

BioLife Solutions and SAVSU Providing Enhanced Cold Chain Technologies for 8 UCSF Clinical Trials of Treg Cell Therapies

CryoStor® Cell Freeze Media and evo® Smart Shipper Embedded in Trials Using Treg Cells for Diabetes, Lupus, Pemphigus, and Organ Transplantation

BOTHELL, Wash. and ALBUQUERQUE, N.M., Oct. 31, 2017 /PRNewswire/ -- [BioLife Solutions](#), Inc. (NASDAQ: BLFS), the leading developer, manufacturer and marketer of proprietary clinical grade cell and tissue [hypothermic storage](#) and [cryopreservation freeze](#) media and [SAVSU](#), the leading developer of smart, [precision shipping containers](#) and cloud-based cold chain management SaaS solutions, today announced both companies are providing their respective enhanced cold chain technologies for use in 8 active and pending clinical trials conducted by the Diabetes Center and Department of Surgery at the University of California, San Francisco.

Qizhi Tang, PhD, the director of the Transplantation Research Laboratory, described a way to preferentially grow human Tregs in a clinical laboratory that are specifically targeted to protect donor tissue. These donor-targeted Tregs have been administered to liver and kidney transplant patients in phase I clinical trials under IND. Tang stated that "the hope is that, using this novel treatment strategy, we could minimize or entirely spare patients from lifelong immunosuppressive treatments and their side effects."

Jeffrey Bluestone, PhD, the A.W. and Mary Margaret Clausen Distinguished Professor of Metabolism and Endocrinology and Director of the Hormone Research Institute in the Diabetes Center, commented, "Tregs hold great promise as treatments for autoimmune diseases such as diabetes, rheumatoid arthritis and lupus, and even as therapies for cardiovascular disease, neurological diseases and obesity. Effective cold chain management is an important potential component for commercial distribution of these novel cell-based therapies if approved."

Amy Putnam, manufacturing supervisor and research specialist also responsible for biopreservation protocol design and implementation in the Bluestone and Sean N. Parker Autoimmune Research Laboratory in the Diabetes Center at UCSF, remarked, "CryoStor enables long-term storage and improved post-preservation viability of our intermediate starting materials for our cell therapy products and its quality profile supports our use in numerous human clinical trials. We also completed a rigorous validation of the evo Smart Shipper to enable better temperature regulation and logistics visibility of our high-value shipments of source material and manufactured cell products."

Mike Rice, BioLife President & CEO, commented, "We are very pleased to support the Diabetes Center and the Department of Surgery at UCSF by supplying [CryoStor](#) and providing scientific support. Over the last several years, Amy Putnam and her colleagues completed an extensive evaluation and validation of CryoStor for long term storage of mechanistic samples and intermediate starting materials. We look forward to continued collaboration and potential regulatory approval of these Treg cellular therapies, for the benefit of millions of patients suffering from various autoimmune disorders or toxicity of immunosuppression after receiving organ transplants."

Bruce McCormick, President of SAVSU, stated, "We are honored that the Diabetes Center and the Department of Surgery at UCSF have selected our [evo Smart Shipper](#) technologies. We specifically designed the evo Smart Shipper to improve cold chain logistics and transport survival of small payload cellular therapies such as Tregs."

About the Diabetes Center at UCSF

The Diabetes Center at UCSF has one mission: to advance the care and treatment of patients with diabetes worldwide so that we may achieve the ultimate goal of bringing an end to this disease. For more information please visit <https://diabetes.ucsf.edu>.

About the Department of Surgery at UCSF

The mission of the UCSF Department of Surgery is threefold: to develop the next generation of leaders in surgery; to provide outstanding quality clinical care that is cost effective, yet compassionate; and to make significant advances in scientific knowledge and clinical practice through basic and clinical research. For more information please visit <https://surgery.ucsf.edu>.

About BioLife Solutions

Our proprietary HypoThermosol® and CryoStor® platform of biopreservation media products are highly valued in the regenerative medicine, biobanking and drug discovery markets. These are serum-free, protein-free, fully defined, and formulated to reduce preservation-induced cell damage and death. Our enabling, embeddable technologies provides commercial companies and clinical researchers significant improvement in shelf life and post-preservation viability and function of cells, tissues, and organs.

For more information please visit www.biolifesolutions.com, and follow BioLife on [Twitter](#).

About SAVSU

SAVSU has developed evo Cold Chain 2.0™, a fully integrated system developed *specifically* for the movement of live cells used in cell therapy, biotechnology and precision medicine applications. This system allows real time visibility of conditions and real-time tracking and communication between manufacturing facilities and sites, helping to reduce risk of loss in addition to increasing process efficiencies necessary for the new demands associated with cell therapies. Our complete line of high performance evo Smart Shippers can be used for all temperature ranges from liquid nitrogen (LN2) to controlled room temperature (CRT). Working with clinical research facilities and the leading cell and gene therapy companies, SAVSU is focused on helping these organizations deliver therapeutic promise from research through to commercialization. www.savsu.com

Cautions Regarding Forward Looking Statements

Except for historical information contained herein, this press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, statements concerning the company's anticipated business and operations, the potential utility of and market for its products and services, potential revenue growth and market expansion, commercial manufacturing of our customers' products, and projected financial results. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. These statements are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described in the forward-looking statements, including among other things, uncertainty regarding market adoption of products; uncertainty regarding third party market projections; market volatility; competition; litigation; and those other

factors described in our risk factors set forth in our filings with the Securities and Exchange Commission from time to time, including our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. We undertake no obligation to update the forward-looking statements contained herein or to reflect events or circumstances occurring after the date hereof, other than as may be required by applicable law.

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