

FY 07 Executive Summary of Grant #NNG06GC58A NASA Administrator's Fellowship Program (NAFP)

Grant Title: NASA Administrator's Fellowship Program (NAFP)

Location:

United Negro College Fund Special Programs Corporation (UNCFSP), 2750 Prosperity Ave., Suite 600, Fairfax, VA 22031

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Program Description:

The NASA Administrator's Fellowship Project (NAFP) is designed to enhance the professional development of NASA employees and science, technology, engineering, and mathematics (STEM) faculty of Minority Institutions (MIs) and to increase the capability of MIs to respond to NASA research and development needs. Faculty spend a year in residence conducting research at a NASA Center and NASA employees spend a year in residence at minority institutions teaching and conducting research.

Program Relevance to NASA:

The NASA Administrator's Fellowship Project (NAFP) is a shining example of how NASA is striving to ensure the strength of our Nation's scientific and technical human resources. Through the professional development of NASA employees and science, technology, engineering, and mathematics (STEM) faculty of MIs, this premier program offers access to NASA's internal and informal information networks, expands knowledge of NASA's technical and scientific needs, and provides opportunities for MIs to contribute to NASA's research and training missions. Specifically, the NAFP facilitates and fosters the necessary resources, relationships, and skill sets to further scientific research that is aligned with NASA's "Vision for Space Exploration."

Program Benefits to Society:

The NASA Administrator's Fellowship Program (NAFP) prepares fellows to become proactive leaders, managers, and visionaries in the science community by providing increased avenues of access to increased data, technical support, and communications. Through a rigorous professional development curriculum, the NAFP produces well-rounded, skilled fellows capable of leading people and projects, communicating effectively to a variety of constituencies and stakeholders, promoting and guiding institutional planning and advancement, shaping STEM policy, and securing funding to further research that will greatly impact the scientific community.

Program Goals:

- Goal 1: Build the research capacities of MIs to respond to and engage in NASA research
- a. Develop or enhance STEM-related infrastructure to support NASA-related research and development
 - b. Engage in activities that increase or enhance research conducted at MIs
 - c. Create sustainable partnerships between MIs and NASA and/or industry

- Goal 2: Develop leaders and change agents that will have the capability to positively impact NASA and MIs
- a. Align MIs research focus with NASA
 - b. Develop leadership skills and competence in curricular areas such as Project Management
 - c. Develop an action plan, including a schedule, on how they will apply professional development skills when fellowship term concludes
 - d. Develop cultural competence necessary to negotiate academic, public, and private environments

- Goal 3: Positively impact the NASA pipeline
- a. Develop and present projects, programs, or activities designed to increase K-12 interest in NASA
 - b. Mentor Harriett G. Jenkins Pre-Doctoral Fellowship Program fellows and assist participants in other programs such as Curriculum Improvement Partnership Award (CIPA)
 - c. Establish research collaborations that will provide research opportunities for additional faculty, students, and other stakeholders at NASA or in STEM fields

Program Accomplishments:

NAFP fellows from Cohorts 9 and 10 have made the following contributions to the program:

1. Developed and taught the first-ever course in Biomedical Engineering, “*Introduction to Biomedical Engineering*” at Morgan State University.
2. Served as an integral part in the development of two new Materiel Engineering graduate programs at Alabama A&M University.
3. Helped secure a Curriculum Improvement Partnership Award (CIPA) grant for a Haskell Indian National University.
4. Co-found and serve as editor-in-chief of the new on-line magazine “Earthzine.org”, a resource for news, articles, information and educational materials about Earth Science, Earth observations and users of Earth information.
5. Established the Fisk Altitude Achievement Missile Team at Fisk University comprised of both graduate and undergraduate students who built a competitive rocket and competed in the NASA University Student Launch Initiative.
6. Developed a series of curricula and taught a magnitude of related courses to both graduate and undergraduate students at several Minority Institutions.

7. Attended numerous conferences, workshops and videoconferences where they presented on the NAFP and recruited qualified faculty members and NASA employee fellows. This recruitment led to the recommendation and endorsement of NAFP applications and ultimate selection of at least four (4) current fellows.

Student Accomplishments: N/A