Press Release

CRITICAL OUTCOME TECHNOLOGIES REPORTS SECOND QUARTER FINANCIAL AND OPERATING RESULTS FOR FISCAL 2017

London, ON and Boston, MA (December 19, 2016): Critical Outcome Technologies Inc. (TSX Venture: COT; OTCQB: COTQF) ("COTI" or the "Company") reported its financial and operating results today for the three and six month periods ended October 31, 2016. Major highlights for the quarter included:

- Progressing patients in cohort 3 of the Phase 1 clinical trial of Company's lead candidate COTI-2 for the treatment of gynecological cancers;
- Announcing the Company's next clinical candidate, COTI-219, a novel oral small molecule compound targeting the mutant forms of KRAS and discovered using the Company's proprietary drug discovery technology platform, CHEMSAS®. KRAS is a highly desirable drug target as these mutations are detected in up to one-quarter of all human cancers, particularly lung, colorectal, pancreatic, and thyroid cancers and represents a tremendous unmet clinical need; and,
- Opening an office in Boston, MA to expand the Company's presence and outreach in the USA.

"We are pleased with the continued progress of our Phase 1 clinical trial in the third dose cohort with COTI-2 in patients with gynecological cancers, and look forward to evaluating COTI-2 in additional indications in 2017," said Alison Silva, President. "Identifying COTI-219 as our second clinical candidate is another pivotal development for the Company. With COTI-2 targeting p53, and COTI-219 targeting KRAS, we are now developing innovative novel oral small molecules targeting two fundamental central pathways that were previously considered "undruggable" in the treatment of multiple cancers."

Financial Results

The Company's operational activities during the quarter were primarily focused on advancing the Phase 1 clinical trial of COTI-2 in gynecologic cancers. The Company incurred a net loss of $748,286, or $0.01 per share, for the quarter compared to a net loss of $938,861, or $0.01 per share for the second quarter a year earlier. The decrease in the loss of approximately $190,000 is primarily attributed to an expense recovery of approximately $925,000 related to the quarter-end revaluation of the Company's USD denominated warrant liability. This non-cash, fair value recovery was due to the decrease in the Company's share price and the change in foreign exchange rate since the prior quarter-end report date. Without the effect of the fair value adjustment in the two comparative quarters, the loss for the quarter would have been $1,697,504 or an increase of $738,218 over the comparative period.

For the six months ended October 31, 2016, the Company reported a loss of $3,063,349 or $0.02 per common share, compared to a loss of $1,923,981 or $0.02 per common share for the same period a year

earlier. Research and product development expenses ("R&D"), and General and administration expenses ("G&A") increased significantly in the quarter and year to date. These increases were partially offset by a decrease in Sales and marketing expense ("S&M") and an increase in Investment tax credit income ("ITC").

R&D increased by $394,030 over the prior year quarter and $709,513 year to date, primarily reflecting costs of the COTI-2 clinical trial. G&A increased $418,300 in the quarter and $616,941 year to date primarily reflecting compensation expenses for the first full quarter following the strategic executive leadership changes made in the first quarter. These two expenses increased by an aggregate of $351,606 and $504,546 in the respective periods.

S&M expenses decreased by $29,853 for the quarter and $83,319 year to date as business development activities shifted from third party consultants to the President. ITC income increased $17,561 for the quarter and $50,229 year to date due to an increase in eligible R&D expenditures.

Financing

During the quarter, the Company realized approximately $151,000 in net proceeds through the exercise of share options held by directors and employees to provide further funding for operations. This represented a 100% exercise of the 512,312 share options that would otherwise have expired during the quarter.

More detailed operating and financial results can be found in the Company's Unaudited Condensed Interim Financial Statements and Management Discussion and Analysis for the quarter ended October 31, 2016, which can be found on SEDAR at www.sedar.com or on the Company's website at www.criticaloutcome.com.

About Critical Outcome Technologies Inc.

COTI is a clinical stage biotechnology company advancing innovative and targeted therapies for the treatment of cancer. The Company's lead compound, COTI-2, has a novel p53-targeting mechanism of action with selective and potent anti-cancer activity. A potential breakthrough treatment for many types of human cancers, COTI-2 is a potent small molecule activator of misfolded mutant p53 proteins. COTI-2 is being initially evaluated for the treatment of gynecologic cancers, which includes ovarian, cervical, and endometrial cancers in a Phase 1 clinical trial at the MD Anderson Cancer Center at the University of Texas and the Lurie Cancer Center at Northwestern University. The Company has secured orphan drug status in the U.S. for COTI-2 for the treatment of ovarian cancer in patients failing first line therapies and is planning additional studies in other cancer indications. These studies are supported by more than ten animal xenograft models showing both single and combination agent activity of COTI-2 with other leading cancer drugs. Preclinical data provides evidence to suggest a potentially dramatic change in the treatment of cancers with mutations of the p53 gene. The Company is also advancing COTI-219, a novel oral small molecule compound targeting the mutant forms of KRAS and discovered using the Company's proprietary drug discovery technology platform, CHEMSAS®. KRAS is a highly desirable drug target as these mutations are detected in up to one-quarter of all human cancers, particularly lung, colorectal, pancreatic, and thyroid cancers and represents a tremendous unmet clinical need. An IND for evaluating COTI-219 in clinical trials in the United States is expected in late 2017.

COTI-2 and COTI-219 represent two very significant opportunities to target two fundamental central pathways in the development of multiple cancers. COTI-2 and COTI-219 each have the potential to either independently or in combination with other therapies, dramatically improve the outcome for many people with cancer. CHEMSAS® is an advanced drug discovery platform that identifies compounds with a higher probability of clinical and commercial success.

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Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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Notice to Readers

Information contained in this press release may contain certain statements, which constitute "forward-looking statements" within the meaning of the Securities Act (Ontario) and applicable securities laws. For example, the statements "… and look forward to evaluating COTI-2 in additional indications in 2017" and "With COTI-2 targeting p53, and COTI-219 targeting KRAS, we are now developing innovative novel oral small molecules targeting two fundamental central pathways that were previously considered "undruggable" in the treatment of multiple cancers" and "An IND for evaluating COTI-219 in clinical trials in the United States is expected in late 2017" and "COTI-2 and COTI-219 each have the potential to either independently or in combination with other therapies, dramatically improve the outcome for many people with cancer" are forward-looking statements. Forward-looking statements, by their nature, are not guarantees of future performance and are based upon management's current expectations, estimates, projections and assumptions. COTI operates in a highly competitive environment that involves significant risks and uncertainties, which could cause actual results to differ materially from those anticipated in these forward-looking statements. 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. Information in this press release should be considered accurate only as of the date of the release and may be superseded by more recent information disclosed in later press releases, filings with the securities regulatory authorities or otherwise.