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OncoSec Medical and Massachusetts General Hospital to Evaluate Efficacy of Intratumoral Delivery of DNA-Based Interleukin-12

SAN DIEGO, May 18, 2015 /PRNewswire/ -- OncoSec Medical Inc. ("OncoSec") (OTCQB: ONCS), a company developing DNA-based intratumoral cancer immunotherapies, today announced it has entered a Sponsored Research Agreement (SRA) with Massachusetts General Hospital, an affiliate of Harvard Medical School. Under the agreement, researchers will evaluate the immunologic mechanisms underlying the anti-tumor effects of OncoSec's clinical stage platform, ImmunoPulse^{TM} IL-12, in a Human Papilloma Virus (HPV) tumor mouse model. HPV-associated tumors include oropharyngeal and certain genitourinary cancers (e.g., cervical cancer).

Sara I. Pai, MD, PhD, a faculty member at Massachusetts General Hospital and Harvard Medical School, will serve as the principal investigator for this study. Dr. Pai is an expert in HPV-associated oropharyngeal cancer and has performed extensive research to better understand how cancer cells evade the immune system and how this process of immune evasion can be reversed. Dr. Pai's current research involves the development of novel cancer vaccines and immunomodulatory drugs to help treat HPV-associated head and neck cancers.

"We're excited to embark on this study with the Massachusetts General Hospital and Dr. Pai, who has tremendous expertise in understanding how cancer can escape the immune system," said Robert H. Pierce, MD, Chief Scientific Officer at OncoSec. "HPV-associated cancers contain viral antigens, which should allow tumors to be identified and eliminated by the immune system. Unfortunately, these tumors find means to subvert the immune response. We hypothesize that intratumoral IL-12 electroporation allows the immune system to better recognize and mount an attack against these 'foreign' antigens. Dr. Pai and her team are well-positioned to rigorously address these questions."

"Intratumoral delivery of cytokines, such as IL-12, has the potential to alter the tumor microenvironment while minimizing the attendant systemic toxicity associated with other immunotherapeutic target delivery systems," said Dr. Pai.

OncoSec's immunotherapy platform, ImmunoPulse^{TM} IL-12, is designed to deliver and enhance the uptake of DNA-based IL-12 directly into tumors. OncoSec is currently conducting Phase II clinical trials of ImmunoPulse^{TM} IL-12 in metastatic melanoma and plans to initiate Phase II studies in head and neck cancer and triple negative breast cancer. Preliminary data from melanoma clinical trials show evidence that ImmunoPulse^{TM} IL-12 can generate a local immune response as well as systemic anti-tumor effects.

IL-12 is an inflammatory cytokine that regulates multiple aspects of the immune system and initiates both innate and adaptive immune responses. IL-12 is a key driver of the cascade of biological events that ultimately lead to T-cell-specific killing of cancer cells. Moreover, cytokines and chemokines induced by this pathway also increase the recruitment of inflammatory T-cells into tumors.

About OncoSec Medical Inc.
OncoSec Medical Inc. is a biopharmaceutical company developing its investigational ImmunoPulse™ intratumoral cancer immunotherapy. OncoSec's core technology is designed to enhance the local delivery and uptake of DNA IL-12 and other DNA-based immune-targeting agents. Clinical studies of ImmunoPulse™ have demonstrated an acceptable safety profile and preliminary evidence of anti-tumor activity in the treatment of various skin cancers, as well as the potential to initiate a systemic immune response limiting the systemic toxicities associated with other treatments. OncoSec's lead program evaluating ImmunoPulse™ for the treatment of metastatic melanoma is currently in Phase II development, and is being conducted in collaboration with several prominent academic medical centers. As the company continues to evaluate ImmunoPulse™ in its current indications, it is also focused on identifying and developing new immune-targeting agents, investigating additional tumor indications, and evaluating combination-based immunotherapy approaches. For more information, please visit www.oncosec.com.

OncoSec Medical Inc. Forward Looking Statements
This press release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Any statements in this release that are not historical facts may be considered such "forward-looking statements." Forward-looking statements are based on management's current preliminary expectations and are subject to risks and uncertainties, which may cause our results to differ materially and adversely from the statements contained herein. Some of the potential risks and uncertainties that could cause actual results to differ from those predicted include our ability to raise additional funding, our ability to acquire, develop or commercialize new products, uncertainties inherent in pre-clinical studies and clinical trials, unexpected new data, safety and technical issues, competition, and market conditions. These and additional risks and uncertainties are more fully described in OncoSec Medical's filings with the Securities and Exchange Commission. Undue reliance should not be placed on forward-looking statements, which speak only as of the date they are made. OncoSec Medical disclaims any obligation to update any forward-looking statements to reflect new information, events or circumstances after the date they are made, or to reflect the occurrence of unanticipated events.

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