

Proteins for Life

Aktiespararna's Aktiedagen
Stockholm, December 2, 2021
Bent U. Frandsen, CEO



EXPRES²ION
BIOTECHNOLOGIES

Forward-looking statements and disclaimer

This presentation contains forward looking statements. The words “believe”, “expect”, “anticipate”, “intend” and “plan” and similar expressions identify forward looking statements. All statements other than statements of historical facts included in this presentation, including, without limitation, those regarding our financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to our products), are forward looking statements. Such forward looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. The important factors that could cause our actual results, performance or achievements to differ materially from those in the forward looking statements include, among others, risks associated with product discovery and development, uncertainties related to the outcome of clinical trials, slower than expected rates of patient recruitment, unforeseen safety issues resulting from the administration of our products in patients, uncertainties related to product manufacturing, the lack of market acceptance of our products, our inability to manage growth, the competitive environment in relation to our business area and markets, our inability to attract and retain suitably qualified personnel, the unenforceability or lack of protection of our patents and proprietary rights, our relationships with affiliated entities, changes and developments in technology which may render our products obsolete, and other factors. Further, certain forward-looking statements are based upon assumptions of future events which may not prove to be accurate. The forward looking statements in this document speak only as at the date of this presentation. ExpreS²ion Biotech does not undertake any obligation to update or revise forward looking statements in this presentation nor to confirm such statements to reflect subsequent events or circumstances after the date made or in relation to actual results, unless required by law.

Investment Highlights

Key player in advanced protein sciences with novel pipeline addressing 45B EUR markets



Leader in production of complex proteins with the advantageous ExpreS² technology



Co-Founder of AdaptVac ApS, owner of a unique Virus Like Particle (VLP) technology



Pipeline of therapeutics/vaccines, addressing high-need and attractive markets



Revenue of 15M SEK / ~1.5M EUR with >10% growth from legacy service contract business


















NASDAQ First North GM Stockholm [EXPRS2]. >12x increase* in share price since 01/2020

Market Cap: >1.5B SEK / >140M EUR

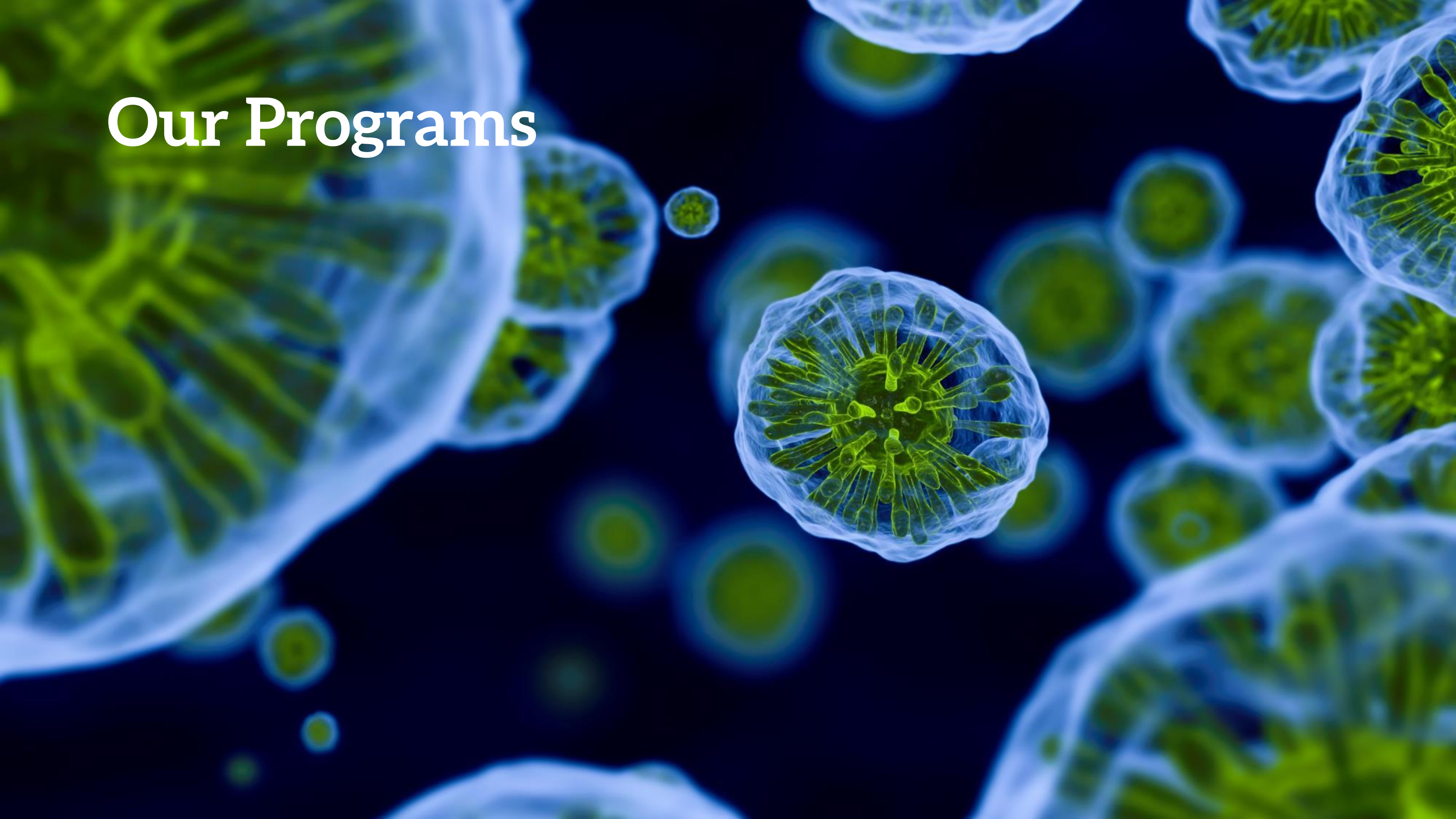
Deep Pipeline for Value Creation

Development Progress

DISEASE	Project/Target	Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase 1	Phase 2	Phase 3	Market Potential	Partner/Funding
Coronavirus 	ABNCoV2/SARS-CoV-2 cVLP					I/IIa BN: II		> 30 billion EUR	adaptVAC   PREVENT-nCoV
Breast Cancer 	ES2B-C001/HER2 cVLP							> 10 billion EUR	100% ExpreS ² ion
Influenza 	Hemagglutinin							> 4 billion EUR	 INDIGO
Malaria: 								> 0.4 billion EUR	
1: Blood-Stage	RH5					I/IIa			 MultiViVax
2: Blood-Stage	RH5-VLP								 
3: Transmission	Pfs 48/45								 OptimalVax 
4: Placenta-Borne	VAR2CSA				Ia / Ib				 
5: Blood-Stage	CYRPA complex								 DISCOVERIES FOR HUMANITY

AdaptVac is a joint venture between ExpreS²ion (34% owned) and NextGen Vaccines (66% owned)

Our Programs





The 2nd Generation COVID-19 Vaccine

With **over 5 million deaths worldwide**, significant needs remain in the global long-term fight against the SARS-CoV-2 virus:



Uncertain duration of effect with current vaccines, expected to need repeated boosters



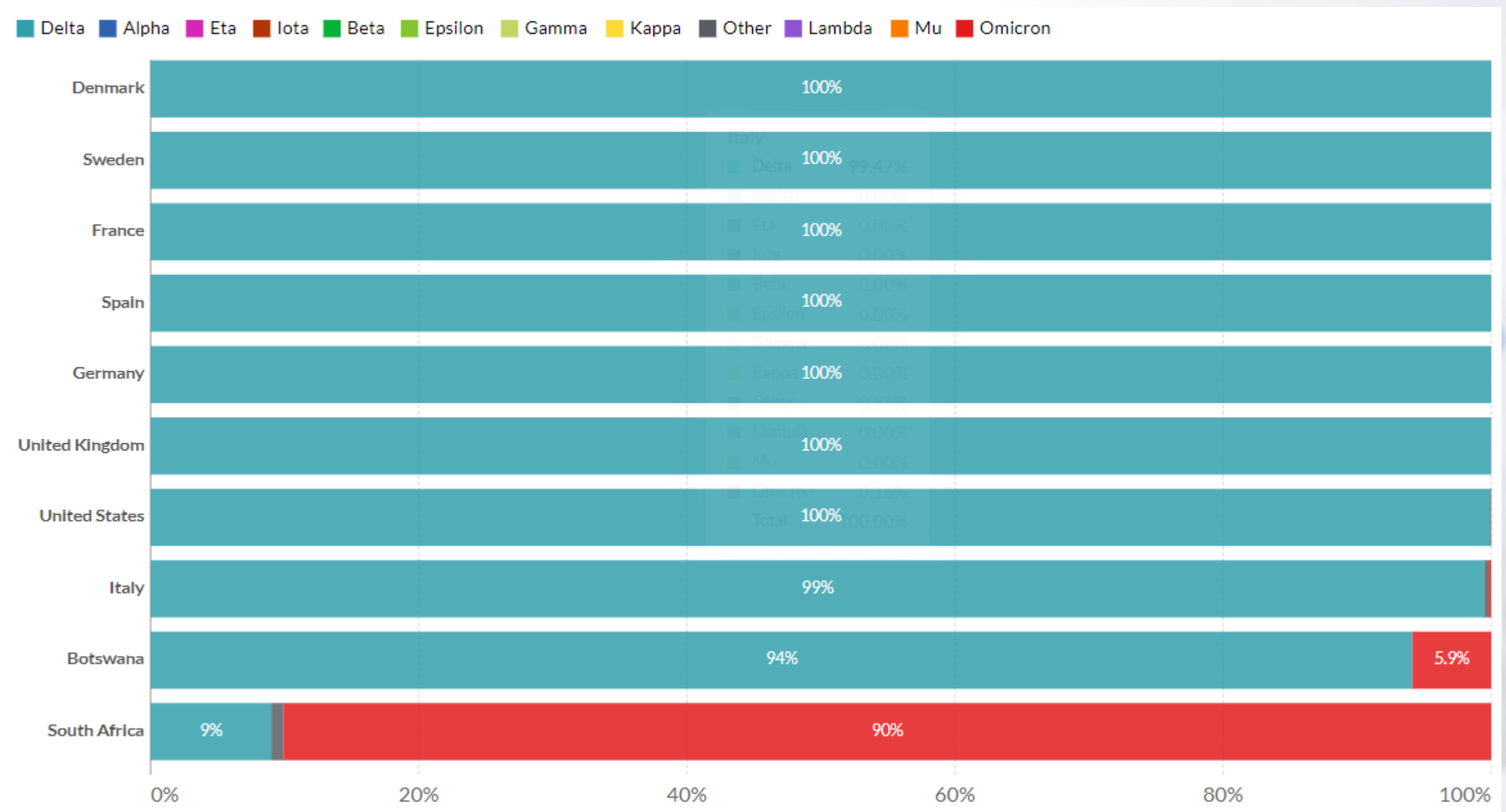
Storage and handling requirements for many vaccines create logistical constraints



Potential mutated variants may require rapid development of new vaccines



The 2nd Generation COVID-19 Vaccine II



WHO COVID-19 Vaccines Research

Can booster doses contribute to control this pandemic: what research is needed?

13 August 2021, virtual consultation
Geneva, Switzerland

© World Health Organization 2021. All rights reserved.
This is a draft. The content of this document is not final, and the text may be subject to revisions before publication. The document may not be reviewed, abstracted, quoted, reproduced, transmitted, distributed, translated or adapted, in part or in whole, in any form or by any means without the permission of the World Health Organization.
The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.



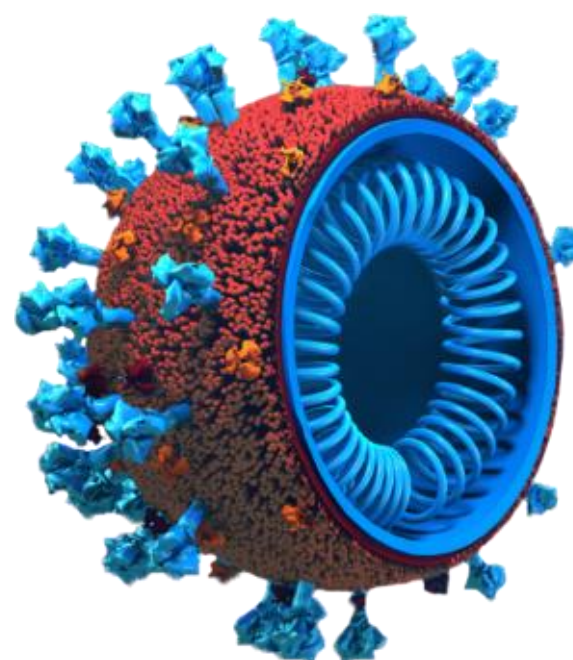
Will the B.1.1.529 Omicron variant replace Delta?

Source: CoVariants.org and GSAID – Last Updated 30 November 2021, 21.00 CET



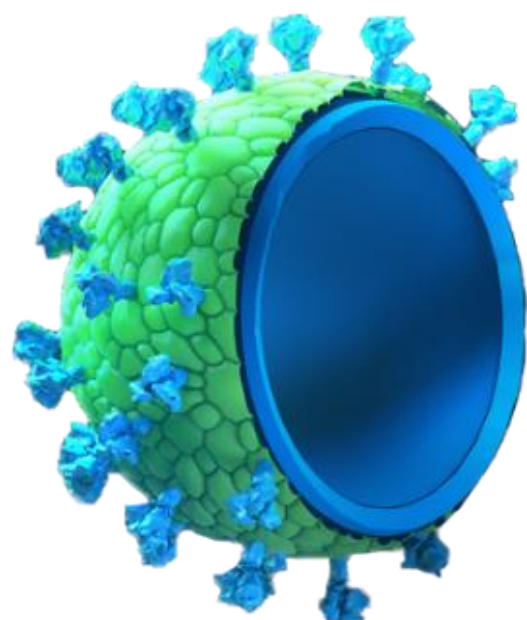
The Best COVID-19 Vaccine

ABNCoV2 has demonstrated superior preclinical proof-of-concept, and now promising human data



Virus

Spike proteins on surface of the coronavirus are primary target for vaccine development



Capsid VLP

Spike proteins displayed on surface but contains no genetic material

Encouraging early findings:

- Durable immune response with single shot
- Strong immunogenicity vs. variants
- Well suited to rapid iteration for mutated variants if needed
- Stability at room temperature*

Phase I/II Study headline results:

- 45 humans dosed (6-70µg)
- Aug. '21: Safe and well tolerated
- High levels of neutralizing antibodies, also for Variants of Concern

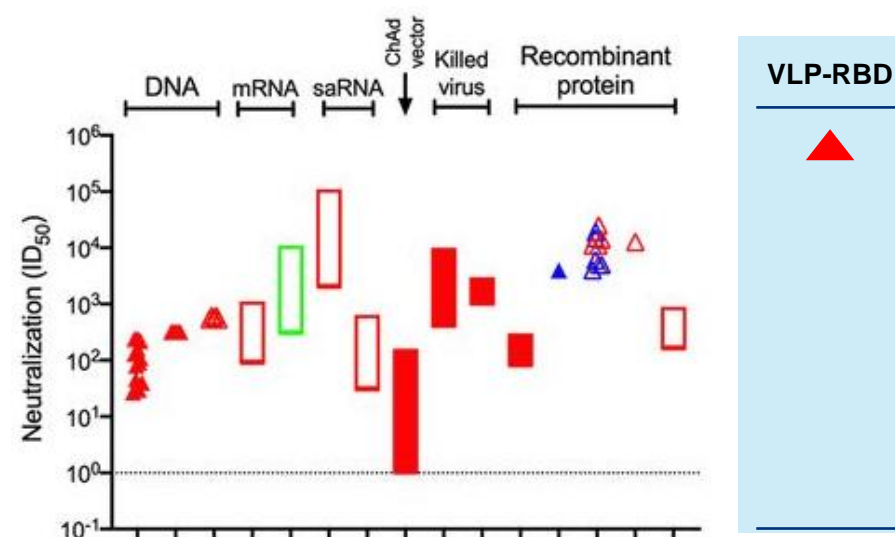
See data next slide

Bavarian Nordic holds the exclusive global license to ABNCoV2; sponsor of the on-going commercialisation



- **Phase II readout within 2021**
- **Phase III initiation in 2022 with market launch estimated 2023**

VLP elicits strong neutralizing antibody response vs other technologies¹

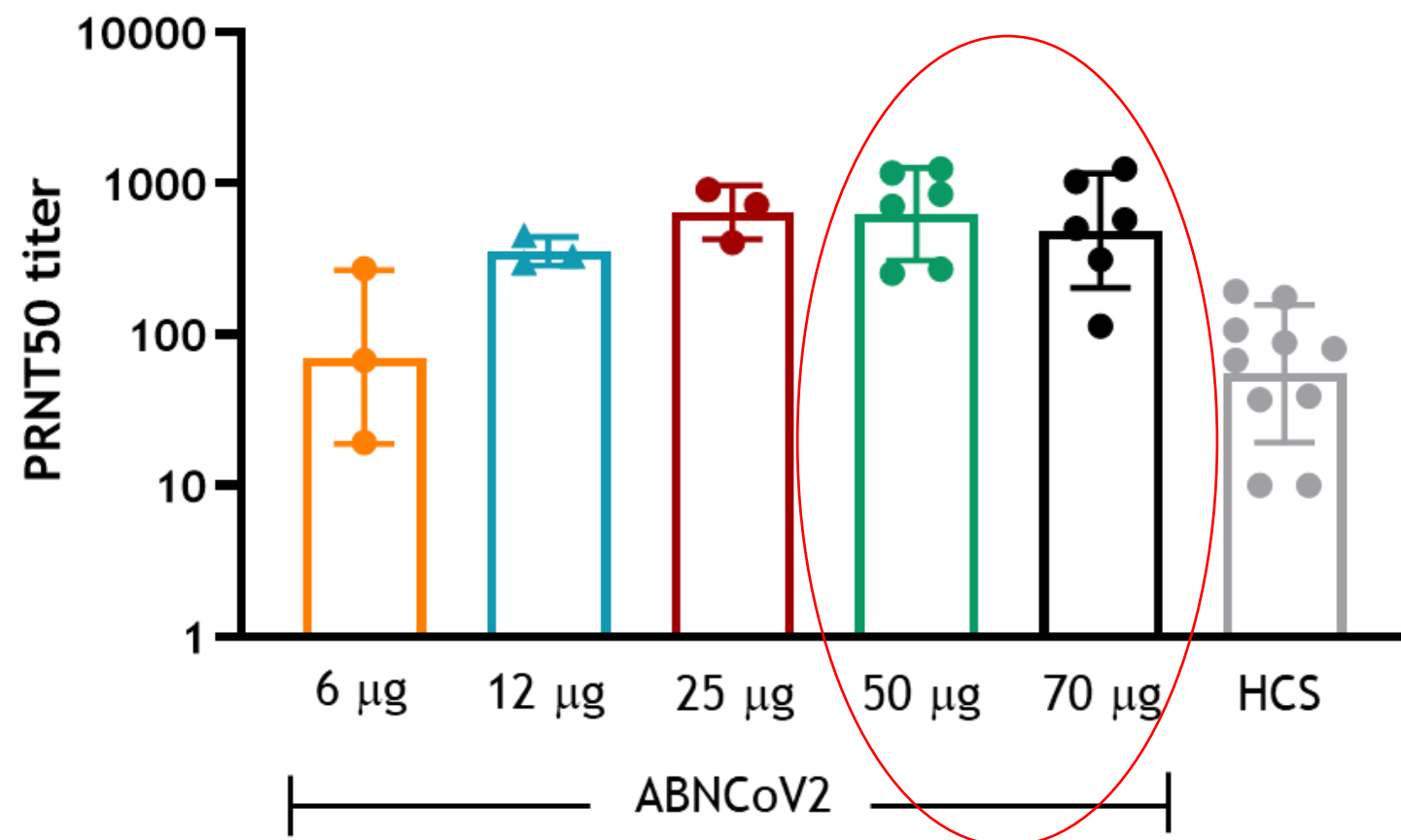




ABNCoV2 COVID-19 Vaccine Update (I)

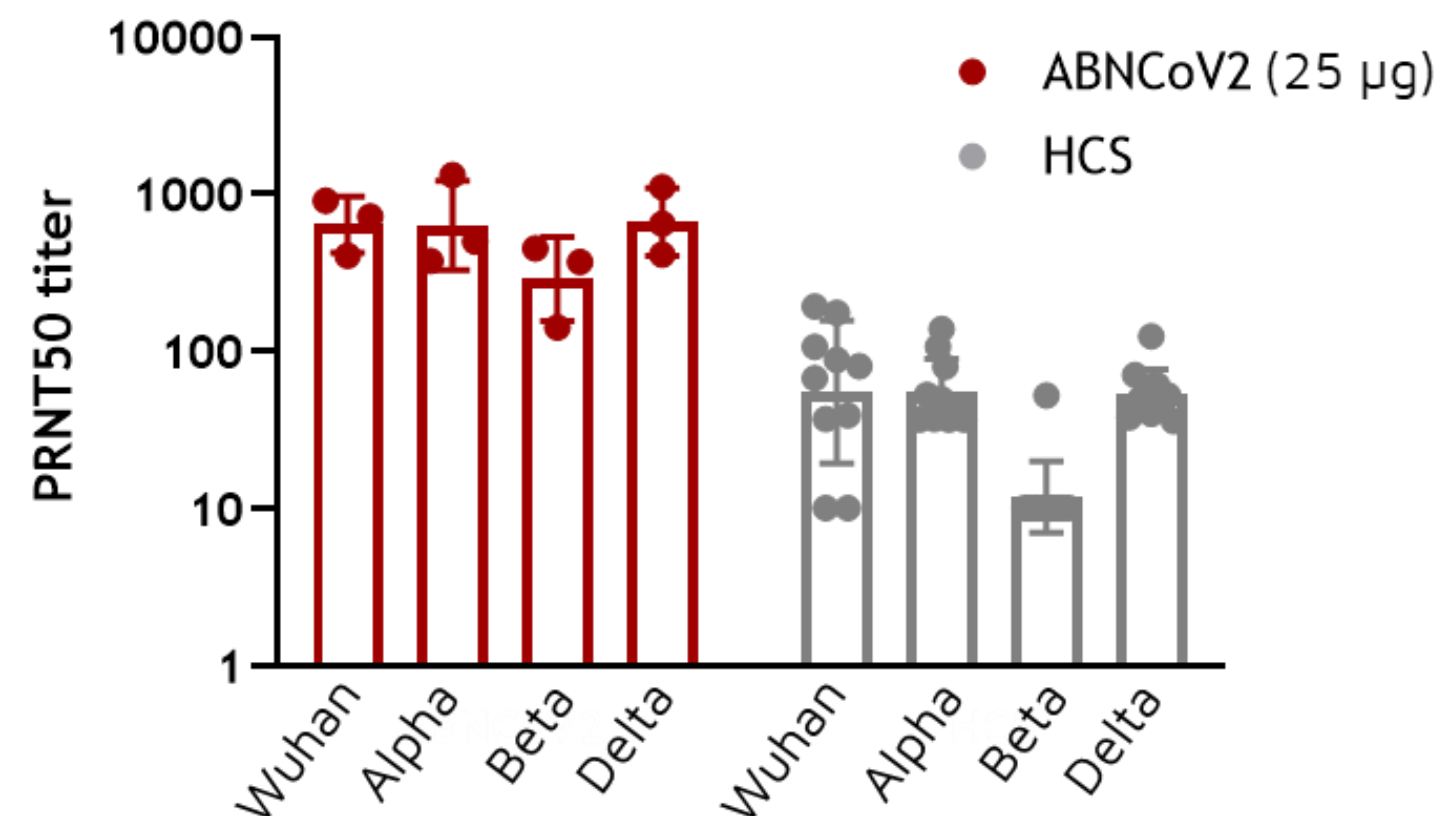
Update on Phase I/IIa trial confirms safety and tolerability and excellent efficacy profile

ABNCoV2 induces high neutralisation titers



- Dose response: increased titers with higher vaccine doses up to 25 mg, reaching a plateau at higher doses
- Up to 12-fold higher neutralizing antibody titers than seen in human convalescent samples (HCS)

Strong cross neutralization of variants



- No reduction in neutralization capacity against Alpha or Delta
- A 2.2-fold reduction is seen against Beta (compared to >10-fold reported for Comirnaty™)

ABNCoV2 COVID-19 Vaccine Update (II)





Bavarian Nordic carries on with the Phase II trial, and granted 800 MDKK funding for Phase III

ABNCoV2 Phase 2

Ongoing trial with data anticipated in Q4 2021 - amended trial design to seek optimal dosing

- Multi-center trial in Germany to evaluate ABNCoV2 as a booster vaccine in individuals with existing immunity.
- Enrolling a total of up to 210 healthy adults.
 - Individuals (n=180) with existing immunity against SARS-CoV-2, acquired through previous disease or from prior immunization with approved COVID-19 vaccines (mRNA and Adeno).
 - Individuals (n=30) with no prior vaccination or disease.
- Trial will also assess neutralizing immune responses against circulating variants of SARS-CoV2.
- Initial results anticipated in Q4 2021 (seropositive group, 100 µg)

Phase 2

Seropositive Previously infected or fully vaccinated	N = 90	100 µg		Single-shot booster vaccination	✓ Fully enrolled
	N = 90	50 µg		Single-shot booster vaccination	• Pending initiation
Seronegative No existing immunity	N = 30	100 µg	 	Prime-boost vaccination (days 0, 28)	• Enrolling

Data expected in December



COVID-19 License and JV Economics

ABNCoV2 is already out-licensed with near-term revenue streams supporting ExpreS²ion

AdaptVac's Economics

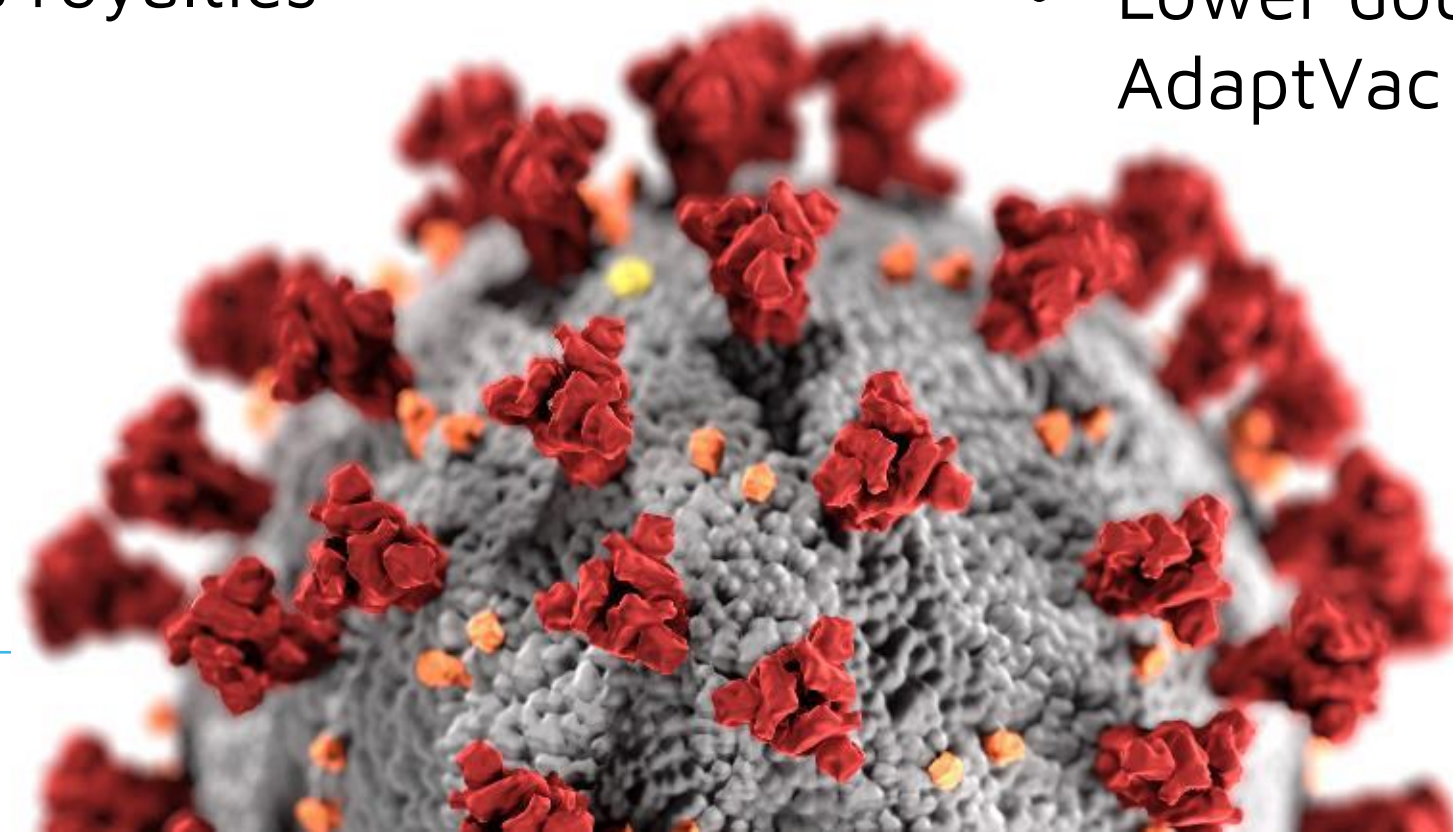
Paid by Bavarian Nordic

- 4 MEUR upfront (paid in July 2020)
- Up to 136 MEUR in development and sales milestones
- Single- to double-digit-% royalties of Bavarian revenues

ExpreS²ion's Economics

Paid by AdaptVac

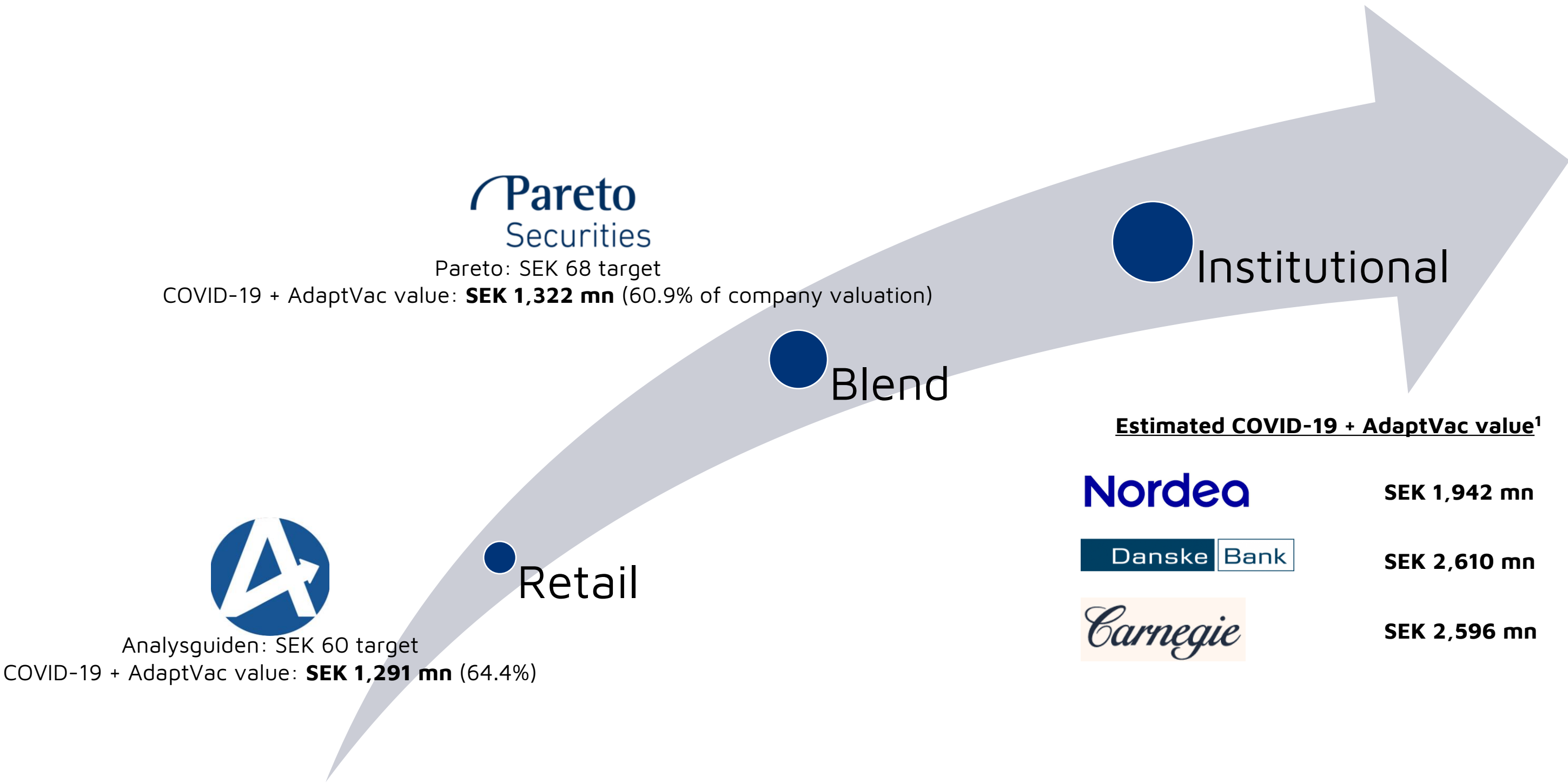
- **34% ownership of AdaptVac**
- Up to 2 MEUR in commercial milestone payments
- Lower double-digit percentage of AdaptVac royalties





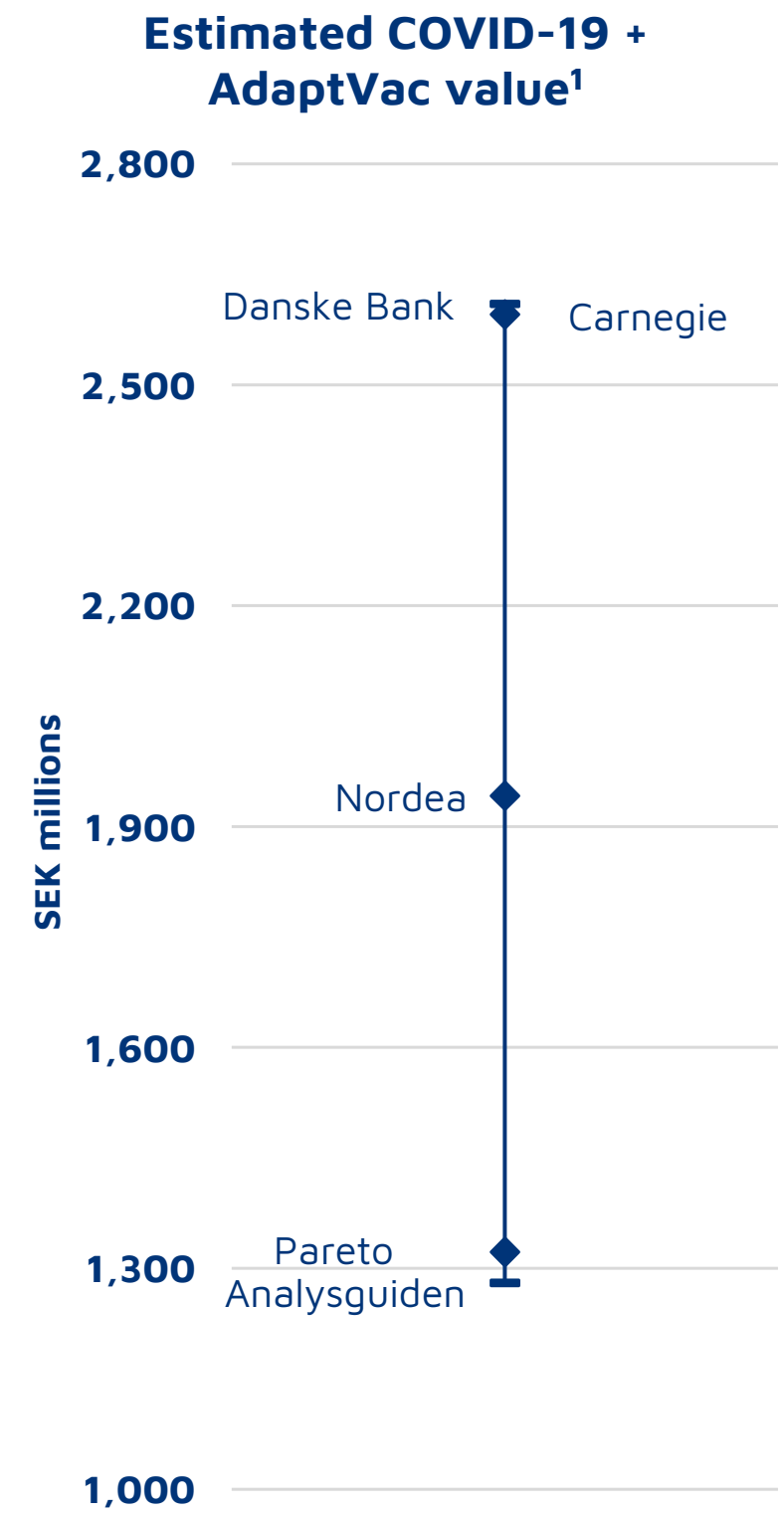
COVID-19 Value to ExpreS²ion

Institutional analysts have higher sales and approval assumptions

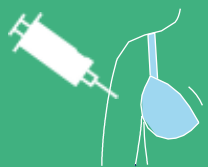


Estimated COVID-19 + AdaptVac value¹

Nordea	SEK 1,942 mn
Danske Bank	SEK 2,610 mn
Carnegie	SEK 2,596 mn



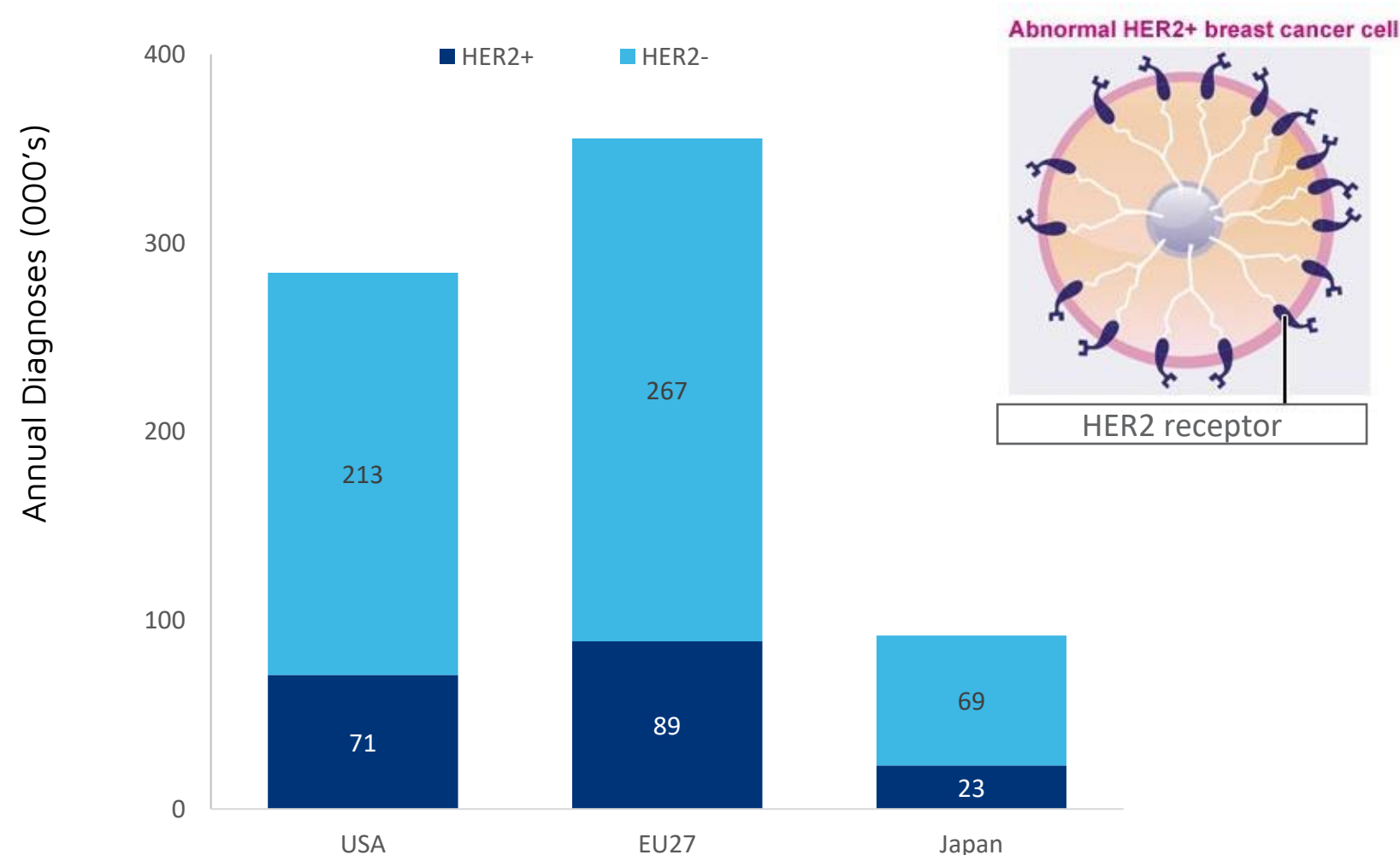
¹With the exception of Pareto and Analysguiden, estimates are ExpreS²ion's. The estimates are based on Pareto's August 9, 2021 valuation model assumptions for all variables except peak sales and likelihood of approval, which are based on recent estimates from the banks above specified in their coverage of Bavarian Nordic.



HER2+ Breast Cancer Overview

The ES2B-C001 vaccine can offer significant benefits compared to current treatment options

Over 180,000 people diagnosed with HER2+ breast cancer per year across US, EU, & Japan^{1,2}



Monoclonal antibodies are the cornerstone of treatment for HER2+ breast cancer (>\$7B USD sales)

- Target the HER2 receptor on tumor cells to reduce proliferation and induce tumor cell destruction

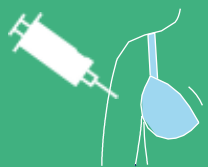


However, serious drawbacks exist with these therapies

- Resistance** to monoclonal antibodies may develop
- Potential for cardiac toxicity**
- Repeated administration required**: 28 day half-life requires administration every 3rd week until remission or resistance develops, costs \$30-\$50k USD

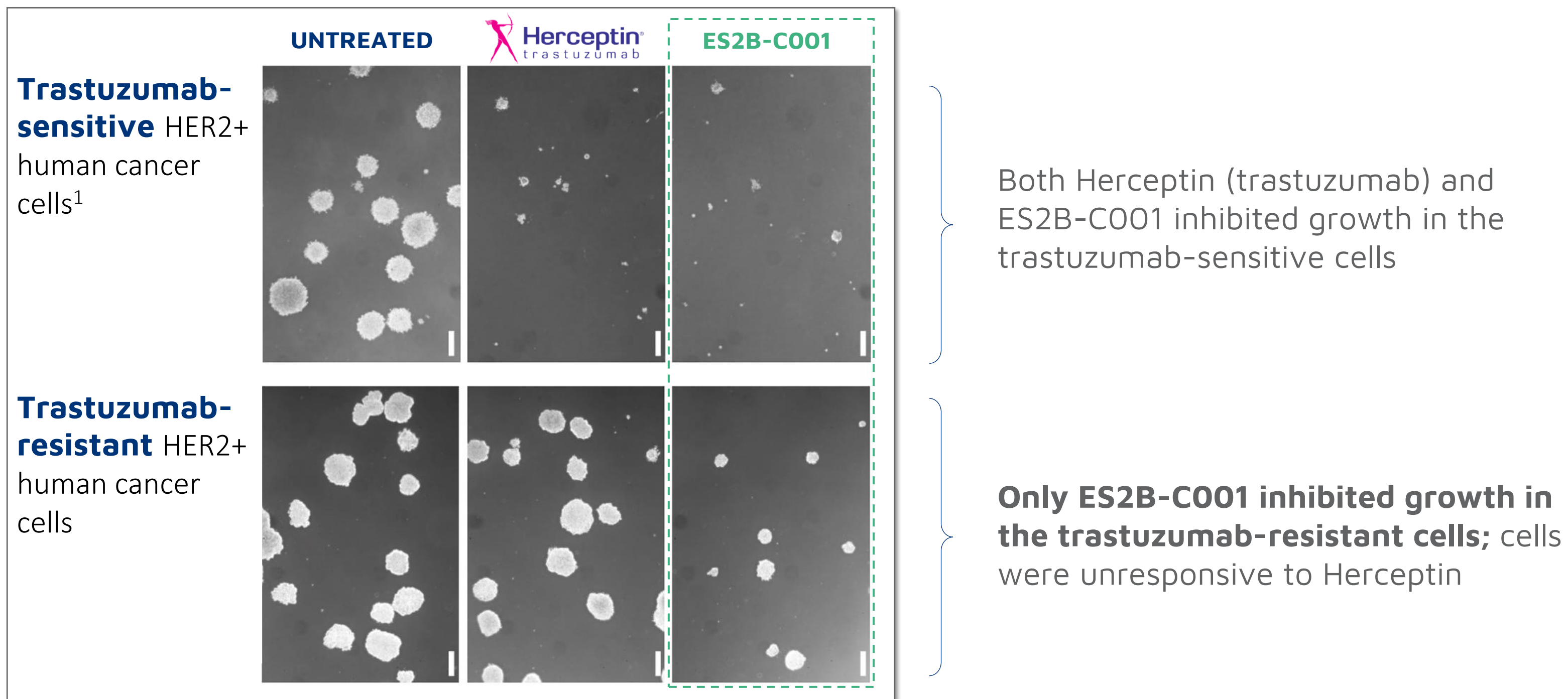
Vaccine-like approach offers potential to overcome drawbacks through *internal antibody production*

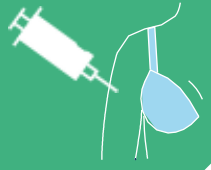
1. US: BreastCancer.org: https://www.breastcancer.org/symptoms/understand_bc/statistics; EU27: Information System (Oct 2020) (https://ecis.jrc.ec.europa.eu/pdf/Breast_cancer_factsheet-Oct_2020.pdf); Japan: <https://gco.iarc.fr/today/data/factsheets/populations/392-japan-fact-sheets.pdf>.
 2. Mitri Z et al. The HER2 Receptor in Breast Cancer: Pathophysiology, Clinical Use, and New Advances in Therapy. Chemother Res Pract. 2012; 2012: 743193



ES2B-C001 overcomes Herceptin resistance

The soft agar human cancer cell growth inhibition assay provides *in vitro* evidence





Strong Preclinical Data for VLP Approach

ES2B-C001 has demonstrated animal proof-of-concept, and on track to repeat *in vivo* PoC

- **Prevention of 50-100%** of spontaneous mammary carcinogenesis
- **Strong tumor growth inhibition** in therapeutic studies (mice transplanted with tumor cells/fragments)

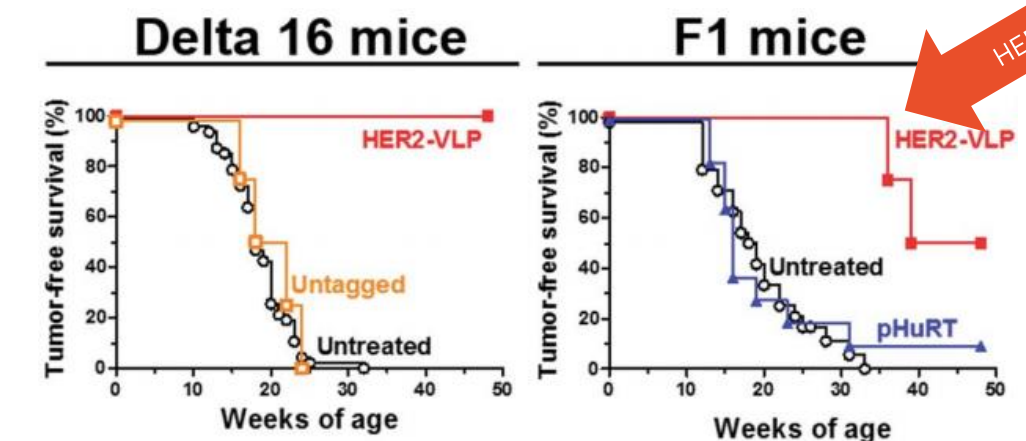
Preclinical *in vivo* studies are underway in collaboration with University of Bologna; proof-of-concept data expected primo 2022.

On path for clinical trial application submission before end of 2022.

Plan to engage with regulatory bodies to discuss path to clinical in early 2022.

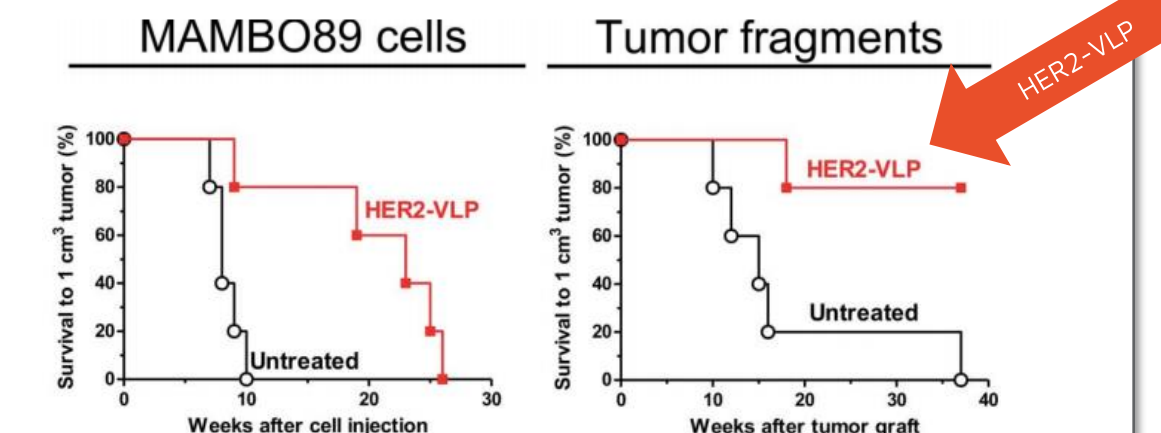
Preventive studies

(mice with pre-disposition to spontaneous development of HER2+ tumors)



Therapeutic studies

(mice transplanted with HER2+ tumor cells or larger tumor fragments prior to vaccination)



Note that this data was generated for AdaptVac's predecessor vaccine candidate (HER2-VLP very similar to ES2B-C001)

Palladini, A. et al. (2018), "Virus-like particle display of HER2 induces potent anti-cancer responses", Oncol Immunology, pub. Vol 7, no 3

**Delta16 and F1 are naturally-occurring human HER2 subtypes (isoforms) that cause rapidly-growing tumors in mice and are well accepted as mouse models for HER2+ breast cancer*

Influenza / Malaria Vaccines Update

Progression catching up again, after initial delay due to the COVID-19 pandemic



The INDIGO consortium

- Led by University of Amsterdam
- Multiple research groups, incl. ExpreS²ion
- Funded by a 10 MEUR 2020 Horizon grant from the EU (0.6 MEUR awarded to ExpreS²ion)



Technologies

- Use of ExpreS² platform for antigen production
- Goal of >90% responder rate (vs <40% with current vaccines)
- Patch-based delivery method (self-administration) is being explored by INDIGO partners and we are supplying proteins

Shipped first proteins to INDIGO for testing

- Both trimer (minor) and multimer (major) proteins and both have agglutination activity – a positive indication that ExpreS²ion's proteins are binding as intended

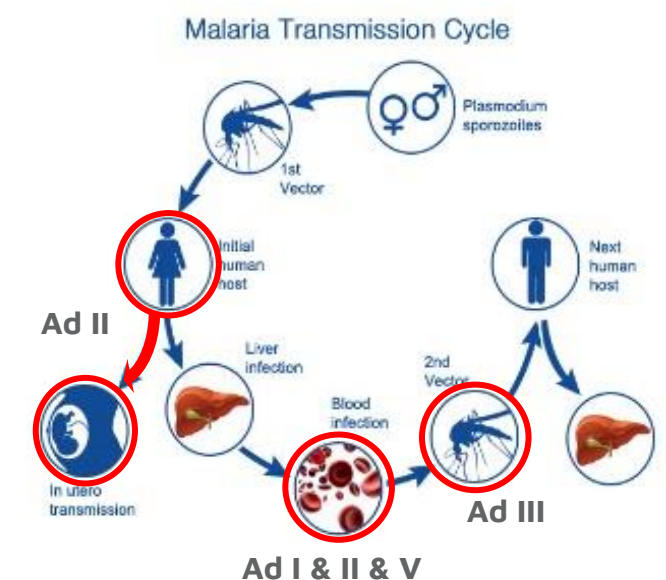


5 vaccines candidates under development that target various stages of disease & transmission

Stage/Target	Partners
I. Blood stage (RH5.1)	
II. Blood stage (RH5.2)	
III. Transmission (Pfs48/45)	
IV. Placenta borne (VAR2CSA)	
V. Blood-stage (PfRipr)	

Ad I) 2021 news on RH5.1

- 04.21: Publication of Phase I/IIa data from the VAC063 study
- 07.21: The VAC080 study, a Phase Ib trial, is initiated in 60 healthy adults and infants in Tanzania to assess safety and immunogenicity

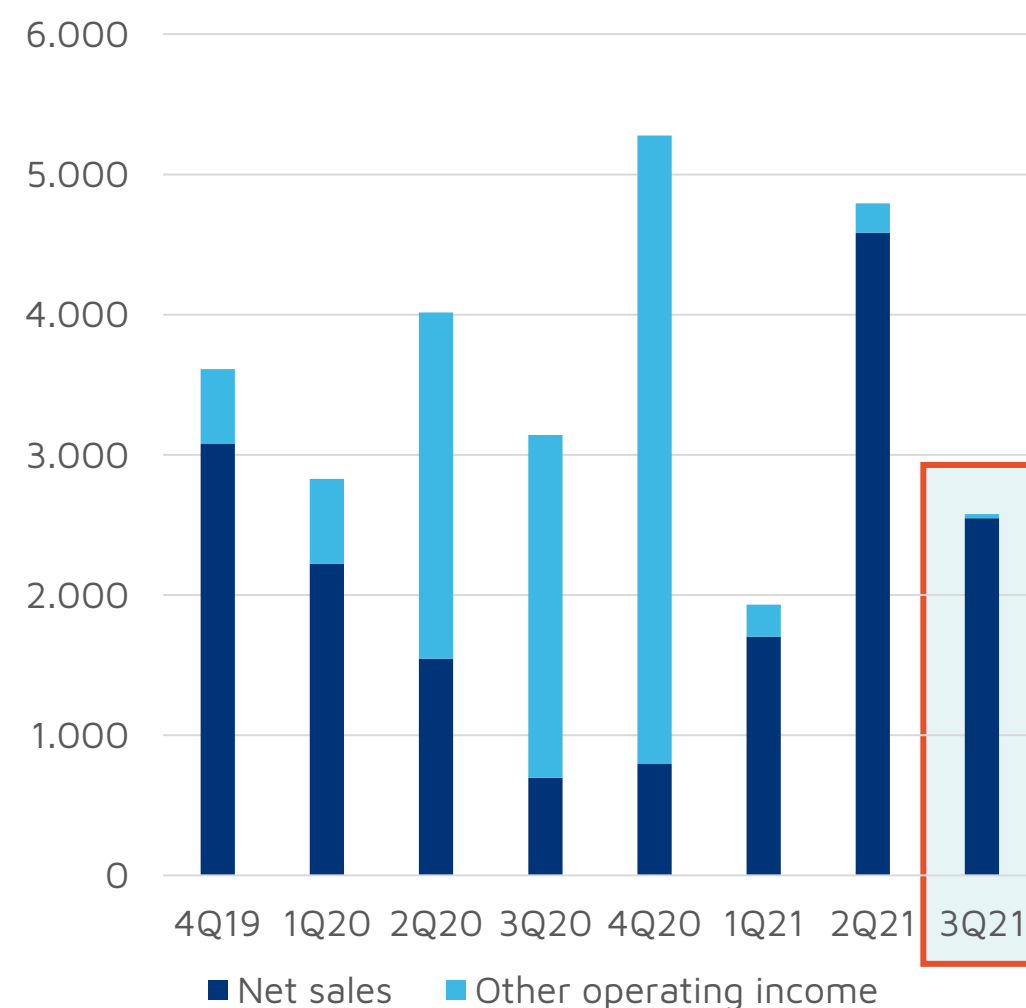


Financials and Outlook

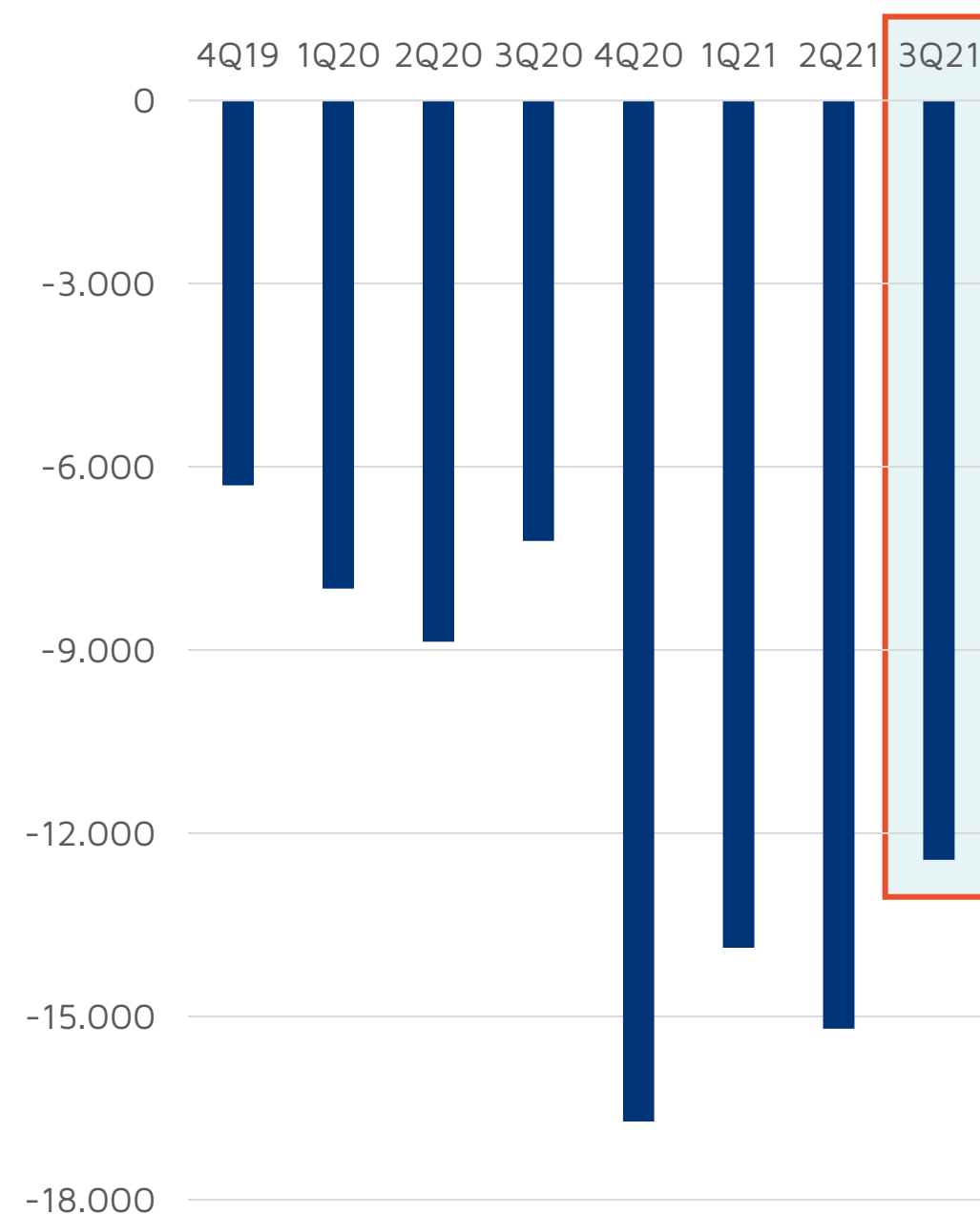
The background of the slide is an abstract composition of numerous glowing spheres. These spheres vary in size and are rendered in a palette of soft pinks, purples, and magentas. Some spheres are in sharp focus, showing a bright, glowing center, while others are blurred, creating a sense of depth. The overall effect is a vibrant, ethereal, and futuristic visual.

Financials – Fitting the New Strategy

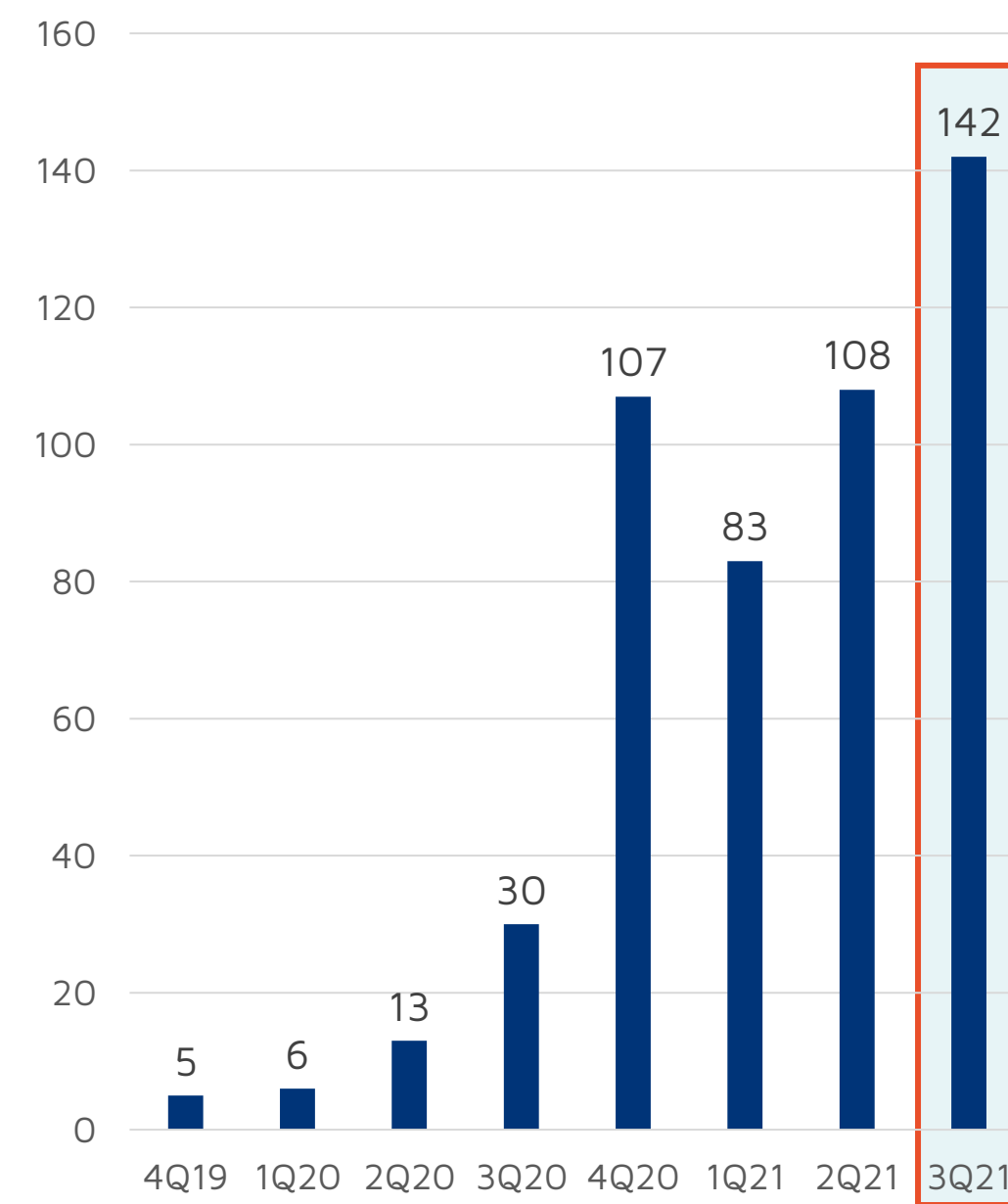
Revenues, SEK '000s



Operating costs, SEK '000s

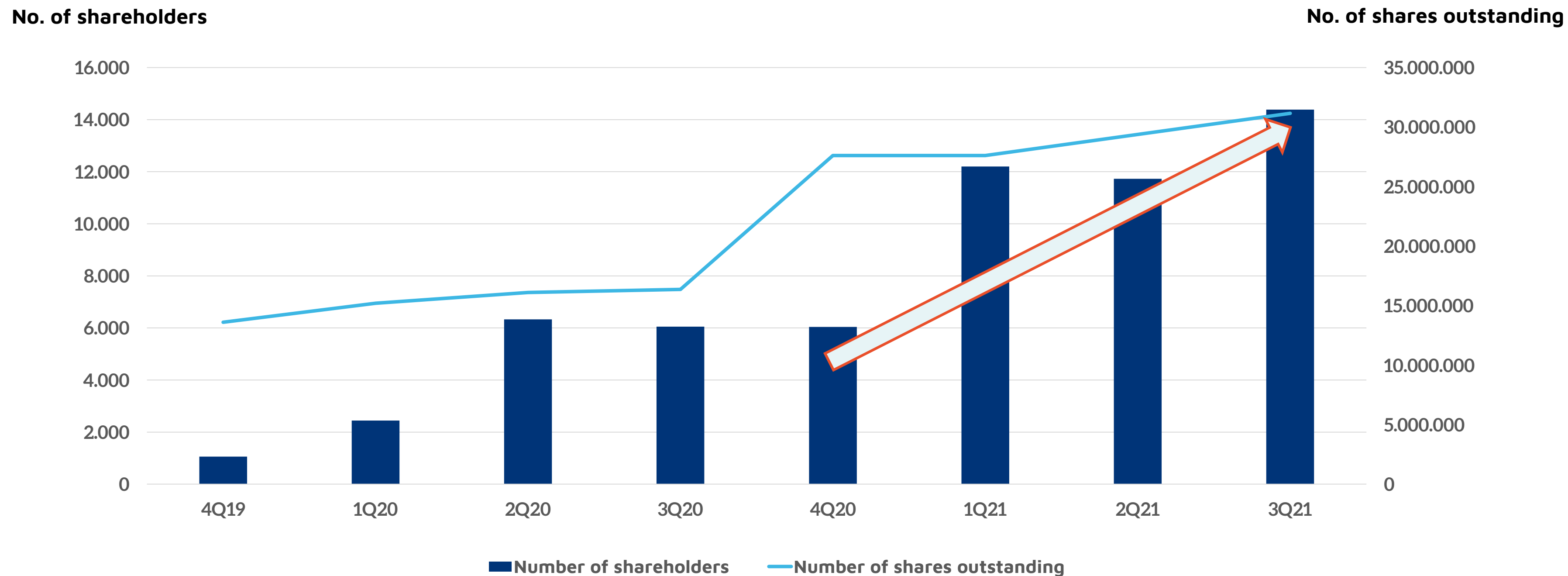


Cash balance, SEK million







Shareholder Composition

During 2021 No. of shareholders grows from ~6,000 to ~14,000



2021 – 2023 Outlook

On track to deliver shareholder value

	2021	2022	2023
 CORONAVIRUS (ABNCoV2)	<ul style="list-style-type: none"> ✓ Phase I/II trial, COUGH-1 initiated ✓ COUGH-1 initial safety results (Q2) ✓ COUGH-1 full safety & efficacy results (Q3) ✓ BN Phase II trial initiation (Q3) 	BN Phase II trial readout BN Phase III trial initiation BN Phase III initial readout	BN ready for market launch (subject to regulatory approval)
 BREAST CANCER (ES2B-C001)	<ul style="list-style-type: none"> ✓ Executed in-licensing (Feb 2021) ✓ Preclinical animal studies initiated (Q2) 	Preclinical animal proof-of-concept results GMP manufacturing batch & tox Filing of clinical trial application	Initiation of first human clinical trial <div> Outlicensing window opens pending human data </div>
 INFLUENZA	Within INDIGO progress in preclinical animal studies in (H2)	Advance/support further development of one or more candidates in 2021	
 MALARIA	<ul style="list-style-type: none"> ✓ Phase IIa results from the Rh5.1 vaccine published in 2021 ✓ Additional phase I trial in a malaria endemic region in Africa launched during 2021, with alternative adjuvant 		Rh5 phase I trial readout

A person is shown from the side, holding a piece of paper and drawing several virus-like particles with a blue marker. The particles are spherical with a textured surface and small protrusions. The background is a wooden desk.

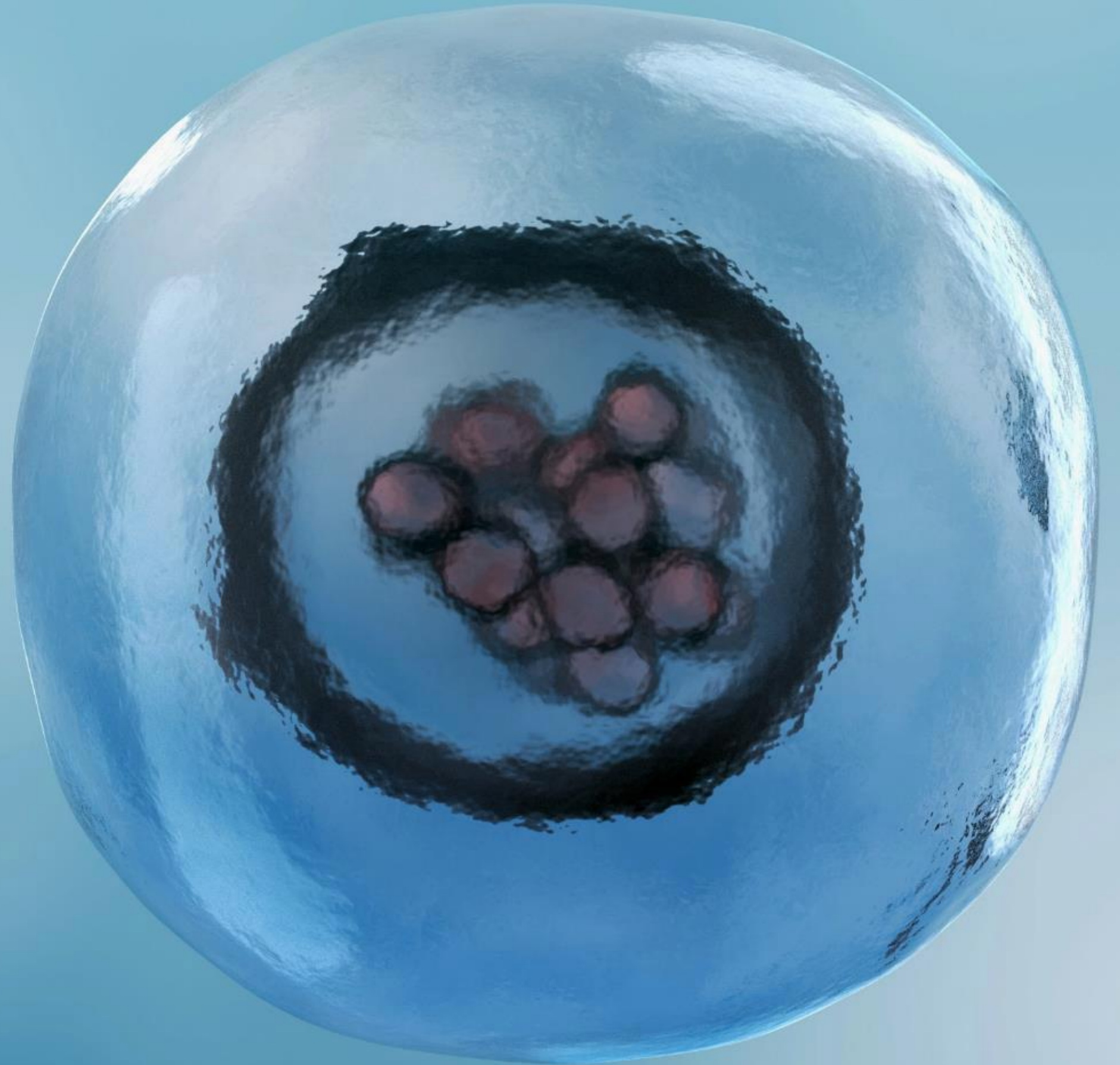
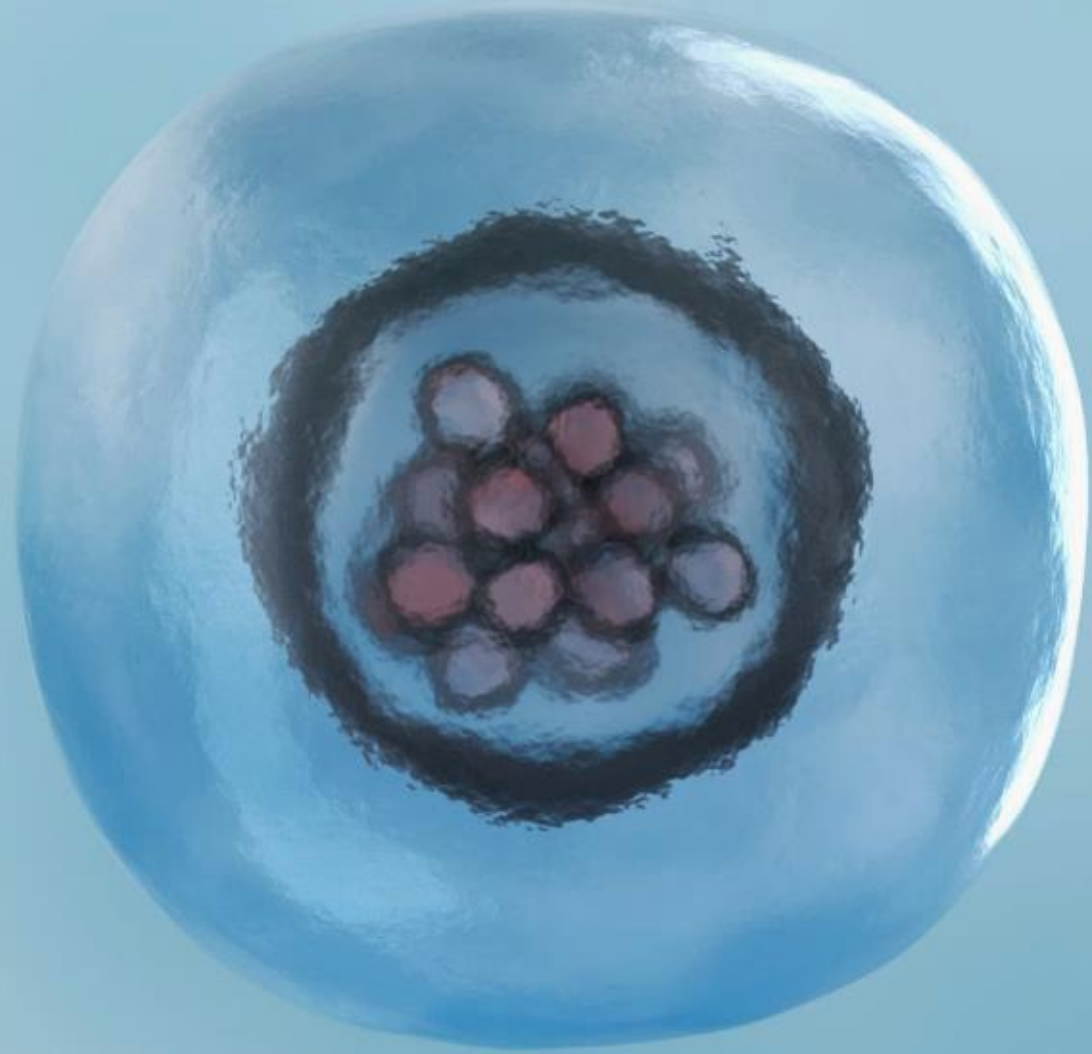
Thank you!

Contact:
info@expres2ionbio.com

Proteins
for Life

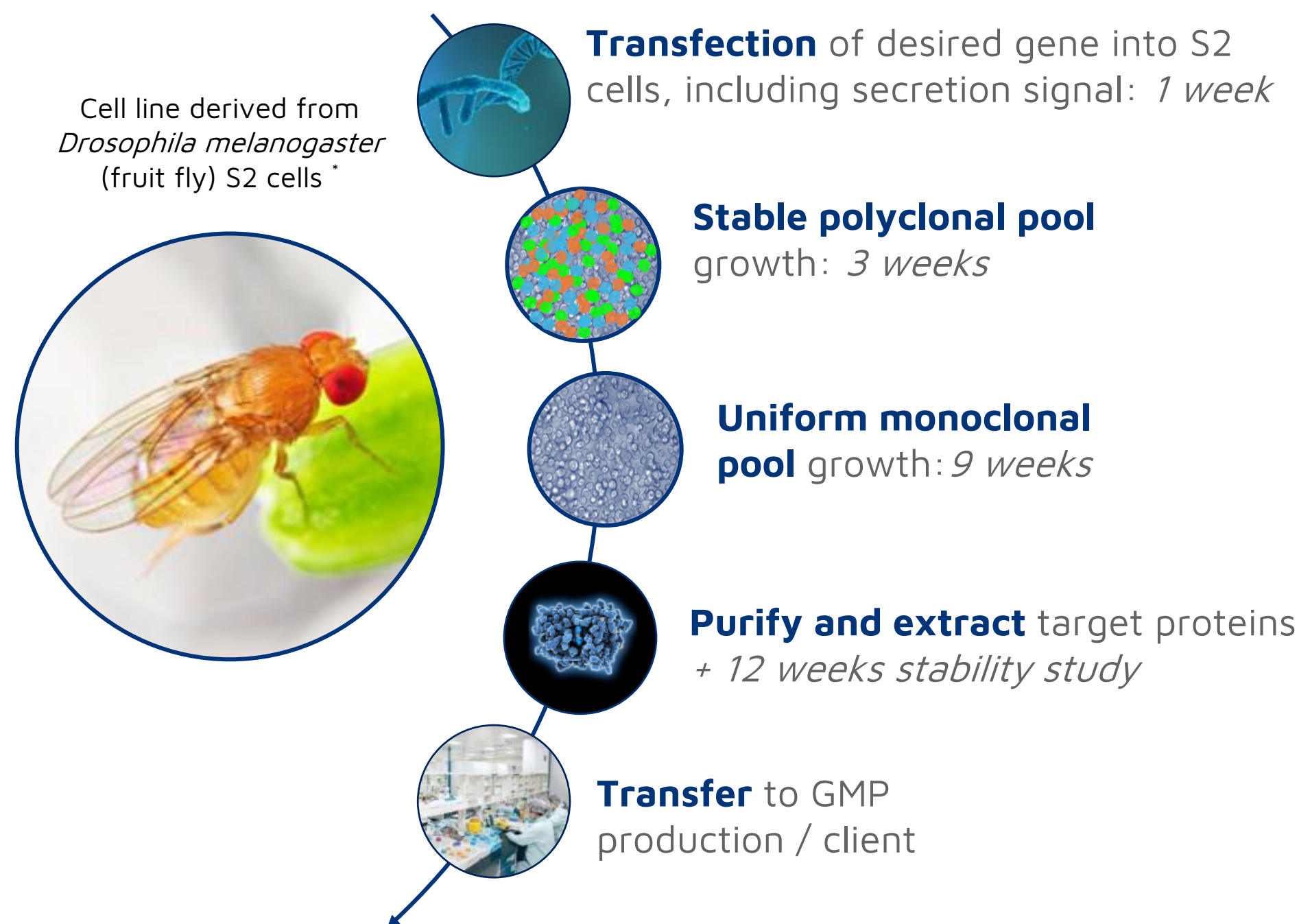
EXPRES²ION
BIOTECHNOLOGIES

Our Technology



ExpreS² Platform for Complex Proteins

Enables unique non-viral approach to protein and vaccine production



Reducing risks in discovery manufacturing

- ✓ **Fast & high level protein expression**
- ✓ **Robust; high batch-to-batch consistency**
- ✓ **Superior success rates in early research**

Proprietary process and expertise has established ExpreS²ion as the leader in specialty protein production

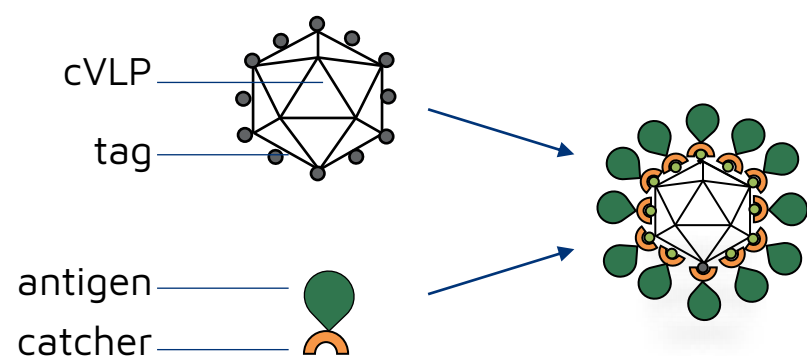
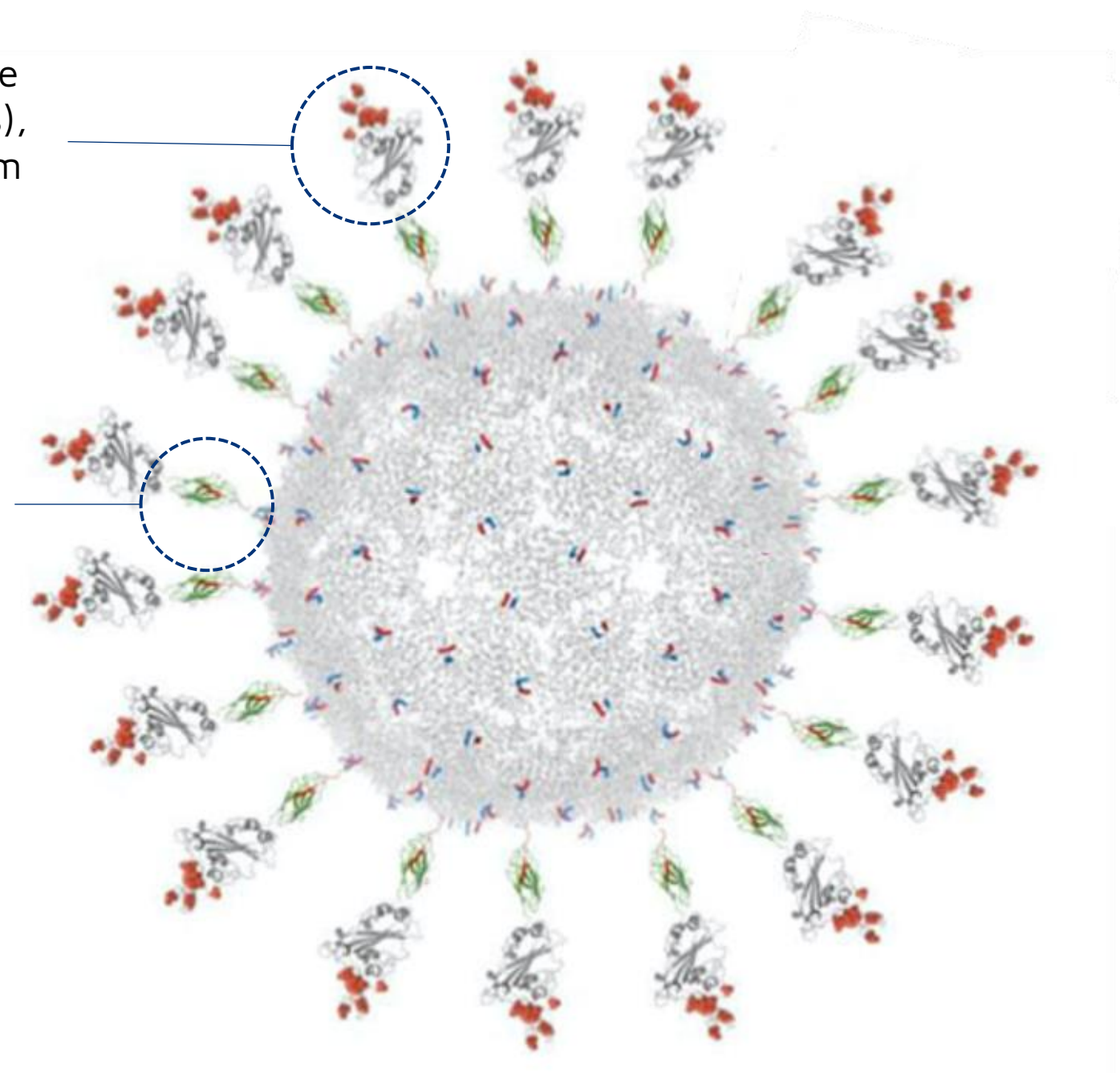
- ✓ **20+ years of experience**
- ✓ **Over 90% success rate, over 350 proteins expressed**
- ✓ **Go-to source for challenging proteins**
- ✓ **Rapid delivery (3-6 months) of high-quality, uniform proteins with exceptional yields**

Virus Like Particle (VLP) Technology

VLP technology has proven track record in cancer vaccine applications (HPV)

Our ExpreS² platform produces the complex surface proteins (antigens), which are critical to immune system recognition and response

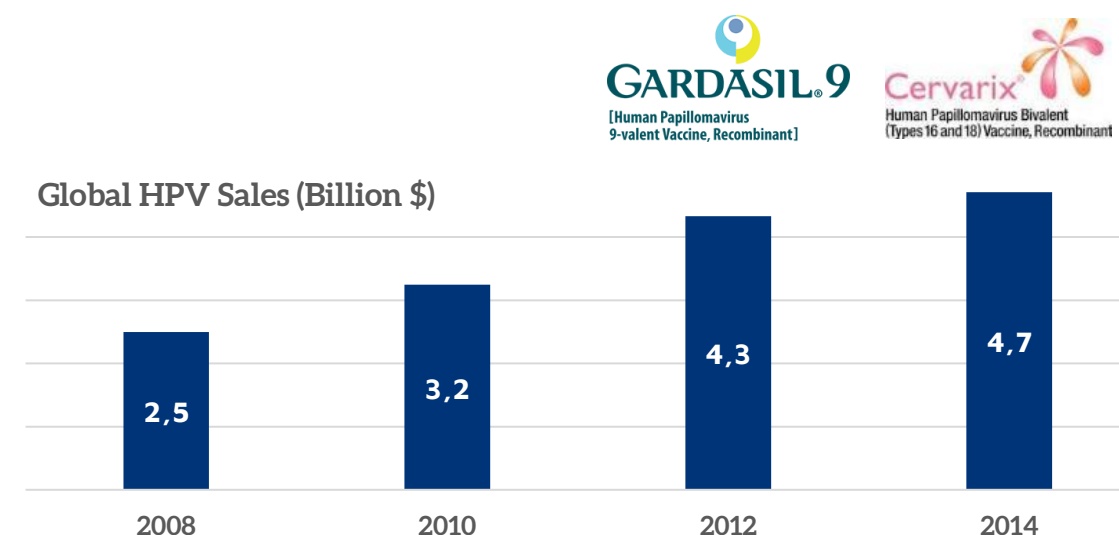
AdaptVac's proprietary virus-like particles technology¹ securely attaches our proteins to the surface of a spherical shell (capsid), mimicking a virus to elicit an immune response



High immunogenic potential

- **Full length proteins:** Exceptionally strong attachments can hold entire complex proteins; other VLP approaches can only support fragments (single epitopes)
- **High density display** on surface (180 attachment sites): Increased, faster, focused immune response
- **Directional attachment** (vs random orientation in other systems)

VLPs have track record of success of commercial success in cancer



Board and Management

The background of the slide is a dark, textured field filled with numerous glowing spheres. These spheres vary in size and are primarily colored in shades of pink, magenta, and purple. Some spheres have a bright, yellowish-white core, while others are more uniformly colored. The overall effect is a dynamic, almost cellular or molecular, pattern that suggests a complex system or network.

Board of Directors

Expanded the Board in 2021 in support of the transition to a pipeline-focused business



Dr. Martin Roland Jensen, Chairman

Re-elected

- PhD. in Molecular and Cell Biology, Univ. of Copenhagen, Denmark
- Born 1960, Danish citizen
- >35 years biotech industry management and co-founder experience, incl. scientific work in immunology and cancer vaccine development



Dr. Allan Rosetzsky, Board Member

Re-elected

- Doctor of Medicine (MD), from University of Copenhagen, Denmark
- Born 1948, Danish citizen
- >40 years of healthcare and biopharma experience, including founding, running, and successfully selling the clinical CRO KLIFO



Jakob Knudsen, Board Member

Re-elected

- Law Degree from Univ. of Copenhagen, and MBA, Imperial College, UK
- Born 1968, Danish citizen
- >25 years commercial experience from international biotech industry



Dr. Karin Garre, Board Member

Elected in 2021

- MD, from University of Copenhagen, Denmark
- Born 1957, Danish citizen
- >25 years bio-industry management and drug development experience from early to late-stage phases and registration



Sara Sande, Board Member

Elected in 2021

- MSc in Economics, from University of Copenhagen, Denmark
- Born 1975, Danish citizen
- 20 years leadership experience in high-tech B2B companies, incl. sales excellence, strategy and commercial development



Board update and expansion at AGM May 2021

- Combined more than 140 years of deep professional experience that supports ExpreS²ion's vision of leadership in the infectious diseases and cancer fields

Management Team

Expanded team in 2021 brings skills to build our pipeline-focused business



Bent U. Frandsen, CEO

- MSc. In Finance/Strategic Management, Copenhagen Business School, Denmark
- Born 1967, Danish citizen
- >25 years industry finance, business dev and management experience



Dr. Mette Thorn, VP Preclinical Development

Started
in 2021

- PhD in Immunology, and a MSc in Chem Eng., Tech. Univ of Denmark
- Born 1972, Danish citizen
- 20 years industrial research experience



Keith Alexander, CFO

- MBA, The Wharton School and the University of Pennsylvania, USA
- Born 1975, American citizen with Danish permanent residence
- >20 years of equity research, corporate strategy, asset management and consulting experience



Prof. Lars Petersen, Medical Dir., Oncology

Started
in 2021

- MD, DMSc in immuno-pharmacology, from Univ of Copenhagen, and CBA from AVT Business School
- Born 1960, Danish citizen
- >30 years academic and clinical development experience



Max Soegaard, VP of R&D and Technology

- PhD in Biochem., UCL, UK, and MSc in Molecular Biology; AU, Denmark
- Born 1970, Danish citizen
- 20 years academic and industrial research experience



Eske Rygaard-Hjalsted, VP Business Dev.

Started
in 2021

- MSc in Molecular Biology from Technical Univ. of Denmark (DTU)
- Born 1965, Danish citizen
- > 25 years across business dev, sales and marketing in life sciences

