April 2024

evaxion-biotech.com

# EVAXION

## AI-Immunology™ Powered Vaccines

# 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 www.sec.gov. 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.

# Who We Are

Evaxion is a pioneering TechBio company with a validated and leading **AI–platform, AI-Immunology™,** for fast and effective vaccine target discovery, design and development

AI-Immunology™ allows for groundbreaking **development of novel personalized and precision vaccines** for cancer and infectious diseases

# Why Are We Here: **Saving and Improving** Lives with AI-Immunology™

10 million deaths a year due to cancer*

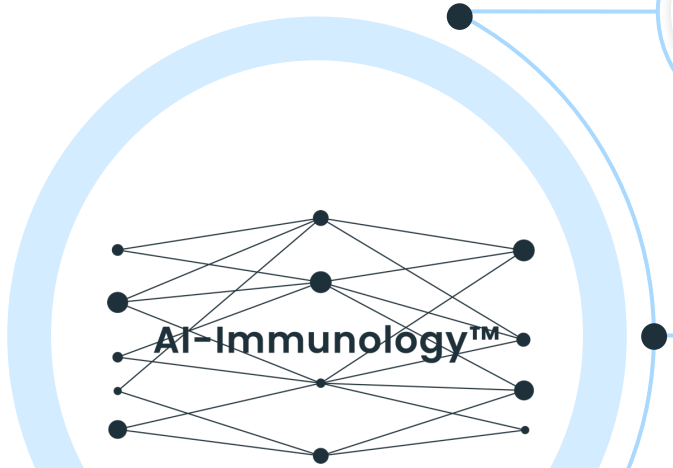
7.8 million deaths a year due to infectious diseases**



* Source: WHO, ** Source: IHME,

# Strategy: **Three-Pronged Business Model** Based upon AI-Immunology™

## Multi-partner approach to value realization




### TARGETS

Multi-partner approach focused around single or multiple vaccine target discovery, design and development agreements

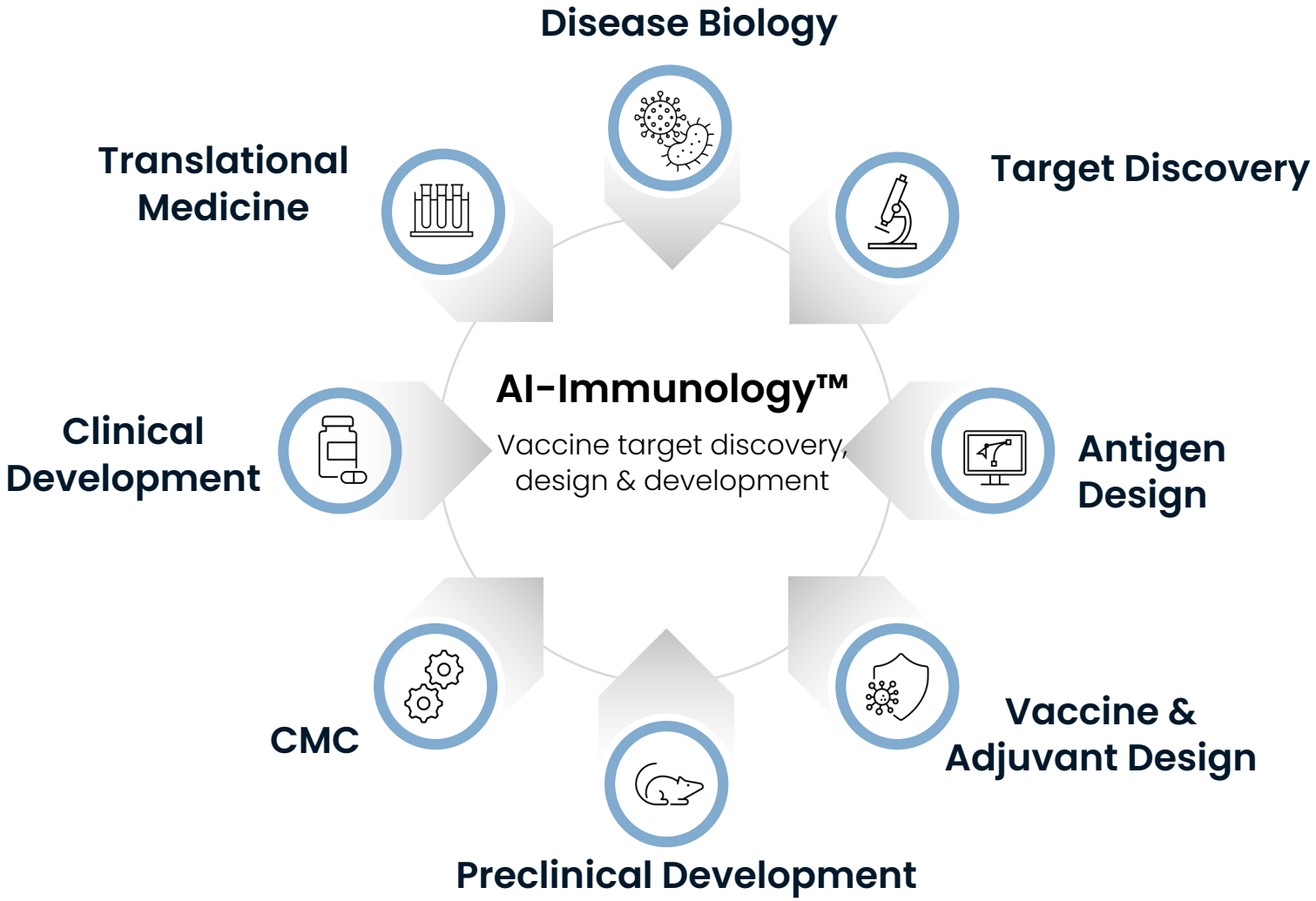
### PIPELINE

Own development programs for select high value programs; bringing programs to major value inflection point

### RESPONDERS

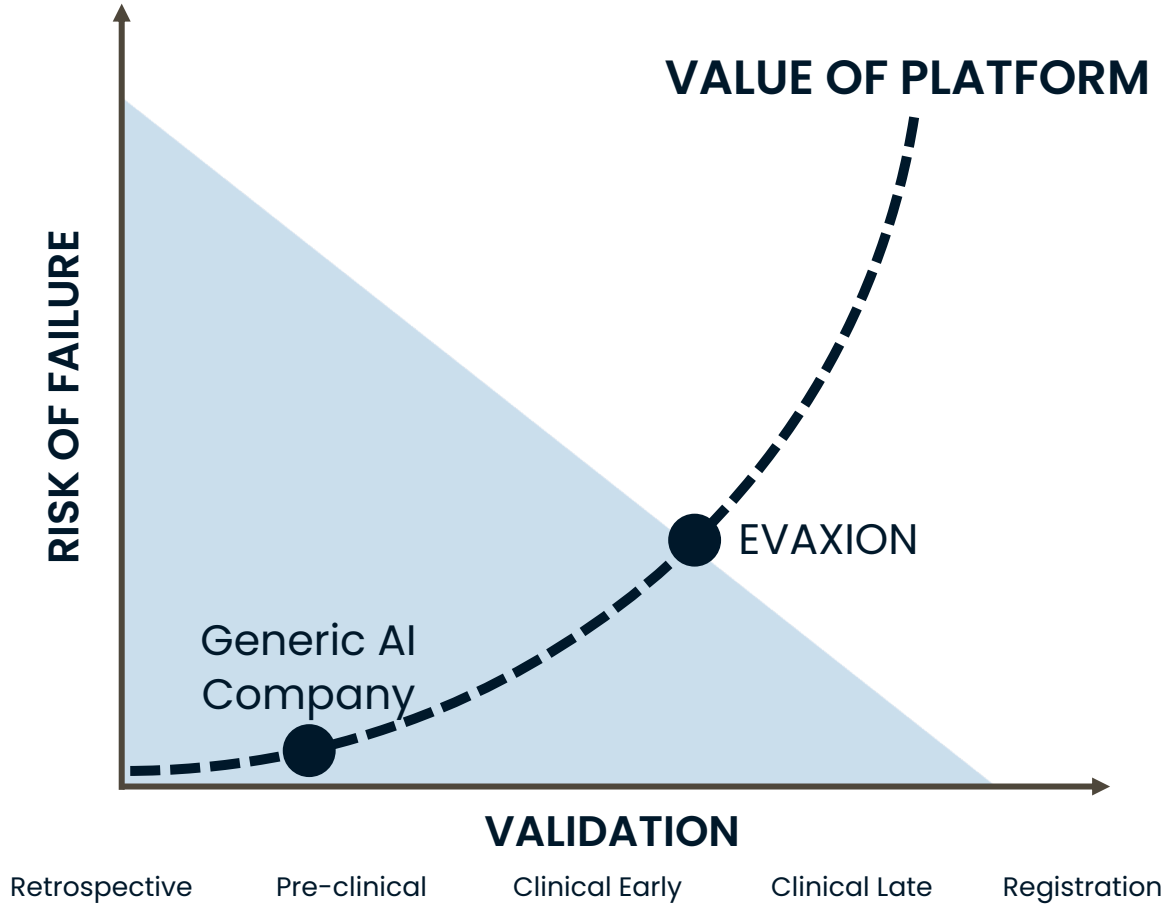
Harnessing our data and predictive capabilities to develop responder models

# We Have Built a Strong **Multidisciplinary Capability Set** and **State of the Art Facilities**

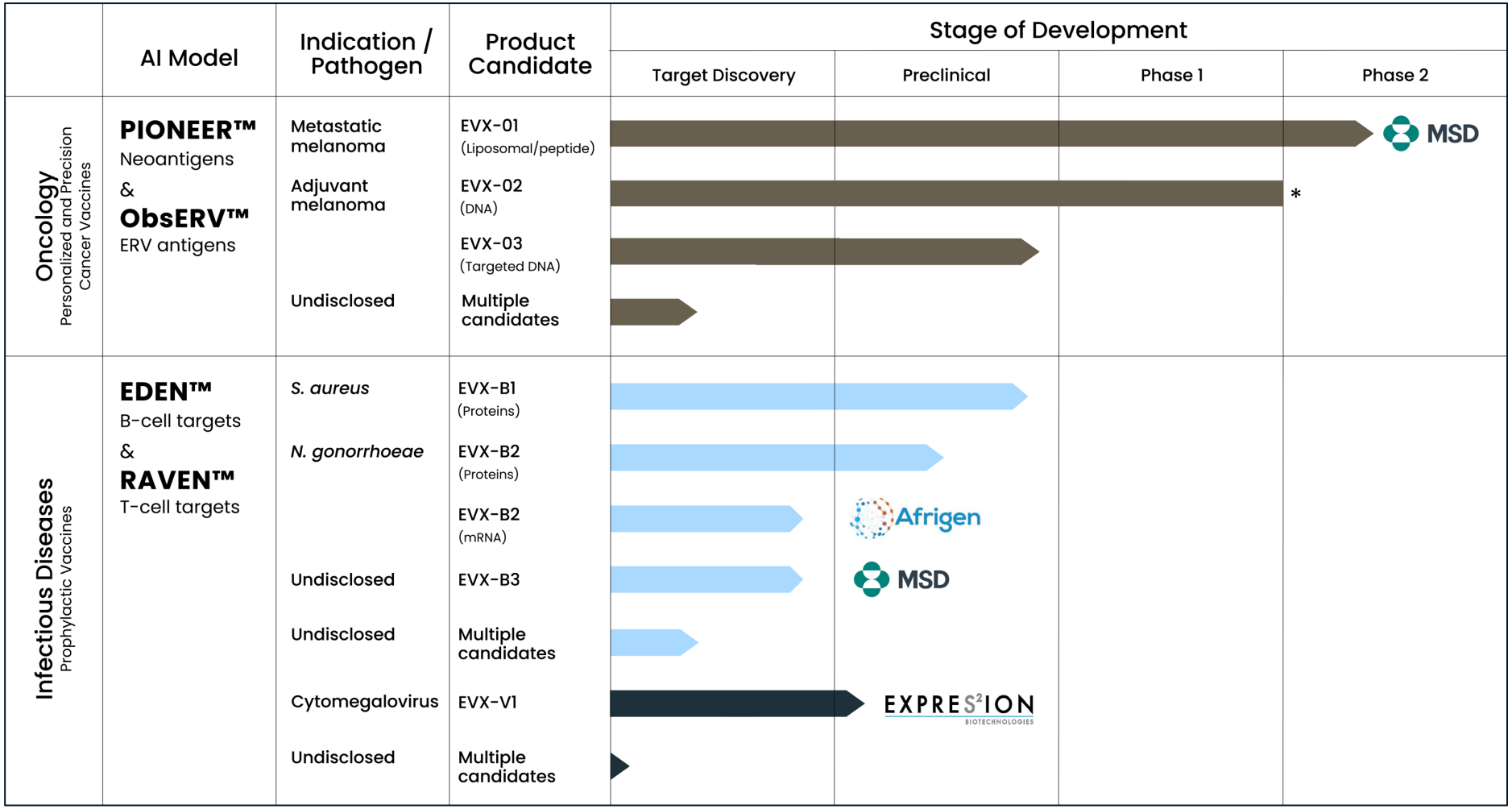



# Our AI-Immunology™ Platform and Multidisciplinary Capability Set **Drive Differentiation**

- 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



# Pipeline: Demonstrating the **Performance and Scalability of Our AI-Immunology™** Platform



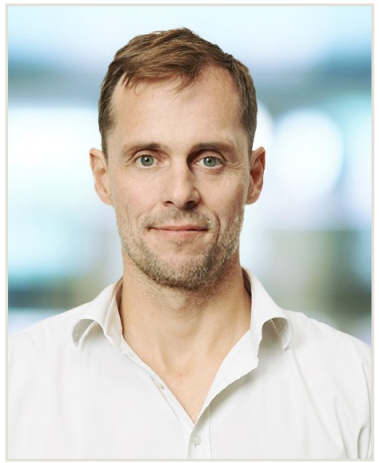



*The data generated in the EVX-02 program actively informs the development of the second generation EVX-03 DNA vaccine

# **Strong Leadership** with Extensive Experience Across All Relevant Fields

Chief Executive Officer
**Christian Kanstrup, MSc Economics**

Chief Financial & Operating Officer
**Jesper Nyegaard Nissen, MSc Economics**



Chief AI & Culture Officer, Evaxion Founder
**Andreas Mattsson, MSc Bioinformatics**

Chief Scientific Officer
**Birgitte Rønø, MSc Human Biology / PhD**

## 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
- **Niels Iversen Møller**
  Evaxion Founder, MD

# We Are Addressing a $277 Billion and Growing Market for Cancer Immunotherapy Alone

**Cancer**

- Cancer immunotherapy market estimated to grow to $277 billion by 2030*
- NSCLC (Non-small Cell Lung Cancer) market estimated to grow to $33 billion by 2029**
- Melanoma market estimated to grow to $7.4 billion by 2029**

**Infectious Diseases**

- Increased big pharma focus on infectious disease post-COVID
- No approved vaccines against S. aureus, Gonorrhea or Cytomegalovirus (CMV) infections
- Antimicrobial resistance is a growing global problem: Vaccines could avert half a million deaths (WHO)

* Precedence Research
** GlobalData

# Increased Deal-Making Across the Vaccine Space

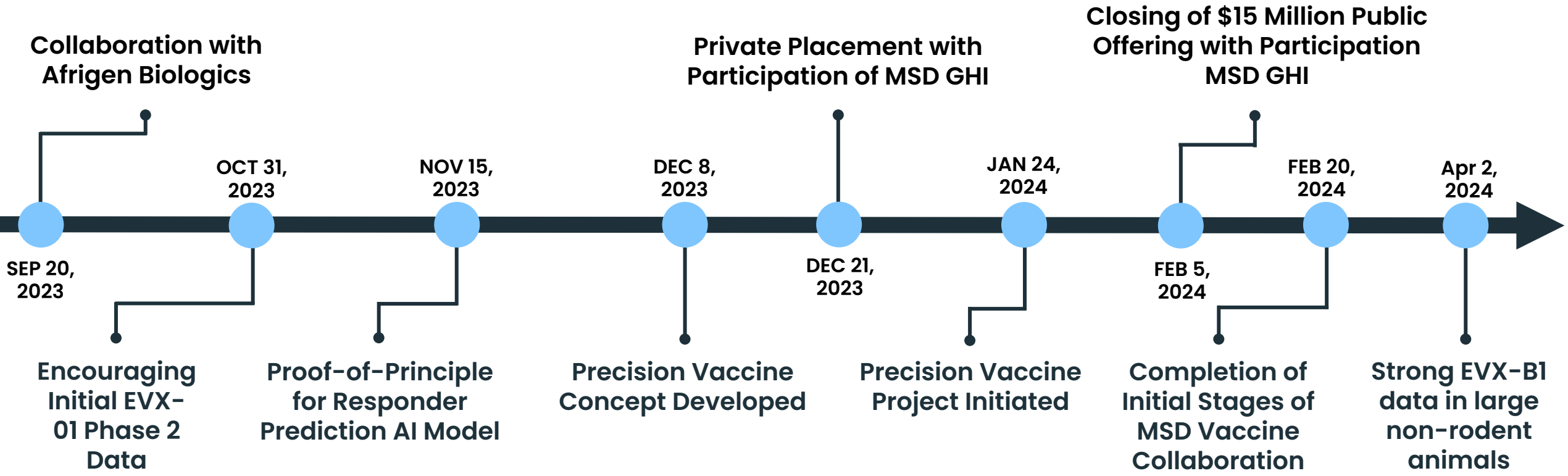
**Cancer**

- **Moderna-Merck** partnership. Upfront 200M (2016) + option to exercise $250M (Oct 2022)
- **Nykode-Roche** out-licensing deal (2020). Upfront + early MS of $200M and royalty ≈ 10%
- **BioNTech-Neon Therapeutics** M&A. $67M (2020)

**Infectious Diseases**

- **ModeX Therapeutics-Merck** license and collaboration (2023). Upfront $50M
- **Pfizer-BioNTech** multitarget collaboration (2022). Upfront $225M
- **Regeneron-Nykode** multitarget collaboration (2021). Upfront $50M
- **GSK-CureVac** partnership. Upfront EUR 75M (2021)

# Recent Highlights Confirm **Strong Strategy Execution**



# Several Important **Near-Term Milestones**

| | Milestones | Target |
|---|---|---|
| **EVX-B1** | Conclusion of final MTA study with potential partner | Q1 2024 ✓ |
| **AI-Immunology™** | Launch of EDEN™ model version 5.0 | Mid 2024 |
| **EVX-B2-mRNA** | EVX-B2-mRNA preclinical Proof-of-Concept obtained | Q3 2024 |
| **EVX-01** | Phase 2 one-year readout | Q3 2024 |
| **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 equal to 2024 cash burn (excluding financing activities) of 14 million USD* | |

* No assurances can be made that we will generate such business development income

# Evaxion Is a **Pioneering TechBio Company** Based on the Leading AI-Immunology™ Platform

- Founded in 2008 as an AI-Immunology™ company. Has extensively collected and applied data as well as refined and validated our AI platform for 15 years
- Three-pronged business model: Targets, Pipeline and Responders. Strong focus on partnering with leading companies with complementary capabilities
- Believed to be the first AI platform in the world to be clinically validated via link to Progression-Free Survival (PFS) in first line malignant melanoma patients
- AI-Immunology™ potentially gives us the ability to generate one new vaccine target every 24 hours. Ability to quickly tailor to partner needs. Ability to manufacture and deliver a personalized vaccine in 7 weeks
- Strong clinical pipeline within cancer and a strong preclinical infectious disease pipeline with novel targets in areas of high unmet need
- Strong IP portfolio protecting AI technology and vaccine candidates
- Established partnerships with MSD, Afrigen Biologics and ExpreS$^2$ion Biotechnologies. Welcomed MSD GHI as a new shareholder in December 2023. MSD GHI participating again in the 15 million USD public offering in February 2024

# The AI-Immunology™ Platform

# The **Key Areas** of AI-Immunology™

DISEASE DECODING

IMMUNE RESPONSE DECODING

VACCINE DESIGN

# AI-Immunology™ is an **Ensemble of Smaller Building Blocks** Utilized Across the AI-Immunology™ Models

| | | |
|---|---|---|
| SNVs | EvaxMHC | Precision design |
| Frameshifts | HLA typing | BIFROST |
| HLA loss | Epitope hotspots | Personalized design |

# The **Building Blocks** of AI-Immunology™

## 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 | |

# The **Models** of AI-Immunology™

## PIONEER™

| | | | |
|---|---|---|---|
| SNVs | Frameshifts | Gene fusions | HLA loss |
| Expression | Clonality | Neoantigens | |
| EvaxMHC | HLA typing | Distance to self | |
| Antigen quality | Antigen safety | Personalized design | |

## RAVEN™

| | | |
|---|---|---|
| Expression | Viral antigens | Antigen conservation |
| EvaxMHC | HLA frequencies | Epitope hotspots |
| Precision design | BIFROST | |

## AI-DEEP™

| | | | |
|---|---|---|---|
| SNVs | Frameshifts | Gene fusions | HLA loss |
| ERV antigens | TME impact | Expression | Clonality |
| Treatment effect | | | |
| EvaxMHC | HLA typing | Distance to self | |

## ObsERV™

| | | |
|---|---|---|
| HLA loss | ERV antigens | Expression |
| EvaxMHC | HLA typing | |
| Antigen quality | Antigen safety | Personalized design |

## EDEN™

| | | |
|---|---|---|
| Bacterial antigens | Viral antigens | Antigen conservation |
| EvaxMHC | Protective antigens | |
| B-cell antigen modelling | B-cell antigen design | |

# AI-Immunology™ – A Unique Differentiator with **Interrelated AI Prediction Models** and **Leading Multidisciplinary Capabilities**

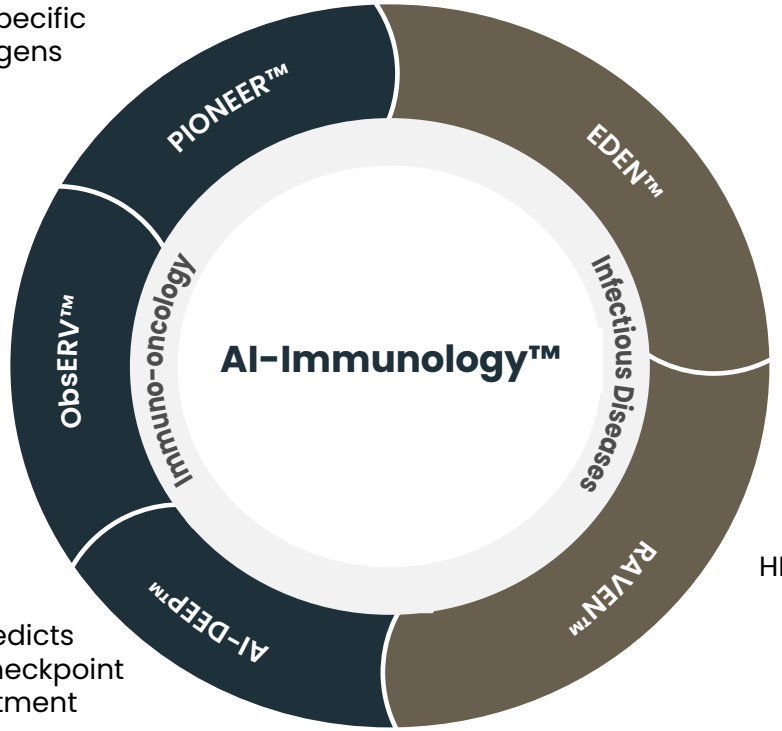
**PIONEER™**
patient-specific
neoantigens

**EDEN™**
B-cell antigens

**ObsERV™**
patient-specific
ERV antigens

**RAVEN™**
HLA-matched T-cell
epitopes

**AI-DEEP™** predicts
responders to checkpoint
inhibitor treatment




**Data**
- Accurate
- Reliable
- Adequate
- Volume

**Ability to Generate a Novel Target Every 24 Hours**
- Strong immunoinformatic talent pool collaborating with BD
- Automation & ML infrastructure for faster iterations
- Using state-of-the-art ML algorithms and models
- Rigorous validation & interpretation culture for AI predictions
- Clinical scalability & compliance

**Validation**
- Preclinical
- CMC
- Clinical

# **A Unique Differentiation**: The AI-Immunology™ Platform is Delivery Modality Agnostic

- We have demonstrated that a key to more effective vaccines is the performance power of our AI platform and the quality of the therapeutic target
- We believe AI-Immunology™ is well ahead of competitors as we have linked the predictive power to progression-free survival and clinical outcome in patients
- Evaxion has developed several delivery technologies to safely and effectively administer its therapeutic targets to patients

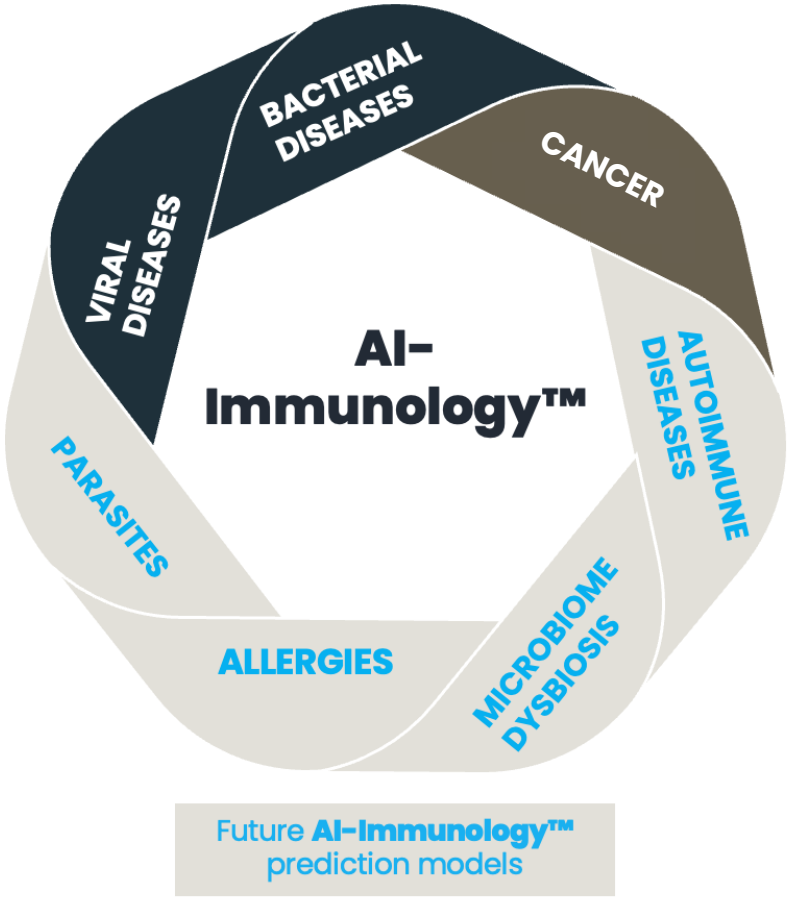
## **Competitor landscape** personalized neoantigen vaccines

| Company | Format | Phase |
|---|---|---|
| Moderna/Merck | mRNA | 3 |
| Gritstone Bio | ChAd[1] prime/samRNA[2] boost | 2/3 |
| Evaxion | Peptides | 2 |
| BioNTech/Roche | mRNA | 2 |
| Evaxion | DNA | 1/2 |
| Nykode/Roche | DNA | 1/2 |
| Geneos Therapeutics | DNA | 1/2 |
| Transgene[3] | Viral vector | 1 |
| NEC OncoImmunity (VAXIMM) | Bacterial vector | 1 |
| Nouscom | Viral vector | 1 |
| Stemirna Therapeutics | mRNA | 1 |

1. ChAd – chimpanzee adenovirus
2. samRNA - self-amplifying mRNA
3. Uses NEC OncoImmunity prediction platform

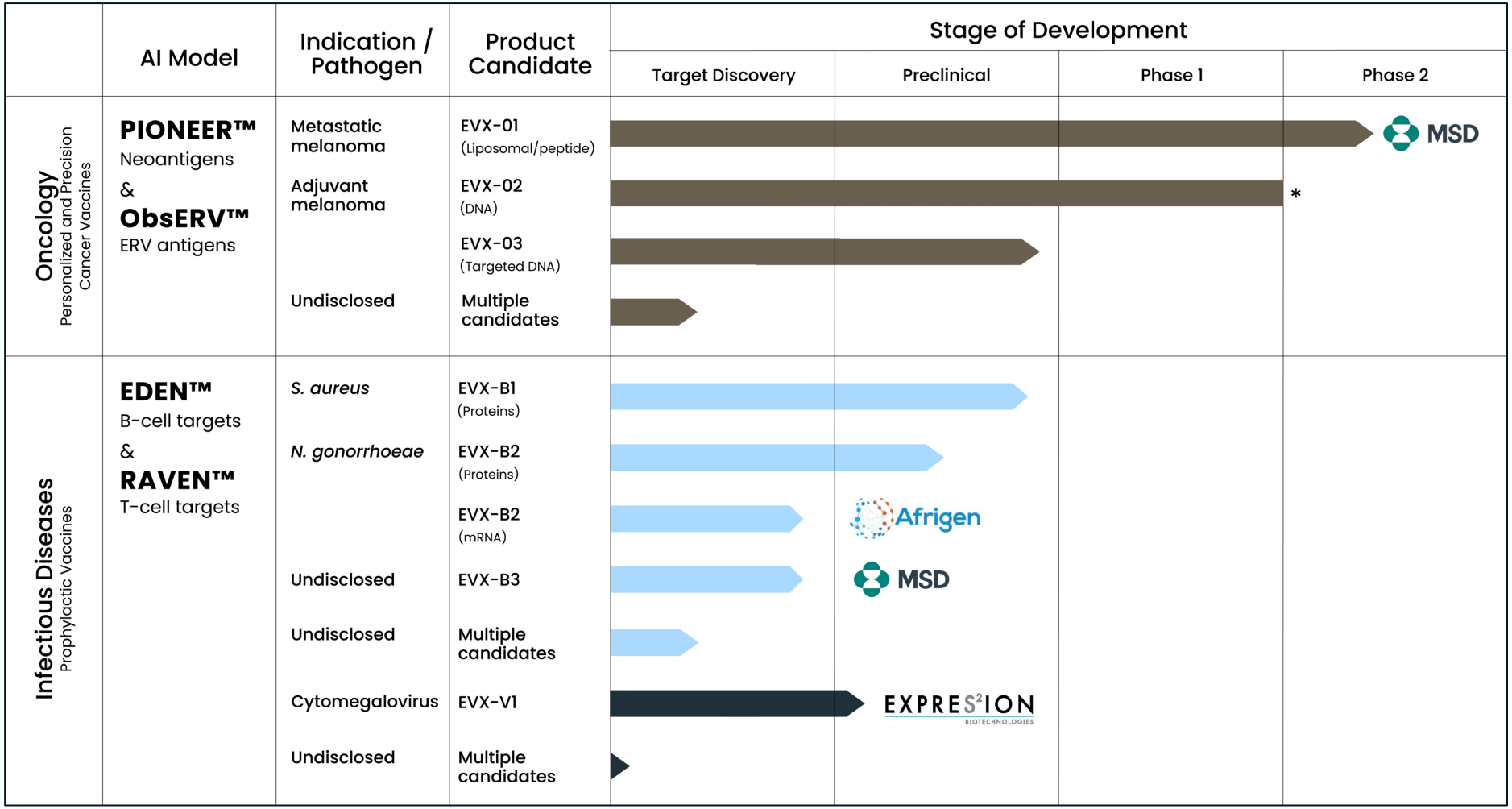
+4 companies at preclinical stage, including CureVac

# **Building Block Architecture** Enables Scaling to Other Therapeutic Areas



# The AI-Immunology™ Powered Vaccine Pipeline

# Pipeline: Demonstrating the **Performance and Scalability of Our AI-Immunology™** Platform



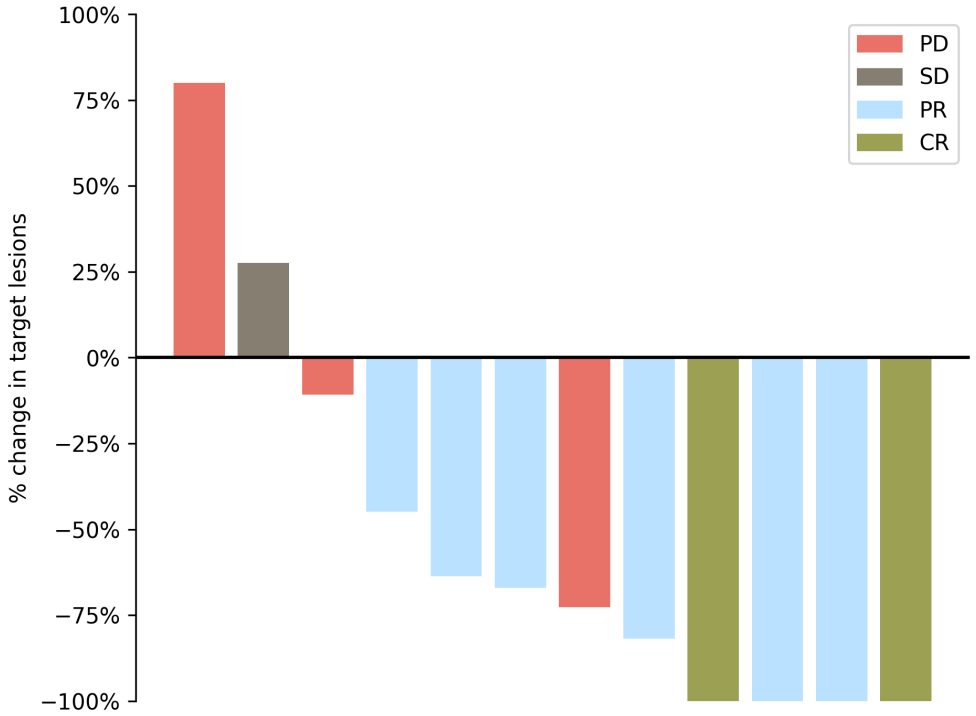



*The data generated in the EVX-02 program actively informs the development of the second generation EVX-03 DNA vaccine

# **EVX-01** in Combination with Standard Therapy Shows Overall Response Rate of 67% in Clinical Phase 1/2 in Patients with Metastatic Melanoma

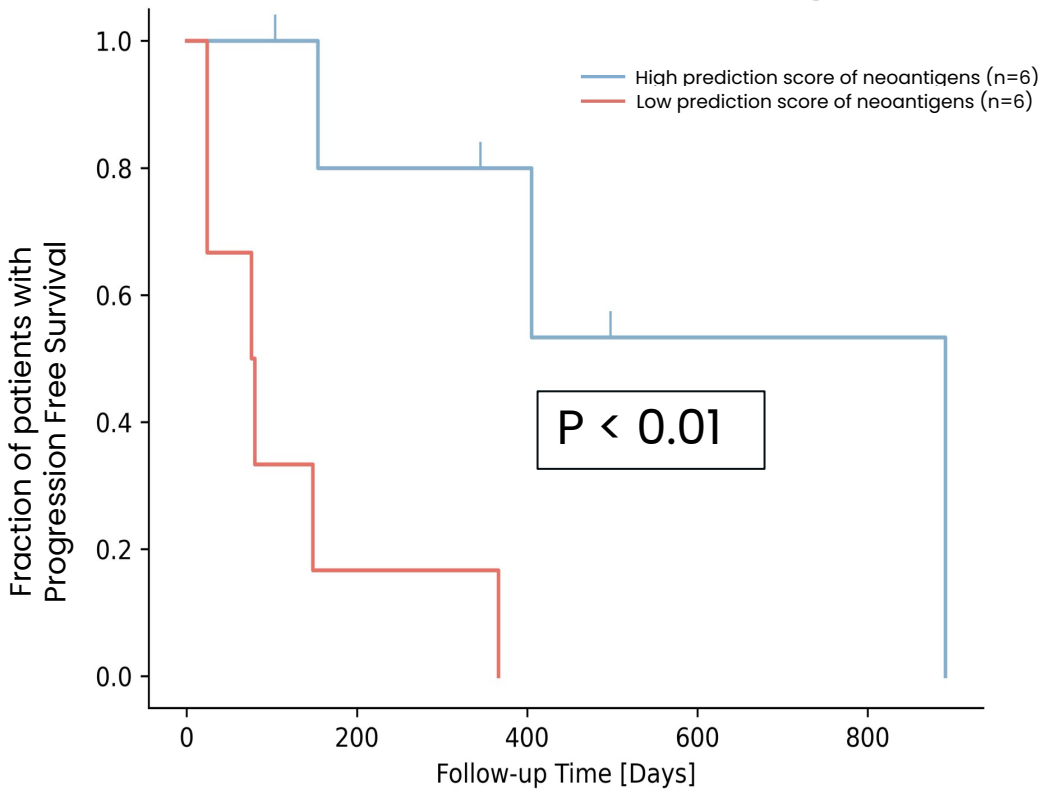
## Study highlights

- 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** - PIONEER™ Identified Vaccine Targets Highly Correlate with Survival

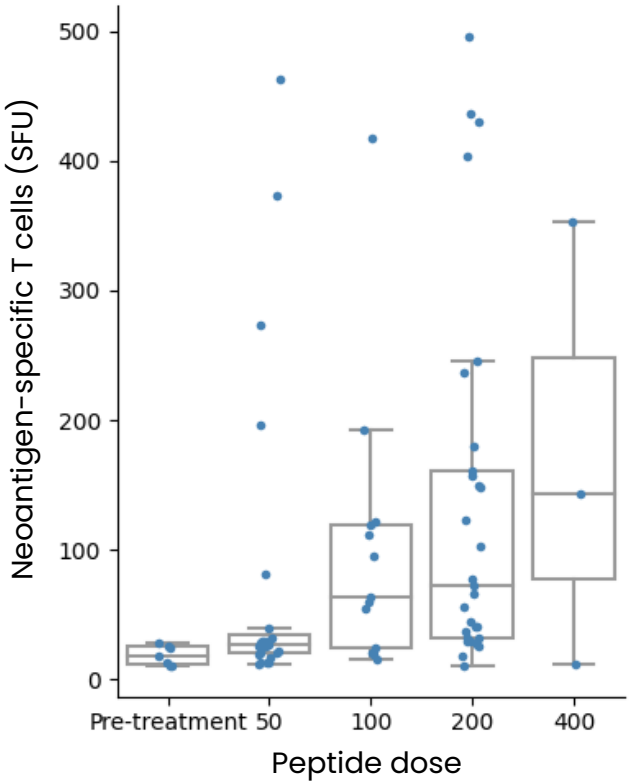



**Progression-Free Survival Based on PIONEER™ Score**
Kaplan-Meier plots displaying Progression-Free Survival (PSF) of patients based on median PIONEER™ quality score. Patients were stratified by PIONEER™ quality score in to two groups corresponding to the six highest and six lowest median scores.

- AI 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

# **EVX-01** Induces a Dose-Dependent Immune Response against the Patients' Cancer

- A higher dose induced higher neoantigen immune responses which may result in stronger tumor killing activity of EVX-01
- Specific immune responses against neoantigens identified by PIONEER™ were reported in all patients and with only mild adverse drug reactions
- Immune responses that have the potential to kill cancer cells were mediated by both activated CD4+ (12/12) and CD8+ T cells (7/12)




**Dose-Dependent Increase in Neoantigen-Specific T cells**
Dose-dependent increase in neoantigen-specific T cells (tumor killing cells) determined through IFNγ ELISPOT (spot counts per 300.000 cells).

# **EVX-01** – Clinical Phase 1/2 Summary

With AI-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**

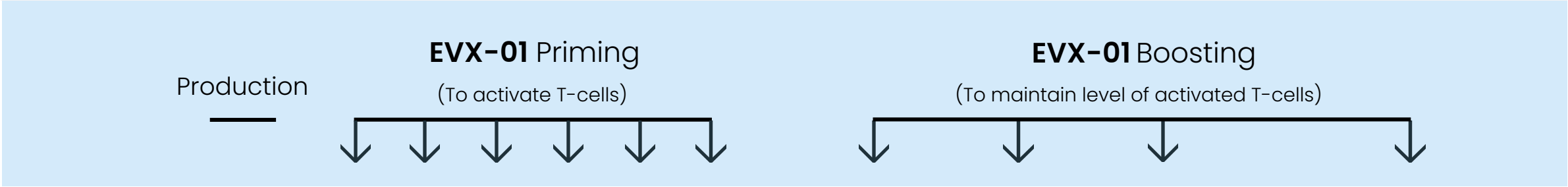
New insights to the immune system based on data and AI

→

Enrich patient population to significantly increase probability of positive outcome

# **EVX-01** Phase 2 Trial Enrolling Patients in Australia/Europe

Enrolled 16 patients with metastatic melanoma
Conducted in collaboration with Merck & Co., Inc (MSD)



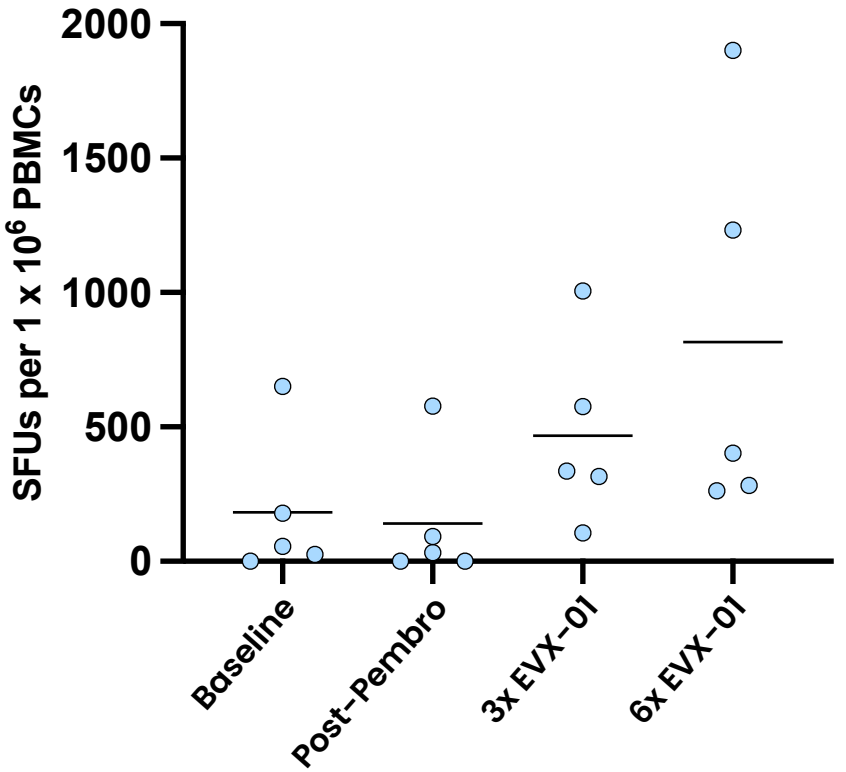

**Pembrolizumab** (Keytruda™) — Dosing according to label

| | |
|---|---|
| **Sep 2022** | FPFV (First patient first visit) |
| **Dec 2022** | FDA IND approval |
| **Jan 2023** | FDA fast track designation |

| | |
|---|---|
| **Q4 2023** | Interim readout |
| **Q3 2024** | 1Y readout |
| **Q3 2025** | Final readout |

# 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 **AI-Immunology™** platform to identify therapeutically relevant **cancer vaccine targets**




**Response to Vaccine Neoantigens**
*IFNγ ELISPOT response at 4 different timepoint in PBMCs after in vitro stimulation towards each individual patient's neoantigen pool*

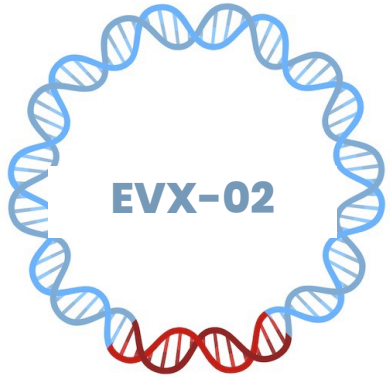


* Data reported at SITC in November 2023

# **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*

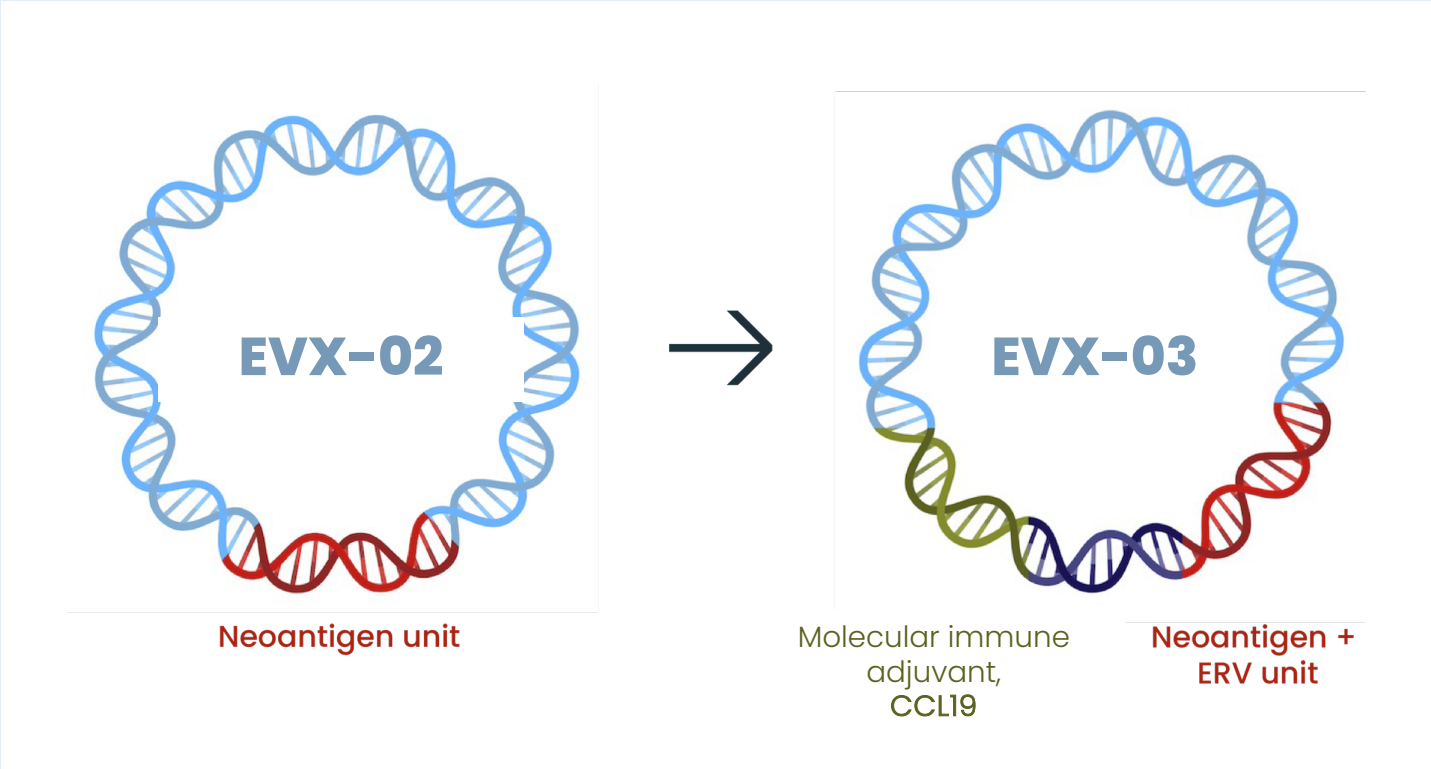
- All 10 EVX-02 completers were relapse-free at last assessment
- Well tolerated in all patients
- Specific T-cell responses in all patients against PIONEER-identified neoantigens
- T-cell responses robust and long lasting
- Proof of mechanism for DNA-vaccine technology

* 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

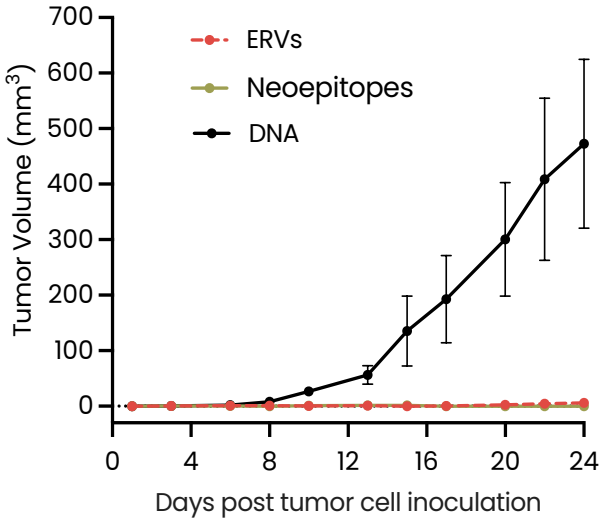
- Molecular immune adjuvant attracts antigen presenting cells and augments antigen presentation
- The unique technology is fully owned, patent protected, and with broad utility for vaccines
- Patient-specific neoantigens and ERVs are identified through AI
- GLP toxicology completed without concerns



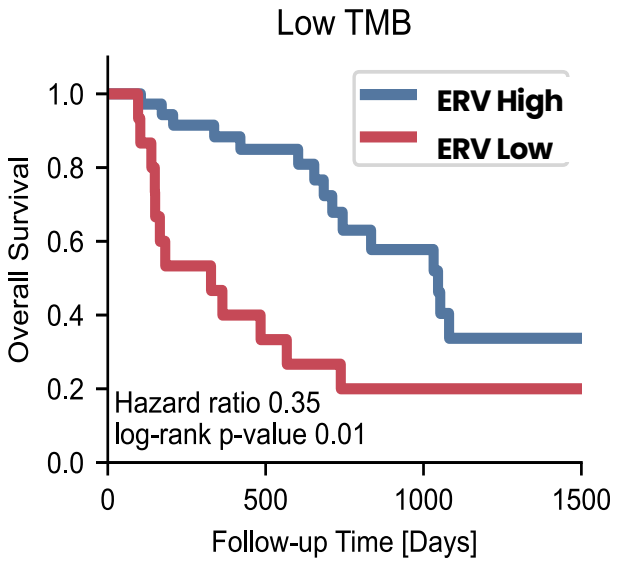
# **EVX-03** - Addition of ERVs Resulted in Very Promising Preclinical Data

- 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

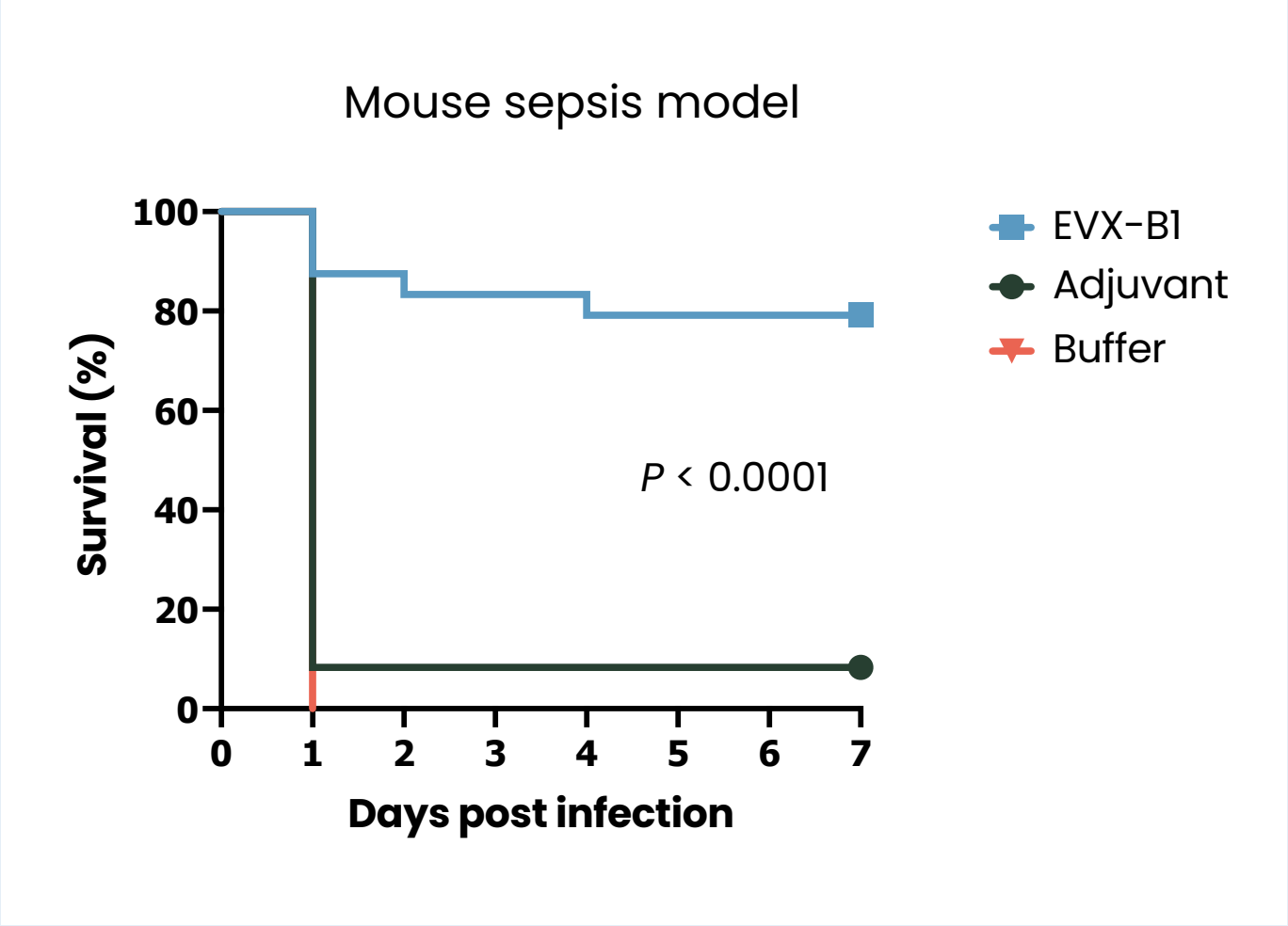



High ERV Burden is Associated with Better Survival in Patients with Few Tumor Mutations (Low TMB)



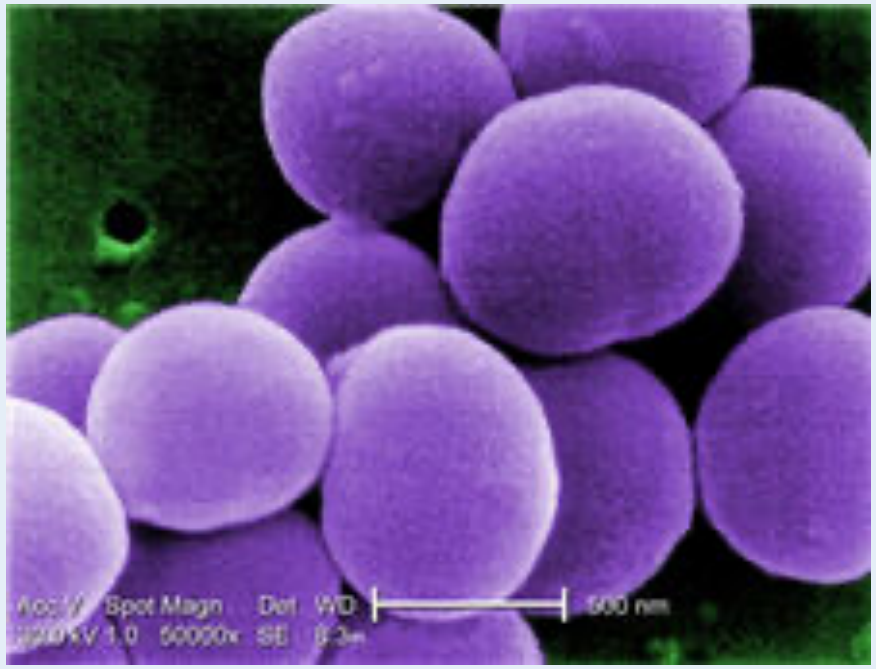
# **EVX-B1** - *S. aureus* Vaccine Candidate Demonstrates High Immunogenicity and Significant Protection

- 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 EVX-B1 Vaccine Antigens Against *Staphylococcus aureus* Infection

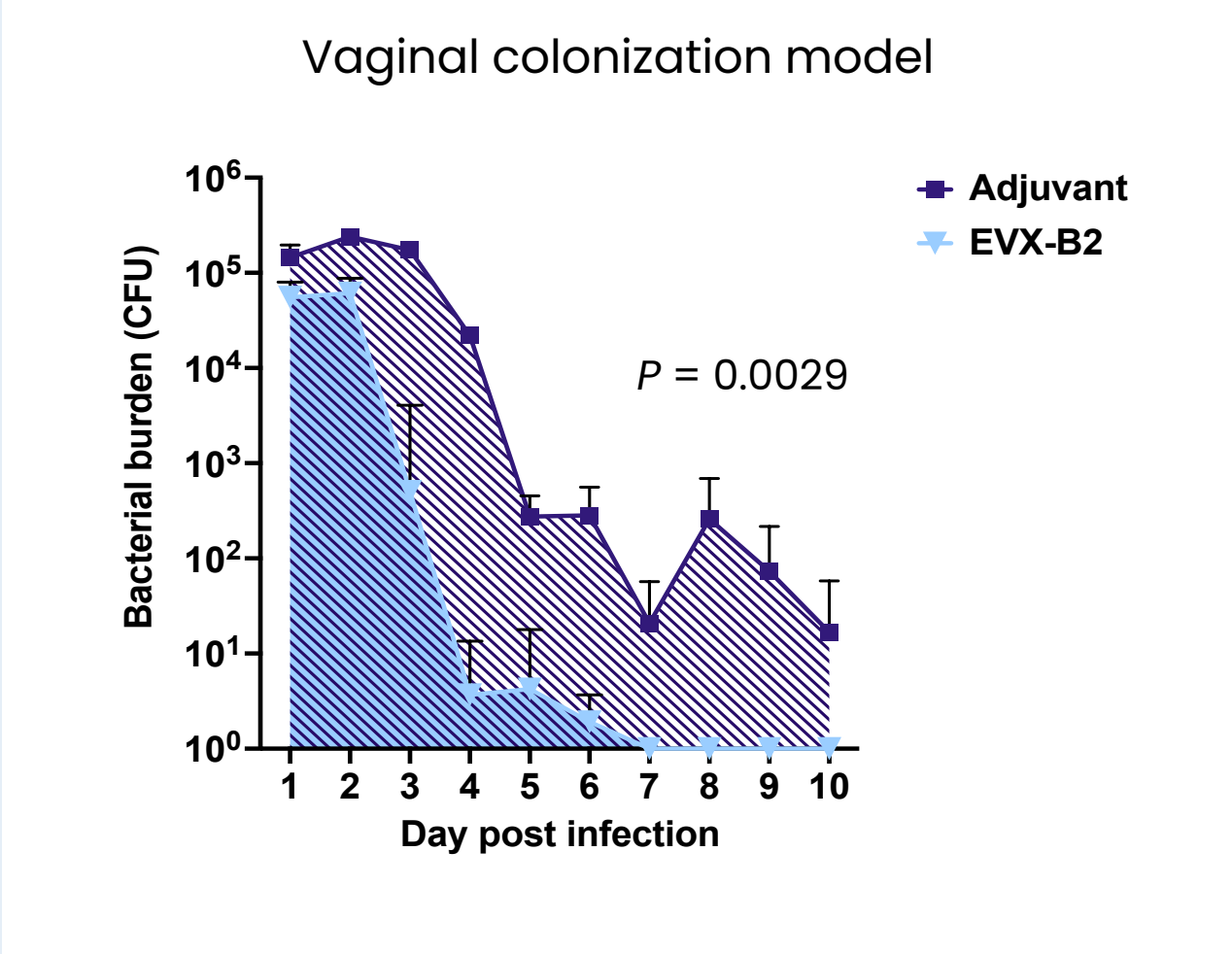
- Evaxion and its undisclosed collaborator tested Evaxion designed vaccine antigens against *Staphylococcus aureus* (*S. aureus*) in a clinically relevant animal model of surgical site infections
- The vaccine antigens significantly protected large, non-rodent animals against surgical site infections, indicating promising potential for clinical efficacy in human trials
- Currently, the two companies are engaged in discussions regarding the path forward



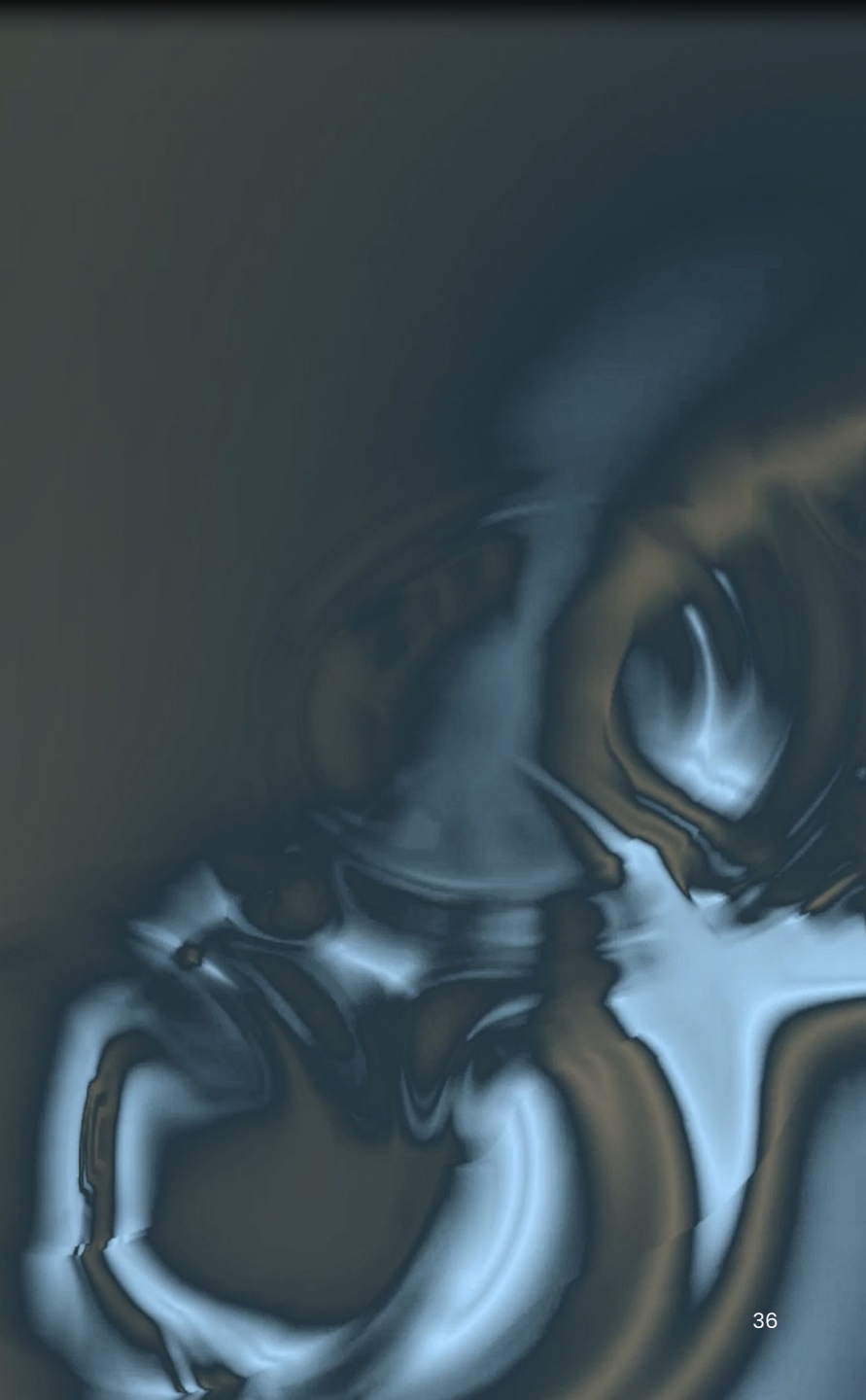

https://www.cdc.gov/hai/organisms/staph.html

# **EVX-B2** - *N. gonorrhoeae* Vaccine Candidate Induce Significant Protection and Shows Broad Neutralization Capacity

- Multi-component N. gonorrhoeae vaccine candidate containing two top-ranked EDEN™ candidates
- Significant protection against different gonorrhea strains in vaginal colonization model
- High level of immunogenicity
- Demonstrated efficacy against panel of 50 clinically relevant N. gonorrhoeae strains



# Intellectual Property



# 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 AI-Immunology™ platform and compositions of matter, methods and use of products in our two disease areas: cancer and infectious diseases. Key part of the AI-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:

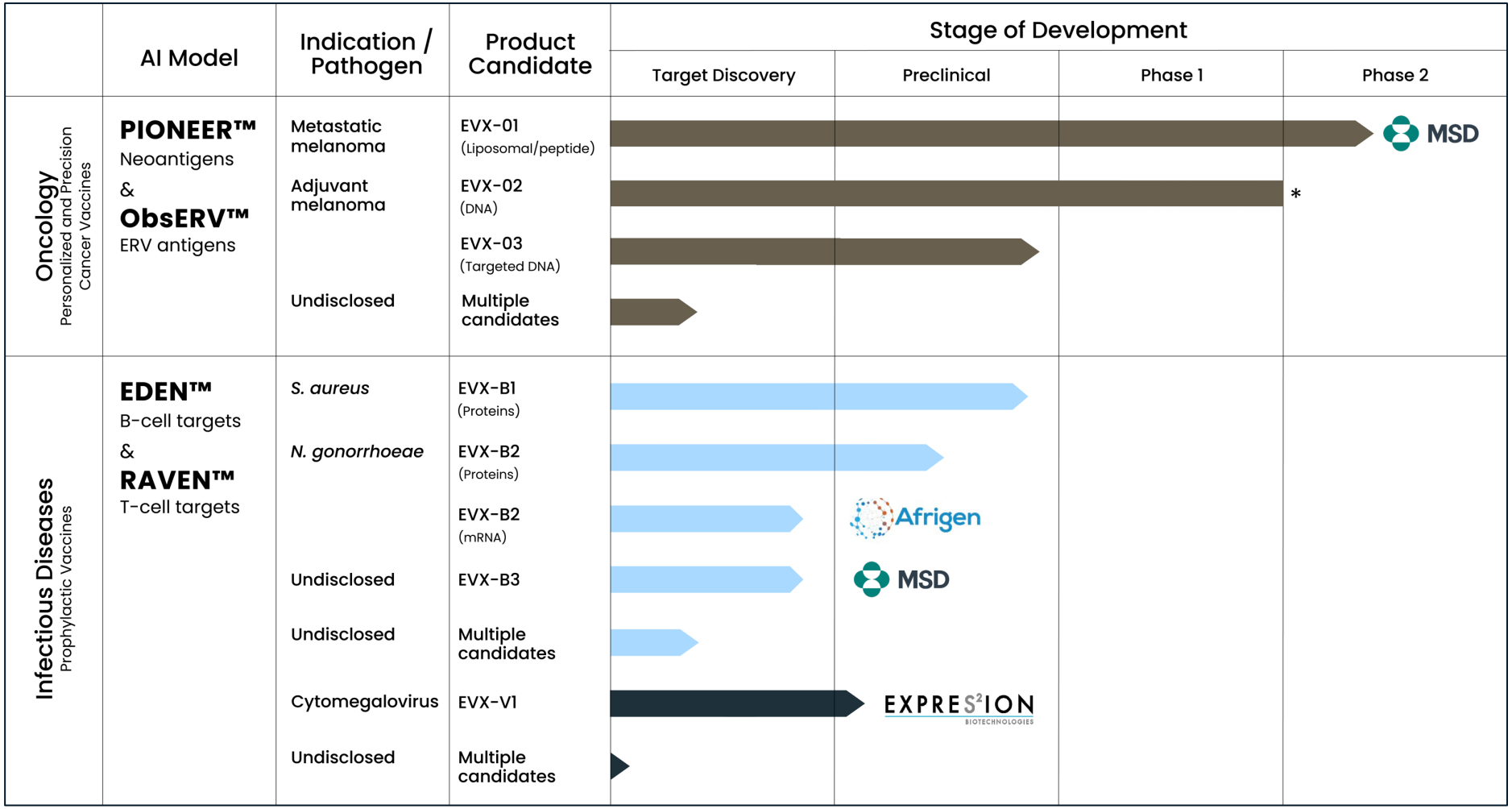
- More than 20 pending applications with expected expiry dates ranging from 2040 to 2042
- IP covers EVX-01, EVX-02 and EVX-03,

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

# Corporate Summary

# Pipeline: Demonstrating the **Performance and Scalability of Our AI-Immunology™** Platform






*The data generated in the EVX-02 program actively informs the development of the second generation EVX-03 DNA vaccine

# Capital Structure

Listed on Nasdaq NY under ticker “EVAX”

| | |
|---|---|
| Date of listing: | Feb 5, 2021 |
| Headquarters | Denmark |
| Employees | 40 |
| Average Volume (3M) | 687,009 |
| Shares outstanding | 52 M |
| MSD GHI ownership | Around 15% |
| Capital raised (USD) | 107 M |
| Debt (USD) | 8 M (long term) |

# Recent **Deals & Partnerships** - Overview

## MSD GHI - Discovery Partnership

**Description**
- Discovery partnership with MSD around undisclosed bacterial pathogen for which no vaccine currently exists
- Evaxion will employ EDEN™ and RAVEN™ to design vaccine
- MSD has exclusive option to program during discovery phase

**Strategic Value**
- Big pharma endorsement
- Pipeline expansion with co-funding of discovery activities

**Now and Next**
- Co-funded discovery activities initiated
- MSD has exclusive option to program during discovery phase

## Afrigen - mRNA Gonorrhea Vaccine

**Description**
- Discovery partnership to design and test mRNA Gonorrhea vaccine, based on EDEN™ identified antigens
- Afrigen has option to commercial rights for low and middle income and African territories

**Strategic Value**
- First mRNA program in pipeline
- Potential for first clinical proof-of-concept for EDEN™ antigens
- Participation in WHO and Medicines Patent Pool initiative

**Now and Next**
- Afrigen will design mRNA constructs of the EDEN™ identified Gonorrhea antigens

## Welcome MSD GHI as New Partner

**Description**
- In the recent private placement, MSD GHI contributed with some 25% of the total offering amount
- MSD Global Health Innovation Fund (MSD GHI) is a corporate venture capital arm of Merck & Co., Inc., Rahway, NJ, USA

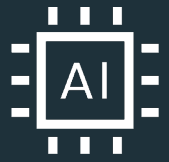
**Strategic Value**
- Big pharma endorsement
- Investors trust Evaxion's intrinsic value, strategic direction, and future potential

**Now and Next**
- Look forward to close collaboration with the experienced team of MSD GHI

# Strategy Summary

## The AI-Immunology™ Platform

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




### Targets

Multiple partnerships in place, several partner discussion ongoing. Dealmaking capacity being enhanced

### Pipeline

EVX-01 initial Phase 2 confirms strong Phase 1 data, one-year readout in Q3, 2024
ERV precision cancer vaccine preclinical Proof-of-Concept being pursued

### Responders

Proof-of-Principle obtained, partnership-based approach to potential commercial offering being initiated

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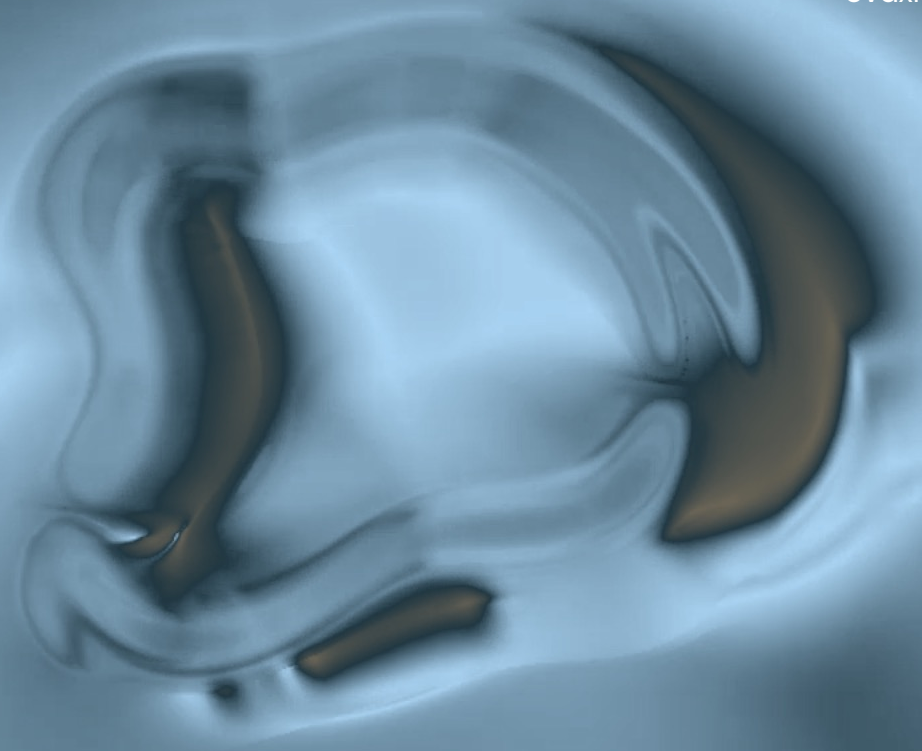
# Thank You



**AI-Immunology™**
Powered Vaccines

EVAXION