

RESEARCH CALLS FOR USE OF MOLECULAR IODINE TO TREAT BREAST CANCER

New Insights into Molecular Iodine's Mechanism of Action Support Use as a Treatment for Breast Cancer

FRAMINGHAM, MA. October 31, 2006 -- **Symbollon Pharmaceuticals, Inc. (OTCBB: SYMBA)** today provided a review of recent independent scientific publications focused on the possible use of molecular iodine, the active agent in Symbollon's drug, **IoGen™**, to treat breast cancer. The results of such research identify molecular iodine as a possible treatment for breast cancer. This research recommends the initiation of human clinical trials testing molecular iodine as an adjuvant therapy for breast cancer.

"We believe that the current research provides substantive support for the initiation of human clinical studies on the use of molecular iodine as a treatment for breast cancer," stated Paul Desjourdy, the President and CEO of Symbollon Pharmaceuticals, Inc. "The possibility that IoGen may be used as a treatment for breast cancer makes it all the more important that Symbollon expedite the commercialization timeline for IoGen."

Past studies by independent researchers have supported the possible effectiveness of molecular iodine as a treatment for breast cancer. The key unknown has been the process through which molecular iodine works. Recent research has uncovered important new insights into the mechanism of action of molecular iodine. For example, researchers at Drexel University College of Medicine have been investigating the biochemical pathways of iodine metabolism in the breast. Their most recent work demonstrates that molecular iodine alters the gene expression profile in the human breast cancer cells (MCF-7). Dr. Bernard Eskin remarked that "these changes may be responsible for molecular iodine's inhibition of breast cancer promotion" that has been repeatedly observed in animal models.

Dr. Carmen Aceves of the department of Physiology at the University of Mexico has studied the differences between iodide and molecular iodine. In Dr. Aceves' studies, virgin Sprague-Dawley rats received short or continuous treatment with either molecular iodine or iodide and the induction and promotion of mammary cancer was evaluated. Rats that were treated with molecular iodine continuously exhibited a substantially lower rate of mammary cancer (30%) compared to rats treated with iodide (72.7%). Dr. Aceves concluded that continuous molecular iodine treatment has a "potent antineoplastic effect" on the progression of mammary cancer. An upcoming manuscript by Dr. Aceves compares the uptake and antiproliferative effect of molecular iodine versus iodide in human breast cancer cells (MCF-7). In contrast to iodide which depends entirely on the sodium/iodide symporter protein (NIS) for uptake into cells, the uptake of molecular iodine occurred by facilitated diffusion and was independent of NIS. Iodine was incorporated into protein and lipid fractions only when molecular iodine was administered, and the administration of molecular iodine had an anti-proliferative effect on the growth of MCF-7 cells that was not exhibited with iodide. Dr. Aceves concluded that "molecular iodine treatment should be tested in clinical trials as an adjuvant of breast cancer therapy."

Some researchers have been investigating the connection between certain well understood observations regarding breast tissue and iodine. It has been observed that frequent childbirth and a long lactation period are known to reduce the risk of breast cancer. Elevated dietary intake of iodine is also associated with a reduced risk of breast cancer. These associations have intrigued scientists since the absorption of iodine in the breast occurs in the same ductal epithelium where the majority of breast cancers arise. There is at least one common factor that may link these two observations. During late pregnancy and lactation the proteins that transport (NIS) and oxidize (LPO) iodide are very active in mammary tissue. Recent research has allowed scientists to place these observations into a model that demonstrates how iodine could impact breast cancer risk.

During the past decade researchers at Mount Sinai Medical School in New York have demonstrated that the protein that transports iodide (NIS) into breast cells is over-expressed in 80-90% of human breast cancers. Molecular iodine is formed when iodide is oxidized; however, the lactoperoxidase protein (LPO) that oxidizes iodide in breast cells during pregnancy is rarely expressed in human breast cancer cells. Recently, Dr. Keisuke Iwamoto of the David Geffen School of Medicine at UCLA has shown that both proteins (NIS and LPO) must be present for iodine to induce apoptosis (death) in cancer cells. Dr. Iwamoto concluded that unless iodide is oxidized it can serve to enhance the growth of breast cancer cells. This observation is consistent with earlier research at the Geffen School of Medicine which showed that both NIS and LPO must be present to kill non-small lung cancer cells. The observations are also consistent with the conclusions drawn by Godbole and coworkers who studied molecular iodine induced apoptosis in MCF-7 cells and concluded that molecular iodine activates a caspase-independent and mitochondria-mediated apoptotic pathway.

About Symbollon Pharmaceuticals, Inc. (OTC: SYMBA) is a specialty pharmaceutical company focused on the development and commercialization of proprietary drugs based on its molecular iodine technology. Symbollon is conducting a Phase III clinical trial evaluating loGen as a potential treatment for moderate to severe periodic pain and tenderness (clinical mastalgia) associated with fibrocystic breast disease (FBD). FBD is a condition that affects approximately 20 to 33 million women in the U.S., and there are approximately 7 to 13 million women suffering from clinical periodic mastalgia. The Company believes loGen also may be useful in treating and/or preventing endometriosis, ovarian cysts, and premenopausal breast cancer. Symbollon is also in preclinical development of antimicrobial products based on the same molecular iodine technology, and intends to investigate the potential effectiveness of its technology in applications such as dermatology, oral care, upper respiratory tract conditions, urinary tract infection and wound care. For more information about Symbollon, please visit the company's website at <http://www.symbollon.com>.

Forward Looking Statement This news release contains statements by the Company that involve risks and uncertainties and may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements reflect management's current views and are based on certain assumptions. Actual results could differ materially from those currently anticipated as a result of a number of factors, including, but not limited to, the risks and uncertainties associated with whether (i) future clinical trial results will support the use of loGen for the treatment of fibrocystic breast disease, (ii) the clinical data acquired from Mimetix Inc. will be acceptable exposure data for loGen, (iii) Symbollon will be able to obtain the resources necessary to continue as a going concern, (iv) loGen will successfully complete the regulatory approval process, (v) competitive products will receive regulatory approval, (vi) the Company's ability to enter into new arrangements with corporate partners and (vii) such other factors as may be disclosed from time-to-time in the Company's reports as filed with the Securities and Exchange Commission.

