SAB Biotherapeutics Novel DiversitAb™ Platform Proven to Develop Anti-idiotype Antibodies to Help Treat Autoimmune Diseases

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SIOUX FALLS, S.D., Jan. 05, 2023 (GLOBE NEWSWIRE) -- SAB Biotherapeutics (Nasdaq: SABS), 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, announced today results from a project in collaboration with global biotechnology leader CSL (ASX: CSL), confirming that SAB's DiversitAb™ platform can generate functional fully-human anti-idiotype polyclonal antibodies that can effectively target and neutralize autoantibodies associated with autoimmune diseases.

Autoantibodies are immune system proteins that can mistakenly target the body's own organs and tissues. Autoantibodies can target almost every part of the body and are found in a wide range of autoimmune diseases, such as lupus, autoimmune hepatitis, aplastic anemia, and rheumatoid arthritis among many others. In this project with CSL, SAB's DiversitAb™ platform used a specific autoantibody associated with neuromyelitis optica (NMO) to successfully develop a functional and diverse anti-idiotype polyclonal antibody treatment that was able to bind to the NMO antibody and neutralize it in vitro and in vivo.

"The promising results from this platform capabilities project are an important step in developing a scalable, effective and fully-human anti-idiotype therapeutic for people living with autoimmune disorders that are in need of treatment options," said Eddie Sullivan, co-founder, President & CEO of SAB Biotherapeutics. "The unique capabilities of our transchromosomic cows and DiversitAb™ platform continue to prove the power of polyclonals to address complex and very difficult to treat autoimmune diseases."

Anti-idiotypic polyclonal antibodies are highly specialized antibodies that bind to other antibodies specifically "bad acting" antibodies associated with many autoimmune diseases such as type 1 diabetes, NMO or systemic lupus erythematosus (SLE).

"As the scientific community begins to better understand the varying and complex nature of autoimmune disorders, it is important we research and develop therapies to provide robust efficacy against multiple autoantibodies driving an autoimmune disease," said Alexandra Kropotova, MD, Chief Medical Officer of SAB Biotherapeutics. "Often, multiple autoantibodies are responsible for an autoimmune response, and our DiversitAb™ platform has proven its ability to create an 'antidote' antibody treatment that can "disarm" those harmful autoantibodies without a broad immunosuppressive effect — having implications across a wide variety of autoimmune diseases."

About SAB Biotherapeutics, Inc.

SAB Biotherapeutics, Inc. (SAB) We are a clinical-stage biopharmaceutical company focused on the development of powerful and proprietary immunotherapeutic polyclonal human antibodies to treat and prevent infectious diseases and immune and autoimmune disorders. Our development programs include infectious diseases resulting from outbreaks and pandemics, as well as immunological, gastroenterological, and respiratory diseases that have significant mortality and health impacts on immune compromised patients. SAB has applied advanced genetic engineering and antibody science to develop Transchromosomic (Tc) Bovine™. Our versatile DiversitAb™ platform is applicable to a wide range of serious unmet needs in human diseases. I produces natural, specifically targeted, high-potency, fully-human polyclonal immunotherapies without the need for human donors. 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 herein 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 our influenza program, C. diff. program, Type 1 Diabetes program, and other discovery programs, the likelihood that a patent will issue from any patent application, the results, including timing, of the development of SAB-176, SAB-185 and SAB-195 (including any IND filing or proposed clinical trials), financial projections and future financial and operating results (including estimated cost savings and cash runway), the outcome of and potential future government and other third-party collaborations or funded programs (including negotiations with the DoD).

These statements are based on the current expectations of SAB and are not predictions of actual performance, and are not intended to serve as, and must not be relied on, by any investor as a guarantee, prediction, definitive statement, or an assurance, of fact or probability. These statements are only current predictions or expectations, and are subject to known and unknown risks, uncertainties and other factors which may be beyond our control. Actual events and circumstances are difficult or impossible to predict, and these risks and uncertainties may cause our or our industry's results, performance, or achievements to be materially different from those anticipated by these forward-looking statements. A further description of risks and uncertainties can be found in the sections captioned "Risk Factors" in our most recent annual report on Form 10-K, subsequent quarterly reports on Form 10-Q, and other filings with or submissions to, the U.S. Securities and Exchange Commission, which are 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.

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