CLOVER BIOPHARMACEUTICALS

SCB-1019 (Bivalent RSV PreF-Trimer):

Phase 1 Older Adult & Elderly Cohort Data

June 18th, 2024

Executive Summary

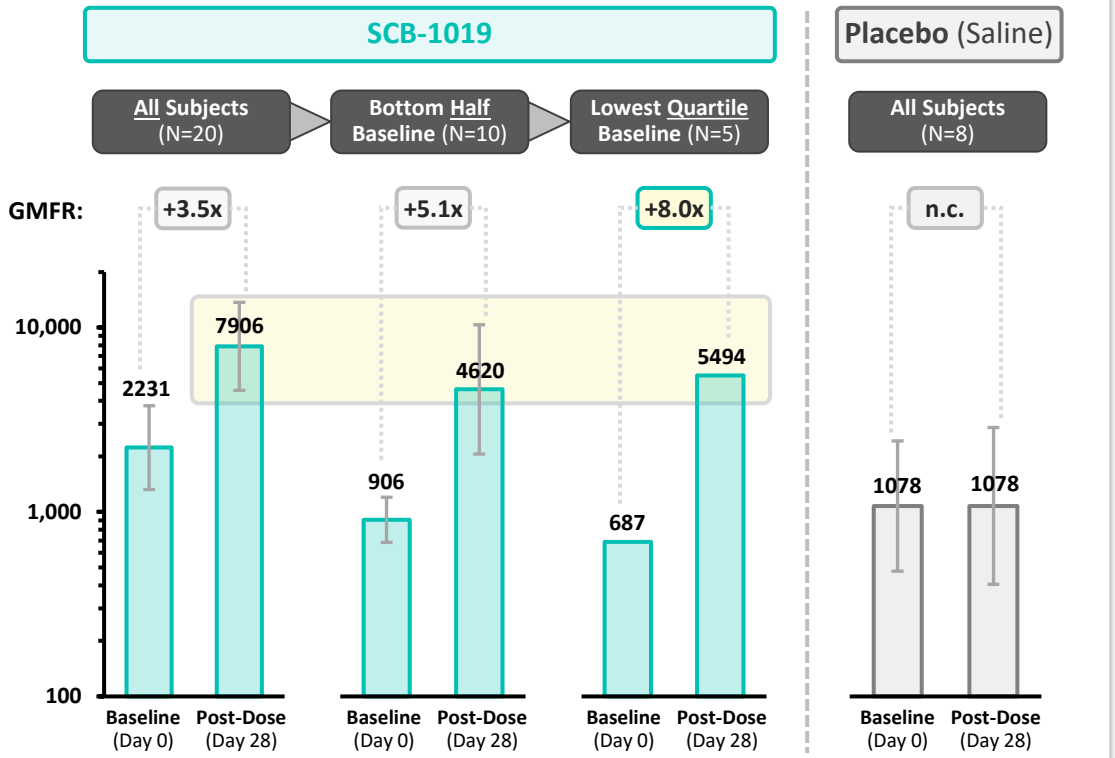
- ☑ **Positive Preliminary Phase 1 Immunogenicity & Safety Results for Bivalent RSV Vaccine Candidate SCB-1019 in Older Adult Cohort**
- ☑ **1st RSV PreF Vaccine Candidate Developed in China to Enter the Clinical Trial Stage and Generate Clinical Data**
- ☑ **Results in Older Adults & Elderly (60-85 Years) are Consistent with Earlier Results in Younger Adults (18-59 Years)**

- **Study Design: The Phase 1 Clinical Trial in Australia is a Randomized, Placebo-Controlled Study to Assess the Safety, Reactogenicity and Immunogenicity of SCB-1019**
  - **48 Older Adult Subjects** were enrolled, and received SCB-1019 or saline placebo
- **Positive Immunogenicity Results in Older Adults: Bivalent SCB-1019 Significantly Boosted RSV-A and RSV-B Neutralization Titers Up to 7,906 IU/mL and 46,674 IU/mL, Respectively**
  - High baseline nAb titers at Day 0, especially to RSV-B, were observed, potentially reflecting recent outbreaks near the clinical trial sites
  - Up to **8-fold (RSV-A nAb)** and **11-fold (RSV-B nAb)** Geometric Mean Fold Rises (GMFRs) were observed for sub-analyses in subjects with the lowest quartile baseline nAb titers
  - Clover's preliminary immunogenicity data across both RSV-A and RSV-B neutralization appear to be in-line or potentially favorable compared to other top-tier protein subunit RSV PreF vaccines
- **Safety & Reactogenicity: SCB-1019 Demonstrated a Favorable Safety & Reactogenicity Profile Comparable to Saline Placebo**
  - No serious adverse events (SAEs), adverse events of special interest (AESIs), or AEs leading to discontinuation were observed
- **Full Phase 1 Data Readout is Expected by the End of 2024**

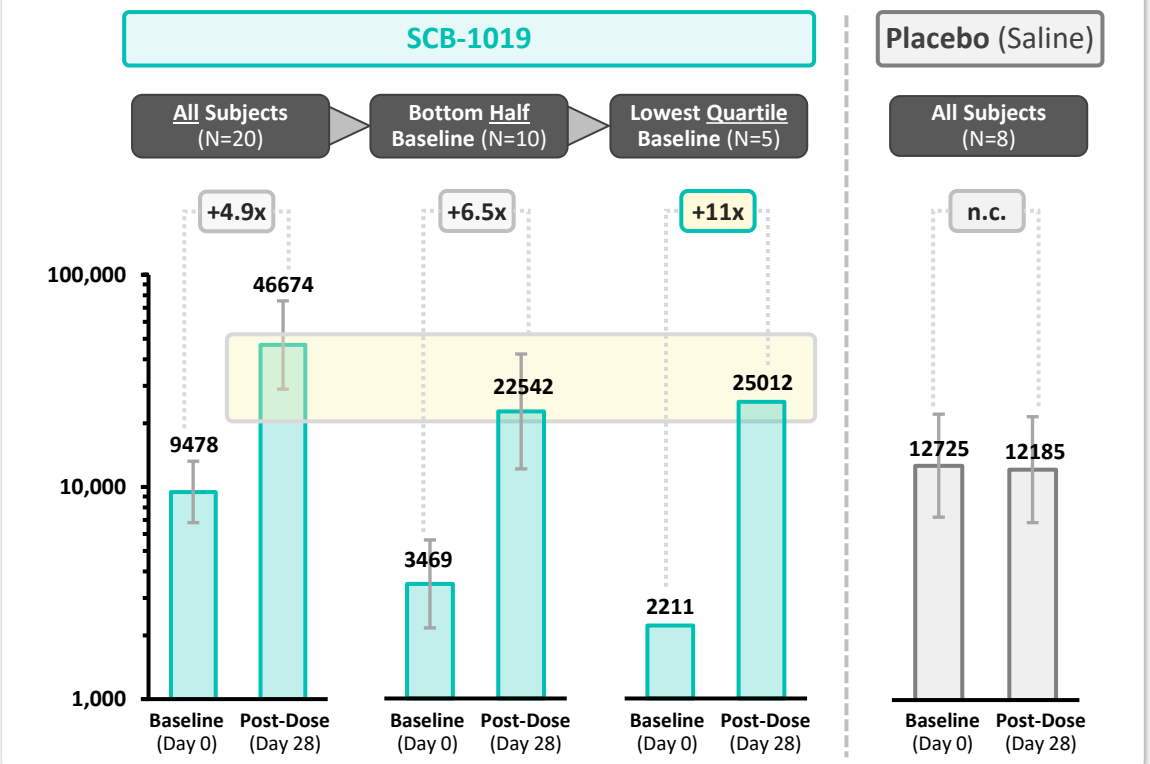
SCB-1019 Preliminary Phase 1 Results (Older Adult Cohort)

- SCB-1019 Induced Significant Increases in RSV-A and RSV-B Neutralization Titers (at Day 28), Despite High Titers at Baseline (at Day 0)
  - High Baseline RSV Nab Titers, Especially to RSV-B, Potentially Reflecting Recent Outbreaks Near the Clinical Trial Sites
- GMFRs up to 8-fold (RSV-A) and 11-fold (RSV-B) for Sub-analysis in Subjects with the Lowest Quartile Baseline nAb Titers

RSV-A Neutralization Titers (IU/mL)



RSV-B Neutralization Titers (IU/mL)

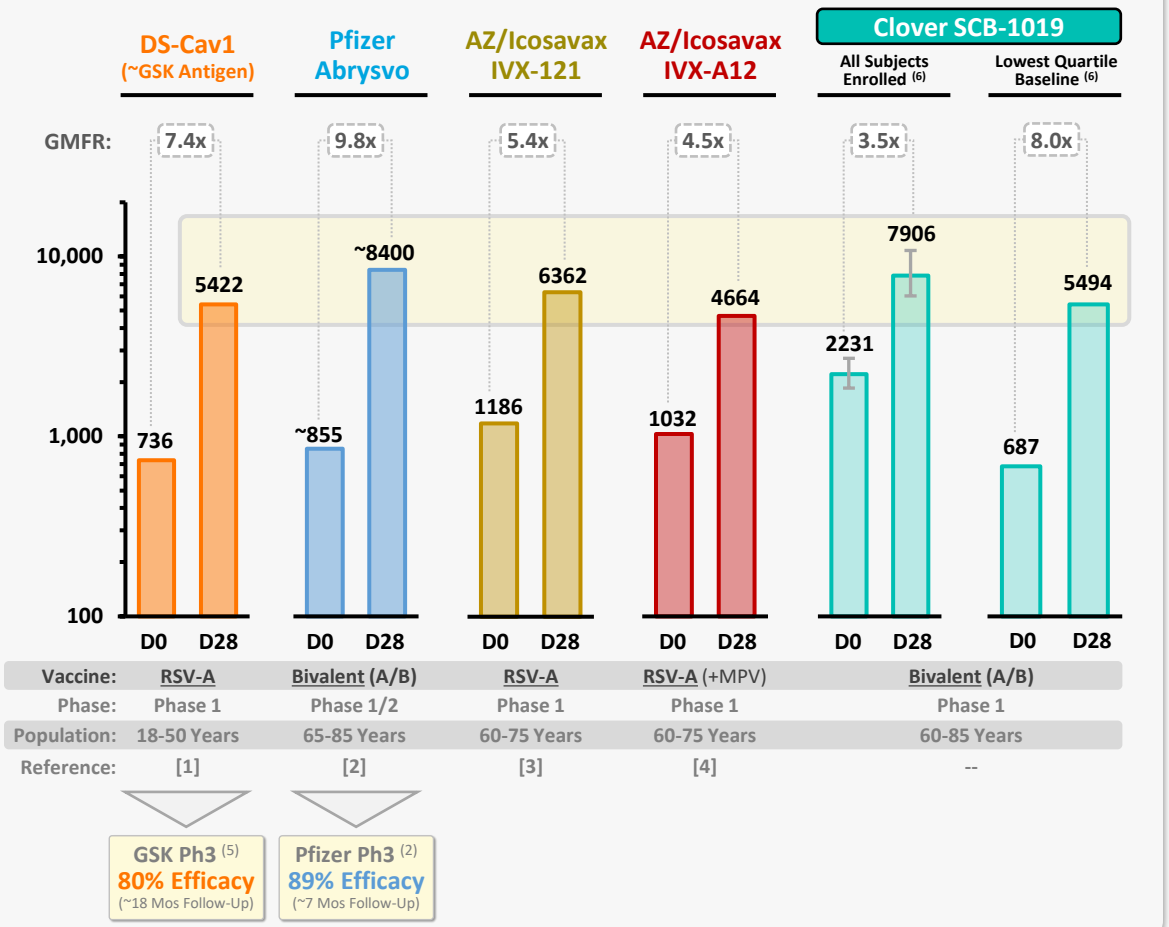


Abbreviations: IU/mL (International Units Per Milliliter), GMT (Geometric Mean Titer), GMFR (Geometric Mean Fold Rise).
Note: Bars represent GMTs (± 95% confidence intervals). Data shown for SCB-1019 subjects enrolled at the selected dose level.
RSV neutralization titers expressed as IU/mL calculated using comparison to NIBSC 16/284 reference sera. Assay conducted at third-party testing laboratory using validated RSV neutralization assays.

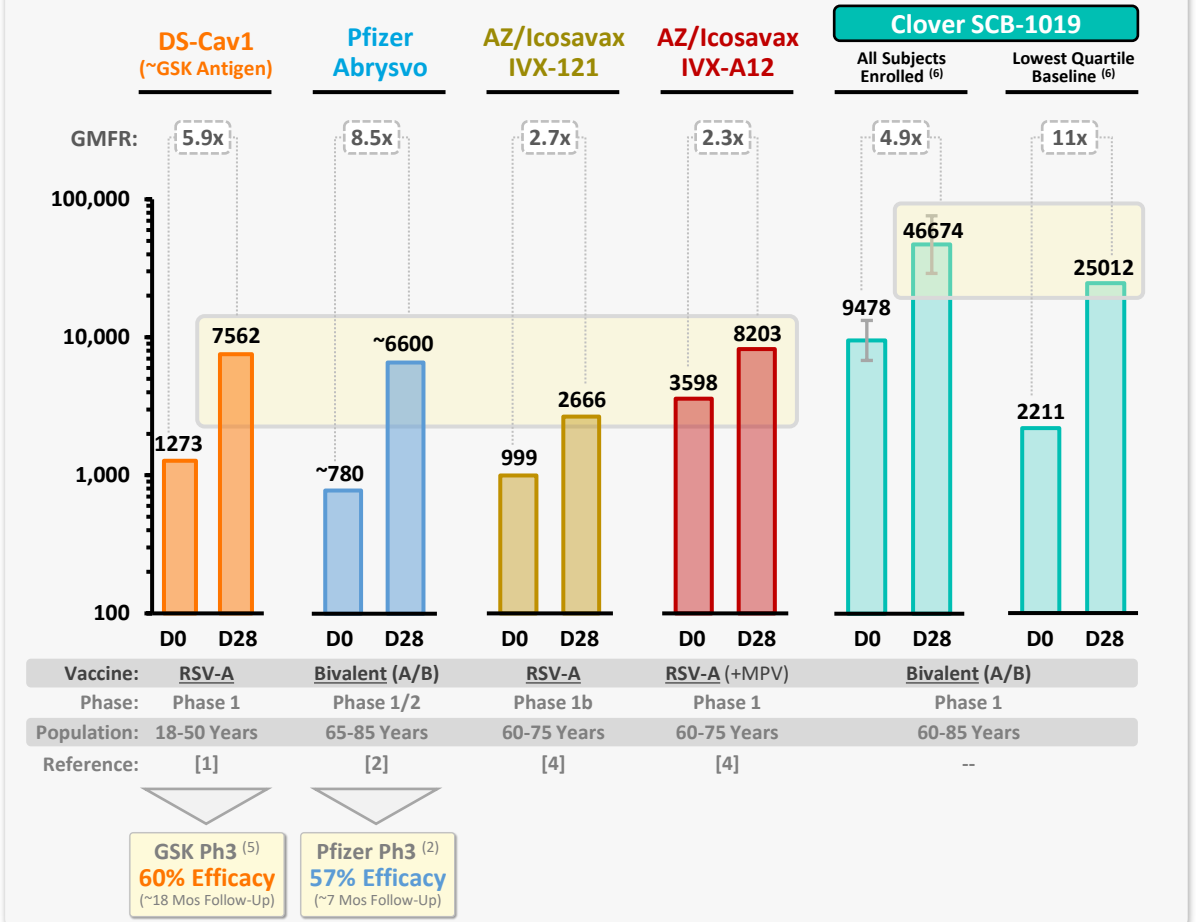
CLOVER BIOPHARMACEUTICALS

SCB-1019 Phase 1 Results in Older Adults are In-Line or Potentially Favorable to Other RSV PreF Protein Vaccines

RSV-A Neutralization Titers (IU/mL)



RSV-B Neutralization Titers (IU/mL)



☑ SCB-1019 Potentially In-Line

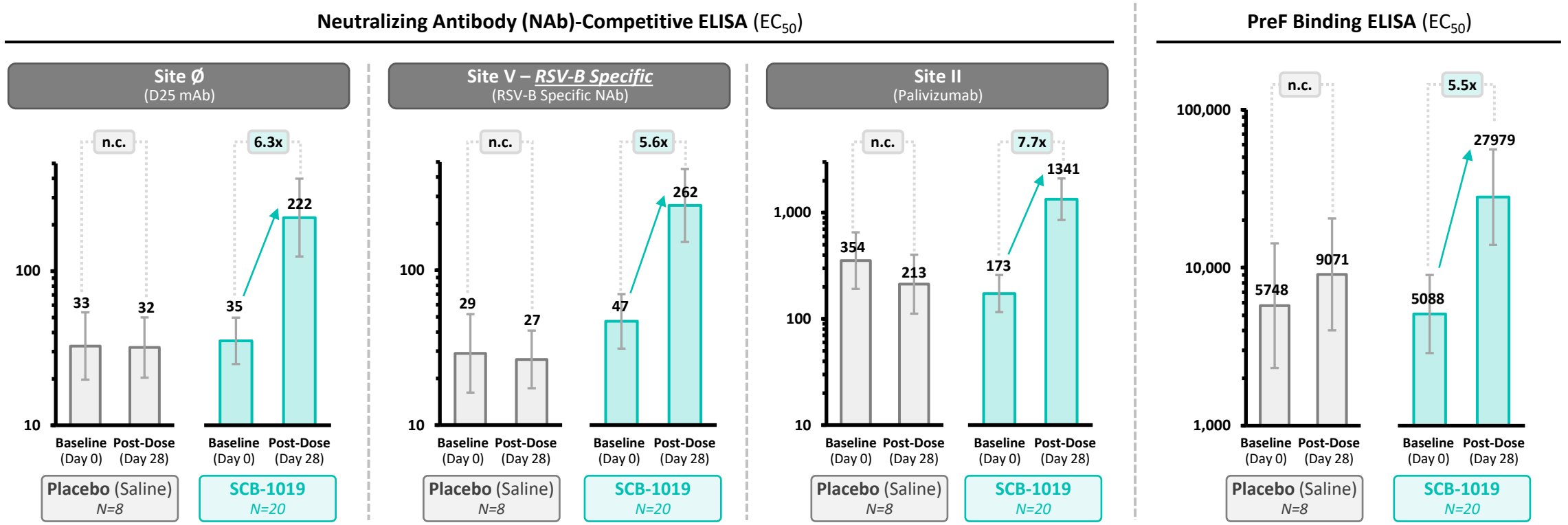
☑ SCB-1019 In-Line or Potentially Favorable

Note: **Cross Trial Comparisons for Illustrative Purposes Only.** RSV neutralization titers expressed as IU/mL calculated using comparison to NIBSC 16/284 reference sera (**testing was conducted at different laboratories across clinical trials**). Phase 1 data shown for SCB-1019 at the selected dose level. Bars represent GMTs (± 95% confidence intervals).
Abbreviations: IU/mL (International Units Per Milliliter), GMT (Geometric Mean Titer), GMFR (Geometric Mean Fold Rise).
[1] DOI: 10.1016/S2213-2600(21)00098-9 (data for 150µg group shown), **[2]** Pfizer FDA VRBPAC Meeting Presentation FEB 28, 2023 (data for 120µg group shown), **[3]** Icosavax Company Presentation JUN-28-2022 (data for 75µg group shown), **[4]** Icosavax Company Presentation MAY 22, 2023 (data for 225µg group shown). **[5]** DOI: 10.1093/cid/ciae010. **[6]** 20 subjects were enrolled at selected SCB-1019 dose level. Stratified analysis for bottom quartile (n=5) based on baseline RSV neutralization titers are shown.

CLOVER BIOPHARMACEUTICALS

SCB-1019 Preliminary Phase 1 Results (Older Adult Cohort)

- Significant increase in Site Ø and Site V NAb-Competitive Titers further confirm SCB-1019 antigens being stabilized in prefusion form
- Exploratory ELISA assay results provide additional evidence of robust immune response induced by SCB-1019

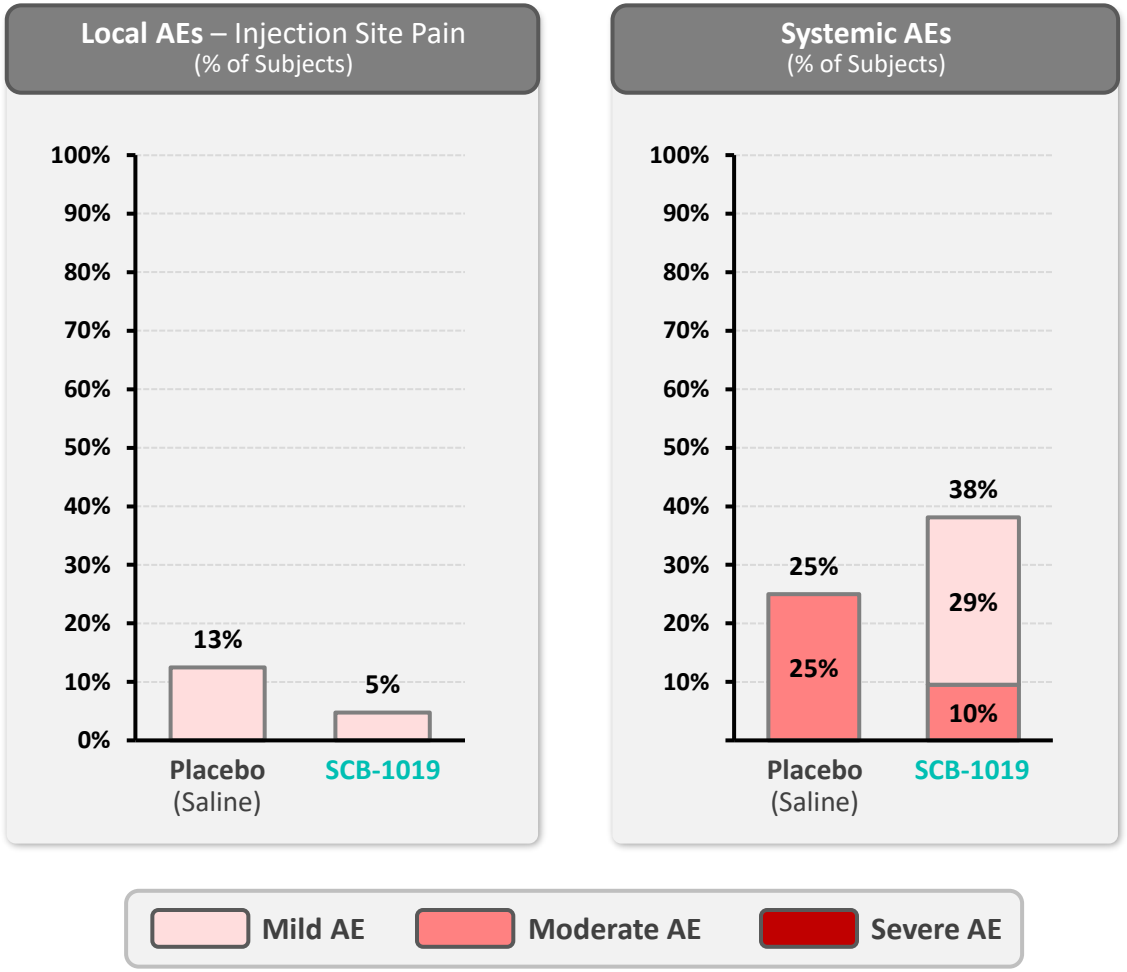


Note: Bars represent GMTs (± 95% confidence intervals). Results shown for exploratory ELISA assays.
Phase 1 data shown for SCB-1019 subjects enrolled at the selected dose level.
Abbreviations: GMT (Geometric Mean Titer), GMFR (Geometric Mean Fold Rise).

SCB-1019 Preliminary Phase 1 Results (Older Adult Cohort)

Safety & Reactogenicity Results

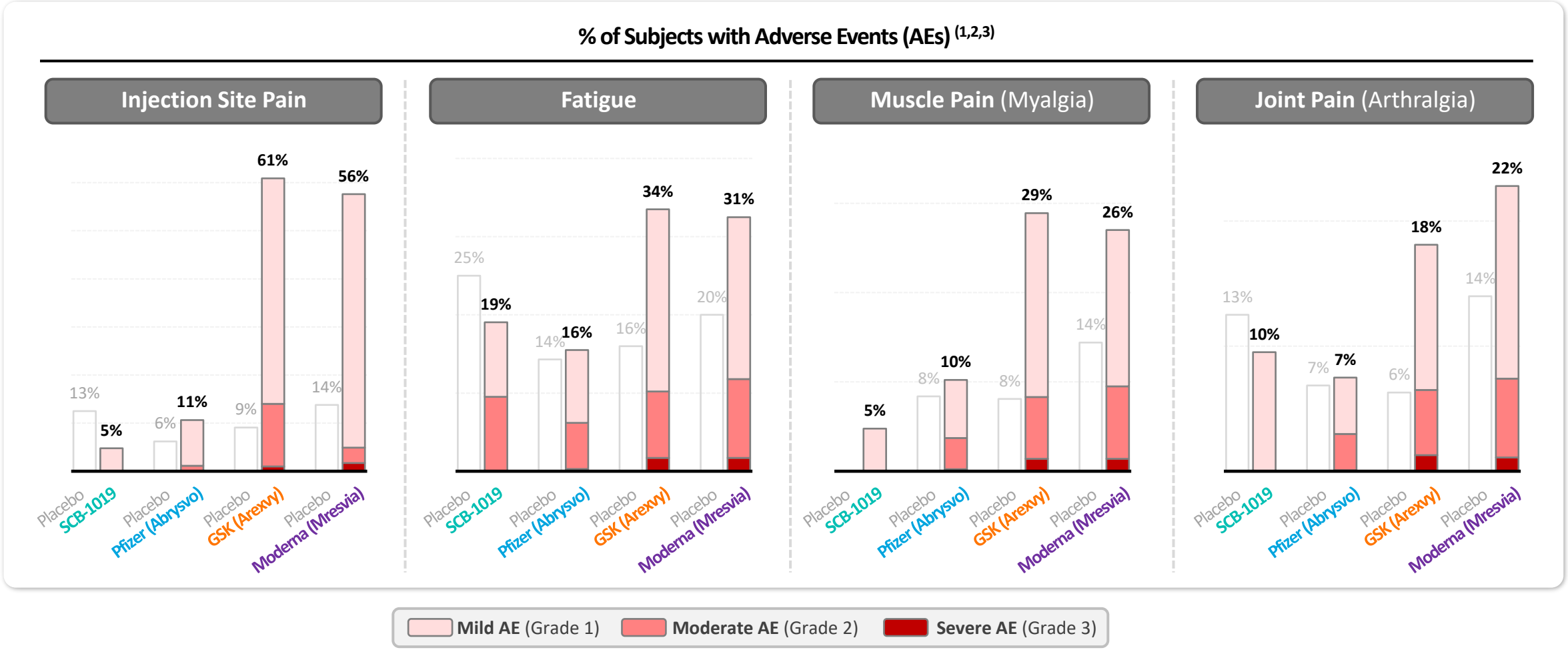
- ☑ **Favorable Safety & Reactogenicity Observed for SCB-1019 Formulation and Comparable to Placebo (Saline)**
- ☑ **Local and Systemic Adverse Events (AEs) were Generally Mild & Transient** (Most Common AEs were Injection Site Pain, Headache, Fatigue)
- ☑ **No Serious Adverse Events (SAEs), AEs of Special Interest (AESIs), or AEs Leading to Discontinuation were Observed**



Note: **Cross Trial Comparisons for Illustrative Purposes Only.** Percentage of older adult & elderly subjects experiencing selected adverse events (AEs) following vaccination with RSV vaccine or placebo in clinical trials. Phase 1 data shown for SCB-1019.
Sources: **(1)** 2023 Pfizer VRBPAC Meeting – FDA Briefing Document. **(2)** 2023 GSK VRBPAC Meeting – Sponsor Briefing Document. **(3)** Moderna February 2024 ACIP presentation (April 11, 2023).

Potential Best-in-Field Tolerability Profile

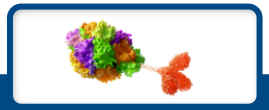
- Potential Differentiated & Favorable Tolerability Profile for SCB-1019 Compared to Currently-Approved Oil-in-Water Adjuvanted [2] and mRNA [3] RSV Vaccines
- Important Consideration for Vaccine Uptake, Especially for Potential Targeted Populations (Children & Elderly)



Note: **Cross Trial Comparisons for Illustrative Purposes Only.** Percentage of older adult & elderly subjects experiencing selected adverse events (AEs) following vaccination with RSV vaccine or placebo in clinical trials. Phase 1 data shown for SCB-1019.
Sources: **(1)** 2023 Pfizer VRBPAC Meeting – FDA Briefing Document. **(2)** 2023 GSK VRBPAC Meeting – Sponsor Briefing Document. **(3)** Moderna February 2024 ACIP presentation (April 11, 2023).

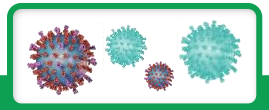
SCB-1019 is a Potential Best-in-Field & Differentiated RSV Vaccine Globally

- **Clover Poised to be a Leader in RSV Vaccine Market in China, with Global Competitive Edge Potential**
- **Clover is addressing the high technical hurdles for RSV vaccine development, utilizing our unique in-house technology platform, for potential long-term differentiation**



1 Differentiated Stabilized PreF-Trimer

- ✓ **Stabilization of Prefusion F (PreF) Trimer Critical for RSV Vaccines** (1)
- ✓ SCB-1019 is utilizing **proprietary stabilizing Mutations & Trimer-Tag** platform technology; **confirmed as stable PreF-Trimer**
- ✓ Preclinical studies indicate SCB-1019 PreF stabilization is competitive to DS-Cav1 (PreF antigen utilized in GSK and Icosavax RSV vaccines)
- ✓ Preclinical and Phase 1 clinical studies confirm SCB-1019 has **stable PreF conformation inducing significant RSV neutralizing antibody responses**

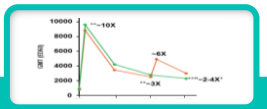


2 Immunological Breadth (RSV-A + RSV-B)

- ✓ **Immunological Breadth is Needed Against Both RSV-A & RSV-B** (2 groups co-circulate & alternate in prevalence across seasons)
- ▪ Monovalent RSV-A vaccines (GSK & Icosavax) observed suboptimal breadth & durability trends against RSV-B in clinical trials (2)
- ✓ **SCB-1019 bivalent RSV-A/B approach** is designed to induce **broad neutralization against both RSV-A & RSV-B, demonstrated in Phase 1 & preclinical studies**

3 Potential Best-in-Field Safety & Tolerability

- ✓ **Safety & tolerability important to maximizing vaccine uptake,** especially for target populations for RSV (children & elderly)
- ✓ Oil-in-water emulsion adjuvanted protein-based vaccines & mRNA vaccines have observed higher rates of adverse events
- ✓ Potential for **SCB-1019 to show best-in-field safety & tolerability profile** (oil-in-water emulsion adjuvant not utilized in SCB-1019)



4 Repeated Dosing Ability (No Immune Interference)

- ✓ **Potential to satisfy need for repeated annual seasonal boosting;** human-derived **Trimer-Tag technology has demonstrated boosting & has not observed immune interference** previously
- ▪ **GSK** observed **lack of efficacy** after second dose in Year 2 **in Phase III study** (with suboptimal increase in RSV neutralizing antibody levels)
- ▪ Potentially associated with **GSK & Pfizer** trimerization technology: non human-derived T4 Foldon may induce **ADA against T4 Foldon interfering with PreF immune responses**

5 Potential LCM to Develop Respiratory Combo Vaccine

- ✓ Potential to develop '**Respiratory Combination Vaccines**' across Mononegavirales order of viruses (**RSV + PIV3 + MPV**), utilizing RSV as the 'anchor'
- ✓ **Trimer-Tag protein subunit** has **platform advantages** for combo approach versus mRNA (combo dose is limited by safety) and VLP (complicated CMC)
- ✓ Can Leverage Clover's **PreF stabilization** experience for PIV3/MPV
- ✓ Lifecycle management (LCM) opportunity for blockbuster RSV

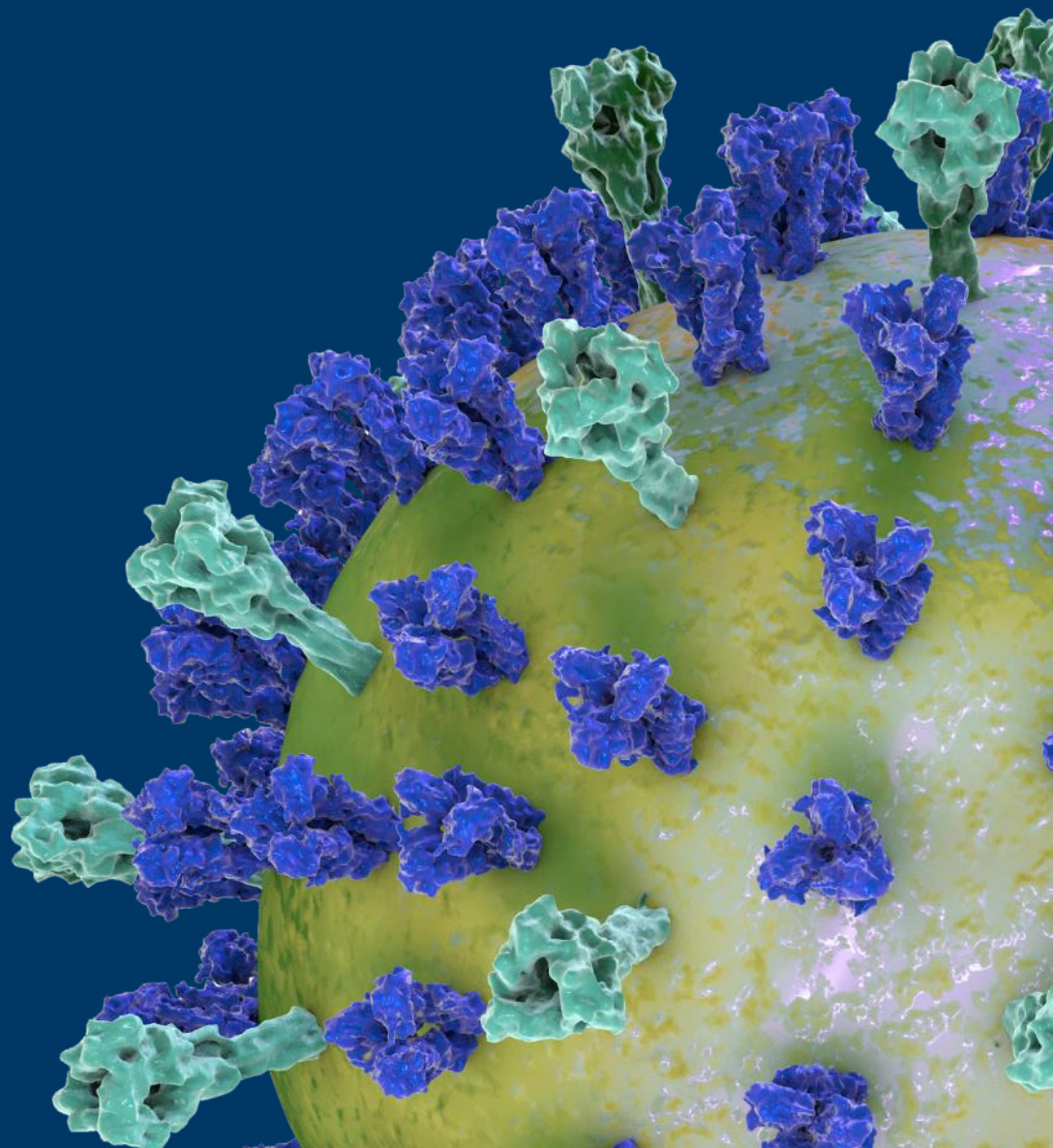
☑ Differentiation for Potential Best-in-Class Efficacy & Safety Profile

☑ Potential Continued Differentiation & Lifecycle Management (LCM) Opportunities

Note:
(1) Taleb et al., Eur J Clin Microbiol Infect Dis., 2018 (DOI: 10.1007/s10096-018-3289-4). Besteman & Bont, Am J Respir Crit Care Me, 2019 (DOI: 10.1164/rccm.201901-0233ED).
(2) GSK June 2023 ACIP presentation, NCT04732871. Icosavax Investor Update Presentation (08-AUG-2023)

CLOVER BIOPHARMACEUTICALS

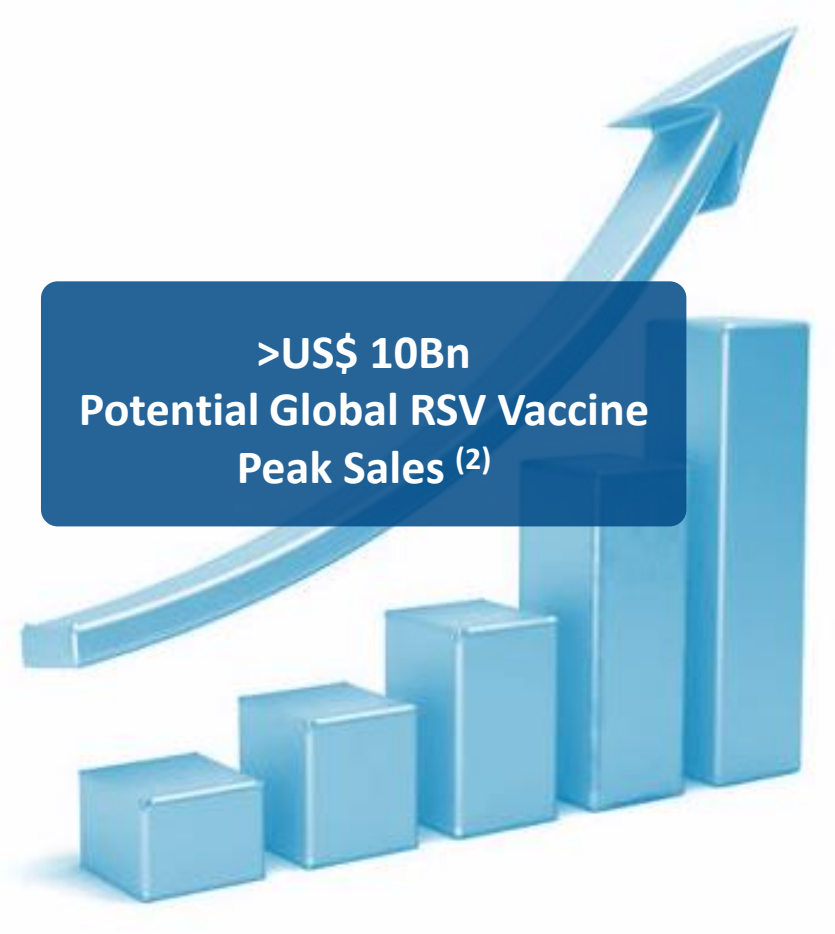
Appendix



☑ Global Commercial Opportunity of RSV Vaccine has been Validated: *Product Sales in First Season of Launch (H2-2023) Beats Expectations*

RSV Vaccine is the Fastest Vaccine in History to Reach Blockbuster Status (Non-Pandemic Vaccines)

- **Global RSV vaccine sales reached ~US$ 2.5Bn in the first season of commercial launch in H2-2023**
  (H2 2023: ~US$ 1.5 billion for GSK Arexvy and ~US$ 890 million for Pfizer Abrysvo [1])
- **~40-50% of people who received RSV vaccine were co-administered with Flu±COVID vaccines, demonstrating the commercial synergies of respiratory vaccines**
- **Premium Pricing Achieved: ~US$ 300/dose**



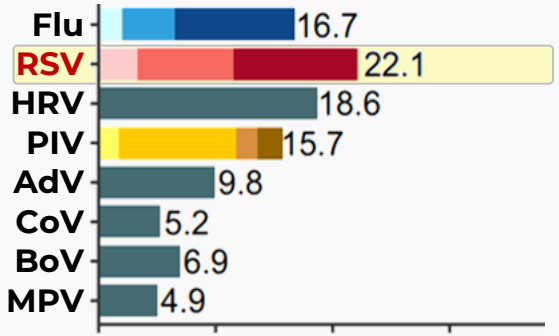
(1) GSK and Pfizer Q3 2023 results announcements
(2) Wall Street Investment Bank Research has released forecasts for the global RSV vaccine market for the elderly, among them Cowen Research – US$13Bn (Feb 2023), Jefferies – US$15Bn (Jul 2023).

Potential Blockbuster RSV Vaccine Market in China & Globally

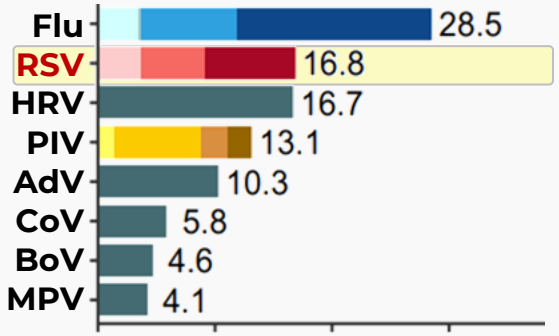
- **RSV is the leading cause of viral pneumonia in China, with an addressable population of >340 million**
- **Blockbuster China Opportunity Wide Open:** Clover has the first RSV PreF vaccine developed in China to enter clinic stage and the first to generate clinical data

RSV is #1 Cause of Viral Pneumonia in China (1)

% of All Viral Pneunomia (2009-2019)

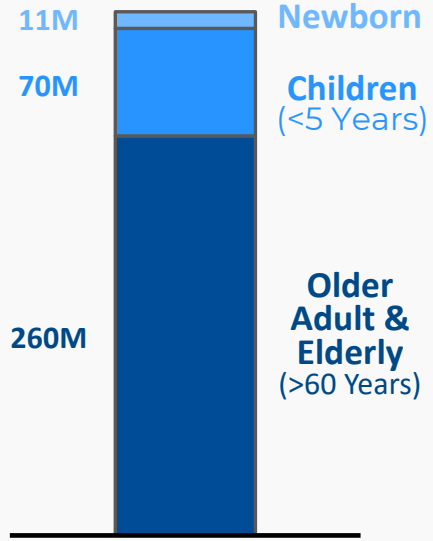


% of All Viral Acute Respiratory Infections (ARIs) (2009-2019)



Potential Blockbuster Market in China & Globally

>340 Million Addressable Population in China (2)

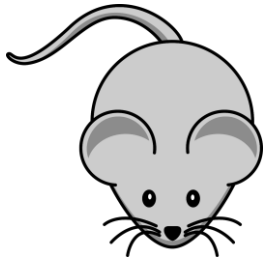


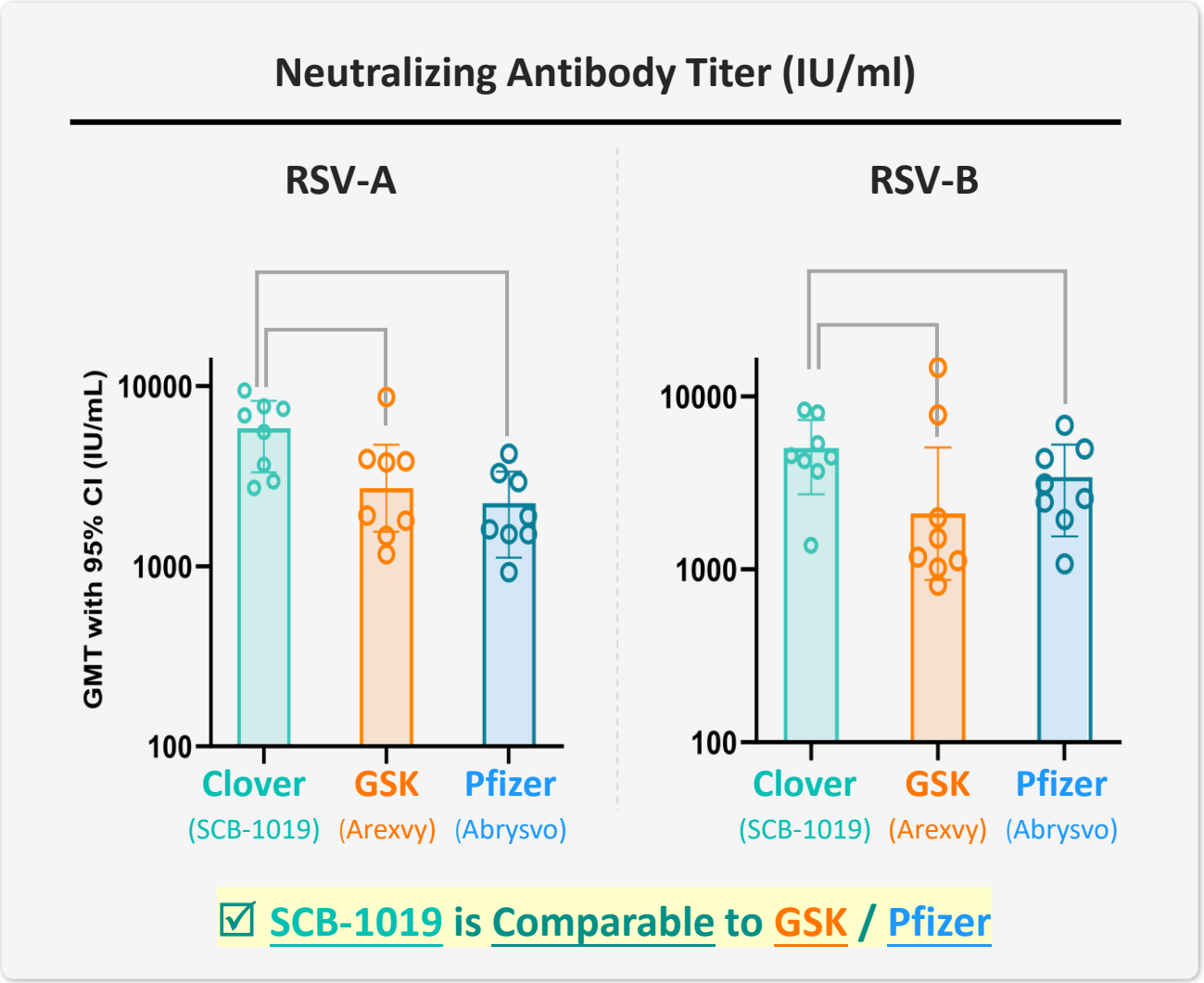
RMB 15Bn+

China Potential Peak RSV Vaccine Sales (3)

Abbreviations: Flu (influenza virus), HRV (human rhinovirus), PIV (human parainfluenza virus), AdV (human adenovirus), CoV (human betacoronavirus), BoV (human bocavirus), MPV (human metaneumovirus).
(1) Li et al., *Nat. Commun.*, 2021 (DOI: 10.1038/s41467-021-25120-6). **(2)** China demographics in 2021. **(3)** Illustrative projection assuming RSV vaccine market of ~50 million doses annually at peak (approximately half of flu vaccine market) and average blended pricing in China of RMB 350 per dose (pricing in between flu vaccine [~RMB 120-200/dose] and pneumococcal conjugate vaccines [~RMB 550-700/dose]). **(4)** Wall Street research estimates for global older adult RSV vaccine market, including Cowen Research – US$13Bn (Feb 2023), Jefferies – US$15Bn (Jul 2023).

1 Clover (SCB-1019) vs. GSK (Arexvy) vs. Pfizer (Abrysvo)

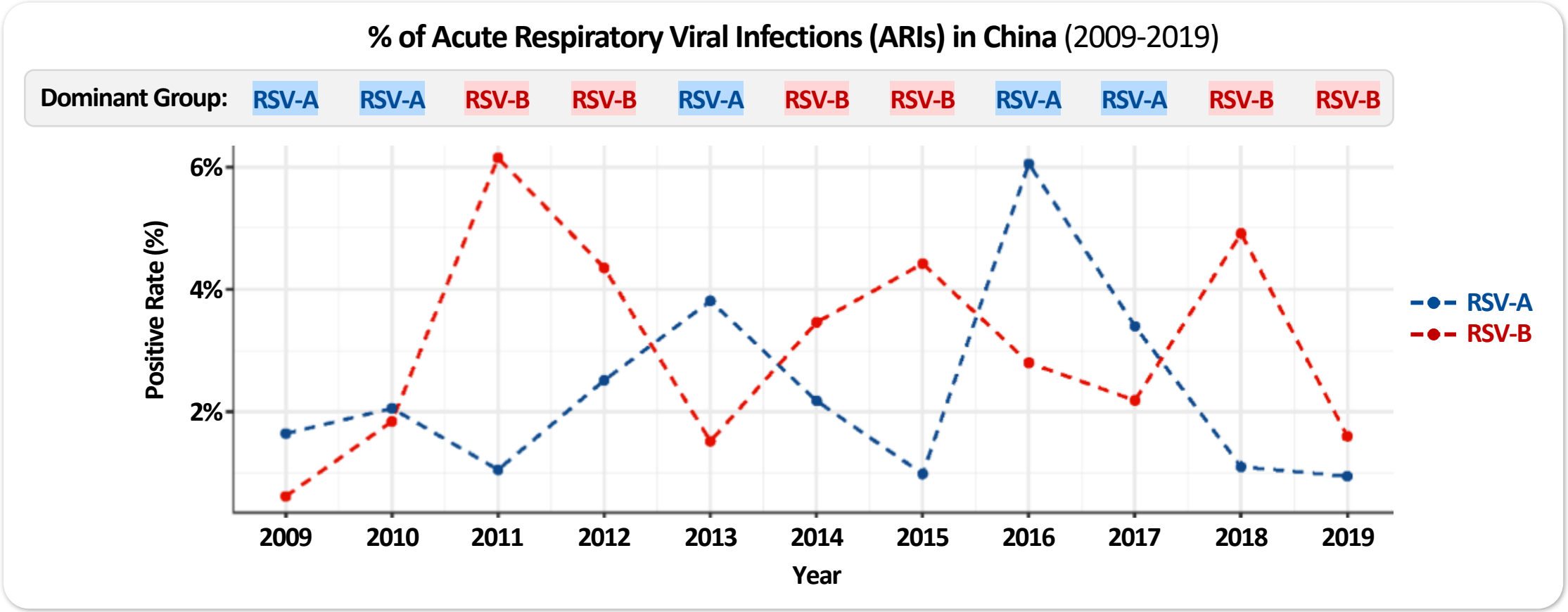




Note: Clover preclinical studies. Head-to-head comparison of SCB-1019 versus commercially-procured Arexvy (GSK) and Abrysvo (Pfizer) in primed mouse model. Mice were primed with live RSV-A virus, and after approximately 3 months, mice were given a single dose of vaccine (Day 0). Sera were collected on Day 14 (14 days post-vaccination) for neutralizing and binding antibody testing. SCB-1019 (0.36µg), Arexvy and Abrysvo were administered at equimolar doses. Geometric mean titers (GMT) ± 95% confidence intervals (95% CI) shown for antibody titers.

2 Broad Protection: RSV-A & RSV-B

- 2 main RSV groups (RSV A and RSV B) typically co-circulate and alternate in prevalence across seasons
- Thus, it is important for RSV vaccines to induce broad & durable protection against both groups
- Amino acid sequence differences on F antigen may result in different neutralizing antibody binding epitopes, indicating antibody epitopes form strain-specific sequence and configuration under the pressure of immune selection



Note: Viral composition tested in 110,058 patients with ARIs in the mainland of China from 2009–2019.
Source: Li et al., Nature Communications, 2021 (DOI: 10.1038/s41467-021-25120-6).

3 Differentiation in Safety & Tolerability

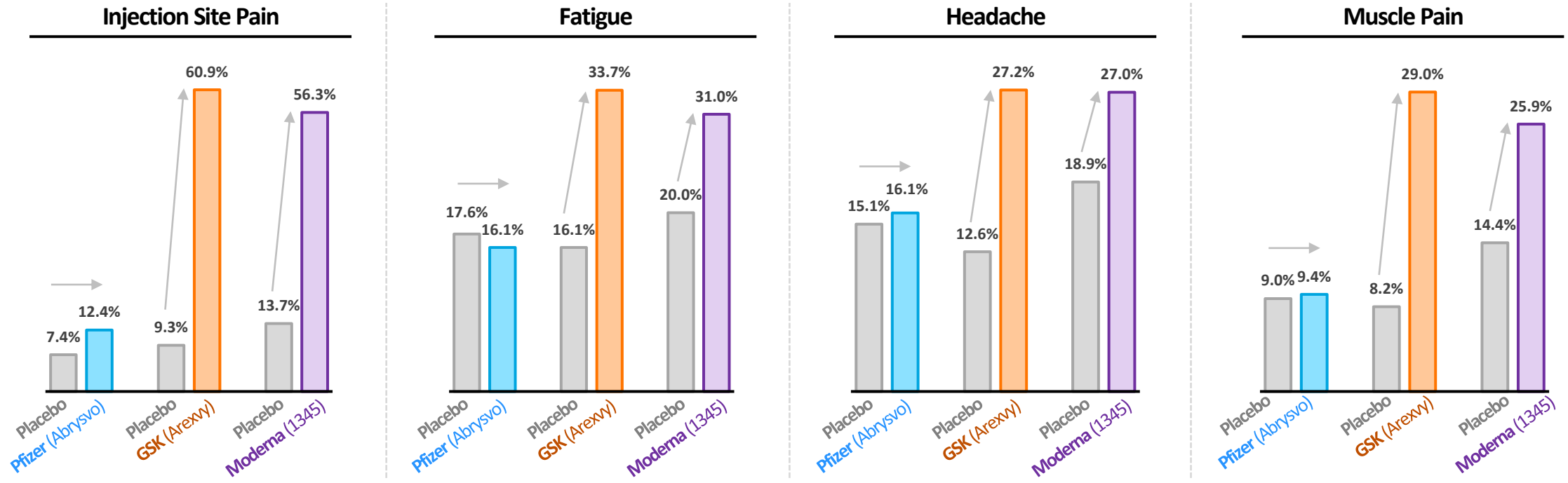
- Potential significant differentiation in safety & tolerability profiles among RSV vaccines observed in clinical trials
- Important consideration for vaccine uptake, especially for targeted populations (elderly & pediatrics) in China

Pfizer Protein Subunit (Non-adjuvanted)

gsk Protein Subunit (Oil-in-water adjuvant)

moderna mRNA

% of Subjects with Adverse Events (AEs) in Phase 3 Trials [1,2,3]



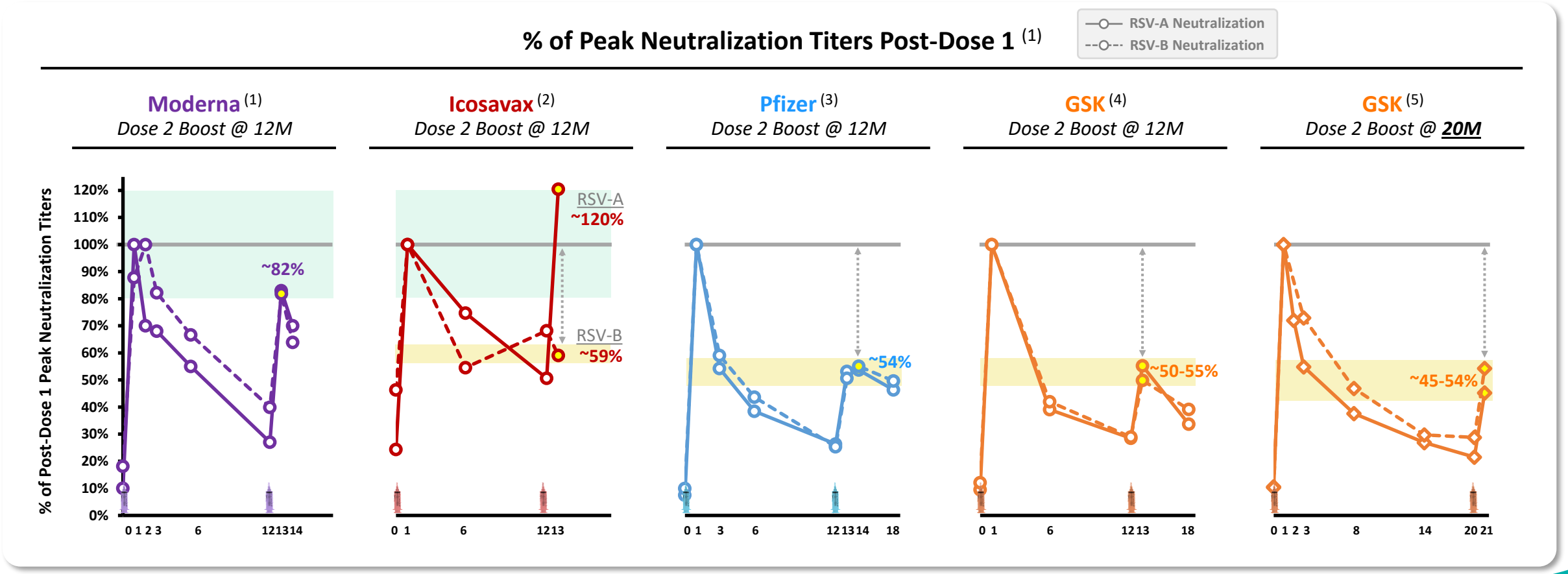
Note: Percentage of subjects experiencing selected adverse events (AEs) following vaccination with RSV vaccine or placebo.

(1) Pfizer June 2023 ACIP presentation.
(2) GSK June 2023 ACIP presentation, NCT04732871.
(3) Moderna 4th Vaccines Day presentation (April 11, 2023).

CLOVER BIOPHARMACEUTICALS

4 Potential Booster Issue for Vaccines Using T4-Foldon Tag (GSK/Pfizer)

- **Neutralization Titers Only Reach ~50% of Peak Levels Following Pfizer and GSK Booster Doses in Year 2, Potentially Due to Immune-Interference from T4-Foldon Trimerization Tag Utilized by Both Vaccines**
- **Moderna and Icosavax Demonstrate that RSV Neutralization is Boostable in Year 2, Although Icosavax Fails to Boost RSV-B Neutralization** (non-adjuvanted monovalent RSV-A vaccine)



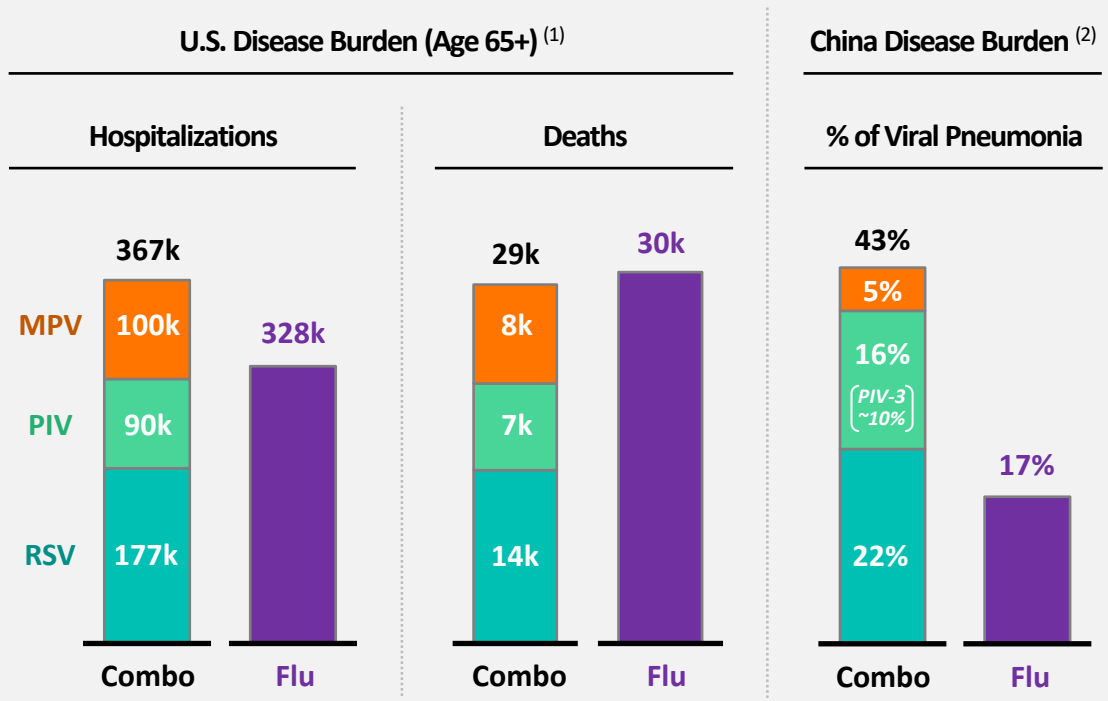
Note: Moderna, Icosavax and Pfizer neutralization titers based on IU/mL. GSK units expressed as ED_{60}.
(1) Moderna ACIP Presentation (29-FEB-2024), **(2)** Icosavax Company Presentation IVX-121 (28-JUN-2023), **(3)** Pfizer 2023 VRBPAC Company Briefing Document, **(4)** DOI: 10.1093/infdis/jiad321. **(5)** GSK ACIP Presentation (21-JUN-2023).

CLOVER BIOPHARMACEUTICALS

5 Potential for Respiratory Combo Vaccine (RSV + PIV + MPV) LCM Opportunity

- **Total Disease Burden of Combo (RSV+PIV+MPV) is similar or greater than Flu Globally and in China;** combination vaccine is a compelling opportunity & unmet need
- **Potential to directly leverage Clover's RSV experience to develop 'Respiratory Combo Vaccines' across mononegavirales order of viruses (RSV + PIV + MPV)**
- **Trimer-Tag protein subunit has platform advantages for combo versus mRNA (combo dose is limited by safety) and VLPs (complicated CMC)**

Virus Order/ Disease	☑ All 3 are Part of Mononegavirales Order ☑ All 3 Cause Symptomatic Respiratory Disease
Antigen	☑ All 3 have Similar Trimeric Fusion (F) Antigen, Requiring Stabilization in Prefusion form (PreF)
Seasonality	☑ All 3 Observe Peak Outbreaks in Winter
At-Risk Populations	☑ Highest Risk is Elderly and Infants/Toddlers



☑ **Total Disease Burden of Combo (RSV+PIV+MPV) is Similar or Greater than Flu Globally and in China**

(1) Sources: **[A]** Widmer et al., 2012; **[B]** Russell et al., 2019 (62% of RSV); **[C]** Colosia et al., 2017; **[D]** Using RSV rate from Colosia 2017 as proxi. **[E]** https://www.cdc.gov/rsv/research/us-surveillance.html **[F]** Compilated data from CDC, 9 seasons from 2010-2011 to 2018-2019 https://www.cdc.gov/flu/about/burden/index.html **[G]** Burden in already vaccinated pop **[H]** Assuming vaccine durability >1 year.

(2) Li et al., Nat. Commun., 2021 (DOI: 10.1038/s41467-021-25120-6). Data across all age groups from 2009-2019.

CLOVER BIOPHARMACEUTICALS

CLOVER BIOPHARMACEUTICALS

Thank You!