

OVERVIEW OF EXPORT CENTER

A. INTRODUCTION

1. Objectives of the EXPORT CENTER

Our EXPORT Center application represents a collaborative partnership between South Carolina State University (SCSU) and the Medical University of South Carolina (MUSC). The partnership addresses the principal objectives described by the National Center on Minority Health and Health Disparities that include:

- a. *Promoting the conduct of research to reduce health disparities.* Our research theme is the metabolic syndrome, which is most often recognized by obesity, hypertension, and diabetes. This condition is epidemic in the United States and at crisis proportions in the minority community, where it has gained a strong foothold in youth and young adults. Unhealthy lifestyle patterns established early in life underlie the syndrome. ***Therefore, the metabolic syndrome, youth, and lifestyle change is the focus of our application.***
- b. *Building research capacity for health disparities research in minority-serving institutions.* This EXPORT Center proposes four distinct, inter-related areas of multidisciplinary, inter-institutional collaboration.
 - Multi-disciplinary translational research on lifestyle change and the metabolic syndrome and the interactive modulating effects of behavioral, early developmental, and genetic factors on the expression of the metabolic syndrome and responses to lifestyle intervention. These projects are the focus of our **Research Core**.
 - A new Clinical Research Unit at South Carolina State University. The research projects in this proposal represent a point of convergence for the partnering institutions, building on multiple extramurally funded awards at MUSC, which will strengthen and enhance the research capacity of both partners. It is proposed to conduct this multi-disciplinary, translational research program in a newly created Clinical Research Unit (CRU) in the Brooks Health Center on the SCSU campus. This new CRU is the main feature of our **Shared Resources Core**. The research on lifestyle change and the metabolic syndrome in the CRU will be led by faculty in the Departments of Nursing and Nutrition at SCSU. SCSU students will be primary participants in the research.
 - Community-based participatory research representing a partnership between the 1890s Extension Program at SCSU and the CDC-funded REACH 2010 and Environmental Biosciences programs at MUSC. Several related community programs will also participate in these activities, which comprise our **Outreach Core**. The multi-lateral collaboration in community-based participatory research activities will leverage existing efforts to address health disparities at the grass-roots level and build capacity.
 - Numerous training opportunities for minority faculty and students at SCSU and MUSC. MUSC has a substantial research base of extramurally funded projects in areas related to the metabolic syndrome, including hypertension, obesity, insulin resistance, diabetes, lipid disorders, and minority health. Most of the NIH- and AHRQ-funded projects are eligible for as many as 7 minority supplements each, e.g., 2 high school students, 2 undergraduate students, 1 graduate student, 1 post-doctoral student, and 1 faculty member. By having a Clinical Research Unit on the SCSU campus with research led by their Departments of Nursing and Nutrition in collaboration with MUSC faculty, we will generate tremendous opportunity for leveraging the minority supplement potential of ongoing NIH research grants

to support the research career development of faculty and students in a critically important area of investigation that addresses fundamental aspects of a major health problem. This potential will be nurtured and developed through our **Training, Pilot Project, and Education Cores**.

- c. *Promoting participation of health disparities groups in biomedical and behavioral research prevention and intervention activities.* The community-based activities described in the Outreach Core and the translational research activities contained in the Research Core focus on African American youth and young adults in the community and students at SCSU. The research activities address a broad range of inter-related scientific disciplines that encompass both biomedical and behavioral disciplines.
- d. *Foster broad, inter-institutional, collaborative, multidisciplinary investigations that increase the effectiveness and impact of the individual components.* The activities outlined above address this critically important objective. Effective leadership will ensure that the potential of our EXPORT Center will be realized. Our application has strong support at the highest administrative level of both partner institutions. Our Center Director/PI, two co-Directors, and Administrative Core Director are all highly capable individuals with the commitment, experience, and authority to direct the EXPORT Center. The **Administrative Core** will have the primary responsibility for fostering and coordinating interaction among the various components through regular interactions with the Core Directors and by integrating the guidance and advice provided by the External Advisory, Scientific Review, and Community Advisory Committees, as well as the Presidents at both partner institutions.

2. Selection of EXPORT Center Theme

Our EXPORT Center application reflects many hours of productive interactions among a wide range of faculty and staff at the two partner institutions. The three-month proposal planning and development process was shared from the outset, engaging over 50 faculty at MUSC and SCSU through small and large joint group meetings, SWOT analyses, videoconferencing, email exchanges, and tours of the respective campuses including the GCRC at MUSC and the Brooks Health Center at SCSU. Both SCSU and MUSC have a strong commitment to community outreach and, in fact, were already actively expanding educational activities aimed at youth through school and church-based programs. Collectively, we selected the metabolic syndrome as the focus for several reasons [1-20]:

- The syndrome is at epidemic proportions nationally. It is a significant contributor to health disparities, especially among ethnic minorities in the Southeast, where it is expanding rapidly among youth and young adults in our most vulnerable communities. The syndrome, which includes obesity, hypertension, and diabetes as well as associated cardiovascular and renal complications, is also largely preventable [2-6].
- The partners in this EXPORT Center, South Carolina State University (SCSU) and the Medical University of South Carolina (MUSC), have complementary expertise in addressing the syndrome that ranges from community-based participatory research to cellular and molecular biology. The combined expertise of SCSU and MUSC can be pooled to effectively address health disparities mediated by the metabolic syndrome within the EXPORT Center model.
- The relevant research base, provided in Section I (pp.132-136), is substantial. The range and depth of research activities, which reflect the interests and commitments of the investigators, were key reasons to focus our Center on the metabolic syndrome theme.

- Currently large collaborative efforts at MUSC address the needs of treating older adults with well established risk factors and disease, including the Diabetes and Hypertension Initiatives, EXCEED Program Project Grant funded by AHRQ, and REACH 2010 funded by the CDC. Therefore, EXPORT Center activities should be focused on helping youth and young adults establish healthy lifestyle change as a primary prevention strategy.

Thus, this EXPORT Center proposal is thus the result of numerous meetings and extensive collaboration among faculty and staff at the partner institutions. Our partnership for excellence in outreach, research, and research training is grounded in complementary strengths, mutual respect and a genuine passion to reduce health disparities and improve minority health status within the multidisciplinary, collaborative EXPORT Center theme.