May 6, 2020

OncoSec's TAVO™ in Combination with KEYTRUDA® Demonstrated 41% Overall Response Rate and 36% Complete Response in a Late-Stage Metastatic Melanoma Study Featured in 'Clinical Cancer Research'

Press Release Issued by The American Association for Cancer Research (AACR) Highlights Strong Response Data from Now Published Study, Citing TAVO's Capability to Convert Melanomas Into "Hot" Tumors

SAN DIEGO and PENNINGTON, N.J., May 6, 2020 /PRNewswire/ --**Oncosec Medical Incorporated (the "Company" or "Oncosec")** (Nasdaq: ONCS), a company developing late-stage intratumoral cancer immunotherapies, today announced published data in *Clinical Cancer Research*, linked here, that demonstrated its lead product candidate, TAVO™ (interleukin-12 or "IL-12" plasmid), in combination with the anti-PD-1 checkpoint inhibitor KEYTRUDA® (pembrolizumab), produced a 41% overall response rate (ORR), with 36% complete response in a Phase 2, single arm study evaluating patients with metastatic melanoma selected to be anti-PD-1 checkpoint resistant.

"Combining pembrolizumab with TAVO electroporation improved responses for these patients who were predicted to have very poor responses to single-agent immune checkpoint inhibition," said Adil Daud, MD, clinical professor at the University of California San Francisco (UCSF) and director of melanoma clinical research at the UCSF Helen Diller Family Comprehensive Cancer Center. "By using electroporation to deliver TAVO locally, we were able to avoid many of the toxicities associated with systemic IL-12 administration, while still attaining clinical responses and inducing immune-cell infiltration in treated and untreated melanoma lesions."

In the trial, responses were observed in nine of 22 evaluable patients, for an objective response rate of 41 percent. Thirty-six percent of patients experienced a complete response. Median progression-free survival was 5.6 months, with median overall survival not yet reached after a median follow-up of 19.6 months. Grade 3 or higher adverse events were limited and included pain, chills, sweat and cellulitis, as well as certain toxicities usually observed with immune checkpoint inhibitors such as pembrolizumab.

The results published in *Clinical Cancer Research* were also highlighted in a recent press release issued by the American Association for Cancer Research, linked here.

"AACR's choosing to feature this data in their publication, *Clinical Cancer Research*, highlights its importance and relevance today. This study provided evidence of how TAVO may convert immunologically 'cold' melanomas to 'hot' and enable checkpoint monotherapies, like KEYTRUDA, to be more effective with minimal side effects," said Daniel J. O'Connor, President and CEO of OncoSec. "These findings provided the clinical rational for our ongoing pivotal KEYNOTE-695 study of TAVO and KEYTRUDA combination therapy in patients with anti-PD-1 checkpoint resistant metastatic melanoma. Because KEYNOTE-695 is treating patients with late-stage metastatic melanoma who have no FDA approved treatment options, nearly all study sites remain open and are actively recruiting patients during the current COVID-19 pandemic. We are targeting complete enrollment this year and look forward to providing an interim data update from this pivotal study at an appropriate scientific meeting or otherwise appropriate time this year."

The KEYNOTE-695 study is a pivotal, global, open-label trial of TAVO in combination with KEYTRUDA® in patients with anti-PD-1 checkpoint resistant metastatic melanoma. TAVO has been designated fast track and orphan drug status by the U.S. FDA and following completion of the KEYNOTE-695 study OncoSec intends to file for accelerated U.S. approval. For more information on the KEYNOTE-695 study, please visit https://keynote695.com/.

About OncoSec Medical Incorporated

OncoSec Medical Incorporated (the "Company," "OncoSec," "we" or "our") 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 immunotherapy investigational product candidate – TAVO™ (tavokinogene telseplasmid) – enables the intratumoral delivery of DNA-based interleukin-12 (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 and diverse clinical pipeline utilizing TAVO™ as a potential treatment for multiple cancer indications either as a monotherapy or in combination with leading checkpoint inhibitors; with the latter potentially enabling OncoSec to address a great unmet medical need in oncology: anti-PD-1 non-responders. Results from recently completed clinical studies of TAVO™ have demonstrated a local immune response, and subsequently, a systemic effect as either a monotherapy or combination treatment approach along with an acceptable safety profile, warranting further development. In addition to TAVO™, OncoSec is identifying and developing new DNA-encoded therapeutic candidates and tumor indications for use with its new Visceral Lesion Applicator (VLA), to target deep visceral lesions, such as liver, lung or pancreatic lesions. For more information, please visit www.oncosec.com.

TAVO™ is a trademark of OncoSec Medical Incorporated.

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc.

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 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

View original content to download multimedia: http://www.prnewswire.com/news-releases/oncosecs-tavo-in-combination-with-keytruda-demonstrated-41-overall-response-

rate-and-36-complete-response-in-a-late-stage-metastatic-melanoma-study-featured-in-clinical-cancer-research-301053936.html

SOURCE OncoSec Medical Incorporated