

Bankhead-Coley Cancer Research Program

Franzmann, Elizabeth

*Otolaryngology
University of Miami*

*2010 Program
Research Project Grant
(5-year project)*

Project Title: Early Detection Markers for Smoking-Induced HNSCC

Project Summary: Head and neck squamous cell carcinoma (HNSCC) is a debilitating and deadly disease that strikes 50,000 people in the U.S. yearly with a cure rate of only 50 percent due to late-stage diagnosis. African American patients and those of low socioeconomic status suffer disproportionately from this disease for reasons that are poorly understood but may have to do with exposure to risk factors such as tobacco. Prior work has identified a higher HNSCC incidence and smoking prevalence in Liberty City, a minority-rich and economically disadvantaged neighborhood within Miami-Dade County. Our laboratory is developing a simple and inexpensive early detection test designed to alleviate the burden of HNSCC in high-risk populations like Liberty City. In Aim 1, we will determine the levels of salivary soluble CD44 (solCD44), which is an early detection tool for HNSCC, and protein in oral rinses from subjects enrolled in a Liberty City head and neck screening clinic and examine a) how they vary with demographic and risk factors and b) how they change over time. In Aim 2, we will determine changes in oral rinse solCD44 and protein marker status with smoking cessation. The purpose of Aim 3 is to evaluate perceived acceptability of the test and its likelihood to influence smoking cessation in the population. This work will help determine whether this simple and inexpensive oral rinse test is likely to relieve the burden of HNSCC in high-risk communities.