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I. COLLABORATIVE ARRANGEMENT

Background and Specific Aims

The estimated new cases for prostate cancer in 2003 is 220,900 and estimated deaths 28,900<sup>2</sup>. This makes prostate cancer the leader in new cancer cases and is the second leading cause of cancer death in men (excluding basal and squamous cell skin cancers). On a state level, the 2003 cancer statistics<sup>2</sup> provides an estimate of 15,800 prostate cancer incidences and 2,100 deaths for the state of Florida. Florida ranks the second highest in estimated new prostate cancer cases and the second highest in estimated cancer deaths in the United States. Considering these statistics about prostate cancer, what is even more alarming is the prostate cancer disparities experienced by African American males. The American Cancer Society Cancer Facts<sup>2</sup> for 2003 states that "*African-American men have the highest prostate cancer incidence rates in the world!*" They are also more likely to die from the disease than any other group. The prostate cancer disparities experienced by African American men is glaring based on the 2002 National Vital Statistics Report. The reported death rate for African-American men in 2000 was 66.9 per 100,000 males and for white men 27.7 per 100,000 males. Based on this report white men have already met the Healthy People 2010 objectives (to reduce prostate cancer death rate to 28.8 deaths per 100,000 males). For African American men, the prostate cancer death rate has to be reduced from 66.9 to 28.8 within ten years, a very challenging goal.

In 1998, Charles J McDonald as president-elect of the American Cancer Society outlined the following challenges as a blueprint for action against prostate cancer in African-Americans: (i) increasing research, especially in African American men, specifically into the causes, risk factors, preventive measures and new effective treatments of prostate cancer; (ii) involving African American men in research design, in the implementation of clinical research, in the development of educational initiatives, and as patient participants in clinical research trials; (iii) developing effective education programs about prostate cancer, not only for the public but also for health care professionals, especially primary care physicians; (iv) strengthening the capacity of grassroots organizations, particularly in the African-American community, to effectively engage in advocacy and in education and patient support initiatives; and (v) developing more community-based educational support and guidance programs for patients with prostate cancer and their families. As recognized by the U.S. Department of Defense, to successfully address these challenges, the number of Historically Black Colleges and Universities (HBCU) scientists who are trained as prostate cancer researchers need to increase. This is because, HBCU scientists, due to the mission of HBCU institutions, focus their health care research on disparities experienced by the minority population. More importantly, minorities traditionally trust HBCU researchers and are more likely to cooperate with them in addressing health issues in their community.

There is a critical need to increase the number of scientists from underserved populations to improve research and ultimately contribute to reducing the disproportionate burden of cancer incidence and mortality in ethnic and racial groups. At present, there is a significant under-representation of ethnic minority cancer researchers in fields spanning basic research to behavioral science<sup>3</sup>. The small number of minority researchers is viewed as a significant barrier to the inclusion of minority populations in clinical trials<sup>4-6</sup>. Thus, there exists a need to develop a cadre of sensitive, well-trained scientists to increase the capacity for scientific research among underserved populations, address many cultural considerations in the overall design and conceptualization of research ideas and to effectively and respectfully deliver health care interventions to increasingly diverse populations<sup>3,7</sup>. The ultimate goal of this application is to reduce the disproportionate burden of prostate cancer incidence and mortality among African American men by (i) increasing the number of FAMU scientists focusing on prostate cancer research and (ii) enhancing the capacity for scientific research in prostate cancer at FAMU. To achieve this goal, FAMU and MCC partnered to develop the "**FAMU Minority Prostate Cancer Training and Research (FAMU MPC) Center**". The following aims will be achieved by the FAMU MPC Center within the next three years:

**Aim 1. Training:** FAMU researchers in collaboration with the MCC researchers will develop, foster, and maintain a competitive research and training program at the FAMU MPC Center. MCC researchers will train FAMU researchers in clinical, basic or population research relative to prostate cancer. The expected outcome for this aim is a structured research and training program that will assist FAMU researchers and trainees to develop their expertise in prostate cancer as independent researchers, successfully compete for extramural grants and independently conduct prostate cancer research. Ultimately, the number of FAMU investigators focusing on prostate cancer research will increase from one to at least seven by the end of proposed project.

**Aim 2. Research:** Researchers at the MCC will mentor and collaborate with FAMU researchers on three prostate cancer research studies and seek extramural funding addressing topics related to biological and socio-cultural etiology in the disparities of prostate cancer incidence in the African-American population. The expected outcome of this aim is completion of three pilot studies addressing prostate cancer disparity, at least five peer-reviewed publications and three extramural grants on prostate cancer disparity.

**Aim 3. Community Dialogue and Outreach:** MCC and FAMU will take advantage of the considerable expertise of the joint collaborative investigative team in cancer screening, prevention and early detection and aim at developing collaborative research and outreach programs, to create solutions for the development and provision of culturally appropriate and literacy sensitive cancer interventions and effective penetration of cancer information within the African American Community.

The FAMU MPC Center

The FAMU MPC Center will be directed and managed by an institutional partnership between FAMU and the MCC. The Principal Investigator of this application, Dr. [redacted] traveled down to the MCC in March, 2003 to set up the organizational framework for the FAMU MPC Center. Since then, there have been numerous interactions between FAMU and MCC participants to match FAMU researchers with respective mentors at the MCC. There is commitment from top administrators of both institutions, Dr. [redacted] (Dean of FAMU College of Pharmacy and Pharmaceutical Sciences) and Dr. [redacted] (Director of the Moffitt Center). The FAMU President is also committed to this collaboration (see his letter of support in the Administrative Documentation section). The FAMU-MCC collaboration is a *long-term partnership* committed to the goal of eliminating prostate cancer disparities in the African-American community in Florida.

To accomplish the aims outlined in this application, the organizational structure (see Administrative documentation for pictorial representation) for this application will comprise executive direction by Dr. [redacted] (FAMU) and Dr. [redacted] (MCC). The Project Directors are Dr. [redacted] (FAMU) who has over six years experience in prostate cancer research and Dr. [redacted] (MCC), a cancer control expert with several years of experience in prostate cancer research. Dr. [redacted] has membership at the MCC to facilitate the partnership between FAMU and Moffitt Center (see Administrative documentation for letter of appointment). The Assistant Project Directors are Dr. [redacted] (FAMU) who has worked in the African-American community in Tampa for over five years to promote prostate cancer screening and Dr. [redacted] (MCC) who has several years of experience in producing culturally appropriate cancer educational materials. FAMU and MCC scientists through collaboration, mentoring and networking will implement three major programs – research, training, and community dialogue / outreach. These programs will be co-directed by the four FAMU and MCC Program Directors. The research program will focus on prostate cancer disparity in the African-American population through basic, clinical, cancer control and population science studies. The training program will focus on training all FAMU participants. Community Dialogue / Outreach will serve to enhance community outreach, information dissemination, and external communications with the African American community. We will collaborate with the Florida Prostate Cancer Network (FPCN), an organization created by Mr. [redacted] to enhance prostate cancer community outreach. The FPCN, created in 1997, is a non-profit organization that has been successful in educating the African American

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community about prostate cancer state-wide. Other community organizations and state departments that will be collaborating with us for successful implementation of the FAMU MPC Center are the Florida Department of Health, the American Cancer Society, the public health chapter of the Florida Medical Association, and the Florida Cancer Control and Research Advisory Council. We also have the support of the Tallahassee Mayor and two Florida Senators. Two committees are vital to the success of this project. The first one is the FAMU MPC center Advisory Board, which would be made up of community leaders and will be charged to guide the center in achieving the proposed aims. The second committee is the FAMU MPC Program Core Monitoring (PCM) Team, which would be made up of all four program directors and the program manager. The FAMU MPC Monitoring Team will be charged with the evaluation of the Center activities for continuous improvement.

**Collaborating Institution (MCC) Qualifications and Facilities:** After considering working with three major cancer centers in Florida, FAMU scientists decided to collaborate with the MCC because it is the ideal collaborating institution for this program. The MCC is the only National Cancer Institute (NCI) Comprehensive Cancer Center in the state of Florida. It is a recognized leader in focused, innovative research and an important resource for training future scientific and clinical leaders in oncology. The MCC was established by the Florida Legislature in 1981 to meet a clear and compelling need to respond to a virtual epidemic of cancer in the state. Since its opening, the MCC has reached several important milestones. Foremost is its designation as a Comprehensive Cancer Center by the NCI. This coveted designation is the highest level of recognition that can be given to a cancer center. This benchmark recognizes unsurpassed scientific and clinical excellence, which results in translational research that directly benefits patients. The mission of the MCC's Research Institute (MRI) is to perform hypothesis-driven cancer research with the ultimate goal of contributing to the cure and prevention of cancer, and to ensure continuous NCI Comprehensive Cancer Center designation. To accomplish its mission, the MRI is organized into scientific programs that foster synergistic intra- and inter-programmatic interactions. The programs encompass all aspects of cancer research including basic, clinical and cancer control investigations. MRI is dedicated to helping scientists realize maximum benefit from their research, translating those benefits to the broader community knowledge base and contributing their discoveries to effective treatment and prevention strategies for cancer patients and people at risk for developing cancer. The MCC currently receives \$40 million in peer-reviewed funding, with an additional \$10 million coming from industry. With the opening of the Stabile Research Tower in April, 2003, research space grew from 132,000 square feet to over 300,000 square feet. The Stabile Tower includes 48 new laboratories and technical support areas for cancer research, office space for researchers, a 300-seat auditorium, and a state-of-the-art mouse barrier facility for conducting transgenics research.

The MCC has rich experience in developing institutional training and research programs. There are three current institutional programs ongoing at MCC. **Project LINK** – **Leaders In New Knowledge**, a supplement to the cancer center's core grant, is a competitive training program which provides cancer research experiences in basic, biomedical, clinical and population sciences for promising high school and undergraduate students representing underrepresented populations (commonly identified as African Americans, Hispanic Americans, American Indians and Alaskan Natives, and Pacific Islanders). A total of nine students take part in this year-round program now entering its fifth year of operation. Another training program is the **Clinical Scholars Program**. The Clinical Scholars Program provides advanced training for medical and surgical oncology fellows through an NCI-funded program. The overall goal of the program is to develop clinical investigators. There are two tracks within the program, a clinical investigator track and a translational investigator track, both aimed at facilitating translational cancer-focused areas of research. Each track has two components consisting of didactic training as well as clinical research training in focused areas of cancer research. The didactic component of the Clinical Investigator track provides a formal and applied experience in clinical research methods, culminating in a Master's of Science degree in Public Health. Didactic training programs in graduate level courses in molecular biology and immunology are individually tailored for the needs of Clinical Scholars electing

the translational investigator track. Clinical rotations in Experimental Therapeutics are required for all Clinical Scholars, including the Phase I/II Clinical Research Unit, Clinical Pharmacology, and Translational Research Laboratory. Clinical Research training is focused on three areas: Experimental Therapeutics, Geriatric Oncology, and Health Outcomes Research. Fellows completing the Clinical Scholars Program will be well trained to expedite translational research, perform innovative hypothesis-driven clinical research, and manage all phases of clinical trial research. The third training program is the **Cancer Biology Graduate Program**. The Cancer Biology Ph.D. Program, established in 2000 as a joint effort between the MCC and USF, has enrolled a total of 9 students. The Cancer Biology Ph.D. program provides multi-disciplinary cancer-oriented training in a number of areas, including molecular biology, immunology, functional genomics, bioinformatics, drug discovery, cancer prevention, and cancer therapeutics. Although this program is only in its second year, 82 applications were attracted for the 2002 entering class.

The only suggested improvement noted by the review panel for this application's pre-proposal was that, "if possible, an additional collaborator with a more extensive background in prostate cancer research and a stronger history in acquiring prostate cancer-related research funding be added. To address this, we have added a renowned prostate cancer researcher - Dr. [redacted], Dr. [redacted]. Dr. [redacted] work in prostate cancer research focuses on identifying behavioral aspects of familial risk for prostate cancer. He is currently funded by the National Cancer Institute (NCI) to investigate the behavioral aspects of familial risk for prostate cancer. Under another NCI grant, Dr. [redacted] is studying the cognitive-behavioral aspects of cancer-related fatigue.

While faculty from MCC do not have experience in training / collaborating with HBCU investigators, they are collaborating with a minority serving institution, the University of Puerto Rico. Funded by the National Cancer Institute(P20 CA91352-01), this collaboration between the University of Puerto Rico and MCC aims to improve access to minority populations, develop research interactions leading to new knowledge related to minority health concerns, train minority clinicians and scientists and strengthen the cancer research in Puerto Rico while developing effective research interactions with Moffitt researchers. Such goals are very similar to those proposed in this application which are to enhance translational research, cancer education and community outreach programs and training efforts. In addition, MCC's commitment to eliminating cancer disparities is evidenced in the recent creation of the Moffitt Diversity Council. The vision of the taskforce is "To create and perpetuate an environment at Moffitt Cancer Center that supports diversity and equity so that we may better serve our community in addressing their needs for cancer care and education." We do not see the lack of experience in working with HBCU investigators as an obstacle to successful implementation of this grant. Since March 2003, a partnership has been fostered between FAMU and MCC scientists. The support from high level administrators of both organizations has set the pace for this partnership, which has been well accepted by all participants. Three research collaborative teams have already evolved through consistent communication among participants. FAMU investigators and MCC scientists are excited and very comfortable working together towards the common goal of eliminating prostate cancer disparities in the African American community.

## II. THE FAMU MPC CENTER RESEARCH / TRAINING PROGRAM

### Program Value

In accordance with the U.S. Department of Defense program announcement, the primary objective of this grant is to address prostate cancer disparity in African American men through the establishment of the FAMU MPC Center. The FAMU MPC Center is an establishment developed to formalize a committed, long-term partnership between FAMU, an HBCU institution, and MCC, a collaborating non-HBCU cancer center. This partnership is highly significant to FAMU's plan for developing a prostate cancer research and training program that will increase the number of FAMU scientists working on prostate cancer disparity. With the proposed program, 17 FAMU faculty have

indicated their interests in being affiliated with the FAMU MPC center. Seven of these faculty have confirmed their desire to develop and maintain a competitive and successful program in prostate cancer research. The mentorship, training, collaborative research (including joint publication and grant writing) and community outreach proposed in this program will support the development of prostate cancer research expertise in FAMU participants. Ultimately, the establishment of the FAMU MPC Center will be a great asset to FAMU in developing a critical mass of prostate cancer researchers that will serve our constituent, the African American community in Florida.

#### Program Plan

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The specific aims outlined in this proposal will be achieved through the operations of the FAMU MPC Center. The Center will be located in the new FAMU College of Pharmacy and Pharmaceutical Sciences and staffed by a program manager. Resource support will include two desk top computers, one laptop, two printers, and general office supplies. Office furniture, telephone, internet services, and distance learning resources will be provided by FAMU to support the Center. At least 11 FAMU faculty, eight MCC scientists, and one program manager will be affiliated with the Center. Six other FAMU faculty have indicated their interests in participating in community outreach programs conducted by the Center. Our community partners include the Florida Department of Health, the American Cancer Society, the Florida Medical Association, the Florida Cancer Control and Research Advisory Council (C-CRAB), and the Florida Prostate Cancer Network. The Center will be advised by a Board consisting community leaders and well-respected African-American physicians, and monitored by the FAMU MPC Prostate Cancer Monitoring Team.

The central goal of this application is to increase the number of prostate cancer researchers at FAMU. Several central themes emerge from the literature that provide guidance on increasing underrepresented minorities in science. Key ingredients shown to contribute to the retention of underrepresented minorities in science and to promote successful academic and research careers are: provision of hands-on research experiences; interactions between aspiring and established scientists; networking; mentoring; collaboration; commitment, program structure and consistency, peer linkages, and information about career opportunities<sup>8-14</sup>. Structured mentoring programs are especially important to socialize minorities into academic disciplines and to develop minority scientists<sup>15-18</sup>. Dondero<sup>19</sup> relates that supportive one-on-one relationships are essential to provide opportunities for students to explore career paths, test ideas, and broaden their perspectives. Interactions with faculty are an effective means to teach research skills<sup>8-13</sup>. Moreover, diversity in science can be realized by the promotion and strengthening of effective mentee/mentor relationships and the recognition of student roles and responsibilities in those relationships<sup>20, 21</sup>. The promotion of social integration and the availability of social networks have also been shown to further student persistence<sup>12, 22</sup>. The proposed program plans for this application are based on above literature findings.

**FAMU MPC Center Organization and Networking Meeting:** The first step in achieving the aims outlined in this application is an organizational and networking meeting of all participants. FAMU participants will travel to MCC in the first month of the grant. At the MCC, a general meeting of all participants will be held, followed by core meetings of project directors, research collaborators and faculty trainers/trainees. This meeting will set the pace for the relationship among the program participants.

**FAMU Faculty Development Through Training:** The first specific aim proposed in this application is that FAMU researchers will receive training in clinical, basic or population research relative to prostate cancer. The lack of minority scientists in prostate cancer research underlines the need for effective training programs. Three formal training plans are outlined for this program. The first one is general training for all FAMU participants. As noted above, only one FAMU faculty currently has a research focus on prostate cancer. It is thus imperative that all FAMU faculty participants get a comprehensive overview of prostate cancer biology, etiology, prevention, detection, diagnosis and treatment as well as the problem of prostate cancer disparity in the African American population. Using

distance learning capability as well as internet-based instructions, MCC scientists will provide a didactic curriculum for FAMU participants in the first ten weeks of this program. Examples of topics that will be covered are Molecular Biology, Epidemiology and Prevention of Prostate Cancer; Diagnosis and Treatment of Prostate Cancer; Fundamentals and Principles of Prostate Cancer Prevention; Fundamentals and Principles of Prostate Cancer Treatment; Fundamentals and Principles of Prostate Cancer Screening; Cancer, Culture & Literacy- Implications in the African American Community; Genetic Markers and Polymorphisms in Prostate Cancer; Socio-psychological factors related to Prostate Cancer- Implications in screening, prevention & treatment; Methodology in Prostate Cancer Research; Ethical Issues in Research Course; and Preparing a Successful Grant Proposal. At the end of the ten-week curriculum, a 2-hour teleconference will be held to summarize and conclude the initial training.

The second training plan is the provision of Continuing Education (C.E.) awards for FAMU faculty to pay tuition or fees for specialized prostate cancer education and/or workshop training. A total of \$20,000 will be made available in the first two years of this application for this training plan. All FAMU faculty will be eligible to apply for this funding for continuing education. The award can be used for prostate cancer education, workshops, other education-related developments and / or consultant with prostate cancer experts. Applications for the C.E. scholarship awards will be screened and final decisions made by Program Directors. Each recipient will be required to submit a statement of the benefits of their training to their professional development.

The last training plan is specific training of FAMU faculty by MCC scientists in three different prostate cancer research areas. Three FAMU faculty (Dr. \_\_\_\_\_, Dr. \_\_\_\_\_, and Dr. \_\_\_\_\_) requested for faculty training experiences during this project. Dr. \_\_\_\_\_ is Associate Professor of Nursing and has a Bachelors, Masters and Ph.D. in Nursing. Dr. \_\_\_\_\_ and Dr. \_\_\_\_\_ are both Assistant Professors in the College of Pharmacy and Pharmaceutical Sciences. Dr. \_\_\_\_\_ has a Ph.D. in Economics and Dr. \_\_\_\_\_ a Doctor of Pharmacy degree. These three FAMU faculty will learn through specialized curriculum and research experiences. Hands-on research experience will be by observing and participating in ongoing funded projects at the MCC. The primary research base for the training programs are funded projects in prostate cancer directed by the MCC primary mentors. Dr. \_\_\_\_\_ (FAMU faculty trainee) will be trained by Dr. \_\_\_\_\_ (MCC scientist) on "Chemoprevention in Prostate Cancer". Dr. \_\_\_\_\_ (FAMU faculty trainee) will study "Outcomes of Prostate Cancer Disease" under Dr. \_\_\_\_\_ (MCC scientist). Dr. \_\_\_\_\_ (MCC scientist) will train Dr. \_\_\_\_\_ (FAMU faculty trainee) on the "Disparities in Efficacy, Safety & Toxicity of cancer treatment drugs for Prostate Cancer". The first year of Faculty training will involve a combination of independent study with mentor(s); instructive training; attendance at the GU Oncology Seminar; attendance at the Cancer Control Research Interest Group Meeting; attendance at regularly scheduled meetings of interdisciplinary clinical programs at the Moffitt Cancer Center; and / or experience working on research directed by the primary mentor to meet the following core requirements for each FAMU trainee: (1) Acquire a basic understanding of the prevention, detection, diagnosis and treatment of prostate cancer; (2) Become familiar with the major studies and findings in the area of disparities in the incidence of prostate cancer; (3) Gain expertise in methodologies needed to conduct prostate cancer research; (4) Be able to critically review and evaluate research in prostate cancer; (5) Gain an understanding of fundamental issues regarding the ethical conduct of research; (6) Be able to formulate a novel research question in desired prostate cancer research area and design a methodologically sound study to answer the question; and (7) Be able to develop a research idea into a fundable grant proposal. In the second year, faculty trainees will get hands-on research experience by collaborating with their corresponding MCC mentors on funded projects in desired areas of interest. Faculty trainees will develop and submit grant proposals for extramural funding as new investigators in the third year. The final product at the end of the faculty training will be three grant proposals submitted by the FAMU faculty trainees as Principal Investigators.

**FAMU Faculty Development Through Collaborative Research:** The second study aim is that: Researchers at the MCC will mentor and collaborate with FAMU researchers on four prostate

cancer research studies and seek extramural funding addressing topics related to biological and socio-cultural etiology in the disparities of prostate cancer incidence in the African-American population. A primary key in enhancing FAMU faculty's experiences towards the development of a successful prostate cancer research is through collaborative research with experienced senior scientists. In preparing for this grant, an announcement was sent out requesting interested FAMU participants to identify an area of interest for prostate cancer research, identify MCC collaborator(s) / mentor (s) in that area and develop a proposal in identified area for a pilot project addressing prostate cancer disparities. From this process, three research teams evolved to conduct three pilot projects. All three pilot projects were approved by both Program Directors for inclusion in this application. These pilot projects constitute the FAMU MPC Center's *Prostate Cancer Faculty Development Awards*. Six FAMU faculty will collaborate with four MCC scientists on these three pilot research projects focusing on prostate cancer disparity. A summary of proposed pilot projects for the Faculty Developments Awards are presented below. The full proposals submitted by participants are provided under the "Questionnaires, Survey Instruments or Clinical Protocols" section.

Faculty Development Award #1 - Racial/ethnic differences in prostate cancer risk and protective factors in the State of Florida. This study will attempt to promote a more complete understanding of health disparity in prostate cancer in the State of Florida among racial/ethnic groups by 1) analyzing spatial patterns of rate of incidence and mortality using Geographic Information System (GIS) and 2) identifying environmental, family and personal factors that affect prostate cancer applying a multilevel statistical modeling. County, zip code and tract-level data on prostate cancer incidence of 2001 will be obtained from Florida Cancer Data System and the cancer mortality data for the same period will be obtained from the Florida Department of Health Division of Vital Statistics. Demographic (age, race, marital status) and socioeconomic characteristics (unemployment, education, median housing value, median income) at census tract level will be obtained from the FAMU Census Information Center (SF-3). Participating Investigators are Dr. \_\_\_\_\_ (Principal Investigator, FAMU), Dr. \_\_\_\_\_ (FAMU), Dr. \_\_\_\_\_ (FAMU) and Dr. \_\_\_\_\_ (MCC). \$30,000 will be awarded to support this study.

Faculty Development Award #2 - Microarray Comparison of Prostate Tumor Gene Expression in African American Men and in Caucasian Men: A Feasibility Study Using standard molecular biology techniques, we propose to isolate, purify and label, with appropriate dyes in preparation for microarray analyses, total RNA from prostate tumor specimen obtained from African American Men and from Caucasian Men. We will focus on the analysis of androgen-regulated genes (ARG) to test the hypothesis that unique androgen receptor (AR) molecular signatures exists in prostate tumor specimen obtained from African American Men that are not present in prostate tumor specimen obtained from Caucasian men, due to AR polymorphisms. Polymorphisms in the androgen receptor (AR) found in African American Men may be potentially important in explaining the increased risk of prostate cancer in African American men. Dr. \_\_\_\_\_ will provide prostate tumor specimen to Dr. \_\_\_\_\_ from the Moffitt Tumor Specimen Bank. Due to the limited number of prostate tumor specimen samples on-hand for African American Men, we are proposing this pilot project as a feasibility study. However, it is anticipated that preliminary data obtained will allow for an initial "mining out of" unique AR molecular signatures. For the first time, as an outcome of these studies, it is expected that global gene expression profiles of prostate cancer in African American and Caucasian men will be obtained. The information learned from these global profiles will have far-reaching significant positive impact on the development of new pharmacogenomic therapies/strategies for effective prevention and successful management of prostate cancers, particularly in African American men. Participating Investigators are Dr. \_\_\_\_\_ (Principal Investigator, FAMU), Dr. \_\_\_\_\_ (MCC), and Dr. \_\_\_\_\_ (MCC). \$40,000 will be provided to support this study.

Faculty Development Award #3 - The Role of Culture and Perceived Stress in African American Males' Prostate Cancer Screening Behavior. The study will examine the influence of culturally derived gender roles and perceived stress on African American males' prostate cancer screening behavior. In

particular, the study will use the gender role strain paradigm as a conceptual framework for understanding how different models of masculinity (what it means to be a man) internalized by African American males' affect their experience of stress and behavior related to medical procedures associated with prostate cancer screening. Based on clinical experience, the Principal Investigator for this study has observed that African American males who adhere to a traditional definition of masculinity tend to perceive the behavior associate with prostate cancer screening as stressful (shameful) because the medical procedures used are incompatible with their definition of what it mans to be a man in contemporary American society. Participating Investigators are Dr. \_\_\_\_\_ (Principal Investigator, FAMU), Dr. \_\_\_\_\_ (FAMU) and Dr. \_\_\_\_\_ (MCC). \$20,000 will be awarded to support this study.

The pilot projects are proposed to be completed between 12 months and 18 months. Upon completion of these three pilot projects, each research team will work together to present study findings at national conferences, publish results in peer-reviewed journals, and develop grant proposals based on pilot project results for funding by external agencies. The expected product of the collaborative research is at least four published abstracts, four peer-reviewed publications and three extramural grants submitted to public / private agencies for funding.

**Community Dialogue and Outreach.** The third specific aim outlined for this grant is that MCC and FAMU will take advantage of the considerable expertise of the joint collaborative investigative team in cancer screening, prevention and early detection and aim at developing collaborative research and outreach programs, to create solutions for the development and provision of culturally appropriate and literacy sensitive cancer interventions and effective penetration of cancer information within the African American Community. Although, this grant is a research training grant, one can not overlook the major goal of the application, which is to eliminate prostate cancer disparities in the African American population. It is thus imperative that this application includes a project which reaches out to the African American community for their input in addressing the prostate cancer disparities they experience. We plan to engage in a "public community dialogue" with African American men to develop a guide module for prostate cancer communication, "*Prostate Cancer Communication: the Dos and Don'ts of Educating African American men about Prostate Cancer, Prostate Cancer Screening, and Prostate Cancer Clinical Trials*". The community dialogue will take place during an *African American Men Prostate Cancer Forum* that will be conducted in the first year of this grant.

The African American Men Prostate Cancer Forum The Florida Prostate Cancer Network (FPCN), an organization founded by Mr. \_\_\_\_\_ will be hired to organize and conduct this forum. A flat fee of \$40,000 will be paid to FPCN as consultant fee for the forum. The FPCN has organized numerous prostate cancer forums in Florida. This forum will serve a dual function of (1) data collection from African American men from different demographic background to develop the prostate cancer communication module, and (2) community outreach to promote the FAMU MPC Centers' commitment to eliminating prostate cancer disparity in the African American population. The forum will be a weekend event and will be held on FAMU campus in Tallahassee, Florida. The forum will include five general sessions focusing on following topics: (i) All We Need to Know About Prostate Cancer, (ii) Facing the Myths and Truths about prostate cancer screening, (iii) African American men and Prostate Cancer Clinical Trials, (iv) Just Been Told You Have Prostate Cancer: What Next?, and (v) Surviving Prostate Cancer. Free prostate cancer screening will be provided during this forum. Based on the experience of the FPCN in the last three years, we expect to have over 1,000 African American men participate in the forum and at least 400 of the participants screened for prostate cancer. With the institutional reputations of FAMU and MCC in Florida and the status of FPCN in the community, we anticipate that the *African American Prostate cancer forum* will be co-sponsored by numerous local as well as national private and public organizations.

Community Dialogue During the Prostate Cancer Forum The feedback of the African American men during the forum will assist us in developing the guide module, "*Prostate Cancer Communication: the Dos and Don'ts of Educating African American men about Prostate Cancer, Prostate Cancer*

*Screening, and Prostate Cancer Clinical Trials*". This project will be directed by a team of FAMU investigators (Dr. \_\_\_\_\_, Dr. \_\_\_\_\_ and Dr. \_\_\_\_\_) and MCC prostate cancer scientists (Dr. \_\_\_\_\_, Dr. \_\_\_\_\_, Dr. \_\_\_\_\_, and Dr. \_\_\_\_\_). Data collection will take place at the end of the general sessions on: All We Need to Know About Prostate Cancer; Facing the Myths and Truths about prostate cancer screening; and African American men and Prostate Cancer Clinical Trials. Data will be collected by conducting a 1-hour open forum - community dialogue at the end of each session that will allow African American men to voice their opinions on what they will like / dislike to see and hear during prostate cancer education (program intervention content), who they prefer / do not like to deliver the message (message source), and which media channel they prefer / do not like for delivering the message (message channel). Data collection will be facilitated by a FAMU investigator who is an African American male and comments recorded on a laptop by an African American male recorder. Note pads will also be provided for additional opinions that may not be expressed during the community dialogue. All the data collected will be transcribed and sorted to compile a list of what should be done and what to avoid in educating African American men about prostate cancer, prostate cancer screening, and participating in prostate cancer clinical trials. Results of the community dialogue project will be presented at a professional meeting and published in a peer-reviewed journal.

#### Program Impact

The final product of this proposal is a successful prostate cancer research training program that will foster the development of FAMU faculty in prostate cancer research and ultimately increase the number of FAMU researchers that will attract statewide and national funding for prostate cancer research. The research training program will be catalyzed by the established **Minority Prostate Cancer Training and Research Center** physically located in the FAMU College of Pharmacy and Pharmaceutical Sciences (COPPS) building. FAMU MPC Center faculty will have access to a library, distance learning laboratory, 500-seat auditorium, 200-seat classroom, two – 180 ft classrooms, 100-stations computer laboratory, 35-seat prescription research laboratory; and 12 state-of-the-art research intensive laboratories. The FAMU MPC Center will be staffed by a full-time program manager and supported by an Advisory Board. The achievement of the three aims outlined in this application will result in (1) the training of at least 11 FAMU faculty to develop an independent research career in prostate cancer, (2) completion of three pilot projects addressing prostate cancer disparities in the African American community, (3) completion of a community dialogue with African American men, (4) provision of a prostate cancer educational forum for African American men and (5) free prostate cancer screening for African American men during the African American men forum. In addition, this application will produce at least five published abstracts, five peer-reviewed publications, six extramural grants submitted for funding, and a prostate cancer guide module for appropriate and culturally sensitive communication with African American males. The consistent networking, collaboration, and mentoring among the FAMU MPC Center participants will assist FAMU scientists to become successful prostate cancer researchers. Continued research collaboration and successful grant writing efforts of participants will support the continued existence of the FAMU MPC Center to achieve its long-term goal of eliminating prostate cancer disparities in the African-American community. Moreover, FAMU and MCC are committed to providing an interactive working environment for the continuation of the Center (see letters of commitment in the Administrative Documentation section).

### III. COMMUNICATION

The MCC is located in Tampa, 239 miles south of FAMU. The close proximity of both institutions as well as the state-of-the art distant learning resources available at both institutions will facilitate easy communication among all investigators. Apart from the continuous communications and interaction among the participants, we have developed a comprehensive plan that will foster appropriate

communications as well as document progress towards achieving the three specific aims outlined above. Central to the success of the communication plan is the Program Core Monitoring Team (PCM team), the body that will continuously monitor the program towards achieving the proposed aims for this application. The PCM team will be made up of Dr. \_\_\_\_\_ (Principal Investigator and FAMU Program Director), Dr. \_\_\_\_\_ (FAMU Assistant Program Director), Dr. \_\_\_\_\_ (MCC Program Director), Dr. \_\_\_\_\_ (MCC Assistant Program Director) and the FAMU MPC project manager. Specifically, Dr. \_\_\_\_\_ and Dr. \_\_\_\_\_ will oversee the collaborative research program while Dr. \_\_\_\_\_ and Dr. \_\_\_\_\_ will oversee the training program. The Community Dialogue and Outreach component will be jointly managed by all members of the PCM team. The PCM team will meet by teleconference monthly to assess progress towards achievement of the study aims. Except for emergency issues, all problems arising during the grant period will be addressed by the PCM team during the monthly meetings. The PCM team will be directly responsible for troubleshooting and resolving any problems during the grant period.

*Interim Monitoring and Evaluation Reports.* Formal evaluation of each Faculty trainee's progress will be performed formally by the PCM Team every four months. Criteria will be developed to evaluate whether trainees are making adequate or inadequate progress and whether they have completed the program's training requirements. The mentors will provide feedback to trainees. Any trainee not making adequate progress will be required to develop a corrective action plan with his/her training mentor(s) that contains specific objectives for the next four-month period. These plans will require the review and approval of the PCM Team. A variety of methods will also be used for outcome evaluation of the achievement of the training objective. One method will be to evaluate the ability of trainees to design a sound and feasible study designed to answer a novel research question related to prostate cancer. If the processes embedded in the program are effective, every trainee should achieve the desired outcome. The relevant outcome evaluation will consist of the number of trainees who produce a grant proposal and the rating of these proposals by mock reviewers.

The achievement of the second study aim (faculty development through collaborative research) will be evaluated through completion of proposed pilot projects and scholarly productivity of the four faculty awardees. The Principal Investigators will be required to submit annual progress reports as well as the final report of their study to the PCM team. Evidence of scholarly productivity will be authorship and co-authorship on research presentations and publications as well as grant writing activities. The PCM Team will perform formal evaluation of the activities of the Prostate Cancer Faculty Development Awardees annually on their publications, presentations, and success in obtaining extramural funding for research. Feedback on each FAMU faculty's performance will be provided by the primary research mentor to the faculty. The Community Dialogue and Outreach component of this study will be evaluated based on actual number of attendees, number of African American men screened for prostate cancer, the participants' satisfaction and perceived quality ratings of presentations and the overall program. The guide module, "Prostate Cancer Communication: the Dos and Don'ts of Educating African American men about Prostate Cancer, Prostate Cancer Screening, and Prostate Cancer Clinical Trials" developed from this component will be published and made available to Florida private and public organizations committed to eliminating prostate cancer disparities in the African American community.

*Quarterly Status Reports* prepared by the project manager and approved by the PCM team will be provided to all FAMU MPC Center participants. The status reports will be based on issues arising from or addressed during the monthly PCM team meetings, as well as quarterly progress reports submitted by trainees and the Principal Investigators of the prostate cancer faculty development awards. In addition, *bi-annual reports* will be prepared by the Program Directors for presentation to the study Advisory Board members. The Advisory Board will be expected to provide specific feedback to the Program Directors within six weeks of submitting the bi-annual reports. At least three joint press releases will be made to inform the community about the activities of the FAMU MPC center.