NVX-CoV2373:
Variant-specific immune responses following primary and boosted vaccination

December 22, 2021

SAFE HARBOR STATEMENT

Certain information, particularly information relating to the future of Novavax, its operating plans and prospects, its partnerships, the ongoing development of NVX-CoV2373, COVID-NanoFlu™ combination vaccine and other Novavax vaccine product candidates, the timing of results from clinical trials, the potential for a booster dose of NVX-CoV2373 to provide protection against COVID-19 (including variants), the scope and timing of future regulatory filings and actions, anticipated manufacturing capacity, the readiness of our global supply chain and future availability of NVX-CoV2373 at a global scale and the anticipated commercialization of NVX-CoV2373 constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act.

Forward-looking statements may generally contain words such as “believe,” “may,” “could,” “will,” “possible,” “can,” “estimate,” “continue,” “ongoing,” “consider,” “intend,” “indicate,” “plan,” “project,” “expect,” “should,” “would,” or “assume” or variations of such words or other words with similar meanings. Novavax cautions that these forward-looking statements are subject to numerous assumptions, risks and uncertainties that change over time and may cause actual results to differ materially from the results discussed in the forward-looking statements.

These risks and uncertainties include challenges satisfying, alone or together with partners, various safety, efficacy, and product characterization requirements, including those related to process qualification and assay validation, necessary to satisfy applicable regulatory authorities; difficulty obtaining scarce raw materials and supplies; resource constraints, including human capital and manufacturing capacity, on the ability of Novavax to pursue planned regulatory pathways; challenges meeting contractual requirements under agreements with multiple commercial, governmental, and other entities; and those other risk factors identified in the “Risk Factors” and “Management's Discussion and Analysis of Financial Condition and Results of Operations” sections of Novavax' Annual Report on Form 10-K for the year ended December 31, 2020 and subsequent Quarterly Reports on Form 10-Q, as filed with the Securities and Exchange Commission, which are available at www.sec.gov and www.novavax.com.

Forward-looking statements are based on current expectations and assumptions and currently available data and are neither predictions nor guarantees of future events or performance.

Current results may not be predictive of future results.

You should not place considerable reliance on forward-looking statements which speak only as of the date hereof.

The Company does not undertake to update or revise any forward-looking statements after they are made, whether as a result of new information, future events, or otherwise, except as required by applicable law.

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NVX-CoV2373 CLINICAL DEVELOPMENT PROGRAM

PHASE 3 U.S. & MEXICO Dunkle et al., NEJM, 2021, DOI	N=29,960	• Licensure-enabling safety in US population • Licensure-enabling efficacy in US populations
PHASE 3 UNITED KINGDOM Heath et al., NEJM, 2021, DOI Toback et al., The Lancet Res Med, 2021, DOI	N=15,203	• Licensure-enabling safety data • Licensure-enabling efficacy data • Safety of co-administration with influenza vaccine
PHASE 2b SOUTH AFRICA Shinde et al., NEJM, 2021, DOI	N=4,422	• Evaluated preliminary efficacy • Defined safety profile • HIV+ subgroup
PHASE 1/2 U.S. & AUSTRALIA Keech et al., NEJM, 2020, DOI Formica et al., PLoS Medicine, 2021, DOI	N=131 Phase 1 N=1,288 Phase 2	• Established dose level in younger and older adults • Confirmed need for adjuvant and 2 dose schedule • Defined immunologic phenotype • Described preliminary safety profile

CONSISTENT EFFICACY ACROSS PHASE 3 STUDIES

	U.K. Phase 3 N=15,203	PREVENT-19 N=29,960
Overall Efficacy	**89.7%**	**90.4%**
"Matched"/ Prototype Efficacy	**96.4%** Prototype	**100%** (Non-VoI/VoC)
Efficacy Against Variants	**86.3%** Alpha (B.1.1.7)	**93.6%** Alpha (B.1.1.7) **92.6%** All VoI/VoC
Efficacy Against Severe Disease	**NS** (all 5 severe cases in placebo group)	**100%**
"High Risk" Populations	**90.9%**	**91.0%**

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VARIANT-SPECIFIC ASSAYS

Anti-Spike IgG

- Measures the binding of antibody to the variant spike protein
- Conducted in Novavax Discovery Labs

Human ACE2 inhibition assay

- A functional assay that measures antibody ability to prevent the variant receptor-binding domain on the spike protein from binding to the human ACE2 receptor
- Conducted in Novavax Discovery Labs

Wild-type Neutralization assay

- A functional assay that measures the ability of antibody to prevent variant viruses from invading cells
- Conducted in the Matthew Frieman Lab, University of Maryland School of Medicine

DATA AVAILABLE FOR REVIEW

U.S./Australia Phase 2 data after 2 dose primary series and 6-month boost

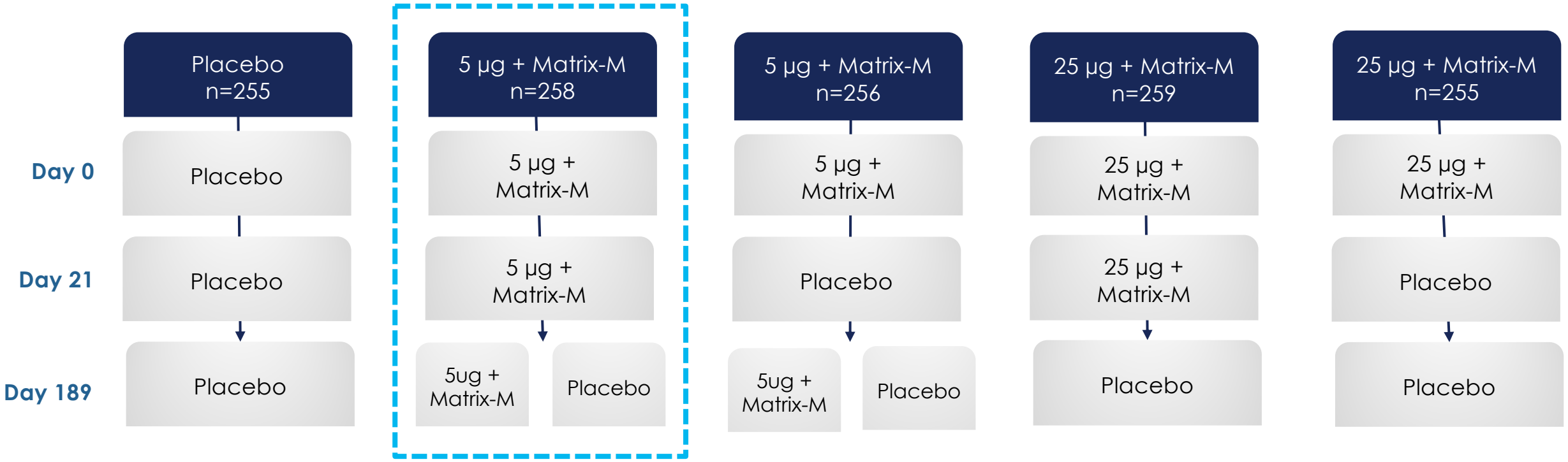
- Variant anti-Spike IgG
- Variant human ACE2 receptor-inhibition
- Variant wild-type neutralization

U.S./Mexico Phase 3 data in adolescents 12-18 years of age after 2 dose primary series

- Variant anti-Spike IgG
- Variant human ACE2 receptor-inhibition

PHASE 2: DAY 189 BOOST COMPLETE, IMMUNE RESPONSES EVALUATED ON DAY 217

U.S. & Australia — N=1,288 | Adults aged 18-84 years (n=583; 60-84 years)

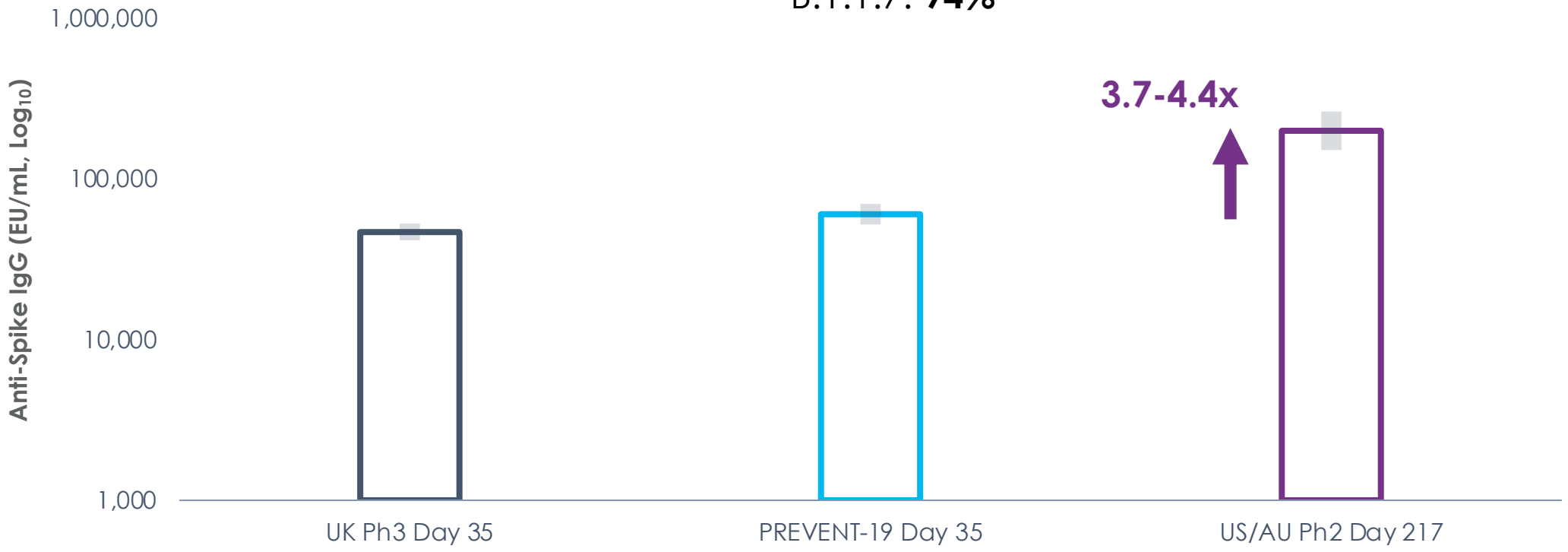


Additional booster administered on Day 357

BOOSTED ANTI-SPIKE IgG PROTOTYPE RESPONSES GREATER THAN OBSERVED IN PHASE 3 STUDIES

UK Phase 3 Efficacy
Prototype: **96%**
B.1.1.7: **86%**

PREVENT-19 Efficacy
Non-Vol/VoC: **100%**
Vol/VoC: **93%**
B.1.1.7: **94%**



Validated assay conducted by Novavax Clinical Immunology

BOOSTED PROTOTYPE NEUTRALIZATION RESPONSES GREATER THAN OBSERVED IN PHASE 3 STUDIES

UK Phase 3 Efficacy
Prototype: **96%**
B.1.1.7: **86%**

PREVENT-19 Efficacy
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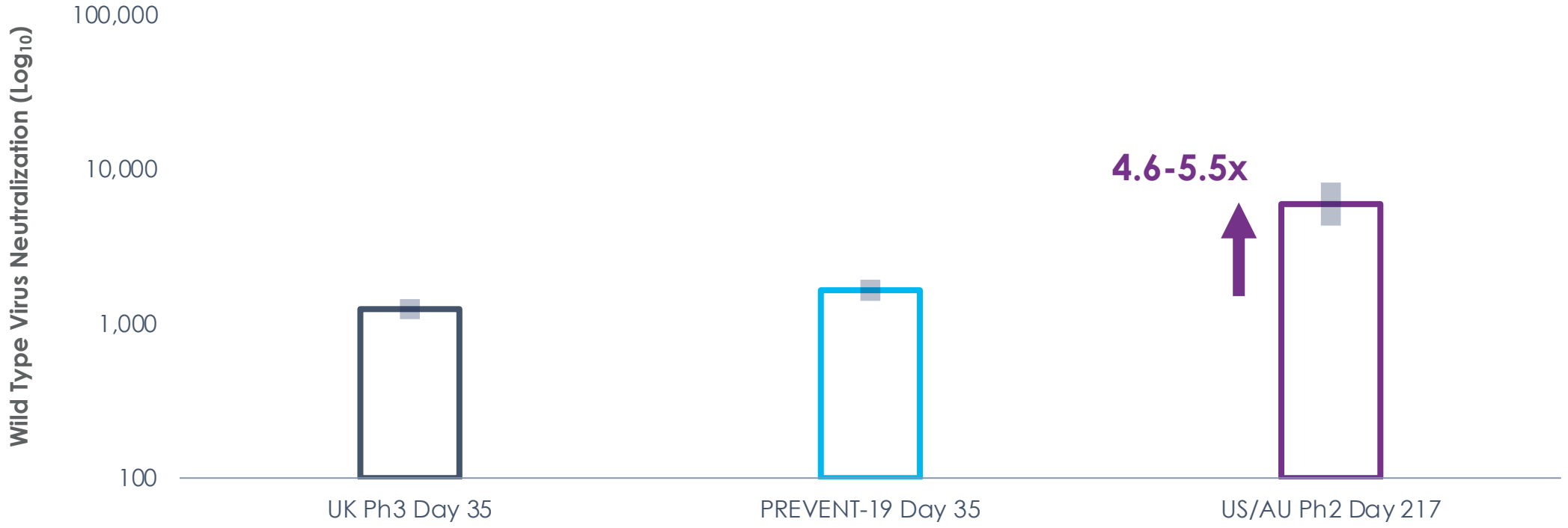
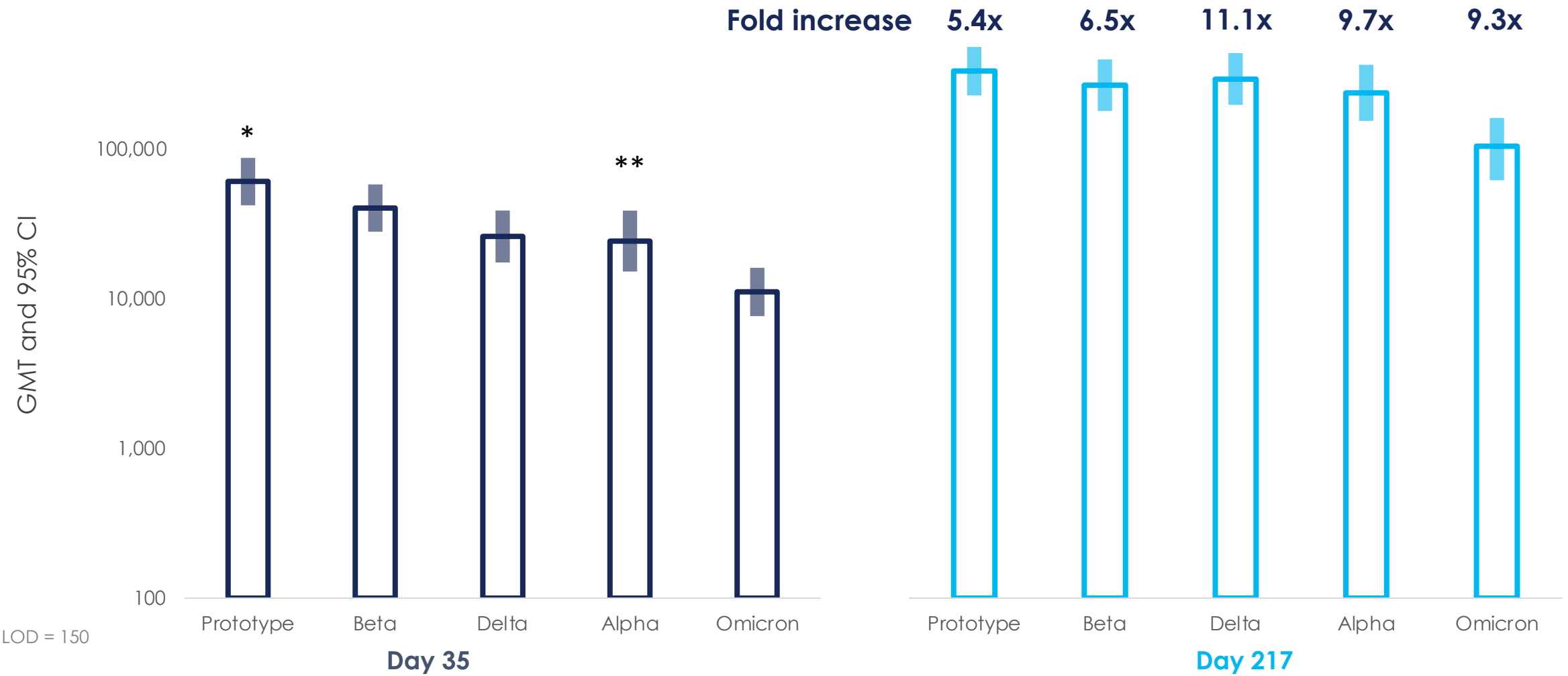


Validated assay conducted by 360biolabs

VARIANT-SPECIFIC IgG OBSERVED AFTER 2 DOSE PRIMARY VACCINATION

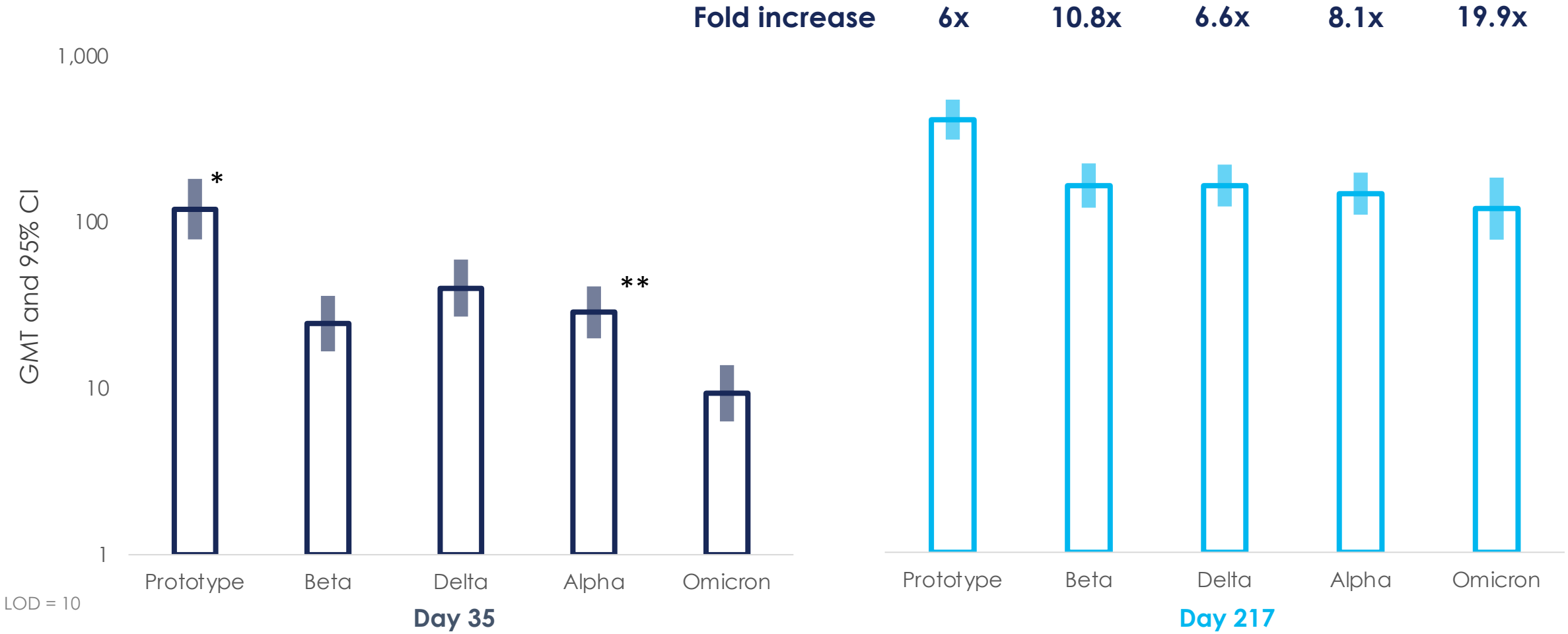
6-month boosted response increased 5.4-11.1-fold compared to Day 35; 100% seroconversion against all variants



*Prototype efficacy of 96-100% in U.S./Mexico and U.K. Phase 3 study.
**Alpha efficacy of 86-94% in U.S./Mexico and U.K. Phase 3 study

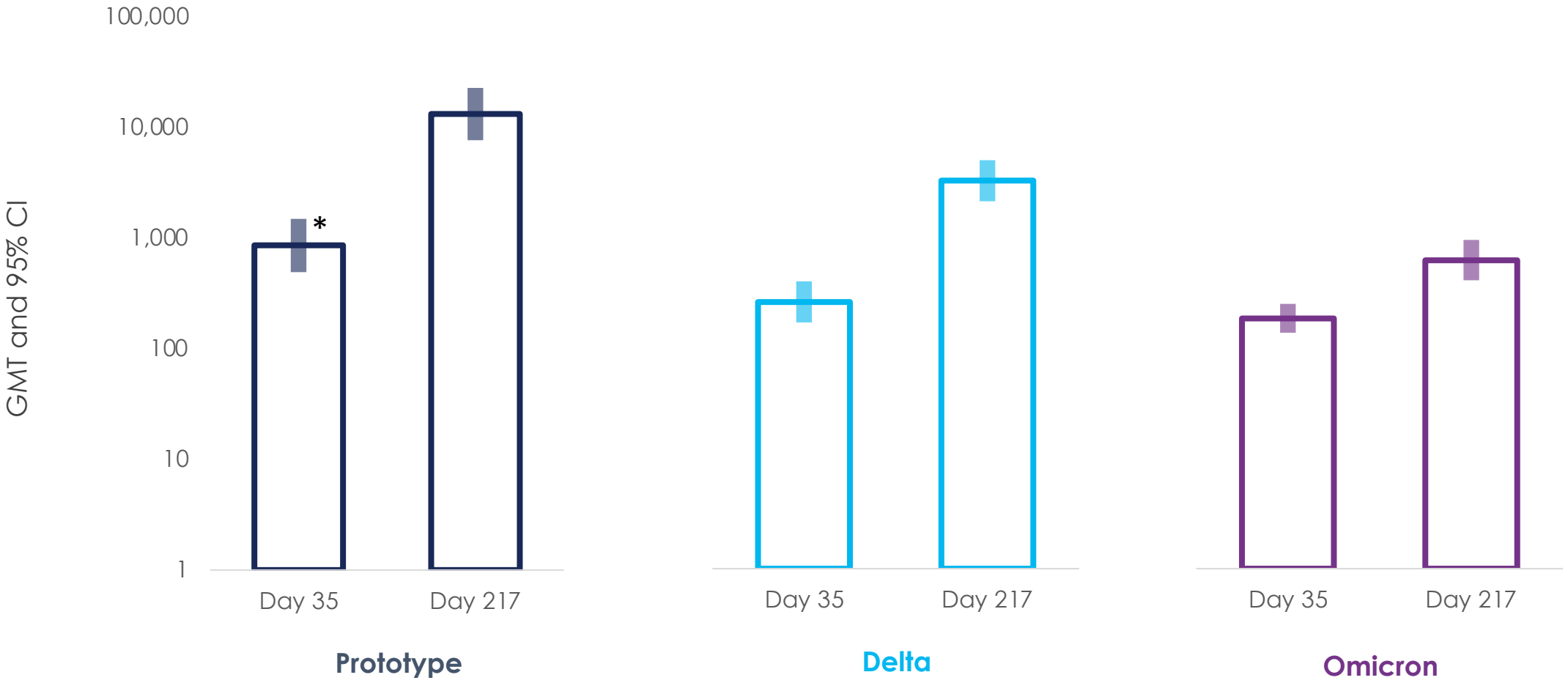
FUNCTIONAL hACE2 INHIBITION RESPONSES OBSERVED AFTER PRIMARY VACCINATION FOR ALL VARIANTS

6-month boosted response increased 6-19.9-fold compared to Day 35



*Prototype efficacy of 96-100% in U.S./Mexico and U.K. Phase 3 study.
**Alpha efficacy of 86-94% in U.S./Mexico and U.K. Phase 3 study

>99% WILD-TYPE NEUTRALIZATION RESPONSES OBSERVED AGAINST PROTOTYPE, DELTA AND OMICRON AFTER 2 DOSES AND BOOSTED ABOVE PEAK LEVELS

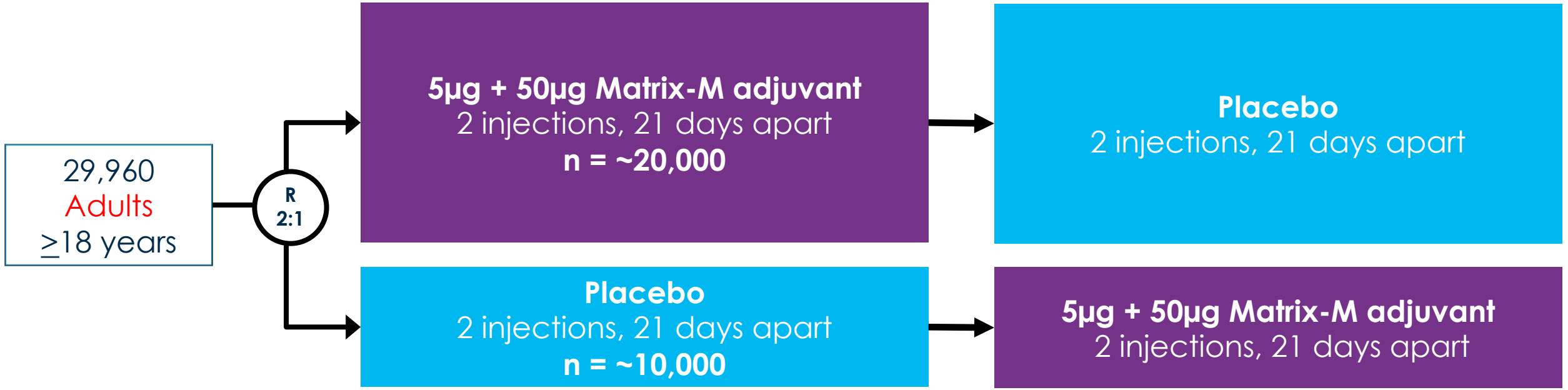


*Prototype efficacy of 96-100% in U.S./Mexico and U.K. Phase 3 study.

PREVENT-19 PHASE 3 TRIAL DESIGN

PREVENT-19
PRE-fusion Protein Subunit Vaccine Efficacy Novavax Trial | COVID-19

Randomized, observer-blinded, placebo-controlled trial evaluating efficacy, immunogenicity and safety



- **Primary endpoint**: PCR-positive symptomatic mild, moderate or severe COVID-19 illness diagnosed ≥ 7 days after second dose
- 2:1 randomization

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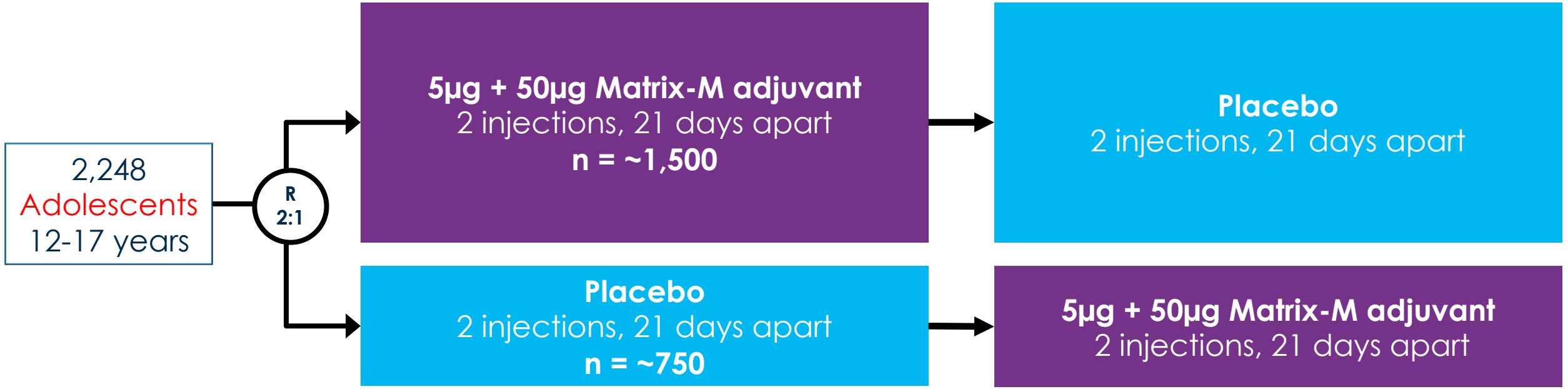
PREVENT-19 PHASE 3 ADOLESCENT EXPANSION

PREVENT-19
PRE-fusion Protein Subunit Vaccine Efficacy Novavax Trial | COVID-19



- **Primary endpoint**: PCR-positive symptomatic mild, moderate or severe COVID-19 illness diagnosed ≥ 7 days after second dose
- **Effectiveness Endpoint:** Non-inferiority of neutralizing antibody responses vs. young adults (18-25 yrs)
- 2:1 randomization

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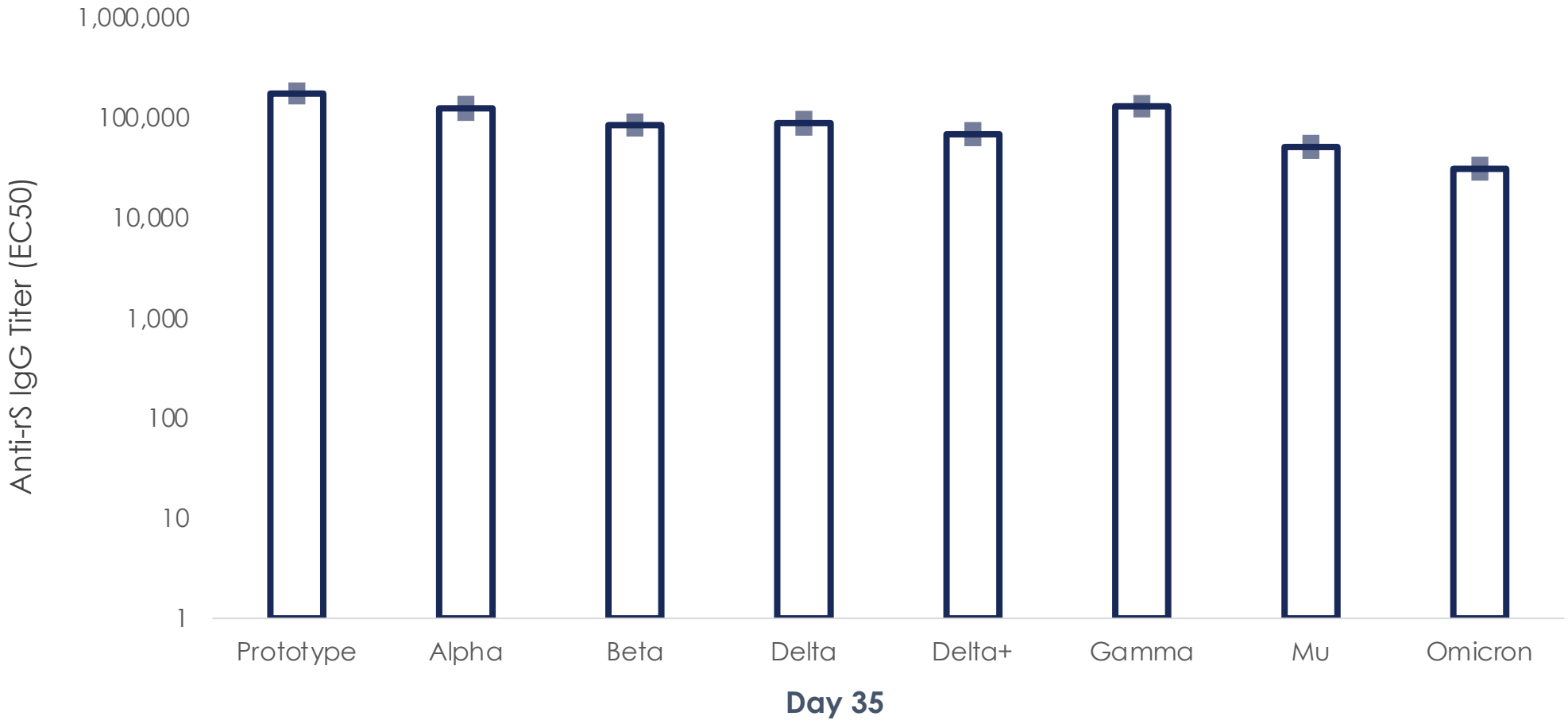
ADOLESCENT RESPONSES 2-3-FOLD HIGHER THAN IN ADULTS; 100% SEROCONVERSION AGAINST ALL VARIANTS

PREVENT-19
PRE-fusion Protein Subunit Vaccine Efficacy Novavax Trial | COVID-19

Phase 3 Adolescent Anti-S IgG following 2-dose primary series



LOD = 10

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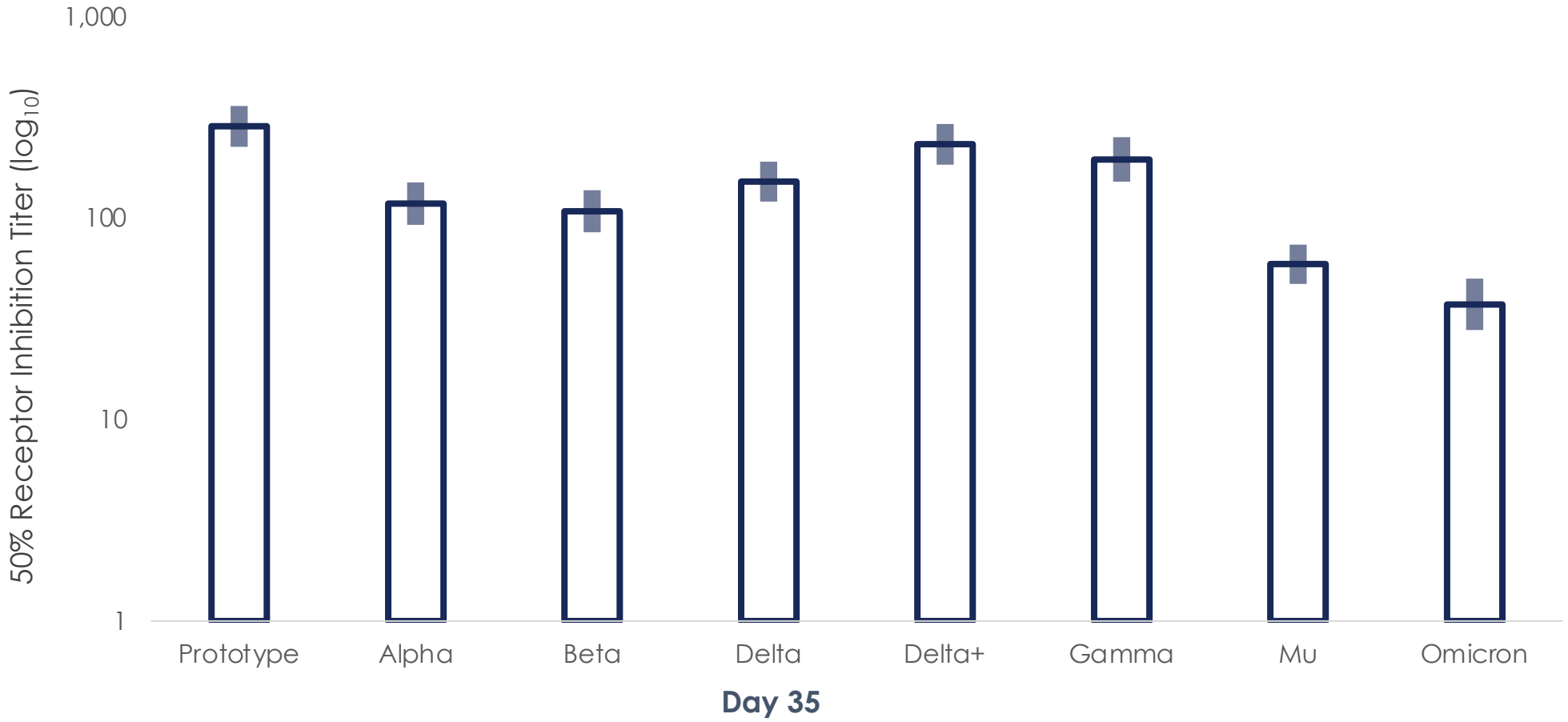
ADOLESCENT RESPONSES 2.4-4-FOLD HIGHER THAN IN ADULTS

Phase 3 Adolescent hACE2 receptor inhibition



LOD = 10

Next steps: Omicron vaccine development underway

Given the evolving pandemic, an Omicron-specific vaccine could be necessary.

GMP manufacturing is expected to begin soon.

We expect to begin clinical studies in the first quarter.

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SUMMARY

- NVX-CoV2373 demonstrated protective efficacy against a broad array of variants that circulated during the U.S./Mexico and U.K. Phase 3 studies
- Anti-Spike IgG
  - 100% seroconversion to prototype, Alpha, Beta, Delta and Omicron after 2 doses
  - Boosted titers after Dose 3 increased from 5.4-fold (prototype) to 9.3-fold (Omicron) from peak response seen after 2 dose primary vaccination
  - This represents a 61.1-fold (prototype) and a 73.5-fold (Omicron) increase from prior to the dose 3 boost
- hACE2-inhibition assay
  - hACE-inhibition observed against prototype, Alpha, Beta, Delta and Omicron after 2 doses
  - Boosted titers after 3 doses achieved 100% seroconversion
  - Boosted titers increased from 6-fold (prototype) to 19.9-fold (Omicron) compared to peak responses following 2-dose primary series
  - This represents a 54.4-fold (prototype), a 24.4-fold (Delta) and a 37.8-fold (Omicron) increase from prior to the dose 3 boost
- Wild-type neutralization assay
  - 99% wild-type neutralization observed after 2 doses for prototype, Delta and Omicron
  - After 2 doses, Omicron wild-type neutralization <4-fold lower than prototype
  - Significant increase seen after boosting, with titers for Delta and Omicron comparable to levels associated with protection in U.S./Mexico and U.K. Phase 3 studies
- Immune responses in adolescents 2-4-fold higher than adults against all variants after 2 doses