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FOR IMMEDIATE RELEASE

## **Whitehead Institute/MIT Study Suggests StressGen's Stress Proteins May Play Key Role in Treating Immunocompromised Populations**

*-- Preclinical results published in today's Journal of Experimental Medicine —*

**Victoria, British Columbia and Cambridge, MA, January 17, 2000** — StressGen Biotechnologies Corp. (TSE:SSB) announced today the publication of preclinical experiments demonstrating that the Company's stress proteins created a specific immune response in both immune compromised and normal mice using CD8+ T cells, without involving CD4+ T cells. Generating this type of immune response may hold significance in treating immune compromised individuals, such as HIV patients, whose CD4+ T cells are depleted. The preclinical study, led by Dr. Richard Young at the Whitehead Institute for Biomedical Research, was published today in the Journal of Experimental Medicine.

StressGen is currently testing its lead stress protein-based compound, HspE7 (product number SGN-00101), in clinical trials to determine its ability to treat Anal (AIN) and Cervical (CIN) Neoplasia, two diseases that are induced by the Human Papilloma Virus (HPV). Both AIN and CIN are serious health problems in the general population and are of particular concern for patients with HIV. StressGen intends to support a Phase II trial, funded by the National Cancer Institute (NCI) through the AIDS Malignancy Consortium, in AIN patients with HIV during the first quarter of 2000. Studies conducted at StressGen demonstrate that HspE7's activity is similarly independent of CD4+ cells. A presentation of these results will be made at the American Academy of Asthma, Allergy and Immunology Annual Meeting in San Diego, CA, in March, 2000.

“The ability of our stress protein technology to elicit this type of immune response is a significant validation of our approach and points to a potentially broader utility to treat patients whose immune systems are suppressed,” said Richard Glickman, StressGen's President and Chief Executive Officer. “We are aggressively advancing HspE7 through the clinic to provide a treatment option for immune compromised patients with AIN and CIN.”

Dr. Young stated, "Our research indicates that stress proteins are potent tools for stimulating the immune system. They hold great promise for use in the clinic to vaccinate and treat both normal and immunocompromised individuals."

In the study reported today, scientists created a recombinant protein by fusing together a stress protein from *M. tuberculosis* and a protein called ovalbumin, long used by immunologists to study immune function. The recombinant fusion protein was injected into mice with normal immune systems and into knockout mice without CD4+ cells, which are unable to mount an antibody-based immune response. Both groups of animals equally mounted an immune response against ovalbumin and developed immunity against cancer cells that make ovalbumin. The ability to elicit CD4-independent CTL responses suggests that stress protein fusions may be useful for treating disease in CD4+ T cell-deficient individuals.

In addition, the study identified a 200 amino-acid portion of Hsp70, which appears to be responsible for the molecule's immunological activity. This discovery is expected to allow StressGen scientists greater flexibility to engineer more complex, multi-valent vaccines.

The study was led by Dr. Young who was also the co-inventor of StressGen's core technology and has been a pioneer in investigating the broad applications of stress proteins. He is a member of StressGen's Board of Directors and also sits on the Company's Scientific Advisory Board. In 1992, StressGen obtained a worldwide exclusive license from the Whitehead Institute to make, use and sell products based upon certain discoveries related to stress proteins made by Whitehead researchers.

When infection enters the body, the immune system responds in two ways. One arm of the immune system, led by immune cells, called B cells, works by secreting antibodies into the body's bloodstream. CD4+ cells are required for initiating this immune response. These antibodies seek and destroy the infectious agents circulating in the bloodstream. However, antibodies have little effect on infected cells. The task of attacking cells infected by viruses or deformed by cancer falls to a second arm of the immune system, led by immune cells called T cells. CD8+ cytotoxic cells or CTLs mediate this arm of the immune system by homing in on infected or transformed cells and destroying them. T cells orchestrate a multi-pronged attack and, if appropriate, produce killer cells called cytotoxic T cells or CTLs that home in on infected cells and destroy them.

StressGen Biotechnologies Corp. is a biopharmaceutical company developing innovative immunotherapy products to treat cancer and prevent infectious disease. The Company's core technology capitalizes on the ability of stress proteins to activate the body's immune system to recognize and fight disease. Through its Biochemical Division, StressGen is also an internationally recognized supplier of stress protein, apoptosis, cell proliferation, protein phosphorylation, receptors and neuroscience research products. These products are used by scientists worldwide.

The matters contained in this news release including, but not limited to clinical trials, regulatory matters, beliefs, and expectations are forward-looking statements. StressGen undertakes no obligation to publicly release the results of any revision to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

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The title of the Journal of Experimental Medicine article is "In Vivo Cytotoxic T Lymphocyte Elicitation by Mycobacterial Heat Shock Protein 70 Fusion Proteins Maps to a Discrete Domain and is CD4+ T Cell Independent" The authors are:

Qian Huang, Whitehead Institute for Biomedical Research and Massachusetts Institute of Technology.

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Kimiko Suzue, Whitehead Institute for Biomedical Research and Massachusetts Institute of Technology.

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