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Novel pre-clinical results regarding OncoSec's intratumoral electroporation platform were highlighted as Editor's Pick in Molecular Cancer Research

Results demonstrate novel synergistic effects of IL-12 and T cell receptor signaling in anti-tumor immunity

PENNINGTON, N.J. and SAN DIEGO, June 24, 2022 /PRNewswire/ -- OncoSec Medical Incorporated (NASDAQ: ONCS) (the "Company" or "OncoSec"), a clinical-stage biotechnology company focused on developing intratumoral immunotherapies to stimulate the patient's own immune system to target and eradicate cancer, announced that their recent publication in *Molecular Cancer Research* is being featured as the June 2022 "Editor's Pick." The manuscript, titled "*Intratumoral Electroporation of Plasmid Encoded IL-12 and Membrane-Anchored Anti-CD3 Increases Systemic Tumor Immunity,"* summarizes pre-clinical results regarding OncoSec's next-generation anti-cancer treatment approach, IL-12 combined with a polyclonal T cell stimulator.

"Our previous preclinical and clinical studies have demonstrated that intratumoral electroporation of solid tumors with plasmid IL-12 (TAVO™) can provide clinical benefit due to the ability of TAVO™ to deliver durable anti-tumor immune responses. This recently published manuscript further advances these findings and highlights the potential of our intralesional delivery of expression plasmids as molecular platform and innovative therapeutic approach for solid tumors," said Robert H. Arch, Ph.D., OncoSec's Chief Executive Officer.

"The incorporation of a polyclonal T cell stimulator coupled with an enhanced plasmid IL-12 results in potent stimulation of T cells by membrane-bound anti-CD3 monoclonal antibody. This results in an effective anti-tumor immune response by enhancing proliferation and interferon-γ (IFN-γ) secretion of CD8+ cytotoxic T-cells and reducing suppressive effects of CD4+ T regulatory (Treg) cells. We believe these data provide a strong rationale to further evaluate this approach for potential clinical development," said David Canton, Ph.D., OncoSec's Vice President of R&D.

About OncoSec Medical Incorporated
OncoSec Medical Incorporated (the "Company," "OncoSec," "we" or "our") is a biotechnology company focused on developing 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 human protein with immune-stimulating functions. The technology, which employs electroporation (EP), is designed to produce a limited, localized expression of IL-12 in the tumor microenvironment, which ultimately enables the immune system to target and attack tumors

throughout the body. OncoSec has built a 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: non-responders to anti-PD-1 treatment. Results from recently conducted clinical studies of TAVO™ have demonstrated a local immune response, and subsequently, a systemic therapeutic effect as either a monotherapy or combination treatment approach along with an acceptable safety profile, warranting further development. For more information, please visit www.oncosec.com.

TAVO™ is a trademark of OncoSec Medical Incorporated.

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