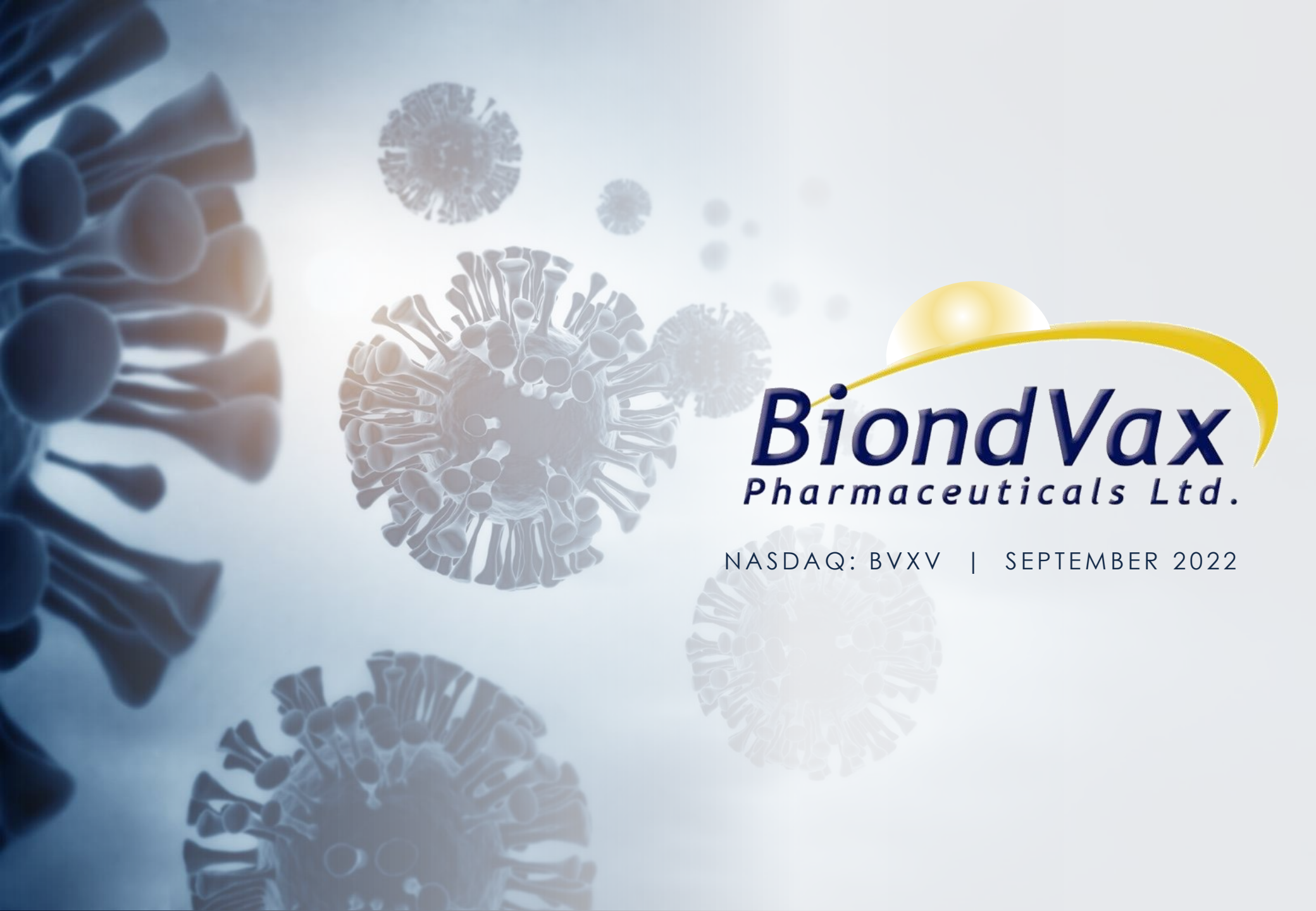


BiondVax Pharmaceuticals Ltd.

NASDAQ: BVXV | SEPTEMBER 2022

SAFE HARBOR STATEMENT

This communication contains forward-looking statements within the meaning of the Private Litigation Reform Act of 1995. Words such as "expect," "believe," "intend," "plan," "continue," "may," "will," "anticipate," and similar expressions are intended to identify forward-looking statements. All statements, other than statements of historical facts, included in this communication regarding strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of management are forward-looking statements. Examples of such statements include, but are not limited to, statements regarding the therapeutic and commercial potential of nanosized antibodies (NanoAbs); and the timing of NanoAb proof-of-concept studies and clinical trials. These forward-looking statements reflect management's current views with respect to certain current and future events and are subject to various risks, uncertainties and assumptions that could cause the results to differ materially from those expected by the management of BiondVax Pharmaceuticals Ltd. Risks and uncertainties include, but are not limited to, the risk that the therapeutic and commercial potential of NanoAbs will not be met; the risk of a delay in the preclinical and clinical data for NanoAbs, if any; the risk that BiondVax may not be able to secure additional capital on attractive terms, if at all; risks relating to the COVID-19 (coronavirus) pandemic; BiondVax's ability to acquire rights to additional product opportunities; BiondVax's ability to enter into collaborations on terms acceptable to BiondVax or at all; timing of receipt of regulatory approval of BiondVax's manufacturing facility in Jerusalem, if at all or when required; the risk that the manufacturing facility will not be able to be used for a wide variety of applications and other vaccine and treatment technologies, and the risk that drug development involves a lengthy and expensive process with uncertain outcomes. More detailed information about the risks and uncertainties affecting the Company is contained under the heading "Risk Factors" in the Company's Annual Report on Form 20-F filed with the Securities and Exchange Commission on March 28, 2022. BiondVax undertakes no obligation to revise or update any forward-looking statement for any reason.

BiondVax Pharmaceuticals Ltd.

Uniquely positioned to advance nanosized antibody innovation from R&D through commercialization

EXPERIENCED LEADERSHIP

Amir Reichman

CEO

Pharmaceutical engineering & supply chain leadership at GSK Vaccines, Belgium; large projects building vaccine manufacturing sites in Belgium, Italy, Germany, Hungary & US.

- NeuroDerm (R&D)
- Novartis Vaccines (Global Supply Chain)
- GSK Vaccines (Global Engineering)

GSK · Ben-Gurion University of the Negev · Wharton University of Pennsylvania

Tamar Ben-Yedidia

CSO

Co-invented and guided BiondVax's original vaccine candidate through 8 clinical trials including pivotal Phase

מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

Elad Mark

COO

Built manufacturing sites for recombinant protein in China and mABs for Novartis Singapore

- Principal bioprocess engineer
- Novartis (Technical Project Manager - Process)

AFEKA TEL-AVIV ACADEMIC COLLEGE OF ENGINEERING · THE OPEN UNIVERSITY OF ISRAEL

Uri Ben-Or

CFO

The College of Management Academic Studies · Bar-Ilan University אוניברסיטת בר-אילן

Moran Ahdout Fruchter

Chief Of Staff

TEL AVIV UNIVERSITY · לשכת עורכי הדין בישראל ISRAEL BAR ASSOCIATION نقابة المحامين في إسرائيل

Dalit Weinstein-Fischer

VP Technical R&D

האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

Merav Kamensky

Senior Manager QC

האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

Tzviya Goldberg

Quality Assurance

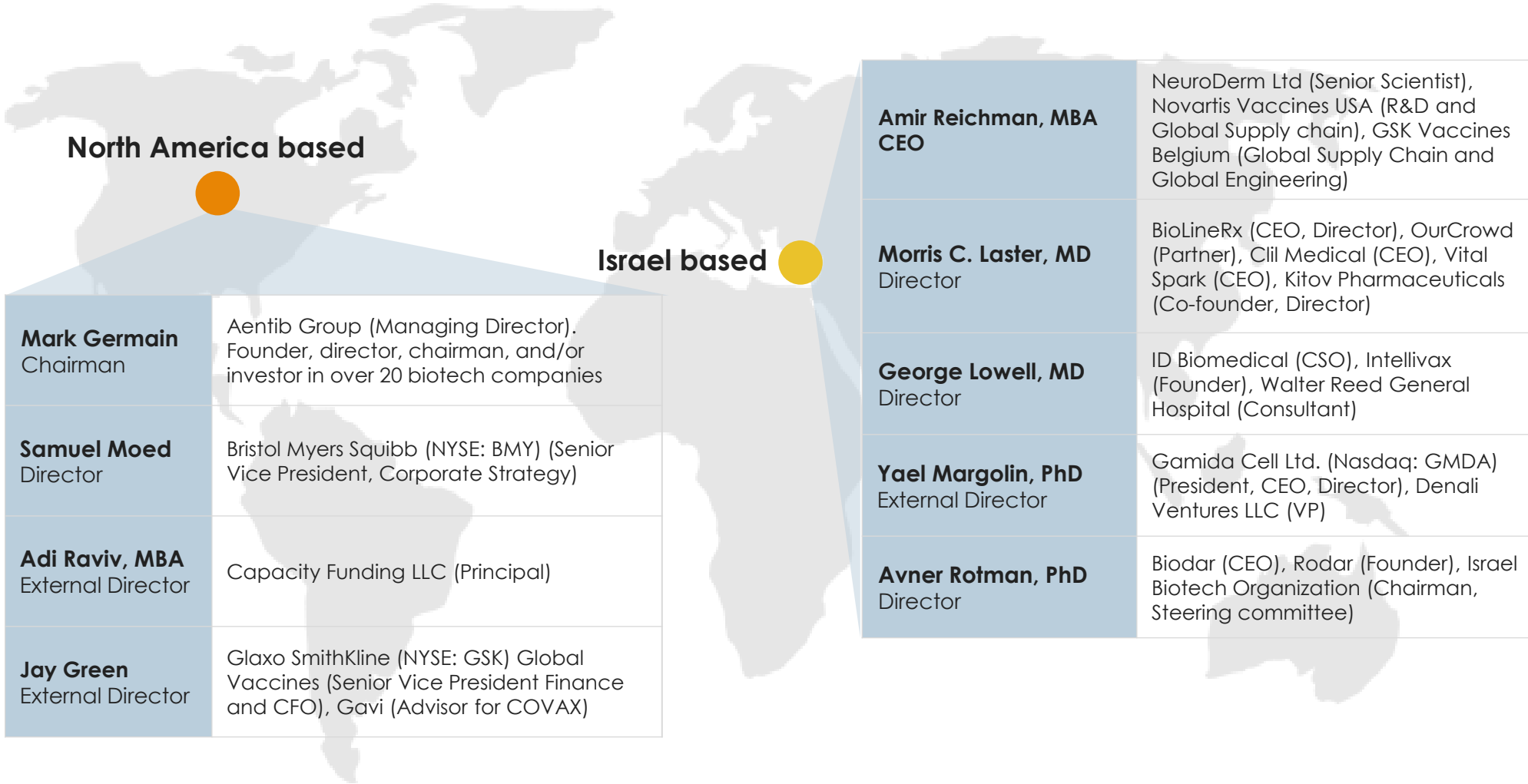
THE OPEN UNIVERSITY OF ISRAEL

Joshua Phillipson

Director IR & Communications

UNIVERSITY OF TORONTO · Ben-Gurion University of the Negev

BOARD BRINGS SIGNIFICANT EXPERTISE



North America based

Mark Germain Chairman	Aentib Group (Managing Director). Founder, director, chairman, and/or investor in over 20 biotech companies
Samuel Moed Director	Bristol Myers Squibb (NYSE: BMY) (Senior Vice President, Corporate Strategy)
Adi Raviv, MBA External Director	Capacity Funding LLC (Principal)
Jay Green External Director	Glaxo SmithKline (NYSE: GSK) Global Vaccines (Senior Vice President Finance and CFO), Gavi (Advisor for COVAX)

Israel based

Amir Reichman, MBA CEO	NeuroDerm Ltd (Senior Scientist), Novartis Vaccines USA (R&D and Global Supply chain), GSK Vaccines Belgium (Global Supply Chain and Global Engineering)
Morris C. Laster, MD Director	BioLineRx (CEO, Director), OurCrowd (Partner), Clil Medical (CEO), Vital Spark (CEO), Kitov Pharmaceuticals (Co-founder, Director)
George Lowell, MD Director	ID Biomedical (CSO), Intellivax (Founder), Walter Reed General Hospital (Consultant)
Yael Margolin, PhD External Director	Gamida Cell Ltd. (Nasdaq: GMDA) (President, CEO, Director), Denali Ventures LLC (VP)
Avner Rotman, PhD Director	Biodar (CEO), Rodar (Founder), Israel Biotech Organization (Chairman, Steering committee)

BiondVax Pharmaceuticals Ltd.

IN-HOUSE EXPERIENCE & ASSETS

BiondVax's drug development, GMP manufacturing, and fundraising capabilities accelerate new programs

Developed flu vaccine initiated in the **Weizmann Institute of Science** lab of **Prof. Ruth Arnon**

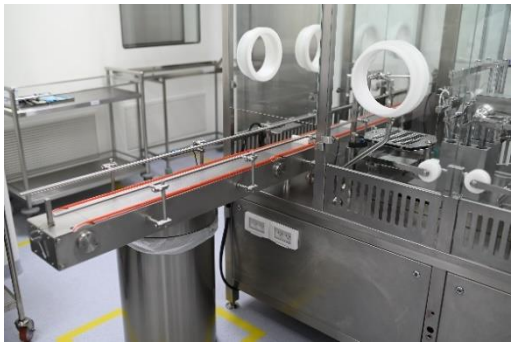
מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

Seven Phase 1/2 and 2 clinical trials conducted in Israel, Europe, and USA, each with promising results. US trial funded and conducted by **NIH**.

NIH National Institute of Allergy and Infectious Diseases

Pivotal Phase 3: Seven country, 12,400 participant trial conducted 2018 to 2020 completed on-time and on-budget. Clinical endpoints were not achieved.

GMP Manufacturing: Constructed, own and operate facility well-suited for development and production.



Fundraising: Nasdaq listed, €24m EIB loan, and long-term anchor investor (~21% Shares)

Nasdaq

European Investment Bank The EU bank

BiondVax Pharmaceuticals Ltd.

GMP MANUFACTURING AND R&D

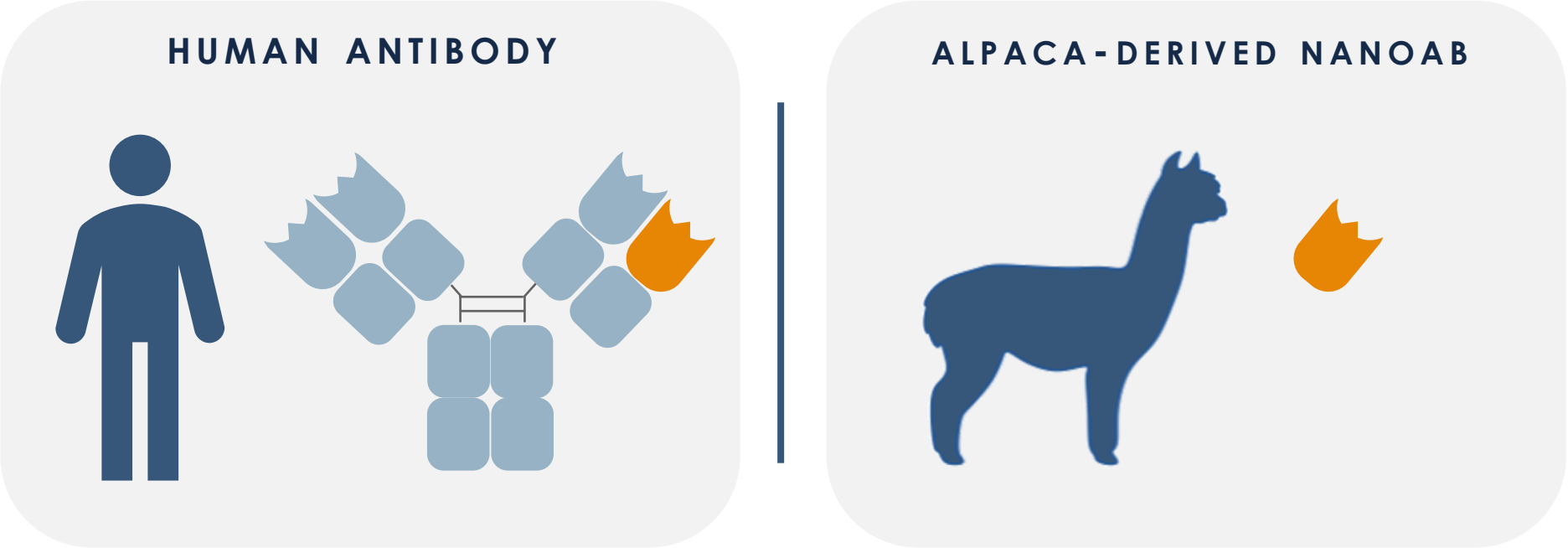
Industry standard aseptic facility: Labs, clean rooms, warehouse, offices

- Analytical methods development combined with best-in-class **QC capabilities** and equipment
- Labs for **manufacturing process development** and scale up allow for implementation of quality by design and design of experiment principles
- **GMP suites** for up stream fermentation, down stream purification, media and buffer preparations, formulation and aseptic automated filling of PFS & vials
- Designed to meet **FDA and EMA** regulatory standards
- Single-use equipment enables:
  - Adaptable manufacturing processes for a pipeline of different products
  - Quicker lead times
  - Faster time-to-market for new products

BiondVax's 1850m^2 GMP Biologics Manufacturing Facility | Jerusalem

BiondVax Pharmaceuticals Ltd.

THE SCIENCE OF NANOSIZED ANTIBODIES (NANOAB)



Alpaca-derived nanosized antibodies (NanoAbs) are also known as VHH-Antibodies*

* VHH-antibody is trademarked by ABLYNX N.V., a wholly owned subsidiary of Sanofi, as Nanobody. BiondVax has no affiliation with and is not endorsed by Sanofi.

NANOAB VALUE PROPOSITION

Multiple crucial advantages compared to monoclonal antibodies (mAbs) & oral therapies

CONVENIENT & FLEXIBLE

- Hyperthermostability = longer shelf life, easier storage & distribution
- Multiple, easier routes of administration
- Faster, lower-cost production = accelerated development
- Reaches smaller targets mAbs cannot reach

CLINICAL BENEFITS

- Adaptable half life
- Lower immunogenicity and directly targeted = potentially safer & lower dose
- Superior specificity & binding affinity can increase efficacy

DERISKED NANOAB PATHWAY

NanoAbs feature a **favorable path to market** compared to risks associated with traditional drug development

SOURCE OF RISK	NANOAB	
MOLECULAR TARGET	✓	Validated by existing but less convenient mAb therapies
MECHANISM OF ACTION	✓	Well understood
COMPOSITION OF MATTER	TBD	Assessing safety & efficacy of alpaca-derived NanoAbs
COMMERCIAL	+	Solid demand for available mAb therapies

VALIDATED THERAPEUTIC USE

First commercial VHH-antibody is blood disorder therapy Caplacizuma – by Ablynx, acquired by Sanofi in 2018 for **€3.9B**

COLLABORATION WITH MAX PLANCK

Designed to create significant clinical and commercial advantages

BIONDVAX

- Infectious disease & recombinant protein drug development experience: from lab to Phase 3 clinical trial
- Manufacturing, quality, int'l regulatory experience
- GMP NanoAb manufacturing facility
- Top-tier big pharma & biotech leadership expertise

MAX PLANCK & UMG

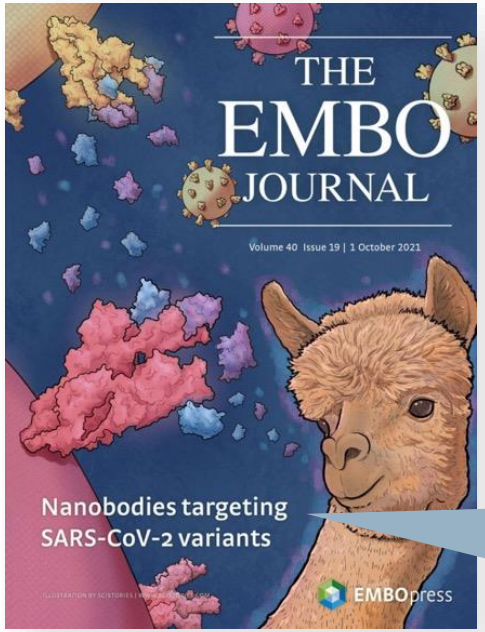
- World-class science & access to leading scientists
- NanoAb platform for development of promising potent therapeutics
- Patents covering NanoAbs & their manufacturing

Exclusive worldwide license for COVID-19 asset + option to exclusively license additional NanoAbs developed through collaboration

1. Includes Max Planck Institute of Biophysical Chemistry, and the University Medical Center Göttingen (UMG)

COVID-19 NANOAB CANDIDATE HAS A **STRONG COMPETITIVE EDGE**

- Max Planck & UMG scientists are leaders in designing and optimizing NanoAbs
- **Result: >100x stronger** neutralization of variants of concern at low concentrations vs leading mAb[1]
- Hyperthermostability to 95°C (200°F)
- **Direct targeting** potential via convenient inhalation administration



SCIENTIFIC COLLABORATORS AT MAX PLANCK & UMG

PROF. DR. DIRK GÖRLICH

- **Director** Max Planck Institute for BioPhysical Chemistry
- >25K peer-reviewed citations

PROF. DR. MATTHIAS DOBBELSTEIN

- Fellow Max Planck Institute for BioPhysical Chemistry
- UMG Head of Department

& AUTHORS OF:

> Neutralization of SARS-CoV-2 by highly potent, hyper-thermostable, & mutation-tolerant nanobodies[2]

1. In-vitro data shows neutralization of all COVID variants of concern including Delta and Omicron | 2. EMBO J (2021) 40: e107985 https://doi.org/10.15252/embj.2021107985. |

BiondVax Pharmaceuticals Ltd.

PIPELINE MARKET POTENTIAL

INITIAL FOCUS

2026 PROJECTED TREATMENT MARKET[1]

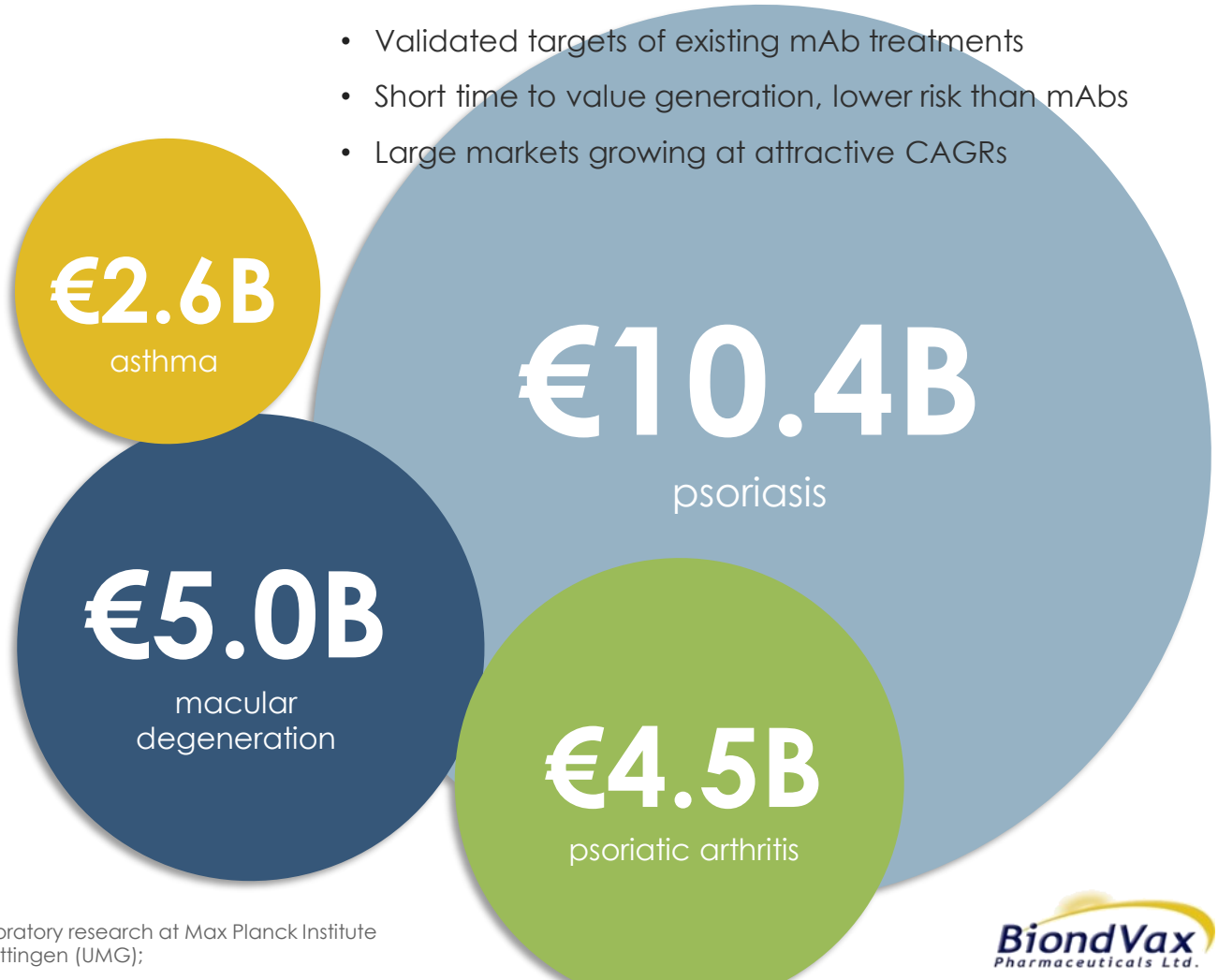
$2.2B
COVID-19

Lead candidate demonstrating strong competitive edge[3]

FUTURE DERISKED TARGETS

CURRENT MARKET SIZES[2]

- Validated targets of existing mAb treatments
- Short time to value generation, lower risk than mAbs
- Large markets growing at attractive CAGRs



1: EvaluatePharma (via Zacks); 2. 2021, LEK; 3. Based on laboratory research at Max Planck Institute for Biophysical Chemistry (MPG) and University Medicine Göttingen (UMG);

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NanoAb Development Milestones

2022 - ACHIEVED

Tech transfer: In-house production of COVID NanoAb

COVID-19 **neutralization through inhaler**

Omicron neutralization demonstrated at Max Planck; NanoAb to be used in our first-in-human clinical trial

European regulatory support for Phase 1/2a safety & efficacy trial*

2022 – ON TRACK

Proof of concept in-vivo

Large-scale **production**

GMP readiness

Additional NanoAbs

2023

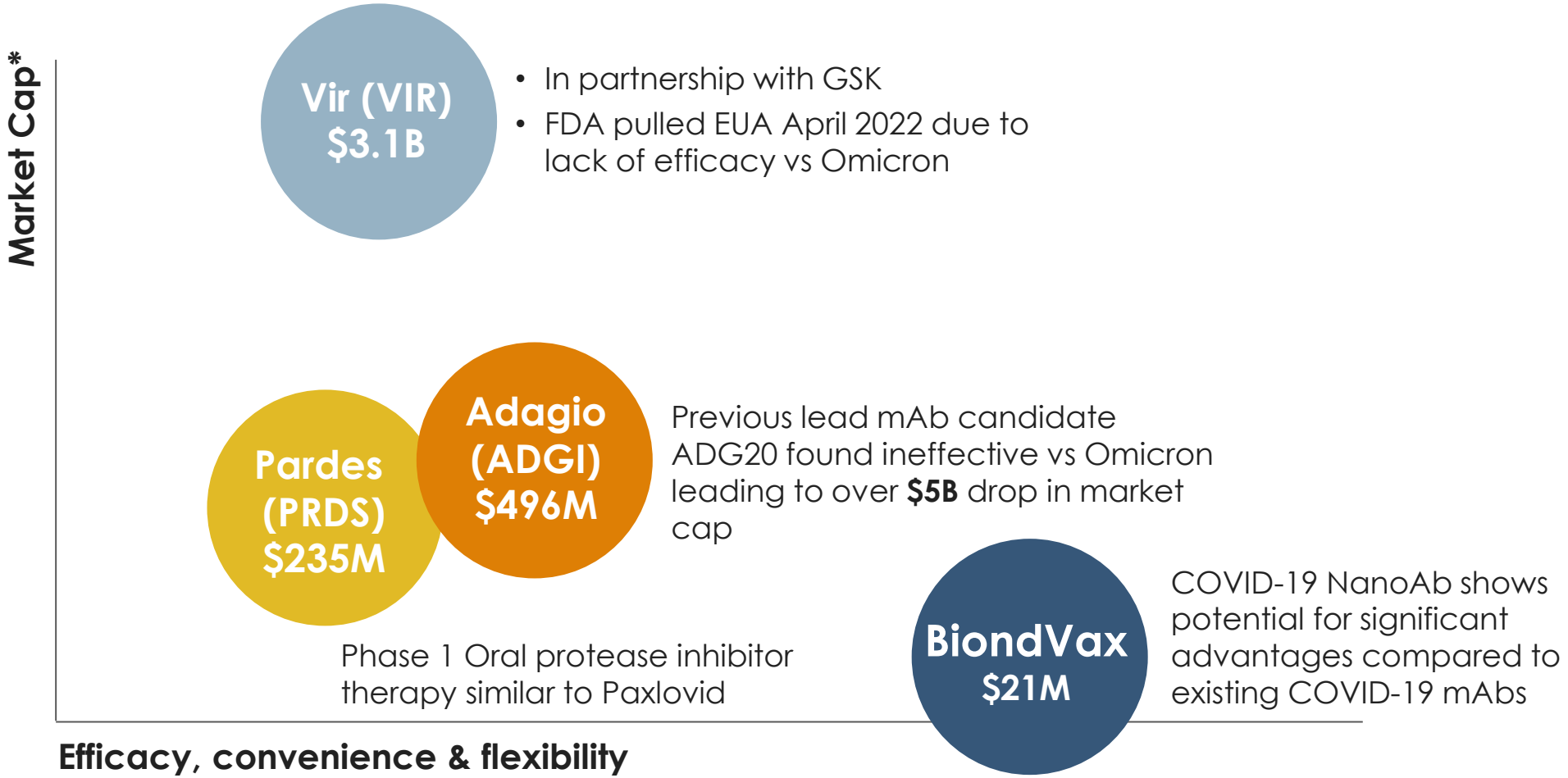
Human clinical trial (Phase 1/2a) of inhaled COVID19 NanoAb

Proof of concept for other NanoAbs targets

* Paul Ehrlich Institute (PEI) Scientific Advice

MARKET COMPARATORS

Opportunity to create significant value by addressing growing need for **effective** COVID therapy



Graph is illustrative only. *Market cap as of August 31, 2022

BiondVax Pharmaceuticals Ltd.

SELECT FINANCIALS & CAP TABLE

- **$9.8M** raised December 2021
- **$11.3M cash** as of June 30, 2022
- **$1M** estimated monthly burn in 2022
- **€24M** European Investment Bank (EIB) loan payable in Dec 2027 in a bullet payment plus accrued interest
- **~22% of shares** held by leading biotech investor Marius Nacht

CAP TABLE As of June 30, 2022	**ADS OUTSTANDING**	**%**
Ordinary ADS	18,678,827	92%
Options + RSUs	1,648,938	8%
Fully Diluted Shares Out	20,327,765	100%

NASDAQ | BVXV

SIGNIFICANT POTENTIAL FOR VALUE CREATION

Targeting **massive, validated addressable markets** with pipeline of derisked NanoAbs

Collaborating with Max Planck Institute & UMG - **world-leading research organizations**

Lead candidate to treat COVID-19 has **strong competitive edge**

Well-positioned to bring innovative therapies to market with **unique large pharma competencies**

Key catalysts expected in 2022 & 2023

BiondVax Pharmaceuticals Ltd.

BIONDVAX.COM
Contact: Joshua Phillipson, Investor Relations
j.phillipson@biondvax.com +972.8.930.2529

APPENDIX

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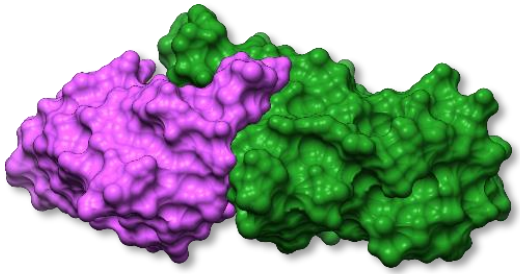
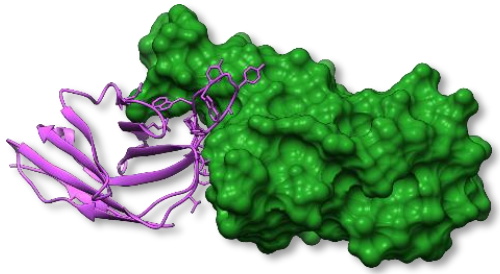
VIRUS NEUTRALIZING POTENCY

Explained by X-ray structure

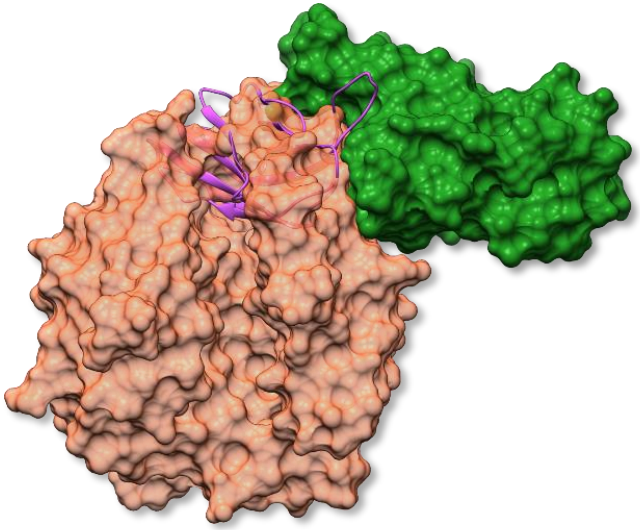
VHH Re5D06 RBD
(surface representation)



VHH Re5D06 RBD
cartoon surface



VHH Re5D06 RBD



THE EMBO JOURNAL

Neutralization of SARS-CoV-2 by highly potent, hyper-thermostable, and mutation-tolerant nanobodies

Thomas Güttler[1*], Metin Aksu[1*], Antje Dickmanns[2], Kim M. Stegmann[2], Kathrin Gregor[1], Renate Rees[1], Waltraud Taxer[1], Oleh Rymarenko[1], Jürgen Schünemann[1], Christian Dienemann[3], Philip Gunkel[1], Bianka Mussil[1], Jens Krull[1], Ulrike Teichmann[4], Uwe Groß[5], Volker C. Cordes[1], Matthias Dobbelstein[2**], and Dirk Görlich[1**]

Frontal clashes with RBD-bound **ACE2**

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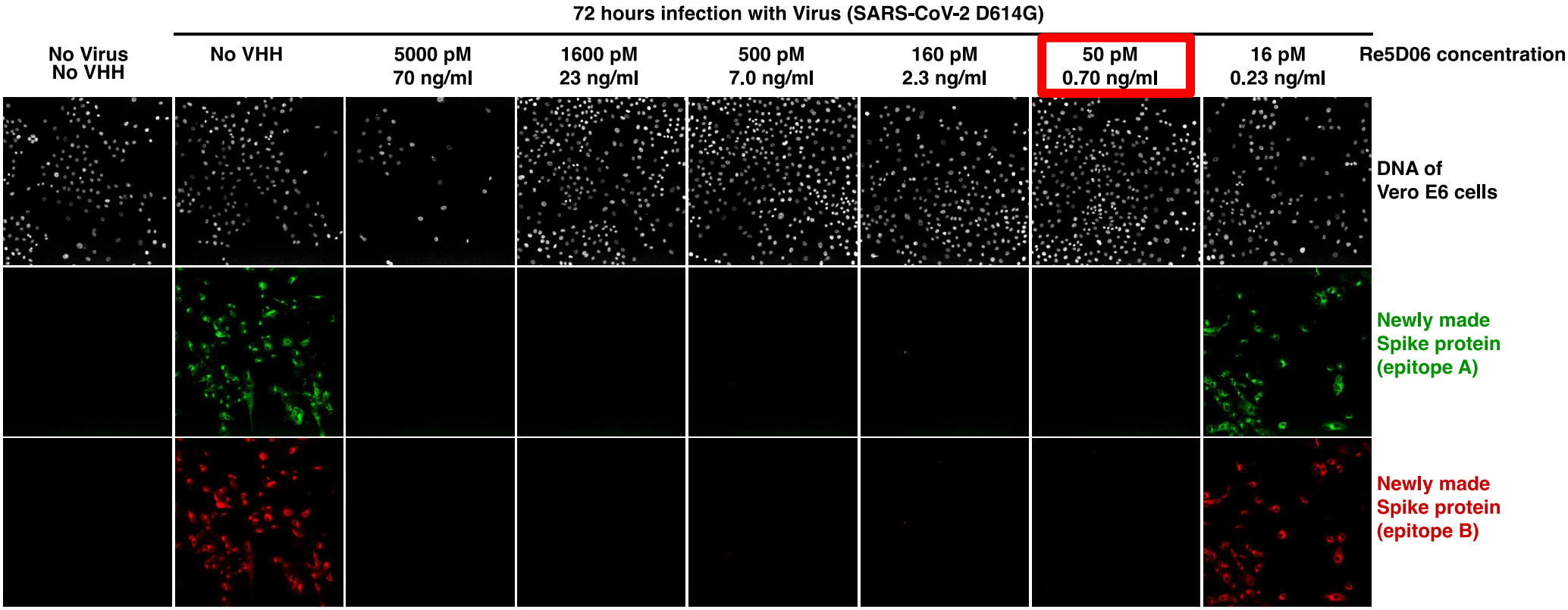
EXTREME ANTI-VIRAL POTENCY OF COVID-19 NANOABS

Infection, fluorescence imaging



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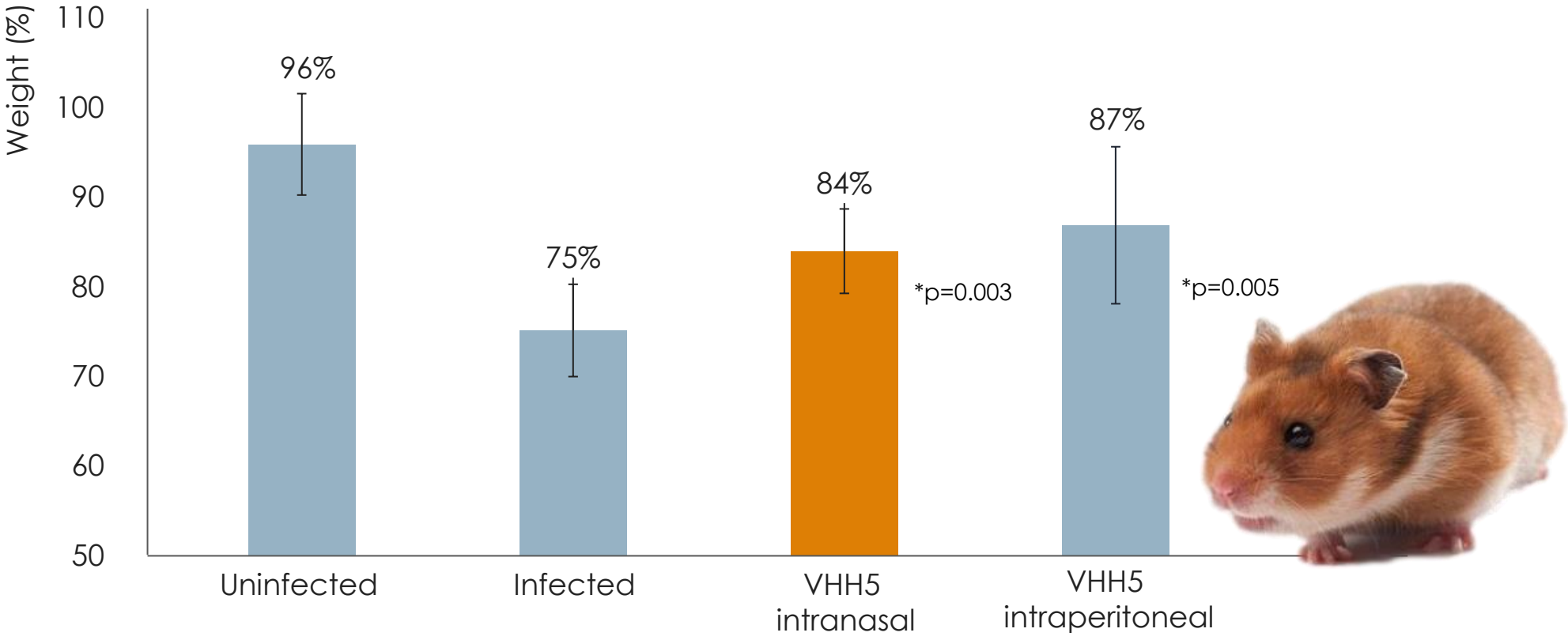
COVID-19 NANOABS PROTECTED HAMSTERS

% weight loss 6 days post infection, following NanoAb therapy



Male Golden Syrian hamsters (*Mesocricetus auratus*) were infected with 1 x 10^5 $TCID_{50}$ SARS-CoV-2 WT and treated with NanoAb that also targets the viral RBD. Treatment was given on days -1.0. and +1 of infection. The NanoAb was administered via the intranasal or intraperitoneal route and led to a significant recovery with weight loss serving as a proxy for health. A dose of 2mg was administered once daily for 3 days (total 6mg/therapy; equivalent to 2.7mg/kg/day) as a prophylactic treatment, i.e. NanoAb administration on days -1, 0, 1, (infection on day 0). P-values are indicated.

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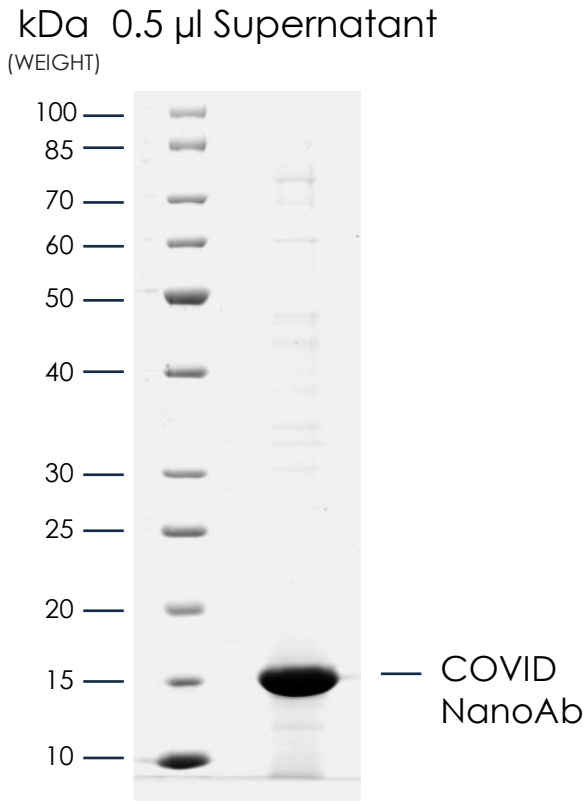
NANOAB PRODUCTION:
HIGH YIELD, LOW COST, IN-HOUSE

Demonstrating efficient, extremely clean (low supernatant) process in yeast



Batch fermentation yields up to 9g / litre,
indicating kg yields in standard 1000 litre fermenter

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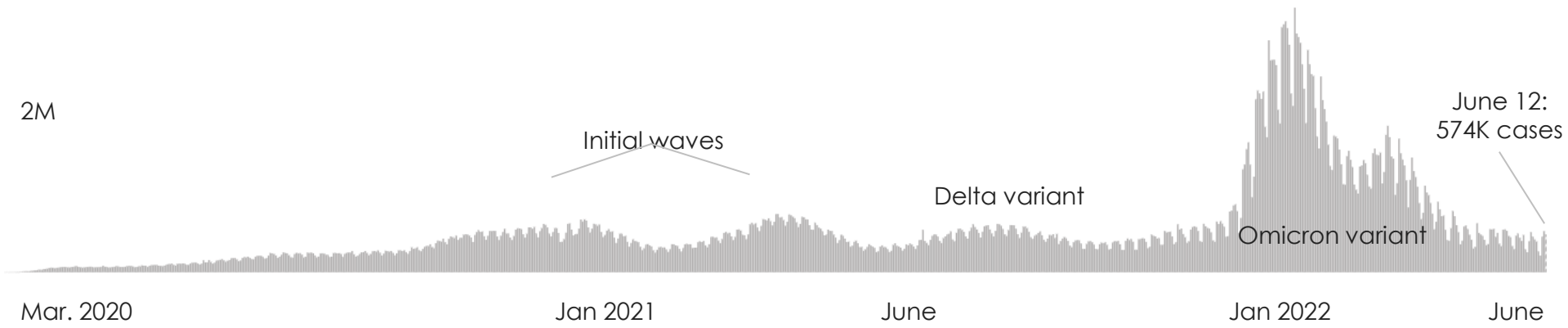
TARGETING A MATURING MARKET FOR COVID-19 THERAPY

> SARS-CoV-2 is unlikely to be eliminated, let alone eradicated;
> **it will probably continue to circulate indefinitely**
> in periodic outbreaks and endemics.
>
> -- ANTHONY FAUCI, December 2021.[1]

Worldwide COVID-19 Cases

REPORTED DAILY AS OF JUNE 12, 2022[2]



1. New England Journal of Medicine. https://www.nejm.org/doi/full/10.1056/NEJMp2118468. | 2. WHO

BiondVax Pharmaceuticals Ltd.