

SCOPE OF PERSONALIZED MEDICINE APPROACH EXPANDS:

Moffitt Total Cancer Care™ Project Leading On National Trend

The Moffitt Cancer Center Total Cancer Care™ project — merely an ambitious goal at the beginning of the 21st century — has established Moffitt as a national leader in the quest toward personalized cancer care through individualized, evidence-based treatment decisions.

The comprehensive project is designed to improve the standard and scope of cancer care by combining information technology, science and clinical treatment to meet all the needs of a cancer patient. While personalized cancer care means getting the right drug to the right patient at the right time its success depends on several key elements of the Moffitt Total Cancer Care™ program.

“Total Cancer Care combines screening, diagnosis, treatment and survivorship programs with life-long patient follow-up,” says William S. Dalton, Ph.D., M.D., Moffitt’s president and CEO and originator of Moffitt’s Total Cancer Care™ approach.

Patients agree to join this national research study in an effort to develop personalized cancer treatments, and patients will receive personalized survivorship plans and their health information. The study, involving 19 sites across the United States, collects tumor and clinical data from consented patients across Florida and nine other states.

“One of the key goals of Total Cancer Care is the discovery of genetic biomarkers that we can use to predict those at high-risk for cancer and to provide better detection and predictors of response to therapy, all on an individual basis,” Dalton said.

Every Moffitt patient is given the opportunity to enroll in the Total Cancer Care™ study, although at this time, tumors are being collected only for breast, prostate, colorectal, pancreas, brain and lung cancers. Information about the patient’s medical history, tissue samples from surgeries and biopsies, and molecular profiling data becomes part of the permanent and confidential record. These records comply with National Cancer Institute policies, including the safeguarding of patient-protected health care information.

Through the Total Cancer Care™ study, all participating patient tumors are genetically profiled and stored at the biorepository, located at M2Gen, Moffitt’s wholly owned subsidiary. Moffitt has enrolled more than 50,670 patients in the Total Cancer Care™ study, collected nearly 14,100 tissue samples for its biorepository, and profiled more than 10,100 tumors.

What makes the Total Cancer Care™ study more than just a registry and tissue bank is the effort to integrate the collection, profiling, analysis and long-term storage of biological samples with other patient information-- all gathered on a large, ongoing scale with active follow-up for the rest of the patient's life.

- *Applying SPORE Grant Research To Personalized Medicine*

The National Cancer Institute awarded a SPORE (Specialized Programs of Research Excellence) grant in lung cancer to Moffitt's Thoracic Oncology Program in 2008. Moffitt physician and researcher Eric B. Haura, M.D., leads the SPORE grant. Lung cancer SPORE research directly ties in with Moffitt's Total Cancer Care™ approach to personalized medicine. It involves basing the selection of treatment on molecular and genetic characteristics of tumors and using either gene therapy or immunomodulatory drugs to enhance the ability of the immune system to recognize and destroy cancer cells. These kinds of studies make good use of the Total Cancer Care™ biorepository and information technology resources to more effectively design and personalize treatment. In all these studies, the personalized medicine approach takes into account variations in each patient's DNA, as well as variations in each patient's tumor tissue. Additional new trials using Total Cancer Care™ information or tissue to inform clinical treatment are in development.