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OncoSec Medical Announces Positive Interim Data from Phase 2 Study of OMS-I100 in Metastatic Melanoma

Favorable Safety Profile, Robust Response Rates Reinforce Potential of Novel Immunotherapy

SAN DIEGO-- OncoSec Medical Inc. (OTCQB:ONCS), a company developing its advanced-stage ImmunoPulse DNA-based immunotherapy to treat solid tumors, today announced positive interim data from its ongoing Phase 2 trial of OMS-I100 in the treatment of metastatic melanoma. The results were presented by principal investigator Adil Daud, MD, at the Advances in Cancer Immunotherapy meeting at the University of California San Francisco.

Data from the multicenter, open-label, single-arm study confirm the safety of OncoSec's lead product candidate, ImmunoPulse, which leverages the company's OMS electroporation technology to deliver the anti-tumor agent pIL-12 directly into the tumor. In Phase 1 and Phase 2 studies, a total of 47 melanoma patients have been treated to date without a single drug-related, serious adverse event.

Patients treated in OMS-I100 also demonstrated positive response rates based on RECIST criteria, the gold standard measure of solid-tumor response to treatment. Interim efficacy analysis of 21 evaluable patients on Day 180 indicated that 38.1% (8/21) achieved an objective overall response, defined as ≥30% reduction in summed size of lesions. At the time of this interim analysis, six patients (28.6%) had demonstrated a partial response, and two patients (9.5%) had achieved a complete response, lasting at least 6 months. An additional 9.5% (2/21) of patients exhibited clinically beneficial disease stabilization for at least 3 months.

These data strengthen and expand upon previously reported Phase 1 results, which indicated a complete response in 16% of patients (3/19) and disease stabilization in 38% (7/19). These data were published in *Journal of Clinical Oncology* in 2008.

Importantly, 61.1% of patients (11/18) with evaluable lesions exhibited systemic antitumor

immune responses, as evidenced by objective regression (≥30% reduction in size) in at least one untreated lesion.

“The response rate of untreated tumors suggests an induction of systemic antitumor response, without systemic toxicity,” commented Dr. Daud. “We will continue to assess the responses of our remaining patients and look forward to sharing our findings.”

Robert H. Pierce, MD, OncoSec’s chief medical officer, added, “Systemic response is significant for two main reasons. First, it suggests that unlike most locally administered melanoma treatments, ImmunoPulse may induce antitumor response throughout the entire body, which would have clear benefits in the treatment of metastatic disease. Secondly, the favorable safety profile of ImmunoPulse indicates its potential to deliver systemic benefit, without the toxicities associated with many other systemic treatments. We are therefore highly encouraged by this finding, combined with the safety and primary efficacy data, and look forward to continuing our investigation of OMS-I100 in the treatment of metastatic melanoma.”

About Melanoma

Melanoma is the most serious form of skin cancer. If it is recognized and treated early, it is almost always curable. If it is not, the cancer can advance and spread to other parts of the body, where it becomes hard to treat and can be fatal. While it is not the most common of the skin cancers, it causes the most deaths. The American Cancer Society estimates that at present, about 123,000 new cases of melanoma in the U.S. are diagnosed in a year, resulting in approximately 10,000 deaths. Melanoma originates in melanocytes, the cells that produce the pigment melanin that colors our skin, hair, and eyes. The majority of melanomas are black or brown, but often they can also be skin-colored, pink, red, purple, blue or white. Currently, few treatment options remain for patients with late-stage metastatic disease that can extend survival for the broad population.

About OncoSec Medical Inc.

OncoSec Medical Inc. is a biopharmaceutical company developing its advanced-stage ImmunoPulse DNA-based immunotherapy and NeoPulse therapy to treat solid tumors. ImmunoPulse and NeoPulse therapies address an unmet medical need and represent a potential solution, for less invasive and less expensive therapies that are able to minimize detrimental effects resulting from currently available cancer treatments such as surgery, systemic chemotherapy or immunotherapy, and other treatment alternatives. OncoSec Medical's core technology is based upon its proprietary use of an electroporation platform to enhance the delivery and uptake of a locally delivered DNA-based immunocytokine (ImmunoPulse) or chemotherapeutic agent (NeoPulse). Treatment of various solid cancers using these targeted anti-cancer agents has demonstrated selective destruction of cancerous cells while potentially sparing healthy normal tissues during early and late stage clinical trials. OncoSec's clinical programs include three Phase 2 clinical trials for ImmunoPulse targeting lethal skin cancers. More

information is available at http://www.oncosec.com/.

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