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ITUS Announces Cchek(TM) Preliminary Cancer Patient Efficacy Study Results

LOS ANGELES, CA -- (Marketwired) -- 12/07/16 -- ITUS Corporation ("[ITUS](#)") (NASDAQ: ITUS), today announced preliminary results from its Cchek™ cancer patient efficacy study. Using its most recent protocols and methods for measuring a patient's immunological response to a malignancy, the Company achieved Sensitivity of 92% and Specificity of 92% for 88 patient samples, including 54 samples from patients with multiple types and severities of cancer, and 34 healthy patients. During the initial phase of the study, which involved multiple experimental protocols and techniques for measuring immunological responses, the Company reviewed and analyzed data from a total of 315 patient samples, including 228 patients with varying stages of cancer, as well as blood samples from 87 healthy donors.

Patient samples representing 14 different types of cancer including Breast Cancer, Lung Cancer, Colon Cancer, Melanoma, Ovarian Cancer, Liver Cancer, Thyroid Cancer, Pancreatic Cancer, Appendiceal Cancer (cancer of the appendix), Uterine Cancer, Osteosarcoma (cancer of the bone), Leiomyosarcoma (cancer of the soft tissue), Liposarcoma (cancer of the connective tissue), and Vulvar Cancer (cancer of the Vulva) were included in the study. The study included samples from patients with early and late stage, biopsy-verified, drug-naïve (before therapy) tumors, as well as biopsy-verified, refractory (unresponsive to attempted chemotherapy) tumors.

Sensitivity and specificity are scientific measurements commonly used to determine the accuracy of a diagnostic test, where sensitivity measures how good a test is at identifying people with a particular disease, and specificity measures how good a test is at identifying people without the disease. Although published results vary widely, established diagnostic tests such as Low Dose Computed Tomography (LDCT), which is used to screen for Lung Cancer, has sensitivity of approximately 93% and specificity of approximately 73%; the Prostate Specific Antigen ("PSA") test, which is used to screen for prostate cancer, has sensitivity of approximately 21% and specificity of approximately 91%; and Mammography, used to screen for breast cancer and considered to be the "gold standard" for breast cancer screening, has reported sensitivity as low as 68% and specificity as low as 75%. As these results indicate, current diagnostic testing is hampered by low sensitivity, low specificity, or both, meaning that the tests miss a substantial portion of the cancers they are supposed to detect, or misdiagnose a large number of healthy patients as having cancer. There is currently no inexpensive, non-invasive diagnostic test that excels in both sensitivity and

specificity. These preliminary results, while extremely promising, will have to be confirmed in blinded clinical studies of sufficient size, and benign conditions will have to be evaluated, before we can seek marketing approval for Cchek™ from the FDA.

Initial samples in the study were tested utilizing immunostaining and fluorescent microscopic imaging. While results were promising, subjectivity in interpreting the imaging results together with labor-intensive and time-consuming sample processing hampered the commercial viability of this approach. Subsequently, patient samples were analyzed using flow cytometry, enabling more efficient processing and analysis. In addition, ITUS is developing a software application using a proprietary neural network, which currently relies on up to 13 quantitative parameters to analyze test results. This approach, which is highly data-intensive and requires substantial computer processing power to develop, results in a test which can be performed on a desktop computer. An initial version of our unique neural network, which was trained to distinguish between the immunological responses of cancer patients and healthy patients, was responsible for the sensitivity and specificity results reported above. The Company will continue to improve its protocols, continue to upgrade its neural network software by increasing the number of patient samples used to train the software and expanding the range of markers, increasing the data resolution, and enhancing the architecture of the software, which may enable better results.

ITUS's approach to identifying the presence of cancer is to monitor subtle changes in blood which are indicative of immune function. During tumor growth, there is a dramatic increase in the number and types of immune cells within the tumor microenvironment (TME). The study of the functions of these immune cells in the TME, and the ability to modify these functions has given rise to the breakthrough immunotherapy drugs that are starting to appear on the market. ITUS's Cchek™ diagnostic platform focuses on a subset of these cells that seem to appear at the earliest formation of a tumor, and which spill into the vasculature from the TME. By using proprietary protocols and fluorescently labeled antibodies, Cchek™ sorts and counts the rare and specific cells. Multiparametric analysis of the cells is conducted using the noted neural network software application. ITUS has been successful in corroborating diagnoses for 14 different types of cancer, and in accurately distinguishing the blood of cancer patients from the blood of healthy individuals.

A substantial portion of the samples in the study came from biopsy verified breast cancer patients. In the U.S., approximately 40 million women receive screening mammograms each year. Studies indicate that: for most women, mammograms miss approximately 20% of breast cancers; for women with dense breasts, which account for 40% to 50% of all women, mammograms miss as much as 50% of breast cancers; approximately 11% of all women receiving mammograms are called back for what are known as "false positives," requiring additional confirmatory testing which can be invasive and painful; and on average, only 1 out of 20 women called back for follow-on testing ends up having breast cancer. Based upon our preliminary results, as a confirmatory diagnostic test for breast cancer, Cchek™ has the potential to significantly reduce the need for invasive follow-on procedures such as needle biopsies, and could also be used to detect cancers missed by conventional mammograms, including for women with dense breast tissue. While we have not yet studied the impact of dense breast tissue on Cchek™ results, because Cchek™ measures the immunological response to cancer and does not rely on imaging, the Company expects that if Cchek™ was developed and commercialized as a confirmatory diagnostic test for breast cancer, it would be much better at detecting breast cancer in women with dense breasts than a conventional

mammogram. The Company has not yet determined whether Cchek™ will initially be directed at cancer screening or confirmatory diagnostic testing, and for which type or types of cancer. The Company will make those decisions after further development and testing, and prior to seeking initial regulatory approval. The Company expects to eventually use Cchek™ as a platform to launch multiple tests across multiple markets.

ITUS has submitted its data for presentation at upcoming scientific meetings, and will eventually submit its data for publication. Next steps include continuing to process additional patient samples, testing additional types of cancers, evaluating benign conditions, conducting double-blinded testing and preparing for constructive discussions with the US Food and Drug Administration regarding the most efficient regulatory approval path.

ITUS Corporation

ITUS Corporation is developing a platform called Cchek™, a series of non-invasive, blood tests for the early detection of solid tumor based cancers, which is based on the body's immunological response to the presence of a malignancy. Additional information is available at www.ITUScorp.com.

Forward-Looking Statements: Statements that are not historical fact may be considered forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are not statements of historical facts, but rather reflect ITUS Corporation's current expectations concerning future events and results. We generally use the words "believes," "expects," "intends," "plans," "anticipates," "likely," "will" and similar expressions to identify forward-looking statements. Such forward-looking statements, including those concerning our expectations, involve risks, uncertainties and other factors, some of which are beyond our control, which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance, or achievements expressed or implied by such forward-looking statements. These risks, uncertainties and factors include, but are not limited to, those factors set forth in "Item 1A - Risk Factors" and other sections of our Annual Report on Form 10-K for the fiscal year ended October 31, 2016 as well as in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. You are cautioned not to unduly rely on such forward-looking statements when evaluating the information presented in this press release.

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