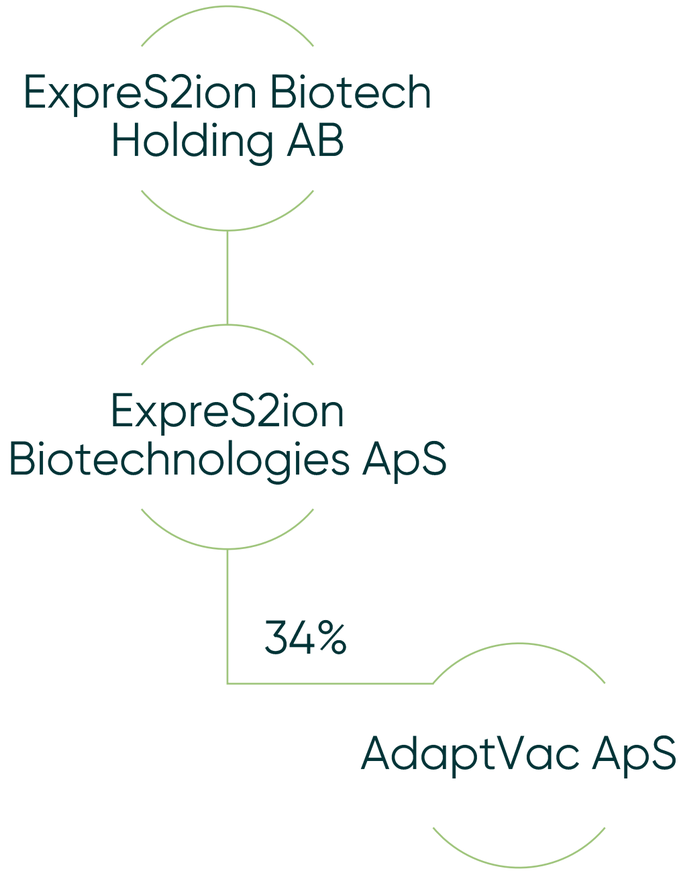
Aktiespararna presentation, Stockholm
November 27, 2024

Revolutionizing breast cancer treatment: ES2B-C001

STO: EXPRS2

ExpreS2ion Biotech Holding AB
Org. Nr. 559033-3729

About ExpreS2ion



ExpreS2ion Biotech Holding AB

- Listed on the Nasdaq First North Growth Market since 2016
- Holding company for ExpreS2ion Biotechnologies ApS, which it owns 100%

ExpreS2ion Biotechnologies ApS

- Established in 2010
- **ExpreS2™ protein production platform, vaccine pipeline and CRO business**
- Owns 34% of AdaptVac ApS

AdaptVac ApS

- Co-founded in 2017 by ExpreS2ion and researchers from Copenhagen University
- **Virus-like particle (VLP) platform** – AdaptVac's VLP is a delivery vehicle in ExpreS2ion's breast cancer vaccine candidate, ES2B-C001 (HER2-VLP)

ExpreS2 platform proof-of-concept

Phase III validated + numerous additional pharmaceutical and biotech company protein projects

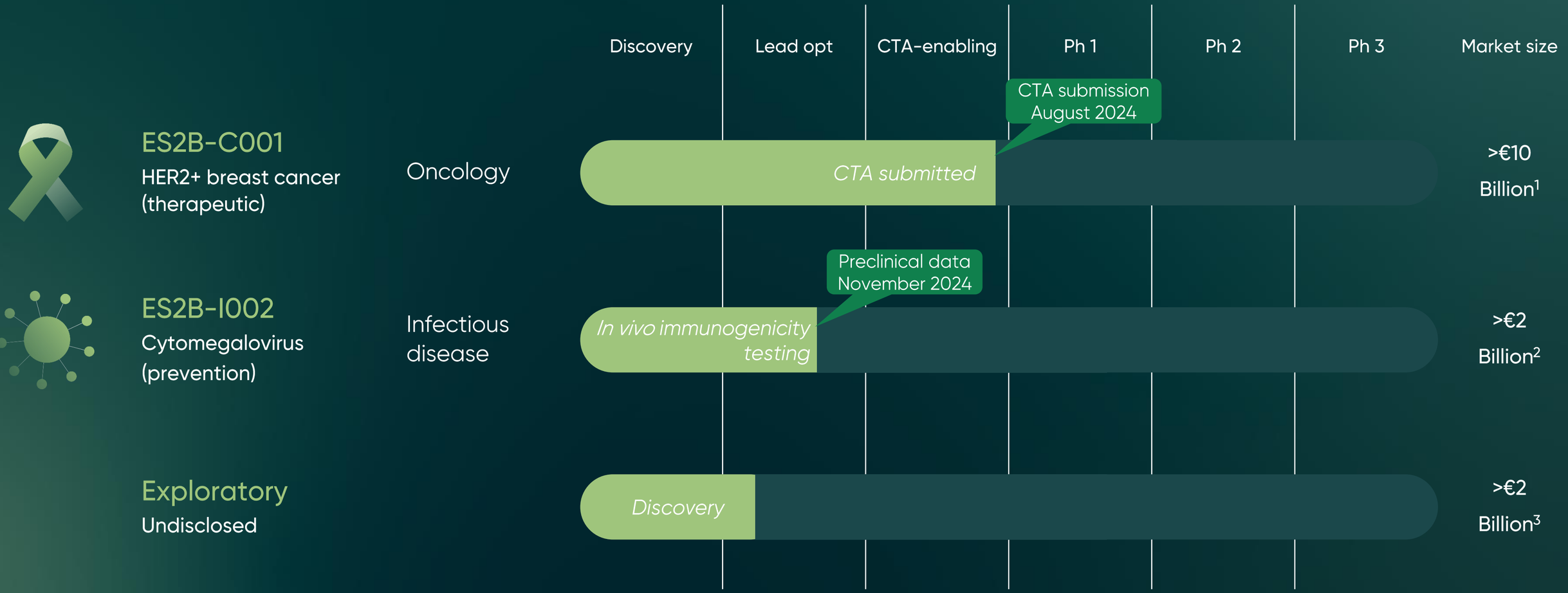
Discovery	Lead optimization	CTA-enabling	Phase I	Phase II	Phase III - Validated
Influenza MucoVax influenza	**ES2B-I002** cytomegalovirus	**ES2B-C001 HER2** breast cancer	**3 x Malaria** Oxford University Malaria	**1 x Malaria** Oxford University Malaria	**COVID-19** Bavarian Nordic COVID-19
VICI Nipah	**Influenza** INDIGO influenza				
Undisclosed projects					

Q4 2024: Announced term sheet entered in between Serum Institute of India and ExpreS2ion regarding development and commercialisation of RH5.1 and R78C

The depicted projects are active except for the Bavarian Nordic COVID-19 project ABNCoV2.

Vaccine core pipeline

Programs that are controlled or semi-controlled by ExpreS2ion



1 Global Data, 2022, for HER2+ breast cancer
2 Market estimate from Moderna, 41st Annual J.P. Morgan Healthcare Conference (Presentation)
3 Based on data for global market for existing therapies from Future Market Insights

Deep experience in breast cancer, vaccines and clinical development

expreS2ion BIOTECH

Leadership Team

	**Bent Frandsen** CEO	MSc, Copenhagen Business School	• >27 years life science management, business development and finance experience • Successfully participated in development of >10 clinical-stage assets, closed over 25 license and partner deals worth >€1B, and raised in public markets >€40M
	**Dr. Farshad Guirakhoo** CSO	PhD, Medical University of Vienna	• >35 years broad translational research experience in vaccine development • Successfully developed vaccines for Dengue Fever, Japanese Encephalitis, and West Nile Disease (horse and human), from inception to commercial stages
	**Dr. Lars Damstrup** Director of Clinical Development	MD, PhD, University of Copenhagen	• 40 years in oncology within academia (15 years), preclinical research (6 years) and industry (19 years) • Led >15 phase I/II trials, with several continuing to phase II & one oncology drug granted FDA conditional approval
	**Dr. Max Søgaard** SVP of R&D and Technology	PhD, University College London	• >24 years research experience, including leading R&D for cell line development, pipeline and client projects • Led candidate selection and/or manufacturing process of >20 oncology & infectious disease vaccine candidates
	**Thomas Jørgensen** Program & CMC Project Lead	MSc, University of Southern Denmark	• >30 years CMC and program management experience with leading biotech and pharmaceutical companies • Led CTA/BLA enabling activities for seven companies in the oncology, inflammation and infectious disease fields
	**Keith Alexander** CFO	MBA, The Wharton School	• >20 years in financial markets, primarily advising institutional investors, raising >€30 million & advising >€1T • Advised executive management on M&A, JVs, growth strategies and competitive intelligence

Board of Directors

Dr. Martin Roland Jensen, PhD, Co-Founder and Chairman
- Co-Founder of ExpreS2ion Biotechnologies
- Co-founder, Chairman and CBO of Cell2Cure ApS
- Co-founder of Unikum Therapeutics

Dr. Karin Garre, MD, Board Member
- Chair of Bioneer and Board Member of Cervello
- Leadership and drug development experience with Novo Nordisk, Genmab, Symphogen and Astra

Sara Sande, MSc, Board Member
- Investment Partner at EIFO
- Board Member of Agreena, Monta and Biosyntia; Board Observer of Cellugy and Chromologics

Jakob Knudsen, LL.M., MBA, Board Member
- CEO of Virogates, Board Member of Ingeniørsystem and PV Fonden
- Commercial operations, business development, marketing and finance experience with ALK and Egalet

Oncology Scientific Advisory Board

Dr. Javier Cortes, MD, PhD
Doctor of Medical Oncology and Head of the International Breast Cancer Center, Barcelona

Dr. Michael Andersson, MD, DMSci
Clinical Oncologist, Specialist in HER2-positive breast cancer

Dr. Ulrik Lassen, MD, PhD
Professor of Clinical Oncology & Personal Medicine at the University of Copenhagen, Head of Oncology Department at the National Hospital (Rigshospitalet)

Dr. Giuseppe Curigliano, MD, PhD
Associate Professor of Medical Oncology at the University of Milan, Head of Early Drug Development Division at the European Institute of Oncology

Dr. Rupert Bartsch, MD
Associate Professor of Medicine at the Medical University of Vienna, Director of Breast Cancer Programme in the Department of Oncology

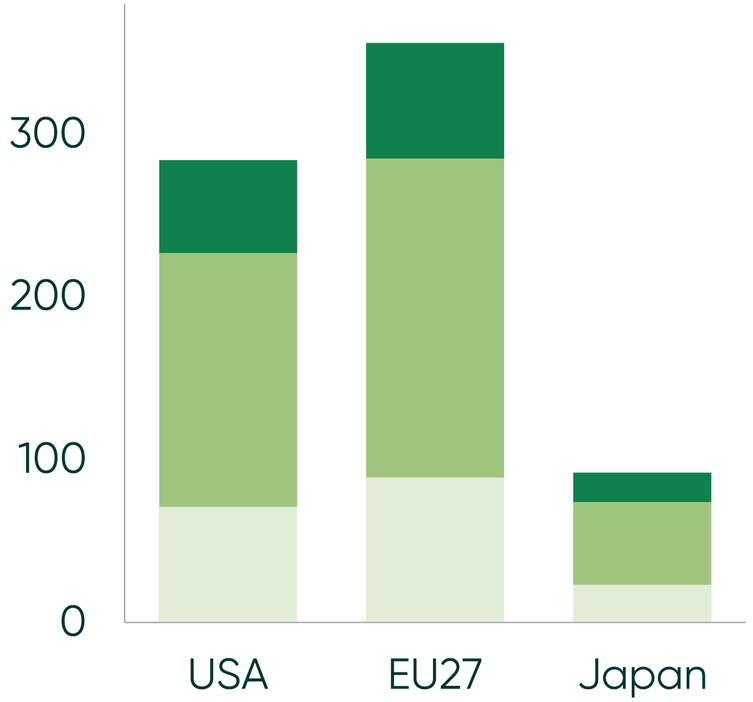
Dr. Daniel Lenihan, MD, FACC, FESC, FIC-OS
Cardiologist at the St. Francis Healthcare System-Cape Girardeau in Missouri

*Not all icons for company experience shown on this slide.

The persistent challenge of HER2+ breast cancer

- **1 in 8 women** are diagnosed with invasive breast cancer during a lifetime[1]
- In 2022, about 2.3 million women were diagnosed with breast cancer worldwide and **670,000 died**[1]
- HER2 is overexpressed in up to 30% of breast cancer tumours[2]
- Overexpression of HER2 is associated with
  - More aggressive disease
  - Higher recurrence rate
  - Increased mortality[2]

Annual diagnoses ('000s)



HER2neg
>140k annual diagnosis[3]

HER2low
>400k annual diagnosis[3]
Newly discovered subpopulation

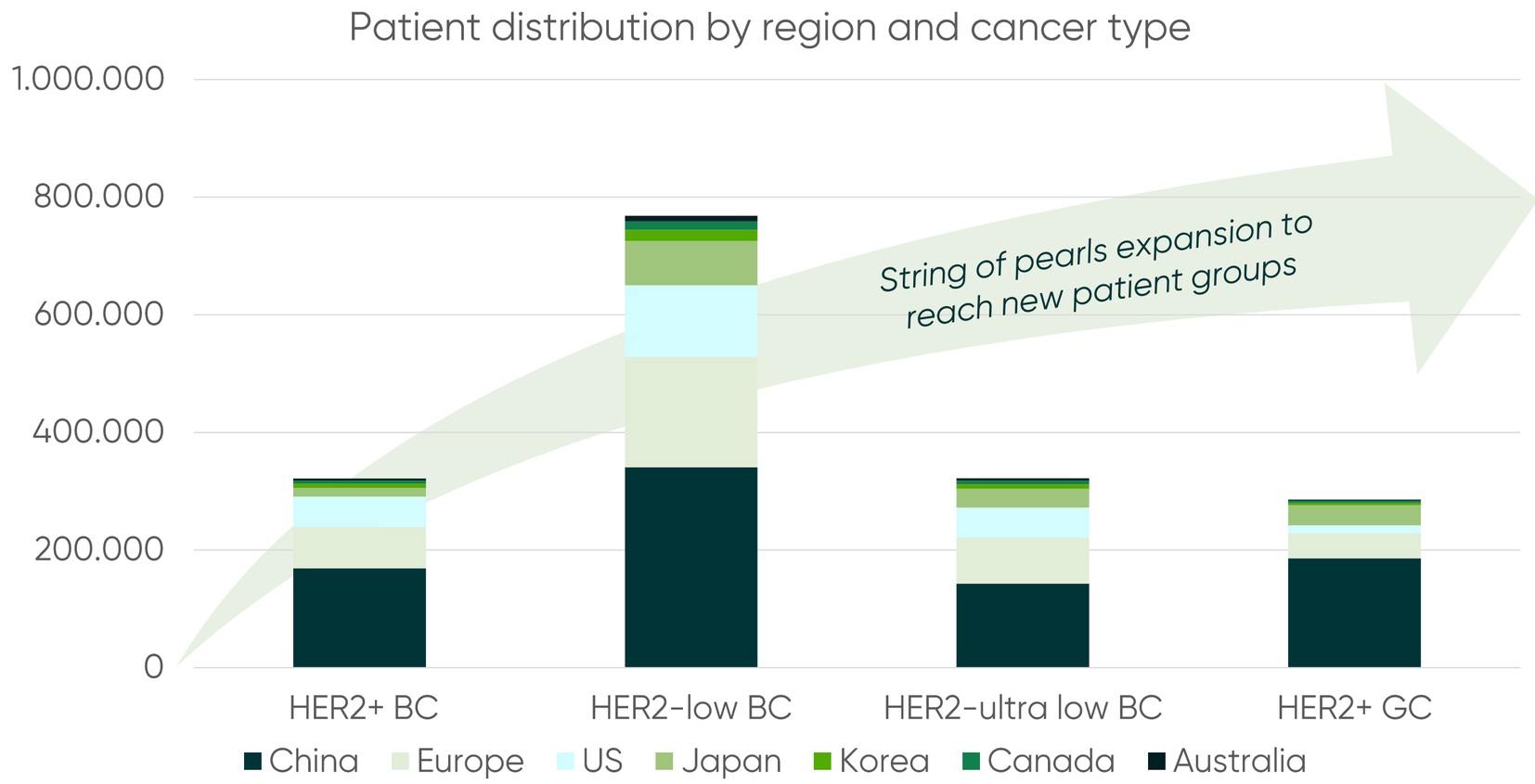
HER2+
>180k annual diagnosis[3]
More aggressive tumours
Reduced survival

Level of HER2 expression in tumor cells

1 Breast Cancer Research Foundation (https://www.bcrf.org/breast-cancer-statistics-and-resources)
2 Mitri Z et al. The HER2 Receptor in Breast Cancer: Pathophysiology, Clinical Use, and New Advances in Therapy (Chemother Res Pract. 2012; 2012: 743193)
3 EU, US, Japan

Unlocking a market of over 1.7M patients/year

Current market reach and future expansion opportunities



Additional HER2-expressing cancers (% HER2-expressing)

- Head & Neck (10-20%)
- Bladder (5-20%)
- Colorectal (2-5%)
- Non-small cell lung (2-4%)

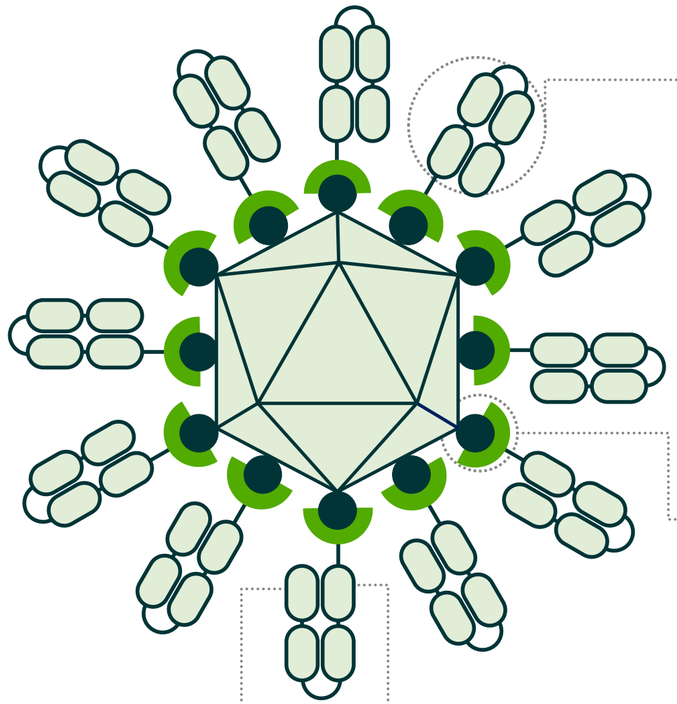
Long-term potential: Prophylactic vaccination

BC: Breast Cancer; GC: Gastric Cancer, including gastro-oesophagus junction

Source: ExpreS2ion Biotechnologies and AstraZeneca (Xu, Wang and Gibson, Isabel. "Epidemiology Data 2024 [Excel file]." AstraZeneca. https://www.astrazeneca.com/content/dam/az/Investor_Relations/Epidemiology-data-2024.xlsx. 20 May 2024)

ES2B-C001 vaccine design

Proprietary platform is Phase III-validated: Combines unique full-length antigen with highly immunogenic VLP technology, leading to durable polyclonal antibody response



HER2 protein
(all 4 extra-cellular domains)
ExpreS2™ platform

Secure & high-density display of HER2 in cVLP
(180 attachment sites)
AdaptVac's VLP technology

HER2 directed mAbs target single epitope

HERCEPTIN™ Domain IV

PERJETA™ Domain I

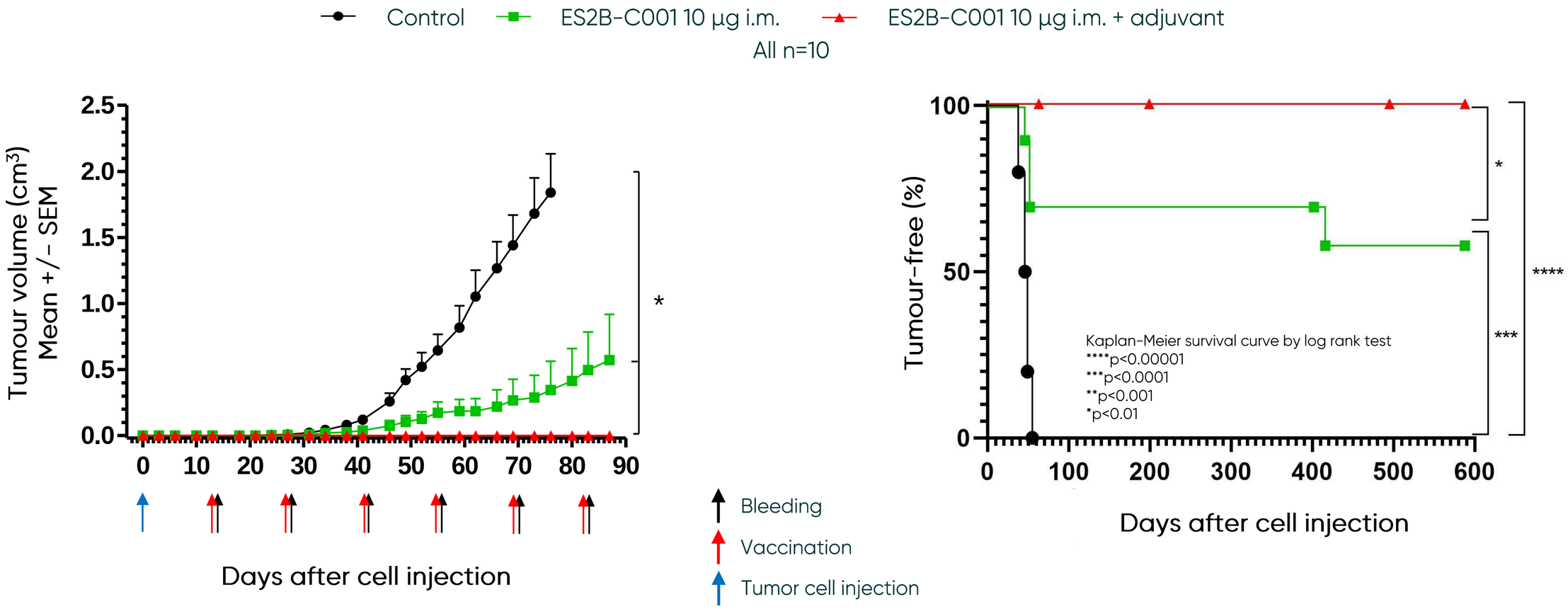
- **VLP concept in approved cancer vaccines**
  HPV vaccine against cervical cancer and HBV vaccine against liver cancer
- **Highly immunogenic**
  A wide range of epitopes presented to B-cells. Generates a strong polyclonal Ab response -> effective in tumour cells resistant to mAbs.
- **Safety profile**
  Technology validated in phase III testing of another indication & ES2B-C001 long-term GLP NHP studies
- **Longevity of immune response**
  Potent B-cell activation via VLP presentation. Break 'self-tolerance' for HER2+.
- **Combination with SoC**
  Applied on top of different LOTs.
- **Off-the-shelf, scalable, cost-effective**

SoC = Standard of care. LOT = Line of therapy. MAb = monocloncal antibody.

CTA submitted in Q3 '24

Promising non-clinical results

Significant *in vivo* tumour growth inhibition resulting in 100% survival of treated animals (used as a prophylactic and therapeutic vaccine)



Studies conducted by Alma Mater Institute on Healthy Planet & DIMES, University of Bologna
Note: FVB mice are mice being challenged with tumours, while Delta16 mice spontaneously develop tumours and have been inoculated with tumour cells to accelerate tumour development
Ref. Ruzzi, et al., Biomedicines 2022, 10, 2654

CTA submitted in Q3 '24

Significant improvement on competing HER2-expressing breast cancer therapies

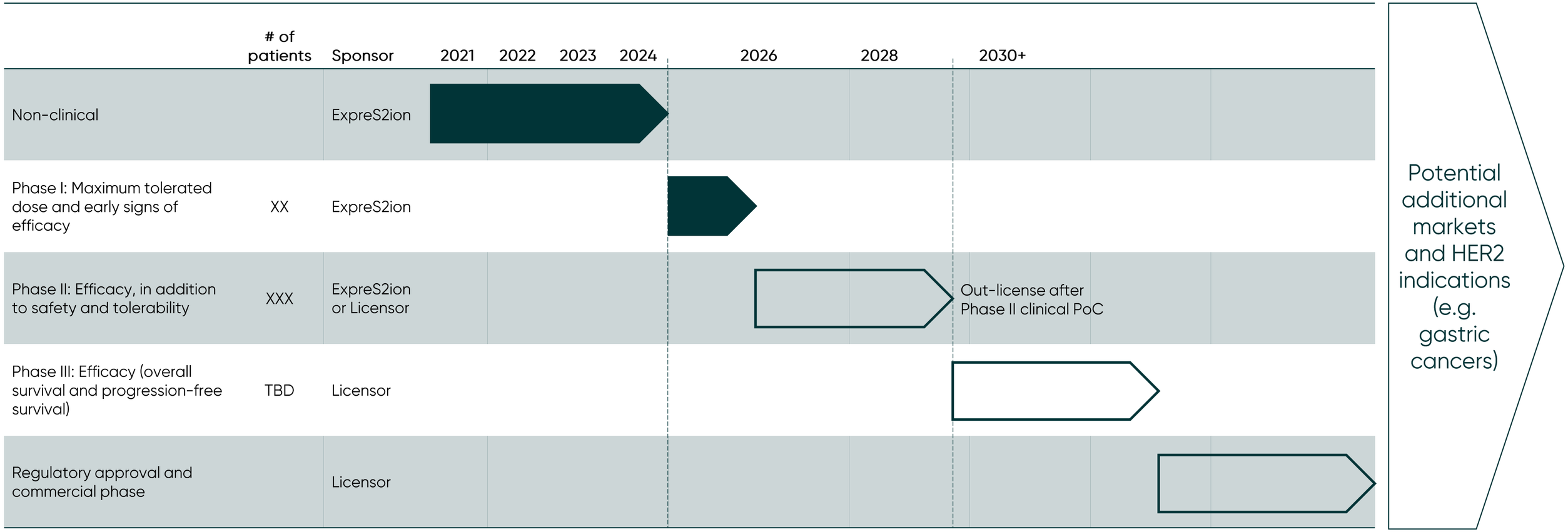
expreS2ion BIOTECH

	mAbs	ADCs	TKIs	Other vaccines	ES2B-C001
Cardiac toxicity	Yes	Yes	Yes	TBD	Not observed
Gastrointestinal toxicity	N/A	N/A	Yes	TBD	Not observed
Liver toxicity	N/A	Yes	Yes	TBD	Not observed
Thrombocytopenia	N/A	Yes	N/A	TBD	Not observed
Interstitial lung disease	N/A	Yes	N/A	TBD	Not observed
SoC resistance	Nearly one-third of HER2+ breast cancer patients develop resistance[2]			TBD	Demonstrated breaking tolerance *in vitro*
Long-term effect (PFS in months)	<19	<10	<8	TBD	FVB mice tumour-free >19 months
Easy to administer/ receive	No	No	Yes	Yes	Yes
VLP-based[1]	N/A	N/A	N/A	No	Yes
Cost effective	No	No	No	Varies	Yes

[1] All approved cancer vaccines are VLP-based, including those for HPV (Gardasil™, Cervarix™) and HBV (Engerix-B™)
[2] Pallerla, S., Abdul, A. ur R.M., Comeau, J. and Jois, S. (2021). Cancer Vaccines, Treatment of the Future: With Emphasis on HER2-Positive Breast Cancer. International Journal of Molecular Sciences, [online] 22(2). doi:https://doi.org/10.3390/ijms22020779.

Path to clinical proof-of-concept and commercialisation

High-level summary of integrated development plan (iDP)



CTA submitted in Q3 '24

Positioned for strategic milestones and value creation

Strategic milestones

- 2024: CTA approval
  - A critical regulatory milestone
- 2025: First-in-human trial initiation
  - Clinical validation opportunity
- 2026: Expected trial results
  - Gateway to licensing or partnerships
  - Gateway to initiation of Phase II study

Growth funding mechanisms

Future value drivers

- Large addressable market
  - >1.7 million patients annually with HER2-expressing cancers
- Diversified core pipeline
  - ES2B-C001: HER2-expressing therapeutic cancer vaccine
  - ES2B-I002: Next-generation candidate for CMV treatment
  - Early-stage exploratory projects expanding future opportunities
- High licensing potential
  - Top 5 oncology licensing deals in 2021 averaged $3B per deal
  - Phase I oncology assets offer first-mover advantages in unmet needs
  - HER2-targeting therapies aligned with high-value early-stage demand

Groundbreaking novel cancer therapy

ES2B-C001 summary: A therapeutic vaccine to treat HER2-positive breast cancer awaiting CTA approval

- A **HER2-cVLP vaccine** targeting HER2-expressing breast cancer, addressing a **€27B global market with 7.2% CAGR next 5 years**[1]
- ES2B-C001 demonstrated **significant tumour growth inhibition,** resulting in **100% survival** of treated animals
- Effectively breaking tolerance, and overcoming **monoclonal antibody resistance**
- **CTA submitted in Q3 '24** and aim to complete first-in-human Phase I clinical trial by Q1 '26
- ExpreS2ion committed to ensure completion of Phase II clinical proof-of-concept studies during 2026-2029

1 Mordor Intelligence, breast cancer therapeutics market, 2024-2029 estimates

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