

“Development of a Urine Based Bladder Cancer Recurrence Diagnostic Using a Genomic Disease Signature”

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Bladder cancer is the fifth most common cancer in the U.S. According to the American Cancer Society (ACS), it is estimated that there were approximately 73,510 new cases of bladder cancer diagnosed in 2011 in the United States¹. When bladder cancer is found at an early stage and properly treated, the five- year relative survival rate is 96 percent. As of 2012, the ACS reports an estimated 585,390 people live with bladder cancer in the U.S. and estimates are that there are well over one million patients living with the disease in the U.S. and Europe. Despite its prevalence and known risk factors, no screening test is currently available. It is also one of the most likely cancers to recur following treatment with a 70-80% recurrence rate. Surveillance for recurrence occurs on a quarterly to yearly basis for the rest of a patient’s life, is costly, invasive (transurethral cytology) with significant morbidity, and burdensome to patients. In addition, due to its high recurrence and lifelong surveillance it is the most expensive cancer to treat on a per patient basis (CITE BCAN). A significant need exists for diagnostic tests capable of detecting cancer recurrence in a minimally invasive and cost effective manner. Funding from OCTRI would support initial proof of concept to validate reagents for detection of our genomic signature and the testing of validated reagents on 20 urine samples from our tumor bank.