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OncoSec Announces Positive Interim Response Data at the Society for Immunotherapy of Cancer (SITC) Annual Meeting 2016

Company to Host Investor and Analyst Day on November 17, 2016

SAN DIEGO, Nov. 8, 2016 /PRNewswire/ -- OncoSec Medical Incorporated ("OncoSec") (NASDAQ: ONCS), a company developing DNA-based intratumoral cancer immunotherapies, announced today that new clinical data are being presented from a Phase II Investigator Sponsored Trial led by the University of California, San Francisco (UCSF). This single-arm, open-label trial assessed the combination of OncoSec's investigational intratumoral therapy, ImmunoPulse® IL-12, and Merck's KEYTRUDA® (pembrolizumab) in patients with unresectable metastatic melanoma. A predictive biomarker was used to enroll patients that have a low likelihood of response to an anti-PD1 agent alone, and the purpose of the trial is to assess whether the addition of ImmunoPulse® IL-12 can increase response rates in these patients. The data will be presented at an oral poster presentation (#466) by Dr. Alain Algazi at the Society for Immunotherapy of Cancer ("SITC") Annual Meeting in National Harbor, MD on November 11, 2016 at 12:50 PM EST.

In August 2016, OncoSec announced the publication of a research assay in the *Journal of Clinical Investigation* that might be used as a predicative biomarker in melanoma patients. The assay shows that patients with a low frequency of a certain phenotype of CD8 T cells, pre-disposes them to low response rates to PD-1 inhibitor therapy alone. The Company is using this biomarker assay to select patients considered to be PD-1 non responders for this ongoing combination study. The key endpoints of the study include: best overall response rate by the Response Evaluation Criteria in Solid Tumors (RECIST) v1.1 and immune-related Response Criteria; safety and tolerability; duration of response; 24-week landmark progression-free survival; median progression-free survival; and overall survival.

Results
Interim efficacy and safety data are available on 15 patients. In patients considered unable to respond to PD-1 we measured an overall response rate of **40%** (6 /15), consisting of 4 complete responses and 2 partial responses by RECISTv1.1 criteria. Additionally, the therapy has an acceptable safety profile and was well tolerated. Analysis of tumor biopsies and blood correlated with patients' responsiveness and demonstrated correlative immunological changes including an increased number of $CD8^+$ tumor-infiltrating lymphocytes, tumoral RNA signatures and concordant immune phenotypes in the periphery. Investigators concluded that the combination of ImmunoPulse® IL-12 with pembrolizumab in patients with an anti-PD-1 non-responsive phenotype enables an effective anti-PD-1 response.

Punit Dhillon, CEO of OncoSec, stated: "These results validate our therapeutic hypothesis for the ability of ImmunoPulse® IL-12 to improve response rates in advanced melanoma. We wish to thank the investigators and patients for their continued participation in this study. We are working diligently to advance this agent towards registration-enabling studies, and we look forward to providing additional details regarding the Company's operations and strategy at our upcoming Investor and Analyst Day on November 17, 2016."

Alain Algazi, M.D., Principal Investigator from UCSF, stated: "Although this open-label study is still ongoing and data are maturing, I am encouraged by the meaningful interim response rates that the combination of ImmunoPulse® IL-12 and pembrolizumab has been able to achieve in a patient population otherwise expected to respond poorly to pembrolizumab alone. While checkpoint inhibition has conferred meaningful clinical benefit for advanced melanoma patients, there remains an urgent need to increase these agents' efficacy through the rational combination with other immunotherapies. I look forward to the continued maturation of this data and to further reporting on the trial's progress."

For more information about this trial, please visit:
https://clinicaltrials.gov/ct2/show/NCT02493361?term=pIL-12&rank=3

About the SITC Annual Meeting
The Society for Immunotherapy of Cancer (SITC) is a non-profit medical professional society of influential scientists, academicians, researchers, clinicians, government representatives, and industry leaders from around the world dedicated to improving cancer patient outcomes by advancing the science and application of cancer immunotherapy. Currently, SITC has nearly 1,600 members representing 17 medical specialties and are engaged in research and treatment of at least a dozen types of cancer. The 31st SITC Annual Meeting & Associated Programs will take place November 11-13, 2016 at the Gaylord National Hotel & Convention Center in National Harbor, MD. For more information, please go to http://www.sitcancer.org/2016.

About OncoSec Medical Incorporated
OncoSec is a biotechnology company developing DNA-based intratumoral immunotherapies with an investigational technology, ImmunoPulse®, for the treatment of cancer. ImmunoPulse® is designed to enhance the local delivery and uptake of DNA-based immune-targeting agents, such as IL-12. In Phase I and II clinical trials, ImmunoPulse® IL-12 has demonstrated a favorable safety profile and evidence of anti-tumor activity in the treatment of various solid tumors as well as the potential to initiate a systemic immune response. OncoSec's lead program, ImmunoPulse® IL-12, is currently in clinical development for several indications, including metastatic melanoma, head and neck cancer, and triple-negative breast cancer. The program's current focus is on the significant unmet medical need in patients with melanoma who are refractory or non-responsive to anti-PD-1/PD-L1 therapies. In addition to ImmunoPulse® IL-12, the Company is also identifying and developing new immune-targeting agents for use with the ImmunoPulse® platform. For more information, please visit www.oncosec.com.

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Cautionary Note Regarding Forward-Looking Statements
This press release contains "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as "will," "can," and similar references to future periods.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they 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. Potential risks and uncertainties that could cause actual results to differ from those predicted include, among others, the following: uncertainties inherent in pre-clinical studies and clinical trials, such as the ability to enroll patients in clinical trials and the risk of adverse events; *unexpected new data, safety and technical issues; our ability to raise additional funding necessary to fund continued operations; and the other factors discussed in OncoSec'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 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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To view the original version on PR Newswire, visit:http://www.prnewswire.com/news-releases/oncosec-announces-positive-interim-response-data-at-the-society-for-immunotherapy-of-cancer-sitc-annual-meeting-2016-300359000.html

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