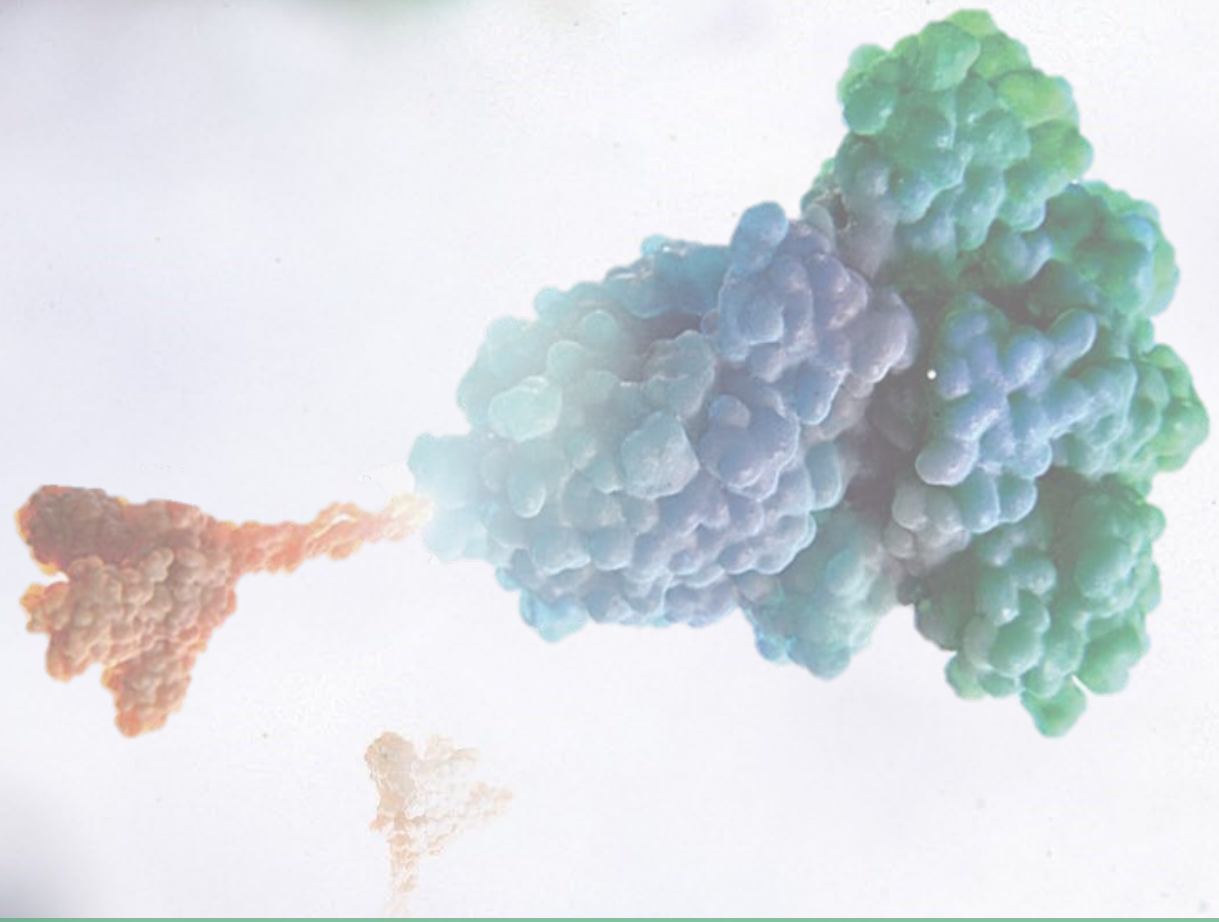

SCB-2019 (CpG 1018/Alum) COVID-19 Vaccine Candidate:

SPECTRA Phase 2/3 Clinical Trial Results

September 22, 2021

Clover's COVID-19 Vaccine Candidate: SCB-2019 (CpG 1018/Alum)

- **Adjuvanted Protein-Based COVID-19 Vaccine Candidate**: SCB-2019 antigen (30 µg/dose) in combination with CpG 1018 adjuvant and aluminum hydroxide (alum)
  - **Two-dose** vaccine candidate (administered 21 days apart)
  - **Intramuscular (IM) injection** (0.5 mL/dose)
  - **Standard refrigeration** (2-8°C) storage & transportation conditions

SCB-2019 Antigen

- SCB-2019 is a recombinant SARS-CoV-2 Spike (S) protein, preserved in the ***native trimeric prefusion conformation*** form utilizing Trimer-Tag™

Global Collaborations

- **Up to $328 million** grant funding by CEPI
- Clinical & commercial supply agreements with DYNAVAX for **CpG 1018 adjuvant supply**
- Advanced Purchase Agreement (APA) signed with Gavi The Vaccine Alliance to supply up to **over 400 million doses** to the COVAX facility for global distribution

SCB-2019 Antigen Structure

S1

S2

Prefusion Spike (S) Protein of SARS-CoV-2 Original Strain

Trimer-Tag™

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Key Takeaways from SPECTRA Global Phase 2/3 Trial

- *SPECTRA successfully enrolled over 30,000 adult & elderly participants in 5 countries across 4 continents*
- *100% of SARS-CoV-2 strains observed in the efficacy analysis were variants (Delta was predominant strain)*

- ✓ **Primary and secondary efficacy endpoints were successfully met**
- ✓ **100% efficacy against severe COVID-19 & hospitalization, 83.7% efficacy against moderate-to-severe COVID-19, 67.2% efficacy against COVID-19 of any severity** caused by any strain of SARS-CoV-2 in SPECTRA
- ✓ **Delta: 78.7% efficacy** against **COVID-19 of any severity** caused by the **globally-dominant Delta strain**
- ✓ **Favorable safety profile:** No significant differences in systemic adverse events or severe/serious adverse events compared to placebo
- ✓ First COVID-19 vaccine to demonstrate **significantly reduced risk of COVID-19 disease in previously-infected individuals**, a growing & increasingly important population as SARS-CoV-2 continues to spread globally

Next Steps:

- **Conditional approval submissions** to global regulatory agencies planned in **Q4-2021**
- Targeting **initial product launch potentially by the end of 2021**

Note: Abbreviations of "SCB-2019 (CpG 1018/Alum)" are used in the following slides, including "SCB-2019". SARS-CoV-2 variants are identified in the following slides by their WHO assigned labels based on the letters of the Greek alphabet (e.g., Delta for Delta Variant)."

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SPECTRA

Phase 2/3 Trial Overview

CLOVER BIOPHARMACEUTICALS

SPECTRA

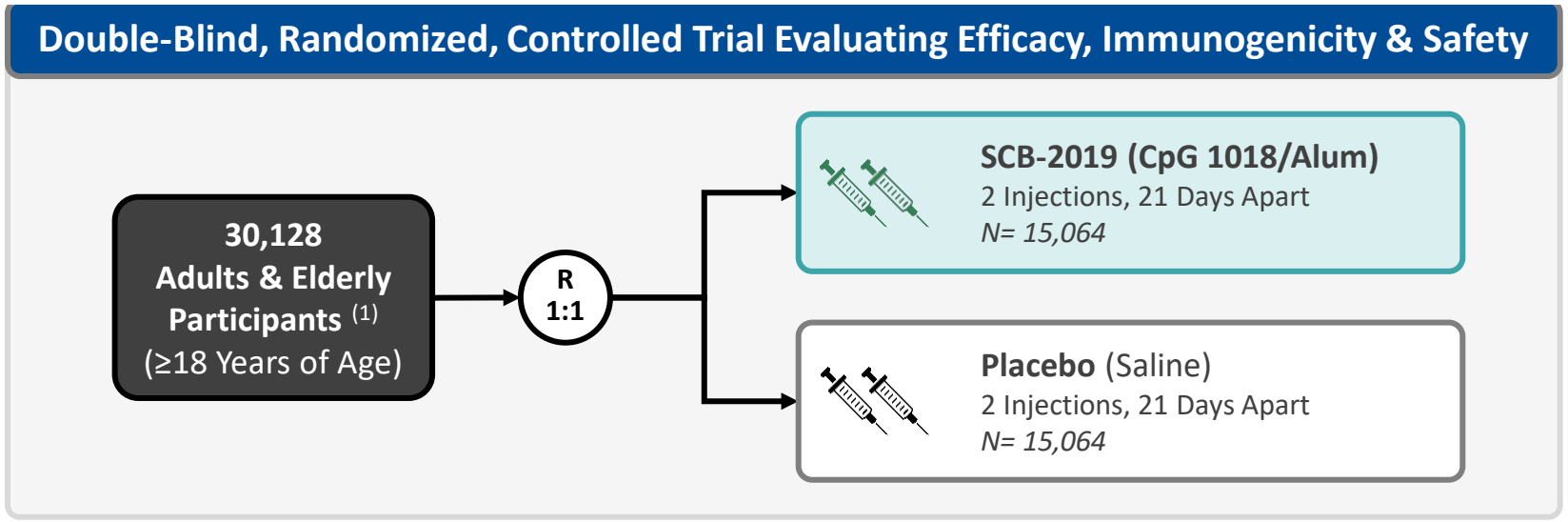
Study Evaluating **P**rotective-**E**fficacy and Safety of **C**lover's **T**rimeric **R**ecombinant Protein-based and **A**djuvanted COVID-19 Vaccine

Phase 2/3 Efficacy Trial Initiated on 24 MARCH 2021

- *Over **30,000 participants** aged 18 years or older enrolled in SPECTRA in **5 Countries** across **4 Continents** (South America, Asia, Europe and Africa)*

Philippines ***Colombia*** ***Brazil*** ***S. Africa*** ***Belgium***

SPECTRA Global Phase 2/3 Pivotal Trial Design



➢ Primary Efficacy Endpoint:

- **Prevention of PCR-confirmed COVID-19 of Any Severity ≥14 Days After Second Dose (in baseline seronegative participants)**

➢ Secondary Efficacy Endpoints(2):

- Prevention of **moderate-to-severe COVID-19**, **severe COVID-19**, **hospitalization due to COVID-19**
- **SARS-CoV-2 strain-specific** prevention of any, moderate-to-severe, and severe COVID-19
- Efficacy in **baseline seropositive (previously-infected) participants**
- **Immunogenicity** (including neutralizing antibodies)

➢ Primary Safety Endpoints:

- **Solicited AE – Systemic & Local** (within 7 days after each dose)
- **Unsolicited AEs** (up to day 43)
- **SAE, MAAE, AESI** (all participants)

Abbreviations: AE (adverse event), SAE (serious adverse event), MAAE (medically-attended adverse event), AESI (adverse event of special interest).
(1) Number of participants randomized and dosed in trial.
(2) Prespecified secondary efficacy endpoints in protocol for which data are available at time of topline results.

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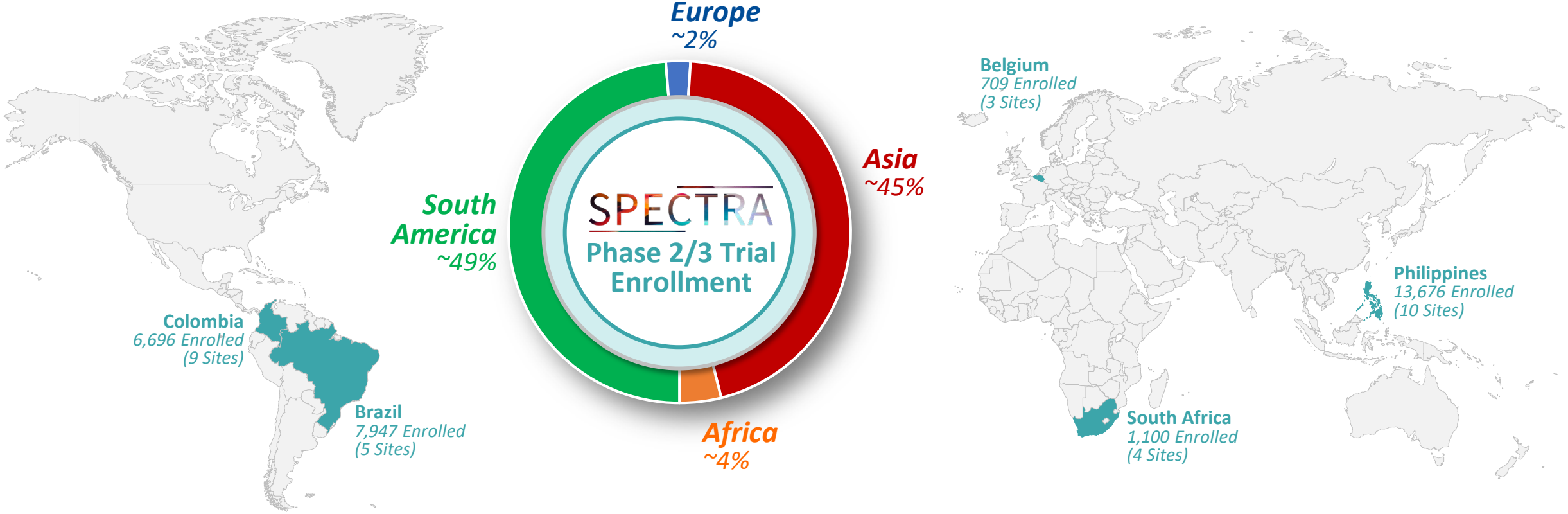
Enrollment and Geographic Diversity

- ✓ **<u>30,128 Adult & Elderly Participants</u> (≥18 years of age) randomized and dosed at <u>31 Sites</u> in <u>5 Countries</u> across <u>4 Continents</u>**
- Enrollment of Adolescent Participants (12-18 Years) currently ongoing



Note: Number reflective of adult and elderly participants randomized and dosed in SPECTRA. Enrollment of adolescent participants targeting completion in Q4:2021.

Demographics of Trial Participants

✓ **Diverse & balanced populations enrolled in SPECTRA**

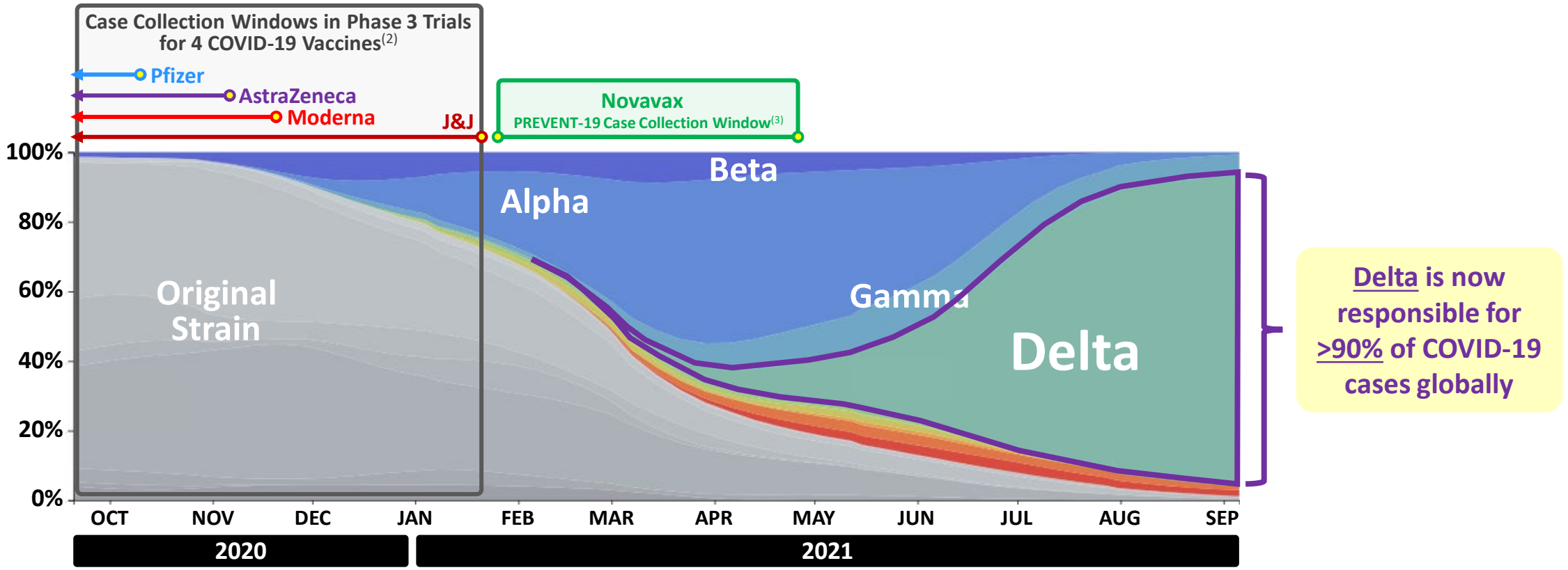
	SCB-2019 (CpG 1018/Alum)	Placebo
Participants[1] (N)	15,064	15,064
Sex (%)		
Male	47.0%	46.7%
Female	53.0%	53.3%
Age (Years)		
Average Age	32.1 Years	32.0 Years
(Min, Max)	(18 – 86)	(18 – 81)
Age 18-64	98.7%	98.6%
Age ≥65	1.3%	1.4%
Co-Morbidities[2] (%)	18.4%	17.9%
Race (%)		
Asian	45.5%	45.6%
White	20.1%	20.4%
Black	10.1%	9.7%
Other	22.4%	22.3%
Not Reported/Unknown	2.0%	2.0%
Ethnicity (%)		
Hispanic/Latino	45.5%	45.6%

(1) Number of participants randomized and dosed in trial.
(2) Co-morbidities defined as participants at high risk for severe COVID-19 (U.S. CDC Recommendations, 2021).

Previous Phase 3 Studies Were Conducted Prior to Emergence of Variants & Global Takeover by Delta

- Delta (VOC) is now the dominant strain globally, responsible for >90% of COVID-19 cases worldwide
- 4 FDA or EMA conditionally-approved COVID-19 vaccines(1) reported efficacy in Phase 3 primarily against the Original Strain
- No vaccine efficacy results against Delta have been demonstrated by these vaccines in randomized clinical trials

Global SARS-CoV-2 Strain Distribution (GISAID Database)



Delta is now responsible for >90% of COVID-19 cases globally

Source: Strain distribution data from Nextstrain.org (GISAID data) as of 06-SEP-2021
Note: VOC (Variant of Concern).

(1) U.S. FDA fully approved Pfizer's COVID-19 vaccine in Aug 2021 after being first made available in the U.S. under emergency use authorization in December 2020.
(2) Case collection cutoff dates for primary efficacy endpoint used to support EUL/conditional approvals: Moderna (25-NOV-2020; DOI: 10.1056/NEJMoa2035389), Pfizer (09-OCT-2020; DOI: 10.1056/NEJMoa2034577), AstraZeneca (04-NOV-2020; DOI: 10.1016/S0140-6736(20)32661-1), J&J (22-JAN-2021; DOI: 10.1056/NEJMoa2101544).
(3) Novavax case collection window for primary efficacy endpoint from 25-JAN-2021 to 30-APR-2021 (PREVENT-19 Final Data Announcement Presentation; 14-JUNE-2021)

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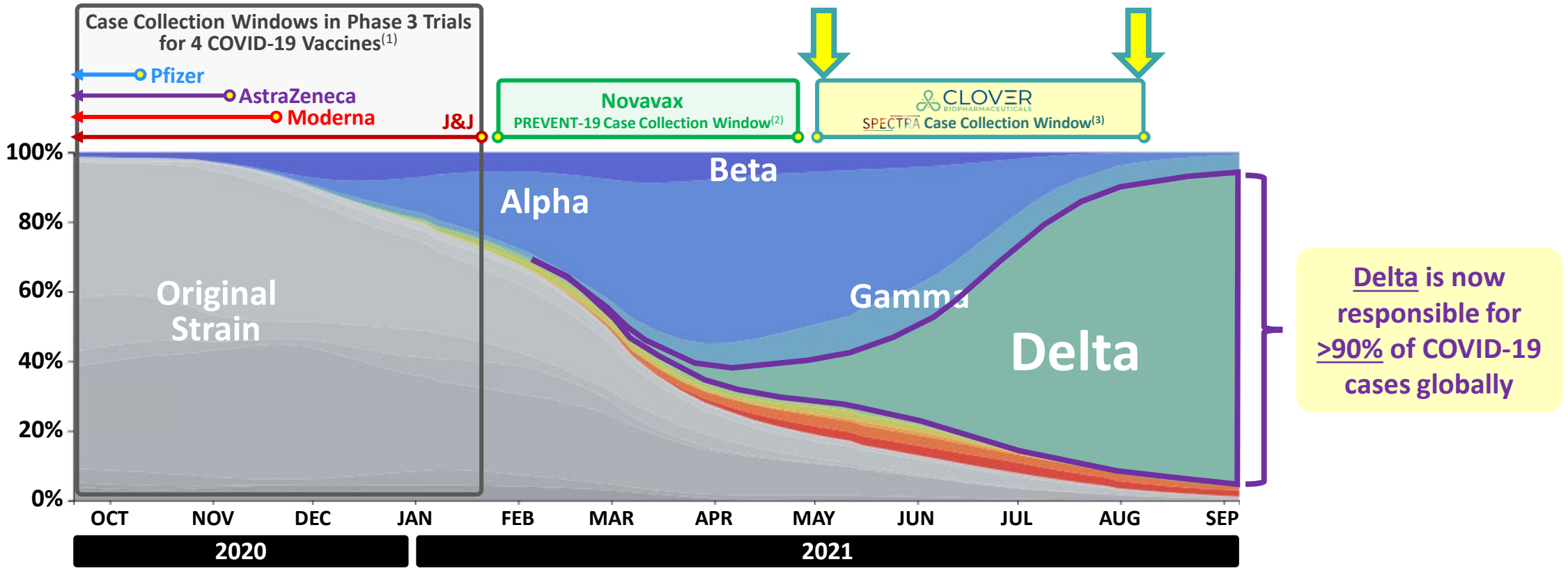
SPECTRA Enables Clover to Evaluate Efficacy Against Delta in a Randomized Clinical Trial

- Delta was the predominantly circulating strain globally during SPECTRA enrollment
- SPECTRA evaluated SCB-2019 (CpG 1018/Alum) against concerning variants including Delta

Global SARS-CoV-2 Strain Distribution (GISAID Database)



Delta is now responsible for >90% of COVID-19 cases globally

Source: Strain distribution data from Nextstrain.org (GISAID data) as of 06-SEP-2021

(1) Case collection cutoff dates for primary efficacy endpoint used to support EUL/conditional approvals: Moderna (25-NOV-2020; DOI: 10.1056/NEJMoa2035389), Pfizer (09-OCT-2020; DOI: 10.1056/NEJMoa2034577), AstraZeneca (04-NOV-2020; DOI: 10.1016/S0140-6736(20)32661-1), J&J (22-JAN-2021; DOI: 10.1056/NEJMoa2101544).

(2) Novavax case collection window for primary efficacy endpoint from 25-JAN-2021 to 30-APR-2021 (PREVENT-19 Final Data Announcement Presentation; 14-JUNE-2021).

(3) Clover case collection window for primary efficacy endpoint in SPECTRA from 28-APR-2021 to 10-AUG-2021.

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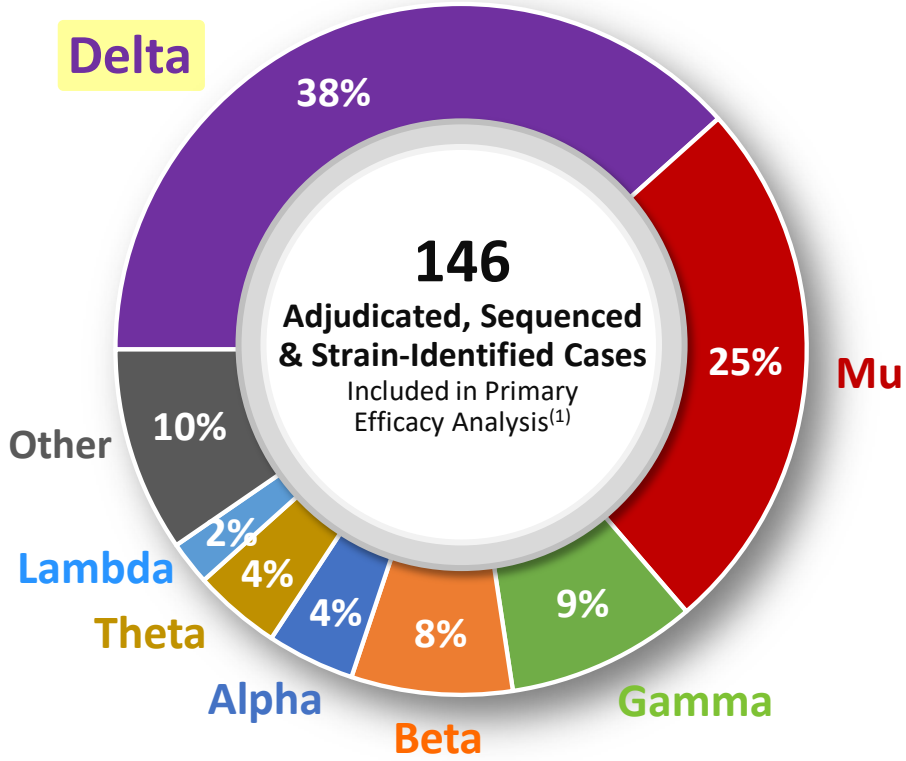
Delta was the Dominant SARS-CoV-2 Strain in SPECTRA

- ✓ **100% of identified SARS-CoV-2 strains observed in the efficacy analysis were variants**
- ✓ **Globally dominant Delta was the strain most observed in SPECTRA (38% of all sequenced cases)**
- ✓ **>85% of strains in SPECTRA were VOCs/VOIs with suspected escape mutations (Delta, Mu, Gamma, Beta, Theta, Lambda)**

- COVID-19 Cases included in **primary efficacy analysis**[1]:
  - **Total Adjudicated Cases**[2]**:** **207 cases**

- Strain sequencing provides basis for **strain-specific efficacy analysis** in SPECTRA:
  - Adjudicated + Sequenced Cases: 179 cases
  - **Adjudicated + Sequenced/Identified: 146 cases**
    - **100% of these strains were variants**
    - **Top 3 Variants (Delta, Mu, Gamma) represented 73% of strains**
    - **No cases were caused by Original Strain** of SARS-CoV-2



16% (33/207) of adjudicated cases were processed for sequencing but strain not identified (3)

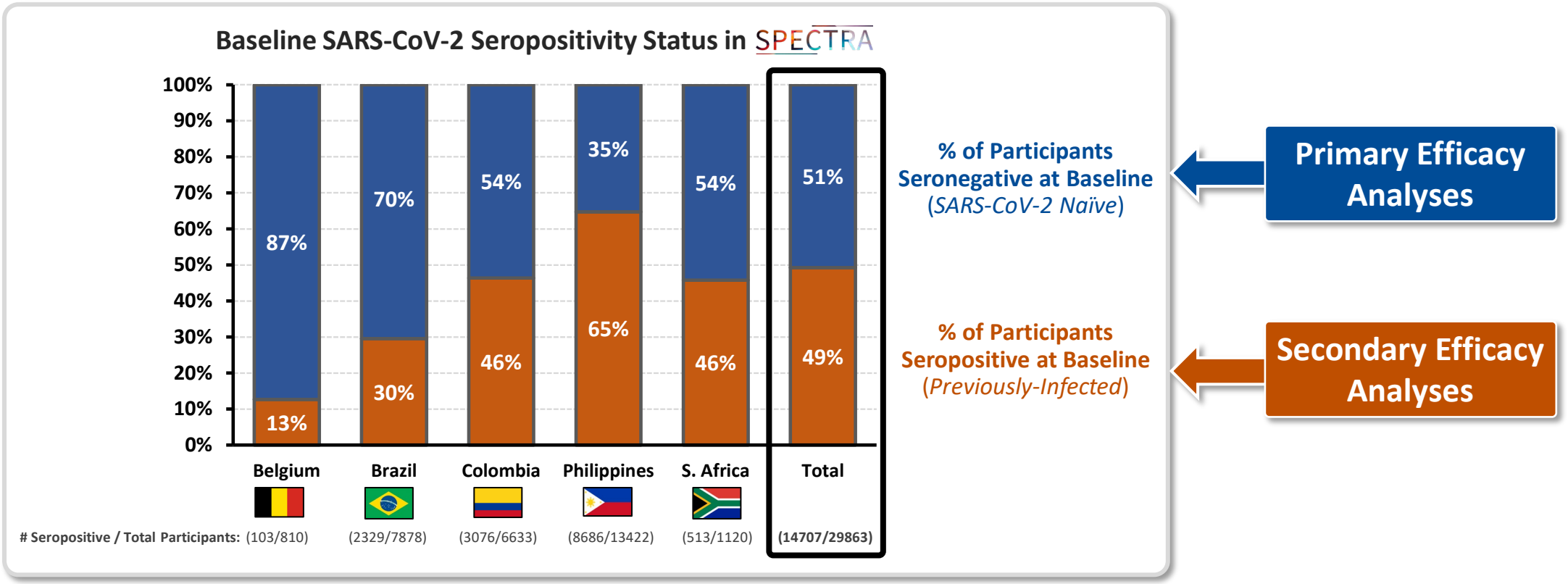
14% (28/207) of adjudicated cases were not yet sequenced as of cutoff date for final analysis (1)

Note: VOC (Variant of Concern). VOI (Variant of Interest).
(1) Counting of cases for primary efficacy analyses begins at ≥14 days after second dose. Cutoff date for primary efficacy analyses was 10-AUG-2021 in all countries in SPECTRA.
(2) 207 cases included in primary efficacy analyses in baseline seronegative participants were adjudicated by an independent endpoint adjudication committee (EAC). 41 additional cases in baseline seropositive participants were adjudicated and included for secondary efficacy analyses.
(3) Samples processed for sequencing, but strains were not identified (e.g. lack of sufficient nasopharyngeal swab sample collected, unsuccessful RNA-sample extraction, etc.).

Enrollment of Previously-Infected Individuals in SPECTRA

☑ *SPECTRA enrollment enables evaluation of efficacy & safety in previously-infected individuals in a randomized clinical trial*

- **Previous COVID-19 vaccine clinical trials** evaluated efficacy & safety primarily in **SARS-CoV-2 naïve individuals** ('baseline seronegatives')
- As SARS-CoV-2 continues to spread globally, evaluation of vaccine efficacy & safety in **previously-infected individuals ('baseline seropositives')** is becoming increasingly important
- **~49% of all participants enrolled in SPECTRA were baseline seropositive**, providing basis for landmark analysis of vaccine efficacy in this population
- Analysis for vaccine efficacy in SPECTRA were stratified by baseline seropositivity status



Note: Baseline seropositivity status determined by presence of antibodies binding to SARS-CoV-2 Spike (S) protein in Day 1 serum samples (Roche Elecsys® anti-S test) or known history of COVID-19 disease. Data shown for all participants with available seropositivity testing results.

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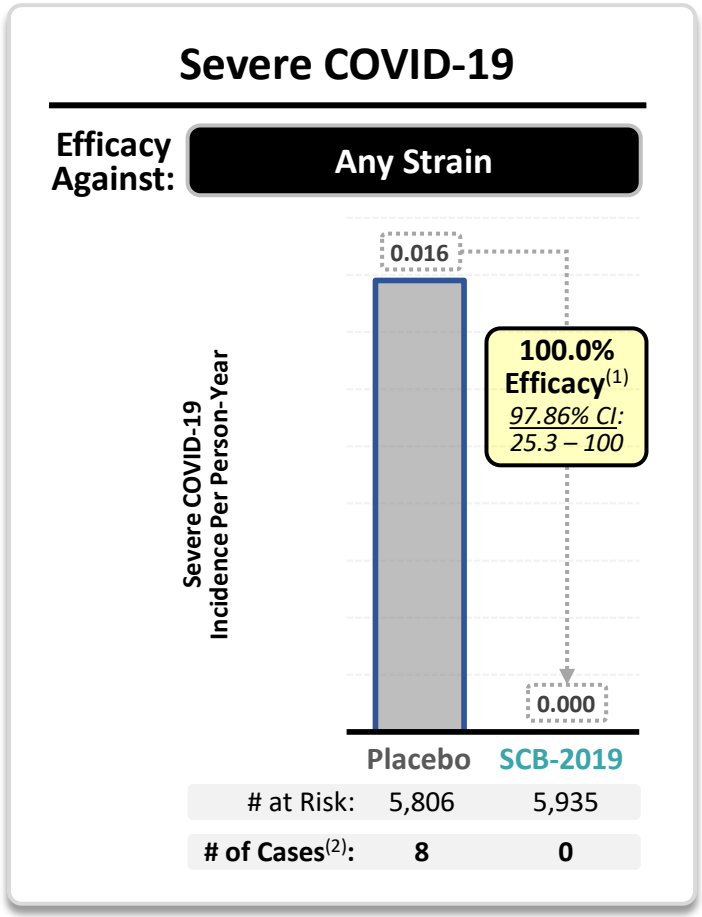
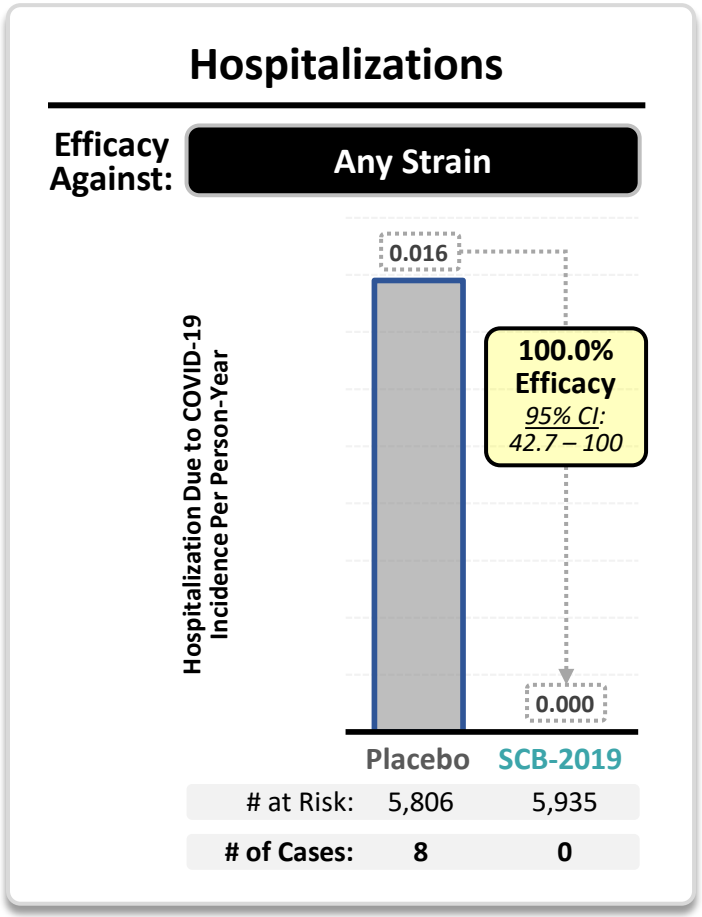
SPECTRA

Phase 2/3 Trial Results

100% Efficacy Against Severe COVID-19 & Hospitalizations

- ✓ 100% efficacy against severe COVID-19 (any strain) [1]
- ✓ 100% efficacy against hospitalizations due to COVID-19 (any strain)





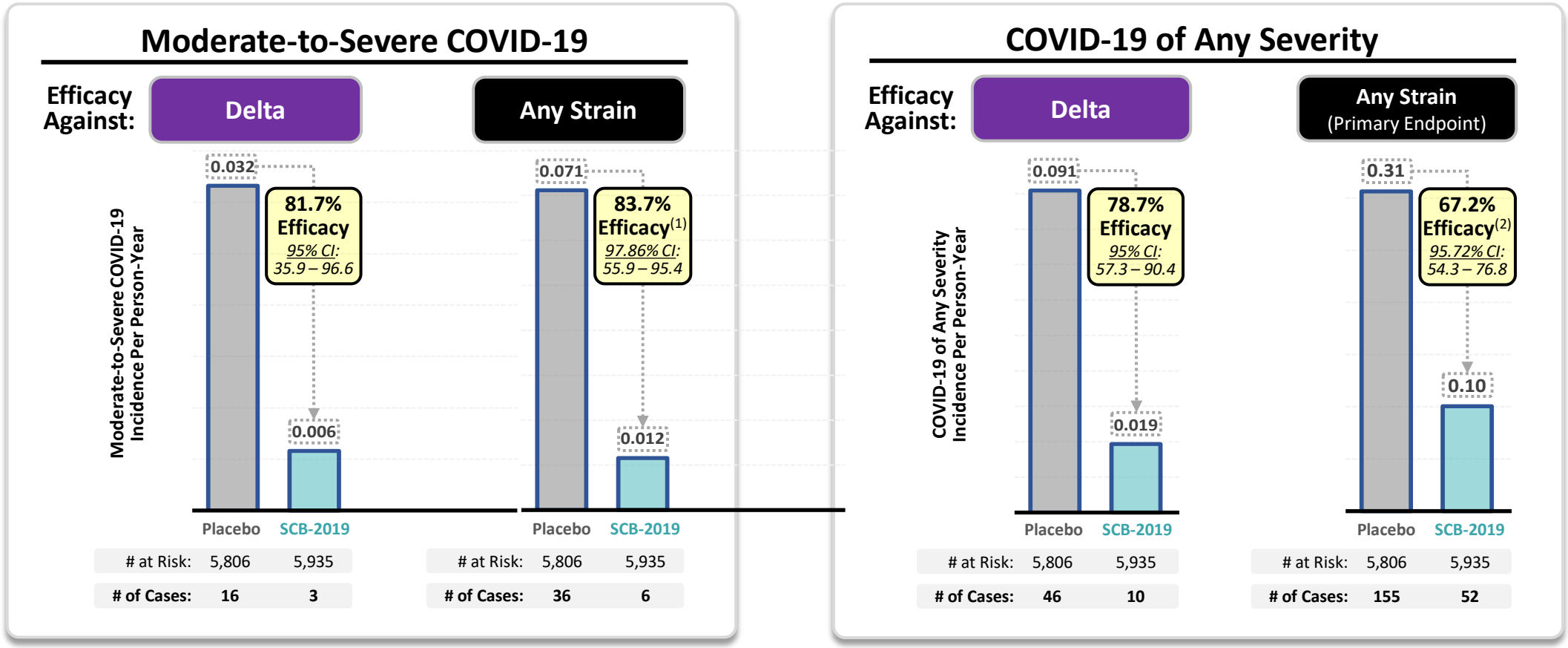
50% (4 out of 8) of severe COVID-19 cases were due to Delta

All deaths due to COVID-19 (3 cases) occurred in the Placebo group
(no deaths in Vaccine group)

Notes: Figures show data for PCR-confirmed COVID-19 at ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative). 3 deaths due to COVID-19 as of final analysis cutoff date (10-AUG 2021).
(1) Key secondary endpoint in SPECTRA protocol. Predefined success criteria is lower limit of 97.86% confidence interval exceeds 0%.
(2) 8 total severe COVID-19 cases includes 4 cases caused by Delta, 1 Alpha, 1 Other (not identified), 2 Other (not sequenced at time of primary analysis cutoff).

Significant Overall Efficacy Against COVID-19 (Including Globally-Dominant Delta Strain)

- ✓ **Primary efficacy endpoint successfully met;** 100% of strains identified were variants (including >85% were Delta/Mu/Gamma/Beta/Theta/Lambda)
- ✓ **Delta:** 81.7% efficacy against moderate-to-severe Delta COVID-19; 78.7% efficacy against Delta COVID-19 of any severity
- ✓ **Any Strain:** 83.7% efficacy against moderate-to-severe COVID-19; 67.2% efficacy against COVID-19 of any severity (primary endpoint of trial)

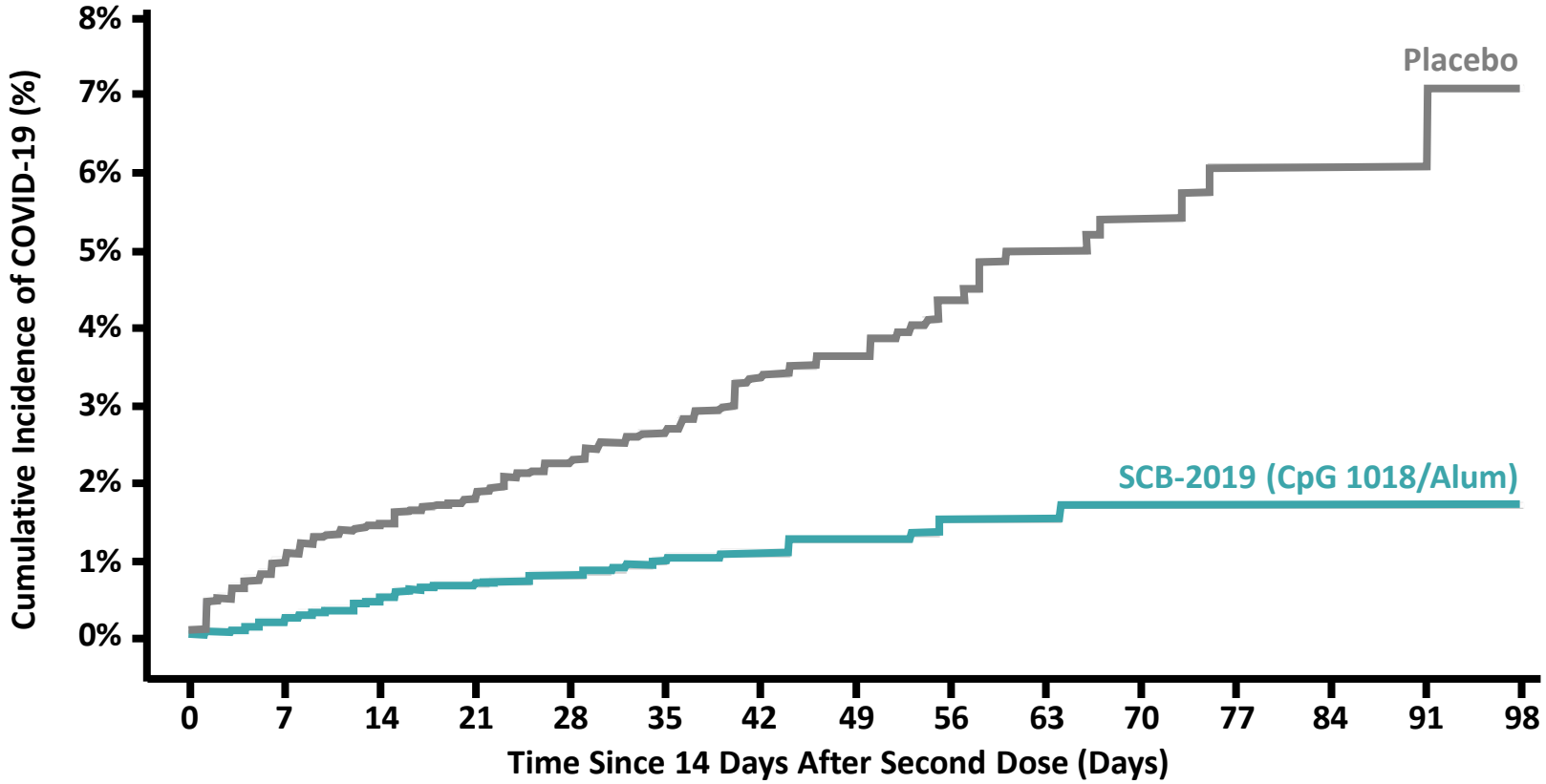


Notes: Figures show data for PCR-confirmed COVID-19 at ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative).
(1) Key secondary endpoint in SPECTRA protocol. Predefined success criteria is lower limit of 97.86% confidence interval exceeds 0%.
(2) Primary endpoint in SPECTRA protocol. Predefined success criteria is lower limit of 95.72% confidence interval exceeds 30%.

CLOVER BIOPHARMACEUTICALS

Significant Overall Efficacy Against COVID-19 (Including Globally-Dominant Delta Strain)

✓ **Vaccine efficacy appears to be persistent through 112 days after second dose in environment dominated by Delta and other concerning variants**



Participants at Risk															
Placebo	5806	5180	4505	3386	2476	2070	1782	1393	968	572	368	231	171	94	48
SCB-2019	5935	5313	4682	3526	2546	2075	1791	1410	995	571	349	226	166	81	46

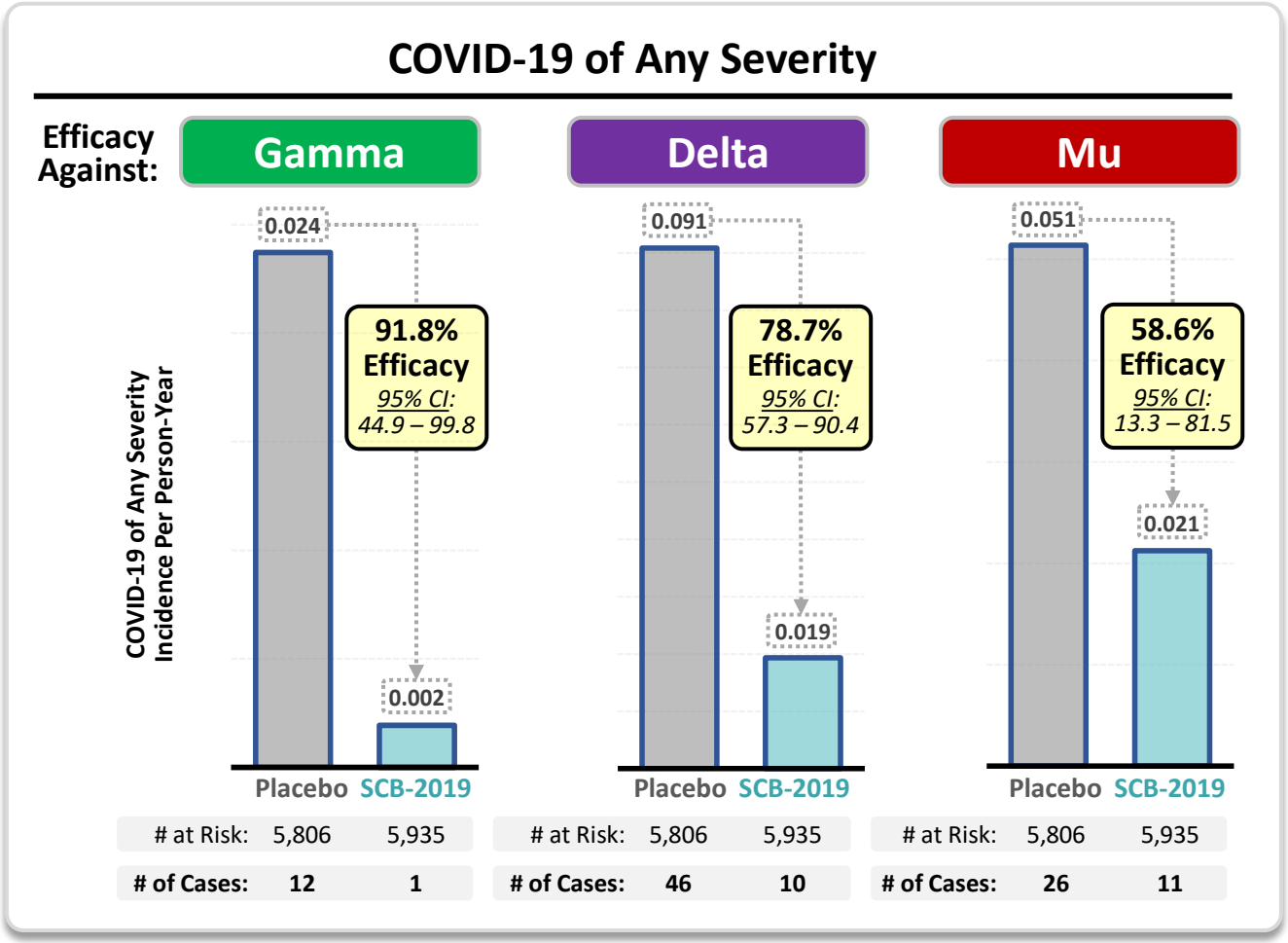
Cumulative Number of Events															
Placebo	7	61	81	97	109	118	132	136	145	150	152	154	154	155	155
SCB-2019	3	15	28	36	39	44	44	45	48	51	51	52	52	52	52

Notes: Figure shows data for PCR-confirmed COVID-19 of any severity (against any strain) at ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative). Primary endpoint in protocol.

CLOVER BIOPHARMACEUTICALS

Significant Efficacy Also Observed Against Gamma (VOC) and Mu (VOI)

- ✓ **First COVID-19 vaccine to demonstrate significant efficacy against Delta, Gamma & Mu variants** (Top 3 strains in SPECTRA, comprising 73% of all strains identified)
- **Differences in vaccine efficacy likely driven by unique mutation profiles of each variant strain**



- **Gamma: 91.8% efficacy against Gamma (any severity)**
  - Gamma (P.1) harbors E484K escape mutation in RBD, and demonstrated high transmissibility in Brazil and other Latin American countries(1)
- **Mu: 58.6% efficacy against Mu (any severity)**
  - Mu (B.1.621) is predominant strain in Colombia(1), and believed to be 'Beta-like' based on spike protein mutation profile and cross-neutralization studies(2)
  - A Phase 2b/3 clinical trial of an mRNA COVID-19 vaccine candidate demonstrated lowest efficacy against Mu (41.5% vaccine efficacy) among all variant strains evaluated(3)
- **Other: Against all other sequenced strains (including Alpha, B.1.623, Beta, Lambda, Theta, Other & Not Identified), efficacy against moderate-to-severe COVID-19 was 90.2% (95% CI: 31.2,99.8), and efficacy against COVID-19 of any severity was 55.0% (95% CI: 24.9%, 73.8%)**
  - No hospitalizations or severe COVID-19 cases in vaccine group (2 severe COVID-19 cases in placebo group)
  - Insufficient number of cases of each individual variant strain to enable statistical analyses of vaccine efficacy

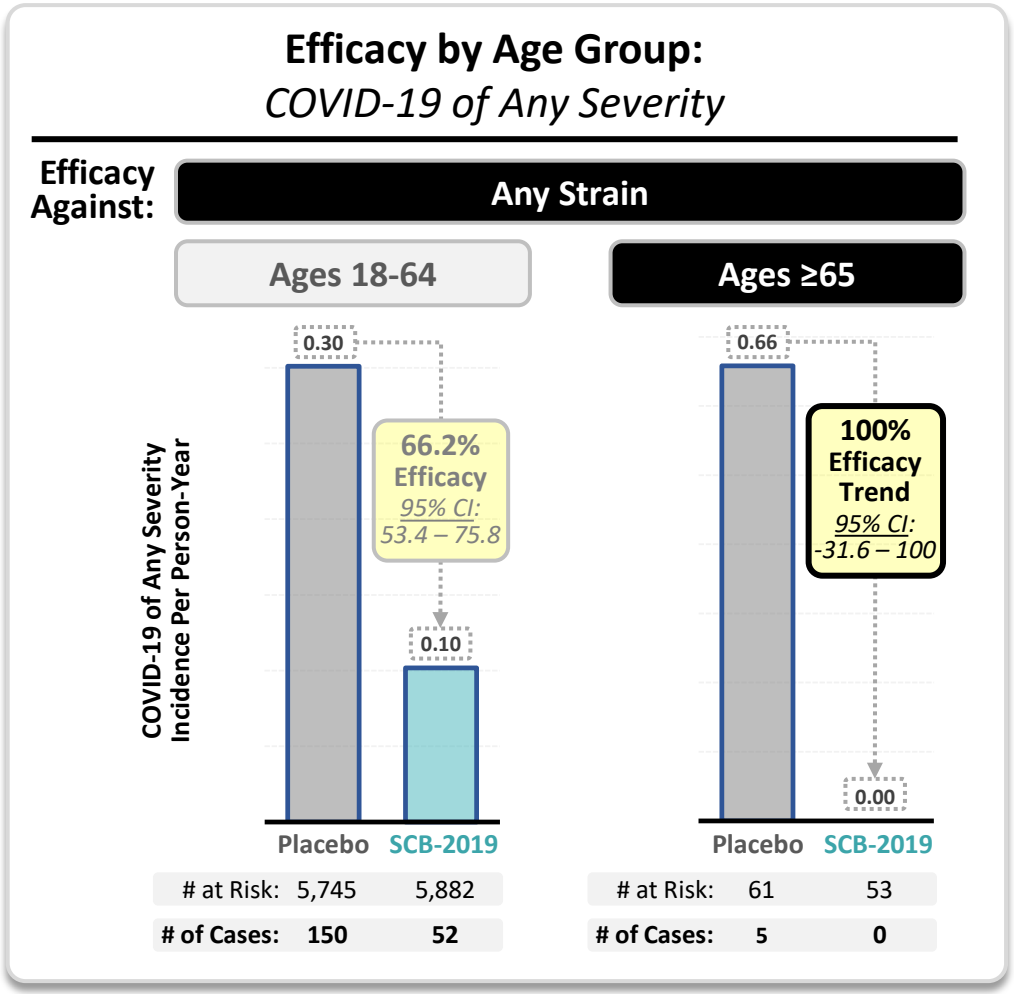
Notes: VOC (variant of concern); VOI (variant of interest). RBD (receptor binding domain of spike protein). Figures show data for PCR-confirmed COVID-19 at ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative).

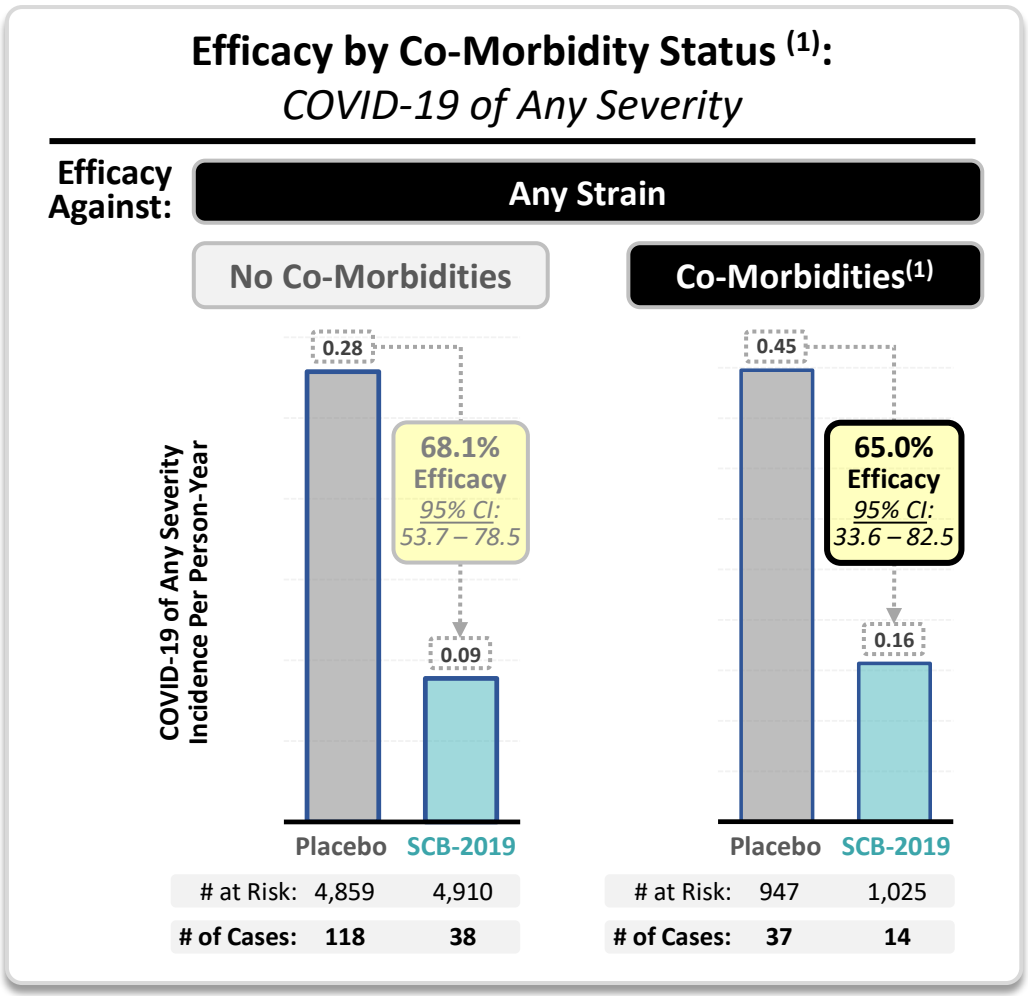
(1) NextStrain.org (GISAID database) as of 06-SEP-2021.
(2) DOI: 10.1101/2021.09.06.459005
(3) DOI: 10.2139/ssrn.3911826

CLOVER BIOPHARMACEUTICALS

Efficacy in High-Risk Populations (Elderly & Co-Morbidities)

- ✓ **Trend in efficacy observed in Elderly Population; results do not suggest an age-dependent decline in efficacy**
- ✓ **Significant vaccine efficacy observed in Participants with Co-Morbidities for COVID-19 (1)**



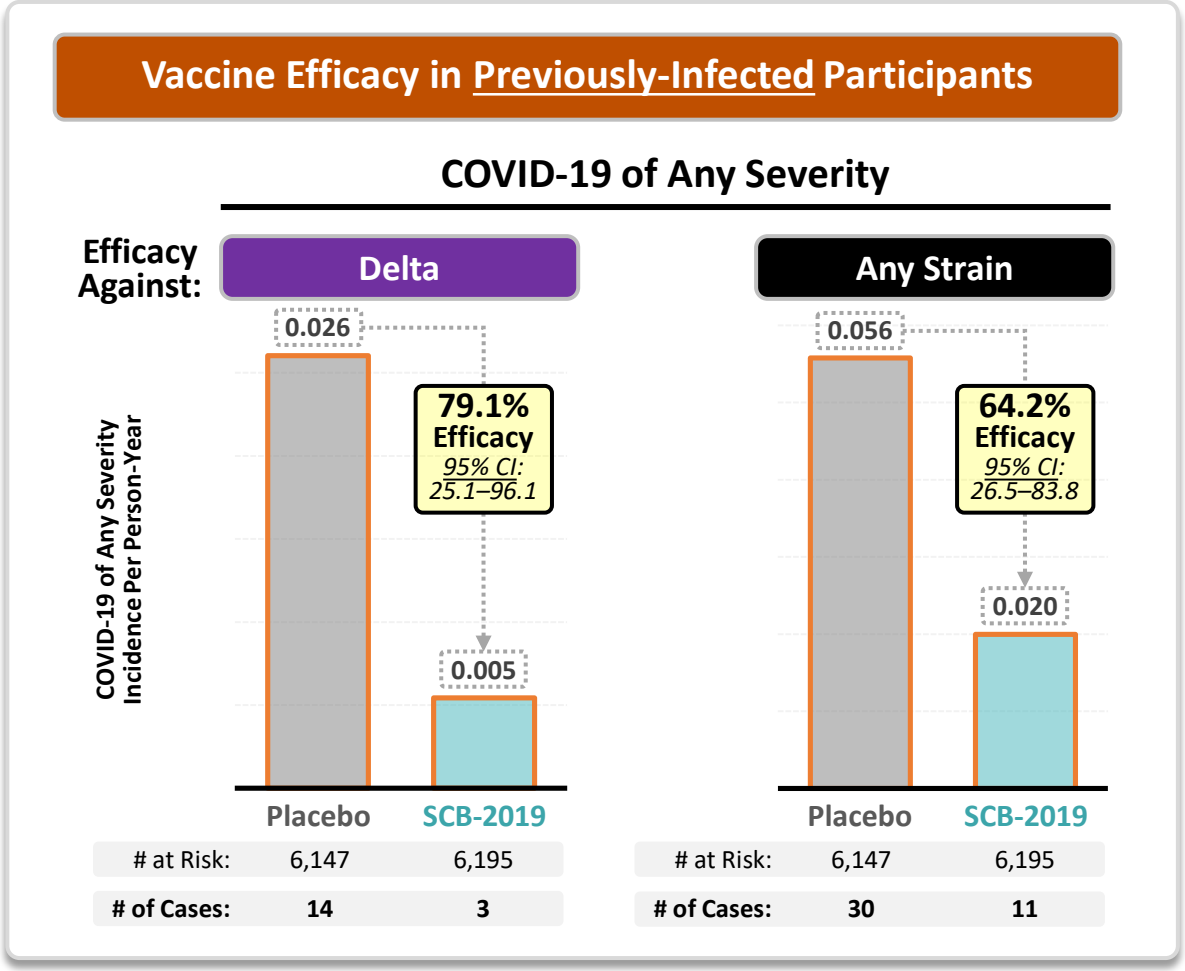


Notes: Figures show data for PCR-confirmed COVID-19 at ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative).
(1) Co-morbidities defined as participants at high risk for severe COVID-19 (U.S. CDC Recommendations, 2021).

CLOVER BIOPHARMACEUTICALS

SCB-2019 Significantly Reduces Risk of COVID-19 in *Previously-Infected Individuals*

- ✓ **Risk of symptomatic COVID-19 reinfection reduced by 79.1% against Delta (and 64.2% any strain)**
- ✓ **First COVID-19 vaccine globally to demonstrate efficacy & safety in previously-infected individuals**



- As SARS-CoV-2 continues to spread globally, evaluation of vaccine efficacy & safety in **previously-infected individuals ('baseline seropositives')** has become increasingly important
- **~49% of all participants in SPECTRA were seropositive at baseline**, providing basis for landmark analysis of vaccine efficacy in this population
- **Delta:** 79.1% (95% CI: 25.1 – 96.1) vaccine efficacy in baseline seropositive participants against COVID-19 of any severity due to Delta (3 Vaccine : 14 Placebo)
- **Any Strain:** 64.2% (95% CI: 26.5 – 83.8%) vaccine efficacy in baseline seropositive participants against COVID-19 of any severity due to any strain
- 4 cases of moderate-to-severe COVID-19 in baseline seropositive participants (1 Vaccine : 3 Placebo)

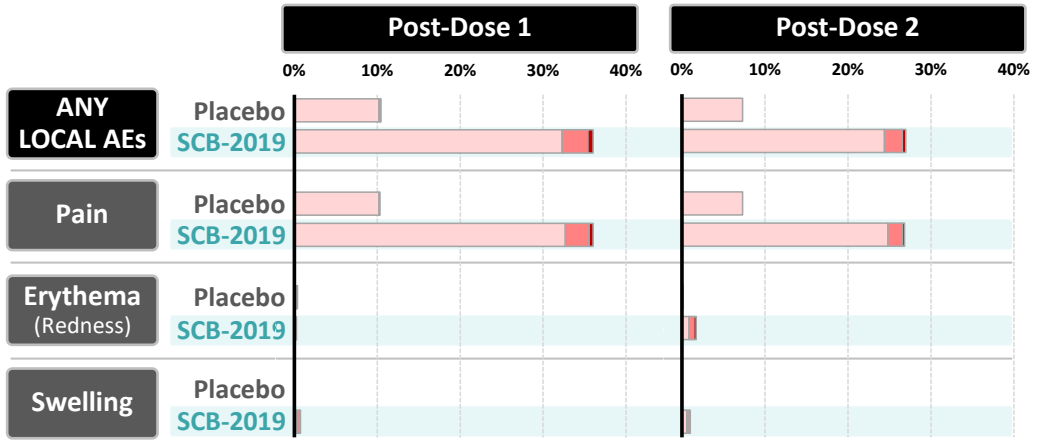
Notes: Figures show data for PCR-confirmed COVID-19 at ≥14 days after second dose in participants with evidence of prior SARS-CoV-2 infection (baseline seropositive). Baseline seropositivity status determined by presence of antibodies binding to SARS-CoV-2 Spike (S) protein in Day 1 serum samples (Roche Elecsys® anti-S test) or known history of COVID-19 disease.

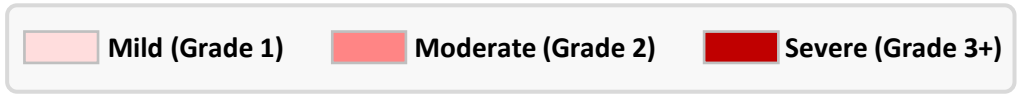
CLOVER BIOPHARMACEUTICALS

Favorable Safety Profile Observed

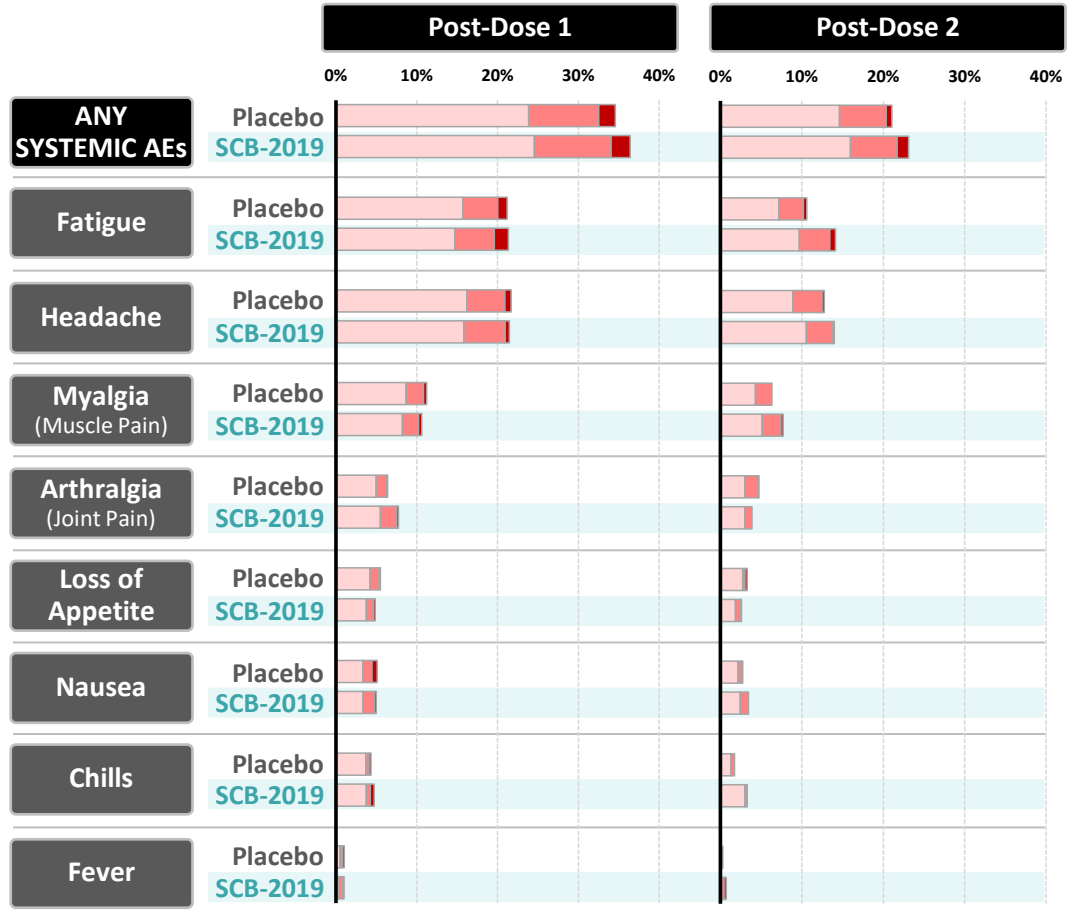
- ✓ SAEs, Severe AEs, MAAEs and AESIs were infrequent, and no significant differences observed compared to Placebo group
- ✓ Solicited Local AEs: Mostly mild and transient
- ✓ Solicited Systemic AEs: No significant differences observed compared to Placebo group
- ✓ Any Solicited AEs (Local or Systemic) decreased in frequency after second dose

Solicited Local AEs





Solicited Systemic AEs



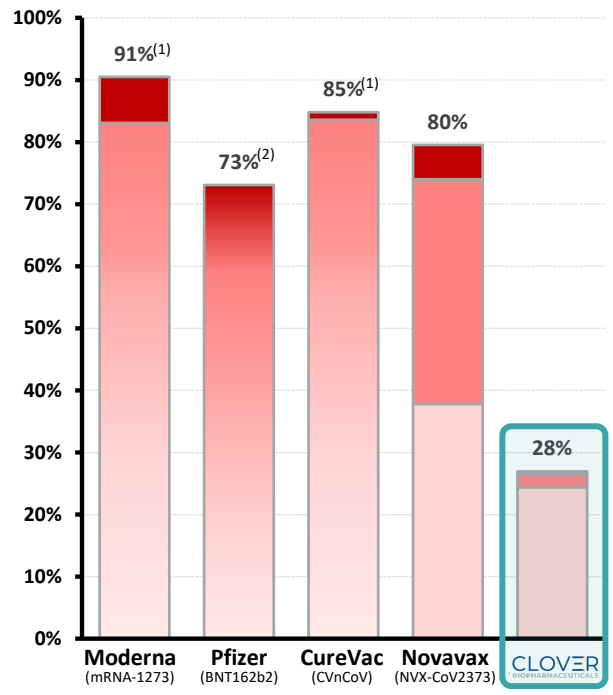
Safety data reviewed by independent DSMB; no safety concerns were identified warranting a pause or modification to the trial to-date

Notes: Solicited Adverse Events (AE) data collected in 1,601 participants in SPECTRA (n=808 in vaccine group / n=793 in placebo Group), including both baseline seronegative and seropositive participants. Percentage of participants experiencing AEs are shown in figures. Abbreviations: SAE (Serious AE), MAAE (Medically-Attended AE), AESI (AE of Special Interest). DSMB (Data & Safety Monitoring Board).

Comparison of Safety Profiles (Non-Head-to-Head Data)

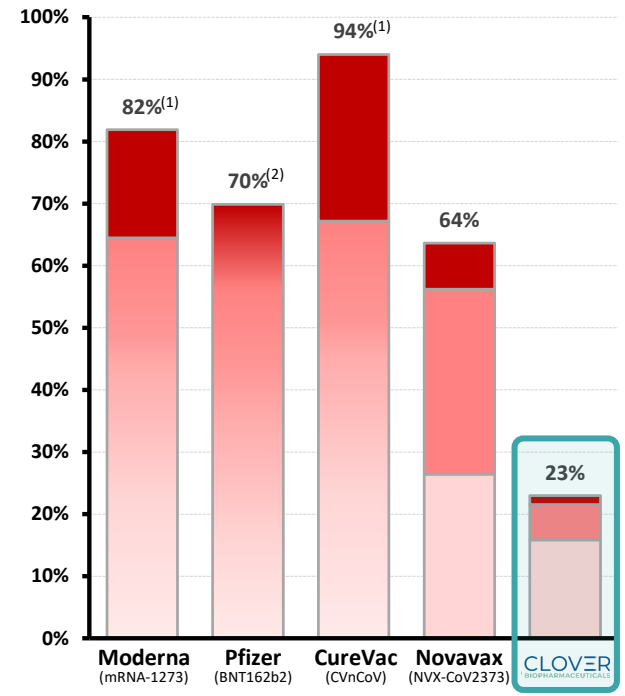
☑ *Favorable & Potentially-Differentiated Safety Profile Compared to Other COVID-19 Vaccines*

Any LOCAL AEs (After 2nd Dose)
% of Participants



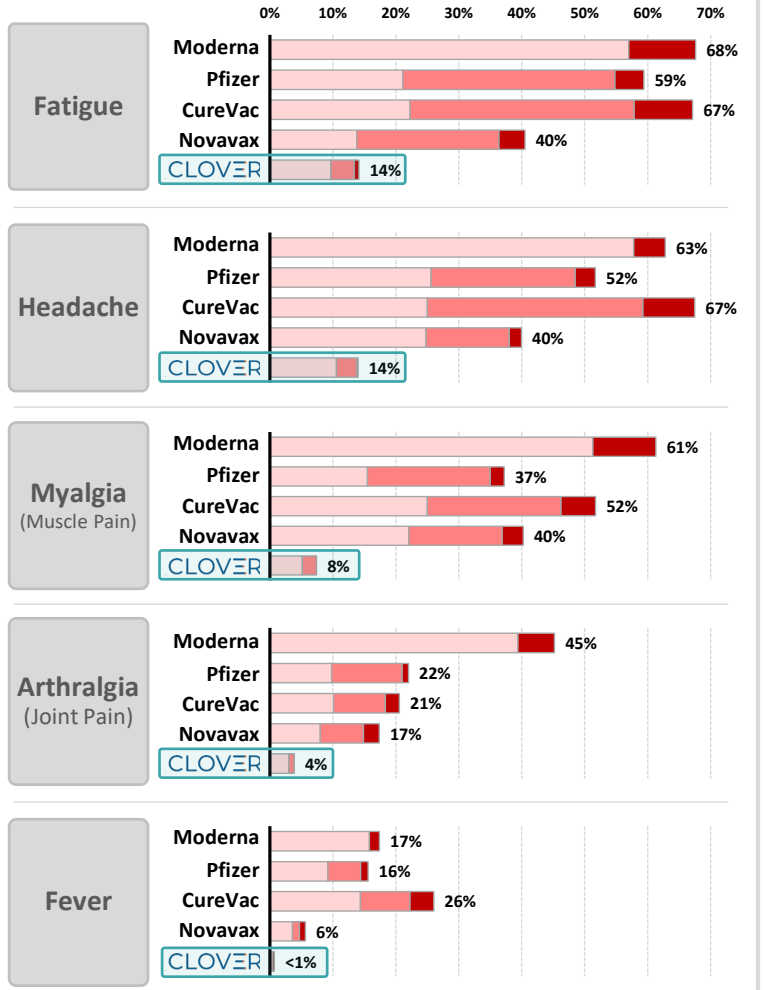
	Moderna (mRNA-1273)	Pfizer (BNT162b2)	CureVac (CVnCoV)	Novavax (NVX-CoV2373)	CLOVER BIOPHARMACEUTICALS
Subject Age (Data):	18-64	≥18	≥18	≥18	≥18
Clinical Trial:	Phase 3	Phase 2/3	Phase 2b/3	Phase 3	Phase 2/3
# Enrolled (Vaccine):	15,208	21,823	19,783	7,020	15,064
Reference:	[1]	[2]	[3]	[4]	--

Any SYSTEMIC AEs (After 2nd Dose)
% of Participants



	Moderna (mRNA-1273)	Pfizer (BNT162b2)	CureVac (CVnCoV)	Novavax (NVX-CoV2373)	CLOVER BIOPHARMACEUTICALS
Subject Age (Data):	18-64	≥18	≥18	≥18	≥18
Clinical Trial:	Phase 3	Phase 2/3	Phase 2b/3	Phase 3	Phase 2/3
# Enrolled (Vaccine):	15,208	21,823	19,783	7,020	15,064
Reference:	[1]	[2]	[3]	[4]	--

SYSTEMIC AEs (After 2nd Dose)



Mild (Grade 1) | Moderate (Grade 2) | Severe (Grade 3+)

References: [1] Moderna FDA Briefing Document - VRBAC Meeting DEC 17, 2020, [2] Pfizer FDA Briefing Document – VRBAC Meeting DEC 10, 2020, [3] CureVac HERALD Study Final Analysis Presentation – JUL 01, 2021 and DOI: 10.2139/ssrn.3911826, [4] DOI: 10.1056/NEJMoa2107659.
Notes: **CROSS-TRIAL COMPARISONS FOR ILLUSTRATIVE PURPOSES ONLY**. Percentage of participants experiencing adverse events (AEs) are shown in figures.
(1) Data not disclosed separately for mild and moderate AEs. Shown in figure as combined mild-moderate AEs.
(2) Data not disclosed separately for mild, moderate and severe AEs. Shown in figure as combined mild-moderate-severe AEs.

CLOVER BIOPHARMACEUTICALS

Comparison of Binding Antibody Titers (Head-to-Head in Same Assay)[1]

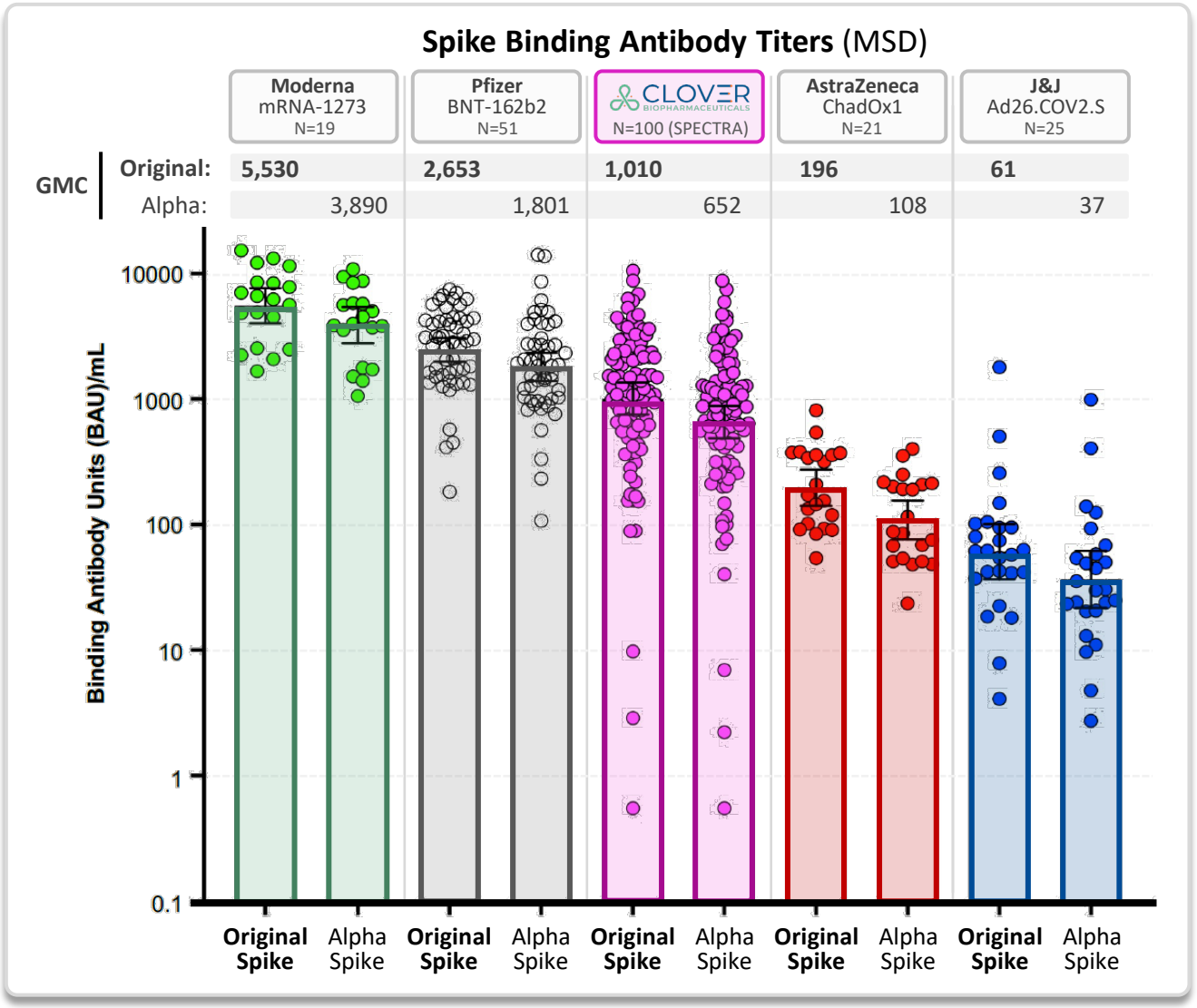
☑ *Antibody Titers In-Line or Higher Compared with 4 Approved COVID-19 Vaccines*

In-Line or Higher Antibody Titers Induced by CLOVER BIOPHARMACEUTICALS 's SCB-2019 (CpG 1018/Alum) Compared to 4 Approved COVID-19 Vaccines

- ✓ **~5-6x higher** binding Ab titers versus ChadOx1 (AstraZeneca) COVID-19 vaccine in this study
- ✓ **~16-18x higher** binding Ab titers versus Ad26.COV2.S (J&J) COVID-19 vaccine in this study
- ✓ Neutralizing antibodies titers could be comparable with BNT-162b2 (Pfizer) and mRNA-1273 (Moderna) mRNA vaccines, based on Neutralizing/ Binding Antibody ratios observed in previous studies[2]
- ✓ **81-94% efficacy against original strain predicted** based on correlation analysis (ρ = 0.94) of binding antibody titers and vaccine efficacy[1,3]

Study Summary:

- 100 serum samples from participants vaccinated with 2 doses of SCB-2019 (CpG 1018/Alum) in Clover's SPECTRA Phase 2/3 trial were sent to central lab in U.K. (David Goldblatt) for binding antibody testing
  - Serum from baseline seronegative participants (SARS-CoV-2 naïve)
  - Median Age: 35 years (min-max: 18-73 years)
- Study enables head-to-head comparison of antibody titers to 4 approved vaccines using the same assays in the same laboratory



Note: Bars represent Geometric Mean Concentrations (GMC) of Spike IgG BAU/mL. Error bars represent 95% Confidence Intervals (95% CI). Data shown for 4 approved COVID-19 vaccines including Moderna mRNA-1273 vaccine (median age: 35; min-max: 20-55), Pfizer BNT-162b2 vaccine (median age: 43; min-max: 21-77), AstraZeneca ChadOx1 nCoV-19 vaccine (median age: 60; min-max: 23-70), J&J Ad26.COV2.S vaccine (median age: 48; min-max: 31-69).

(1) DOI: 10.21203/rs.3.rs-902086/v1
(2) Ratio of neutralizing antibodies (vaccine/HCS) to binding antibodies (vaccine/HCS) in prior clinical studies implies that adjuvanted protein-based vaccines (Clover and Novavax) induce approximately 3x higher ratio of neutralizing-to-binding antibodies compared to mRNA vaccines (Moderna and Pfizer). Clover (DOI: 10.1016/S0140-6736(21)00258-0); Novavax (DOI: 10.1056/NEJMoa2026920); Moderna (DOI: 10.1056/NEJMoa2022483), Pfizer (DOI: 10.1038/s41586-020-2639-4). HCS (human convalescent sera).
(3) DOI: 10.21203/rs.3.rs-832531/v1

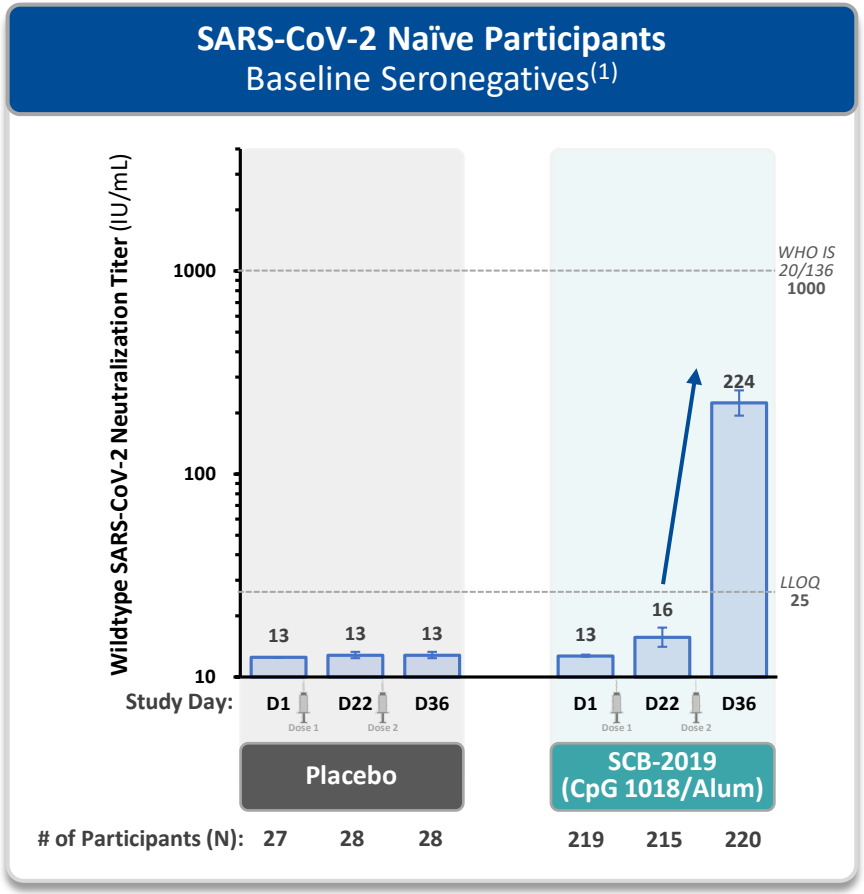
CLOVER BIOPHARMACEUTICALS

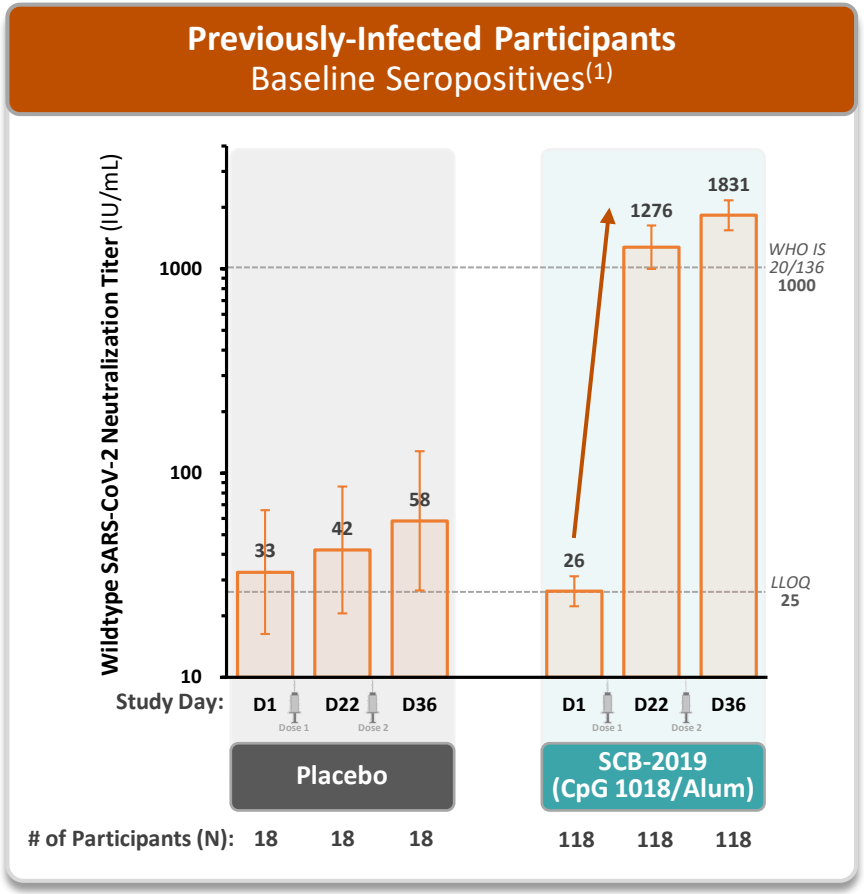
Neutralizing Antibodies (Wildtype SARS-CoV-2 Neutralization Assay)

☑ *Strong Neutralizing Immune Responses Induced by SCB-2019 (CpG 1018/Alum)*

✓ **High neutralizing antibodies induced in SARS-CoV-2 naïve participants after 2 doses of SCB-2019 (CpG 1018/alum); results are in-line with Clover's Phase 1 clinical trial**

✓ **Rapid & strong boosting effect induced in previously-infected participants after 1 dose, supporting further evaluation of SCB-2019 (CpG 1018/alum) as a booster vaccine**





Notes: Bars represent Geometric Mean Concentrations (GMC) ± 95% confidence intervals (95% CI). Validated Wildtype neutralization assay against the original strain of SARS-CoV-2 (VisMederi). Titers expressed was international units/mL (IU/mL) based on WHO international standard sera (WHO IS 20/136). Samples with titers below LLOQ were assigned a value of 12.5.
(1) Baseline seropositivity status determined by presence of antibodies binding to SARS-CoV-2 Spike (S) protein in Day 1 serum samples (Roche Elecsys® anti-S test).

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Key Takeaways from SPECTRA Global Phase 2/3 Trial

- *SPECTRA successfully enrolled over 30,000 adult & elderly participants in 5 countries across 4 continents*
- *100% of SARS-CoV-2 strains observed in the efficacy analysis were variants (Delta was predominant strain)*

- ✓ **Primary and secondary efficacy endpoints were successfully met**
- ✓ **100% efficacy against severe COVID-19 & hospitalization, 83.7% efficacy against moderate-to-severe COVID-19, 67.2% efficacy against COVID-19 of any severity** caused by any strain of SARS-CoV-2 in SPECTRA
- ✓ **Delta: 78.7% efficacy** against **COVID-19 of any severity** caused by the **globally-dominant Delta strain**
- ✓ **Favorable safety profile:** No significant differences in systemic adverse events or severe/serious adverse events compared to placebo
- ✓ First COVID-19 vaccine to demonstrate **significantly reduced risk of COVID-19 disease in previously-infected individuals**, a growing & increasingly important population as SARS-CoV-2 continues to spread globally

Next Steps:

- **Conditional approval submissions** to global regulatory agencies planned in **Q4-2021**
- Targeting **initial product launch potentially by the end of 2021**

Thank You

Clover Biopharmaceuticals

www.cloverbiopharma.com