BioLife Solutions HypoThermosol® Adopted by MicroIslet for Processing Pancreatic Islet Cells to Treat Diabetes

Preservation with BioLife's Proprietary, Next Generation, Biopreservation Media Resulted in Increased Yield and Quality of Insulin-Producing Islet Cells

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BioLife Solutions Inc. (BULLETIN BOARD: BLFS), a leading developer and marketer of proprietary hypothermic storage and cryopreservation media products for cells, tissues, and organs, today announced that MicroIslet Inc. (BULLETIN BOARD: MIIS), a biotechnology company engaged in developing and commercializing cellular therapies for patients with diabetes, has adopted HypoThermosol for preserving, transporting, and storing pancreatic source material. MicroIslet plans to isolate and encapsulate islet cells for the treatment of Type 1 diabetic patients under a planned investigational new drug application and subsequent clinical trial.

Michael J. Andrews, Microlslet's President and Chief Executive Officer, said: "Insulin-producing islet cells hold great promise in the search for a cure for Type-1 diabetes, from which 1.4 million Americans suffer. However, islet cells are fragile, and their health and quality are highly dependent on the preservation media used to store and ship the source organ. We compared HypoThermosol to several commercially available media as well as a modified two-layer method. When organs were stored in HypoThermosol there was significant improvement in the appearance of the tissues and the yield of healthy islet cells."

Dr. Ingrid Stuiver, Senior Director of Research at Microlslet, reported to BioLife that with HypoThermosol, quality islets could still be successfully isolated from the stored organ even after a transport time of 24-27 hours. Isolation efficiency, a measure of the quantity of islet cells available from a given volume of tissue, was higher than all other shipping media tested. Viability of the isolated tissue was one of the most important criteria tested. The recovery of the islets processed after using HypoThermosol as a cold storage solution for a duration of 24-27 hours was significantly improved and consisted of a viability range of 80%-90%, compared to an average of 50%-65% viability when pancreata were stored in previously tested solutions. Furthermore, the necrotic and apoptotic cell death profiles of islets from pancreata stored in HypoThermosol were similar to those typically seen for islets from fresh pancreata.

BioLife Chairman and Chief Executive Mike Rice remarked: "We're quite pleased to be supporting MicroIslet's efforts to develop and commercialize a cure for diabetes. This is yet another example of how our products improve the viability of cells and tissue throughout the hypothermic storage and thawing processes and significantly increase tissue survival rate, or yield. By substantially improving yield of source material and finished products, our proprietary technology enables greater cost-effectiveness in the commercialization of new clinical therapies."

## **About MicroIslet:**

MicroIslet is a biotechnology company engaged in the research, development, and commercialization of patented technologies in the field of cell therapy for patients with insulindependent diabetes. MicroIslet has licensed several technologies from Duke University for isolation, culturing, storage, and microencapsulation of insulin-producing islet cells from

porcine sources. The Company believes that these technologies, and other proprietary methods developed in-house, are significant advances in the field of cellular therapeutics. MicroIslet is planning human clinical trials in the U.S., and exploring possible trials abroad. MicroIslet's ultimate goal is to offer cell transplantation therapies for diabetic patients worldwide.

The Company's lead product, MicroIslet-PTM, consists of microencapsulated porcine islets for implantation into the abdominal cavity using a minimally invasive procedure. Microencapsulation involves surrounding islet cells with formulations of a highly biocompatible, ultra-pure biopolymer, called alginate, or other similar biocompatible polymers. The alginate coating allows insulin, glucose, oxygen and other nutrients to diffuse freely, while blocking antibodies and reducing the patient's immune response to the implanted islet cells. It is hoped that MicroIslet-PTM will provide physiologic and self-regulating blood glucose control, thus reducing the need for insulin injections or infusions and constant blood glucose monitoring. The long term complications associated with type 1 diabetes, such as peripheral neuropathies, heart and kidney disease, and skin disorders, may be mitigated by the tighter blood glucose control that would result from such a product. Additional information about MicroIslet can be found at http://www.microislet.com/

## **About BioLife Solutions:**

BioLife Solutions develops and markets patented hypothermic storage/transport and cryopreservation media products for cells, tissues, and organs. The Company's proprietary HypoThermosol® and CryoStor™ platform of biopreservation media products are marketed to academic research institutions, hospitals, and commercial companies involved in cell therapy, tissue engineering, cord blood banking, drug discovery, and toxicology testing. BioLife's fully defined serum-free and protein-free products are manufactured under current Good Manufacturing Practices and are formulated using only USP or highest available grade components to reduce preservation-induced, delayed-onset cell damage and death. BioLife's enabling technology provides research and clinical organizations significant yield improvement in post-preservation cell and tissue and viability and function.

This news release contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These forward-looking statements include any statements that relate to the intent, belief, plans or expectations of the Company or its management, or that are not a statement of historical fact. Any forward-looking statements in this news release are based on current expectations and beliefs and are subject to numerous risks and uncertainties that could cause actual results to differ materially. Some of the specific factors that could cause BioLife Solutions' actual results to differ materially are discussed in the Company's recent filings with the U.S. Securities and Exchange Commission. BioLife Solutions disclaims any obligation to update any forward-looking statements as a result of developments occurring after the date of this press release.

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