

CRITICAL OUTCOME TECHNOLOGIES AND MD ANDERSON CANCER CENTER TO EVALUATE COTI-2 IN TREATING HEAD AND NECK CANCERS

Initial results suggest that COTI-2 has potential for another unmet cancer need

London, Ontario (October 21, 2014): Critical Outcome Technologies Inc. (“COTI” or the “Company”) (TSX Venture: COT; OTCQB: COTQF), the bioinformatics and accelerated drug discovery company, announced today that it recently executed a material transfer agreement (“MTA”) with Dr. Jeffery Myers, MD, PhD, FACS of The University of Texas MD Anderson Cancer Center for the continued evaluation of COTI-2 in the potential treatment of patients with head and neck squamous cell cancer (“HNSCC”).

There are approximately 500,000 new cases worldwide of HNSCC a year, making it the sixth leading cancer in terms of new cases. In the United States, HNSCC is considered to be a rare disease and therefore represents a second “Orphan Disease” opportunity for COTI-2.

If HNSCC is caught at an early stage, current therapies, which include surgery and radiation followed by chemotherapy, can be effective. Unfortunately, HNSCC tumors with p53 mutations tend to be more difficult to treat with such mutations occurring in 30-70% of HNSCC tumors. These mutations are associated with poorer patient outcomes as traditional chemotherapy, using the current first line chemotherapy, cisplatin, is often ineffective. The overall five-year survival rate of patients with HNSCC is 40-50%.

As a small molecule activator of misfolded mutant p53 protein, COTI-2 has demonstrated in preclinical studies its ability to restore p53 function and thus induce cancer cell death for many common p53 mutations. As previously announced, the Company is planning a Phase 1 study in gynecological cancers (ovarian, cervical and endometrial) at MD Anderson with Dr. Gordon Mills and his team and these studies in HNSCC with Dr. Myers will seek to extend the understanding of COTI-2’s ability to treat p53 mutations across multiple cancer types.

Dr. Jeffrey Myers, leader of MD Anderson’s Multi-Disciplinary Head and Neck Cancer Research Program, has been studying the impact of p53 mutation, a common event in HNSCC, on tumor progression and response to therapy. His group has evaluated a number of single agent and combination treatments for p53 mutant tumors, and his preliminary findings with single agent COTI-2 in HNSCC in vitro tumor models show tremendous promise. In addition to seeing sensitivity of HNSCC cells to COTI-2, his group has found that this drug sensitivity is associated with activation of p21, an important mediator of p53’s response to cellular DNA damage. This response is consistent with the p53-dependent mechanism of action studied by Dr. Mills in ovarian cancer. Dr. Myers and his colleagues are planning more extensive studies of COTI-2 and its dependence on p53 re-activation for its effects in both in vitro and in vivo HNSCC tumor models.

“We look forward to further exploring COTI-2’s impact on HNSCC tumors,” said Dr. Wayne Danter, President and CEO. “We continue to believe that COTI-2 represents a potential breakthrough treatment given the central importance of p53 gene mutations in many cancers, including HNSCC. This second indication would broaden the treatment opportunities for our lead oncology asset, which has already been granted the Orphan Drug Designation from the U.S. Food and Drug Administration for the treatment of ovarian cancer.”

About The University of Texas MD Anderson Cancer Center

The University of Texas MD Anderson Cancer Center in Houston ranks as one of the world's most respected centers focused on cancer patient care, research, education and prevention. MD Anderson is one of only 41 comprehensive cancer centers designated by the National Cancer Institute (NCI). For the past 25 years, MD Anderson has ranked as one of the nation's top two cancer centers in U.S. News & World Report's annual "Best Hospitals" survey. MD Anderson receives a cancer center support grant from the NCI of the National Institutes of Health (P30 CA016672).

About Critical Outcome Technologies Inc.

COTI is a leading-edge bioinformatics company specializing in accelerating the discovery and development of small molecules – dramatically reducing the time and cost to bring new drugs to market. COTI's proprietary artificial intelligence system, CHEMSAS®, utilizes a series of predictive computer models to identify compounds with a high probability of being successfully developed from disease specific drug discovery through chemical optimization and preclinical testing. These compounds are targeted for a variety of diseases, particularly those for which current treatments are either lacking or ineffective.

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