CLOVER BIOPHARMACEUTICALS

Corporate Presentation

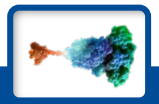
November 2022

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.

Clover is a Global Innovative Vaccine-Focused Biotechnology Company that Aspires to Empower Humanity with a Healthier Future Through Transformative Science



Validated Trimer-Tag™ Vaccine Platform

- ✓ **20+ Potential Viruses** for vaccine development utilizing Trimer-Tag™
- ✓ **Platform Validated** by lead COVID-19 vaccine candidate (SCB-2019), which has established efficacy & safety in global Phase 2/3
- ✓ **"Plug & Play" Strain-Change** proof-of-concept in 2022 (SCB-2020S, second-gen COVID-19 vaccine, clinical data in Q4-2022)
- ✓ **Rabies Vaccine Development Ongoing** (preclinical data & development updates in Q4-2022)

Proven Global Vaccine R&D Capabilities

- ✓ **7 Phase 2/3 Vaccine Clinical Trials** completed or ongoing since 2020
- ✓ **Over 37,500 Participants Enrolled** for SCB-2019 across trials
- ✓ **Experience Across 5 Continents (in 8 Countries)**: Including China/Asia, Europe, South America, Africa, Australia
- ✓ **750+ FTEs Across 12 Countries; World-Class SAB & DSMB**
- ✓ **Regulatory Approval Submissions Ongoing** (to China NMPA, EMA, WHO, and other countries)

Established Commercial Manufacturing

- ✓ **Capacity to Produce Hundreds of Millions of Vaccine Doses** across in-house Changxing facility and CDMO site (multiple 2000L bioreactors + drug product lines at each site)
- ✓ **CDMO Site Received EU GMP Certificate for SCB-2019 Production** in Sept 2022 following inspection
- ✓ **Changxing Facility Has China Pharmaceutical Manufacturing Permit** for vaccine production from Zhejiang MPA

Global Collaborations with Reputable Partners

- ✓ **Up to $397M Grant Funding by CEPI** for research & development of SCB-2019
- ✓ **Advanced Purchase Agreement (APA) Signed with Gavi** for supply of SCB-2019 to COVAX facility
- ✓ **Adjuvant Supply Agreements with Dynavax** for supply of CpG 1018 adjuvant (clinical & commercial)

CEPI Gavi COVAX DYNAVAX unicef

Lead Product Candidate

SCB-2019 (CpG 1018/Alum)

-- Differentiated "Universal Booster" COVID-19 Vaccine Candidate --

Robust Neutralization Against Omicron BA.5 Strain; Superior to Inactivated Vaccine

Significant Reduction in Household Transmission of SARS-CoV-2 Infection

Potential Best-in-Field Safety Profile

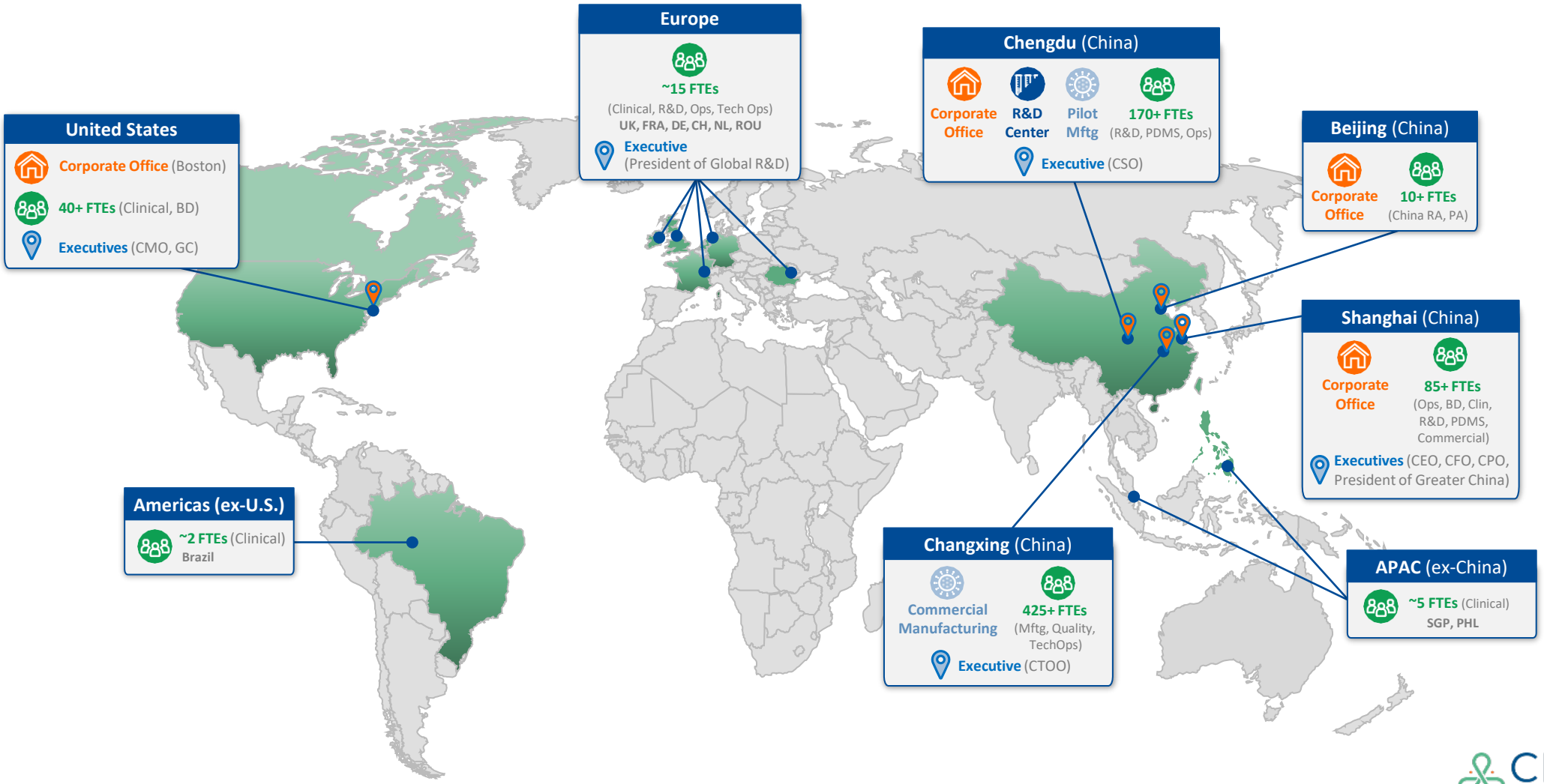
Convenient Storage & Distribution (2-8°C & RT)

Regulatory Submissions (China NMPA, EMA, WHO) Anticipated to be Completed in Q4-2022, with Product Launch Commencing After Approval

Global Footprint: Business & Leadership Without Borders

Integrated Vaccine R&D, Manufacturing & Global Clinical Development Capabilities

750+ FTEs (in 12 Countries) | **4 Corporate Offices** | **2 Manufacturing Facilities** | **R&D Center**



Note: As of September 2022.

Global Leadership Team: Diverse & Proven Vaccine Expertise

November 2022

CEO

Joshua Liang

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

- Raised >US$ 1 billion in financings (incl. IPO)
- Led Clover from 15 to 750+ FTEs

Founders

Peng Liang, PhD

Founder, Chairman of the Board & Chief Scientific Officer

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

Xiaodong Wang, PhD

Non-Executive Director (NED)

- Founding Director, NIBS
- Co-founder & SAB Chairman, BeiGene

R&D & Tech Ops Leaders

Nicholas Jackson, PhD

President of Global R&D

- Global Head of Research, Sanofi Pasteur
- Head of Vaccine Programs & Tech, CEPI

LiongHo Chua

President of Greater China

- Executive President & CSO, AIM Vaccine
- General Manager, Sanofi Pasteur China

Htay Htay Han, MBBS

Chief Medical Officer (CMO)

- Head Early Clinical Dev, Takeda Vaccines
- 23 Years at GSK Vaccines

Mike Berry, PhD

Chief Technical Ops Officer (CTOO)

- VP of PDMS, Dynavax Technologies
- Director, MSAT, Novartis Vaccines

Nicolas Burdin, PhD

EVP, Global Head of Research

- Global Head of Immunology at Sanofi Pasteur

Yang Li, PhD

SVP, Process Dev & Mftg Sciences

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

Igor Smolenov, MD PhD

SVP, Global Clinical Development

- TA Head for R&D, CSL Seqirus
- Head of Clinical Dev (ID), Moderna

Wei Tan, PhD

SVP, Head of China Research

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

Francois Verdier, PhD

Head of Global Regulatory Affairs

- AVP, Global Franchise Head of Regulatory Affairs at Sanofi Pasteur

Tracy Wang

SVP, Head of China Regulatory Affairs

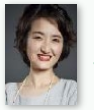
- Head of China Reg Affairs, Parexel
- China RA at MSD, Novartis, Sanofi

Corporate Leaders

Aileen Wang

Chief Financial Officer (CFO)

- Head of BP&A, Novartis Gene Therapies
- Chief Financial Officer, Sandoz China



Lily Yang

Chief People Officer (CPO)

- VP of People & Culture, WeWork China
- Senior Director, HRBP, Nike

Brian Krex

General Counsel (GC)

- General Counsel at AGTC / VP at Alexion
- Assistant General Counsel, Pfizer

Abigail Bracha, PhD

SVP, Corporate Strategy & BD

- VP, Corp Dev & Strategy, Rubius Therap.
- Head of Strategy (S&E), GE Healthcare

Board of Directors*

Donna Ambrosino, MD

Non-Executive Director (NED)

Ralf Clemens, MD PhD

Non-Executive Director (NED)

Jeff Farrow

Independent Non-Executive Director (INED)

Thomas Leggett

Independent Non-Executive Director (INED)

Xiang (Sam) Liao

Independent Non-Executive Director (INED)

Xiaobin Wu, PhD

Independent Non-Executive Director (INED)

*Board members in addition to the CEO and Founders.

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

Pierre Desmons PhD

CMC Advisor

- Former VP, Head of R&D China, GSK
- Former Head of Asia Strategic Partnership, 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

Nelson Teich MD

Public Health Advisor

- Former Minister of Health, Brazil
- Founder & Former President, Integrated Clinical Oncology Group (COI)

Anh Wartel MD

Clinical Development Advisor

- Deputy Director General, International Vaccine Institute (IVI)
- Former Country Medical Head (Vietnam/ Cambodia), Sanofi

50+ SAB Meetings Convened Since July 2020

Trimer-Tag™ Technology Platform for Vaccine Development

- Platform for development of **protein-based vaccines** based on **naturally trimerization-dependent targets**
- **Only technology platform globally** for producing recombinant covalently-trimerized antigens utilizing a **human-derived trimerization tag**
- **Platform validated** by COVID-19 vaccine (SCB-2019) in global Phase 2/3 trial for efficacy & safety

Trimer-Tag™ Technology Platform

Variable Domain

Constant Domain

Naturally Trimeric Virus Antigen

Trimer Tag™

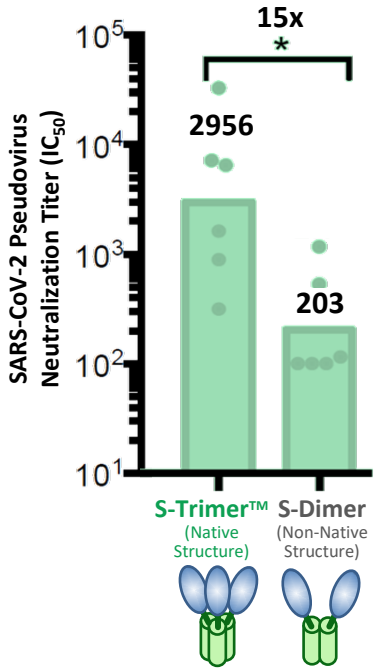
20+ Potential Virus Antigens

- Coronavirus
- RSV
- Rabies
- Influenza
- HSV-1
- 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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Strong Commercial Manufacturing Capabilities

Commercial Manufacturing Infrastructure Established | EU GMP-Certified CDMO Partner (WuXi Vaccines)

In-house Commercial Manufacturing Facility (Changxing, Zhejiang Province)

- Received **Pharmaceutical Manufacturing Permit** from Zhejiang Medical Products Administration; received **EU QP Declaration** stating the facility operation complies with EU GMP standards
- Supplied clinical trial material SCB-2019 (CpG 1018/Alum) for **global Phase 2/3** SPECTRA trial
- Previously-identified facility **remediations & improvements have been completed in Q3-2022**
- Capacity to potentially produce **hundreds of millions of doses** of SCB-2019 (CpG 1018/Alum) annually at peak

Global CDMO Network EU GMP Certified, High-Quality Partner (WuXi Vaccines)

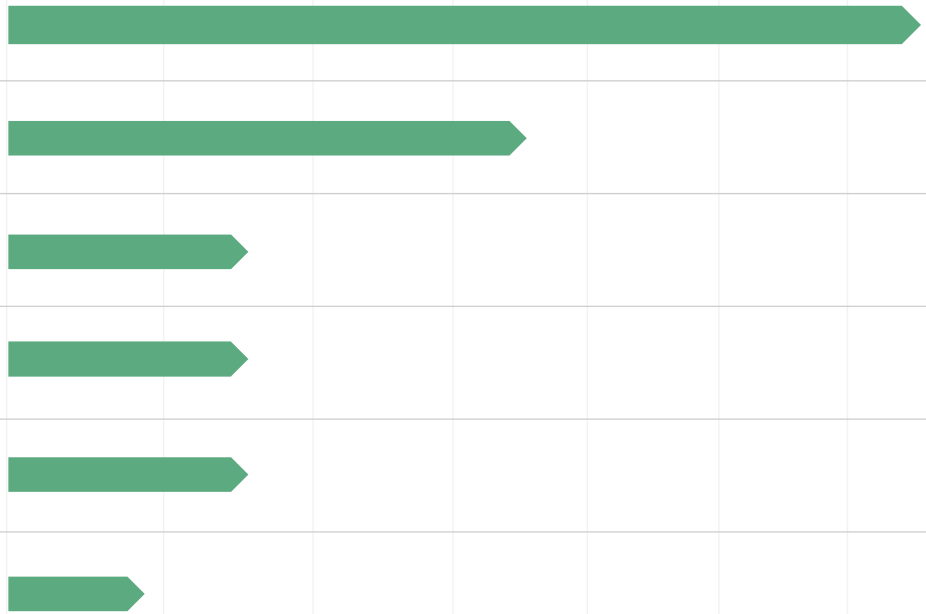
- CDMO partner **successfully received EU GMP certificate for the production of SCB-2019 (CpG 1018/Alum) in Sept 2022**; strong track record in vaccines/biologics manufacturing and global regulatory approvals (EMA, FDA, WHO)
- **Completed production-related transfer activities in Q3-2022** from Clover to WuXi Vaccines for SCB-2019
- Capacity to potentially produce **hundreds of millions of doses** of SCB-2019 (CpG 1018/Alum) annually at peak

Abbreviation: CDMO (Contract Development & Manufacturing Organization).

Robust Pipeline Focused on Innovative Vaccine Candidates

2022 Milestones: COVID-19 Vaccine to Complete Regulatory Submissions | 2 New Clinical Stage Programs With Near-Term Data (SCB-2020S / SCB-219M)

Assets	Product Candidate	Target	Indication
Vaccines	SCB-2019 (CpG 1018/Alum) (1)	SARS-CoV-2 S-Trimer™ (Original Strain)	COVID-19 Universal Booster & Primary Vaccination
	SCB-2020S (CAS-1) (2)	SARS-CoV-2 S-Trimer™ (Beta Variant Chimera)	COVID-19
	Pan-SARS-CoV-2 Vaccine (3)	SARS-CoV-2 S-Trimers™ (Multivalent)	COVID-19
	SCB-1001 (4)	Rabies G-Trimer	Rabies
	RSV Vaccine	RSV F-Trimer	RSV
	Influenza Vaccine	HA-Trimers	Quadrivalent Seasonal Flu Pandemic Flu
Other Assets	SCB-219M (5)	TPO Mimetic Bispecific-Fc	Chemotherapy-Induced Thrombocytopenia (CIT)
	SCB-313 (6)	TRAIL-Trimer	Intracavitary Malignancies (Malignant Ascites, Malignant Pleural Effusions, Peritoneal Carcinomatosis)



(1) COVID-19 vaccine candidate. We expect to complete regulatory submissions in Q4-2022 and commence product launch after approval. **(2)** SCB-2020S antigen is a chimeric SARS-CoV-2 spike protein based on the RBD of Beta variant and the NTD of the original strain. This candidate is being evaluated with CAS-1, an in-house developed oil-in-water emulsion-based adjuvant. **(3)** To be based on multivalent S-Trimer vaccine, and candidate selection for further development is planned in Q4-2022. **(4)** Additional preclinical results and update on development plans are expected in Q4-2022. **(5)** Interim Phase 1 data and recommended Phase 2 dose selection anticipated in first half of 2023. **(6)** Oncology product candidate for the treatment of malignant ascites (MA), malignant pleural effusions (MPE), and peritoneal carcinomatosis (PC) to address global unmet medical need of intracavitary malignancies. 5 Phase 1 trials completed in China and Australia. Continued internal development of SCB-313 has been paused and pending further assessment of development strategy and resource allocation.

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

-- SCB-2019 (CpG 1018/Alum) Vaccine Design --

- **Adjuvanted Protein-Based COVID-19 Vaccine Candidate**: SCB-2019 antigen (30 µg/dose) in combination with CpG 1018 adjuvant and aluminum hydroxide (alum)
- SCB-2019 is a recombinant SARS-CoV-2 Spike (S) protein, preserved in the native trimeric prefusion conformation form utilizing **Trimer-Tag™ technology platform**

SCB-2019 Antigen Structure

S1

S2

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

Trimer-Tag™

-- Global Collaborations Established --

- **Up to $397.4 M** grant funding by CEPI
- Commercial supply agreements with DYNAVAX for **CpG 1018 adjuvant supply**
- **Advanced Purchase Agreement (APA)** signed with Gavi The Vaccine Alliance to supply COVAX facility for global distribution

-- Differentiated "Universal Booster" COVID-19 Vaccine Candidate --

Robust Neutralization Against Omicron
(Broad Neutralization Against Omicron, Including Globally Dominant BA.5 Strain)

Reduced Household Transmission
(84% Reduction in Transmission of SARS-CoV-2 Infection to Household Contacts)

Potential Best-in-Field Safety
(Favorable Safety & Reactogenicity Profile)

Convenient Storage & Distribution
(Stable at 2-8°C Refrigeration and Room Temperature)

Attractive Product Profile for China & Global Markets as a "Universal Booster"

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SCB-2019 (CpG 1018/Alum) Development Overview

☑ **Comprehensive Global Development:** 37,500+ Participants Enrolled | 8x Countries & 5x Continents | 7x Phase 2/3 Studies

☑ **"Universal Booster":** SCB-2019 utilized as a booster regardless of vaccine technology used previously or prior infection

Primary Vaccination

Naïve Populations (No Prior Vaccination or SARS-CoV-2 Infection)

- **Adult & Elderly** (18+ Years)
- **Adolescents** (12-17 Years)
- **Pediatrics** (<12 Years)

Universal Booster

Heterologous Booster

- **Prior SARS-CoV-2 Infection**
- **Prior Viral Vector Vaccine** (AstraZeneca Vaccine)
- **Prior Inactivated Vaccine** (Inactivated Vaccine)
- **Prior mRNA Vaccination**

Homologous Booster

- **Prior SCB-2019 Vaccination** (Protein-Based Vaccine)

Phase (Location)	Planning/ IND/CTA	Recruiting	Data	Milestones
Phase 2/3 (Global)	N = 30,000+ (1)			Final Efficacy Data Reported ☑ **High Efficacy + Favorable Safety**
Phase 2 (China)	N = 650+			Study Enrollment Completed
Phase 2/3 (Global)	N = 1,250+			Final Results Reported ☑ **Positive Immunogenicity + Favorable Safety**
Phase 3 (Global)	Planned			Pediatric Investigation Plan (PIP) approved by EMA Pediatric Committee
Phase 2/3 (Global)	N = 14,500+ (1)			Final Efficacy Data Reported ☑ **Strong Boosting (incl. BA.5) + High Efficacy**
Phase 2 Investigator-Initiated (Brazil)				Final Results Reported ☑ **Strong Boosting Response (incl. BA.5)**
Phase 3 (Global)				Immunogenicity & Safety **Data Expected Q4:2022**
Phase 3 (Global)	3rd Dose (2)			Preliminary Data Reported ☑ **Superior Boosting Response & Broad Neutralization (incl. Omicron BA.5)**
	4th Dose (3)			**Data Expected Q4:2022**
Phase 3 (Global)				**Data Expected Q4:2022**
Phase 2/3 (Global)	N = 3,755			Final Results Reported ☑ **Strong Boosting Response (incl. BA.5)**

(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) SCB-2019 (CpG 1018/Alum) given as a booster dose (3rd dose) in individuals previously receiving 2 doses of CoronaVac compared to responses from a third dose of inactivated vaccine.
(3) SCB-2019 (CpG 1018/Alum) given as a booster dose (4th dose) in individuals previously receiving 3 doses of CoronaVac compared to responses from a fourth dose of inactivated vaccine.

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Primary Vaccination: Key Takeaways from Global Phase 2/3 SPECTRA Trial

SPECTRA Established High & Durable Efficacy of SCB-2019 Against COVID-19 with a Favorable Safety Profile

Study Snapshot

30,000+ **Participants Enrolled**
(Adult & Elderly)

4 Continents, 5 Countries

Belgium · Colombia · Brazil · South Africa · Philippines

*Strong geographic and ethnic **Diversity***

100% of **SARS-CoV-2 strains** observed **were variants** (multiple variants of concern & interest)

<6 Months From enrollment initiation until final efficacy data announced

Mar 24, 2021 Initiated Enrollment
Sep 22, 2021 Final Data Announced

Final Efficacy Data (Reported September 2021)

- **Primary & Secondary Efficacy Endpoints Successfully Met**
- **100% Efficacy Against Severe COVID-19 & Hospitalization**, 84% efficacy against moderate-to-severe COVID-19, 67% efficacy against COVID-19 of any severity caused by any strain of SARS-CoV-2 in SPECTRA
- **Favorable Safety Profile:** No significant differences in systemic solicited adverse events (AEs) or severe/serious adverse events (SAEs) compared to placebo

Follow-Up Efficacy at 5-Months After Primary Vaccination (Reported March 2022)

- **100% Efficacy Maintained Against Severe COVID-19**
- **95% Efficacy Against Hospitalization** Associated With COVID-19
- **No Safety Concerns** Observed

Notes: Final efficacy data represents average follow-up of approximately 54 days after second dose.

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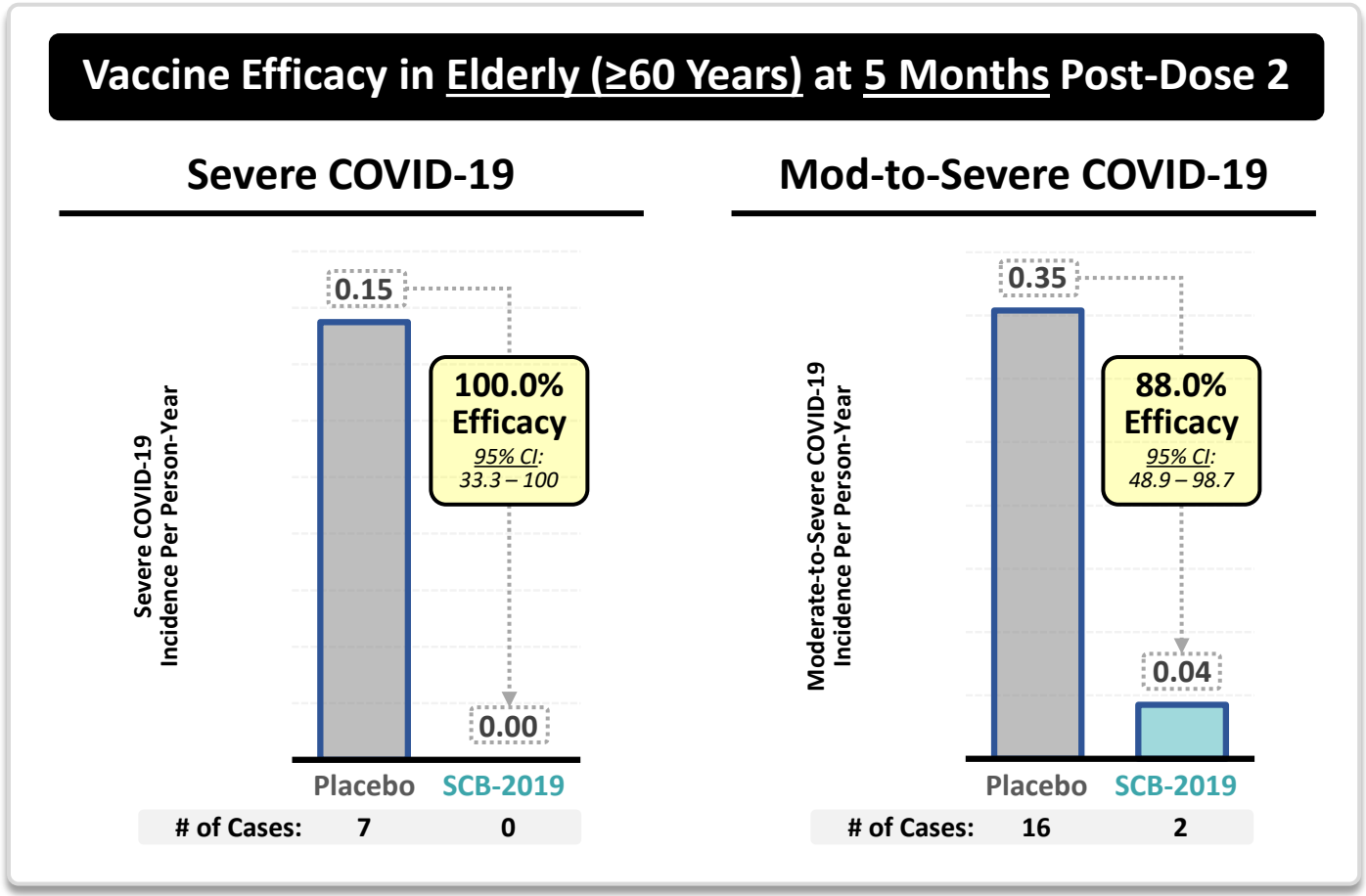
Primary Vaccination: High & Durable Efficacy in Elderly Population

- ✓ 100% efficacy against severe COVID-19 in elderly at 5-months after second dose
- ✓ 88% efficacy against moderate-to-severe COVID-19 in elderly at 5-months after second dose



Notes: Figures 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 5 months after second dose.

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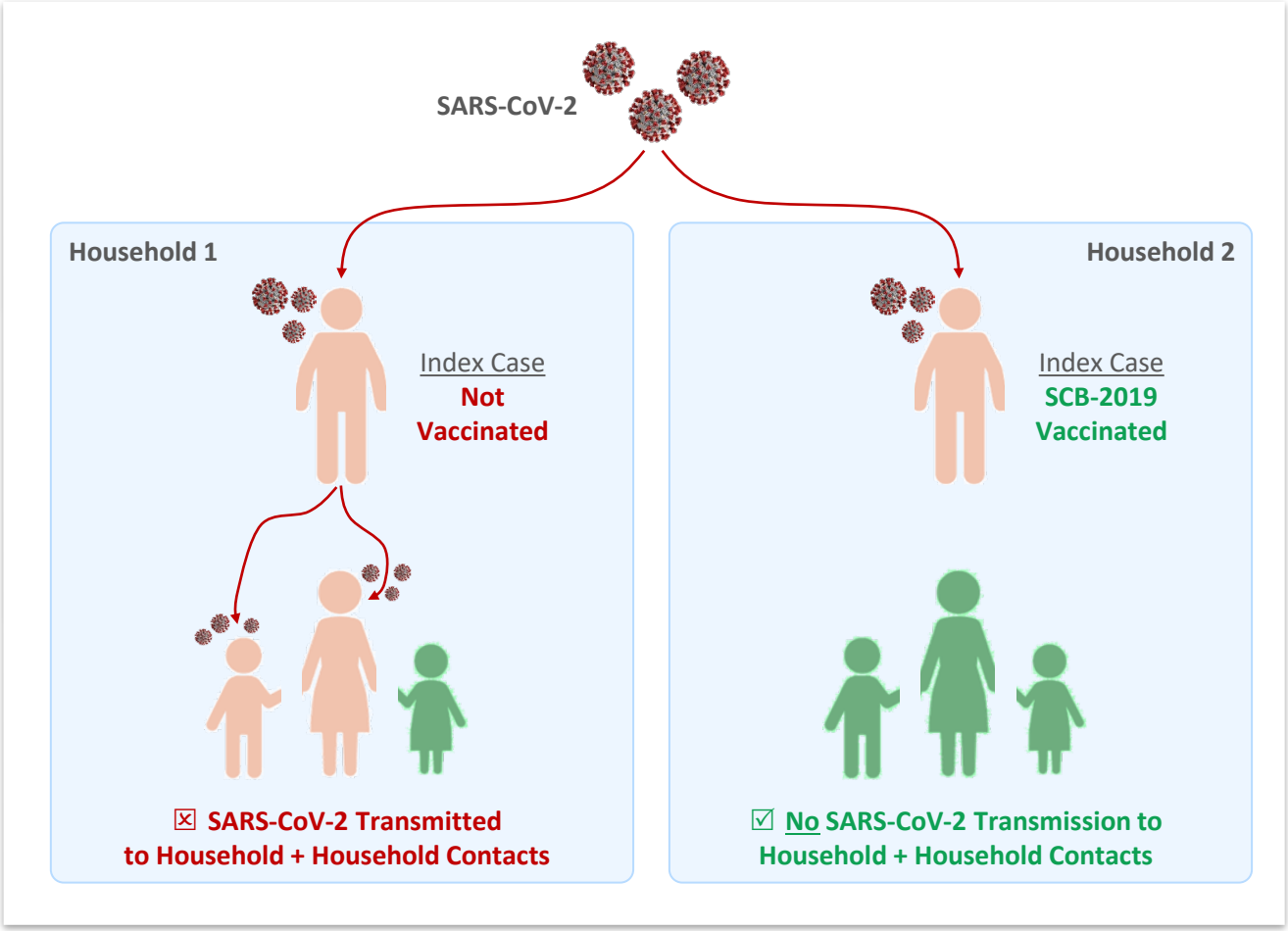
Primary Vaccination: Significant Reduction in Household Transmission of SARS-CoV-2

✓ **Individuals vaccinated with SCB-2019 were 84% less likely to transmit SARS-CoV-2 infection to another individual living in the same household** (in Phase 2/3 trial)

SCB-2019 (CpG 1018/Alum) Vaccination Demonstrated:

- **84% Reduction in Transmission of Any SARS-CoV-2 Infection to Household Contacts** (n=1/134 household contacts for SCB-2019-vaccinated index cases versus n=12/250 household contacts for placebo-vaccinated index cases)
- **79% Reduction in Transmission of Symptomatic SARS-CoV-2 Infection to Households** (n=1/51 households for SCB-2019-vaccinated index cases versus n=12/103 households for placebo-vaccinated index cases)



Notes: Illustrative figures above to demonstrate concept of household transmission (households, household contacts and index cases).
Source: DOI: 10.1.101/2022.08.18.22278764

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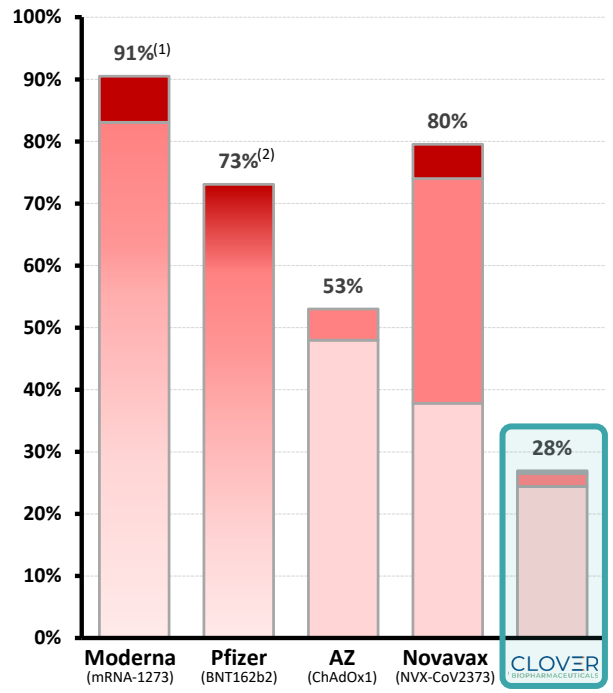
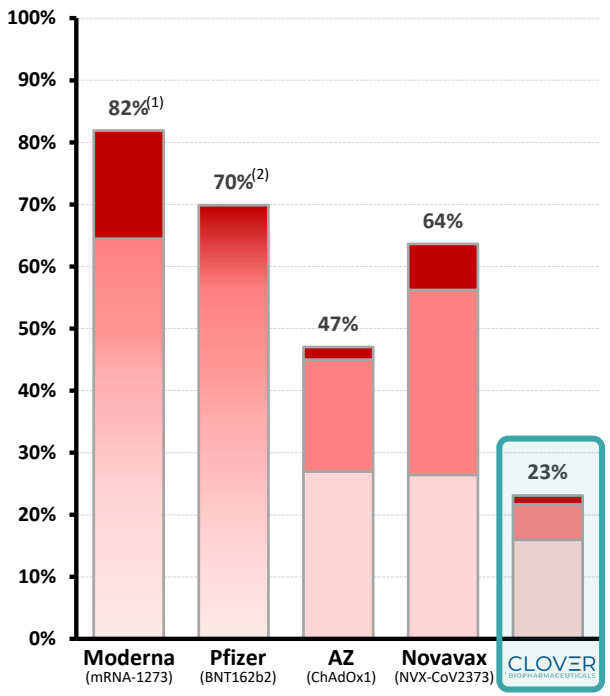
Primary Vaccination: Potential Best-in-Field Safety Profile

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



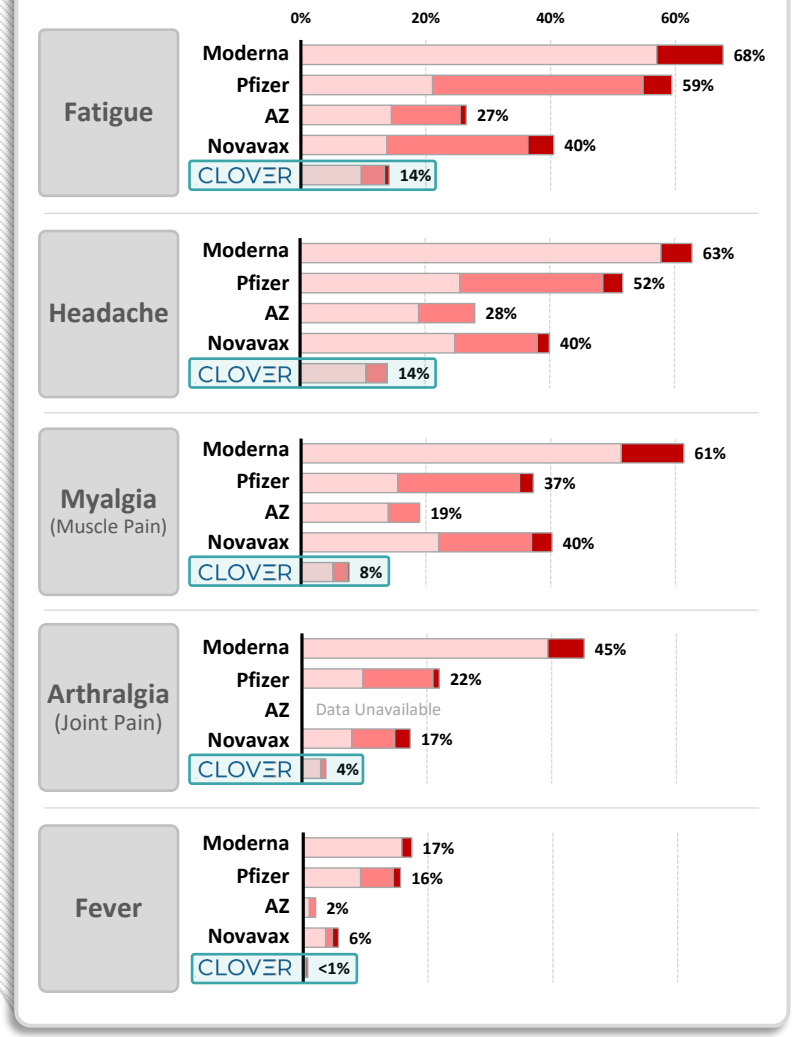
	Moderna (mRNA-1273)	Pfizer (BNT162b2)	AZ (ChAdOx1)	Novavax (NVX-CoV2373)	CLOVER BIOPHARMACEUTICALS
Subject Age (Data):	18-64	≥18	≥18	≥18	≥18
Clinical Trial:	Phase 3	Phase 2/3	Phase 3	Phase 3	Phase 2/3
# Enrolled (Vaccine):	15,208	21,823	21,635	7,020	15,064
Reference:	[1]	[2]	[3]	[4]	--

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



	Moderna (mRNA-1273)	Pfizer (BNT162b2)	AZ (ChAdOx1)	Novavax (NVX-CoV2373)	CLOVER BIOPHARMACEUTICALS
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]	--

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.

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Universal Booster: Significant Omicron Neutralizing Antibodies Boosted by SCB-2019

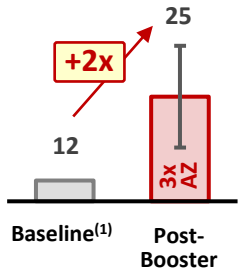
- **Rapid & Strong Booster Immune Responses Against Multiple Omicron Strains (including BA.5)** at levels expected to be significantly protective
- **Robust & Potentially Differentiated BA.5 Neutralization Responses** (BA.5 neutralization observed to be comparable to BA.1/BA.2)

Live Virus Neutralization Titers Against Omicron Strains (MN_{50})

3x Doses of AstraZeneca[3]

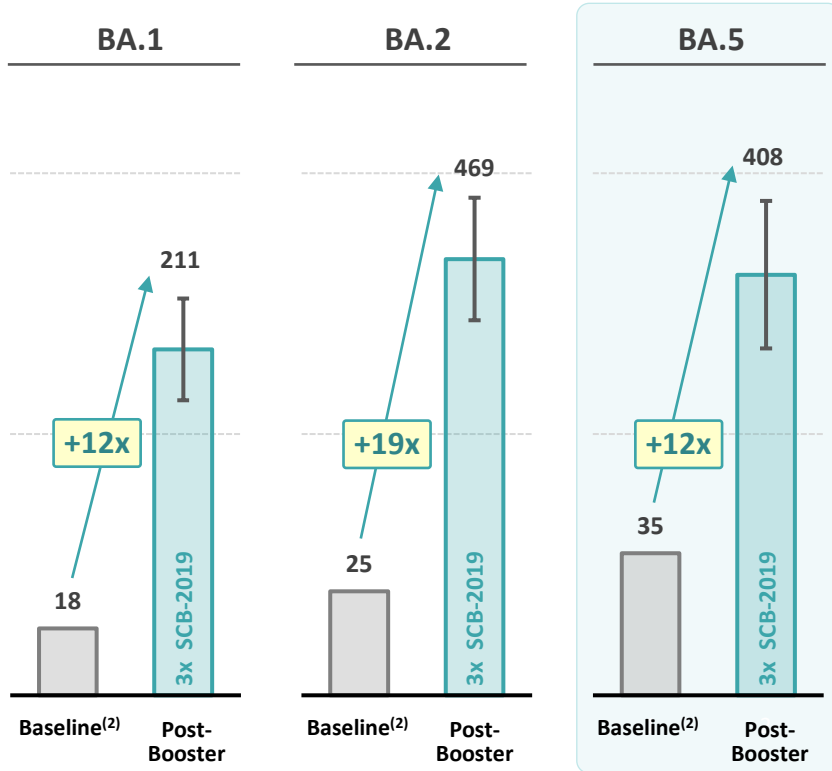
BA.1

*3x Doses AstraZeneca vaccine demonstrated **~56% vaccine effectiveness** against COVID-19 caused by Omicron BA.1 variant [4]*



SCB-2019 Homologous Booster

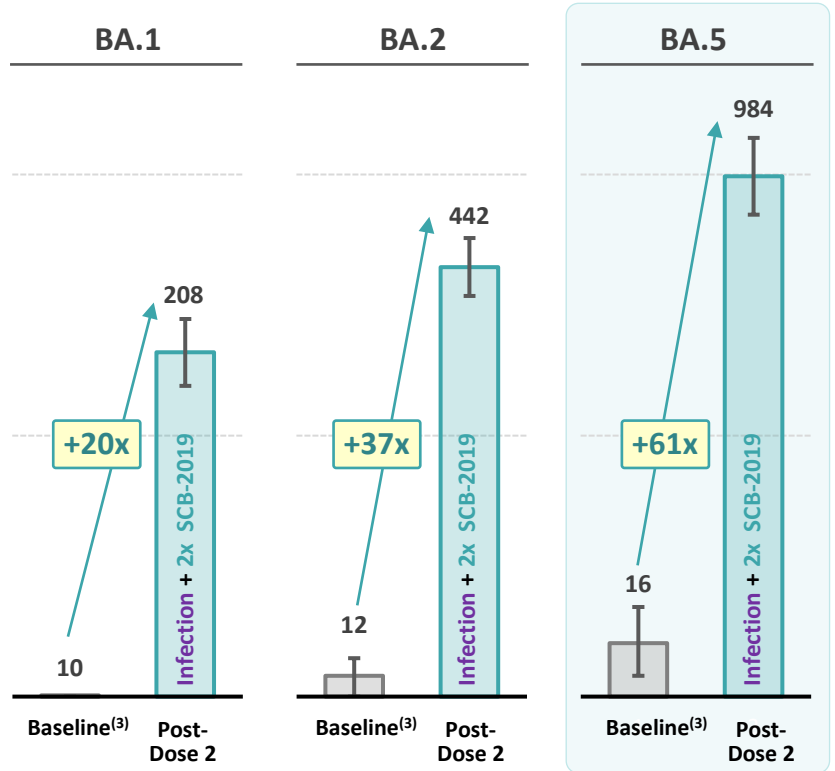
3x Doses of SCB-2019 [2]



Globally-Dominant Strain[5] (>90% of Circulating Strains)

SCB-2019 Booster for Previous SARS-CoV-2 Infection

Prior SARS-CoV-2 Infection + 2x Doses of SCB-2019 [3]



Globally-Dominant Strain[5] (>90% of Circulating Strains)

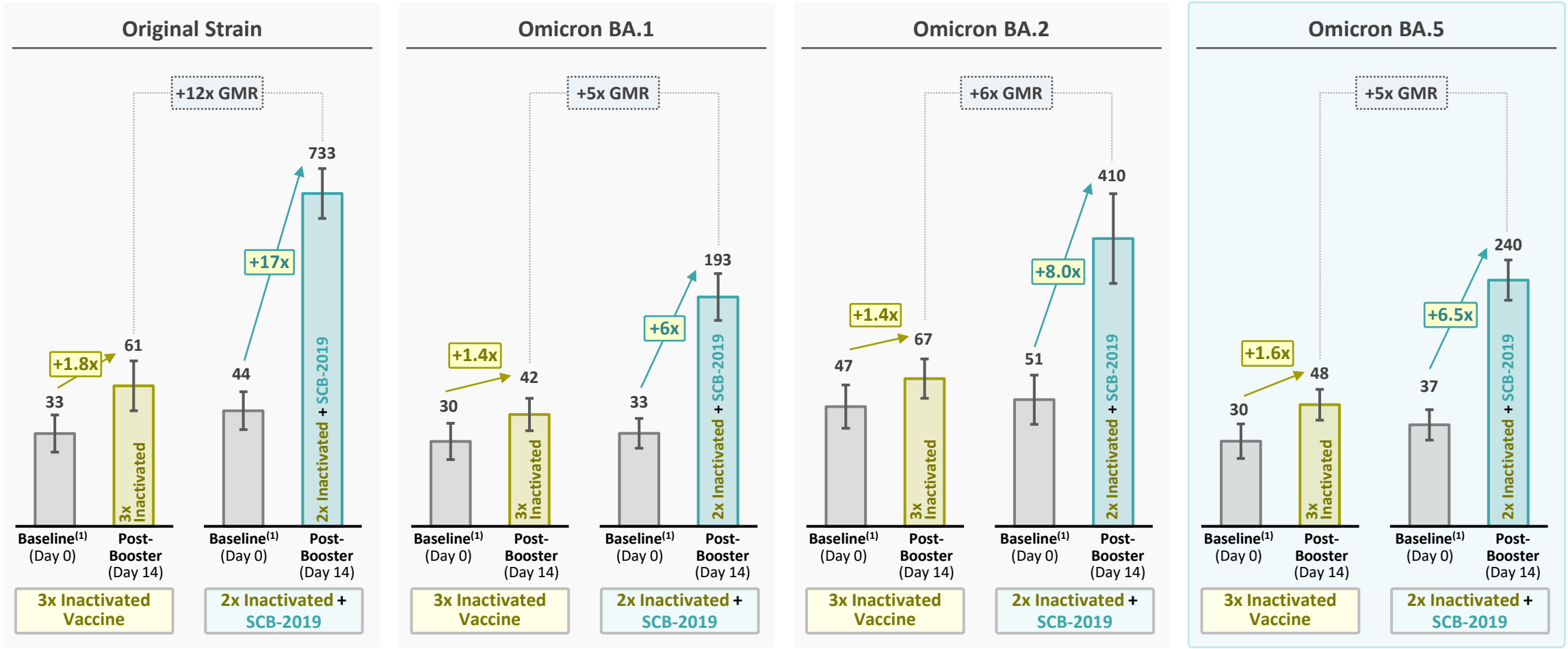
Notes: Bars represent Geometric Mean Concentrations (GMC) ± 95% confidence intervals (95% CI). Same validated Wildtype neutralization assay against Omicron variant strains of SARS-CoV-2 utilized across all studies shown (VisMederi).
(1) Final data readout from Phase 2 study enrolling participants receiving 2 doses of AstraZeneca COVID-19 vaccine ≥6 months prior to enrolling and receiving homologous AstraZeneca third dose booster. **(2)** Data readout from SPECTRA booster clinical trial in baseline seronegative participants (defined as subjects with no evidence of natural infection prior to receiving homologous booster based on anti-N antibody testing and antibody titer reduction >2-fold between primary series and booster dose). Enrolled participants receiving 2 doses of SCB-2019 (CpG 1018/Alum) ≥6 months prior to receiving a homologous SCB-2019 third dose booster. **(3)** Data readout from SPECTRA trial in participants with evidence of prior SARS-CoV-2 infection that enrolled and received 2 doses of SCB-2019 (CpG 1018/Alum), 21 days apart. Evidence of prior SARS-CoV-2 infection status was determined by the presence of antibodies binding to SARS-CoV-2 Spike (S) protein in baseline serum samples (Roche Elecsys® anti-S test). **(4)** Andrews et al., 2022 (DOI: 10.1056/NEJMoa2119451). **(5)** GISAID database as of 09-OCT-2022.

CLOVER BIOPHARMACEUTICALS

Universal Booster: Preliminary Phase 3 Heterologous Booster Results

- SCB-2019 demonstrated superior booster response & antibody breadth (including BA.5) compared to inactivated vaccine booster
  - 4th dose heterologous booster data expected in Q4-2022 (SCB-2019 vs. Inactivated Vaccine)

Live Virus Neutralization Titers (MN_{50})



Globally-Dominant Strain(2) (>90% of Circulating Strains)

Notes: Preliminary results in subjects enrolled with low baseline neutralization titers (baseline pre-boost neutralization titers ≤ 100) based on each strain. Bars represent Geometric Mean Titers (GMT) ± 95% confidence intervals (95% CI). Validated live virus neutralization assays (VisMederi). 50% microneutralization titers shown (MN_{50}).
(1) Study enrolled subjects ≥ 18 years of age who received 2 doses of Inactivated Vaccine ≥ 3 months prior to participating in the study and receiving a booster (3rd) dose of either SCB-2019 (n=212) or Inactivated Vaccine (n=212).
(2) GISAID database as of 09-OCT-2022.

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Summary of Regulatory Submissions: *Multiple Shots on Goal*

- **Rolling Regulatory Submissions** (China NMPA, EMA, WHO) are anticipated to be **completed in Q4-2022**, with product launches commencing thereafter upon receiving conditional approvals
  - **China NMPA** submission via Clover Changxing Site
  - **EMA & WHO** submissions via Clover's CDMO Site

China

- **NMPA Conditional Approval**

Via Clover's In-House Changxing Manufacturing Site

- In Q3-2022, Clover has **completed previously-identified remediations & improvements** to Changxing facility
- Substantive **submission-related interactions & processes** have been completed in Q3-2022 or are currently ongoing

EU

- **EMA Conditional Approval**

Via Clover's CDMO Manufacturing Site

- In Sept 2022, Clover's CDMO received an **EU GMP Certificate for production of SCB-2019** (following a successful GMP inspection by HPRA)
- **Production-related technology transfer activities completed** in Q3-2022

WHO*

- **Emergency Use Listing (EUL)**

Clover's CDMO Manufacturing Site Prioritized in 2022 for WHO EUL Submission Process

- Potential WHO EUL following EMA (or NMPA) approval

Other Countries

- **EUA or Accelerated Review**

- In Q3-2022, **submission-related meetings held** with regulatory authorities in Indonesia and Brazil
- Clover continues to pursue regulatory submissions in certain countries strategically

Next-Generation COVID-19 Vaccine Strategy

Clover To Utilize ☑ Validated Trimer-Tag™ Platform for Next-Gen COVID-19 Vaccine Development

- ✓ **Validated Platform Technology:** SCB-2019 Phase 2/3 results has validated Trimer-Tag™ approach to COVID-19 vaccine development
- ✓ **Vaccine Efficacy Demonstrated:** Efficacy results from SPECTRA (Ph2/3) study provides basis for future immuno-bridging licensure pathway for next-generation vaccines using Trimer-Tag™
- ✓ **Rapid 'Plug & Play' Development Expected** with more experienced global team & expanded capabilities at Clover

Proof-of-Concept for Strain-Change & Broad Protection in 2022:

SCB-2020S (Beta/Prototype Chimeric S-Trimer™) is currently in a Phase 1 clinical trial in South Africa to demonstrate proof-of-concept for strain-change utilizing Trimer-Tag™ and a potentially broadly-protective vaccine.

Candidate is being evaluated with in-house adjuvant **CAS-1 (oil-in-water emulsion)**.

Initial safety & immunogenicity **clinical data in Q4-2022**.

SCB-2020S (CAS-1) could be **complementary to SCB-2019** by providing choice to governments, flexibility in production & potential utilization in different populations.

Evaluating Potential Pan SARS-CoV-2 Candidates (Multivalent):

Clover is evaluating **multivalent S-Trimer™ vaccine candidates** that could be broadly protective against all current and potential future strains, via utilization of bioinformatics and matrix in vivo studies.

Announcement of preclinical results and selection of a **lead candidate for further development is planned in Q4-2022**.

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China: Significant Near-Term Heterologous Booster Market Expected & Potential Attractive Longer-Term Annual Booster Market for COVID-19 Vaccines

	4th Dose Booster Campaign (*Next ~9-12 Months*)	Annual Booster Market (*After 4th Dose Booster Rollout*)
Potential Market Type	**National Procurement**	**Private Market**
Additional China Market Considerations	▪ **~800 million 3rd dose boosters were administered in ~10 months in adults & elderly** (from NOV-2021 to AUG-2022) (1) ▪ **4th dose booster campaign "almost certainly required"** for China to exit from the pandemic per China CDC (2) ▪ **Significant market upside if younger populations included** (~150 million population for <18 years of age) (1) ▪ **Heterologous boosters** (for prior vaccination with inactivated vaccines) are expected to be primarily utilized	▪ With waning immunity & continued evolution of SARS-CoV-2 virus (greater immune escape), **continued booster campaigns** have already been observed in some countries (UK, US, etc.) ▪ **Annual booster market** for COVID-19 vaccines likely to emerge, **similar to seasonal influenza vaccine market** ▪ **Private market could enable premium pricing** (flu vaccine pricing: ~RMB 130/dose) (3), which would potentially **offset lower volumes** ▪ Private market typically **favors premium products with differentiated product profiles**

Clover's Premium COVID-19 Vaccines Well-Positioned to Target both Near-Term and Longer-Term Booster Opportunities

Note: Illustrative for discussion purposes only.
(1) Source: China CDC; China Vaccine Task Force (VTF) press; China Bureau of Statistics. **(2)** China CDC Weekly, 16-SEP-2022 [https://weekly.chinacdc.cn/en/article/doi/10.46234/ccdcw2022.172].
(3) Quadrivalent influenza vaccine in China achieves pricing of approximately RMB 100-165 per dose.

Cash Position & Business Focus

Cash Position

- **~US$336 Million Cash-on-Hand** [(1)] (as of June 30, 2022), which Clover believes is **sufficient to sustain company through COVID-19 vaccine commercial launch** and positions company for continued success
- **Up to US$300 million credit agreement with China Merchant's Bank** [(2)] is in place and could be accessed to support potential working capital needs during commercial launch if needed
  - Clover has no immediate plan to access the credit facility at this time

Business Focus

- **Actions have been taken throughout 2022 to:**
  - **(1) Focus on Clover's core strengths** & capabilities in vaccine development; and,
  - **(2)** Streamline the organization to **increase efficiency & improve effectiveness**
- **Non-core activities have been terminated** (including monoclonal antibody platform development)
- **Headcount reductions in non-critical positions** (including across G&A and non-core R&D roles)
- **To continue focusing resources on achieving top corporate priorities,** while continuing to build an innovative vaccine-focused portfolio that can generate near-term significant value-creation opportunities

(1) RMB 2,256 million as of June 30, 2022.
(2) Drawdown on this agreement is subject to a review of Clover's business condition and changes in Clover's condition may result in early repayment.

Numerous Upcoming Significant Milestones

Clover is poised to become a unique, integrated, vaccine-focused company with established China and global R&D, manufacturing and commercialization capabilities, and an innovative vaccine portfolio

COVID-19 Vaccine Milestones

SCB-2019 (CpG 1018/Alum): *Universal Booster*

- ❑ **Q4-2022**: Completion of regulatory submissions (China NMPA, EMA, WHO)
- ❑ **Product Launch** to commence after receiving regulatory approval
- ❑ **Q4-2022**: Phase 3 heterologous 4th dose booster data (Inactivated Vaccine)
- ❑ **Q4-2022**: Additional booster data & publications across trials (neutralization of additional variants, mRNA booster, household transmission, etc.)

SCB-2020S (CAS-1): *Second-Generation Potentially Broadly Protective Booster*

- ❑ **Q4-2022**: Phase 1 preliminary safety & immunogenicity data

Pan SARS-CoV-2 Vaccine Candidate: *Multivalent S-Trimer Vaccine*

- ❑ **Q4-2022**: Preclinical data and candidate selection for further development

Other Milestones

- ❑ **Q4-2022**: **SCB-1001 (Rabies Vaccine)** – Preclinical data & update on development plans
- ❑ **1H-2023**: **SCB-219M (Chemo-Induced Thrombocytopenia)** – Phase 1 data & Phase 2 dose selection
- ❑ **Business Development** evaluation of complementary mid- to late-stage vaccine assets is ongoing

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Thank You!