November 2024

evaxion-biotech.com

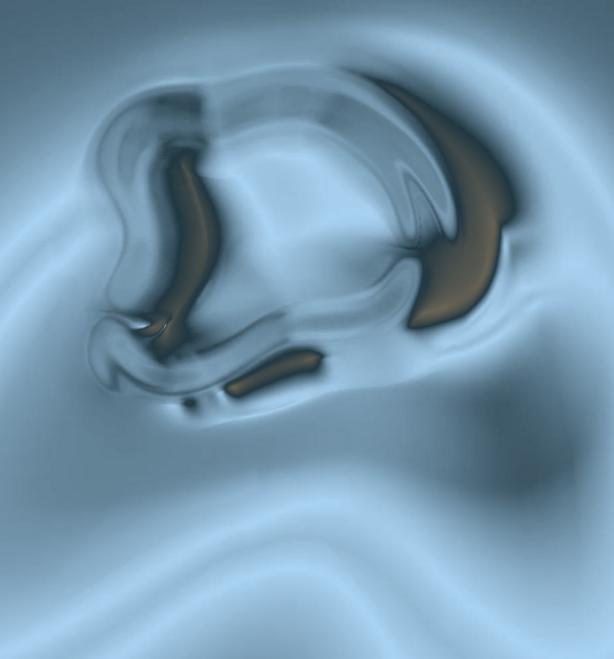
# EVAXION

## Forward-looking statement

This presentation 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 COVID-19 pandemic and the ongoing conflict in the region surrounding Ukraine and Russia; 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 <a href="https://www.sec.gov">www.sec.gov</a>. We do not assume any obligation to update any forward-looking statements except as required by law.

This presentation includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties or us. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. All of the market data used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data. The industry in which we operate is subject to a high degree of uncertainty, change and risk due to a variety of factors, which could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

## About us



## A pioneer in **fast and effective** Al-powered development of new medicines



Multidisciplinary capability set and state of the art wetlab and animal facilities



Broad pipeline
Pre-clinical and
clinical programs
across cancer and
infectious diseases



Three-Pronged
Business model



Multi-partner approach to value realization Several partnerships in place



**AI-Immunology™ -** Clinically validated and leading AI platform

## Founded as Al first-company

Founded in 2008, with the objective of decoding the human immune system to address serious unmet medical needs

**Today**, a pioneering clinical stage TechBio company with a validated and leading Al-platform, **Al-Immunology™**, for fast and effective vaccine target discovery, design and development within **cancer and infectious diseases** 

**Every day**, **Al-Immunology™ brings us closer** to a future where we can treat a wide range of **critical diseases** 

Our purpose is saving and improving lives with Al-Immunology™



## Targeting significant unmet needs and large markets

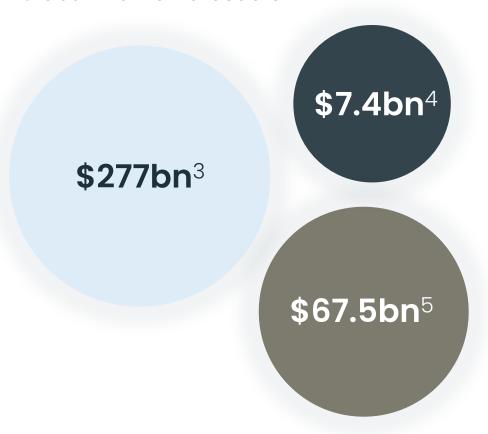
### **Major challenges**

- Lack of effective treatments for many cancer patients
- No approved vaccines against S. aureus, Gonorrhoea or Cytomegalovirus (CMV)
- Antibiotics resistance is continuing to increase
- Healthcare burden continues to increase

## **10 million** annual deaths from cancer<sup>1</sup>

**7.8 million** annual deaths from infectious diseases<sup>2</sup>

### Global market forecasts



Cancer immunotherapy market estimated to grow to \$277 billion by 2030

## Strong leadership with extensive experience across all relevant fields



**Chief Executive Officer** 

**Christian Kanstrup** 

**MSc Economics** 







Chief AI Officer & Evaxion Founder

**Andreas Mattsson** 

**MSc Bioinformatics** 







Chief Scientific Officer

Birgitte Rønø

MSc Human Biology/ PhD







**Chief Financial Officer** 

**Thomas Schmidt** 

MSc Business Economics & Auditing





### **Board of directors**

- Marianne Søgaard
   Chair, former tech lawyer and equity partner
- Roberto Prego
   Former Teva (head of Latin America)
- Lars Holtug
   Certified Public Accountant
- Lars Staal Wegner
   Partner Bristlecone Pacific, MD

## Investment highlights

- Truly Al-first company leveraging Al-Immunology™ a
  pioneering clinically validated Al platform for vaccine discovery,
  design and development. Its modular architecture allows for
  unique scalability
- Proven ability to establish and manage a range of valuecreating partnerships
- Pipeline of novel clinical and preclinical vaccine candidates for cancers and infectious diseases
- Several pipeline assets ready for partnering
- Clear strategy with strong focus on monetizing value through business development
- MSD (via its MSD GHI venture capital arm) largest shareholder with around 15% equity stake

## Capital structure

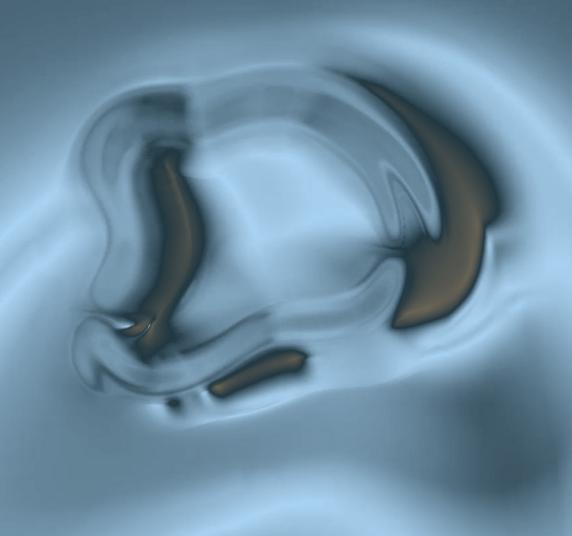
Symbol (Nasdaq - ADS)	EVAX
Stock price (as of Sep 30, 2024)	\$3.11
ADS outstanding if full conversion	5.9M
Market capitalization	\$16.8M
Fully diluted ADS outstanding*	7.9M
Warrants** (\$5.10 WAEP)	5.2M
Average trading volume (3-mth)	53,650
Cash***	\$4.6M
Debt***	\$8M

<sup>\*</sup> Assuming full conversion to ADS of remaining ordinary shares as well as pre-funded warrants

<sup>\*\*</sup> Warrants convertible into ADS

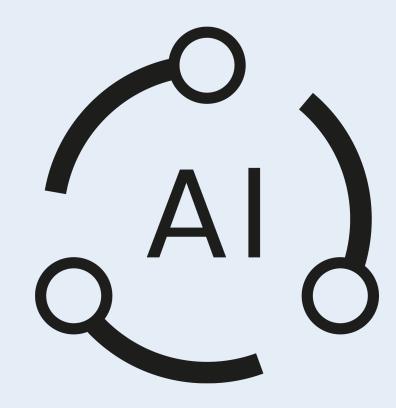
<sup>\*\*\*</sup> As of 09/30/24

## Our Strategy



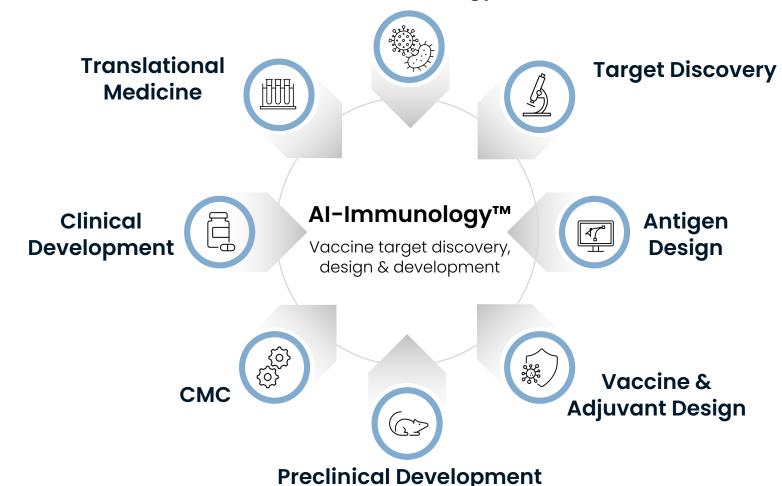
## **Al-Immunology™** summary

- Uses advanced AI and machine learning technologies
- Design and development of personalized and precision vaccine candidates
- Al prediction models trained in cancer and infectious diseases
- Potential for one new target every 24 hours
- Platform is delivery modality agnostic
- Clinically validated predictive capabilities
- Adaptability to partner needs
- Scalable to other therapeutic areas



# We have built a strong multidisciplinary capability set and state of the art facilities

**Disease Biology** 

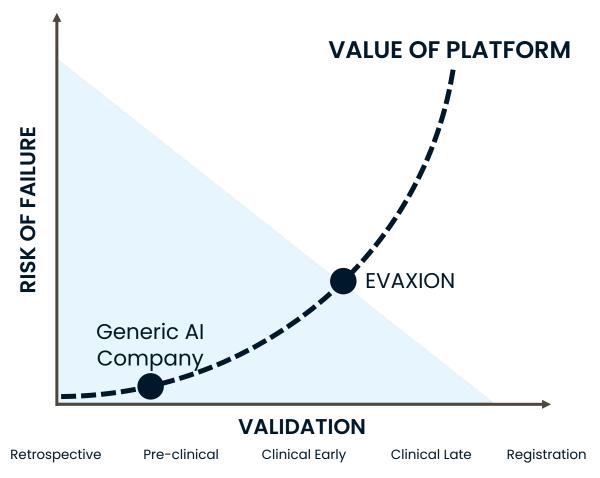




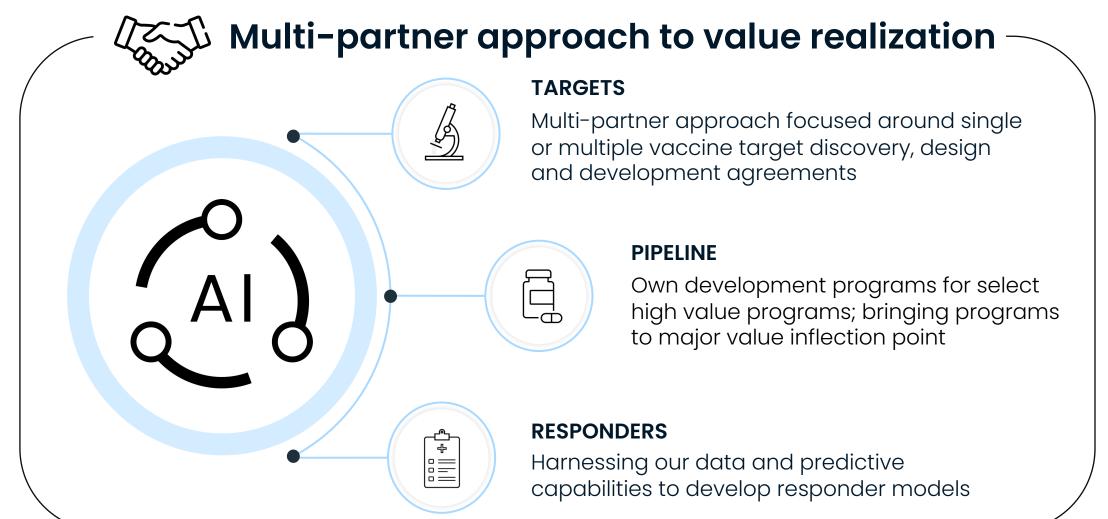


# Al-Immunology™ and our multidisciplinary capability set **drive differentiation**

- Our multidisciplinary capability set allows for:
  - Continuous iterative learning loops
  - Ongoing expansion of data sets with proprietary data
  - Rapid validation of AI predictions
  - Full control of process from idea to validation
  - Continued expansion of pipeline assets
- Significantly enhancing the value of our platform



# Strategy: **Three-pronged business model** based upon Al-Immunology™



# Pipeline: Demonstrating the **performance and scalability of our Al-Immunology™** platform

AI MODEL	INDICATION/ PARTNER	STAGE OF DEVELOPMENT				
AI MODEL	PATHOGEN	PATHOGEN	TARGET DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2
CANCER VACC	CINES					
PIONEER™	Metastatic melanoma	Pembrolizumab supply agreement with MSD*	EVX-01 (Liposomal/peptide)			MSD MSD
Neoantigens	Adjuvant melanoma		EVX-02 (DNA)**			
<b>ObsERV™</b> ERV antigens	TBD		EVX-03 (Targeted DNA)			
	Undisclosed		Multiple candidates			
INFECTIOUS DI	ISEASE VACCINES					
	S. aureus		EVX-B1 (Proteins)			
	N. gonorrhoeae	Option and license agreement with MSD*	EVX-B2 (Proteins)	<b>♦</b> MSD		
EDEN <sup>TM</sup> B-cell targets	N. gonorrhoeae	Collaboration with <b>Afrigen</b> for low- and middle-income countries	EVX-B2 (mRNA)	Afrigen Biologics & Vaccines An Accessor Health & DC Company		
RAVEN™	Bacterial pathogen	Option and license agreement with MSD*	EVX-B3	<b>♦</b> MSD		
T-cell targets	Undisclosed		Multiple candidates			
	Cytomegalovirus	Co-development with Expres <sup>2</sup> ion	EVX-VI	EXPRESION BIOTECHNOLOGIES		
	Undisclosed			* Trade ** The do	name of Merck & Co., Inc., Rahwo ata generated in the EVX-02 pro-	gram actively informs

## Partnering to increase and harness value



### Option and license agreement on EVX-B2 and EVX-B3, two Al-Immunology™ designed novel vaccine candidates

- Significant financial and strategic value to Evaxion
- Upfront payment of \$3.2m and up to \$10m in 2025
- Milestone payments of up to \$592m per product plus royalties on sales
- MSD to drive the further development and commercialization following option exercise



## Discovery partnership to design and test mRNA gonorrhea vaccine

- First mRNA program in pipeline
- Potential for first clinical proofof-concept for EDEN™ antigens
- Participation in WHO and Medicines Patent Pool initiative
- Afrigen has option to commercial rights for low and middle income and African territories



## Discovery partnership on a novel vaccine candidate for cytomegalovirus (CMV)

- Expansion into viral vaccine development with co-funding of discovery activities
- Utilize ExpreS2ion platform for fast and efficient production of complex proteins
- Potential for first proof-ofconcept for targeting a viral pathogen
- ExpreS2ion has the first right to license the candidate

## MSD-partnership is transformative to Evaxion



Significant financial and strategic value to Evaxion, both short- and long-term

- \$
- Upfront payment of \$3.2 million and up to \$10 million in 2025, contingent upon MSD exercising its option to license either one or both candidates
- \$

Milestone payments of up to \$592 million per product plus royalties on sales, providing a very important source of income and funding for the years ahead



Massive validation of Al-Immunology™ and pipeline from the world leader in vaccine development and commercialization



Ensures fast and effective development of EVX-B2 and EVX-B3 to address serious unmet needs, no approved vaccines available today



Strong execution of our partnership strategy; monetizing the value of our platform and pipeline candidates



## The **key areas** of Al-Immunology™



**Al-Immunology™** for fast and effective vaccine target discovery, design and development

## The **building blocks** of Al-Immunology™

- Uses advanced AI and machine learning technologies
- A unique modular architecture creates a scalable and adaptable platform
- Outcompetes standard vaccine target discovery approaches
- Identified targets hold the promise for addressing serious unmet needs
- From the 26 building blocks we have created five unique AI models

### 1 DISEASE DECODING

SNVs	Frameshifts	Gene fusions	HLA loss
ERV antigens	TME impact	Clonality	Expression
Bacterial antigens	Viral antigens	Antigen conservation	Treatment effect
Neoantigens			

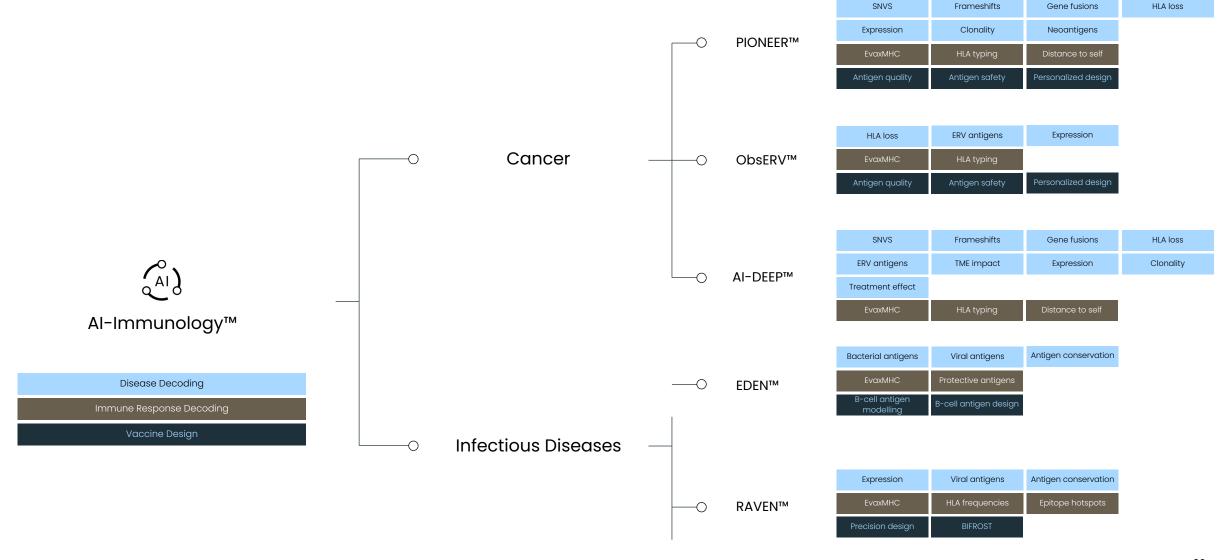
### 2 IMMUNE RESPONSE DECODING

EvaxMHC	HLA typing	HLA frequencies	Distance to self
Protective antigens	Epitope hotspots		

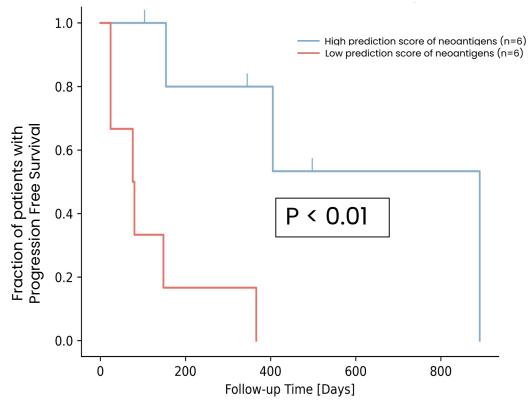
### **3 VACCINE DESIGN**

Antigen quality	Antigen safety	B-cell antigen modelling	B-cell antigen design
Precision design	Personalized design	BIFROST	

## Al-Immunology™ models



## Al-Immunology™: **Clinically validated** predictive capabilities



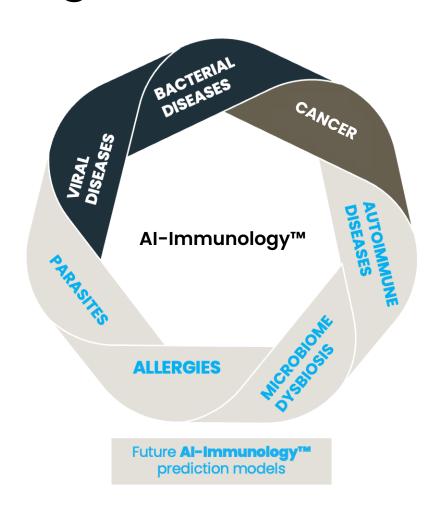
#### Progression-Free Survival Based on PIONEER™ Score

Kaplan-Meier plots displaying Progression-Free Survival (PSF) of patients based on median PIONEER™ quality score. Patients were stratified by PIONEER™ quality score in to two groups corresponding to the six highest and six lowest median scores.

### **EVX-01** - PIONEER™ Identified vaccine targets highly correlate with survival

- Al response prediction (PIONEER™ score) builds on the presence of high-quality tumor neoantigens
- Patients with high PIONEER™ scores had longer progression-free survival
- A similar relationship could not be established using the conventional TMB method

# Unique **building block architecture** enables scaling to other therapeutic areas



- Significant unmet needs remains within cancer and infectious diseases
- However, unique modular architecture of Al-Immunology™ allows easy expansion to other therapeutic areas
- Ample long-term business opportunities for Evaxion



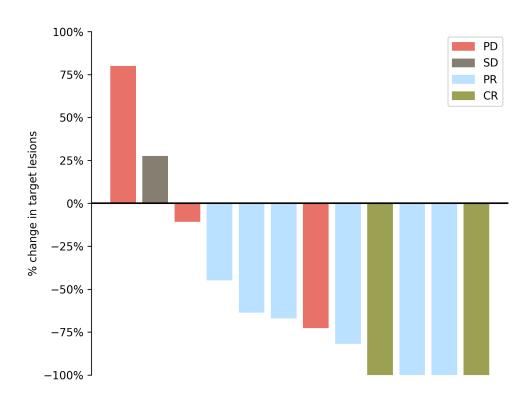
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# **EVX-01** in combination with standard therapy shows objective response rate of 67% in clinical phase 1/2 in patients with metastatic melanoma

### Study highlights

- 12 patients in total, with 8 showing an objective response to treatment (ORR 67%)
- 2 complete responders
- Treatment: 6 biweekly EVX-01 injections + anti-PD1 (standard of care therapy)
- EVX-01 induced immune response in all patients
- EVX-01 was safe and well tolerated with only grade
   1-2 adverse drug reactions
- Efficient manufacturing of vaccine with a turnaround time of 6-8 weeks



#### Patient Responses to EVX-01 in Combination with Anti-PD1

The size difference of target lesions from baseline was calculated based on imaging (PET/CT). Bars are colored according to best recorded response of individual patients. PD: progressive disease, SD: stable disease, PR: partial response, CR: complete response

### EVX-01 - Clinical phase 1/2 summary

With Al-Immunology™ identified targets we have demonstrated longer progression-free survival of patients

### Phase 1/2

High overall response rate with clinical response in all high dose group patients

Dose-dependent neoantigen-specific immune responses in all patients

### Phase 2

Phase 2 initiated in metastatic melanoma with high dose EVX-01

Collaboration with MSD (Merck)

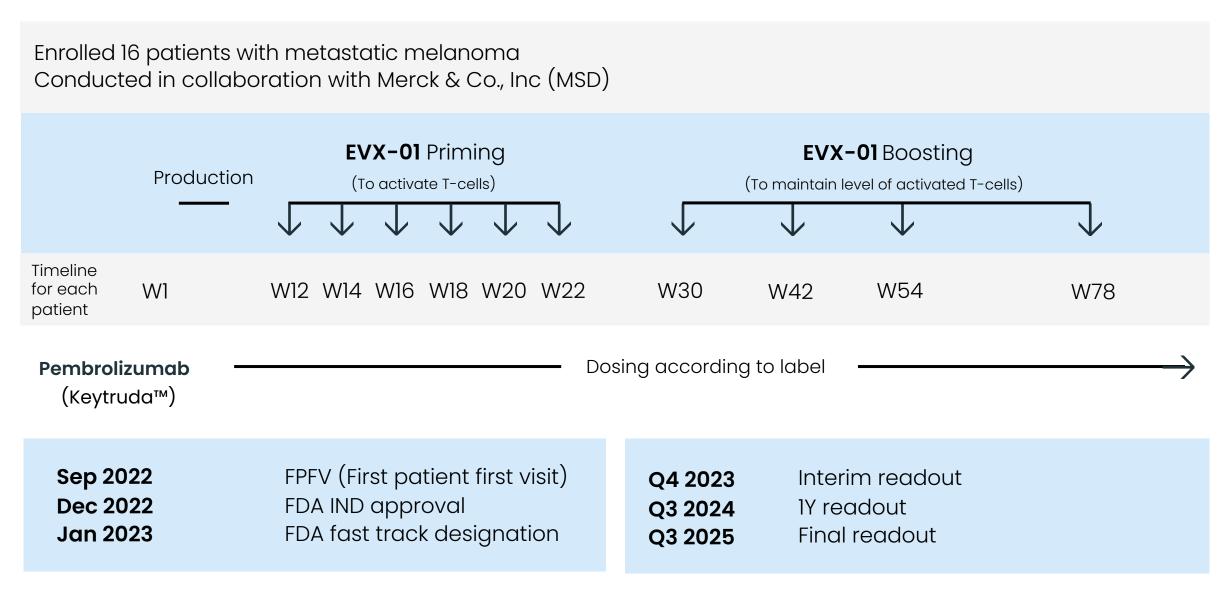
### **Opportunity for Subsequent Studies**

New insights to the immune system based on data and Al



Enrich patient population to significantly increase probability of positive outcome

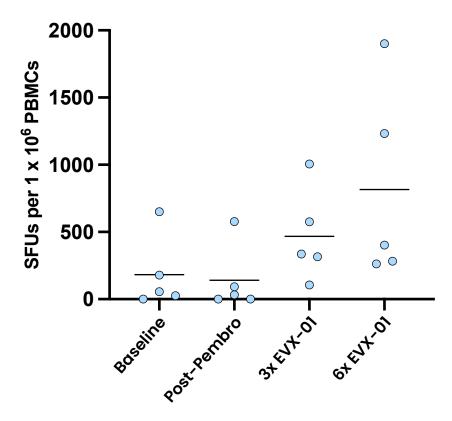
### EVX-01 Phase 2 trial enrolling patients in Australia/Europe



## Engouraging Initial EVX-01 phase 2 trial results

- Initial data from five patients\*:
  - Confirm the favorable safety profile of EVX-01
  - Neoantigen specific T-cell reactivity induced by EVX-01 detected in all five patients
  - Confirm the ability the Al-Immunology™
    platform to identify therapeutically relevant
    cancer vaccine targets

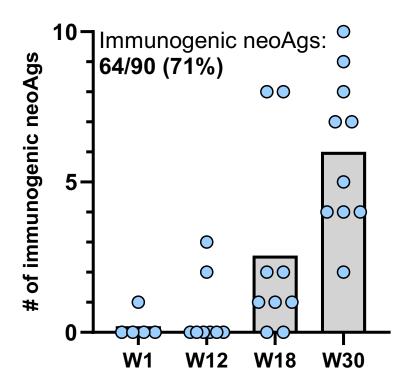
### Response to Vaccine Neoantigens



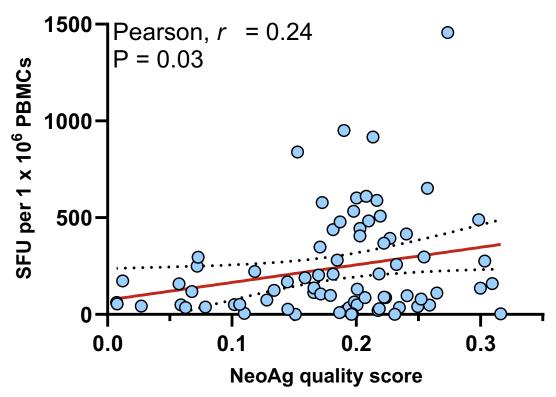
IFN $\gamma$  ELISPOT response at 4 different timepoint in PBMCs after in vitro stimulation towards each individual patient's neoantigen pool

## Neoantigen PIONEER™ quality score correlates positively with T-cell responses – initial EVX-01 phase 2 data

Number of Immunogenic neoAgs during EVX-01 priming

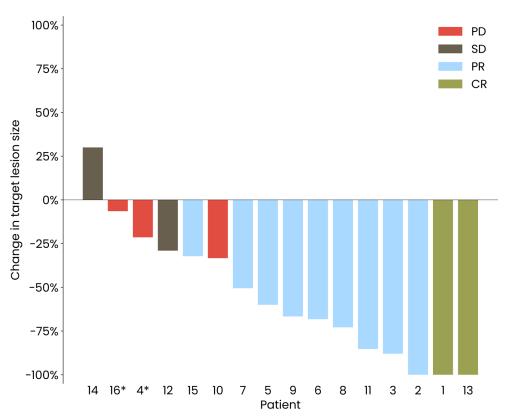


Correlation between neoAg responses and PIONEER™ neoAg quality scores

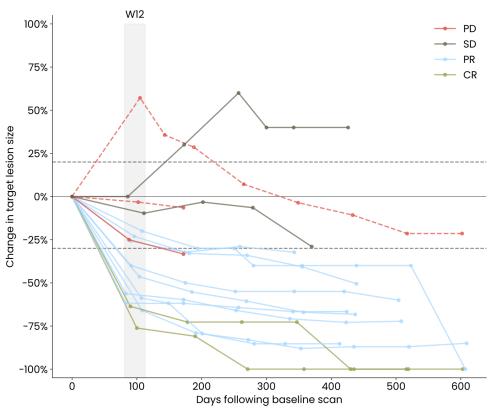


Immunogenicity of individual EVX-01 neoantigen (neoAg) and correlation with neoAg quality score. Number of immunogenic neoAgs per patient at each sample timepoint during EVX-01 priming. Immunogenic neoAgs were determined in an IFNy ELISpot assay using the criteria: [Mean SFU<sub>neoAg STIMULATED</sub>] > 2 x [Mean SFU<sub>UNSTIMULATED</sub>] + 10 SFU. 64 out of 90 tested neoAgs were immunogenic (left figure). Correlation between IFNy ELISpot responses and Al-Immunology<sup>TM</sup> neoAg quality scores assessed at week 30 after completion of EVX-01 priming (6x EVX-01) demonstrated a significant positive correlation between neoAgs quality score and IFNy responses (right figure).

# Convincing one year phase 2 data\* on EVX-01 with 69% Overall Response Rate



Largest reduction in target lesion size for each patient compared to baseline. Bars are colored according to each patient's best overall response at the data cut-off date as assessed by RECIST 1.1. \*Patients not included in the primary analysis as they were not SD or PR at week 12.



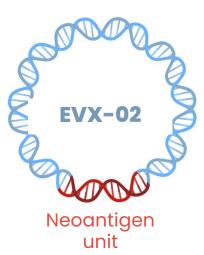
Change in target lesion size over time. Day 0 is defined as the day of the baseline scan. Lines are colored according to each patient's best overall response at the data cut-off date as assessed by RECIST 1.1. Dashed lines indicate patients that are not included in the primary analysis.

<sup>\*</sup> Data from a one-year interim analysis of the ongoing phase 2 trial investigating EVX-01 in combination with MSD's (Merck & Co., Inc., Rahway, NJ, USA) anti-PD-1 therapy, KEYTRUDA\* (pembrolizumab) in patients with advanced melanoma (skin cancer) (NCT05309421)

# **EVX-02** – Evaxion's first DNA-based personalized cancer vaccine shows positive clinical readout

### **Study Overview**

- Phase 1/2 clinical trial of EVX-02 + nivolumab (Opdivo™/standard of care) as adjuvant therapy after complete resection of malignant melanoma
- A DNA plasmid carrying 13 tumor-specific PIONEER-identified neoantigens delivered to each patient to prevent relapse
- Current relapse rate underlines the high unmet need for new therapies to tackle this disease



## Positive clinical readout\*

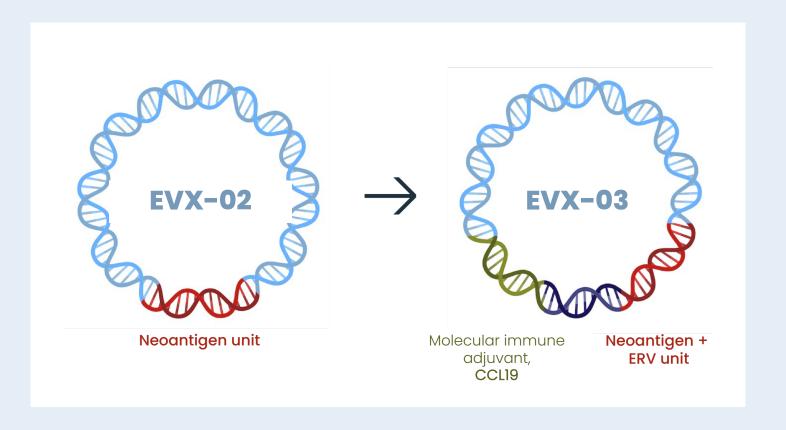
- All 10 EVX-02 completers were relapse-free at last assessment
- Well tolerated in all patients
- Specific T-cell responses in all patients against PIONEERidentified neoantigens
- T-cell responses robust and long lasting
- Proof of mechanism for DNAvaccine technology

<sup>\*</sup> Data reported at AACR in April 2023

### EVX-03 – Believed to be first ever personalized ERV vaccine

DNA-based personalized vaccine armed with molecular immune adjuvant, neoantigens and ERVs

- Molecular immune adjuvant attracts antigen presenting cells and augments antigen presentation
- The unique technology is fully owned, patent protected, and with broad utility for vaccines
- Patient-specific neoantigens and ERVs are identified through Al
- GLP toxicology completed without concerns



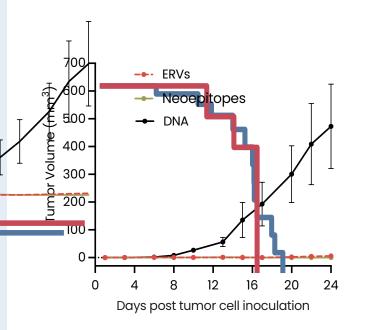
### EVX-03 – Addition of ERVs resulted in very promising preclinical data

 ERVs are ancient viruses that have integrated into the genome and are passed down through generations

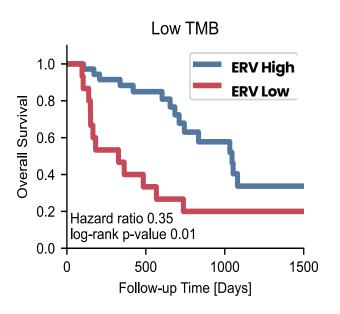
 ERVs are suppressed in healthy tissue, but expressed in cancers

 ERVs are promising targets for personalized cancer vaccines

 GLP toxicology study of EVX-03 completed without safety concerns ERV-Based DNA Vaccine Prevents Tumor Growth in a Preclinical Cancer Model



High ERV Burden is Associated with Better Survival in Patients with Few Tumor Mutations (Low TMB)



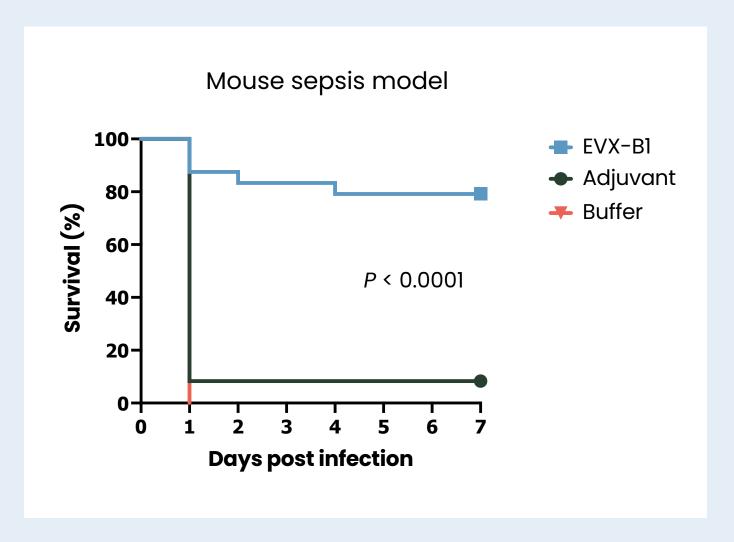
### Precision cancer vaccine concept developed based on a novel class of tumor antigens

- Precision cancer vaccine concept developed based on a novel class of tumor antigens, named Endogenous Retroviruses, ERVs
- This novel vaccine concept allows patient with similar tumor profiles to be treated with the same therapy
- Holds the potential for broadening potential use of cancer vaccines
- Focus on lead candidate development
- Next milestone: Preclinical PoC obtained, H2 2024



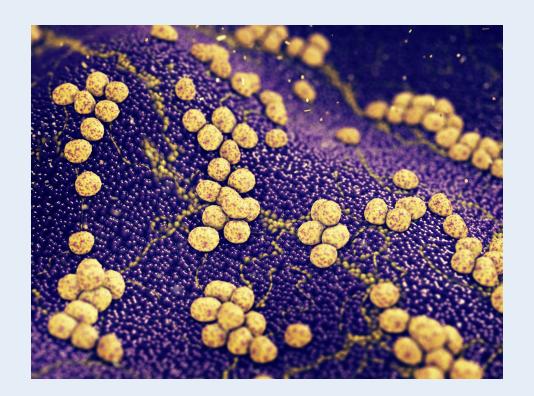
## **EVX-B1** – Staphylococcus aureus vaccine candidate demonstrates high immunogenicity and significant protection

- Multi-component S. aureus vaccine candidate for prevention of Skin and Soft Tissue Infections (SSTI)
- Induction of high IgG titers and potent T-cell response after two doses
- Highly significant protection in lethal mouse sepsis model and in a mouse skin infection model
- EVX-B1 immunized mice are able to clear the infection from internal organs



## **EVX-B1** – Encouraging results for vaccine antigens against Staphylococcus aureus infection

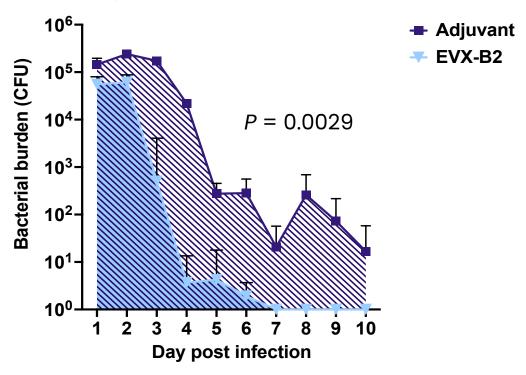
- Evaxion and its undisclosed collaborator tested Evaxion designed vaccine antigens against Staphylococcus aureus (S. aureus) in a clinically relevant animal model of surgical site infections
- The vaccine antigens significantly protected large, non-rodent animals against surgical site infections, indicating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



# EVX-B2 – Gonorrhea vaccine candidate induce significant protection

- EVX-B2 is a multi-component Al-Immunology™ designed vaccine candidate against Gonorrhea
- EVX-B2 significantly protects against different N. gonorrhoeae strains in a vaginal colonization mouse model
- Demonstrated efficacy of EVX-B2 against 50 clinically relevant N. gonorrhoeae strains

### Vaginal colonization model



# **EVX-B3 -** vaccine project conducted in collaboration with MSD



The EVX-B3 project was initiated in September 2023 as a collaboration with MSD. In September 2024, Evaxion and MSD entered an option and license agreement for EVX-B3 and EVX-B2



The EVX-B3 vaccine aims to address a serious global medical issue by targeting a pathogen responsible for recurrent infections, increasing incidence, and often severe medical complications, for which no vaccine currently exists



The first phases of the collaboration have been successfully completed, and the later stages now in progress

## **EVAXION**





## Evaxion's intellectual property **portfolio broadly covers AI and vaccine candidates** for cancer and infectious diseases

Evaxion Biotech A/S holds an extensive intellectual property (IP) portfolio

The IP portfolio covers strategic parts of the Al-Immunology™ platform and compositions of matter, methods and use of products in our two disease areas: cancer and infectious diseases. Key part of the Al-Immunology platform are kept as trade-secrets.

Evaxion's filed IP portfolio related to the **AI-Immunology™ platform** currently consist of:

- More than 15 pending applications with expected expiry dates ranging from 2040 to 2042
- IP covers AI models PIONEER™, ObsERV™, RAVEN™, EDEN™ and AI-Deep™

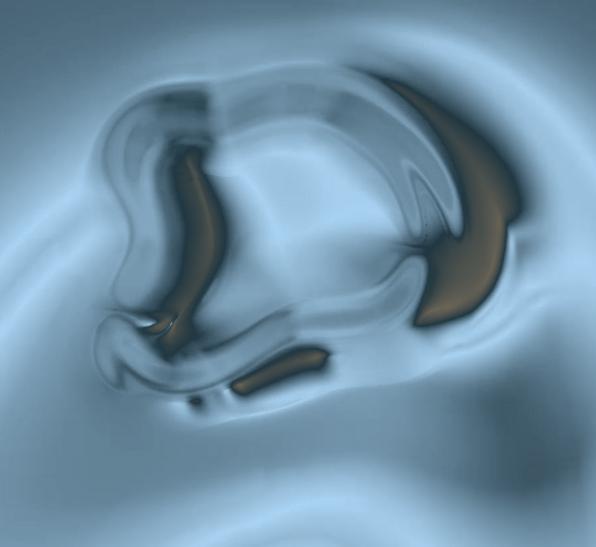
### Evaxion's **cancer** IP portfolio currently consists of:

- More than 20 pending applications with expected expiry dates ranging from 2040 to 2042
- IP covers EVX-01, EVX-02 and EVX-03,

### Evaxion's **infectious disease** IP portfolio consists of:

- >25 granted patents and >20 pending applications with expiry dates ranging from 2032 to 2044
- IP covers infectious diseases; S. aureus, N. gonorrhoeae, A. baumannii, P. aeruginosa, K. pneumoniae, M. catarrhalis, NTHi

## Summary



### Several 2024 milestones

	Milestones	Target
EVX-B1	Conclusion of final MTA study with potential partner	Q1 2024
Al-Immunology™	Launch of EDEN™ model version 5.0	Mid 2024 (ECCB, September)
EVX-B2-mRNA	EVX-B2-mRNA preclinical Proof-of-Concept obtained	Q3 2024 (18 <sup>th</sup> Vaccine Congress, September)
EVX-01	Phase 2 one-year readout	Q3 2024 (ESMO Congress, September)
EVX-B3	Conclusion of target discovery and validation work in collaboration with MSD (tradename of Merck & Co., Inc., Rahway, NJ, USA)*	H2 2024
Precision ERV cancer vaccines	Preclinical Proof-of-Concept obtained	H2 2024
Funding	Ambition for full year 2024 is to generate business development income or cash in equal to 2024 cash burn (excluding financing activities) of 14 million USD**	Unattainable

<sup>\*</sup> MSD option and license agreement on EVX-B2 and EVX-B3 supersedes this milestone
\*\* Certain discussions being pushed into 2025 makes 2024 ambition unattainable, but creates solid basis for 2025

## Strong platform for longterm value creation

- Truly Al-first company leveraging Al-Immunology™ a
  pioneering clinically validated Al platform for vaccine discovery,
  design and development. Its modular architecture allows for
  unique scalability
- Proven ability to establish and manage a range of valuecreating partnerships
- Pipeline of novel clinical and preclinical vaccine candidates for cancers and infectious diseases
- Several pipeline assets ready for partnering
- Clear strategy with strong focus on monetizing value through business development
- MSD (via its MSD GHI venture capital arm) largest shareholder with around 15% equity stake

