

James & Esther King Biomedical Research Program

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*Public Health, Medicine
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*2010 Program
Research Project Grant
(5-year project)*

Project Title: Cytokines: An Underlying Cause of Health Disparities in Tobacco-Related Diseases

Project Summary: The biological mechanisms whereby tobacco use may influence the development of tobacco-related diseases (TRD), particularly among certain racial ethnic groups, are incompletely defined. Nonetheless, our preliminary data indicated that there are some differences in the production of cytokines, thus raising the question of whether differences on other key cytokines may exist, and if they contribute to the observed differences in TRD. Therefore, one of the goals of this project is to consider the profile of cytokine production among different groups (people living with or without HIV, Black and whites who are or are not smokers), so that any disparities in the TRD burden are appropriately attributed. Considering the burden of tobacco-related diseases in our society, early detection of those at risk will be of paramount importance. So, to be pro-active, our second goal is to identify the potential usefulness of cytokines in recognizing specific segments of the population bearing a greater risk of developing TRD.