# Press Release

## FOR IMMEDIATE RELEASE

## CRITICAL OUTCOME TECHNOLOGIES INC. INITIATES KEY EXPERIMENTS IN RESPONSE TO COTI-2 LICENSING DISCUSSIONS

**London, Ontario (April 12, 2011): Critical Outcome Technologies Inc. (COTI) (TSX Venture: COT)** announced today that in response to meaningful scientific and business feedback from prospective partners the Company has initiated an experimental program designed to optimize the licensing value of the Company's novel lead oncology drug candidate, COTI-2.

Engaged in an aggressive marketing program for the out-licensing of COTI-2, Company representatives have attended international pharmaceutical partnering events and scientific conferences, and held on-site meetings at the head offices of several global pharmaceutical companies. As a result of these in-depth scientific and business meetings, the Company identified three scientific experiments that address risk reduction points common to prospective partners. The three milestone studies to be completed are:

1. A pharmacodynamic xenograft study designed to confirm that Akt/Akt2 is a target for COTI-2 in the intact organism with a human tumour that produces increased amounts of Akt.

2. The completion of an optimal oral formulation for COTI-2 that can be used for Investigational New Drug (IND) enabling experiments and Phase 1.

3. An IND enabling 28 day/acute toxicity study in two animal species using the optimally formulated COTI-2.

As announced previously, the cumulative scientific *in vitro* and animal data strongly support a conclusion that the protein(s) Akt/Akt2 are important cellular targets for COTI-2 in many types of cancer cells. The first study noted above is designed to demonstrate a clear pharmacodynamic relationship between blood levels of orally administered COTI-2 and the level of phosphorylated or active Akt/Akt2 in the tumours from COTI-2 treated animals compared with control animals. Given the importance of this confirmatory data to our potential partners, a series of animal experiments are currently underway at a prominent Canadian cancer research laboratory.

Results confirming a significant relationship between blood levels of COTI-2 and reduced levels of phosphorylated Akt/Akt2 in tumour tissues relative to observed tumour growth inhibition would represent powerful confirmatory evidence that Akt/Akt2 are cellular targets for COTI-2 in susceptible cancer cells. This new data will be important to potential licensing partners because it can provide insight into target selectivity, identify potential off target toxicities and suggest a clinical development strategy.

"We are pleased to begin the process of addressing these three risk reduction issues that have been identified in our discussions with several potential COTI-2 licensing partners," said Dr. Wayne Danter, President and CEO of COTI. "While the important pharmacodynamic animal experiments are underway, our efforts to optimize the oral formulation of COTI-2 are intensifying and the two species acute toxicity IND enabling experiments will begin once the optimal COTI-2 oral formulation has been validated. The successful completion of these three developmental milestones is central to achieving a licensing deal for COTI-2."

The data generated from these experiments will be shared with prospective partners at upcoming partnering conferences and on-site meetings.

**Notice to Readers**

Information provided in this press release may contain certain statements which constitute "forward-looking statements" (FLS) within the meaning of the Securities Act (Ontario) and applicable securities laws. For example, the statements "designed to optimize the licensing value of the Company's lead oncology drug candidate, COTI-2" and "achievement of these three developmental milestones is central to achieving a licensing deal for COTI-2" are forward-looking statement. Forward-looking statements, by their nature, are not guarantees of future performance and are based upon management's current expectations, estimates, projections and assumptions. The main assumption to successfully achieving the milestones is that the Company will have sufficient financing to support its working capital requirements and fund these research and development initiatives. The other major assumption is that the testing initiatives will continue to be favourable for COTI-2. Further risks that could impact these FLS are outlined in the Company's Annual Information Form. Management of COTI considers the assumptions on which these forward-looking statements are based to be reasonable, but as a result of the many risk factors, cautions the reader that actual results could differ materially from those expressed or implied in these forward-looking statements.

**About COTI-2**

COTI-2 is a novel small molecule that acts by inhibiting Akt/PKB (Protein kinase B) phosphorylation that leads to caspase-9 activation in cancer cells resulting in tumour cell death. COTI-2 has demonstrated greater selectivity as well as an improved safety profile and pharmacokinetics in comparison to other Akt inhibitors. COTI-2 is easily synthesized and has good *in vitro* and *in vivo* efficacy against multiple human cancers including small cell lung, non-small cell lung, colon, brain, ovarian, endometrial, triple negative breast and pancreatic. COTI-2 test results show it to be highly effective as a single agent therapy and as a combination therapy in a number of animal models of human cancers. COTI-2 differs from other cancer treatments in that other treatments involve the killing of healthy growing and dividing cells in the body resulting in significant toxic side effects, while COTI-2 appears to target and destroy cancer cells only and has demonstrated low toxicity in normal human cells compared to human cancer cells. The combined scientific evidence indicates that COTI-2 is an ideal agent for combination therapy with current standard agents for a number of cancers. COTI is currently evaluating partners to share in the risk/reward of COTI-2 development via a licensing agreement. To request a non-confidential data package or to discuss a partnership concerning COTI-2, please contact Michael Barr, Vice President of Business Development and Marketing at mbarr@criticaloutcome.com.

**About Critical Outcome Technologies Inc. (COTI)**

COTI is formed around a unique computational platform technology called CHEMSAS®, which allows for accelerated identification and optimization of targeted small molecules potentially effective in the treatment of human diseases for which current therapy is either lacking or ineffective. COTI is focused on preparing its lead anti-cancer compound, COTI-2, for an Investigational New Drug filing in the USA in 2012. In addition to COTI-2, the Company has a significant preclinical pipeline targeting large market opportunities such as: adult acute leukemia and other cancers, multiple sclerosis, HIV integrase, and Alzheimer's disease.

For further information, please visit the website at www.criticaloutcome.com or contact:

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