June 22, 2020

OncoSec Presents Two Late-Breaking Abstracts on TAVO-PLUS at the American Association for Cancer Research (AACR) Virtual Annual Meeting II

-New Data Highlights the Flexibility of OncoSec's Therapeutic Platform to Enable Greater Anti-Tumor Activity with the Next-Generation TAVO^{PLUS} IL-12 Plasmid

PENNINGTON, N.J. and SAN DIEGO, June 22, 2020 /PRNewswire/ --**OncoSec Medical Incorporated (the "Company" or "OncoSec")** (Nasdaq: ONCS), a company developing late-stage intratumoral cancer immunotherapies, today presented new data further demonstrating the power of OncoSec's next-generation interleukin-12 (IL-12) plasmid (TAVO^{PLUS}) therapeutic when combined with a T cell stimulator (TAVO^{PLUS}-CD3) or an enhanced chemokine gradient (TAVO^{PLUS}-CXCL9). These product candidates, coupled with the new low-voltage electroporation gene delivery system, represent a promising approach for treating patients with a variety of solid tumors. The data were presented today during two late-breaking poster presentations at the American Association for Cancer (AACR) Virtual Annual Meeting II being held from June 22-24, 2020.

"Multiple studies have used intratumoral plasmid IL-12 (TAVO™) to treat solid tumor indications with a demonstrable clinical benefit due to this cytokine's ability to drive deep and durable immune responses," said Christopher Twitty, Ph.D., OncoSec's Chief Science Officer. "The new preclinical data exhibited in both AACR presentations highlights the evolution of OncoSec's IL-12-based platform. Incorporation of a chemokine gradient and a polyclonal T cell stimulator with the enhanced IL-12 backbone of TAVO^{PLUS} holds significant potential in the treatment of solid tumors. We believe these data provide a strong rationale for filing an Investigational New Drug application and we are excited to advance TAVO^{PLUS} into clinical development."

The following posters were presented during the session titled, "Late-Breaking Research: Immunology 2":

Title: "Intratumoral electroporation of plasmid-encoded IL-12 and membrane-bound anti-CD3 increases tumor immunogenicity and augments the function of T cell subsets"
Poster Number: 14
Abstract Number: LB-390

Study Highlights:

Compared to IT-tavo-EP, TAVO+-αCD3 enhances T cells engagement with tumor cells and augments T cell killing function in preclinical cancer models by:

- Increasing expressor memory T cells, which may extend anti-tumor response from treatment.
- Increasing activated T cells in peripheral blood, which may enhance anti-tumor response throughout the body.
- Increasing antigen specific T cells anti-tumor activity, which leads to enhanced cancer cell recognition by T cells.
- Restoring the exhausted, non-active T cells' anti-tumor activity, which leads to re-energized cancer cell killing activity.

Title: "Amplification of the CXCR3/CXCL9 axis via intratumoral electroporation of CXCL9 synergizes with IL-12 gene therapy (TAVO) to elicit robust anti-tumor immunity"
Poster Number: 20
Abstract Number: LB-396

Study Highlights:

- Data demonstrated that IL-12, in concert with CXCL9 (a potent chemokine), leads to brisk infiltration of T cells and efficient remodeling of the tumor microenvironment, making tumors more susceptible to treatment.
- This new product candidate thus builds upon OncoSec's plasmid based immunotherapeutic platform by augmenting the effects of IL-12 with the inclusion of CXCL9.
- Study showed that combining intratumoral TAVO™ with a DNA-encoded, locally secreted CXCL9, significantly improves anti-PD1 response, thus providing an approach to extend the benefit of PD-1 blockade to more patients.

The full abstracts presented at the AACR Virtual Meeting II are available online at www.aacr.org and the posters are available on OncoSec's website atwww.oncosec.com.

About OncoSec Medical Incorporated
OncoSec Medical Incorporated is a late-stage biotechnology company focused on developing cytokine-based intratumoral immunotherapies to stimulate the body's immune system to target and attack cancer. OncoSec's lead product candidate, TAVO™, enables the intratumoral delivery of DNA-based interleukin-12 or IL-12, a naturally occurring protein with immune-stimulating functions. The technology, which employs electroporation, is designed to produce a controlled, localized expression of IL-12 in the tumor microenvironment, enabling the immune system to target and attack tumors throughout the body. OncoSec has built a deep clinical pipeline utilizing TAVO as a potential treatment for multiple cancer indications either as a monotherapy or in combination with leading checkpoint inhibitors. The company is currently evaluating TAVO in combination with the anti-PD-1 checkpoint inhibitor, KEYTRUDA® (pembrolizumab), in two KEYNOTE clinical trials, including a pivotal trial in patients with anti-PD-1 checkpoint resistant metastatic melanoma and a phase 2 trial in metastatic triple negative breast cancer. OncoSec is also identifying and developing new DNA-encoded therapeutic candidates and tumor indications for use with its novel Visceral Lesion Applicator designed to target deep internal lesions, such as liver, lung or pancreatic lesions. For more information, please visit www.oncosec.com.

Risk Factors and Forward-Looking Statements
This release, as well as other information provided from time to time by the Company or its employees, may contain forward-looking statements that involve a number of risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Forward-looking statements provide the Company's current beliefs, expectations and intentions regarding future events and involve risks, uncertainties (some of which are beyond the Company's control) and assumptions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "plan," "potential," "should," "will" and "would" and similar expressions (including the negative of these terms). Although we believe that expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. The Company intends these forward-looking statements to speak only at the time they are published on or as otherwise specified, and does not undertake to update or revise these statements as more information becomes available, except as required under federal securities laws and the rules and regulations of the Securities Exchange Commission ("SEC"). In particular, you should be aware that the success and timing of our clinical trials, including safety and efficacy of our product candidates, patient accrual, unexpected or expected safety events, the impact of COVID-19 on the supply of our candidates or the initiation or completion of clinical trials, the allowance by FDA of the clinical use of CORVax12 and our next-generation APOLLO generator in this or any future clinical trials, and the usability of data generated from our trials may differ and may not meet our estimated timelines. Please refer to the risk factors and other cautionary statements provided in the Company's Annual Report on Form 10-K for the fiscal year ended July 31, 2019 and subsequent periodic and current reports filed with the SEC (each of which can be found at the SEC's website www.sec.gov), as well as other factors described from time to time in the Company's filings with the SEC.

Company Contact:
Gem Hopkins
Head of Corporate Communications
858-210-7334
ghopkins@oncosec.com

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