Aktiespararna's Aktiedagen

Stockholm - Virtual

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Proteins for Life

Bent U. Frandsen, CEO

EXPRES²ION BIOTECHNOLOGIES

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Investment Highlights

Key player in advanced protein sciences, with deep pipeline of novel vaccines addressing high-value markets

High-potential pipeline of key focus, backed up by Contract Research Organization (CRO) business, that has generated SEK 60 million since IPO in 2016

Vaccine development platform with track record and partner validation.
+500 proteins produced while posting +90% success rate

Global vaccine market rapidly growing, from USD 33bn (2019) to USD 187bn (2021), corresponding to 460% growth

ExpreS²ion is advancing towards key catalysts during 2022, further de-risking the company's pipeline. COVID-19 phase III initiation in H1 2022

Technology Platforms

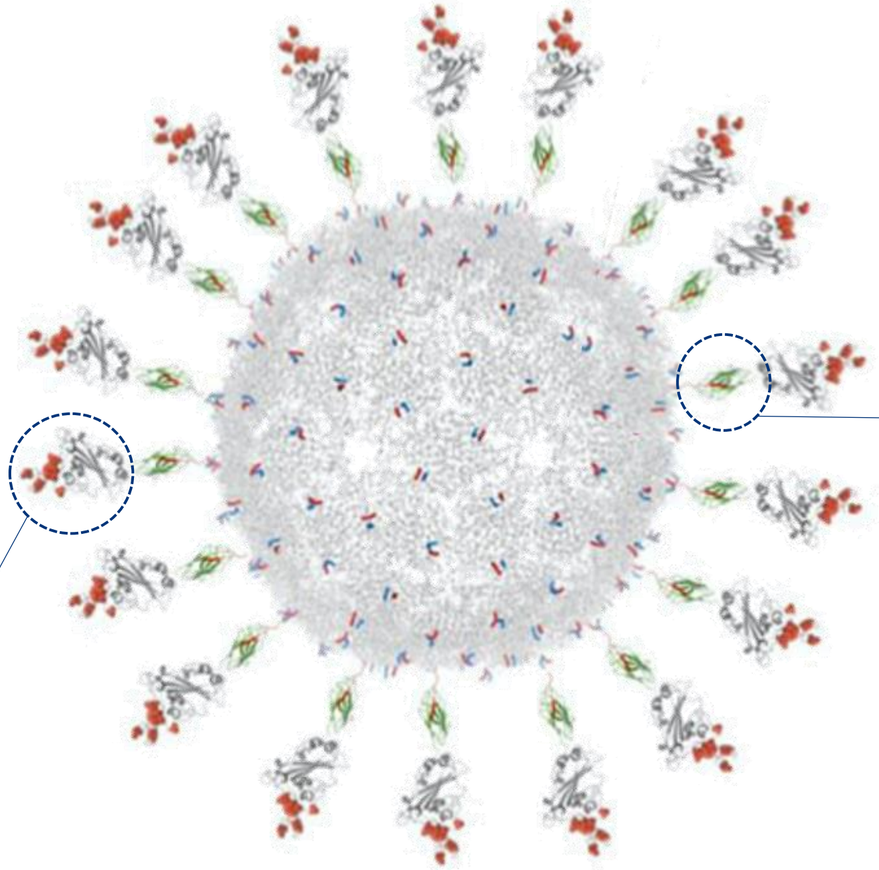
ExpreS²ion's ExpreS² and AdaptVac's cVLP platform

Cell line derived from *Drosophila melanogaster* (fruit fly) S2 cells[1]

ExpreS² platform

Combines S2 cells with patented expression vectors (add a specific gene into a target cell and command the cell to produce the gene encoded protein), adapted culture agents and reagents (stimulating cell growth)

100% ownership



ExpreS² protein (antigen) combined with AdaptVac's cVLP containing no viral genetic material causing an immune reaction

Particle (VLP) technology

AdaptVac's proprietary virus-like particles (VLP) technology securely attaches our proteins to the surface of a capsid (outer protein protective shell of a virus), mimicking a virus to elicit an immune response

34% ownership

[1] Schneider I (1972). "Cell Lines Derived from Late Embryonic Stages of *Drosophila melanogaster*". *J. Embryol. Exp. Morphol.* 27: 363–365.
Note: ExpreS²ion Biotech founders invented an Improved Vector System derived from S2 cells; granted patent until 2032 (US); glyco-engineered S2 cells pending patents until 2040.

ExpreS² and AdaptVac's VLP

The platforms combined enable powerful vaccines to handle a wide range of diseases

ExpreS², advantages in discovery manufacturing

- ✓ **Rapid delivery (3-6 months) of high-quality and uniform proteins,** important competitive advantage, considering time-to-market and patent expiry
- ✓ **Higher yields,** i.e. amount of protein per manufacturing batch, compared to competing systems
- ✓ **Homogeneous manufacturing batches,** high batch-to-batch consistency, a requirement in pharmaceutical development

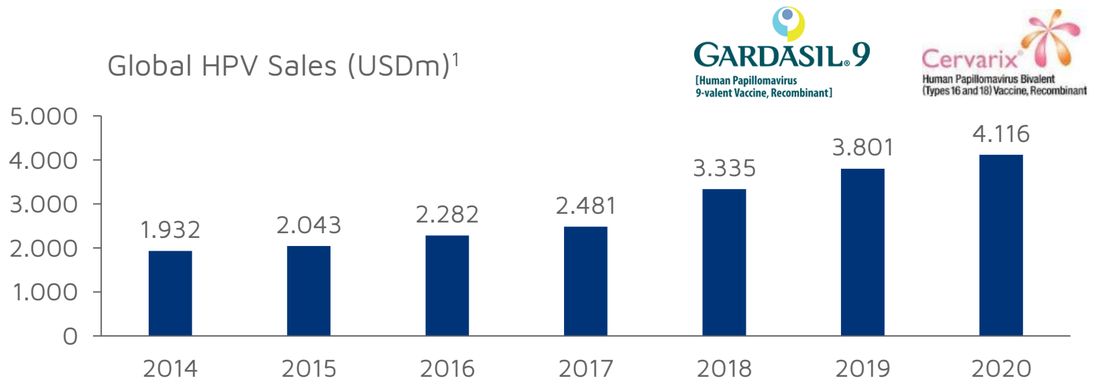
AdaptVac's cVLP platform, high immunogenic potential

- ✓ **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)

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

- ✓ **20+ years of experience**
- ✓ **Over 90% success rate, over 500 proteins expressed**
- ✓ **Go-to source for challenging proteins**

VLPs have track record of success of commercial success in cancer



[1] GlobalData, 2022

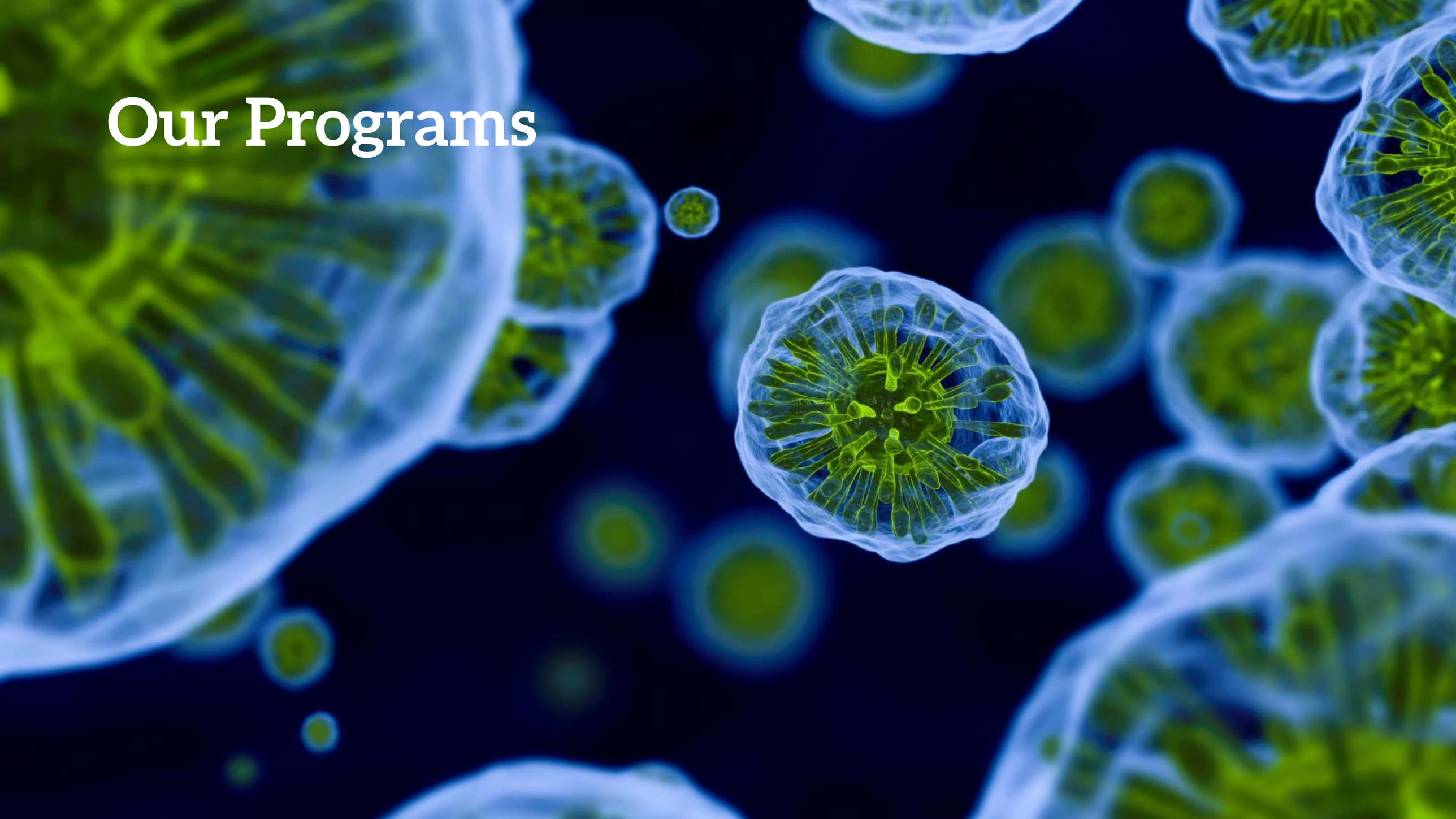
Deep Pipeline for Value Creation

Development Progress

DISEASE	Project/Target	Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase I	Phase II	Phase III	Partner/Funding
Coronavirus 	ABNCoV2/SARS-CoV-2 cVLP						Phase III initiation: H1 2022	adaptVAC, BAVARIAN NORDIC, European Commission PREVENT-nCoV
Breast Cancer 	ES2B-C001/HER2 cVLP				Phase I initiation: 2024			**100%** ExpreS²ion
Influenza 	Hemagglutinin			Toxicology initiation: 2023				European Commission INDIGO
Malaria: 								
1: Blood-Stage	RH5				Phase Ib readout: H2 2023			European Commission MultiViVax, THE JENNER INSTITUTE, UNIVERSITY OF OXFORD
2: Blood-Stage	RH5-VLP				Phase I initiation: 2023			wellcome trust, THE JENNER INSTITUTE, UNIVERSITY OF OXFORD
3: Transmission	Pfs 48/45				Phase I initiation: 2022			European Commission OptimalVax, THE JENNER INSTITUTE, UNIVERSITY OF OXFORD
4: Placenta-Borne	VAR2CSA					Phase II initiation: 2023		UNIVERSITY OF COPENHAGEN, EBERHARD KARLS UNIVERSITÄT TÜBINGEN
5: Blood-Stage	CYRPA complex							Walter+Eliza Hall Institute of Medical Research, DISCOVERIES FOR HUMANITY

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

Our Programs

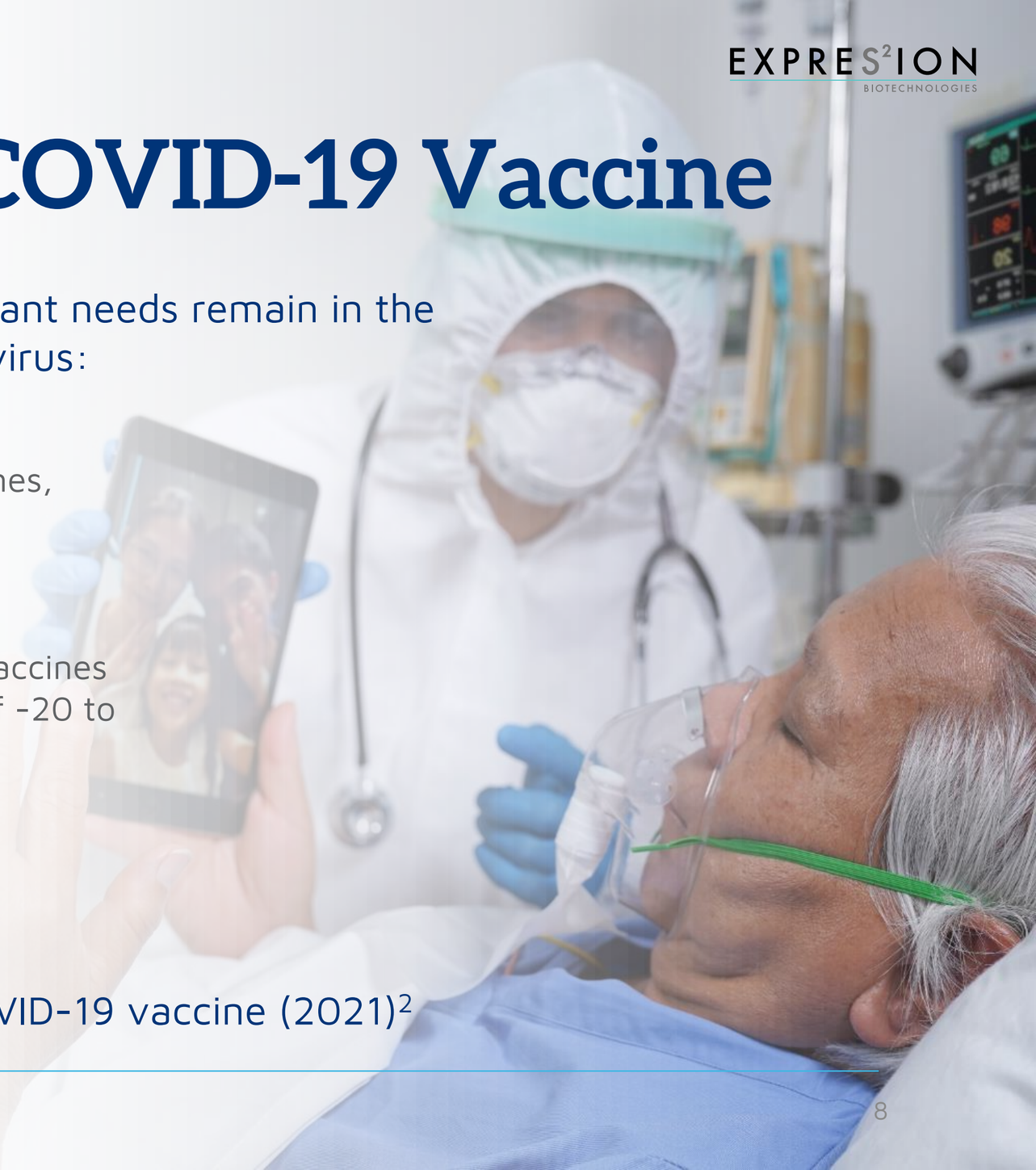


EXPRES²ION BIOTECHNOLOGIES

The 2nd Generation COVID-19 Vaccine

With **over 6 million deaths worldwide**[1], 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 (requires storage of -20 to -80 degrees Celsius)
- Potential mutated variants may require rapid development of new vaccines



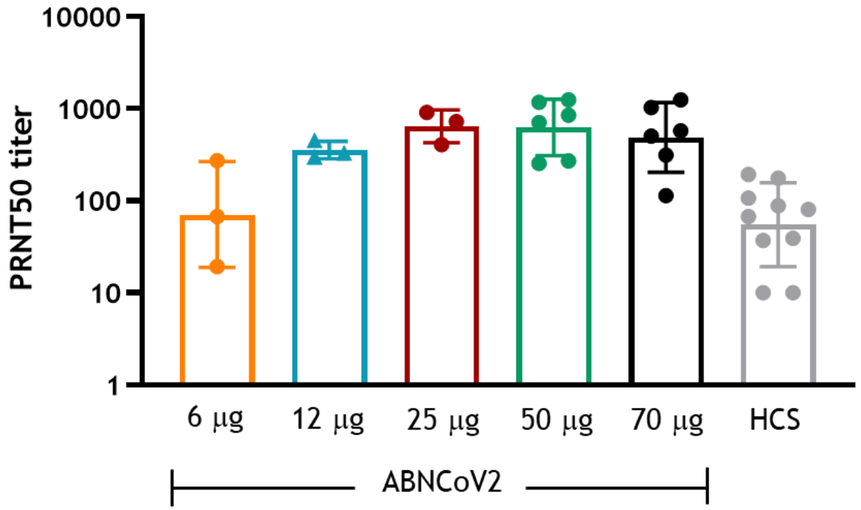
Global market size of **USD 137 billion** for the COVID-19 vaccine (2021)[2]

[1] WHO Coronavirus (Covid-19) Dashboard
[2] Meticulous Market Research, 2021

ABNCoV2 COVID-19 Vaccine (I)

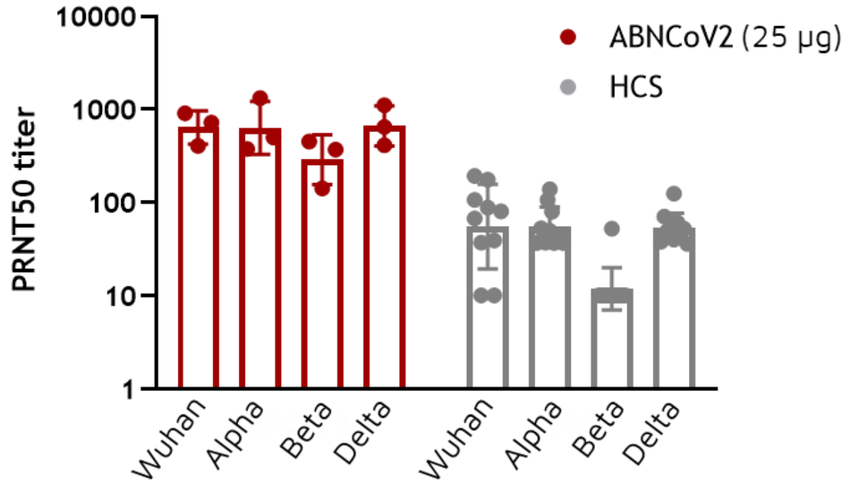
Phase I/IIa study confirms safety and tolerability and excellent efficacy profile

ABNCoV2 induces high neutralization antibody titers



- Dose response: increased titers with higher vaccine doses up to 25 mg, reaching a plateau at higher doses
- **Up to 12 times higher compared to the levels achieved after COVID-19 infection - significantly higher than the virus neutralization levels reported for leading mRNA COVID-19 vaccines**

High virus neutralization levels were shown across COVID-19 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™)

CORONAVIRUS

ABNCoV2 COVID-19 Vaccine (II)

Phase II study show high levels of neutralizing antibodies across all study groups

Highly efficacious against SARS-CoV-2

- In both primary and booster vaccination, ABNCoV2 increased levels of SARS-CoV-2 neutralizing antibodies against the Wuhan variant to levels reported to be highly efficacious (>90%) against SARS-CoV-21
- Booster vaccination with ABNCoV2 increased the existing levels of SARS-CoV-2 neutralizing antibodies against the Wuhan variant by 2-40-fold depending on the initial levels of antibodies. A similar fold increase was observed for all SARS-CoV-2 variants of concern tested (Wuhan, Alpha, Beta and Delta) following the booster vaccination with ABNCoV2

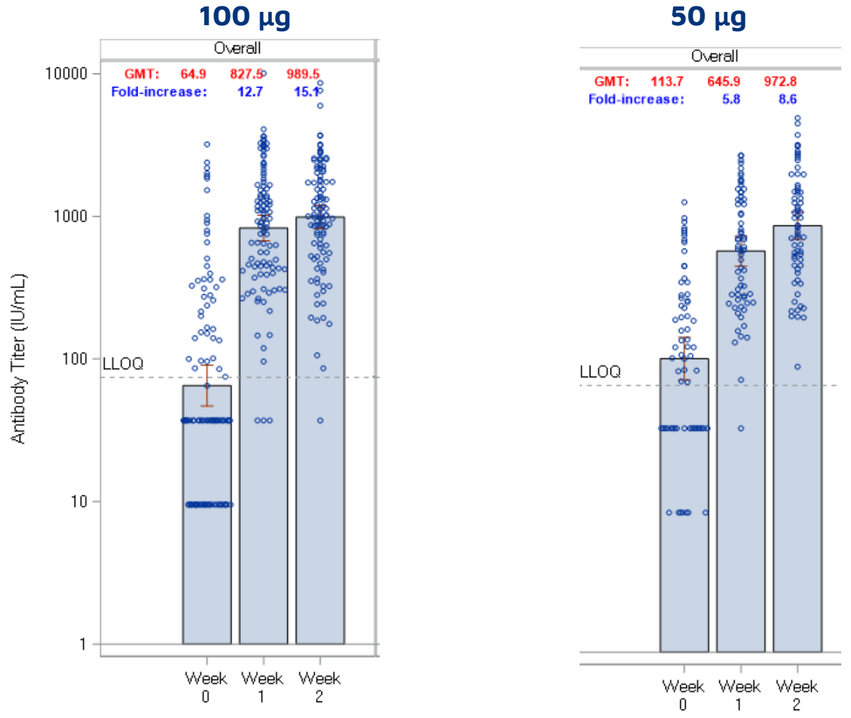
Favorable safety profile

- Vaccine was generally well-tolerated, with no related serious adverse events reported
- No relevant difference in the safety profile between subjects receiving either the low (50 µg) or high dose (100 µg) of ABNCoV2

Phase II

Seropositive *Previously infected or fully vaccinated*	**N = 103**	**100 µg**	*Single-shot booster vaccination*
	N = 66	**50 µg**	*Single-shot booster vaccination*
Seronegative *No existing immunity*	**N = 28**	**100 µg**	*Prime-boost vaccination (days 0, 28)*

Strong booster response for both 50µg and 100µg doses



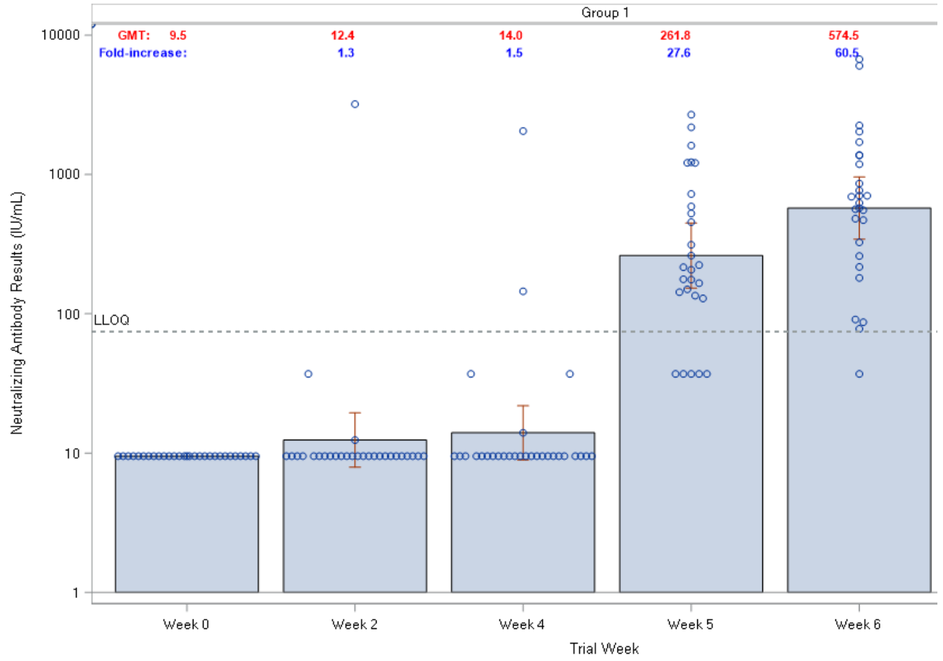
- **Booster vaccination with ABNCoV2 found no difference in responses in variants of concern** (Wuhan, Alpha, Beta & Delta)
- **Sub-analysis indicated higher effect of the 100 µg dose** (phase III will be conducted using the 100µg dose to maximize the likelihood of success)

CORONAVIRUS

ABNCoV2 COVID-19 Vaccine (III)

Bavarian Nordic plan phase III study initiation H1 2022, granted DKK 800m funding

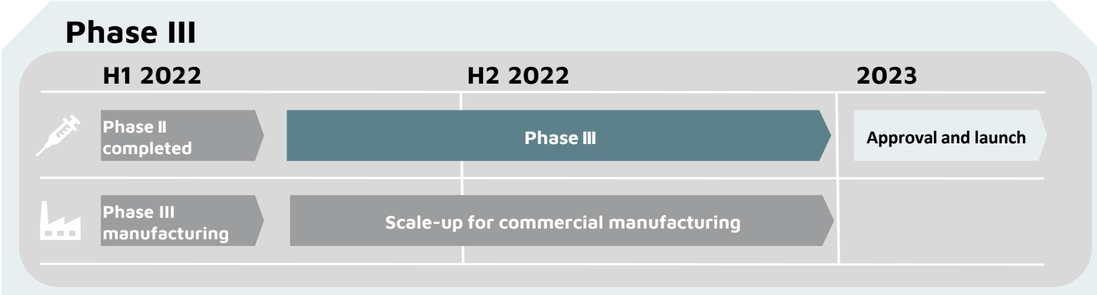
Seronegative antibody titers confirms phase I results



- Confirming excellent data seen in phase I results in a larger study
- **Titers in the range of >90% efficacy**

Initiation of phase III in H1 2022

- An overall agreement has been made with regulatory authorities on the trial design
- Approx. 4,000 seropositive subjects who will receive a booster vaccination with 100µg ABNCoV2 or an mRNA-based vaccine, aiming to demonstrate non-inferiority of ABNCoV2 to the licensed mRNA vaccine
- Manufacturing of vaccine bulk for the trial has been completed, filling now ongoing at BN's own manufacturing line
- Trial planned for initiation in H1 2022 and with anticipated completion before year-end



Partnership with Bavarian Nordic

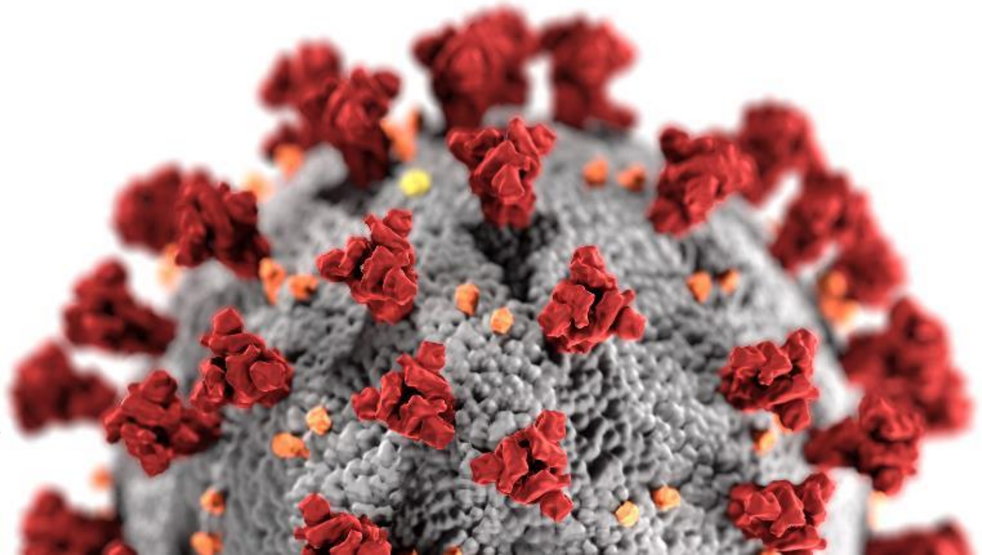
ABNCoV2 is already out-licensed with near-term revenue streams supporting ExpreS²ion

AdaptVac receive from Bavarian Nordic

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

ExpreS²ion receive from AdaptVac

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



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Breast Cancer Overview

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

Monoclonal antibodies are the cornerstone of treatment for HER2+ breast cancer (>USD 11bn sales)[1]

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

Herceptin® trastuzumab

PERJETA® pertuzumab

Serious drawbacks exist with these therapies[2]

- **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 USD 30-50k

ExpreS²ion's vaccine-like approach offers potential to overcome drawbacks through *internal antibody production*

[1] GlobalData, 2022
[2] Pallerla et al. 2021. Cancer Vaccines, Treatment of the Future: With Emphasis onHER2-Positive Breast Cancer, International Journal of Molecular Sciences.; Krasniqi et al. 2019. Immunotherapy in HER2-positive breastcancer: state of the art and futureperspectives, Journal of Hematology & Oncology.

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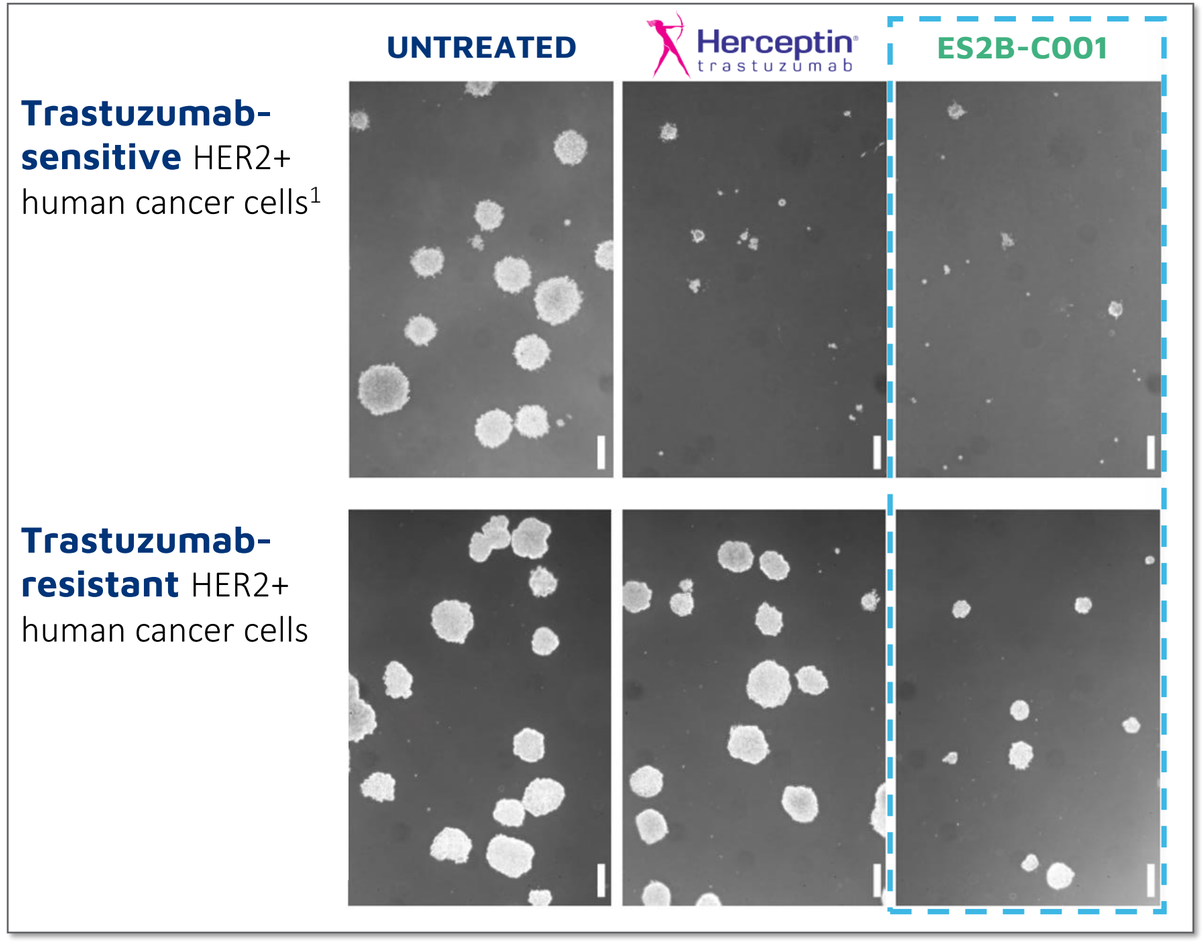
ES2B-C001 Overcomes Herceptin Resistance

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



Both Herceptin (trastuzumab) and ES2B-C001 inhibited growth in the trastuzumab-sensitive cells

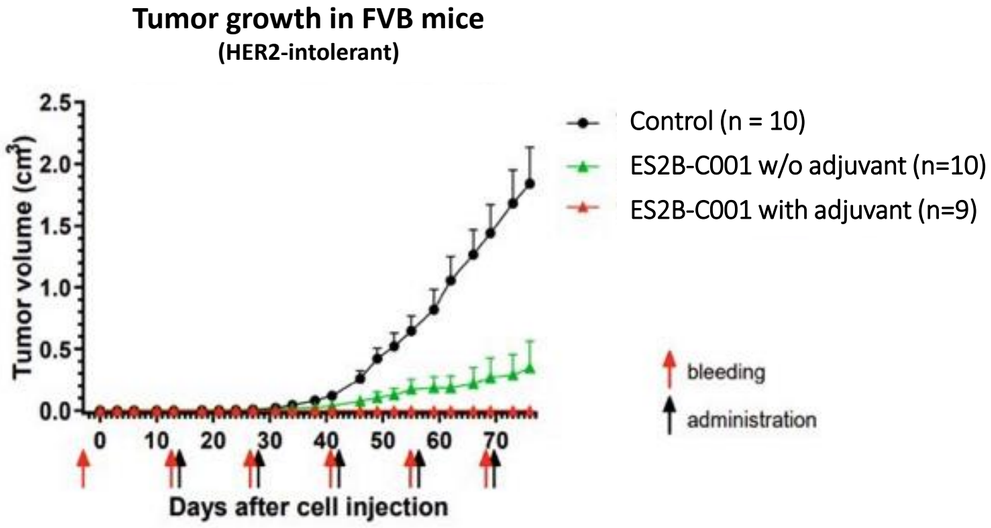
Only ES2B-C001 inhibited growth in the trastuzumab-resistant cells; cells were unresponsive to Herceptin

Note that this data was generated for AdaptVac's predecessor vaccine candidate (HER2-VLP very similar to ES2B-C001)
Source: Palladini, A. et al. (2018), "Virus-like particle display of HER2 induces potent anti-cancer responses", OncoImmunology, pub. Vol 7, no 3

ES2B-C001 Preclinical Proof-of-Concept

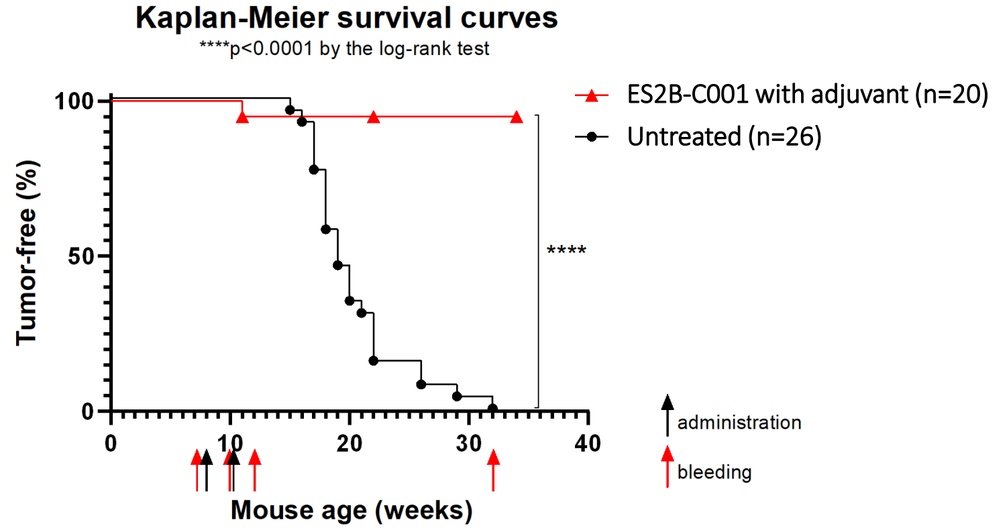
ES2B-C001 has demonstrated animal proof-of-concept

Effectively inhibited tumor development



- Two weeks after the inoculation of tumor cells, the first vaccine administration was given. Repeated every 2nd week during the study
- **ES2B-C001 formulated in an adjuvant totally blocks tumor development. ES2B-C001 without adjuvant partly blocks tumor development** and if tumors develop, growth is significantly inhibited

Prevented tumor development with 95% efficiency



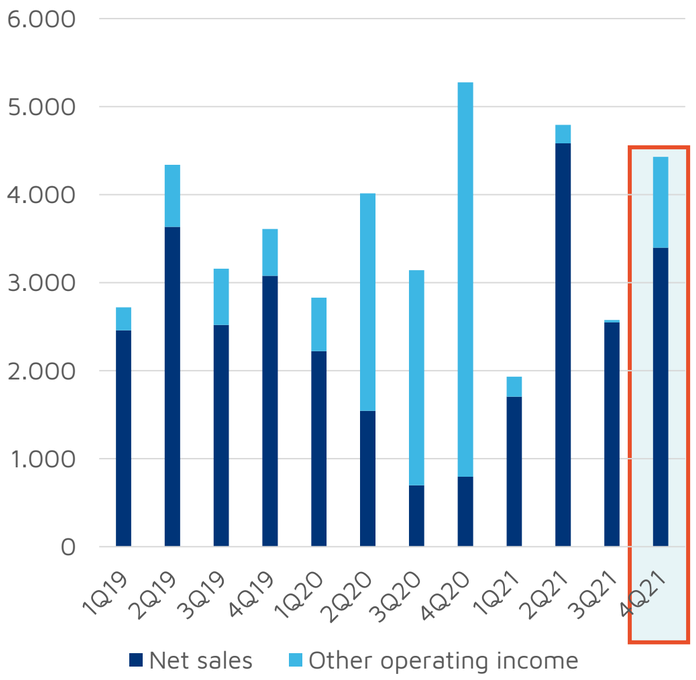
- At mouse age 6-8 weeks, 2 vaccinations with 2 weeks interval were administered to Delta16 mice
- **Two vaccinations prevented tumor development with 95% efficiency** as compared to a control group, where all mice spontaneously developed tumors

Note: FVB mice are mice being challenged with tumors, while Delta16 mice spontaneously develop tumors and have been inoculated with tumor cells to accelerate tumor development

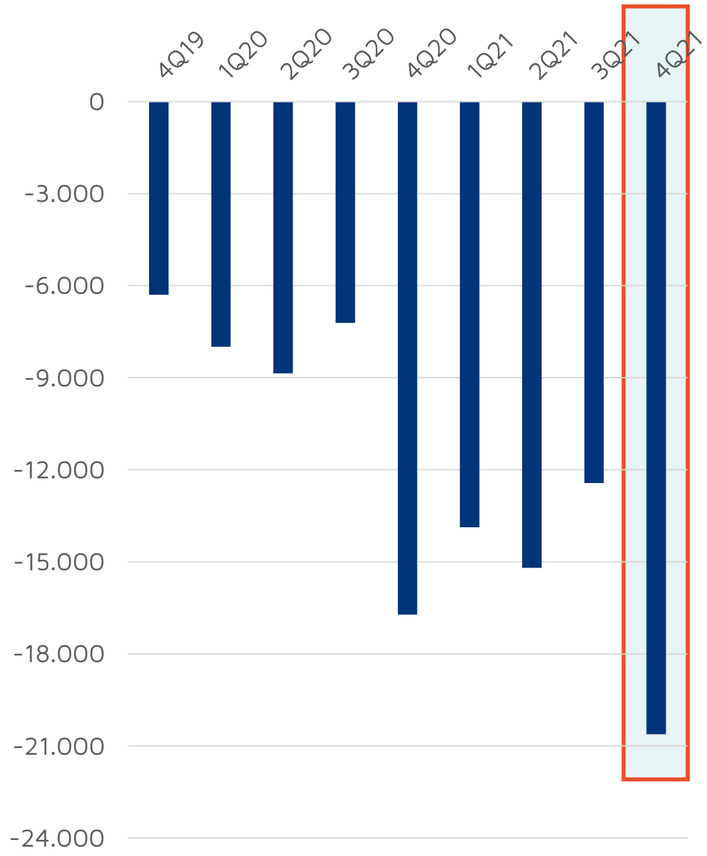
Financials and Outlook

Financials – Fitting the New Strategy

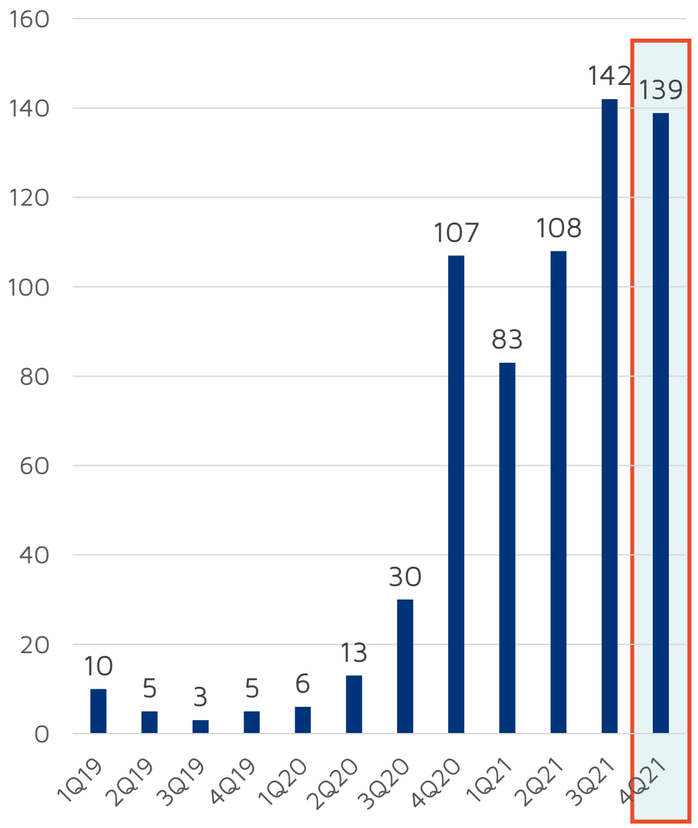
Revenues, SEK `000s



Operating costs, SEK `000s



Cash balance[1], SEK million



[1] At the end of 2021, the Company had SEK 101.8 million in its SKAT account (interest-free tax asset with Denmark's tax authorities), shown in other short-term investments. When combined with cash and bank, the company had SEK 138.9 million available to fund operations. See page 14 of 2021 year-end report for more information..

Advancing Towards Key Catalysts

	2022	2023	2024
 **CORONAVIRUS (ABNCoV2)**	✓BN Phase II study initiation (Q3'21) ✓BN Phase II study readout H1 2022 **BN Phase III study initiation H1 2022** **BN Phase III initial readout H2 2022**	**BN ready for market launch** (subject to regulatory approval)	
 **BREAST CANCER (ES2B-C001)**	✓Executed in-licensing (Feb 2021) ✓Preclinical animal studies initiated (Q2) **Preclinical animal proof-of-concept results H1 2022** GMP manufacturing batch	Preclinical safety studies readout Filing of clinical study application H2 2023	**Initiation of first human clinical study 2024** **Outlicensing window opens pending human data**
 **INFLUENZA**	✓Advance/support further development of one or more candidates in 2022	**cGMP/Preclinical safety studies initiation 2023**	
 **MALARIA**	✓Phase IIa results from the Rh5 vaccine published in 2021 ✓RH5 Additional phase I study in a malaria endemic region in Africa launched during 2021, with alternative adjuvant **Pfs 48/45 phase I study initiation 2022**	**RH5-VLP phase I initiation 2023** **RH5 phase I study readout H2 2023**	

Note: Timeline for ABNCoV2 is based on Bavarian Nordic's communicated timeline, and is subject to potential revision

Thank you!

Contact:
info@expreS2ionbio.com

Proteins
for Life

EXPRES²ION
BIOTECHNOLOGIES

ExpreS²ion's Business Model

High-potential pipeline and revenue generating CRO business

ExpreS² Platform for Protein Expression

+500 different proteins have been produced with the ExpreS² platform, while posting a success rate exceeding 90% across +100 clients and partners.

Novel Pipeline Development

Independent

- Fully-owned development of novel protein therapeutics and vaccines
- After human PoC, targeting partner externally for further development

Collaboration

- Partner with leading research organizations to source and develop novel programs
- Potential to fully acquire programs for independent development

Significant upside potential: intermediate/long-term

Contract Research Organization (CRO)

Services

- Early-stage R&D for leading academic, research, and biotech organizations
- Protein feasibility, delivery, and transfer to GMP production

Licensing & Kit Sales

- Fully out-license rights to ExpreS² technology
- Sell test kits and reagents for research or diagnostic applications

Revenue-generating business: current and long-term payments

Experienced Board and Management

Management Team

Experienced team driving pipeline-focused business

Bent U. Frandsen, CEO

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

Keith Alexander, CFO

- MBA, The Wharton School and the University of Pennsylvania, USA
- >20 years of equity research, corporate strategy, asset management and consulting experience

Max Soegaard, VP of R&D and Technology

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

Dr. Mette Thorn, VP Preclinical Development

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

Dr. Mattis F. Ranthe, Chief Medical Officer

- Medical Diploma (MD, 2006) and PhD (2013), University of Copenhagen. Affiliated with King´s College, London, Drug Development Science
- Broad clinical and research experience, 7 years in Pharma

Board of Directors

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

Dr. Martin Roland Jensen, Chairman

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

Dr. Karin Garre, Board Member

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

Dr. Allan Rosetzsky, Board Member

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

Sara Sande, Board Member

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

Jakob Knudsen, Board Member

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

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