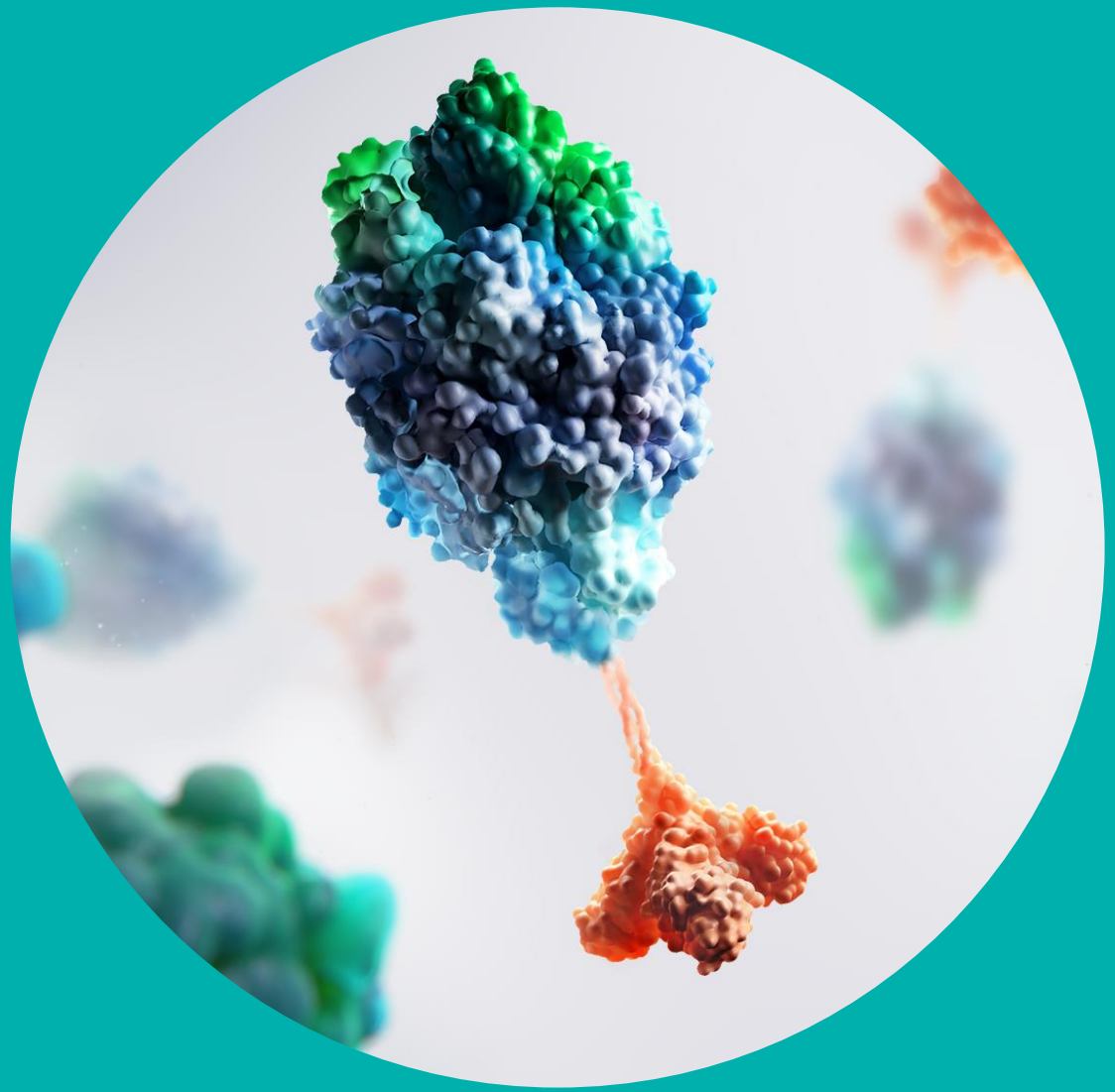
CLOVER BIOPHARMACEUTICALS



Clover Biopharma RSV Vaccine Candidate SCB-1019 Preclinical Data Overview

Disclaimer

This presentation contains certain forward-looking statements and information relating to us and our subsidiaries that are based on the beliefs of our management as well as assumptions made by and information currently available to our management. When used, the words "aim," "anticipate," "believe," "could," "estimate," "expect," "going forward," "intend," "may," "might," "ought to," "plan," "potential," "predict," "project," "seek," "should," "will," "would" and the negative of these words and other similar expressions, as they relate to us or our management, are intended to identify forward-looking statements.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. We give no assurance that these expectations and assumptions will prove to have been correct. Because forward-looking statements relate to the future, they are participant to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our results may differ materially from those contemplated by the forward-looking statements. They are neither statements of historical fact nor guarantees or assurances of future performance. We caution you therefore against placing undue reliance on any of these forward-looking statements. Any forward-looking statement made by us in this document speaks only as of the date on which it is made. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. Participant to the requirements of applicable laws, rules and regulations, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise. All forward-looking statements contained in this document are qualified by reference to this cautionary statement.

1 Opening:

Clover Introduction & Business Update

Clover is a Global Commercial-Stage Innovative Biotechnology Company Committed to Unleashing the Power of Innovative Vaccines to Save Lives & Improve Health around the World

Building a Leading Innovative Vaccine Portfolio

- ✓ **Differentiated RSV Vaccine (SCB-1019):** With potential best-in-field profile, Clover poised to be a leader in future blockbuster RSV vaccine market in China, with global potential; expected to be among first Chinese RSV PreF vaccines to enter clinic
- ✓ **Quadrivalent Flu vaccine Launched** in mainland China in H2 2023; Adimflu-S (QIS) is the only approved imported flu vaccine in mainland China
- ✓ **COVID-19 Vaccine Authorized for Emergency Use (EUA) in China:** Potential attractive private market opportunities in 2024+ for annual boosting
- ✓ **Trimer-Tag Platform Validated** by SCB-2019, and advancement of in-house vaccine pipeline is planned in 2023

Global Collaborations with Reputable Partners

- ✓ **Exclusive agreement with Adimmune** established to commercialize AdimFlu-S (QIS) in mainland China
- ✓ **$397M Grant Funding from CEPI** for COVID-19 R&D and establishing vaccine manufacturing capabilities
- ✓ **Advanced Purchase Agreement (APA) Signed with Gavi** for supply of COVID-19 vaccines globally
- ✓ **Adjuvant Collaboration with Dynavax** for supply of CpG 1018 adjuvant (clinical & commercial)

CEPI Gavi COVAX DYNAVAX unicef ADIMMUNE

Proven Global Vaccine R&D Capabilities

- ✓ **7+ Phase 2/3 Vaccine Clinical Trials** completed since 2020
- ✓ **Over 37,500 Participants Enrolled** for across clinical trials
- ✓ **Clinical Trial Experience Across 5 Continents (in 8 Countries)**: Including China/Asia, Europe, South America, Africa, Australia
- ✓ **~600 FTEs Across 12 Countries** [1]; **World-Class SAB & DSMB**

Established Commercial Manufacturing

- ✓ **Validated in-house commercial GMP manufacturing facility** (Changxing, Zhejiang, China)
- ✓ **Multiple commercial GMP inspections passed** (including China NMPA)
- ✓ **Drug Manufacturing License (DML)** for vaccine production received from Zhejiang Medical Products Administration
- ✓ **Received EU QP Declaration** stating the facility operation complies with EU GMP standards

RMB 1.5 Billion (~US$ 210 Million) Cash-on-Hand[2] Supports Clover's Continuous Business Expansion

Abbreviations: SAB (Scientific Advisory Board). DSMB (Data Safety & Monitoring Board). QIV (Quadrivalent influenza vaccine).
(1) As of August 2023. (2) Cash & cash equivalents as of June 30, 2023.

Leadership Team: Diverse and Proven Vaccine Expertise

Corporate Executive Team

Joshua Liang

Chief Executive Officer (CEO) & Executive Director of the Board

- Since 2016, led Clover from preclinical to commercial stage
- Raised >US$ 1 billion in financings (incl. IPO)

CENTERVIEW | Wharton University of Pennsylvania

Peng Liang, PhD

Founder, Chairman of the Board & Chief Scientific Officer

- Inventor of Trimer-Tag Technology
- Founder & Chairman, GenHunter

GenHunter | HARVARD MEDICAL SCHOOL | VANDERBILT

Nicolas Burdin, PhD

Global Head of Research

- Global Head of Immunology at Sanofi Pasteur

SANOFI

Yang Li, PhD

Chief Technical Officer (CTO)

- Head of CMC (VP), Overland & Lyvgen
- Senior Scientist at Celgene & BMS

Celgene | Bristol Myers Squibb™

Wei Tan, PhD

Head of China Research

- Chief Scientific Officer, Coherent Bio
- Oncology Research, Novartis & Pfizer

NOVARTIS | Pfizer

Board of Directors*

Xiaodong Wang, PhD

Non-Executive Director (NED)

BeiGene | NIBS | HHMI | National Academy of Sciences

Donna Ambrosino, MD

Non-Executive Director (NED)

MassBiologics | HARVARD MEDICAL SCHOOL

Ralf Clemens, MD PhD

Non-Executive Director (NED)

NOVARTIS VACCINES | gsk | Takeda

Jeff Farrow

Independent Non-Executive Director (INED)

rarsus | GBT | ZS

Thomas Leggett

Independent Non-Executive Director (INED)

affinia THERAPEUTICS | BLACK DIAMOND THERAPEUTICS

Xiang (Sam) Liao

Independent Non-Executive Director (INED)

NOVARTIS | SANOFI

Xiaobin Wu, PhD

Independent Non-Executive Director (INED)

BeiGene | Pfizer

*Board members in addition to the CEO and Founders.

CLOVER BIOPHARMACEUTICALS

Scientific Advisory Board (SAB)

Industry-leading advisors across a broad range of expertise | Advise and guide overall global vaccine development & portfolio strategy

SAB Chairman

Ralf Clemens MD/PhD

Chairman of SAB

- 30+ years in vaccine development
- Former Senior Vice President / Global Head of Vaccine Development at Takeda, Novartis Vaccines and GSK
- Member of Board of Trustees of International Vaccine Institute
- Advisor, Bill & Melinda Gates Foundation (BMGF)

SAB Members

Kaia Agarwal

Regulatory Affairs Advisor

- Former VP, Global Head of Regulatory Affairs, Novartis Vaccines
- Former VP, Reg Affairs, Genzyme

Donna Ambrosino MD

Research Advisor

- Scientific Advisor, BMGF & CEPI
- Former CEO, Mass Biologics
- Former Assoc. Professor of Pediatrics, Harvard

Sue Ann Costa Clemens

Clinical Development Advisor

- Visiting Professor of Global Health, Oxford Univ.
- Professor & Head of Institute for Global Health, Universita di Siena
- Former VP of Vaccine Dev (Latin America), GSK

Michael Pfleiderer PhD

Regulatory Affairs Advisor

- Former Head of Viral Vaccines Section, Paul Ehrlich Institut (PEI)
- Former Chair of Pandemic Task Force, EMA

Peter Richmond

Medical Advisor

- Head of Pediatrics University of W. Australia
- Head, Vaccine Trials Group, Telethon Kids Institute

Frank Rockhold MD

Biostatistics Advisor

- Professor, Biostatistics & Bioinformatics, Duke
- Former SVP & Chief Safety Officer, GSK

David Salisbury

Public Health Advisor

- Former Director of Immunization, Department of Health (London)
- Former Chair, Strategic Advisory Group on Immunization, WHO

George Siber MD

Research Advisor

- Co-Founder & Board Member, Affinivax
- Former EVP & CSO, Wyeth Vaccines
- Former Associate Professor, Infectious Diseases, Harvard

60+ SAB Meetings Convened Since Formation in July 2020

Commercial Manufacturing Capabilities

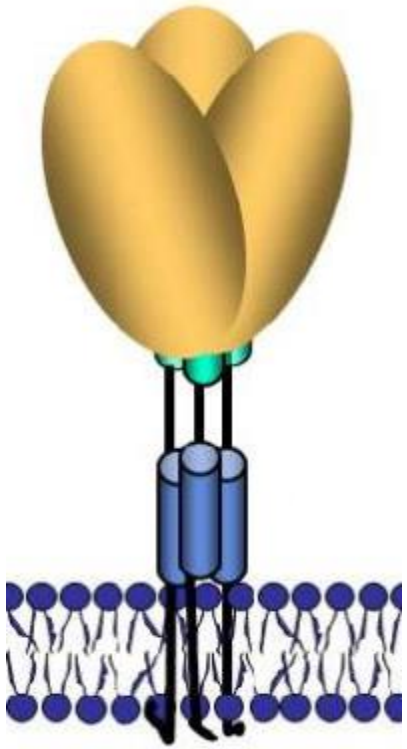
GMP compliant and granted Drug Manufacturing License for vaccine production

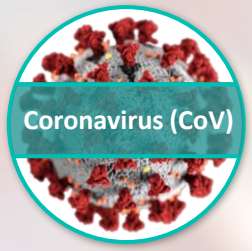
In-house Commercial Manufacturing Facility (Changxing, Zhejiang)

- Multiple **commercial GMP inspections passed**（including China NMPA）
- **Drug Manufacturing License (DML)** for vaccine production received from Zhejiang Medical Products Administration
- Received **EU QP Declaration** stating the facility operation complies with EU GMP standards
- **Large Production Capacity,** including multiple 2000L bioreactors + vial & syringe filling lines

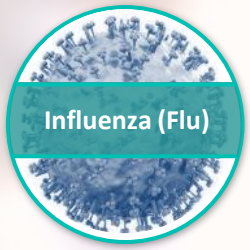
Surface antigens of many viruses & pathogens are naturally-trimeric in structure; Key objective of vaccine development is to preserve the antigen's native structure

Naturally-trimeric Structure Surface Antigens of Viruses & Pathogens

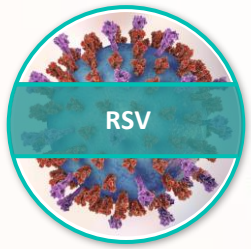




S antigen



HA antigen



F antigen

gE antigen

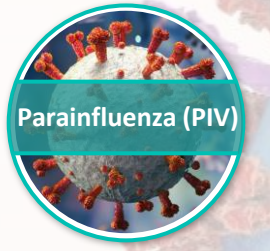
gB antigen

gB antigen

gB antigen

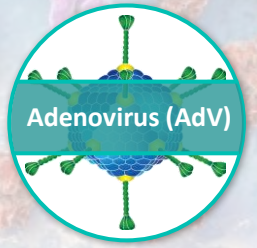
Pgp3 antigen

PorB antigen



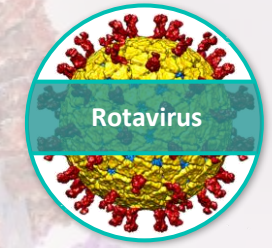
F antigen

F antigen

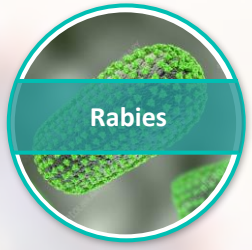


Fiber antigen

F antigen

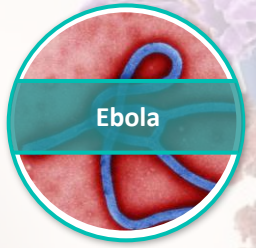


VP8 antigen



G antigen

E antigen



GP antigen

GP antigen

F antigen

F antigen

Gp120/41 antigen

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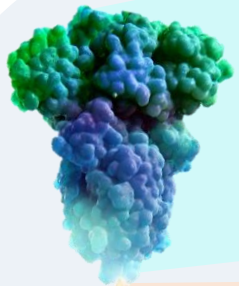
Trimer-Tag Technology Platform for Vaccine Development

- Platform for development of **protein-based vaccines** based on **naturally-trimeric virus spike antigens**

✓ **Highly differentiated vaccine technology platform:** **The only technology platform globally** for producing recombinant **covalently-trimerized antigens** utilizing a **human-derived trimerization tag**; the use of covalent bond enables stable naturally-trimeric configuration (**induces strong & precise neutralizing responses**); does not induce ADA/pre-existing immunity issue (**enables repeated boosting & positive safety profile**)

✓ **Validated technology:** **Platform has been fully validated by COVID-19 vaccine (SCB-2019)** that is authorized for Emergency Use in China

Trimer-Tag Technology Platform



Variable Domain

Constant Domain

Naturally Trimeric Virus Antigen

Trimer Tag

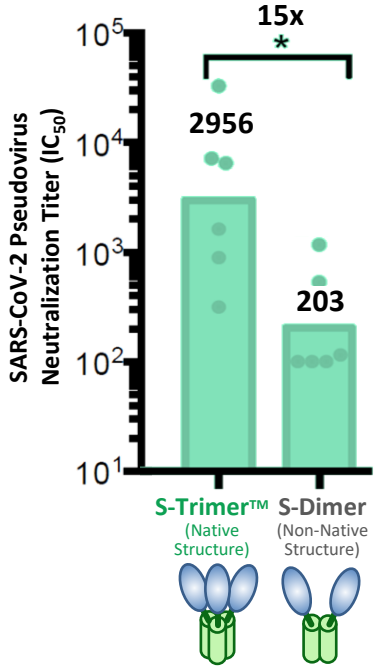
20+ Potential Virus Antigens

- Coronavirus
- RSV
- PIV
- hMPV
- Influenza
- Nipah
- HSV
- Rabies
- LASV

- ✓ **Trimerizes* any protein of interest**
- ✓ **Achieves stable** covalently-linked and **native-like trimeric structures** of virus antigens
- ✓ **Human-derived**, contributing to favorable safety profile and no ADA observed in Phase 2/3 for SCB-2019 (CpG 1018/Alum)
- ✓ **Secreted** trimeric fusion proteins produced in mammalian cells; **affinity-purification** achieves high antigen purity

Strong Neutralizing Immune Responses

Trimer-Tagged Native-Like Spike Antigens Induce Superior Immune Responses Compared to Non-Native Conformations (e.g., Dimeric Spike) (1)



Note: Representative list of viruses with naturally trimeric spike antigens is illustrative and not exhaustive. Abbreviation: ADA (Anti-Drug Antibodies).

* A "trimer" refers to a molecule or an anion formed by combination or association of three molecules or ions of the same substance. Trimerization is a chemical reaction that uses three identical molecules to produce a single trimer. Proteins that are created through the joining of two or more genes that originally coded for separate proteins and consist of three identical simpler parts are referred to as "trimeric fusion proteins". Trimerization tag refers to a protein tag from the C-propeptide domain of procollagen (Trimer-Tag), which is capable of self-assembly into a disulfide bond-linked trimer.

(1) SARS-CoV-2 pseudovirus neutralizing antibody responses in mice vaccinated with two doses of S-Trimer (Trimer-Tagged SARS-CoV-2 spike protein) or S-Dimer (Fc-Tagged SARS-CoV-2 spike protein) on Days 0 and 21. Data based on sera collected on Day 35 (14 days after second dose).

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Trimer-Tag: Extensive Experience from Clinical Studies in China and Globally

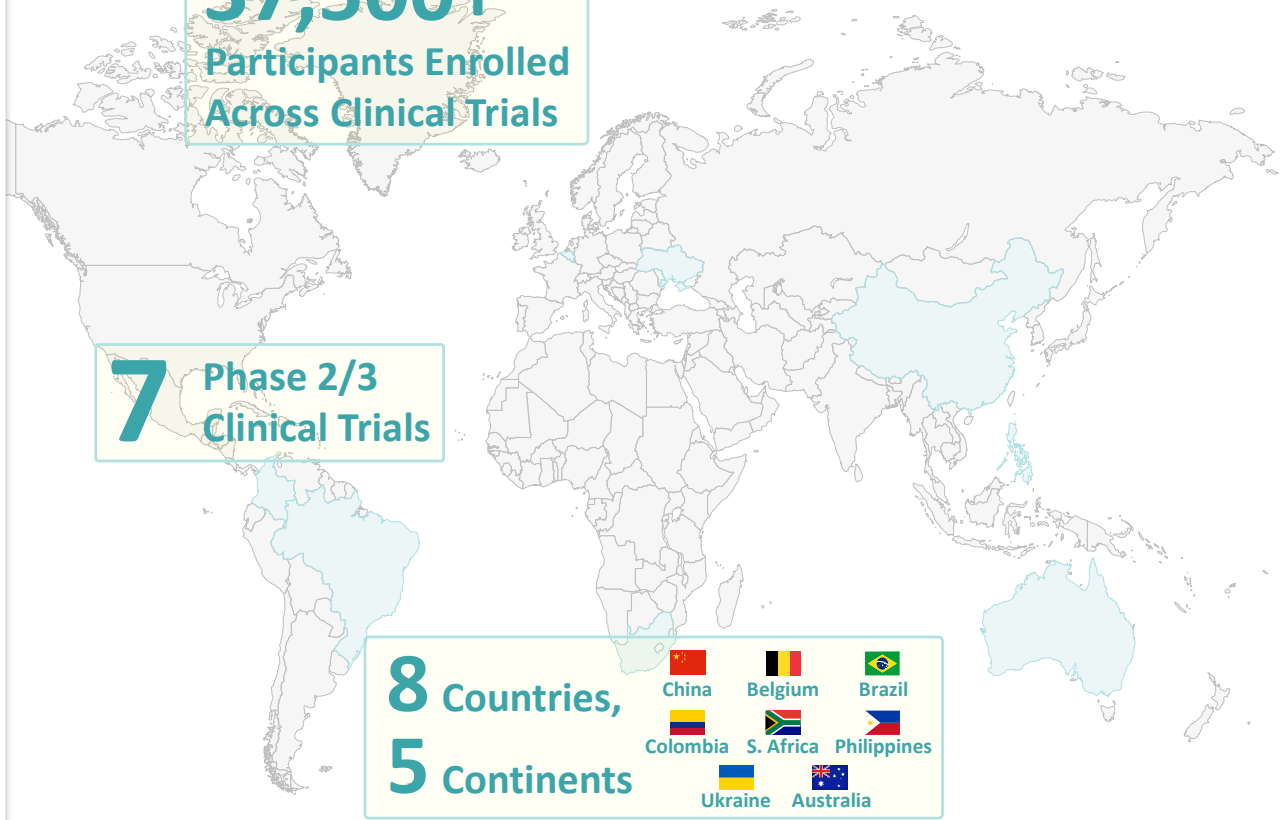
- Vaccination experience in broad population groups (elderly, adult, adolescent and people with co-morbidities)
- Only Chinese vaccine company ever granted clinical trial approval in Europe

Phase 2/3 Development Across Broad Populations & Booster Settings

		Participants Enrolled
Ages & Conditions	Adult & Elderly (18+ Years)	☑ N = 30,000+ (1)
	Adolescents (12-17 Years)	☑ N = 1,250+
	Co-Morbidities (2)	☑ N = 2,000+ (2)
Booster Settings	Prior SARS-CoV-2 Infection *Natural Infection + SCB-2019*	☑ N = 14,250+ (1)
	Prior Inactivated Vaccine *2-3x Inactivated Vaccine + SCB-2019*	☑ N = 700+
	Prior Viral Vector Vaccine *2x AstraZeneca Vaccine + SCB-2019*	☑ N = 500+
	Prior SCB-2019 Vaccination *2x SCB-2019 + SCB-2019*	☑ N = 2,750+

37,500+ Participants Enrolled Across Clinical Trials

7 Phase 2/3 Clinical Trials



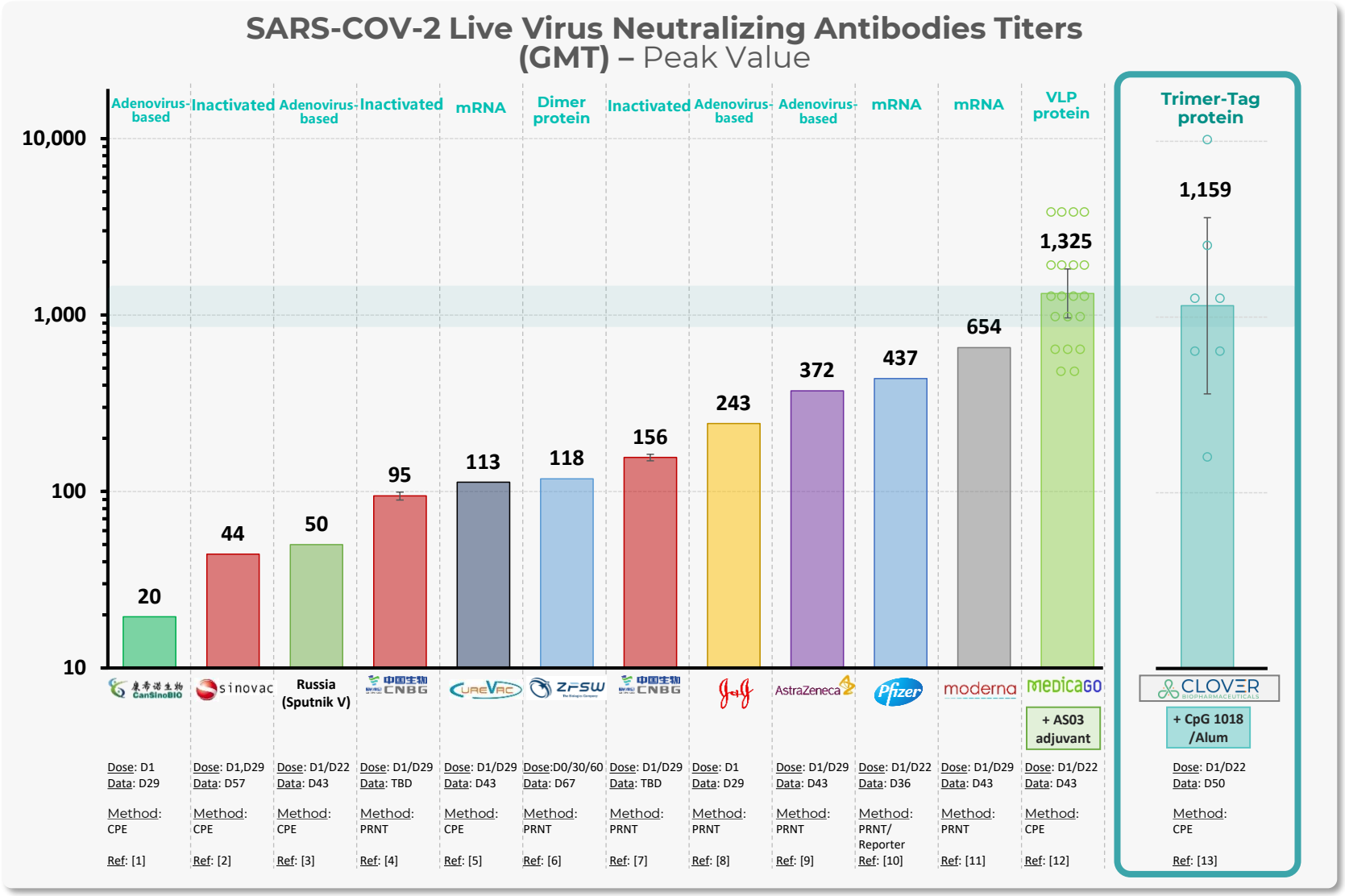
8 Countries, **5** Continents

China, Belgium, Brazil, Colombia, S. Africa, Philippines, Ukraine, Australia

(1) 30,128 total adult & elderly participants enrolled in Phase 2/3 SPECTRA trial, including 14,622 participants with evidence prior of SARS-CoV-2 infection.
(2) Enrolled in Phase 2/3 SPECTRA trial; co-morbidities (associated with high risk of severe COVID-19) include chronic kidney disease, chronic obstructive pulmonary disease, obesity with BMI ≥30 kg/m2, serious heart conditions such as hypertension, heart failure, coronary artery disease or cardiomyopathies, and Type 2 diabetes mellitus.

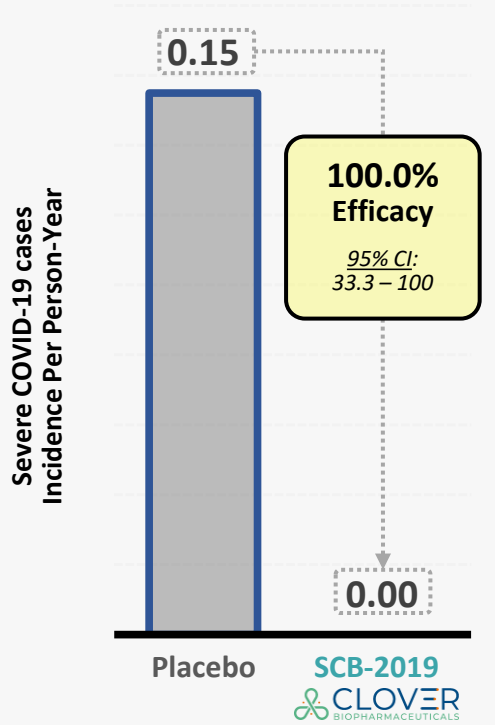
CLOVER BIOPHARMACEUTICALS

Trimer-Tag: Induces High Level of Neutralizing Antibodies + Efficacy



Efficacy against COVID-19 [14]

100% Efficacy against severe COVID-19 at six months post vaccination (Elderly)

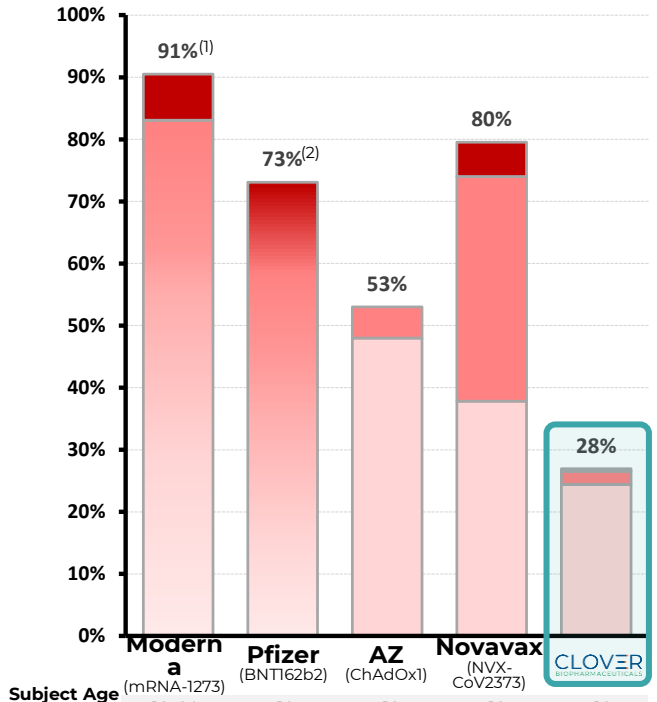


Note: Cross-study and cross-assay comparisons for illustrative purposes-only. Geometric mean titers (GMT) ± 95% CI shown (where available).
* Medicago's vaccine development was discontinued due to relation to tobacco company.
[1] doi.org/10.1016/S0140-6736(20)31605-6, [2] https://doi.org/10.1016/S1473-3099(20)30843-4, [3] doi.org/10.1016/S0140-6736(20)31866-3, [4] doi.org/10.1001/jama.2021.8565, [5] doi.org/10.1101/2020.11.09.20228551, [6] doi.org/10.1016/S1473-3099(21)00127-4, [7] doi.org/10.1001/jama.2021.8565, [8] doi.org/10.1101/2020.09.23.20199604, [9] doi.org/10.1016/S0140-6736(20)31604-4, [10] doi.org/10.1038/s41586-020-2639-4, [11] doi.org/10.1056/NEJMoa2022483, [12] doi.org/10.1101/2020.11.04.20226282, [13] doi.org/10.1016/S0140-6736(21)00258-0, [14] Data from global Phase 2/3 SPECTRA study for SCB-2019; figure show data for PCR-confirmed COVID-19 (caused by any strain of SARS-CoV-2) starting from ≥14 days after second dose in participants without evidence of prior SARS-CoV-2 infection (baseline seronegative). Data shown represents average follow-up of approximately 6 months after initial vaccination.

CLOVER BIOPHARMACEUTICALS

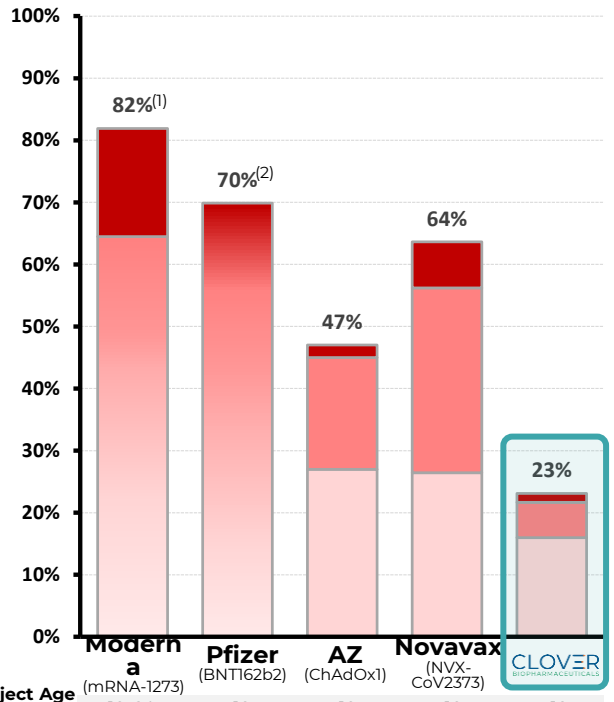
Trimer-Tag: Potential Best-in-Field Safety Profile

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



	Moderna (mRNA-1273)	Pfizer (BNT162b2)	AZ (ChAdOx1)	Novavax (NVX-CoV2373)	CLOVER
Subject Age (Data):	18-64	≥18	≥18	≥18	≥18
Clinical Trial:	Phase 3	Phase 2/3	Phase 3	Phase 3	Phase 2/3
# Enrolled (Vaccine):	15,208	21,823	21,635	7,020	15,064
Reference:	[1]	[2]	[3]	[4]	--

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



	Moderna (mRNA-1273)	Pfizer (BNT162b2)	AZ (ChAdOx1)	Novavax (NVX-CoV2373)	CLOVER
Subject Age (Data):	18-64	≥18	≥18	≥18	≥18
Clinical Trial:	Phase 3	Phase 2/3	Phase 3	Phase 3	Phase 2/3
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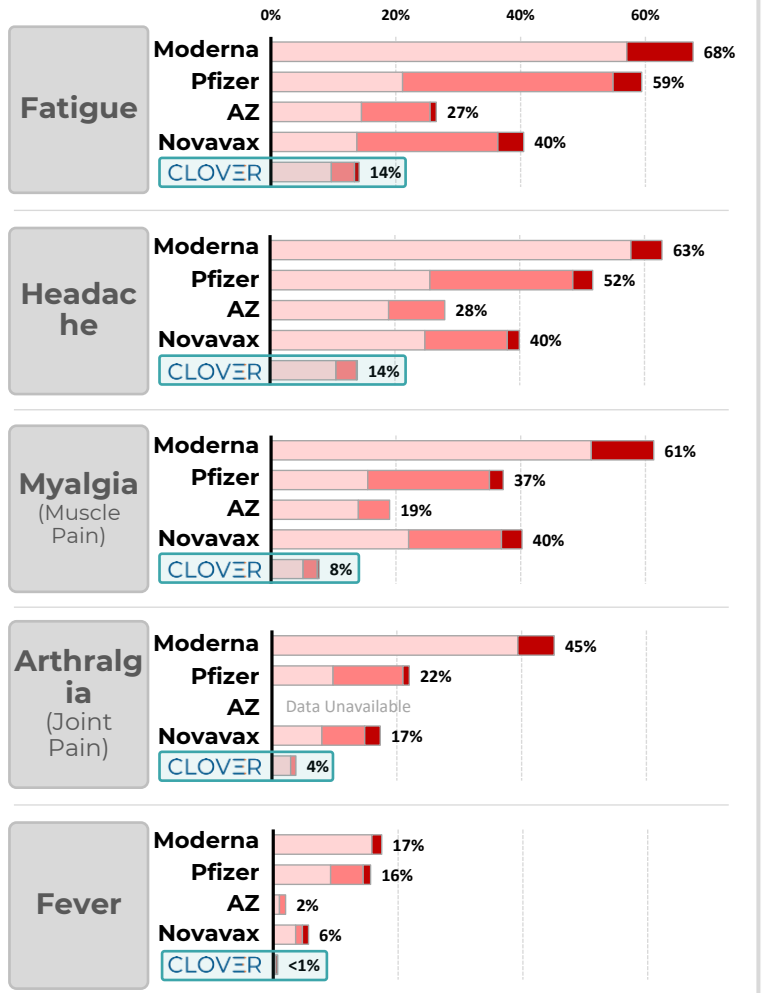
Reference:	[1]	[2]	[3]	[4]	--

SYSTEMIC AEs (After 2nd Dose)



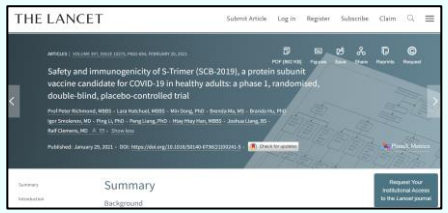
Mild (Grade 1) | Moderate (Grade 2) | Severe (Grade 3 and above)

References: [1] Moderna FDA Briefing Document - VRBAC Meeting DEC 17, 2020, [2] Pfizer FDA Briefing Document – VRBAC Meeting DEC 10, 2020, [3] DOI: 10.1056/NEJMoa2105290, [4] DOI: 10.1056/NEJMoa2107659.
Notes: NON HEAD-TO-HEAD 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.

Recognized & Endorsed by Leading Scientific Institutions Globally

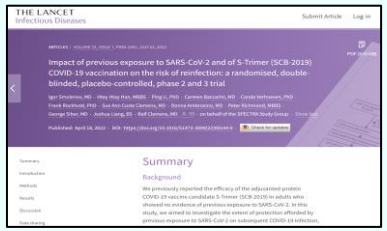
Trimer-Tag technology has been published multiple times in the most renowned scientific journals globally (Including *Lancet*)

Lancet

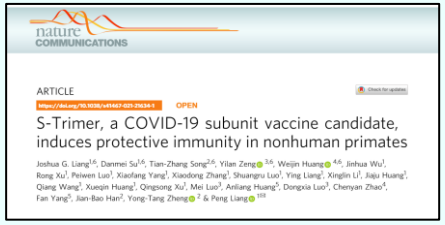


Lancet

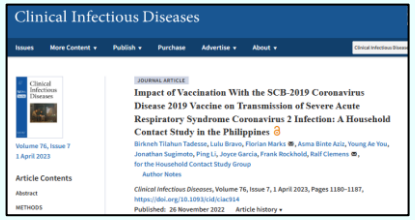
Lancet Inf Diseases



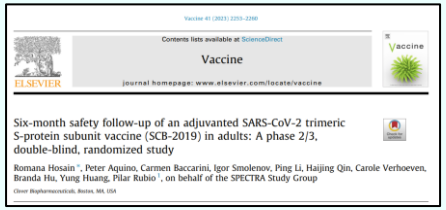
Nature Communications



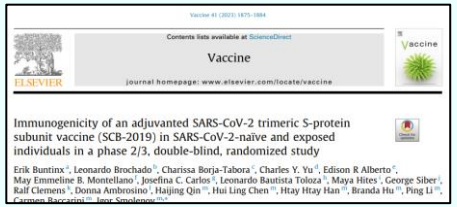
Clinical Infectious Diseases



Vaccine



Vaccine

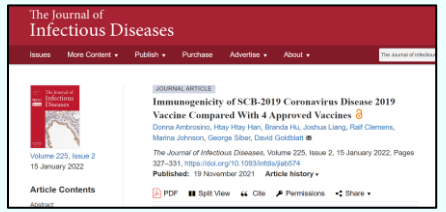


Journal of Virology

Open Forum Inf Diseases (OFID)

Journal of Inf Diseases (JID)

Journal of Inf Diseases (JID)



Virology

Received US$ 397million funding from CEPI to support Clover establishing its vaccine platform (Trimer-Tag Platform + Vaccine Manufacturing Capabilities)

CLOVER BIOPHARMACEUTICALS

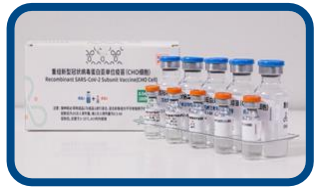
Near-term Goal: Focused on Building a Leading Respiratory Vaccine Franchise

Utilizing Validated Trimer-Tag Platform and Unique Global Partnership Capabilities to Further Expand Pipeline

- Respiratory virus/bacterial outbreaks typically observe similar seasonal nature (peaks during winter)
- Potential commercial synergies (potential co-promotion & co-administration of multiple products in private market)
- Lifecycle Management (LCM) opportunity to develop co-formulated product(s)

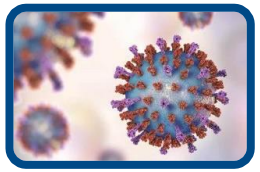
Commercialized Products

Quadrivalent Seasonal Flu Vaccine (Adimmune)



COVID-19 Booster (SCB-2019)

Pipeline + Prioritized Areas for BD Evaluation



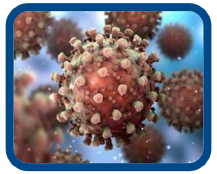
RSV Vaccine (SCB-1019)

Next-gen Seasonal Flu Vaccine

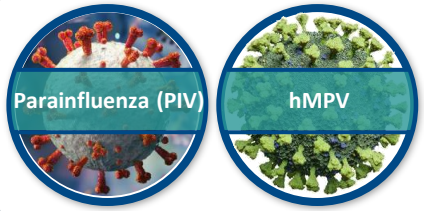
Pneumococcal Conjugated Vaccine (PcV)

Prioritized Areas for BD Evaluation
(Phase II/III or commercial stage)

Future Opportunities



Respiratory Tract Combination Vaccine



In-House Trimer-Tag Product

Partnership/BD

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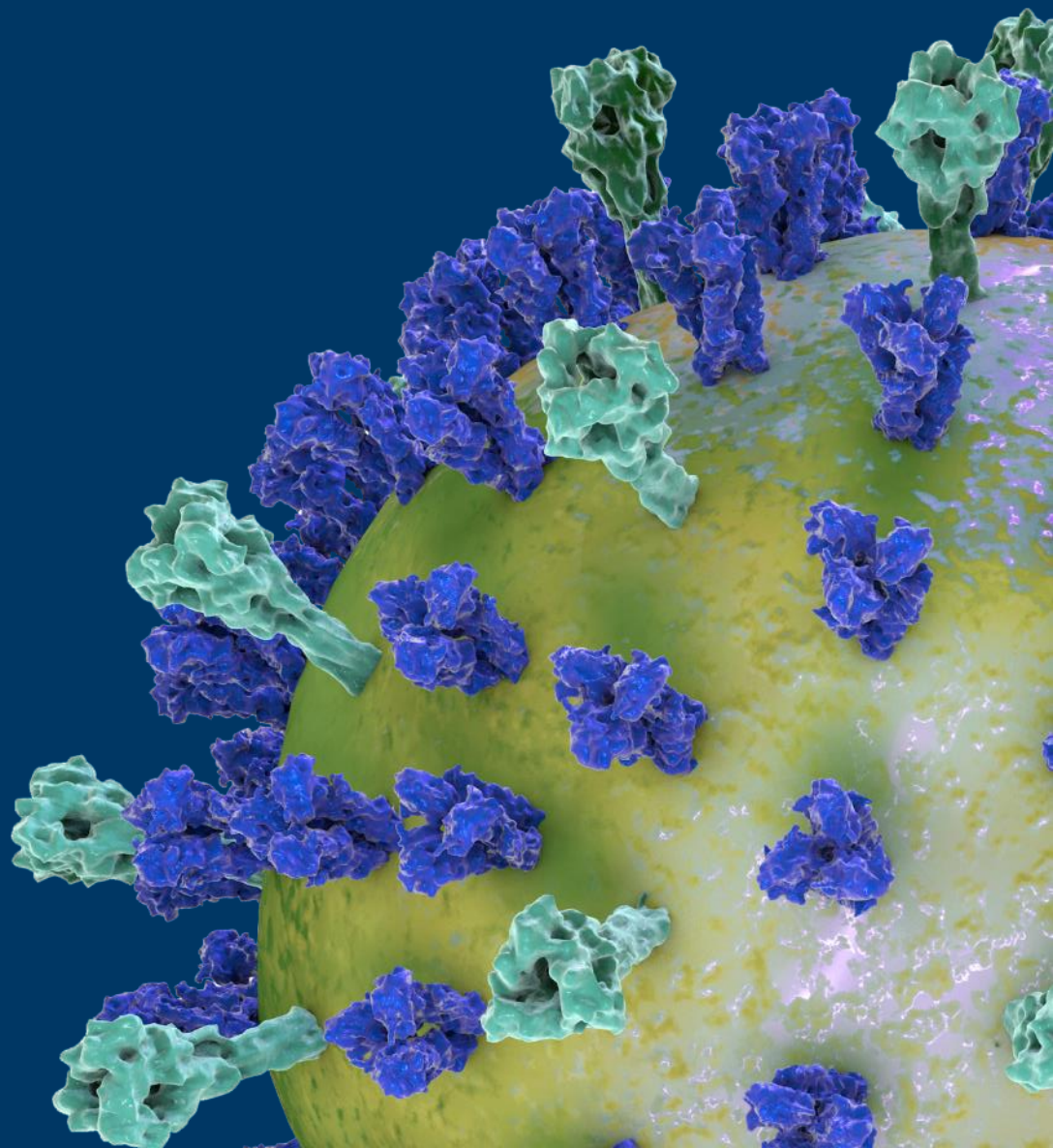
2

RSV Vaccine Landscape & Market Overview



RSV Causes Significant Disease Burden Globally

- Prevention of RSV has been a Significant Unmet Medical Need for Many Decades
- Highest Risk Groups Include: (1) Older Adults & Elderly, and (2) Pediatric Population

RSV in Older Adults & Elderly (≥60 Years)

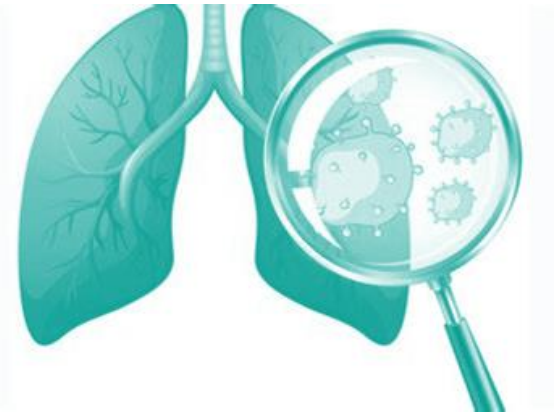
High Disease Burden Similar to Influenza[1]

Up to ~8% Case Fatality Rate[2]

RSV in Children & Infants

2nd Leading Cause of Infant Death Globally[3]

Causes 1 in 50 Deaths in Children (<5 Years)[4]



- RSV infection primarily affects the Lower Respiratory Tract
- Frequent cause of pneumonia and bronchiolitis
- Symptoms can include cough, chest pain, wheezing, difficulty breathing, fever

(1) Ackerson et al., Clin Infect Dis, 2019 (DOI: 10.1093/cid/ciy991); Falsey et al., N Engl J Med, 2005 (DOI: 10.1056/NEJMoa043951); Korsten et al., Eur Respir J, 2021 (DOI: 10.1183/13993003.02688-2020).
(2) Ngyuen-Van-Tam et al., Eur Respir Rev, 2022 (DOI: 10.1183/16000617.0105-2022).
(3) Lozano et al., Lancet, 2012 (DOI: 10.1016/S0140-6736(12)61728-0).
(4) Li et al., Lancet, 2022 (DOI: 10.1016/S0140-6736(22)00478-0).

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☑ Global Commercial Opportunity of RSV Vaccine has been Validated:
Product Sales in First Quarter of Launch Beats Expectations

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

- RSV vaccine commercialized in the US and Europe starting from Q3 2023

- **Global RSV vaccine sales exceeded US$ 1.2Bn in the first quarter of commercial launch**
  (Q3 2023: ~US$ 860 million for GSK Arexvy and US$ 375 million for Pfizer Abrysvo (1))

- **~50% of people who received RSV vaccine were co-administered with flu vaccine, 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).

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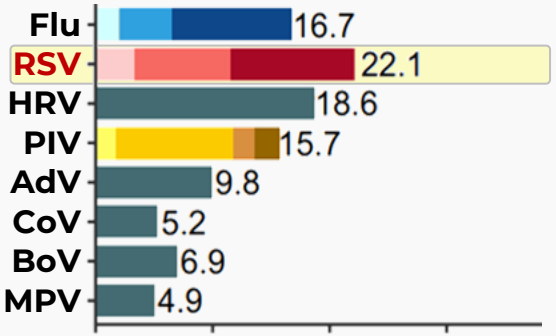
Potential Blockbuster RSV Vaccine Market in China & Globally

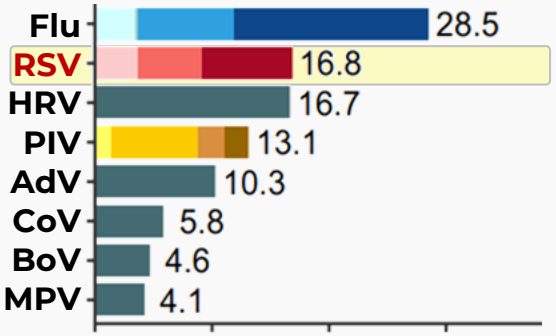
- **RSV is the leading cause of viral pneumonia in China, with an addressable population of >340 million**
- **Blockbuster China Opportunity Wide Open:** No domestic Chinese RSV PreF vaccines have entered human clinical trials yet

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

% of All Viral Pneunomia (2009-2019)

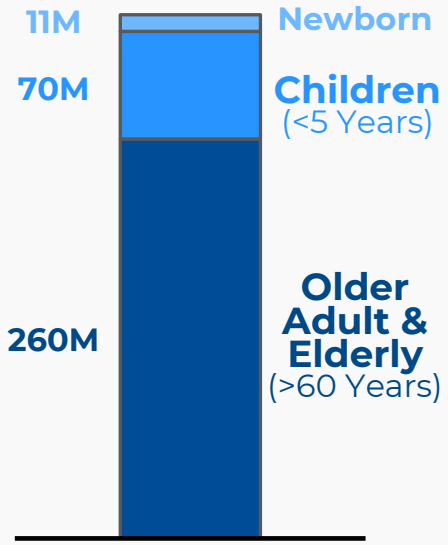


% of All Viral Acute Respiratory Infections (ARIs) (2009-2019)



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).

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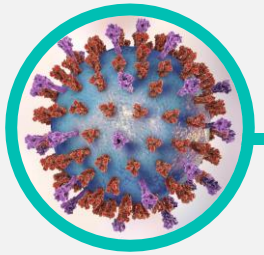
1 Nearly 70 Years of Failure for RSV Vaccine Development (PostF)… Finally a Breakthrough in 2022 (PreF)

1957



RSV was first identified in human [1]

1966-1969

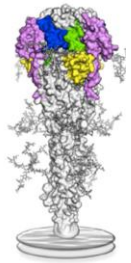
Inactivated RSV vaccine ineffective in newborns, even exacerbated the severity of RSV infection[2]

2016

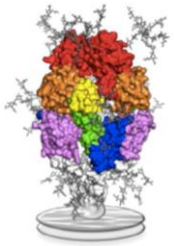
Novavax post-fusion (PostF) RSV vaccine failed Phase III clinical study

2022

Pfizer and GSK announced successful pre-fusion protein (PreF) RSV vaccine Phase III study



Vaccine with Postfusion F Antigen (PostF)



Vaccine with Prefusion F Antigen (PreF)

[1] DOI: 10.1093/oxfordjournals.aje.a119902
[2] DOI: 10.1093/oxfordjournals.aje.a120955

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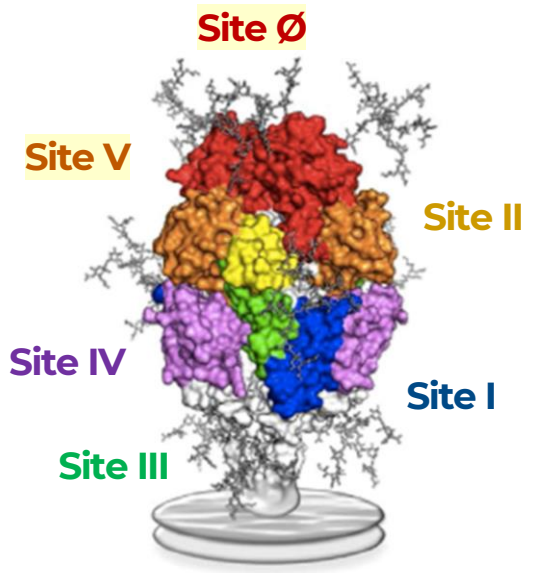
1 Stabilization of Prefusion F (PreF) Trimer is Critical for RSV Vaccines

- PreF contains the most potent RSV neutralization sites (Site Ø & Site V) , whereas PostF does not [1]
- Stabilized PreF vaccines have demonstrated vaccine efficacy (GSK, Pfizer, Moderna), whereas PostF failed in previous clinical trials [2]

Neutralization Sites With Highest Potency (Site Ø & Site V) Are Located Only on PreF

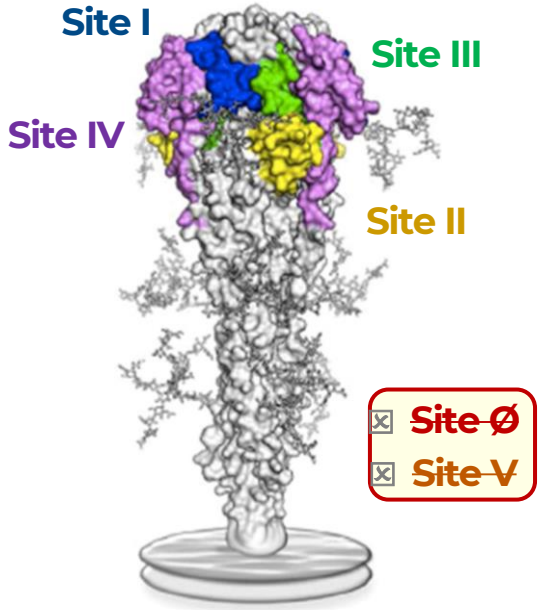
Neutralizing Potency	Neutralizing Antibody Sites	Location	% of NAb Repertoire[3]
Highest	Ø Site Ø	Prefusion Only	~25%
	V Site V		~40%
	III Site III	Pre-F > Post-F	~10%
	IV Site IV	Pre-F & Post-F	~20%
	II Site II		<5%
Lowest	I Site I	Post-F > Pre-F	<1%

Prefusion F (PreF)



☑ All Potent Neutralization Sites

Postfusion F (PostF)



☒ No Site Ø or Site V Binding

Note: NAb (Neutralizing Antibody).

(1) Taleb et al., Eur J Clin Microbiol Infect Dis., 2018 (DOI: 10.1007/s10096-018-3289-4).
(2) Besteman & Bont, Am J Respir Crit Care Me, 2019 (DOI: 10.1164/rccm.201901-0233ED).
(3) Gilman et al., Sci Immunol., 2016 (DOI: 10.1126/sciimmunol.aaj1879). Estimated percentage of high potency (0.05 µg/mL)) neutralizing antibody repertoire.

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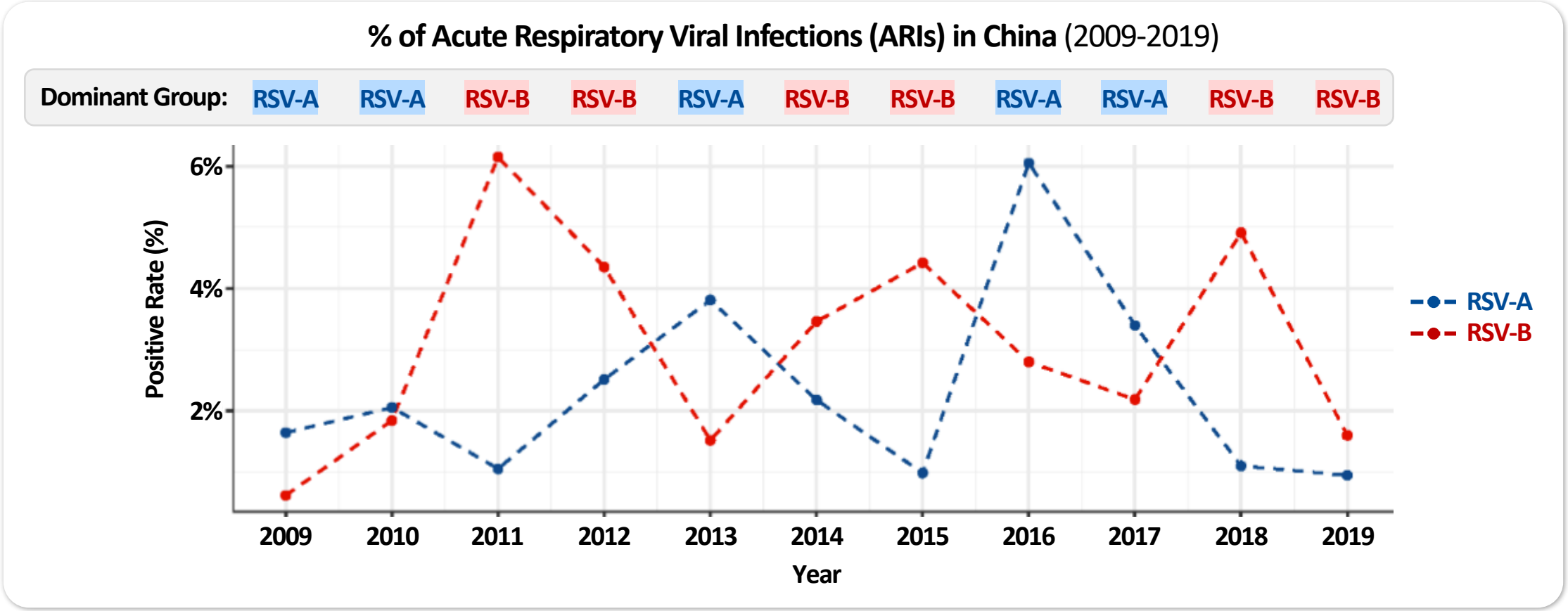
2 Broad Protection: RSV-A & RSV-B

- 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).

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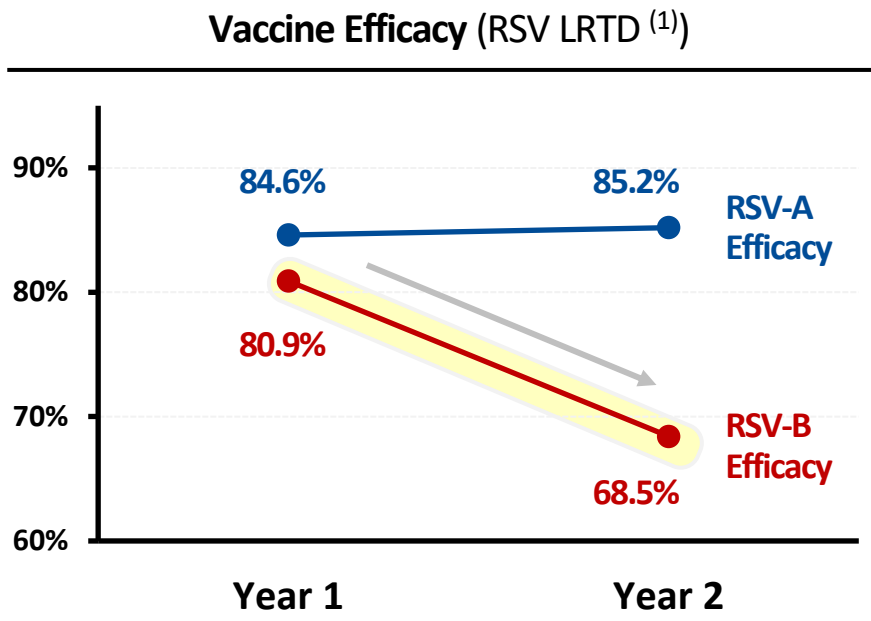
2 Broad Protection: Monovalent RSV-A Vaccines Appear to Lack Breadth Against RSV-B (GSK)

GSK monovalent RSV-A vaccine observed suboptimal breadth & durability trends against RSV-B in global Phase III clinical trial

GSK (AREXVY) Pivotal Phase III Trial [1]



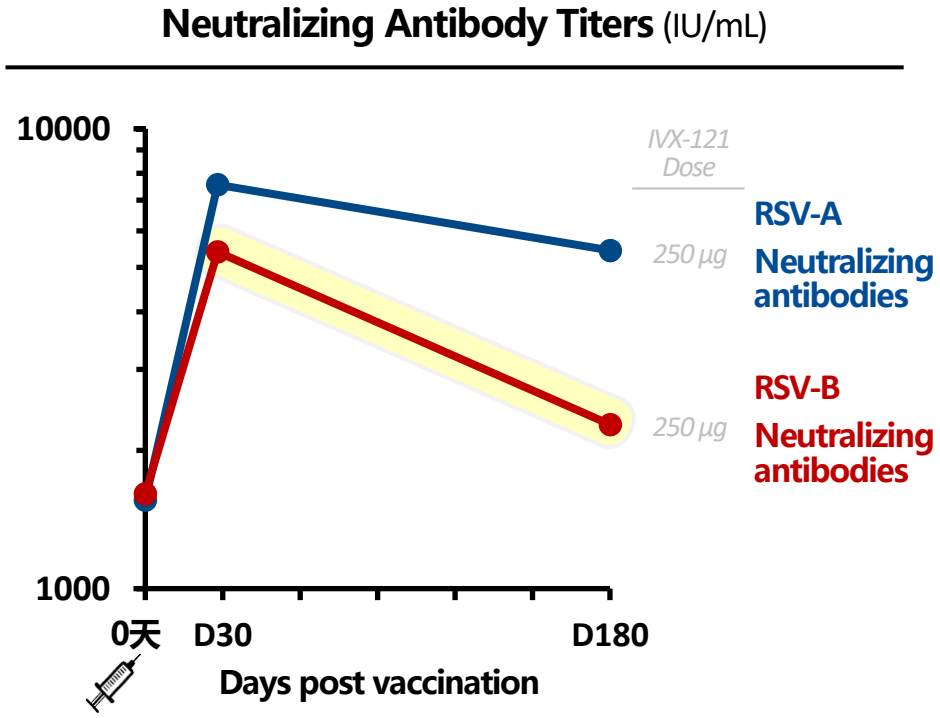
Suboptimal efficacy and durability against RSV-B

Sources:
(1) GSK June 2023 ACIP presentation, NCT04732871. Vaccine efficacy (RSV LRTD with ≥2 lower respiratory symptoms) after a single dose of AREXVY compared to placebo over 2 years.

2 Broad Protection: Monovalent RSV-A Vaccines Appear to Lack Breadth Against RSV-B (Icosavax)

Icosavax monovalent RSV-A vaccine observed suboptimal breadth & durability against RSV-B in global Phase Ib clinical trial

Icosavax (IVX-121) Phase Ib Trial (1)



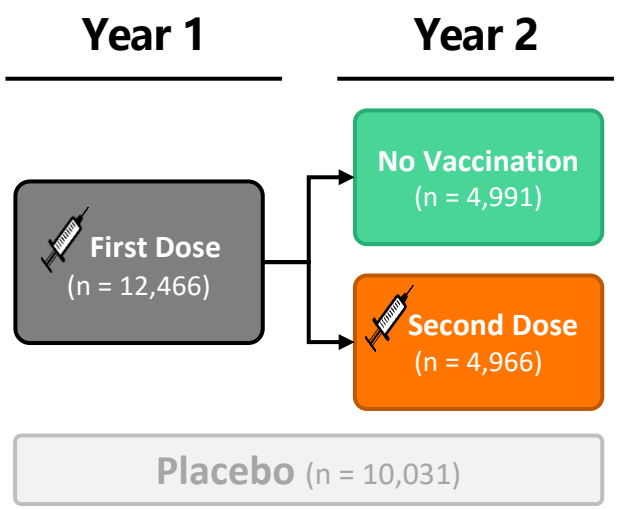
Suboptimal antibody titers and durability against RSV-B

Sources: Investor materials by Icosavax posted on 8 Aug 2023.

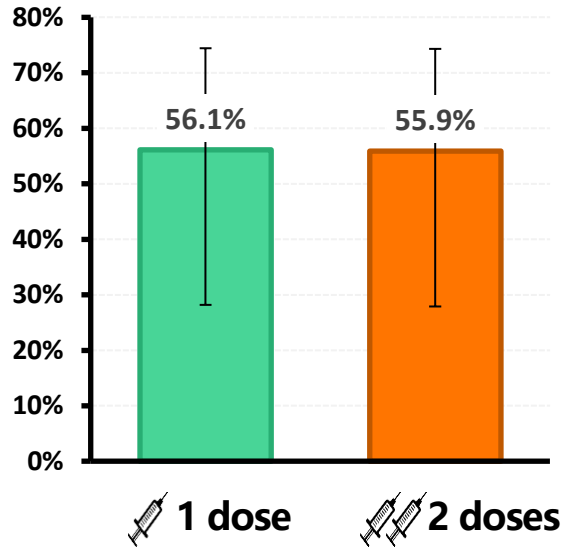
3 Repeated Dosing: Ability to Satisfy Need for Annual/Seasonal Boosting?

- **GSK global Phase III Trial Results: 2nd Dose administered in Year 2 observed no additional efficacy** (corroborated by suboptimal NAb response)
- **Potentially associated with trimerization technology utilized by GSK: T4 Foldon (non-human-derived) may induce immune responses against T4 leading to immune interference against PreF antigen upon repeated dosing**

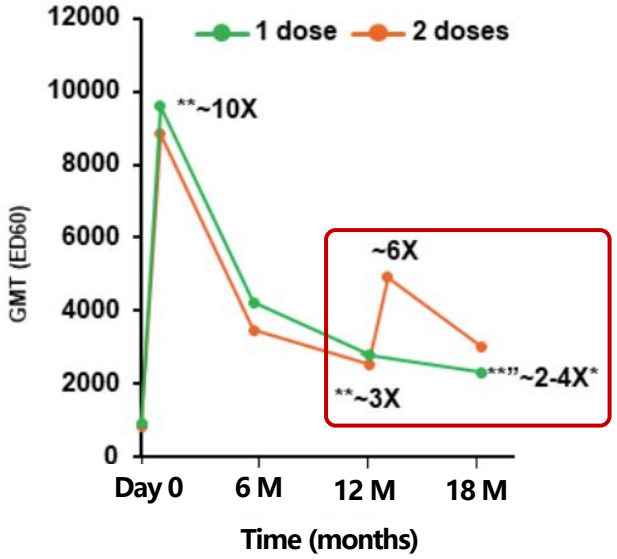
GSK Global Phase III Trial Protocal



Vaccine Efficacy in Year 2 (RSV-LRTD)



Neutralizing Antibody Titers



☒ gsk and Pfizer both utilize T4 Foldon technology in their RSV vaccines, which may make repeated dosing challenging

☑ CLOVER BIOPHARMACEUTICALS Trimer-Tag technology (human-derived) did not observe anti-Trimer-Tag immune responses or immune interference previously in multiple clinical studies

Source: ACIP information by GSK on 21 Jun 2023, NCT04732871. Vaccine Efficacy (at least 2 symptoms caused by RSV LRTI)

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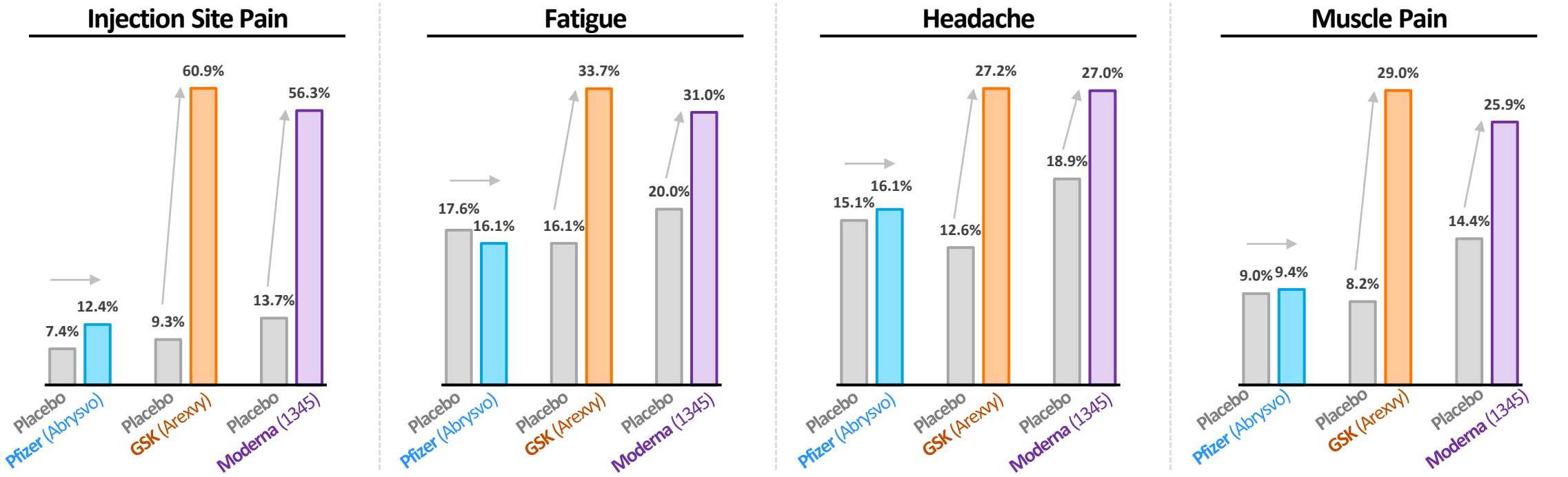
4 Differentiation in Safety & Tolerability

- 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)

Recombinant Protein (Non-adjuvanted) | Recombinant Protein (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).

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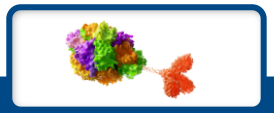
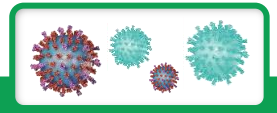
SCB-1019 is a Potential Best-in-Field & Differentiated RSV Vaccine Globally

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



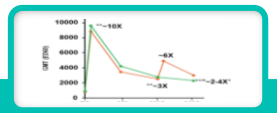
1 Differentiated Stabilized PreF-Trimer

- ✓ **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 has **superior neutralization profile compared to DS-Cav1** (PreF antigen utilized by other companies including GSK, Icosavax, etc.)



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

- ✓ **Immunological Breadth Needed Against Both RSV-A & RSV-B** (2 groups typically 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 is designed to induce **broad & durable neutralization against both RSV-A & RSV-B** (confirmed in preclinical studies)



3 Repeated Dosing Ability (No Immune Interference)

- ✓ **Potential to satisfy need for repeated annual seasonal boosting;** human-derived **Trimer-Tag technology has not observed immune interference** in clinical studies
- ▪ **GSK** observed **lack of efficacy** after second dose in Year 2 **in Phase III study** (with suboptimal increase of 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**

4 Potential Best-in-Field Safety & Tolerability

- ✓ **Safety & tolerability important to maximizing vaccine uptake,** especially for target populations for RSV (elderly & pediatric)
- ✓ 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)

5 Proven Commercial GMP Manufacturing

- ✓ **Validated CMC Platform & Commercial GMP Manufacturing Capabilities**
- ✓ SCB-1019 produced utilizing same **validated Trimer-Tag platform** as Clover's COVID-19 vaccine
- ✓ Proven Clover Changxing facility has **passed multiple GMP inspections**, has **Drug Manufacturing License (DML)** from China NMPA, and has large production capacity

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)

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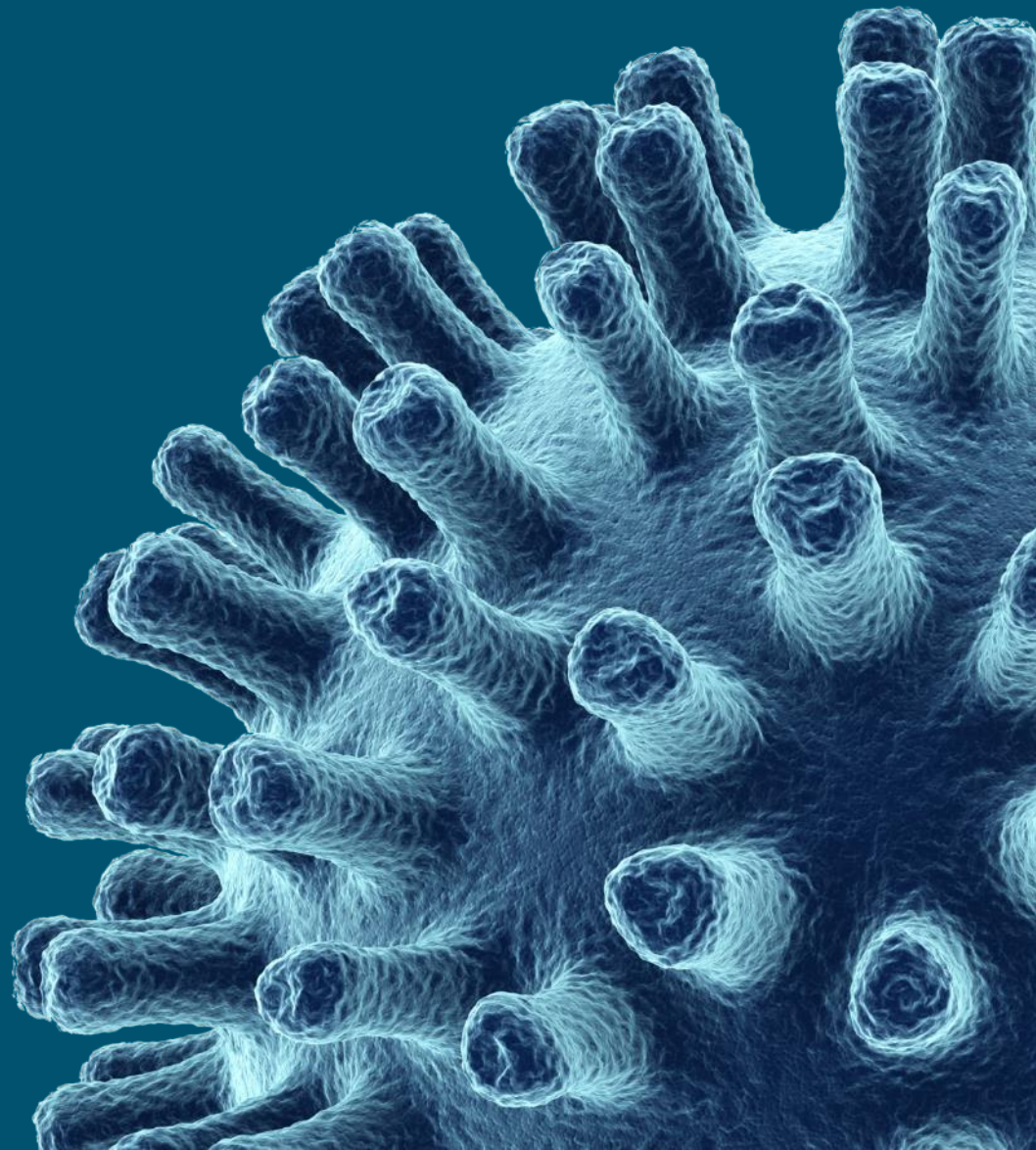
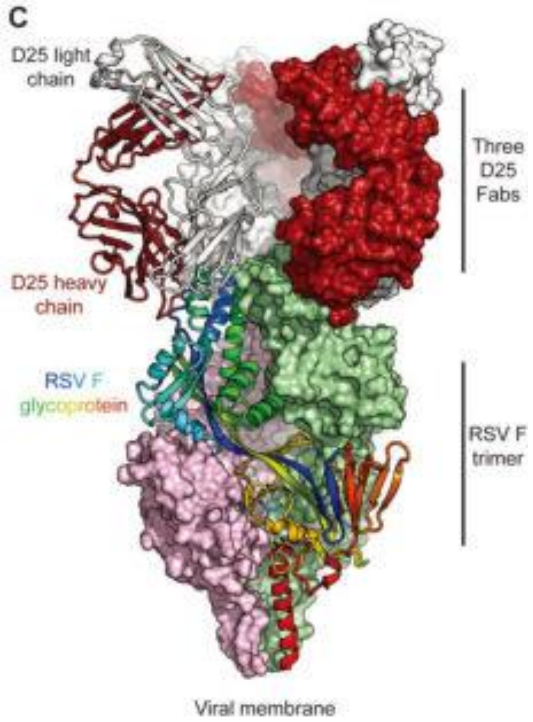
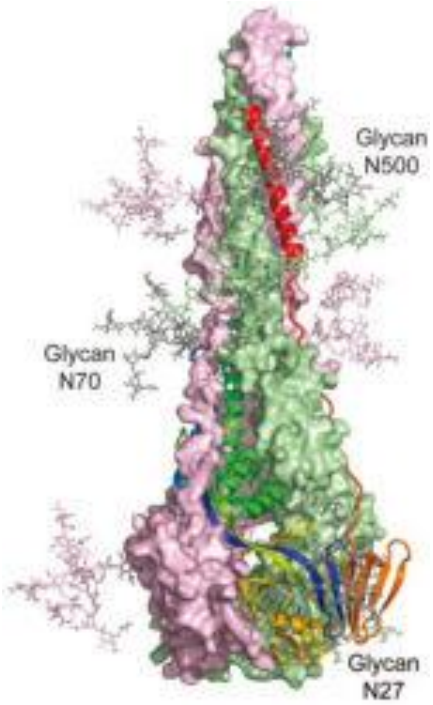
3 SCB-1019:

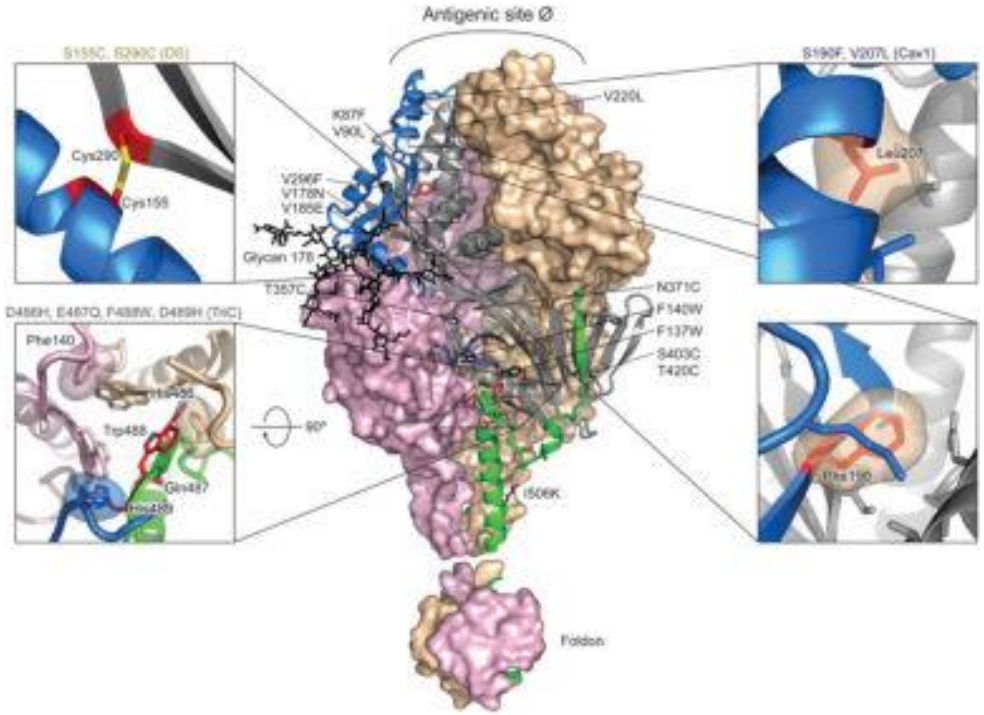
Preclinical Data & Differentiation



Pre-F Protein Structure







Primary Goal is to Produce
Stable, Native-Like Pre-F Trimer Structure

Jason S. McLellan et al. Science (2013)

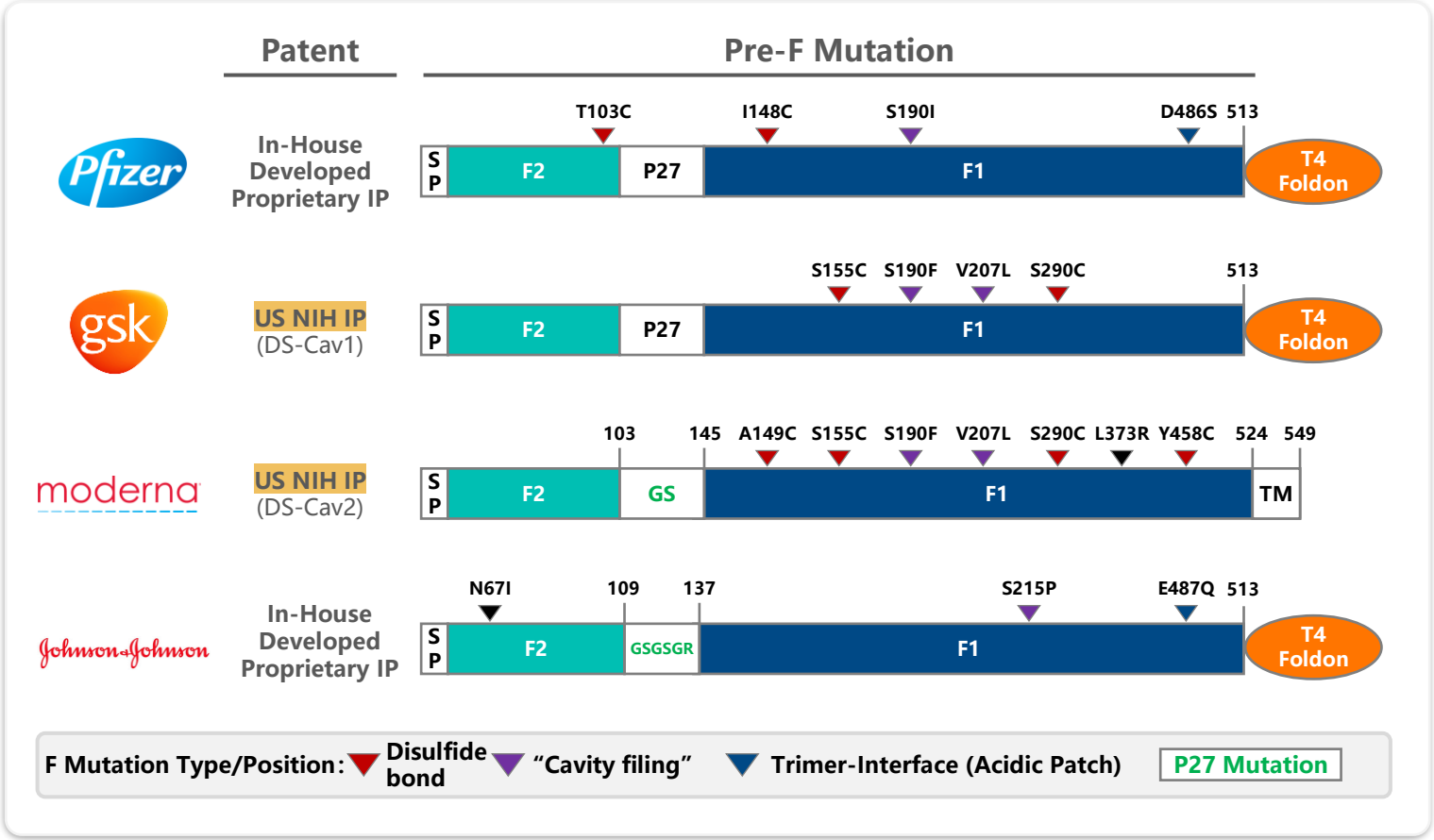
How to Produce and Stabilize a Native-Like Pre-F Trimer?

SCB-1019: In-house proprietary stabilization mutations + Trimer-Tag Platform

SCB-2019 Utilizes a Highly-Differentiated Approach to Producing & Stabilizing PreF-Trimer

- **In-house Developed Proprietary Stabilizing Mutations: Differentiated mutation approach compared to other companies and National Institute of Health (NIH); focused on minimizing number of mutations in 1 region to preserve native-like Pre-F structure**

- **Timer-Tag: Trimer-Tag (derived from human collagen) forms a flexible structure enabling preservation of native-like Pre-F trimer structure; potentially superior to T4 Foldon approach** (utilized by GSK and Pfizer)

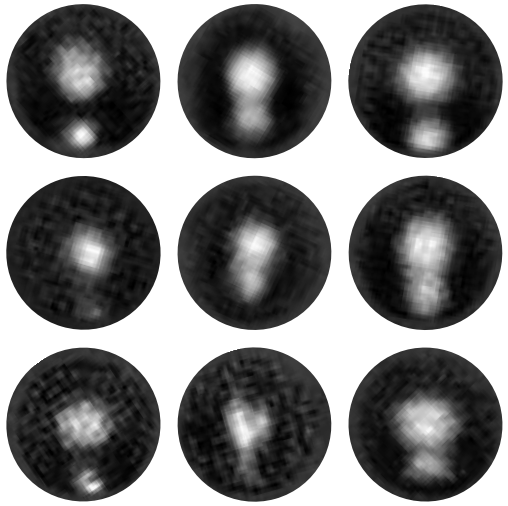


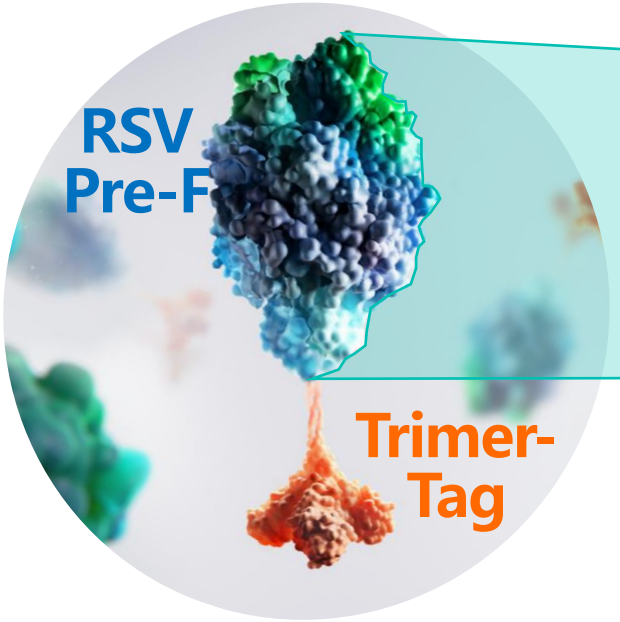
SCB-1019 Confirmed to be Stabilized Prefusion F-Trimer

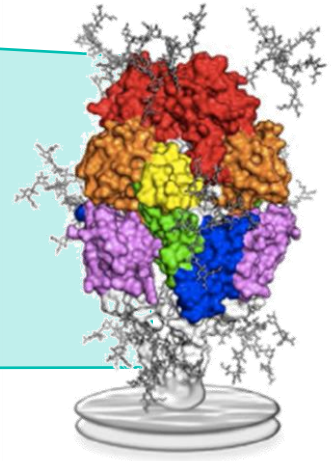
- PreF Stabilization: Achieved utilizing proprietary stabilizing mutations on F-protein and Trimer-Tag platform
- SCB-1019 demonstrates high affinity to NAb sites (Ø、V、IV、III、II、I), with weak affinity to Post-F-mAb

SCB-1019 (RSV PreF-Trimer) Structural Confirmation

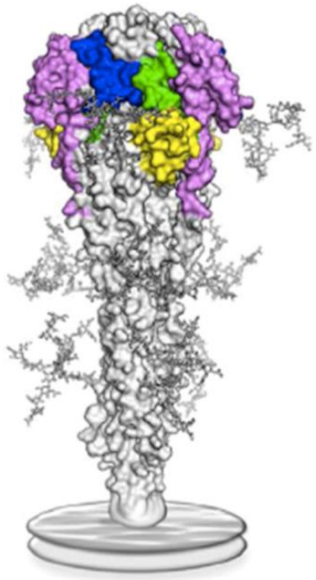
Negative-Stain EM Structure







Pre-F



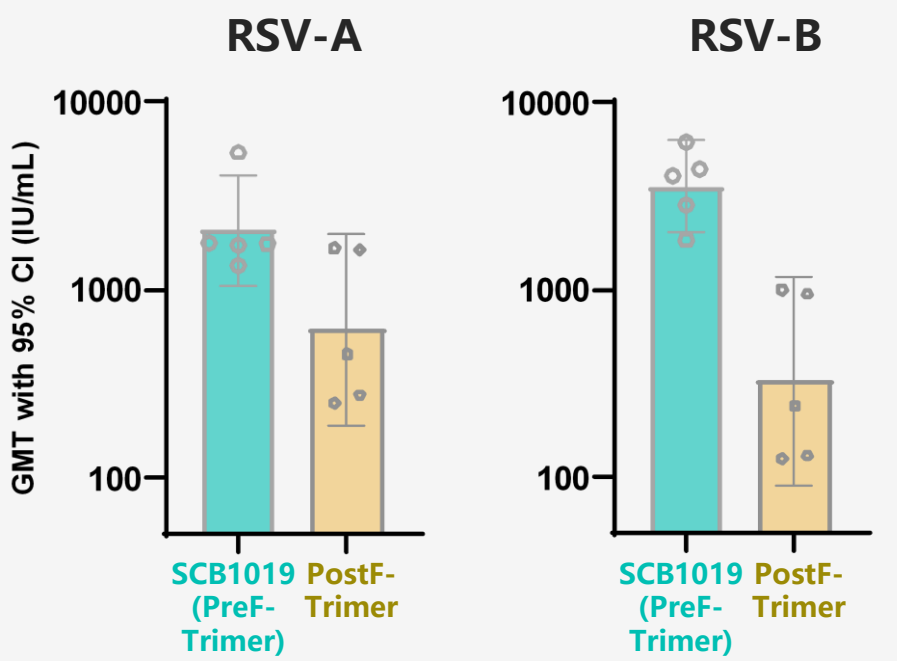
Post-F

Note: Pre-clinical trial studies of Clover Bio

CLOVER BIOPHARMACEUTICALS

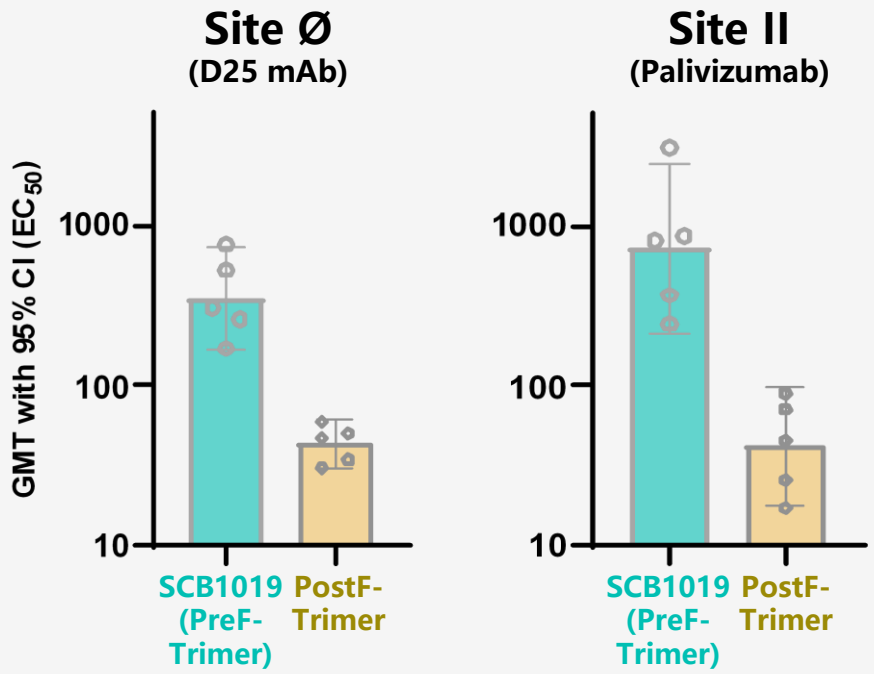
SCB-1019 (Pre-F Trimer) is Superior to Post-F Trimer

Neutralizing Antibody Titer (IU/ml)



SCB-1019 (Pre-F) is Up to ~10X higher than Post-F

NAb-Competitive ELISA (EC_{50})

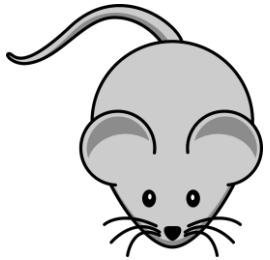


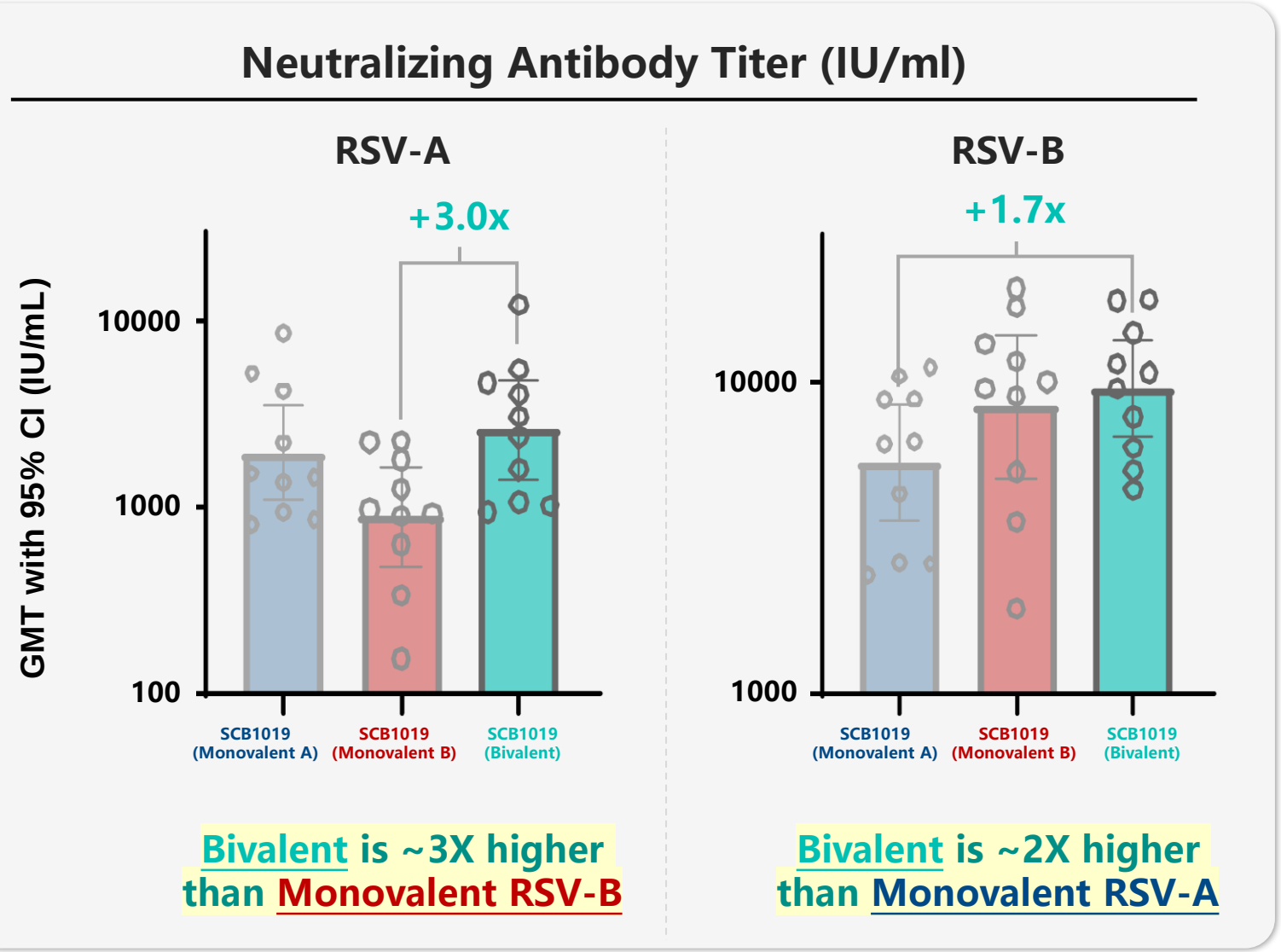
SCB-1019 (Pre-F) is Up to ~20X higher than Post-F

Note: NHP sera collected 14-days post vaccination for immunogenicity testing.

CLOVER BIOPHARMACEUTICALS

Bivalent Vaccine SCB-1019 Demonstrates Better Immunological Breadth Versus Monovalent RSV-A / RSV-B Vaccines





☑ Bivalent Vaccine SCB-1019 (RSV-A + RSV-B) demonstrated the best Immunological Breadth

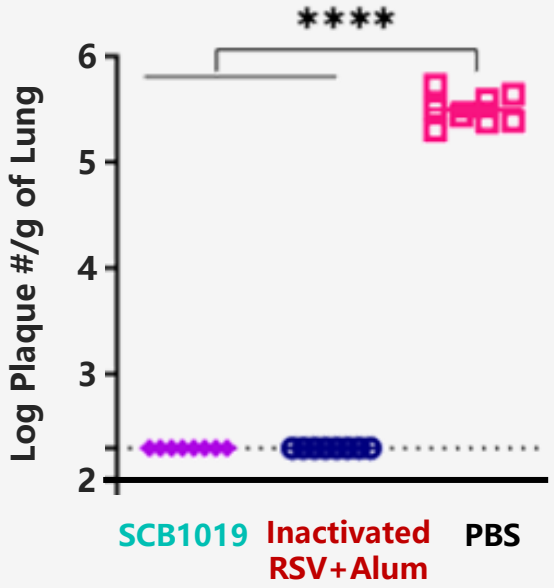
Note: Naïve mice vaccinated with SCB-1019 (A, B, or Bivalent) and sera collected 28 days post-vaccination for immunogenicity testing.

CLOVER BIOPHARMACEUTICALS

SCB-1019 Prevents RSV Infection without Vaccine Enhanced Disease (VED)

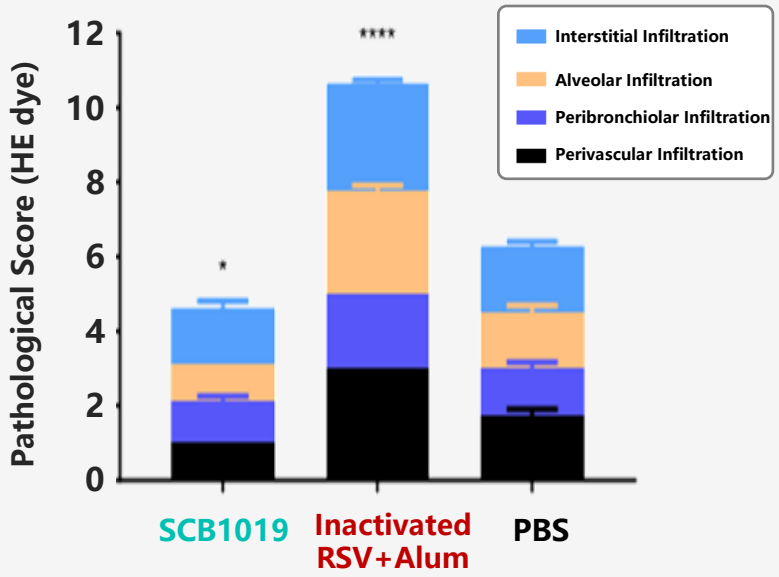
Rodent Virus Challenge Study Results

Lung Virus Load – 5dpi



☑ SCB-1019 prevents RSV infection in the lung

Pathological Score – 5dpi

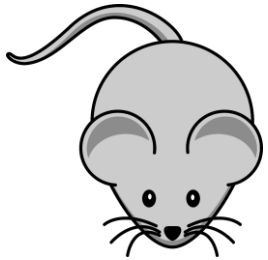


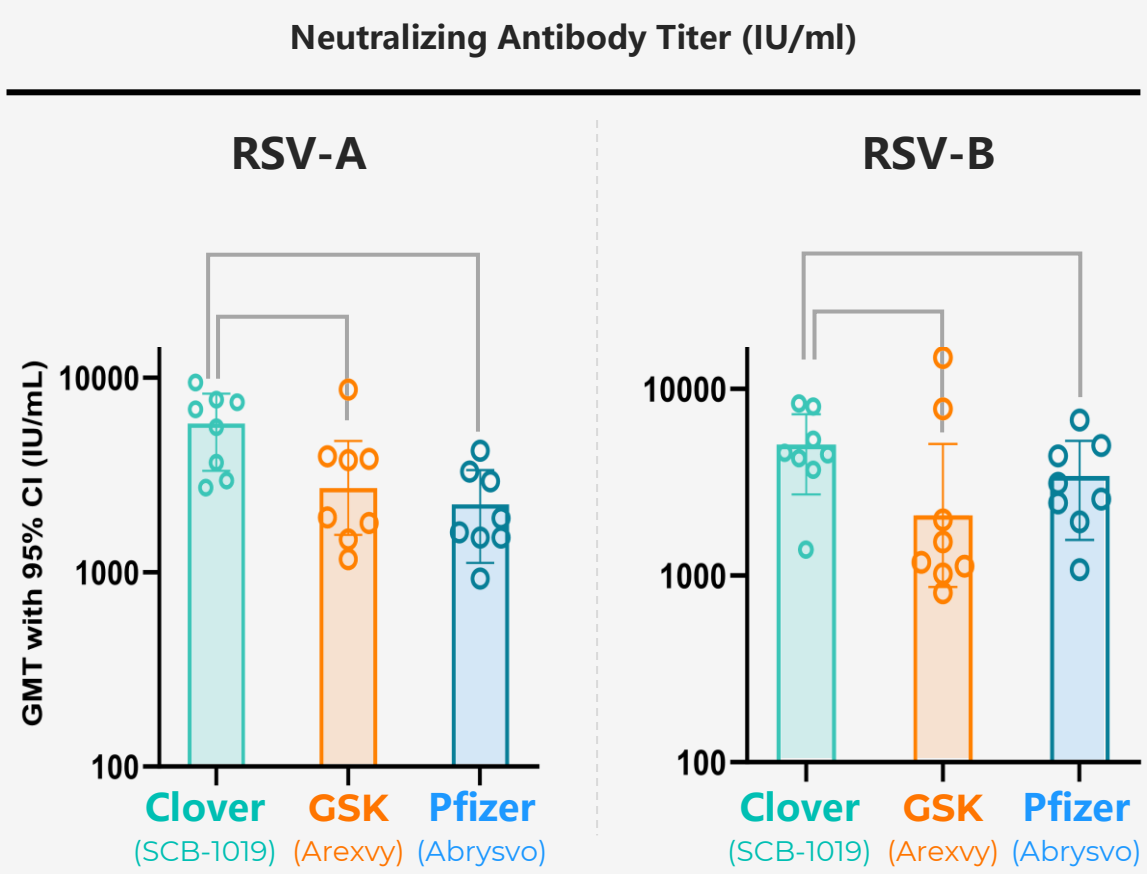
☑ SCB-1019 reduced symptoms caused by RSV infection (lung pathological alteration & body weight reduction)

☒ Inactivated RSV Vaccine (Post-F) enhanced RSV infection symptoms (VED)

VED (Vaccine Enhanced Disease). DPI (Days Post Inoculation).

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





☑ SCB-1019 is comparable to GSK / Pfizer

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.

CLOVER BIOPHARMACEUTICALS

Thank You!