

**FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY
AND
THE UNIVERSITY OF FLORIDA
MINORITY CANCER RESEARCH & TRAINING CENTERS**

Announces

A

FUNDING OPPORTUNITY ANNOUNCEMENT

Part 1. Overview Information

Participating Organization(s) Florida Agricultural and Mechanical University
and The University of Florida

Funding Opportunity Title: **FAMU Undergraduate Cancer Research (UPCaRe)
Institute**

FOA Number: MiCaRT 002

**Number of Applications
Awarded:** One collaboratively written application from a FAMU/
UF investigator team

Funding Opportunity:

Purpose: The FAMU MiCaRT center will award a grant to fund the
establishment of a **FAMU Undergraduate Cancer
Research Institute**. This Institute will be housed at
FAMU and will create new or expand existing effective
institutional development programs designed to expose
undergraduate minority students to academic and
scientific cancer research training experiences , as well
as their pursuit of graduate degrees and careers in
cancer research.

Institution/Cancer Center Partnership focused on cancer research and training for African Americans in Florida.

In year one of the funded grant, UF initiated both a Faculty Career Development Pilot Project and a student training program. In this Funding Opportunity Announcement, FAMU MiCaRT is soliciting highly competitive pilot research training program applications will lead to the establishment of a strong cancer research training institute for underrepresented minority students at Florida A&M University.

Goals and Objectives:

The FAMU **Undergraduate Cancer Research (UPCaRe) Institute** should expose freshman and sophomore FAMU students to research principles and techniques that will prepare them to competitively participate in the UF-MiCaRT summer research training program in cancer research and in summer research training programs at other research intensive universities. It is expected that student participants emerging from this institute will “feel scientifically comfortable” walking into a well-established research laboratory as an undergraduate research trainee. Students emerging from this institute are expected to be well prepared for research in the area of biomedical science, including basic, clinical or population science research. Students are also expected to acquire research dissemination skills.

2. Award Information:

Each application may request up to \$30,000 in total costs (over a two or three year period) Activities described in all applications submitted for this FOA should (1) broaden participation of undergraduate minority students and first generation college students in cancer related research at early stages in their academic careers. The overarching goal is to prepare them for summer research experienced at UF and other research intensive environments and (2) increase the number of students will pursue advanced degrees in biomedical sciences, particularly in the areas of cancer research and cancer or health disparities research.

Proposals submitted for this FOA should use educational interventions and developmental activities that include but are not limited to the following:

- Pre-research student training (responsible conduct of research, ethics, safety training)
- Boot camp-like activities to acquaint students with laboratory etiquettes, use of laboratory equipment and explanation of gold standard equipment in research core facilities at FAMU and UF cores
- Shortweekend introductory courses in Cancer Biology
- Academic-year(or year-round) student training program for freshman and sophomore
- Overview of the scientific process for beginning students (how to generate and test ; how to design a research study and apply appropriate experimental approaches. Collaborative learning experiences and group activities that are related to cancer outreach

- Establishment of research-based learning communities , use of cost-effective pre-fabricated scientific experimental modules that allow students to experiment
- Development of research skills through hands-on research training by a FAMU mentor and UF co-mentor working on a collaborative research project
- Technical and scientific reading comprehension, time management, technical writing
- Creative exercises that teach students to think critically about theory and application of biomedical research/behavioral research
- Strategies to increase the number of minority first-generation college students who consider careers in cancer research
- Introduction of FAMU students to role models via Seminar series of invited Cancer Researchers
- Information on research careers and scientific seminars related to cancer
- Access to institutional biomedical/behavioral research focused conferences and symposia
- Creation of networking opportunities for FAMU undergraduates from minority/diverse backgrounds to interact with research trainees at UF, with graduate students at UF, with postdoctoral fellows and the larger cancer research community at UF either online or in person
- Establishment of relevant workshops and training opportunities in career survival strategies for minority undergraduate FAMU students interested in scientific careers, particularly careers as cancer scientists.
- Hosting of an annual student poster presentation day and a Faculty/student driven biennial cancer symposia
- Link FAMU undergraduate students with career coach mentors at UF and FAMU

3. Eligibility Information:

All projects must be conducted jointly by investigators from Florida A&M University (FAMU) and The University of Florida (UF). This is an NCI-sponsored FAMU-based student training program and therefore a FAMU investigator will serve as the Principal Investigator and a UF investigator will serve as the Co-Principal Investigator.

- Applications must describe a research education program that prepares FAMU freshman and sophomore student for a first-time summer research training experience at UF and/or other research intensive institutions. The Research education program should incorporate research and education experiences that addresses cancer health disparities.
- Applications must describe a true, working collaboration involving a FAMU Principal investigator and a co-Principal Investigator from UF.
- Applications will be evaluated using traditional NIH R25 application-specific criteria: Significance, Innovativeness, Feasibility of Methods, Investigative Team, Environment, and Ethical Considerations.
- Applications must provide a plan describing how research educational training activities will be carried out jointly.
- Applications for this FOA must help to achieve partnership objectives (i.e. student training and career development in cancer research and/or addressing cancer health disparities)

4. Application Submission Information:
5. Please use the instruction provided in the NCI P20 PAR/PAR 14-152 to prepare this research training program application . These are the guidelines used to prepare the UF-based research training program application . See link below.
<http://grants.nih.gov/grants/guide/pa-files/PAR-14-152.html>

Applications for this FOA must be submitted and routed through FAMU College of Pharmacy Research Administration Office (Staff contacts: Mrs. Brenda Arnold, Assistant Director, Research and Academic Support Services, (brenda.arnold@famuedu), or Carla Pierre, Senior Grant Specialist, FAMU College of Pharmacy; (Carla.pierre@famuedu). Applications will be scored by the joint FAMU-UF Internal Advisory Committee members. Applications will be selected based on scientific merit and relevance and fit with the P20 programmatic goals.

Step 1: LOI Submission (Due July 10, 2015)

Each investigative team planning to submit a full application must submit a letter of intent (LOI). LOIs are due to Dr. Verian Thomas, FAMU MiCaRT co-Investigator at verian.thomas@famuedu no later than 5:00 pm Eastern Time on July 10, 2015. The LOI should be no longer than one (1) page and include a title, investigator names/institution/expertise/contact information s, a clear description of the project's cancer disparity relevance, and a very brief overview of the proposed research education plan for establishing a FAMU Undergraduate Cancer Research Institute. This LOI will be used as a screening tool to determine which applicants will be invited to submit a full application, so a clear delineation of the significance, innovation, approach, impact and description of the research expertise team is essential.

Step 2: Full application: (Due October 1, 2015)

Each application should adhere to the guidelines below and generally follow NCI format (Arial 11 or Times New Roman 12 point font (9 point or larger in tables, figures, legends, etc.), ½ inch margins, one-sided, numbered pages, etc. Applications must be received electronically by 5:00 pm EST, on August 5, 2015.

Email applications to: Mrs. Brenda Arnold, Assistant Director, Research and Academic Support Services, Brenda.Arnold@famuedu.

A. Table of Contents

B. Key Personnel Page

C. Abstract of Overall Project (2,000 characters)

- D. Specific Aims:** The specific aims section should include a clear description regarding how the research relates to cancer health disparities. The Specific Aims section is limited to one page and should follow NIH guidelines.

- E. Research Strategy:** The research training strategy should include Significance, Innovation, and Approach sections. The combined research strategy section **cannot exceed six (6) pages**. In addition to the traditional sections of an NIH application, the research training strategy section must include a section describing the Relevance to Cancer Disparities and a section on Relevance to Partnership Goals (specifically, collaboration between institutions, supporting new lines of research, likelihood that research will result in future NIH funding, etc.).
- F. Investigators:** Applicants must include an additional one-page section (separate from the Research Training Strategy) describing the qualifications of investigators at each site and how they will contribute to the collaboration. Describe the role played by the UF and FAMU team scientists. Identify which aspects of the research training program will be conducted primarily at FAMU and which will be conducted at UF.
- G. Bio sketches:** Attach the NEW NIH biosketches for all key personnel.
- H. Human Subjects and/or Vertebrate Animals:** Immediately following the Investigator section, if applicable, include sections that follow NIH guidelines and required elements. If the section is Not Applicable, please include the Section Title with the words “Not Applicable”.
- a. **Human Subjects** There is no page limit, however be concise. Human Subjects section not included in the 6 page Research Strategy. (See pages II-1 through II-22 for NIH guidelines and instructions on completing the Human Subjects Section --
http://grants.nih.gov/grants/funding/424/SF424_RR_Guide_General_Adobe_VerB.docx. If appropriate, a planned enrollment table must be included.
 - b. **Vertebrate Animals Section (VAS) (2-page maximum)** The VAS is not included in the 6 page Research Strategy section).
- I. Career Development Plan (CDP):** All FAMU investigators are required to submit a career development plan; develop in collaboration with the UF co-Investigator and other mentors. At least one Mentor must be identified. The CDP must include a career development plan, anticipated learning and scholarly activities, and specification of how the investigator will engage or collaborate with the Mentor. Training in responsible conduct of research must be addressed even if the FAMU investigator has already had this training. This CDP section should be 1-2 pages.

Total Application Pages not to exceed 50 typewritten, Arial 11 font pages

The earliest possible start date for research education program is December 1, 2015. Monies will not be transferred from one institution to another. Additional budgetary restrictions may apply, as determined by policies and procedures at the participating institutions.

6. Application Review Information:

- a. **Call for Letter of Interest (LOI).** The LOIs will be used as a first step to screen applicants and ensure that only proposals that are relevant to the aims outlined for this FOA announcement are considered.
- b. **LOI reviewed by IAC members.** Based on conflict of interest (COI) disclosure, submitted LOIs will be reviewed by select members of the IAC. An IAC member listed as investigator on an LOI will not review the LOI. Using a review form, LOIs will be reviewed based on the following criteria on a scale of 1 to 5, with 5 being the best: (i) lead investigator's cancer research expertise; (ii) research training experiences; (iii) relevance of proposed project to overall program aims; and (iv) applicability to cancer disparity.
- c. **Call for full proposal for approved LOIs.** Investigators whose LOIs are approved by the IAC will be invited to submit full proposals.
- d. **FAMU Undergraduate Cancer Research (UPCaRe) Institute: A Student Training program review.** The goal of this program is to train future generations of outstanding scientists who are committed to research careers in scientific health-related fields relevant to cancer. We will employ a proposal review process based on the NIH Peer Review Process for R25 training programs. The review criteria will include:
 - i. **Significance.** Does the research education program address an important problem or critical question in research education or training of underrepresented minority students? How will implementation of the proposed program advance the objectives of the proposed FAMU undergraduate Cancer Research Institute? Are the goals and specific measurable objectives consonant with the recognized needs of the Florida A&M University undergraduate student population? In what ways will the proposed program produce a significant improvement in the academic/scientific preparation and competitiveness of students for successful participation in research training experiences at research intensive universities? If the aims of the application are achieved, will the establishment of a FAMU undergraduate cancer institute significantly increase the number of minority students who go on to PhD program in cancer biology/biomedical; science programs. Does the project improve understanding of the origins of disparities in health or contribute to reducing health disparities?
 - ii. **Investigator(s).** Are the PD/PIs, collaborators, and co-Investigators and other researchers well suited to the research education program? Is the PD/PI a full-time faculty member with strong records in research, training, and teaching, capable of providing both administrative and scientific leadership to the development and implementation of the proposed research education program? If the PD/PIs are Early Stage Investigators do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? Do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?

- iii. ***Innovation. Is the proposed research plan characterized by innovation and scholarship?*** Does the application challenge and seek to shift current research education paradigms or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Does the proposed program duplicate, or overlap with, existing research education, training activities currently supported at Florida A&M University. Adaptations of existing research education programs may be considered innovative under special circumstances, such as the addition of unique components and/or a proposal to determine the probability of an existing program.
 - iv. ***Approach.*** Are the overall strategy, methodology, well-reasoned and appropriate to accomplish the specific aims of the research training program? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
 - v. If called for, is the proposed plan for evaluation and or dissemination of the research education program sound and likely to provide data on the effectiveness of the education program? Is there evidence that the program is based on sound research concepts and educational principles? Is the approach feasible and appropriate to achieve the stated research education goals? If the proposed program will recruit participants, are the recruitment, retention, and follow-up activities adequate to ensure a highly qualified underrepresented minority application pool?
 - vi. ***Environment.*** Will the scientific/educational environment in which the proposed research education program will be conducted contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the program proposed? Will the program benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?
- e. Additional review criteria are: (i) Undergraduate Research **Mentors for the FAMU Undergraduate Cancer Institute Trainees.** - including the qualifications and caliber of the mentors as researchers, successful competition for research support, track record in student training; (ii) **FAMU Undergraduate Trainees** -selection process to discern interest in a cancer research experience and sincere interest in discerning a commitment to a career focused on oncology; (iii) **Program and Training Environment** - evidence of a match between the research interests of the undergraduate research trainees and mentor(s); the quality of the training environment including the institutional commitment to research training, the quality and availability of facilities and related resources (e.g. equipment, laboratory space, computer time, subject populations), and the availability of research support; (iv) Undergraduate **Research Education Training Plan** - the coherence and potential of the research education training plan to provide the undergraduate trainees with individualized and supervised experiences that will develop research skills needed in preparation for summer research

externships/program at UF and other research intensive universities. **The following additional review criteria may also be considered as appropriate:** Protection of Human Subjects from Research Risk, Inclusion of Women, Minorities and Children in Research, Care and Use of Vertebrate Animals in Research, Biohazards, and Responsible Conduct of Research.

7. Contact Persons

Submit LOI to: Dr. Verian Thomas, FAMU MiCaRT, Co-Investigator
Verian.Thomas@famuedu

Full Proposal to: Mrs. Brenda Arnold, Assistant Director, Research and Academic Support
Brenda.Arnold@famuedu

Please address questions to one of the contact persons below:

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