Bankhead-Coley Cancer Research Program

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Radiation Oncology/Experimental Therapy
Moffitt Cancer Center & Research Institute

2010 Program
Technology Transfer/Commercialization Partnership
(1-year project)

Project Title: Intervene XRT: A Novel Assay to Predict Radiation Therapy Therapeutic Benefit

Project Summary: The development of biomarker-based assays to guide clinical therapeutic decisions is central to the goal of personalized medicine. Radiation therapy (RT) is the single most common agent used in cancer therapeutics with up to 60 percent of individuals with cancer receiving RT. Thus, developing an assay to predict the therapeutic benefit of RT would have significant clinical implications. Recently, we developed a genomics-based assay (Intervene-XRTTM) to predict RT therapeutic benefit, which has been independently validated in four different disease sites (breast, rectal, esophageal, and head and neck) in a total of 277 patients. The commercial potential of this technology is significant. There are 1.5 million newly diagnosed cancer cases in the U.S. each year with nearly 25 million radiation therapy-related visits. Importantly, current market reimbursements for advanced molecular diagnostic testing range from $2,000 - $4,000 per test. Thus, we conservatively project a $900M potential market opportunity in the U.S. Given the potential, Moffitt Cancer Center recently executed an exclusive worldwide license agreement on the commercial rights of the technology with Cvergenx, Inc., a molecular diagnostic company committed to the delivery of personalized radiation therapy. The purpose of this proposal is to optimize the assay for application in a RT-PCR/formalin-fixed tissue platform, which would be more practical for both continued clinical validation and routine clinical application.