

Bankhead-Coley Cancer Research Program

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2009 Program
Specialized Programs of Research Excellence
(3-year project)

Project Title: Racial Disparities and Potential New Therapeutic Strategies in Head and Neck Squamous Cell Carcinoma

Project Summary: This SPORE grant combines experienced investigators and diverse patient populations at the Sylvester and Moffitt Cancer Centers to develop translational research focusing on tumor genetics and new therapeutic strategies in Head and Neck Cancer (HNC). (Translational research means the knowledge gained from basic research with genes, cells, or animals is translated into therapies that can be used to prevent or treat disease.) Four research projects, two cores (teams that provide support to researchers), and programs in career and research development are planned. Projects are led by scientists conducting both basic laboratory research and clinical research (patient applications). Project 1 will focus on the late preclinical development of VSV-IFN-based therapy. VSV-IFN-based therapy will utilize a customized variant of vesicular stomatitis virus (VSV), which is harmless to normal cells and destroys the cancer cells it infects. Project 2 will focus on cancer stem cell marker CD44 as the therapeutic target for HNC. Project 3 will develop genetic prediction models of HNC clinical outcome. Project 4 will evaluate epigenetic changes in HNC survival. (Epigenetic changes are changes in gene expression caused by other mechanisms other than changes in DNA.) The two cores are: (1) Pathology/Tissue core and (2) Administrative core. The Career Development Program fosters the emergence of new investigators, and the Developmental Projects Program provides rapid funding of innovative ideas. This research program will develop targeted diagnostic and treatment strategies to improve survival of medically underserved Floridians suffering from HNC. This grant is also designed to promote collaboration in the preparation of a National Cancer Institute SPORE application.