer and infectious diseases and scalable to other therapeutic areas. The platform can deliver one new target within just 24 hours compared to years by using traditional methods and is delivery modality agnostic. The predictive capabilities of the AI-Immunology™ platform are robustly validated as the target's prediction score has been shown to correlate with pre-clinical and clinical readouts.

The EDEN™ prediction model is one of five models constituting the AI-Immunology™ platform. It is used to identify B-cell antigens included in infectious disease vaccines. The new version 5.0 features the following updates:

- Novel bacterial toxin antigen predictor: We have trained new machine learning models, improving the accuracy and reliability of toxin antigen prediction
- Expanded training dataset: We have streamlined the process for curating additional training data from published sources using retrieval-augmented generation with large language models, followed by manual domain expert curation
- Advanced protein feature prediction: We developed a new building block for protein feature prediction using protein language models, enhancing the model's architecture and capability to predict various protein characteristics

The data documenting the features and performance of the new EDEN™ prediction model will be presented today in a poster session at the European Conference on Computational Biology (ECCB) in Turku, Finland.

ECCB presentation details:

Poster title:	Advancing Vaccine Development through Precise AI-driven Prediction of Protective Antigens
Poster#:	172
Track:	Poster session 1
Location:	Logomo, Junakatu 9, Turku, Finland
Date/Time:	September 19, 2024, at 17.00-18.30CEST
Presenter:	Christian Garde

Link to abstract on the [ECCB website](#).

About AI-Immunology™

AI-Immunology™ is a scalable and adaptable artificial intelligence technology platform at the forefront of vaccine discovery for infectious diseases and cancers. By integrating the collective power of proprietary AI models PIONEER™, EDEN™, RAVEN™, and ObsERV™, the platform can model the complexity of the patient's immune system. AI-Immunology™ advanced computational modeling swiftly and uniquely identifies, predicts, and designs vaccine candidates, revolutionizing the landscape of immunotherapy by offering a holistic and personalized approach to combat fast-evolving pathogens and malignant cells.

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About EVAXION

Evaxion Biotech A/S is a pioneering TechBio company based upon its AI platform, AI-Immunology™. 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-Immunology™, 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-Immunology™ 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