

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 06, 2022

SAB BIOTHERAPEUTICS, INC.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)

001-39871
(Commission File Number)

85-3899721
(IRS Employer
Identification No.)

2100 East 54th Street North
Sioux Falls, South Dakota
(Address of Principal Executive Offices)

57104
(Zip Code)

Registrant's Telephone Number, Including Area Code: 605 679-6980

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, \$0.0001 par value per share	SABS	The NASDAQ Stock Market LLC
Warrants, each exercisable for one share of Common Stock at an exercise price of \$11.50 per share	SABSW	The NASDAQ Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 5.07 Submission of Matters to a Vote of Security Holders.

On July 6, 2022, SAB Biotherapeutics, Inc. (the “Company” or “SAB”) held its 2022 Annual Meeting of Stockholders (the “Annual Meeting”). The total number of shares entitled to vote at the Annual Meeting was 42,977,621 and there were present 31,398,271 shares at the Annual Meeting in person or by proxy, which represented 73.1% of the outstanding shares entitled to vote at the Annual Meeting and which constituted a quorum for the transaction of business.

At the Annual Meeting, the shareholders voted to:

- (1) Elect Scott Giberson and William Polvino as Class I directors to serve for a term of three years or until such director’s successor is duly elected and qualified or until such director’s earlier death, resignation, disqualification or removal.
- (2) Ratify the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022.

The voting results on these proposals were as follows:

Proposal 1: Election of two Class I directors

Director	Votes For	Withheld	Broker Non-Votes
Scott Giberson	29,125,548	10,554	2,262,169
William Polvino, MD	28,915,382	220,720	2,262,169

Proposal 2: Ratify the appointment of Mayer Hoffman McCann P.C. as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022

Votes For	Votes Against	Abstentions
31,368,209	22,890	7,172

Item 7.01 Regulation FD Disclosure.

On July 5, 2022, the Company made available a new corporate strategy presentation. On July 8, 2022, the Company posted an updated corporate strategy presentation (the “Presentation”) on the Investor Relations section of the Company’s website. A copy of the Presentation is furnished herewith as Exhibit 99.1 and is incorporated herein by reference.

The foregoing (including Exhibit 99.1) is being furnished pursuant to Item 7.01 and will not be deemed to be filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise be subject to the liabilities of that section, nor will it be deemed to be incorporated by reference in any filing under the Securities Act of 1933, as amended (the “Securities Act”), or the Exchange Act. The information contained in the Presentation is summary information that should be considered in the context of the Company’s filings with the Securities and Exchange Commission and other public announcements the Company may make by press release or otherwise from time to time.

Cautionary Note Regarding Forward-Looking Statements

Certain statements made in this Current Report on Form 8-K and the Presentation that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding future events, including the development and efficacy of SAB-195 (C. Diff), SAB-176 (Influenza), SAB-142 (Type 1 Diabetes & Immunology), SAB-185 (COVID-19), and our other discovery programs; our cash runway into 2023; and potential future government and third-party collaborations or funded programs. These statements are based on the current expectations of SAB and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on, by any investor as a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict, may differ from assumptions, and are beyond the control of SAB. A further description of risks and uncertainties can be found in the sections entitled “Risk Factors” in SAB’s most recent Annual Report on Form 10-K, most recent quarterly reports on Form 10-Q, and in other filings SAB makes with the Securities and Exchange Commission, available at <https://www.sec.gov/>. Except as otherwise required by law, SAB disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date they were made, whether as a result of new information, future events or circumstances or otherwise.

Item 8.01 Other Events.

On July 11, 2022, the Company issued a press release announcing the election of Admiral (ret.) Scott Giberson as a member of the board of directors of the Company. A copy of the press release is attached as Exhibit 99.2 to this Current Report on Form 8-K and is hereby incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits. The exhibits listed on the Exhibit Index are incorporated herein by reference.

Exhibit Number	Description
99.1	Presentation dated July 8, 2022.
99.2	Press Release of the Company, dated July 11, 2022.
104	Cover Page Interactive Data File-the cover page XBRL tags are embedded within the Inline XBRL document.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

SAB Biotherapeutics, Inc.

Date: July 11, 2022

By: /s/ Eddie J. Sullivan
Eddie J. Sullivan
Chief Executive Officer



ADVANCING POWERFUL NEW CLASS OF IMMUNOTHERAPEUTIC ANTIBODIES

July 2022

Forward Looking Statements



The material in this presentation has been prepared by SAB Biotherapeutics, Inc. ("SAB") and is general background information about SAB's activities current as of the date of this presentation. This information is given in summary form and is not intended to be complete. Information in this presentation, including financial forecasts, should not be considered advice or a recommendation to investors or potential investors in relation to holding, purchasing or selling securities or other financial products or instruments and does not take into account any particular investment objectives, financial situation or needs.

This presentation may contain forward looking statements including statements regarding our intent, belief or current expectations with respect to SAB's businesses and operations, market conditions, results of operations and financial condition, capital adequacy, specific provisions and risk management practices. Readers are cautioned not to place undue reliance on these forward-looking statements. SAB does not undertake any obligation to update any information herein for any reason or to publicly release the result of any revisions to these forward-looking statements to reflect events or circumstances after the date hereof to reflect the occurrence of unanticipated events unless required by law. While due care has been used in the preparation of forecast information, actual results may vary in a materially positive or negative manner and the presentation may contain errors or omissions. Forecasts and hypothetical examples are subject to uncertainty and contingencies outside SAB's control. Past performance is not a reliable indication of future performance. The forward looking statements contained or implied in this presentation are subject to other risks and uncertainties, including those discussed under the heading "Risk Factors" in SAB's most recent Annual Report on Form 10-K with the Securities and Exchange Commission (the "SEC") and in other filings that SAB makes with the SEC.

Unless otherwise specified, information is current at the date hereof.

The SAB logo and other trademarks of SAB appearing in this presentation are the property of SAB. All other trademarks, services marks, and trade names in this presentation are the property of their respective owners.

Experienced Management Team



Samuel J. Reich
EXECUTIVE CHAIRMAN, BOD
• 20 years Biopharma Executive and BOD
• Bioentrepreneur
• Co-founder Acuity Pharmaceuticals, OPKO Health, Biscayne Neurotherapeutics
• Molecular Biologist, Inventor, former PENN



Eddie J. Sullivan, PhD
PRESIDENT & CEO / CO-FOUNDER
• 20 years new technology development
• 25+ years biotech
• Former Japanese pharma
• BIO Executive Committee
• Reproductive physiologist



Russell Beyer, MBA, CMA
CHIEF FINANCIAL OFFICER
• 25+ years Pharma & Fortune 100
• Country/region CFO at AstraZeneca, Clorox
• Track record of driving growth, integrations
• Strategic financial, operations, reporting, planning



Christoph Bausch, PhD, MBA
CHIEF OPERATING OFFICER
• 15+ years platform technology commercialization
• Sigma Aldrich
• Stowers Institute Postdoc



Alexandra Kropotova, MD
CHIEF MEDICAL OFFICER
• 20+ years global clinical development
• Biopharmaceutical R&D leader, Pfizer, Wyeth, Sanofi, Teva Specialty R&D
• Board member, iBio
• Contributed to numerous patents & compounds leading portfolios from Phase I to BLA and NDA approvals



Novel DiversitAb™ Platform for Developing Highly-Differentiated Immunotherapies



Robust, growing clinical-stage pipeline spanning multiple therapeutic areas



Vertical integration enables rapid, scalable development of multi-targeted products



Leveraged advanced genetic engineering & antibody science to develop Tc bovine-derived fully-human polyclonal antibodies



Established proof-of-concept through US Government funded programs & partnerships totaling ~\$200MM



Strong corporate position with experienced leadership team and growing infrastructure

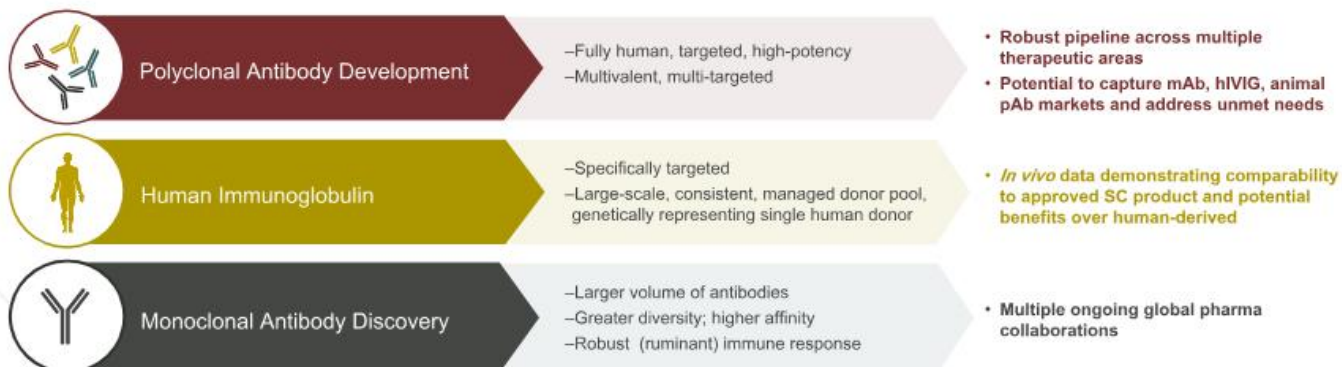


Innovative DiversitAb™ platform produces a new class of targeted fully-human, highly-potent polyclonal antibodies

Versatile Antibody Platform with Ability to Capture Multiple Markets



*Human Antibody Discovery & Development Engine, New Source for IgG,
Therapeutic Production Represents Multibillion-Dollar Market Opportunity*



Multi-Pronged Business Strategy Powered by Novel Proprietary Platform



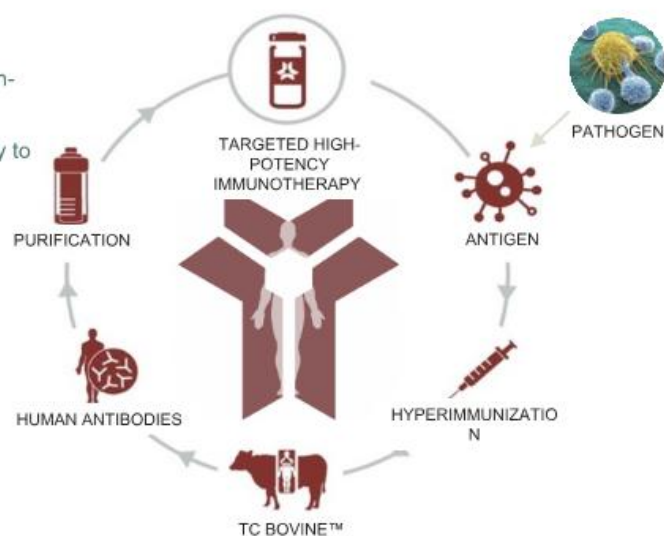
Opportunity to Create New Class of Immunotherapies



DiversitAb™ Platform

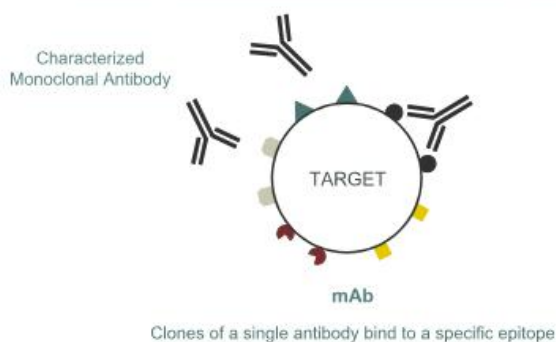
Advancing a new class of fully-human polyclonal Tc bovine-derived antibodies without the need for human serum

- Reliable, controlled, consistent production of diverse, high-titer, high-avidity, fully-human polyclonal antibodies
- Generated antibodies behave similarly to human-derived with ability to specifically target
- Proprietary immunization strategies and robust immune response drive extremely high potency
- Well-established and understood regulatory path as biologic through FDA-CBER
- Vertical integration enabling rapid, scalable development and production of multivalent products



Polyclonals: Broader Spectrum Efficacy Valuable in Range of Indications

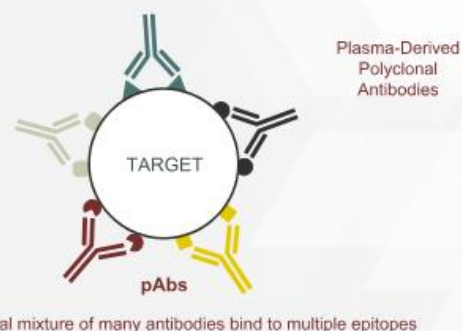
FDA: CENTER FOR **DRUG** EVALUATION & RESEARCH (CDER)



Monoclonal Approach

- Highly-targeted with specific activity
- Iterative Ab identification and selection process
- Selected and cloned *in vitro*
- May promote escape mutants via selective pressure
- Resistance may develop as pathogen/target mutates
- Current cocktail trend to address resistance

FDA: CENTER FOR **BIOLOGICS** EVALUATION & RESEARCH (CBER)



Polyclonal Approach

- Diversity of antibodies with multiple modalities
- Naturally selected and produced *in vivo*
- Effective against escape mutants
- Reduced possibility of resistance
- Activates cellular immunity
- Synergistic properties not duplicated by mono- or oligoclonals

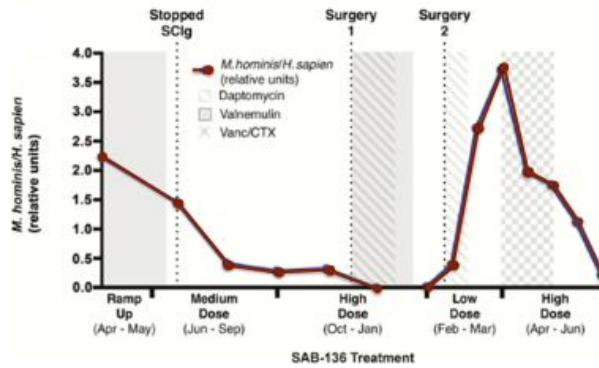
Demonstrated Human Safety and Efficacy in Multi-Dosing Regimen



High-dose therapy resulted in improved clinical parameters associated with reduced *M. hominis* burden following two subsequent infections



Open wound persisted ~7 years prior to treatment

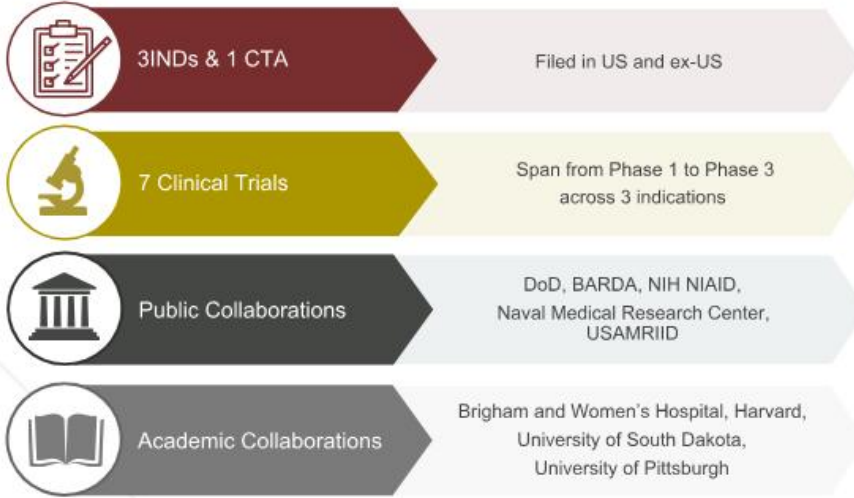


Same area following treatment with SAB -136



JARED N SILVER, CAMERON D ASHBAUGH, JACOB J MILES, HUA WU, GREGORY T MARECKI, JOYCE K HWANG, JIN-AN JIAO, MARK ABRAMS, EDDIE J SULLIVAN, DUANE R WESEMAN, DEPLOYMENT OF TRANSCROMOSOMAL BOVINE FOR PERSONALIZED ANTIMICROBIAL THERAPY, CLINICAL INFECTIOUS DISEASES, VOLUME 66, ISSUE 7, 1 APRIL 2018, PAGES 1116-1119

DiversitAb™ Platform is Clinically Validated Across Several Targets



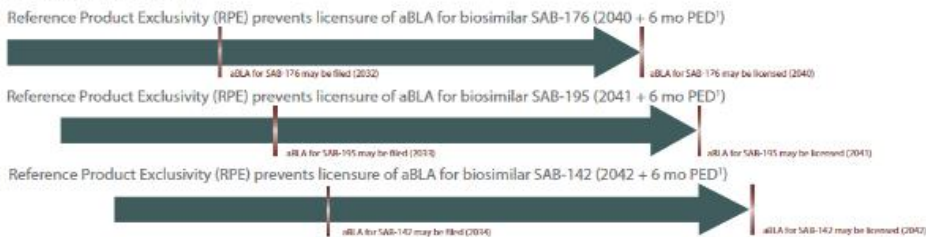
Referenced Trials:

- ❑ [Safety, Tolerability, and Pharmacokinetics of SAB-176 in Healthy Participants – Full Text View - ClinicalTrials.gov](#)
- ❑ [Study of SAB-176 in Healthy Adult Participants - Full Text View - ClinicalTrials.gov](#)
- ❑ [Safety, Tolerability, and Pharmacokinetics of SAB-185 in Healthy Participants – Full Text View - ClinicalTrials.gov](#)
- ❑ [Safety, Tolerability, and Pharmacokinetics of SAB-185 in Ambulatory Participants With COVID-19 - Full Text View - ClinicalTrials.gov](#)
- ❑ [ACTIV-2: A Study for Outpatients With COVID-19 - Full Text View - ClinicalTrials.gov](#)
- ❑ [Safety, Tolerability, and Pharmacokinetics of SAB-301 in Healthy Adults – Full Text View - ClinicalTrials.gov](#)

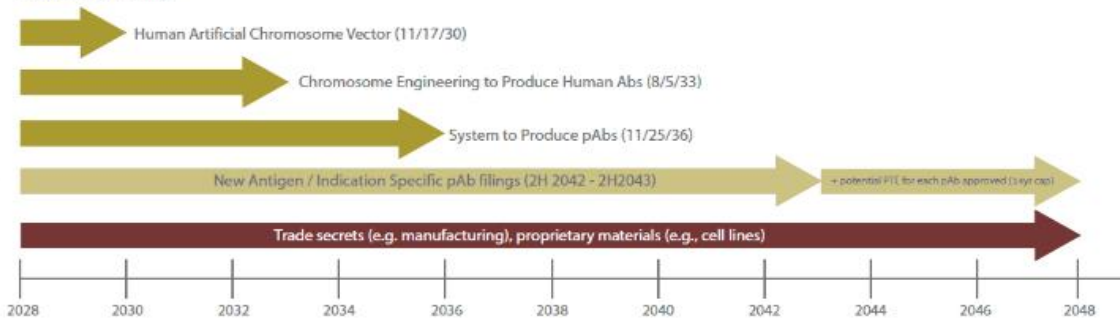


Intellectual Property

Regulatory Exclusivity



Patent Exclusivity

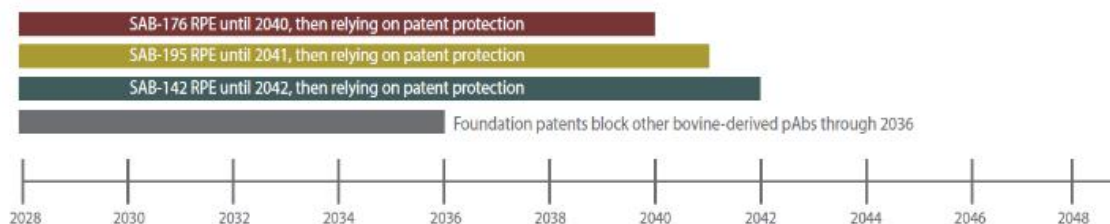


Assumptions: licensure of BLA for (i) SAB-176 for flu in 2028; (ii) SAB-195 for C. diff in 2029; and (iii) SAB-142 for type 1 diabetes in 2030

¹Potential Pediatric Exclusivity + 6 months

Intellectual Property

Reference Product Exclusivity (RPE) for 12 years from approval of SAb's pAb, FDA may not approve an aBLA for a biosimilar



- ➔ Composition of matter / method of use patent protection likely to be available for each of SAB's pAb- for 20 years from filing of application
 - Focus on SAB's pAb and other pAbs (with structural modifications) that would not have any clinically meaningful difference in terms of safety, purity and potency
 - Focus on CDR 1, 2 and 3 of the V_H and V_L chains of key Abs in mixture
- ➔ Trade Secrets - numerous trade secrets can last in perpetuity; in process of cataloging and prioritizing
- ➔ Any FTO concerns mitigated by launch date & patents often being limited to sequence specific claims

Scaled Infrastructure & Capacity: Tc Bovine & Plasma Production Facility



Scaled Infrastructure & Capacity: Laboratory & Manufacturing





SELECTED PIPELINE PROGRAMS



Robust Biologic Pipeline with Broad Polyclonal Therapeutic Reach

Ongoing discovery programs in oncology, autoimmune, infectious and anti-idiotype diseases

	PRODUCT	INDICATION	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	COMMERCIAL
GASTROINTESTINAL	SAB-195	CLOSTRIDIODES DIFFICILE	[Progress bar]					
RESPIRATORY	SAB-176	SEASONAL INFLUENZA	Phase 1 Trial & Phase 2a Challenge Study Top line results available					
IMMUNOLOGY	SAB-142	TYPE 1 DIABETES	[Progress bar]					
	SAB-142	IMMUNOLOGY	[Progress bar]					

Government-funded Phase 3 clinical-stage program

RESPIRATORY	SAB-185	COVID-19	Phase 3 Trial (NIH ACTIV-2)					
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Clinical Development Programs: Focus on the Next 4+ Years

Consistent delivery of one IND per year





SAB-195: Clostridioides difficile Infections - Fast to Proof of Concept Option

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High Unmet Medical Needs Remain

High Morbidity, Mortality, and Costs

Clostridioides difficile Infection (CDI or *C. diff.*) is a bacterial infection of the large intestine (colon). A spectrum of clinical disease ranges from mild diarrhea to severe. CDI is characterized by abdominal pain, fever, diarrhea, nausea, and vomiting. Complications of severe CDI include kidney failure, toxic megacolon, bowel perforation, and death.

- CDI infection is one of the most prevalent health care–associated bacterial infections in the US and developed world
 - ~ 500,000 infections per year in the US¹
 - ~ 30,000 death in the US¹
- CDI infection is associated with significant costs: Up to \$4.8 billion each year in excess health care costs for acute care facilities alone¹
- Patients with the first CDI recurrence have a risk of subsequent recurrence from 25% to 40% and higher^{1, 2}
- CDI-attributable median length of stay and costs (in US\$) increased from 7 (4-13) days and \$13,168 (\$7,525-\$24,456) for patients with primary CDI only to 15 (8-25) days and \$28,218 (\$15,050-\$47,030) for patients with recurrent CDI²
- The risk of death for patients with recurrent CDI is 33% higher compared to those patients without recurrence

References:

1. CDC, Atlanta, GA: U.S. Department of Health and Human Services. Accessed 6/27/2022. [Nearly half a million Americans suffered from Clostridium difficile infections in a single year](#) | CDC Online Newsroom | CDC
2. Economic burden of primary compared with recurrent Clostridium difficile infection in hospitalized patients: a prospective cohort study. J Hosp Infection. 2016 Jul;93(3):286-9

Value Proposition: SAB-195



First in class fully human polyclonal antibody treatment with dual mechanism of action designed to treat severe CDI and reduce CDI recurrence in high-risk patients

Key Differentiators



First in class fully human polyclonal antibody treatment



Only treatment with dual mode of action:

- Unlike bezlotoxumab, SAB-195 targets surface antigen on *C. difficile* as well as multiple toxins
- Unlike antibiotics, SAB-195 targets several *C. difficile* toxins responsible for severity of the disease



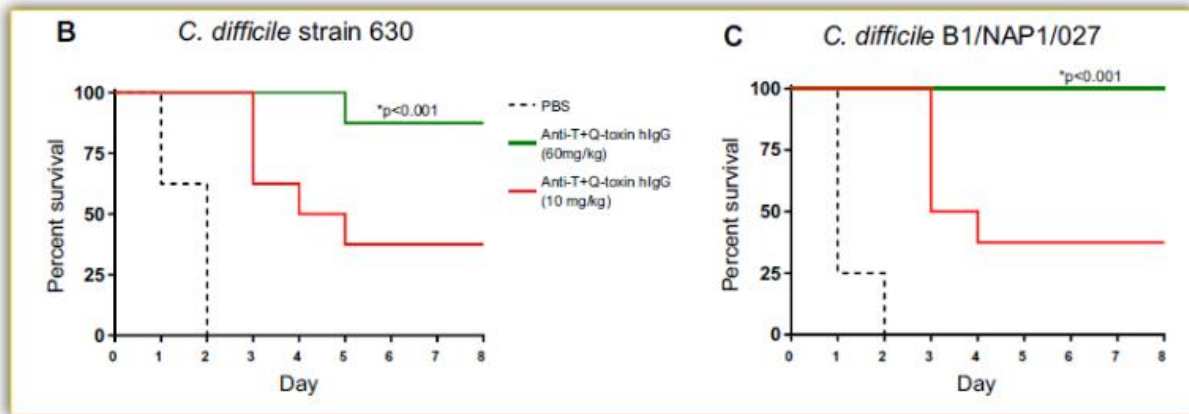
SAB-195 is target-specific treatment targeting only *C. difficile* while fully preserving good microbiome



Preclinical data supports potential for competitive efficacy as first-line pAb therapy for severe CDI in patients who are at high risk for CDI recurrences

SAB-195 Preclinical Data

Tc bovine Immunized with Antigen Fusion Proteins Constructed from RBD of TcdA, TcdB(630), TcdB(027) and CDT

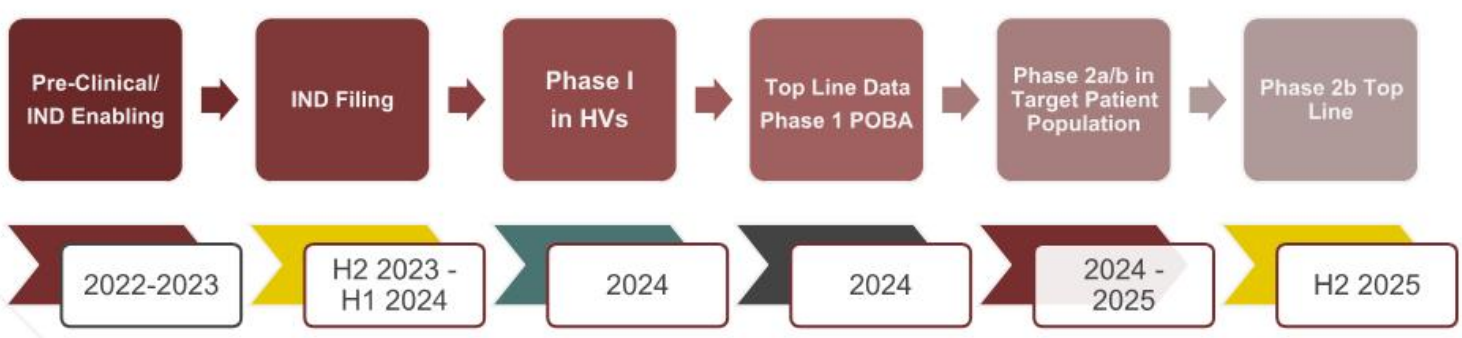


Tc bovine-derived anti-quadrivalent toxin hlgG provided 90% to 100% protection in hamsters against *C. difficile* strain 630 or more virulent epidemic strain NAP1

- Clostridium difficile chimeric toxin receptor binding domain vaccine induced protection against different strains in active and passive challenge models.. Jing-Hui Tian ^a, Gregory Glenn ^a, David Flyer ^a, Bin Zhou ^b, Ye Liu ^a, Eddie Sullivan ^b, Hua Wubi, James F. Cummings ^a, Larry Ellingsworth ^{a,*}, Gale Smith
- <https://pubmed.ncbi.nlm.nih.gov/26669616/#;:~:text=Vaccine,33%3A4079%2D4087>



SAB-195 Development Timelines





SAB-176: First In Class Biologic Anti- Influenza Treatment

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Unmet Need of Seasonal Influenza



Devastating health and economic impacts

- Estimated 30,000 - 50,000 deaths/year U.S. with 290,000 - 650,000 globally
- ~500,000 hospitalizations annually in U.S.
- Average US hospital stay: \$8,000 - \$9,000/day; 4-8 days/stay
- Often 30% - 70% failure rate for vaccine; vaccine ineffective in at-risk sub-populations

No current effective treatment for seasonal influenza

- Current antiviral has a 48-hour window
- Approved antiviral small molecule treatments may shorten duration of fever and symptoms, but not effective against clinically meaningful endpoints or neuraminidase mutation; limited efficacious window

Value Proposition: SAB-176

First in class fully human polyclonal antibody treatment aimed to provide superior long-lasting efficacy for prophylaxis and management of influenza in patients at high risk

Key Differentiators



First and only biologic for management of influenza in high-risk patients



Adaptive and cross-reactive to multiple influenza strains



Fully human pAbs uniquely positioned to manage influenza course in high-risk patients including but not limited to:

- Immunocompromised
- Immunosenescent patients
- Patients in long-term care facilities



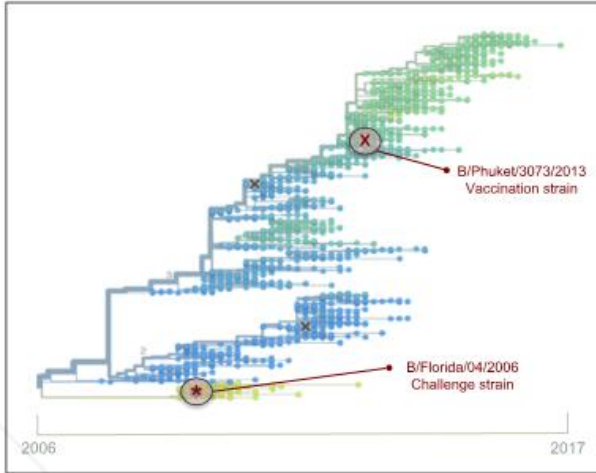
Established Proof of Concept in the well-established validated influenza challenge model

Efficacy Against Mutational Drift

Adaptive & Cross Reactive to Mutating Strains

Highly-Mutational Influenza Virus

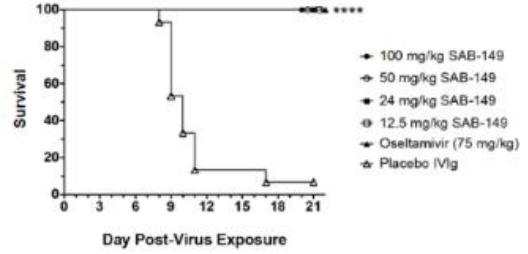
BYAM PHYLOGENIC TREE



SOURCE: NEXTFLU AT [HTTPS://NEXTFLU.ORG/VIC/12/](https://nextflu.org/vic/12/)

100% Protection at All Dose Levels in Influenza Mouse Challenge

Antibodies produced to B/Phuket/3073/2013 protected against B/Florida/04/2006

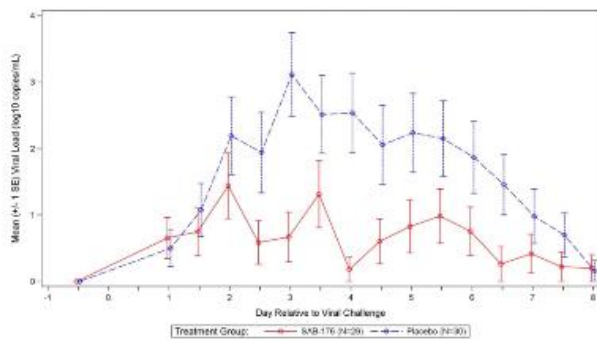


Established Proof of Concept for SAB-176: Met Primary Endpoint of Viral Load Reduction in Phase 2a Challenge Study



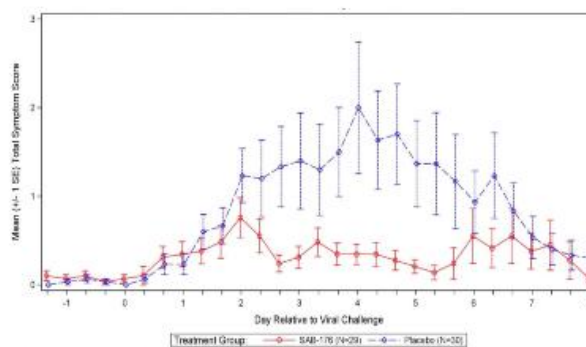
**Achieved Statistically Significant ($p = 0.026$)
Reduction in Viral Load**

Mean Viral Load by Nasal Samples qRT-qPCR by Day Relative to Viral Challenge



**SAB-176 Achieved Statistically Significant ($p = 0.013$)
Improvement in Symptomology at Day 4**

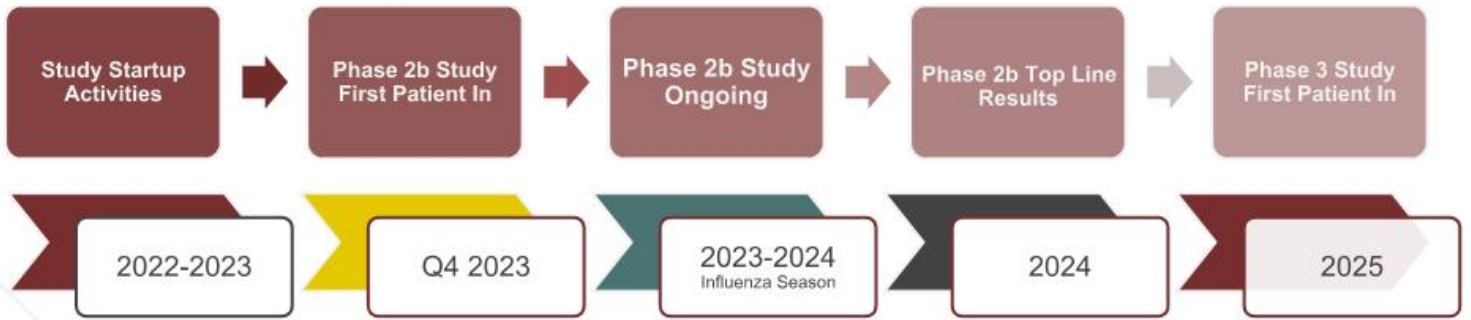
Mean Total Symptom Score by Day Relative to Viral Challenge



SAB-176: Clinical Development Plan

	Phase 1: Healthy Volunteers	Planned Phase 2a Challenge Study: Healthy Volunteers	Planned Phase 2b and Phase 3 Designs	
STUDY DESIGN	<ul style="list-style-type: none"> Randomized, double-blind, placebo-controlled 27 healthy volunteers Single ascending dose study 1, 10, 25 and 50 mg/kg 	<ul style="list-style-type: none"> 60 total participants 60 randomized to SAB-176 or control (30-30) Challenge strain: H1N1 California (pandemic) 	<ul style="list-style-type: none"> 300-600 participants High-risk of serious influenza with symptoms < 4 days SAB-176 and SOC vs SOC Dose ranging 	<ul style="list-style-type: none"> ~1,000 participants (TBD) High-risk of serious influenza with symptoms ≤ 3-4 days SAB-176 and SOC vs SOC
ENDPOINTS	<ul style="list-style-type: none"> Primary: safety Secondary: pharmacokinetics, pharmacodynamics, anti-drug antibodies 	<ul style="list-style-type: none"> Primary: safety and viral load reduction Secondary: sign/symptom reduction 	<ul style="list-style-type: none"> Primary: time to onset of clinically significant influenza Reduction of risk developing influenza symptoms 	<ul style="list-style-type: none"> Primary: hospitalization and ICU days and death Secondary: multiple
TIMING	<ul style="list-style-type: none"> All participants reached end-of-study Data being analyzed for final report Readout expected mid-2021 	<ul style="list-style-type: none"> Study start 2Q2021 Readout reported 4Q2021 	<ul style="list-style-type: none"> Multi-site: Northern hemisphere and/or Southern hemisphere 	<ul style="list-style-type: none"> Multi-site: Northern hemisphere and/or Southern hemisphere

SAB-176 Development Timelines





SAB-142: Asset with a Multi-Indication Potential

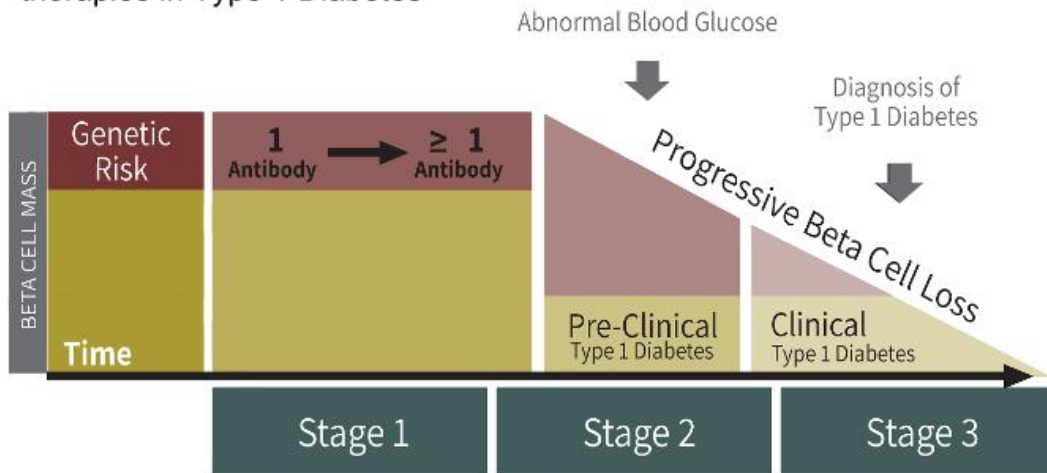
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Type 1 Diabetes

High Unmet Medical Needs Drive High Level of Competition

- Disease-modifying treatments in late-stage development:
 - >100 active interventional trials with small molecules, biologics, and cell therapies in Type 1 Diabetes



Value Proposition: SAB-142



First in class fully human polyclonal antibody treatment aimed to provide superior efficacy for delaying onset of clinical Stage 3 T1D

Key Differentiators



First in class fully human polyclonal antibody treatment aimed to provide superior efficacy for delaying onset of clinical Stage 3 T1D

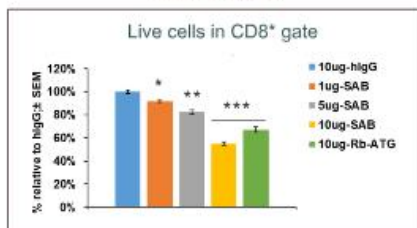


Validated Mechanism of Action by a 3rd party ATG demonstrating reduction in decline in C-peptide vs. placebo (Haller, 2019)

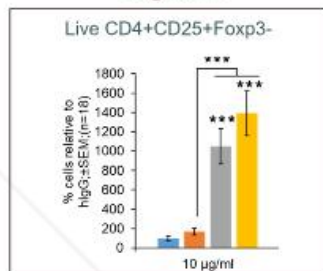
SAB-142: Similar Activity to Approved Rabbit ATG Targets CD8 and Protects T-Regulatory Cells



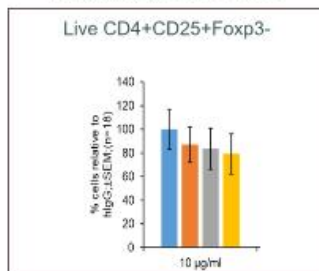
CD8 T Cells



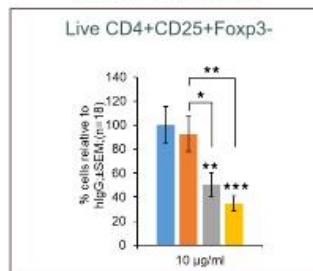
Treg Cells



Activated CD4 T Cells



Naïve CD4 T Cells



■ hlgG
 ■ Ho-ATG
 ■ Rb-ATG
 ■ SAB-ATG

SAB-142 Pre-clinical Data Continued

Major subsets of peripheral blood lymphocytes

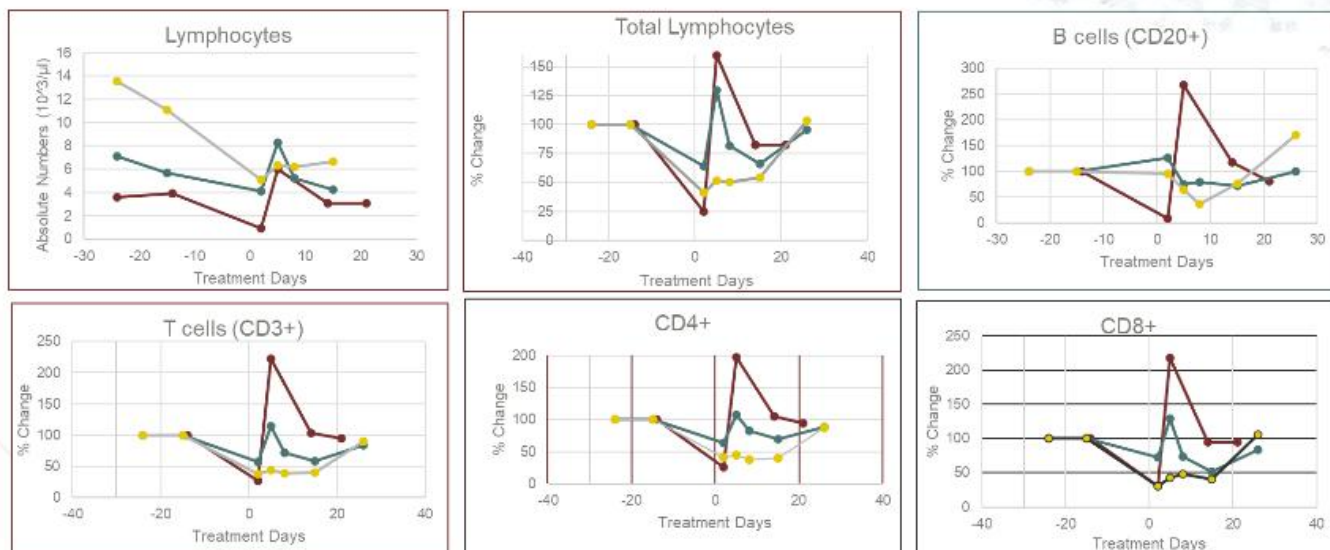


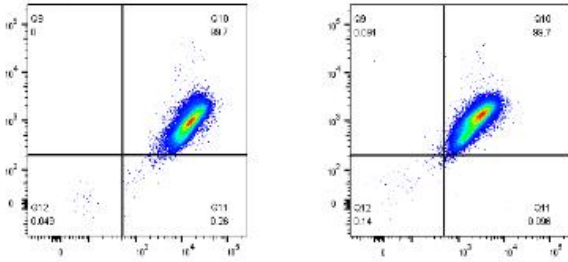
Figure. Changes in major subsets of peripheral blood lymphocytes (total lymphocytes, T and B cells, CD4+ and CD8+ T helpers and killers, respectively) following SAB-142 and ATG treatments. **Red: 5 mg/kg ATG; Blue: 1 mg/kg SAB-142; Grey: 5 mg/kg SAB-142**

SAB-142: MoA Clinically Validated by 3rd Party Compound

2 Years: Low-Dose ATG* Preserved C-Peptide in New Onset T1D



Tc Bovine Human-PB, Rabbit THYMO-AF488, Equine ATGAM-AF488 and Anti-CD3-APC



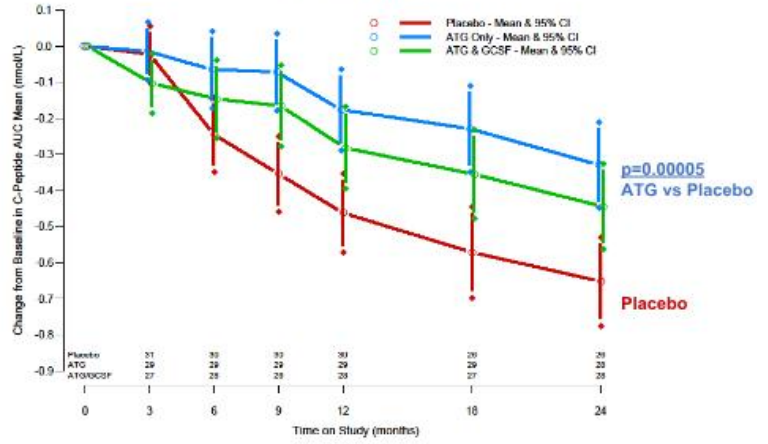
RABBIT THYMO-AF488

EQUINE ATGAM-AF488

Thymoglobulin
Anti-thymocyte Globulin (Rabbit)

Atgam®
Equine antithymocyte globulin (equine)
250 mg protein
50 mg/ml

Decline in C-Peptide AUC Mean Over Time by Treatment Group



*RABBIT ATG FROM SANOFI – NOT SAB-142 (HUMAN TC-BOVINE DERIVED ATG)
Haller et al. Diabetes. 2019. June, 68(6): 1267-1276



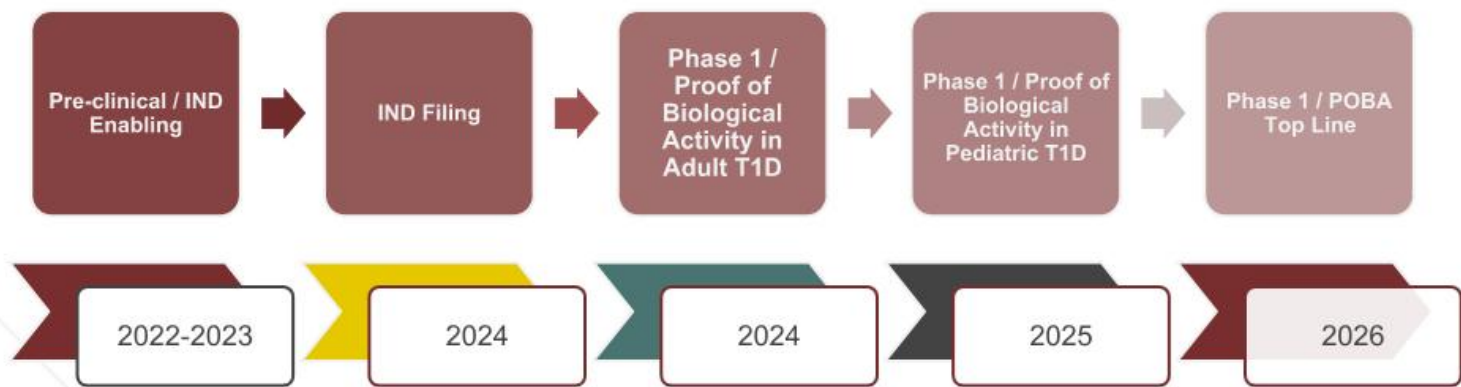
SAB-142: Clinical Development Plan T1D

Phase 1-2:
Early Onset T1D in Adults, followed by adults and adolescents at C-peptide interim analysis

Phase 3:
New and Recent Onset T1D in Adults and Children (Study 1)
At Risk Adults and Children (Study 2)

STUDY DESIGN	<ul style="list-style-type: none"> • Open-label • Teplizumab or ATG more likely to be a control • XX participants • Ascending dose SAB-142 study • XXX mg/kg (pre-clinical NHP data will adjust) • Biomarker-driven escalation with adaptive randomization based on Safety + CD4, CD8+ cells and Tregs 	<ul style="list-style-type: none"> • Randomized, blinded, PBO and teplizumab controlled • 90 (45:45), a control is either ATG or teplizumab • SAB-142 vs ATG/ teplizumab
ENDPOINTS	<ul style="list-style-type: none"> • Primary: acute and long-term safety • Primary POBA: C-peptide • Secondary: pharmacokinetics, pharmacodynamics, hypersensitivity (ADA), C-protein, HbA1c, T regs, CD3, CD8/CD4 and other markers. 	<p>New and Recent Onset T1D in Adults and Children (Study 1):</p> <ul style="list-style-type: none"> • Primary: improvement/control of T1D disease • Secondary: safety, pharmacokinetics, pharmacodynamics, hypersensitivity and serum sickness (ADA), C-protein, HbA1c, CD3, CD8/CD4 and other markers. <p>At Risk Adults and Children (study 2):</p> <ul style="list-style-type: none"> • Primary: time to onset of clinical stage (Stage 3) T1D • Secondary: safety, pharmacokinetics, pharmacodynamics, hypersensitivity and serum sickness (ADA), C-protein, HbA1c, CD3, CD8/CD4 and other markers.

SAB-142 Development Timelines



Summary

- **Executive Management:** Proven team with biotech startup, rapid drug development, and entrepreneurial experience.
- **Platform:** Innovative DiversitAb™ platform produces a new class of targeted fully-human, highly-potent polyclonal antibodies, with a broad efficacy spectrum in a broad range of indications.
- **SAB-195:** Preclinical data supports potential for competitive efficacy as first-line pAb therapy for severe CDI in patients who are at a high risk for recurrences, expect to file IND in 1H 2024.
- **SAB-176:** First in class fully human polyclonal antibody treatment aimed to provide superior efficacy for prophylaxis and management of influenza in patients at high risk, planned initiation of Phase 2b trial in 2H 2023.
- **SAB-142:** First in class fully human polyclonal antibody treatment aimed to provide superior efficacy for delaying onset of clinical Stage 3 Type 1 Diabetes, IND submission expected in 2024.

SAB Biotherapeutics Announces Election of Rear Admiral (retired) Scott Giberson, RPh, MPH, D.Sc., to Board of Directors

SIoux FALLS, S.D., July 11, 2022 -- SAB Biotherapeutics (Nasdaq: SABS), (SAB), a clinical-stage biopharmaceutical company with a novel immunotherapy platform that produces specifically targeted, high-potency, fully human polyclonal antibodies without the need for human donors, today announced the appointment of Rear Admiral (RADM), retired, Scott Giberson, a former Assistant U.S. Surgeon General and two-star admiral with the U.S. Public Health Service to SAB's Board of Directors, effective July 7, 2022. RADM Giberson retired after a decorated career and 27 years of service. In 2018, the Military Officers Association of America selected him as one of the "Top 100 Veterans in the Last 100 Years you Need to Know."

Currently, RADM (ret.) Giberson is the President of AMI Expeditionary Healthcare, a company that provides medical services to international aid organizations, humanitarian concerns, the private sector and government agencies in a wide range of remote and challenging environments.

"RADM (ret.) Scott Giberson's impressive career working in the U.S. government combined with expertise in healthcare is a valuable and welcomed addition to SAB's Board of Directors," said Samuel J. Reich, Executive Chairman of SAB. "As SAB continues to develop and harness our proprietary technology to address today's most pressing unmet medical needs, we look forward to RADM (ret.) Giberson's future contributions to the Board."

RADM (ret.) Giberson served as the acting Deputy Surgeon General of the United States (2013-2014), where he worked with the U.S. Surgeon General to develop and deliver scientific information to the public. In that role, he served as the Surgeon General's principal liaison with health leadership in the Department of Defense, Department of Homeland Security, and Department of Health and Human Services, among others. He held additional executive positions as the Senior Advisor to the Office of Surgeon General, Director of Commissioned Corps Headquarters, Chief Pharmacist of the U. S. Public Health Service, and Senior Public Health Advisor for Pacific Command's Center of Excellence in Disaster Management and Humanitarian Assistance. In 2014, he also served as overall Commander of the Commissioned Corps' Ebola Response in West Africa.

"Ensuring high-quality care and services are provided to those in need has been a cornerstone of my career," said RADM (ret.) Giberson. "SAB is poised to help address some of the world's most significant health needs, such as C. difficile and type-1 diabetes. I am honored to join such an innovative company in their endeavors to improve global public health."

Early in his career, he worked in several Indian Health Service (IHS) facilities where he was credentialed as a pharmacist and as a mid-level provider in family medicine. He also served as the Director of the IHS National HIV/AIDS Program and was a contributing author to the President's National HIV/AIDS Strategy.

Beyond his remarkable career history, RADM (ret.) Giberson has authored numerous articles and delivered more than 100 keynote lectures on leadership, pharmacy, global health, and public health, as



well as multiple university commencements. He has been interviewed on various TV and radio affiliates and serves on several academic boards. Additionally, he has received multiple service awards including the Defense Meritorious Service Medal and the Surgeon General's Medallion. In 2015, he received the Presidential Unit Citation from President Obama in the Oval Office.

RADM (ret.) Giberson graduated from Temple University and University of Massachusetts/Amherst with a BS Pharm, MPH, and graduate certificate in Health Emergencies in Large Populations. He has received three honorary Doctoral degrees (one for his pioneering work in interprofessional practice) and is a Fellow of the Wharton Business School Executive Leadership Program.

About SAB Biotherapeutics, Inc.

SAB Biotherapeutics, Inc. (SAB) is a clinical-stage, biopharmaceutical company advancing a new class of immunotherapies leveraging fully human polyclonal antibodies with a focus on building a leading immune and autoimmune disorders pipeline. SAB has applied advanced genetic engineering and antibody science to develop transchromosomal (Tc) Bovine™ that produce fully human antibodies targeted at specific diseases, including infectious diseases such as COVID-19 and influenza, immune and autoimmune disorders including type 1 diabetes and organ transplantation, and cancer. SAB's versatile DiversitAb™ platform is applicable to a wide range of serious unmet needs in human diseases. It produces natural, specifically targeted, high-potency, human polyclonal immunotherapies. SAB currently has multiple drug development programs underway and collaborations with the US government and global pharmaceutical companies. For more information on SAB, visit: <https://www.SAb.bio/> and follow SAB on Twitter and LinkedIn.

Forward-Looking Statements

Certain statements made in this press release that are not historical facts are forward-looking statements for purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Forward-looking statements generally are accompanied by words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “should,” “would,” “plan,” “predict,” “potential,” “seem,” “seek,” “future,” “outlook” and similar expressions that predict or indicate future events or trends or that are not statements of historical matters. These forward-looking statements include, but are not limited to, statements regarding future events, including the development and efficacy of SAB-195 (C. Diff), SAB-176 (Influenza), SAB-142 (Type 1 Diabetes & Immunology), SAB-185 (COVID-19), and our other discovery programs; our cash runway into 2023; and potential future government and third-party collaborations or funded programs. These statements are based on the current expectations of SAB and are not predictions of actual performance. These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on, by any investor as a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict, may differ from assumptions, and are beyond the control of SAB. A further description of risks and uncertainties can be found in the sections entitled “Risk Factors” in SAB’s most recent Annual Report on Form 10-K, most recent quarterly reports on Form 10-Q, and in other filings SAB makes with the Securities and Exchange Commission, available at <https://www.sec.gov/>. Except as otherwise required by law, SAB disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date they were made, whether as a result of new information, future events or circumstances, or otherwise.
