



Proteins
for Life

**Aktiespararna's
Aktiedagen**

Stockholm, Sweden

16 March, 2021

Bent U. Frandsen, CEO

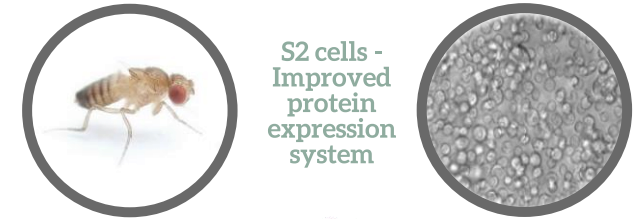
EXPRES²ION
BIOTECHNOLOGIES

Forward-looking statements and disclaimer

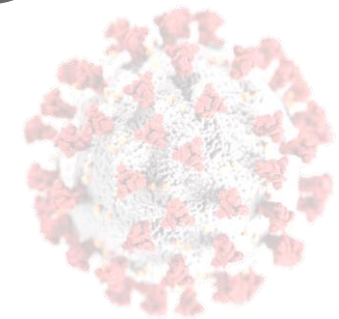
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Equity Story

- A Scandinavian clinical-stage biotechnology company
 - **Founded in 2010** as ExpreS²ion Biotechnologies ApS in Denmark
 - Listed in 2016 on **Nasdaq First North Growth Market** Stockholm as ExpreS²ion Biotech Holding AB (Market Value growth €5M → >€100M)
 - Creation in 2017 of AdaptVac ApS, a joint venture between ExpreS²ion Biotechnologies (34% ownership) and NextGen Vaccines ApS (66%)
- Transitioning from offering protein production services to focusing on **development of high-value products**
 - **Robust pipeline** of vaccine candidates for widespread diseases: COVID-19, Breast Cancer, Influenza, and Malaria
 - **Advantageous and intellectual property (IP) protected technologies**
- **Significant pipeline progression in February and March 2021**
 - ABNCoV2, cVLP COVID-19 vaccine approved for clinical Phase I/II trial – first dosing in human has taken place
 - ES2B-C001, cVLP HER2 breast cancer vaccine in-licensed and preclinical activities initiated
- **Fully funded and highly attractive cash-flow prospects** due to imminent potential ABNCoV2 revenues



S2 cells -
Improved
protein
expression
system



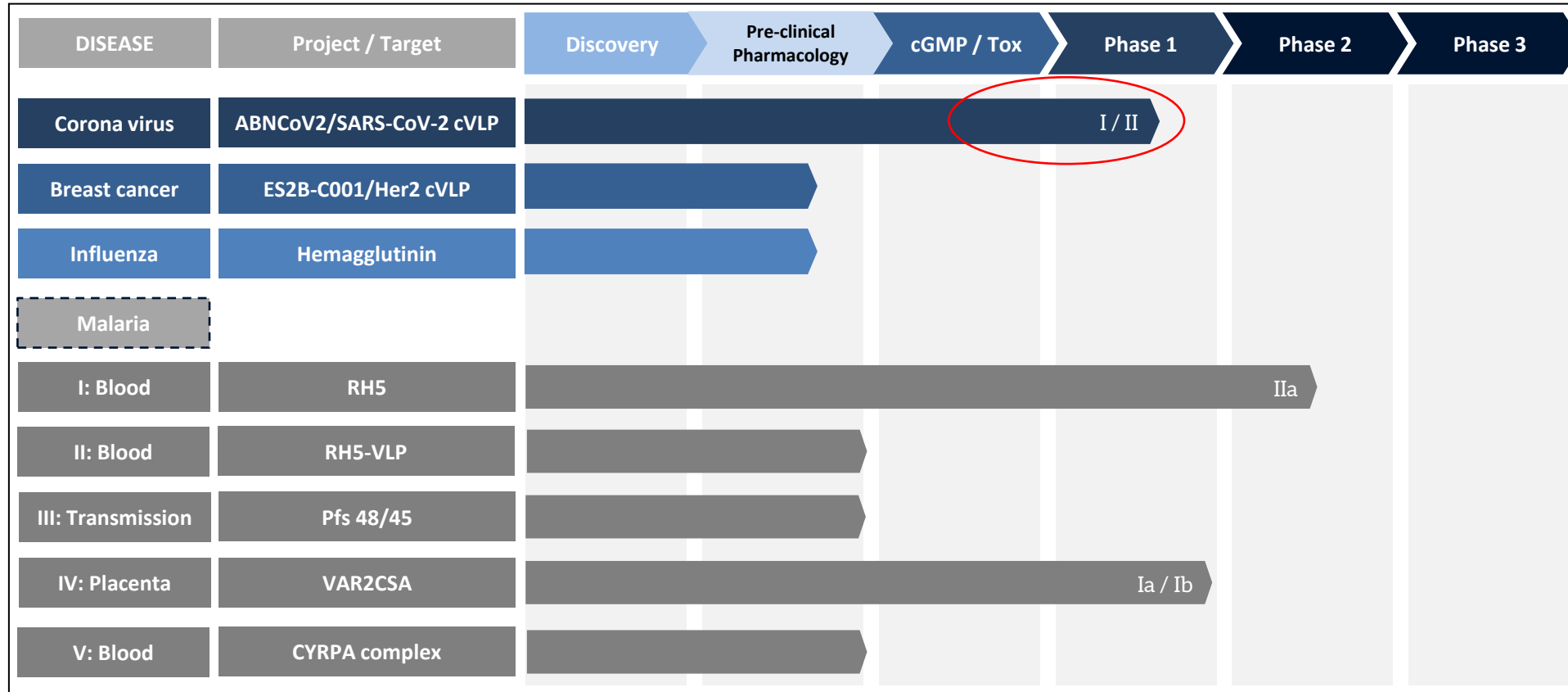
Capsid virus-like
particle (cVLP)

Our vision

We aim to become a
**biotech leader within
infectious diseases and
immuno-oncology**

Broad Clinical Stage Pipeline

Addressing high medical needs with development partner potential

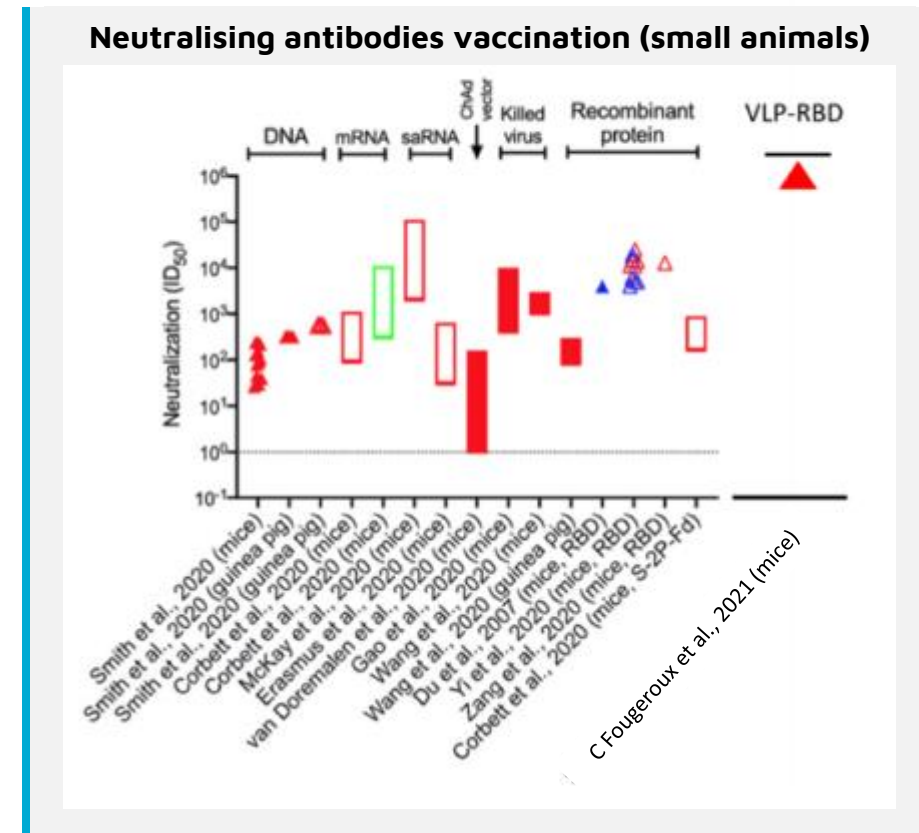


Significant events since 2020 company IR update

ABNCoV2: cVLP COVID-19 Program (I)

Promising preclinical data support the clinical Phase I/II study now initiated

- Capsid virus like particle (cVLP) based SARS-CoV-2 subunit vaccine
- Funded by EU until clinical Ph I/II, within the PREVENT-nCoV consortium
- *In vivo* proof-of-concept study documents **boosted immunogenicity**
- Vaccine seems to offer **single shot with long-lasting protection**
- Encouraging stability data document **storage and handling even at room temperatures**
- Perfectly suited for **rapidly developing new vaccines for potential mutated variants** of COVID-19



Reference: John P. Moore, P. J. Review. Journal of Virology. 2020. DOI: 10.1128/JVI.01083-20

ABNCoV2: cVLP COVID-19 Program (II)

Phase I/II open label, dose-escalation trial initiated

Radboudumc

- **Initiation of a first-in-human study**, supported by the Horizon 2020 EU grant, announced March 8, 2021
- First volunteer enrolled and first-in-human dose administered. Initial safety data in Q1 2021.
- Headline results are expected by the end of June 2021
- Clinical center is at **Radboud University Medical Center** in Nijmegen, the Netherlands, which is also a member of the PREVENT-nCoV consortium
- The strong immunogenicity, the ease of clinical administration, and the drug product handling, and adaptiveness of platform all are factors of a **2nd generation COVID-19 vaccine**



Purpose

The aim of is to test the safety and possible side effects of the ABNCoV2 vaccine in healthy subjects and to study if an immune response is generated after ABNCoV2 administration.

Study design

The 42 volunteers in this study are divided over 7 groups of 6 volunteers each.

Different doses (6mcg, 12mcg, 25mcg, 50mcg, 70mcg) of the ABNCoV2 vaccine without adjuvant are compared to the ABNCoV2 vaccine with adjuvant (MF59).

The full study duration is about 7 month, starting mid-March, last dosing is in May/June, and final reporting expected in October.

Initial data update regarding observed safety expected to be announced during April.

ABNCoV2: cVLP COVID-19 Program (III)

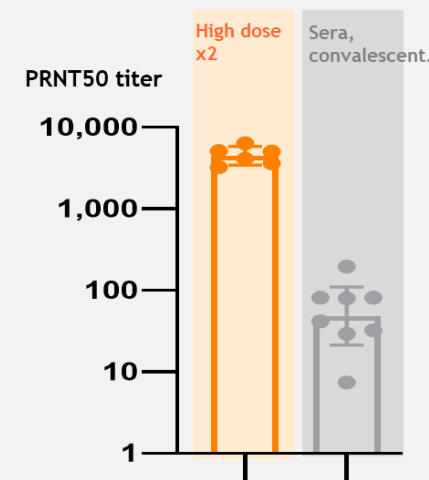
Bavarian Nordic's NHP study data, and recent cash raising, reinforce license commitment

- Bavarian Nordic-sponsored **non-human primate (NHP) study completed with results confirming the immunogenicity data in mice**
- Long-term efficacy data from the study were confirmed March 8, 2021
- Bavarian Nordic on March 10, 2021 completed a directed issue and private placement, raising DKK 1.1B
- Part of proceeds, about SEK 270m, will **support a Phase I/II clinical study and scale-up of manufacturing**
- Bavarian Nordic committed to bring ABNCoV2, "A Leading 2nd Generation COVID-19 Vaccine", to the market

Neutralizing antibodies

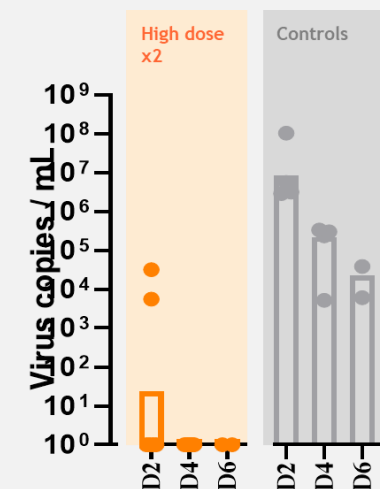
A single administration of low and high dose with adjuvant, but also the high dose without adjuvant induced SARS-CoV-2 neutralizing antibodies at comparable levels to those measured in convalescent human samples

A second administration of non-adjuvanted ABNCoV2 led to >50-fold higher titers



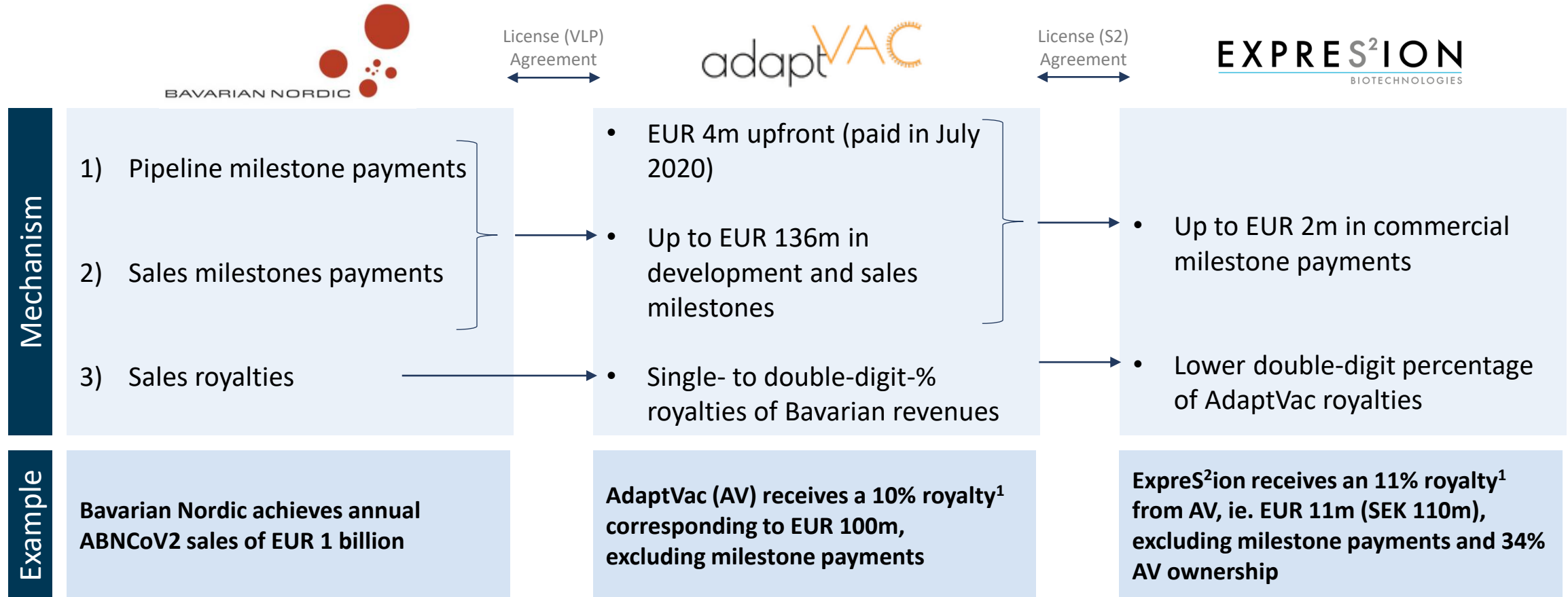
Viral load after challenge

Following a challenge with SARS-CoV-2, virus load was significantly reduced in all vaccinated groups, compared to non-vaccinated controls, and no virus could be detected at any timepoint in the majority of the subjects vaccinated with two high doses of ABNCoV2.



ABNCoV2: cVLP COVID-19 Program (IV)

Potential economics of the license agreements – illustrative example of cash flow from royalties

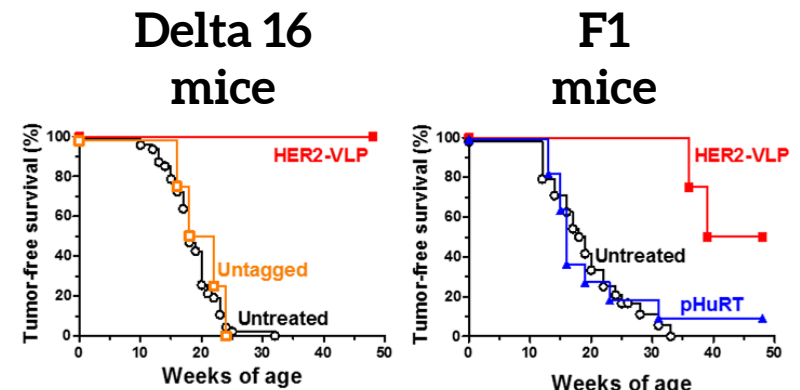


Development of HER2-cVLP ES2B-C001 as a promising treatment opportunity of HER2+ breast cancer (I)

- Comprehensive preclinical proof of concept data on a similar vaccine candidate
 - Prevent tumor formation and improve survival in mice
 - Superior to trastuzumab in BT-474 human tumor cells
 - Effective in trastuzumab-resistant BT-474 C5 tumor cells
- ExpreS²ion has inlicensed the technology from AdaptVac and has already generated its own vaccine candidates (ES2B-C001)
- ES2B-C001 has a solid preliminary biophysical profile
- ExpreS²ion has signed a research collaboration agreement with University of Bologna for preclinical studies
- ES2B-C001 is initiating new *in vivo* testing now
- ES2B-C001 preclinical Proof of Concept data expected end-2021

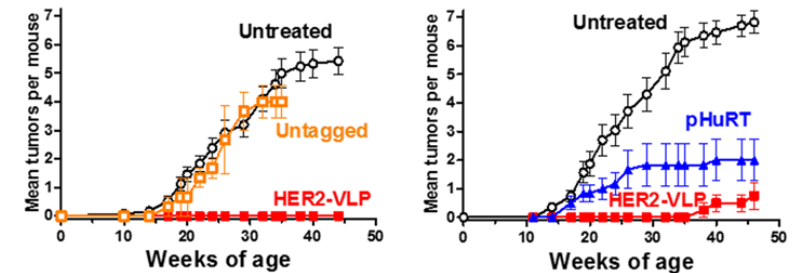
Tumor-free survival

Kaplan-Meier plot



Number of tumors

Tumor multiplicity



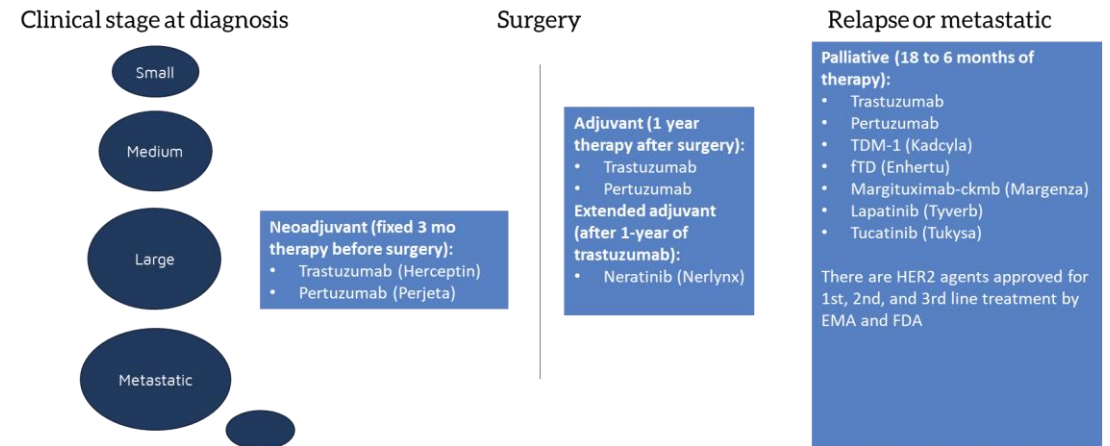
ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

Development of HER2-cVLP ES2B-C001 as a promising treatment opportunity of HER2+ breast cancer (II)

- Early dialogue with regulatory authorities (FDA/EMA) to mitigate the potential risk of IND/CTA failure
- Optimize clinical development program with engagement of key clinical advisors
- Clinical Phase I safety and immune response study planned to start in Q1 2023, exploring key variables for immunization success
- Based on expected vaccine profile, ES2B-C001 is anticipated to replace current HER2-directed agents like trastuzumab and pertuzumab, both in metastatic and later adjuvant settings, leading to potential blockbuster sales scenarios
- ExpreS²ion will pursue an active licensing partnering strategy for clinical co-development

Clinical: Competitive Environment

HER2+ Breast Cancer (BC) – three options for medical therapy today (in brief)



Development of HER2-cVLP ES2B-C001

Deal comparables: Select billion-SEK commercial opportunities in licensing partnerships

| Deal Summary | Case I | Case II | Case III | Case IV |
|-------------------|--|---|---|---|
| Deal date | September 2020 | July 2020 | April 2019 | November 2018 |
| Licensor/seller | Seattle Genetics | Radius Health | Puma Biotechnology | ZymeWorks |
| Licensee/acquirer | Merck | Menarini | Pierre Fabre | BeiGene |
| Deal type | Licensing – WW (NA, EU excluded) | Licensing – WW (NA, EU excluded) | Licensing – Europe | Licensing – Asia, Australia, New Zealand excluding Japan. |
| Product | Tyrosine kinase inhibitor Tukysa | Oral SERD, a selective estrogen receptor degrader Elacestrant | EGFR inhibitor Nerlynx | HER2-targeted bispecific antibodies ZW25 and ZW49. |
| Indications | Breast Cancer HER2-positive | Advanced ER+/HER2- breast cancer | Early-stage hormone receptor positive HER2 patients | HER2+ |
| Phase at deal | Approved | Phase 3 | Approved | Phase I & IND |
| Deal value | \$275M | \$350M | \$430M for EU and \$290M for China | \$430M |
| Upfront fee | \$125M | \$ 30M | \$60M for EU \$50M for China | \$ 40M |
| Milestones | \$150M (\$85M in development commitment) | \$320M | \$345M for EU + \$240M for China | \$390M (2 mABs) |
| Royalties | 10-15% (our estimate) | 10-15% (our estimate) | 10-15% (our estimate) | 8-20% (our estimate) |

Influenza and Malaria

Projects progression affected by COVID-19 in 2020, but catching up again now

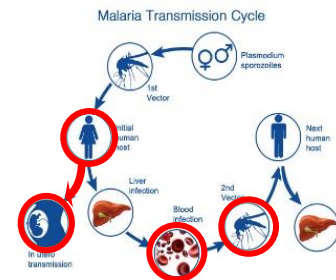
INFLUENZA

- EU funding of EUR 10 mio. in EUR 16 mio. project INDIGO
- EU-India partner consortium - Next-generation flu vaccines
- Subunit flu vaccine with novel CMS adjuvant
- Vaccine design completed and lead candidates selected
- Progression is made towards planning of preclinical activities being initiated later in 2021 at the Institut National de la Sante et de la Recherche Medicale (INSERM) in France.



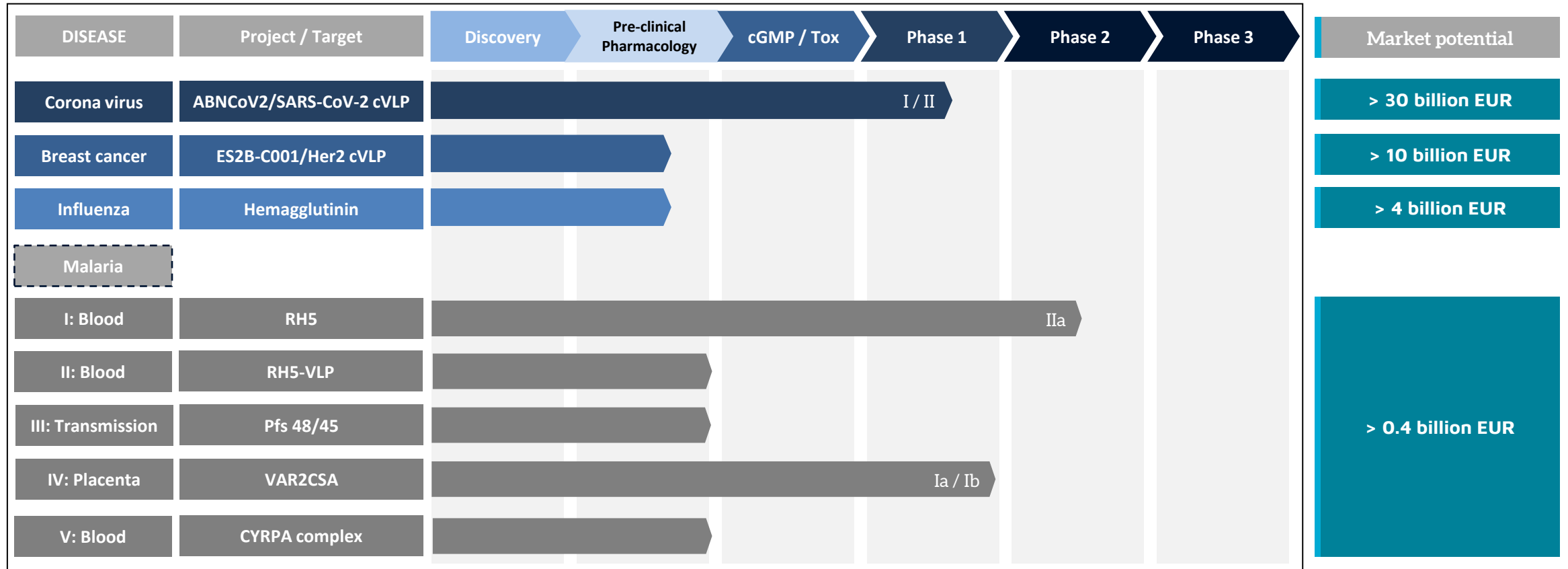
MALARIA

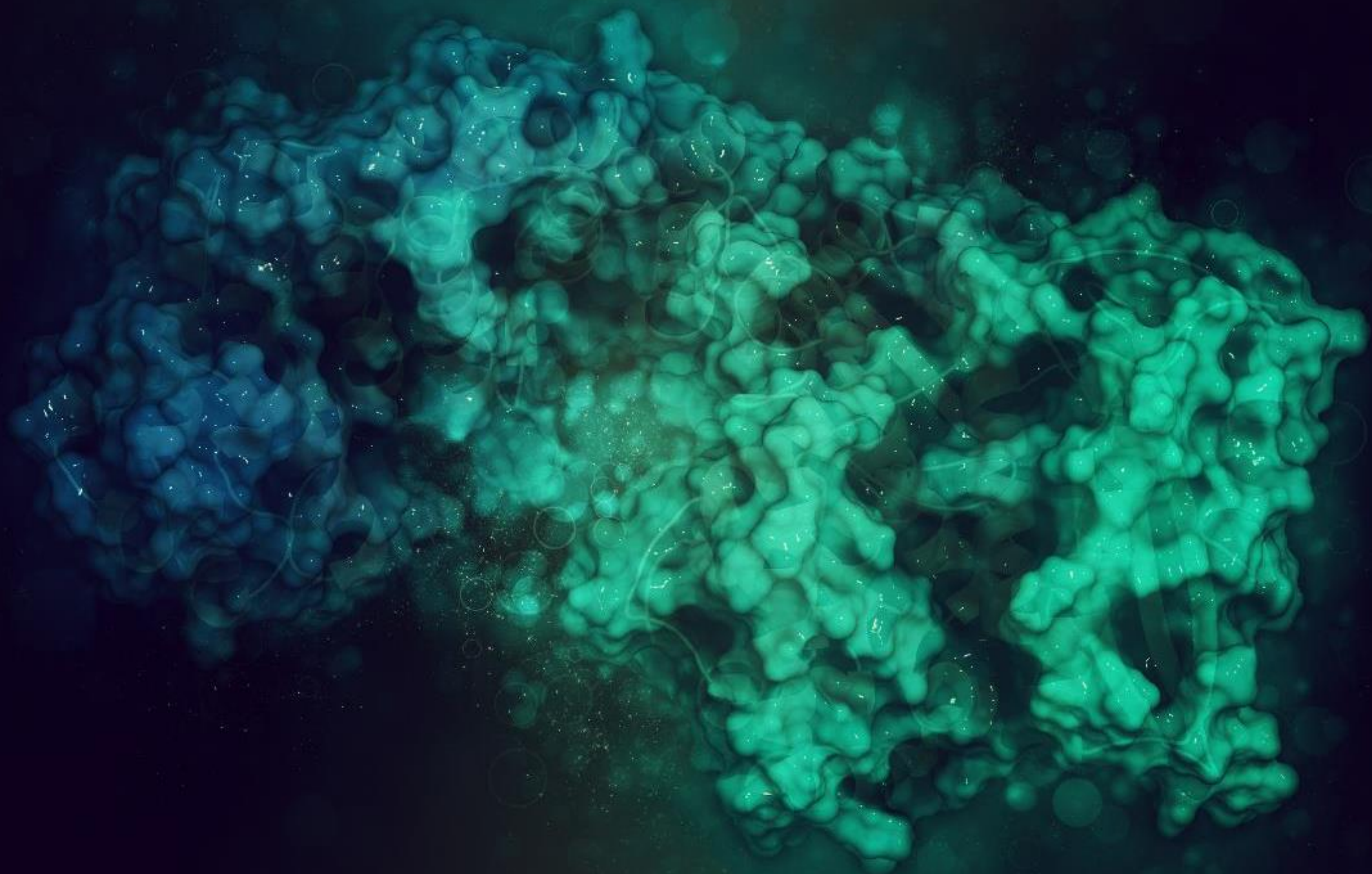
- The COVID-19 pandemic has had an effect on the scientific progression during 2020
- Our academic collaboration partners, both at the University of Oxford and University of Copenhagen, have conveyed that new grant funding initiatives are being explored to progress on the clinical Phase II (RH5, blood-stage malaria vaccine) and clinical Phase I (VAR2CSA, placenta-borne malaria vaccine) projects, respectively



Broad Clinical Stage Pipeline

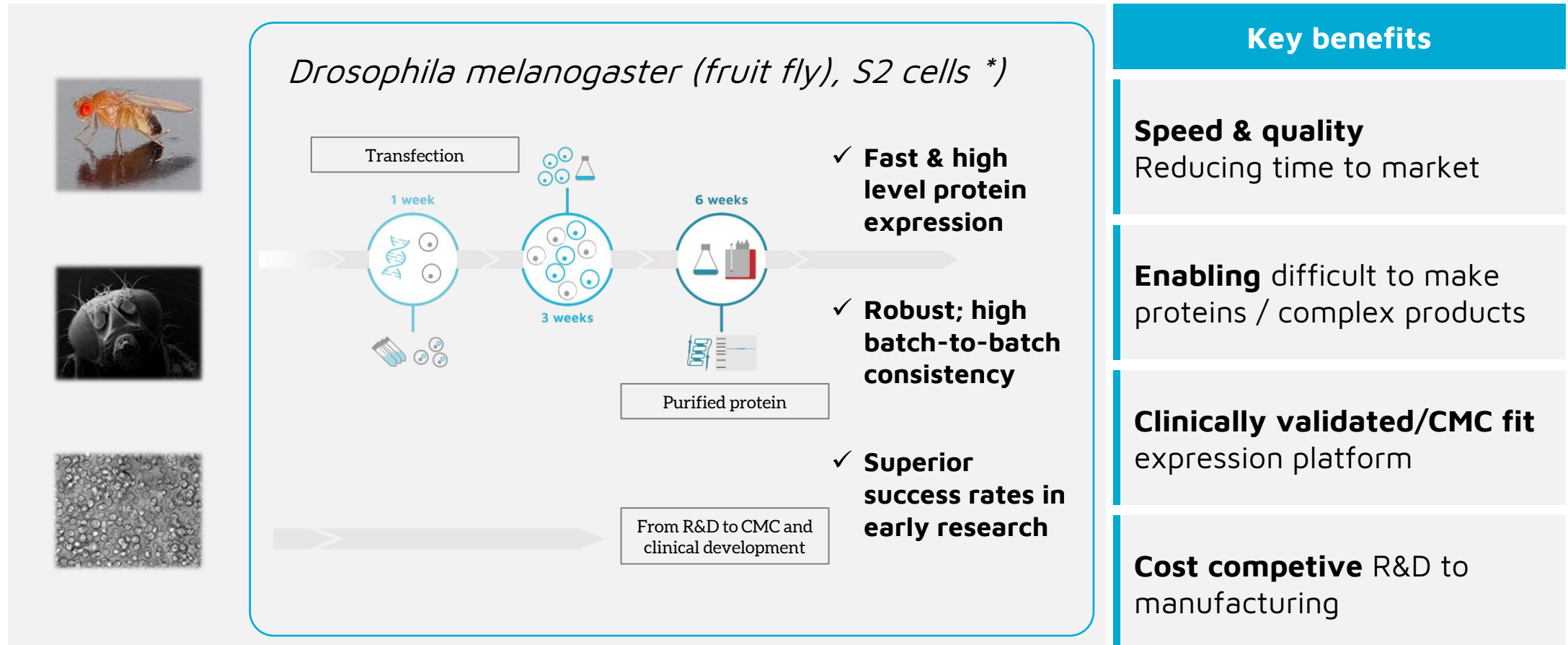
Addressing high medical needs and growing multi billion EUR markets





Advantages of the ExpreS2™ Platform


S2 vector system patent granted until 2032 (US); glyco-engineered S2 cells pending until 2040




*Schneider I (1972). "Cell Lines Derived from Late Embryonic Stages of *Drosophila melanogaster*". *J. Embryol. Exp. Morphol.* 27: 363–365

Advantages of a cVLP Display Platform

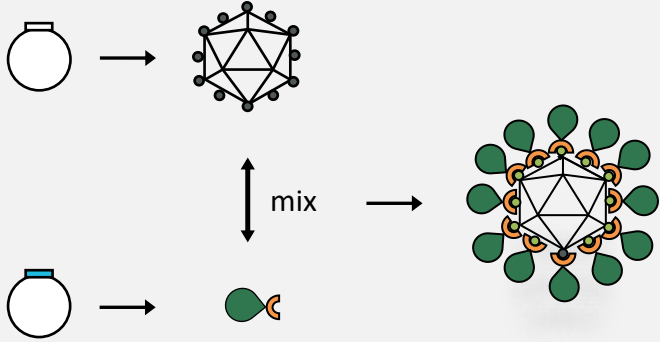
AdaptVac has licensed the technology from Copenhagen University; granted until 2036 (US)



Simple *E. coli* based
VLP production





Protein **antigen**,
can be made in S2
cells (ExpreS2™)





- ✓ **Directional presentation**
- ✓ **Covalent attachment**
- ✓ **High-density display**

Key benefits

 AP205 cVLP

 Tag

 antigen

 Catcher

Increased immunogenicity

Faster immune response

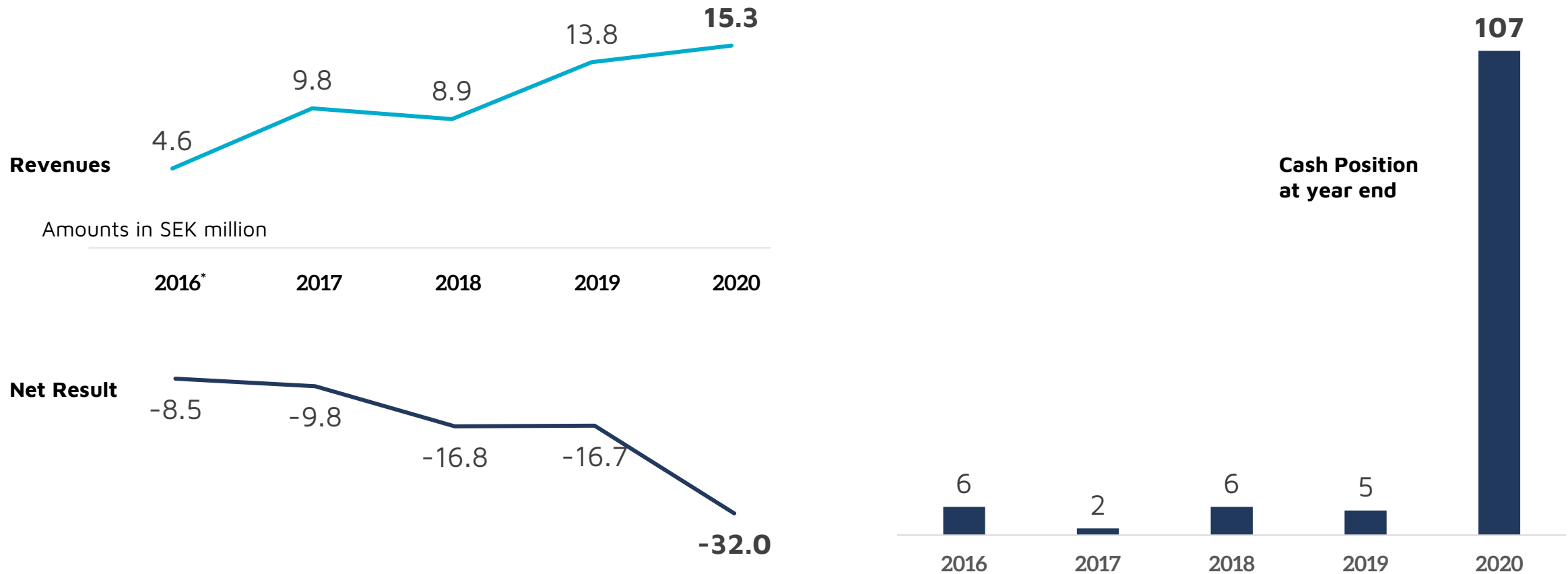
Focused immune response

Longevity of response



Financials (I)

Revenues and Net Result and Cash Position growing at all levels since the 2016-IPO



*The operations in ExpreS²ion Biotech Holding AB, the parent company of the group, started on 2015-11-03. The group relationship arose on 2016-05-02. For that reason, the comparison figures correspond to the period 2016-05-02 -2016-12-31.

Financials (II)

Exercise of warrant programme TO4 injects new cash in April 2021

- 5.5 million TO4 warrants, part of the recent successfully oversubscribed rights issue
- Exercise window April 12-26, 2021
- Strike price equal to 70% of VWAP during 10 trading days prior
- Strike price must be within window of SEK 6-22 per share
- 3 warrants equal 1 share
- Potential SEK 40 million cash inflow in gross proceeds

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Management Team

New amendments add additional skills to pursue our pipeline development strategy



- **Bent U. Frandsen, CEO**
 - MSc. In Finance/Strategic Management, Copenhagen Business School, Denmark
 - Born 1967, Danish citizen
 - >25 years industry finance, business development and management 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



- **Dr. Max Soegaard, VP R&D and Technology**
 - PhD in Biochemistry, UCL, UK, and MSc in Molecular Biology; AU, Denmark
 - Born 1970, Danish citizen
 - 20 years academic and industrial research experience



- **Dr. Mette Thorn, VP Preclinical Development**
 - PhD in Immunology, and a MSc in Chemical Engineering, Technical University of Denmark
 - Born 1972, Danish citizen
 - 20 years industrial research experience



- **Prof. Lars J. Petersen, Medical Director, Oncology**
 - MD, DMSc in immuno-pharmacology, from University of Copenhagen, and CBA from AVT Business School
 - Born 1960, Danish citizen
 - >30 years academic and clinical development experience



As of 1st February, 2021

News Flow

- ✓ **ABNCoV2**
Initiation of first clinical Phase I/IIa trial, COUGH-1
- ABNCoV2**
Initial safety results from COUGH-1 announced in the beginning of Q2 2021
- ABNCoV2**
The vaccine is expected to enter Bavarian Nordic-sponsored phase I/II trial in Q2 2021, with readout in Q3
- ABNCoV2**
Headline results from COUGH-1 announced in the end of Q2 2021
- ABNCoV2**
The vaccine is expected to enter phase II/III trials in H2 2021 (subject to funding)
- ABNCoV2**
Ready for market launch in 2022 (subject to regulatory approval)



- ✓ **ES2B-C001**
Execute the in-licensing option on or prior to February 26, 2021
 - ES2B-C001**
Preclinical animal studies initiated in H1 2021
 - ES2B-C001**
Preclinical animal proof-of-concept in Q4 2021
 - ES2B-C001**
GMP process, formulation and analytical methods developed in 2021-22 → cGMP manufact.
 - cVLP Her2**
Application to start human clinical trials (CTA) submitted in Q1 2023
-
- Influenza**
Within INDIGO progress in preclinical animal studies in mid-2021
 - Influenza**
Advance and further support the clinical and commercial development of one or more influenza vaccine candidates during 2021
-
- Malaria**
Phase IIa results from the Rh5.1 vaccine published in 2021
 - Malaria**
Additional phase Ia trial in a malaria endemic region in Africa launched during 2021 (with alternative adjuvant)

Looking Forward

- Clear roadplan for developing assets towards major value inflection points
- Focus on partnering activities for financing & risk sharing of assets
- Strengthen revenues with new and larger customers & projects
- Continued commitment to obtain non-dilutive financing
- Identify new assets and partners with high value synergy to own platform





Proteins
for Life

**Aktiespararnas
Aktiedagen**

Stockholm, Sweden

16 March, 2021

Bent U. Frandsen, CEO

EXPRES²ION
BIOTECHNOLOGIES

Group Structure

NASDAQ First North Growth Market Biotech company

