

July 17, 2018



OncoSec Presents Update from Triple Negative Breast Cancer Program at 3rd Global Insight Conference on Breast Cancer

Ongoing Phase 1 TNBC Study Now Fully Enrolled

Preliminary Data Expected Later this Year

SAN DIEGO and PENNINGTON, N.J., July 17, 2018 /PRNewswire/ -- OncoSec Medical Incorporated (OncoSec) (NASDAQ: ONCS), a company developing intratumoral cancer immunotherapies, today announced that Sharron Gargosky, PhD, Chief Clinical and Regulatory Officer, presented a clinical update of the Company's intratumoral therapy, ImmunoPulse™ tavokinogene telseplasmid (TAVO), as well as an overview of the ongoing and anticipated clinical programs involving TAVO in triple-negative breast cancer (TNBC). The presentation, titled "*Intra-tumoral delivery of tavokinogene telseplasmid (pIL-12) by electroporation: immunomodulation in melanoma and triple negative breast cancer,*" took place at the 3rd Global Insight Conference on Breast Cancer in Valencia, Spain.

"We were grateful for the opportunity to present at the 3rd Global Insight Conference on Breast Cancer and share progress from our TAVO clinical programs with the clinicians, biotechnology executives, and industry opinion leaders in attendance. Metastatic TNBC is a heterogeneous cancer with a poor prognosis where less than five percent of pre-treated patients achieve an objective response to PD-1/PD-L1 checkpoint treatments," said Dr. Gargosky. "The marked synergy shown in these patients strongly suggest that IL-12 may have primed the tumor microenvironment, impacting the clinical result. The combination of TAVO and checkpoint inhibition represents a highly promising new therapeutic approach for TNBC and warrants a formal evaluation given the extremely low response rate in women who have failed multiple prior therapies."

The ongoing Phase 1 TNBC study, OMS-140 (NCT02531425), is designed to determine whether TAVO as a single cycle of monotherapy can elicit a pro-inflammatory molecular and histological signature in treated as well untreated tumors. The study has reached its target enrollment of 10 patients. Several of these patients were subsequently treated with an anti-PD-1 checkpoint inhibitor treatment(s) as their next therapy. As previously reported at the American Association for Cancer Research (AACR) Annual Meeting, immunological signals were observed on an individual patient basis, and clinically meaningful objective tumor responses have been observed in both TAVO treated and untreated lesions following the anti-PD-1 checkpoint inhibitor treatment. A detailed case study of one such patient, along with information regarding clinical observations and safety data, were presented at this conference.

Following these observations, the Company entered a clinical collaboration with Merck to evaluate the combination of TAVO with Merck's anti-PD-1 therapy KEYTRUDA® (pembrolizumab) in a Phase 2 clinical trial, KEYNOTE-890 (NCT03567720). KEYNOTE-890 is a study of TAVO in combination with KEYTRUDA® in TNBC patients with inoperable locally advanced or metastatic TNBC who have progressed on more than one line of prior therapy. Patients will be treated with the combination of TAVO with pembrolizumab. The proposed primary endpoint is to assess efficacy as measured by objective response rate (ORR) by independent central review (ICR) based on Response Evaluation Criteria in Solid Tumors (RECIST) v1.1. KEYNOTE-890 is expected to initiate in the third quarter of 2018.

Dr. Gargosky's update is available on the OncoSec website, www.oncosec.com.

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 plasmid encoded IL-12 (tavokinogene telseplasmid or "TAVO"). In Phase 1 and 2 clinical trials, ImmunoPulse® IL-12 has demonstrated a favorable safety profile, evidence of anti-tumor activity in the treatment of various solid tumors, and the potential to reach beyond the site of local treatment to initiate a systemic immune response. OncoSec's lead program, ImmunoPulse IL-12, is currently in clinical development for metastatic melanoma 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 have relapsed on anti-PD-1 therapies. In addition to TAVO, 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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