

9<sup>th</sup> June 2022

H C Andersen Capital Webinar

# Proteins for Life

**Q1 2022 Financial Report**

Bent U. Frandsen, CEO

**EXPRESSION**  
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



ExpreS<sup>2</sup>ion is advancing towards key catalysts during 2022, further de-risking the company's pipeline. COVID-19 phase III initiation in H1 2022

# Deep Pipeline for Value Creation

DISEASE	Project/Target	Development Progress					Partner/Funding
		Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase I	Phase II	
<b>Coronavirus</b> 	ABNCoV2/SARS-CoV-2 cVLP						  
<b>Breast Cancer</b> 	ES2B-C001/HER2 cVLP						<p>100% ExpreS<sup>2</sup>ion</p>
<b>Influenza</b> 	Hemagglutinin						
<b>Malaria:</b> 							
<b>1: Blood-Stage</b>	RH5						 
<b>2: Blood-Stage</b>	RH5-VLP						 
<b>3: Transmission</b>	Pfs 48/45						 
<b>4: Placenta-Borne</b>	VAR2CSA						 
<b>5: Blood-Stage</b>	CYRPA complex						 <p>DISCOVERIES FOR HUMANITY</p>



# ABNCoV2 COVID-19 Vaccine

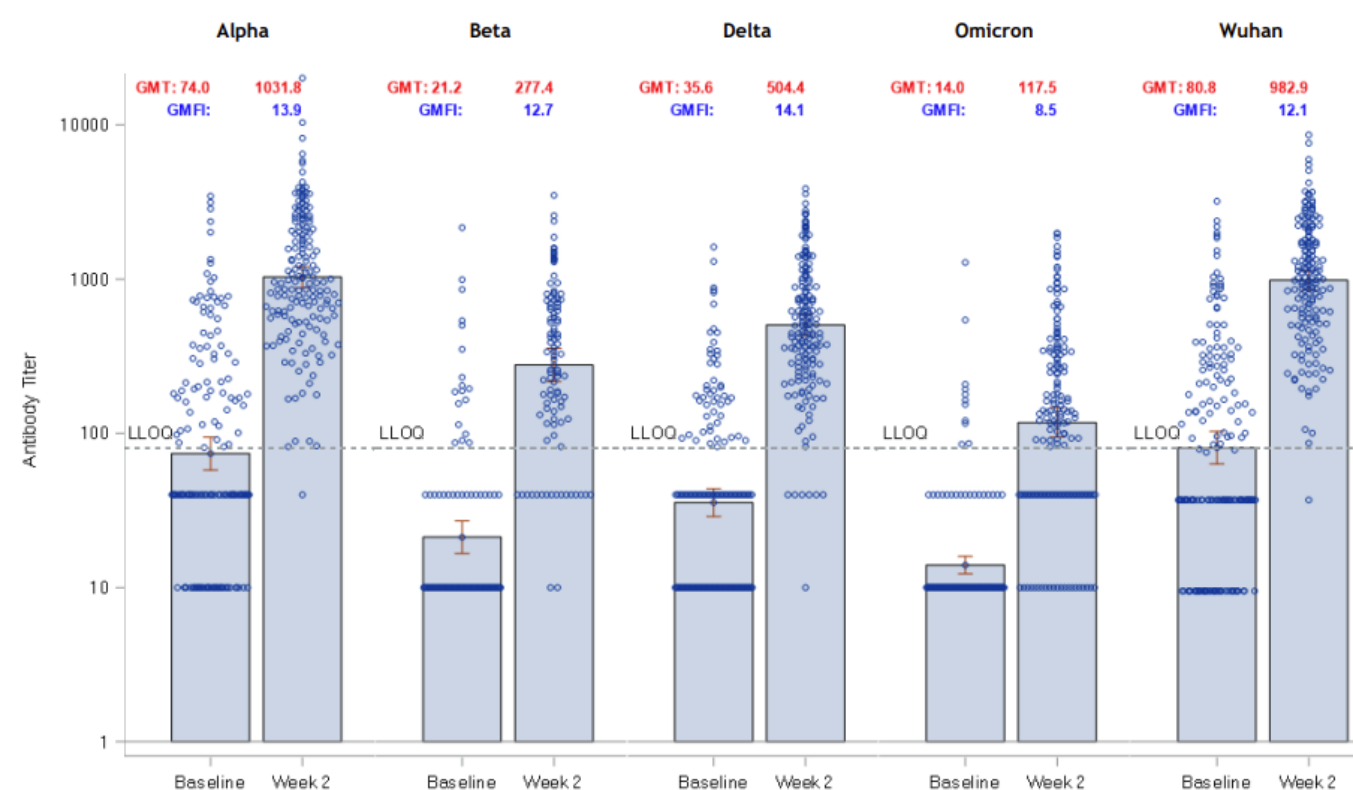
Bavarian Nordic completes the Phase II study, and on path for Phase III study initiation

## Phase II results confirms ABNCoV2 as universal booster

- Evaluation of ABNCoV2 as a booster vaccine in individuals with existing immunity. The study also assessed neutralizing immune responses against circulating variants of SARS-CoV2
- **Strong boosting effect across all variants of concern**
- **Level of neutralizing antibodies at levels reported to be associated with high level of protection (>90%)<sup>1</sup>**
- **Level of neutralizing antibodies lowest for beta and omicron**

## Phase III study planned to start in 2<sup>nd</sup> quarter of 2022

- 4,000 previously vaccinated subjects who will receive a booster vaccination with 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 Q2 2022 and with anticipated completion before year-end**

**Bavarian Nordic expects approval and launch in 2023**

1) P. B. Gilbert et al., Science 10.1126/science.abm3425 (2021)



# Partnership with Bavarian Nordic

ABNCoV2 is already out-licensed with near-term revenue streams supporting ExpreS<sup>2</sup>ion

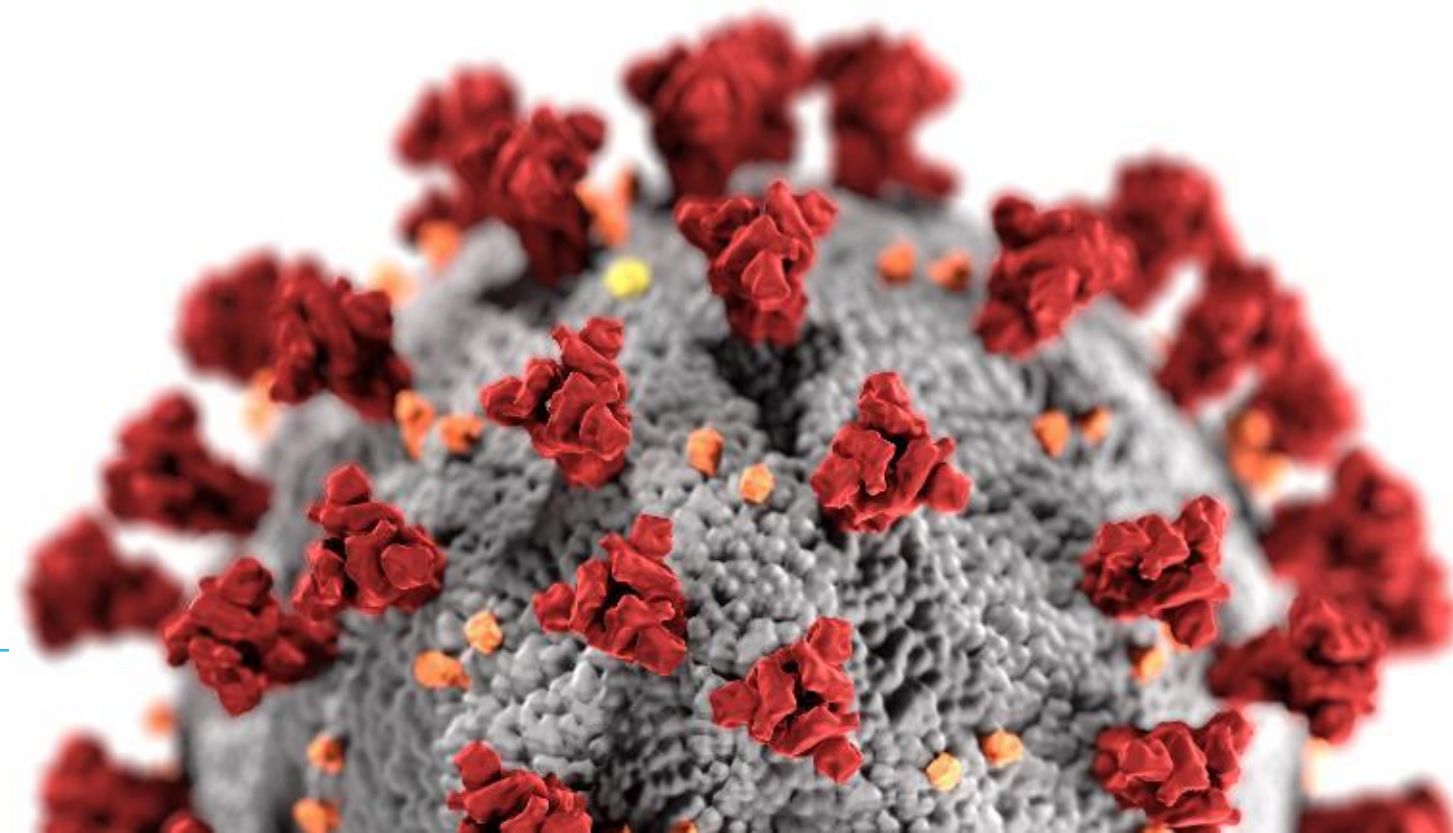
## AdaptVac receive from Bavarian Nordic

- 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

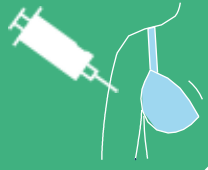


## ExpreS<sup>2</sup>ion receive from AdaptVac

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

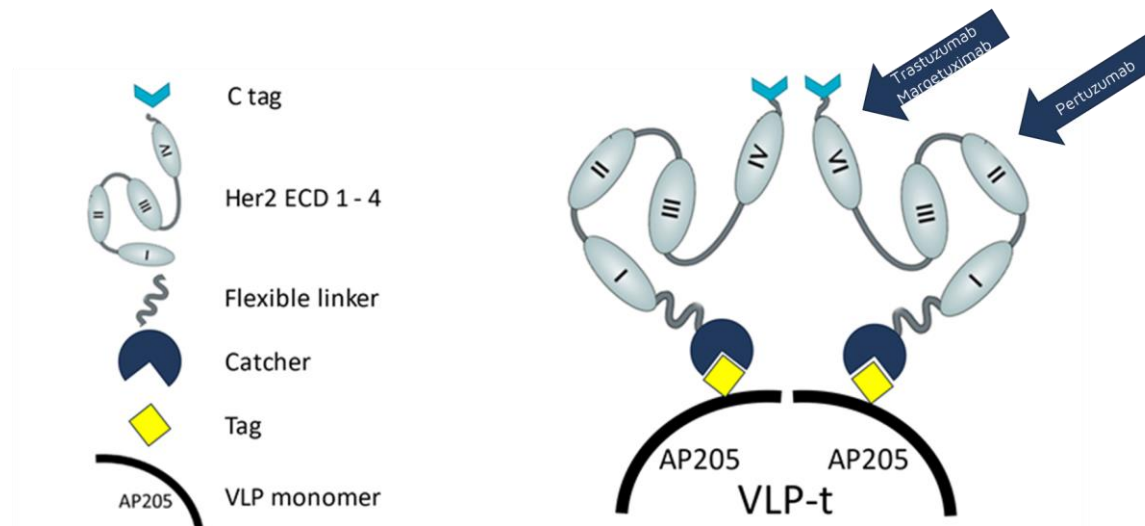






# Breast Cancer Overview

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)<sup>1</sup>

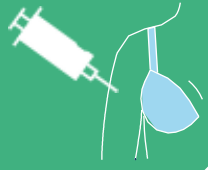
- Target the HER2 receptor on tumor cells to reduce proliferation and induce tumor cell destruction



## Serious drawbacks exist with these therapies<sup>2</sup>

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

**Expres<sup>2</sup>ion's HER2-cVLP vaccine approach offers potential to overcome drawbacks through *internal antibody production***



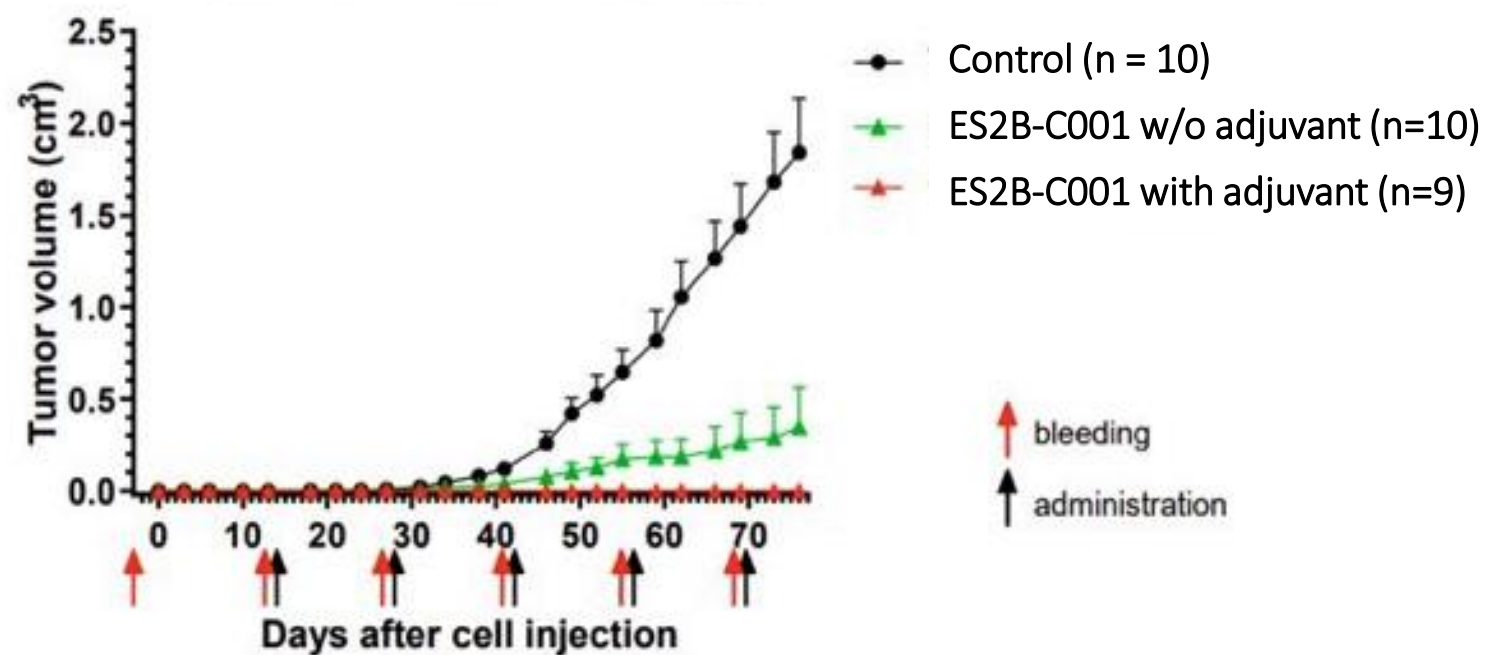
# ES2B-C001 Preclinical Proof-of-Concept (I)

ES2B-C001 has demonstrated proof-of-concept

Effectively inhibited tumor development in FVB mice

Prevented tumor development in delta16 HER2 tg mice

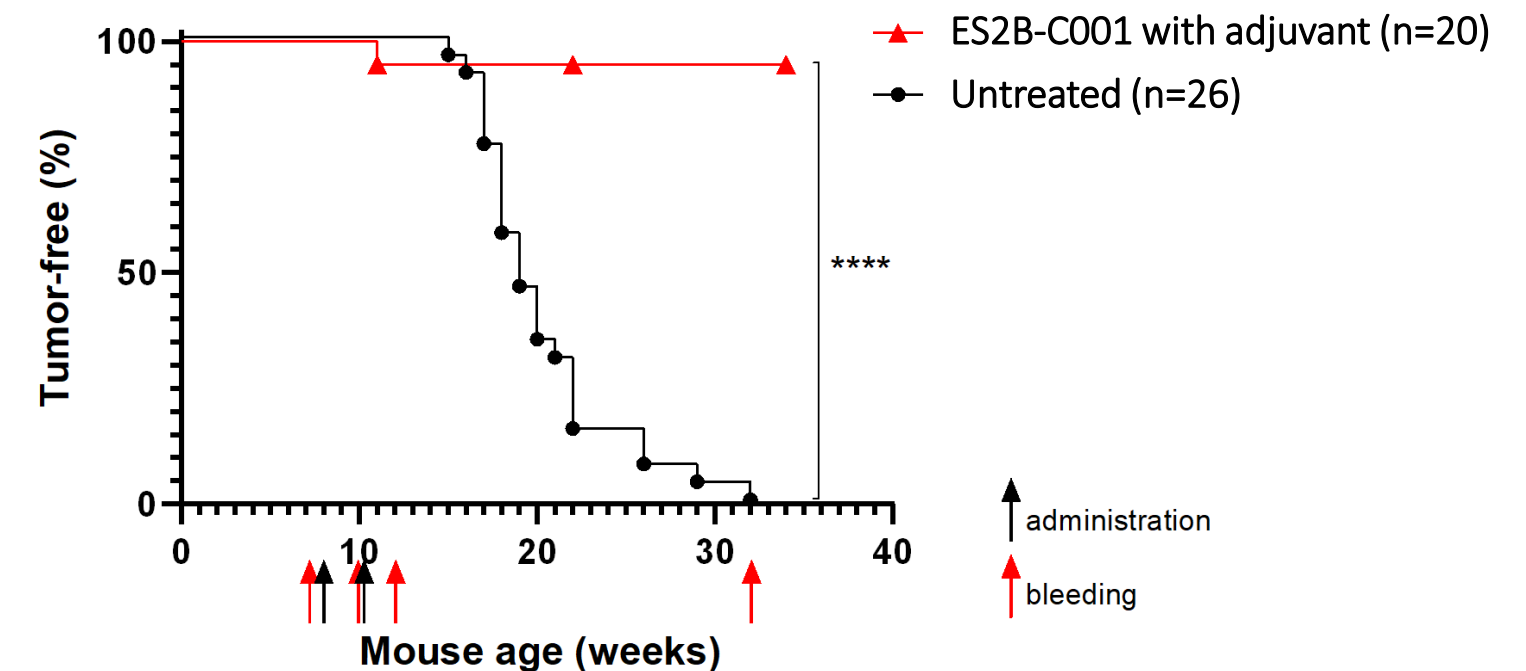
Tumor growth in FVB mice  
(HER2-intolerant)



- Two weeks after the intramammary fat pad (i.m.f.p.) inoculation of HER2+ 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 blocks tumor development in 7/10 FVB mice**

Kaplan-Meier survival curves

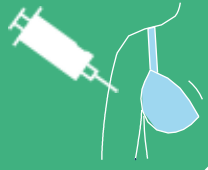
\*\*\*\*p<0.0001 by the log-rank test



- At mouse aged 6-8 weeks, 2 vaccinations with 2 weeks interval were administered to Delta16 HER2 transgenic mice (HER2-tolerant)
- **Two vaccinations prevented tumor development with 95% efficiency** as compared to a control group, where all mice spontaneously developed tumors within 32 weeks

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





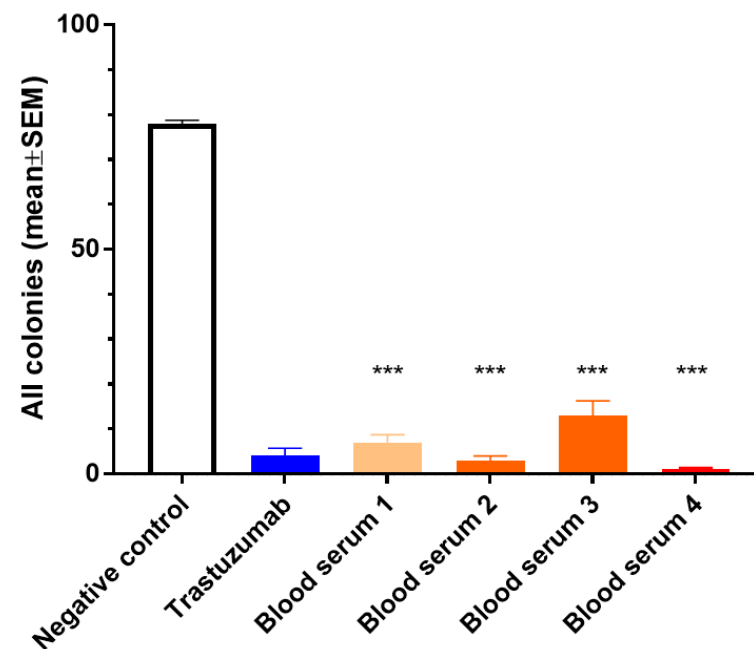
# ES2B-C001 Preclinical Proof-of-Concept (II)

ES2B-C001 has demonstrated proof-of-concept

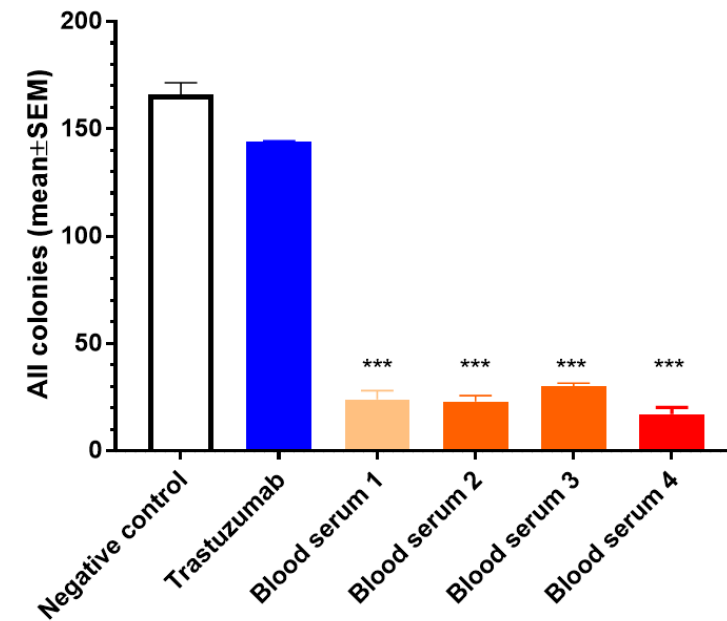
Overcomes trastuzumab-resistance of tumors *in vitro*

Inhibited tumor development in delta16 HER2 tg mice

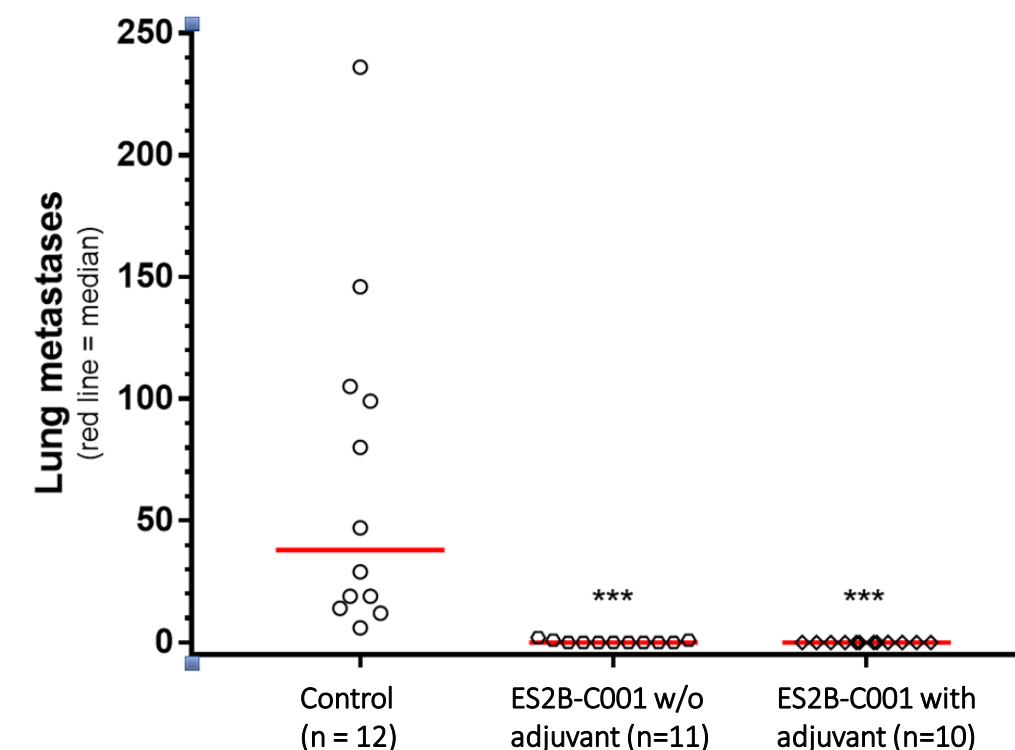
Trastuzumab-sensitive cells



Trastuzumab-resistant cells



Lung metastasis development in Delta 16 mice







- In vitro* PoC data in a growth inhibition assay: Blood serum from ES2B-C001-vaccinated mice **significantly inhibited the growth of HER2+ trastuzumab-sensitive as well as trastuzumab-resistant human tumor breast cancer cells**

- One week after the intravenous (i.v.) injection of HER2+ tumor cells, the first vaccine administration was given. Repeated every 2<sup>nd</sup> week during the study
- All mice vaccinated with E2SB-C001 with adjuvant were tumor-free**
- 73% of mice (8/11) vaccinated with ES2B-C001 without adjuvant were tumor-free, the remaining had 1-2 tumor lung nodules

\*\*\* statistical significance (*in vitro* assay:  $p < 0.001$  vs negative control, Tukey's test; metastatic outgrowth *in vivo* model:  $p < 0.0001$  vs control, Dunn's non parametric, multiple comparisons test)

# Advancing Towards Key Catalysts

	2022	2023	2024
 <p><b>CORONAVIRUS (ABNCoV2)</b></p> <ul style="list-style-type: none"> <li>✓ BN Phase II study initiation (Q3'21)</li> <li>✓ BN Phase II study readout H1 2022</li> <li><b>BN Phase III study initiation H1 2022</b></li> <li><b>BN Phase III initial readout H2 2022</b></li> <li><b>BN ready for market launch</b> (subject to regulatory approval)</li> </ul>			
 <p><b>BREAST CANCER (ES2B-C001)</b></p> <ul style="list-style-type: none"> <li>✓ Executed in-licensing (Feb 2021)</li> <li>✓ Preclinical animal studies initiated (Q2)</li> <li>✓ Preclinical animal proof-of-concept results H1 2022</li> <li>GMP manufacturing processing</li> <li>Preclinical safety studies readout</li> <li>Filing of clinical study application H2 2023</li> <li><b>Initiation of first human clinical study 2024</b></li> <li><b>Outlicensing window opens pending human data</b></li> </ul>			
 <p><b>INFLUENZA</b></p> <ul style="list-style-type: none"> <li>✓ Advance/support further development of one or more candidates in 2022</li> <li><b>cGMP/Preclinical safety studies initiation 2023</b></li> </ul>			
 <p><b>MALARIA</b></p> <ul style="list-style-type: none"> <li>✓ Phase IIa results from the Rh5 vaccine published in 2021</li> <li>✓ RH5 Additional phase I study in a malaria endemic region in Africa launched during 2021, with alternative adjuvant</li> <li><b>Pfs 48/45 phase I study initiation 2022</b></li> <li><b>RH5-VLP phase I initiation 2023</b></li> <li><b>RH5 phase I study readout H2 2023</b></li> </ul>			

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

# Management Team

>200 years of professional skills and experience from the *life sciences* industry



## Management



- **Bent U. Frandsen**, Chief Executive Officer
- **Keith Alexander**, Chief Financial Officer
- **Dr. Max Soegaard**, VP R&D and Technology
- **Dr. Mette Thorn**, VP Preclinical Development
- **Dr. Mattis F. Ranthe**, Chief Medical Officer

## Board of Directors



- **Dr. Martin R. Jensen**, Chairman & Co-founder
- **Dr. Allan Rosetzsky**, Member of the Board
- **Jakob Knudsen**, Member of the Board
- **Dr. Karin Garre**, Member of the Board
- **Sara Sande**, Member of the Board

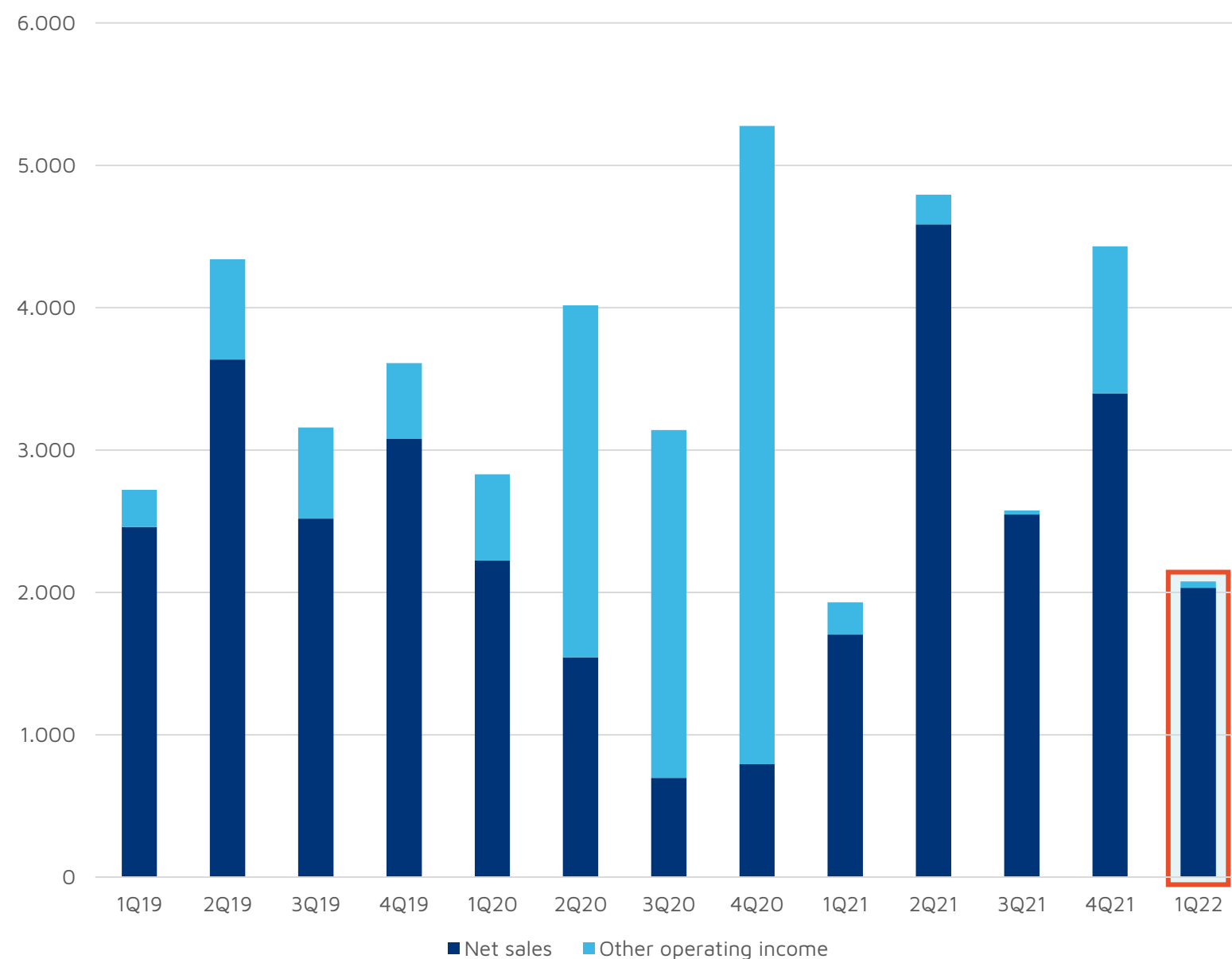


# Q1 2022 Financial Results

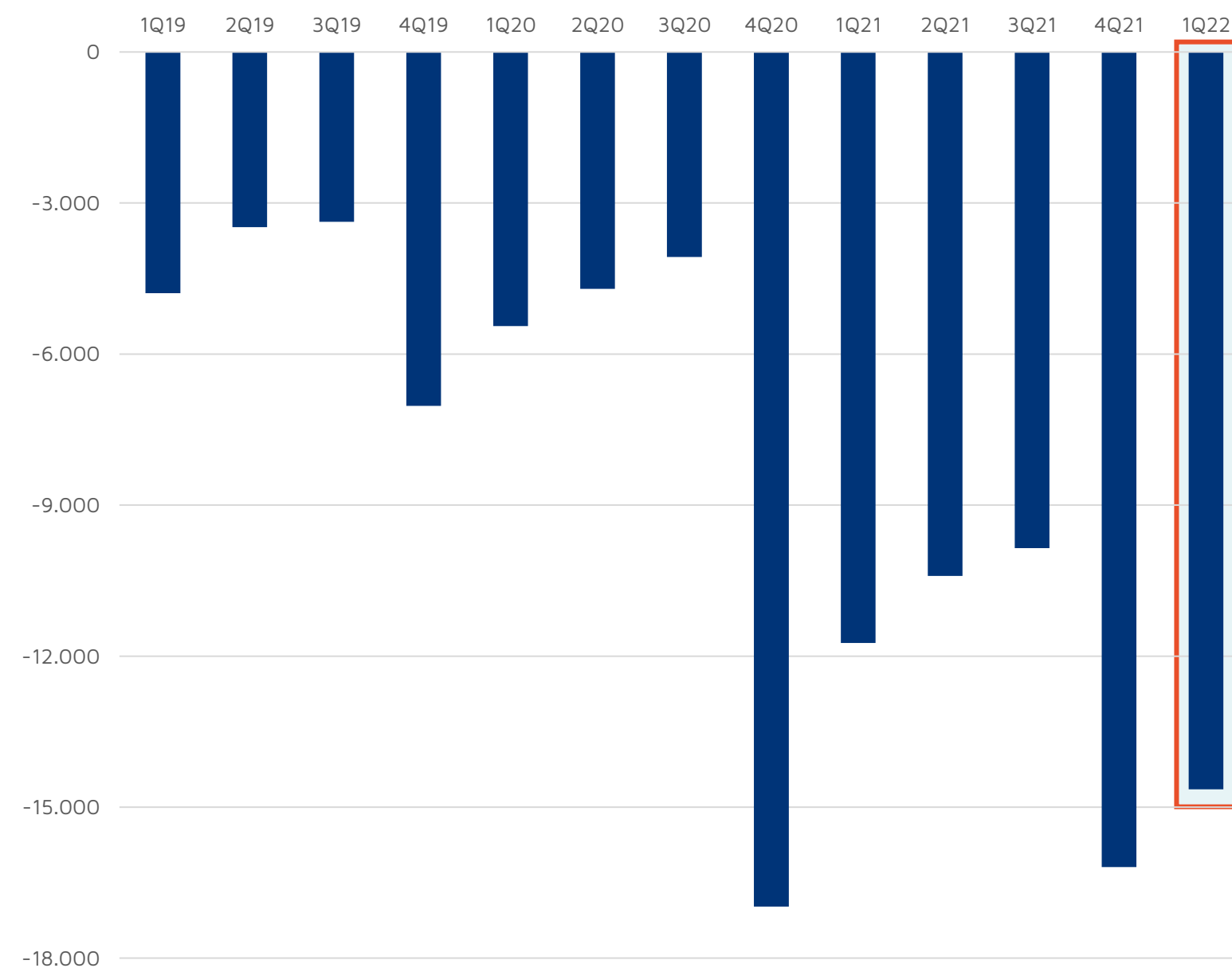
The background features a dark, almost black, field populated with numerous glowing spheres. These spheres vary in size and are rendered in shades of vibrant blue and purple. Some spheres are in sharp focus, showing a bright, circular highlight on their surface, while others are blurred, creating a sense of depth and movement. The overall effect is a dynamic, futuristic, and high-tech aesthetic.

# Income Statement, 2019-2022 Quarterly

Revenues, SEK '000s

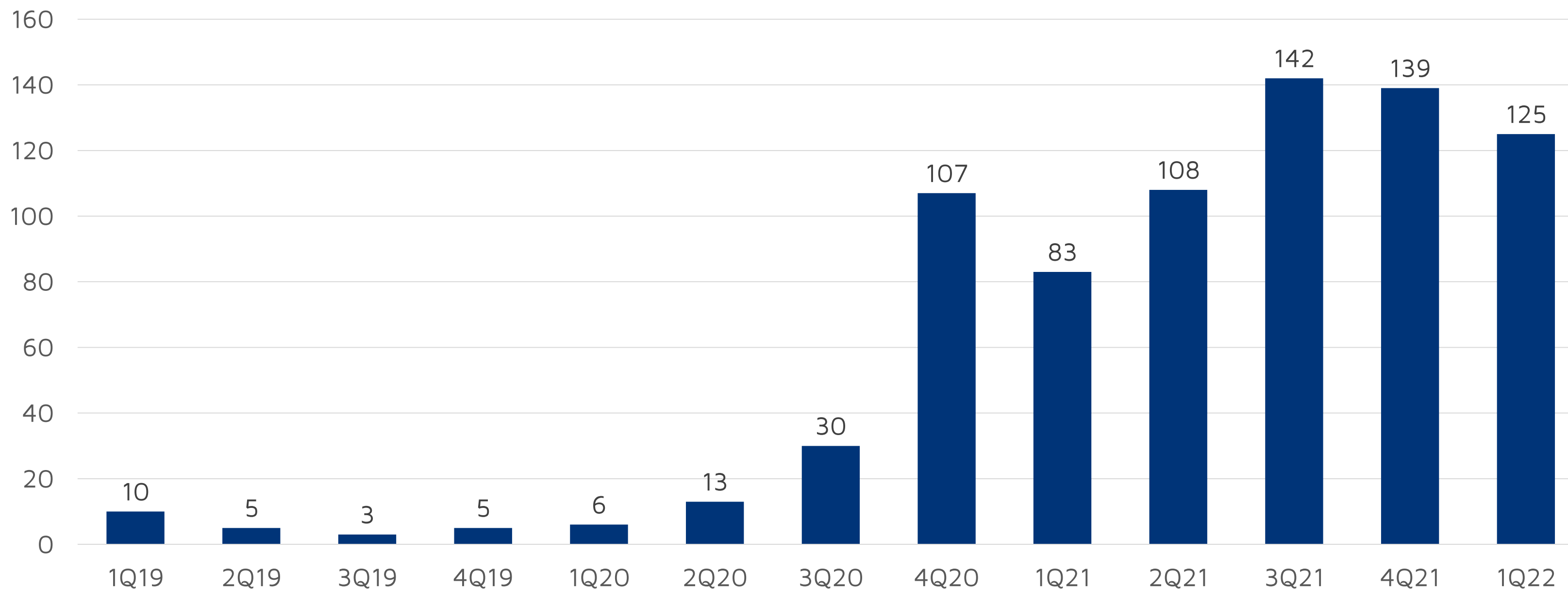


Operating profit/loss, SEK '000s



# Cash Balance<sup>1</sup>, 2019-2022 Quarterly

SEK millions





# Rights Issue Completed Successfully

- Fully guaranteed new share issue of a maximum of 5,841,256 shares with preferential rights for the Company's existing shareholders completed on 5<sup>th</sup> May 2022
- The subscription price in the Rights Issue was set at SEK 12.50
- A total of 4,966,355 new shares have been subscribed for, corresponding to **approximately 85 percent**
- The remaining 874,901 new shares, approximately 15.0 percent, have been subscribed for through guarantee undertakings
- **Proceeds of approximately SEK 73 million before deduction of transaction costs**
- The net proceeds derisk our pipeline efforts and will be used as to
  - advance the breast cancer vaccine candidate ES2B-C001 to completion of the preclinical safety studies
  - advance other pipeline development projects, including within Influenza and Malaria
  - support the strategic CRO business and invest in core technologies and IP to strengthen competitive edge



A person is shown from the side, drawing a virus on a piece of paper. The virus is depicted with a spherical body and a spiky outer layer. The person is using a blue marker. The background is a wooden desk. The text "Thank you!" is overlaid on the drawing.

Thank you!

Contact:  
[info@expressionbio.com](mailto:info@expressionbio.com)

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