The National Academies of the Sciences, Engineering and Medicine: Morgan State University Town Hall

Department of Defense (DoD) Historically Black Colleges/ Universities & Minority-Serving Institutions (HBCU/MI) Program

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Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E))

Research, Technologies & Laboratories

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Targeted Opportunities: Historically Black Colleges and Universities and Minority-Serving Institutes (HBCU/MI) Program

DoD's HBCU/MI Science Program increases the research and educational capacity of HBCUs/MIs, and fosters workforce diversity and entry of underrepresented minorities into STEM disciplines.

Enhance participation of HBCUs/MIs in DoD research

- Categories within the HBCU/MI designation include:
  - Historically Black Colleges/Universities, Tribal Colleges/Universities, Hispanic Serving Institutions, Asian American Native American Pacific Islander Serving Institutions, American Indian Alaskan Native Serving Institutions, and Predominately Black Institutions
- 700+ institutions

Strengthen research and educational opportunities at HBCUs/MIs and increase number of minority graduates in STEM disciplines

Build a more diverse pool of scientists and engineers to meet the future needs of defense-related programs

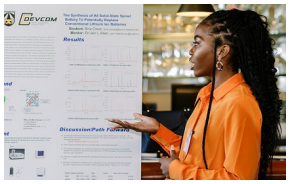
Targeted Opportunities: HBCU/MI program cont.

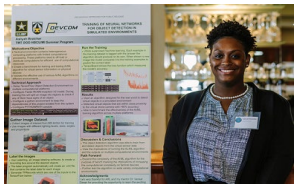
Research, Equipment and Instrumentation Grants

- Research project grants, including student support, are fully funded for 3 years and range from $300K – $660K
- Equipment/instrumentation grants are fully funded for 1 year and range from $100K - $600K

Summer Internships and Faculty Fellowships

- 10-week summer researcher program for undergraduate and graduate students in STEM disciplines
- Students placed at DoD laboratories and facilities across the nation to conduct research relevant to the defense mission





Pictured, Above: Summer interns presenting their research during the July 2019 DoD Summer Research Symposium.

Summer 2020 Participation

- Virtually placed 108 interns and 19 Faculty Fellows at 13 defense laboratories as well as OSD organizations. Representation from 40 different universities, specifically 23 HBCUs, 12 Minority-Serving Institutions, and five (5) Tribal Colleges/Universities.

Partnering with academia: Centers of Excellence

- Centers conduct multidisciplinary, collaborative research that attracts early-career researchers
- Provides opportunities for student participation leading to the next generation of scientists and engineers
- Nine Centers established at HBCUs/MIs:

Norfolk State University: **Cyber Security**	North Carolina A&T: **Autonomy**	Prairie View A&M University: **Research Data Analytics**
Hampton University: **STEM Scholars**	Spelman College: **Minority Women in STEM**	Tuskegee University: **Aerospace Education, Research & Innovation**
Howard University: **Artificial Intelligence and Machine Learning**	UC Riverside: **Networked Configurable Command, Control, and Communications**	Delaware State University: **Advanced Quantum Sensing**

Morgan University Engagement with HBCU/MI program

University Affiliated Research Center (UARC) HBCU Pilot Program

- Established an HBCU Pilot Program with the University of Maryland-College Park Applied Research Laboratory for Intelligence and Security (ARLIS) UARC
- Three regional HBCUs (Howard University, Morgan State University, and University of the District of Columbia) will partner in support of research projects involving: 5G, AI/ML, Cyber Assessment, and Chatbot Testbed.
- Partnership supports the Intelligence Universities for Security (IntelUS) academic research consortium in further support of ARLIS mission as a UARC. HBCU partners will work as subcontractors to accomplish research priorities.
- Specifically, Morgan State University collaborates with Howard University in Project 1: 5G Technology Assessment– To create new tools needed to test 5G security.

MORGAN STATE UNIVERSITY

APPLIED RESEARCH LABORATORY FOR INTELLIGENCE AND SECURITY

UNIVERSITY OF THE DISTRICT OF COLUMBIA 1851

HOWARD UNIVERSITY 1867

Summer Internship and Faculty Fellows Participation

In FY2020 Summer Internship and Faculty Fellowship, two interns and two faculty members from Morgan State University participated in the program

- Participants disciplines ranged from Physics, Electrical and Computer Engineering, & Chemistry.

Equipment/ Instrumentation Grant Participation

From 2010-2018, Morgan State University was awarded through the HBCU/MI Program 1.9 million in funding for Equipment and Instrumentation.

- This includes 16 different PIs across various STEM disciplines such as Biodefense, Material Sciences, Biotechnology, Molecular, and Cellular Science .

Upcoming Opportunities for Engagement

Opportunities for research faculty

Department of Defense Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MSI)

The CCDC ARL invites applications/proposals from covered educational institutions for research and education programs that will meet the following objectives: (1) Enhance research and engineering capabilities in areas important to national defense; (2) Increase the number of graduates in STEM disciplines; and (3) Encourage research and education collaborations with other institutions of higher education and with defense organizations.

Funding Opportunity Number: W911NF-19-S-0013
https://www.grants.gov/web/grants/view-opportunity.html?oppId=316548

Opportunities for students

Science, Mathematics, and Research for Transformation (SMART) Program

The SMART Scholarship-for-Service Program provides leaders of tomorrow with an education and impactful career. The mission of the SMART Program is to build the next-generation workforce while increasing DoD STEM capabilities.

The SMART Application is open August 1- December 1, 2021

www. smartscholarship.org

SMART SCHOLARSHIP CONT.

smartscholarship.org

SMART
SCIENCE, MATHEMATICS, AND RESEARCH FOR TRANSFORMATION
PART OF THE NATIONAL DEFENSE EDUCATION PROGRAM

SMART
SCHOLARSHIP-FOR-SERVICE PROGRAM
Defense Created by Scientists and Engineers

BENEFITS FOR SMART SCHOLARS

The Science, Mathematics, and Research for Transformation (SMART) Scholarship-for-Service Program, funded by the Department of Defense (DoD), is a combined educational and workforce development opportunity for STEM students.

Full Tuition
Full tuition, annual stipends, and book/health allowances to students pursuing STEM degrees.

Internships
Receive invaluable experience during summer internships with the Department of Defense.

Career
Pursue full-time employment with the Department of Defense after graduation.

ELIGIBILITY AND PROGRAM REQUIREMENTS

- U.S. Citizen
- Minimum 3.0 GPA
- Degree in STEM
- 18 Years or Older
- Minimum 1.5 Years
- Obtain Security Clearance
- Complete Internship
- Accept DoD Employment

Jennifer Aneke

"I've been able to apply my technical expertise to a variety of areas that aid the Navy's Mission. The SMART Scholarship opened up many doors for professional growth and the ability to better serve our country."

SMART.DoD.Scholarship | @SMART_DoD | SMART Scholarship | SMART.DoD | DoD SMART Scholarship

DoD Research Opportunities

Basic Research Programs Overview

Vannevar Bush Faculty Fellow (VBFF)

The VBFF supports world-class researchers in scientific areas of critical importance to DoD and ensures the cultivation of exceptional talent. Fellows provide DoD with deep scientific expertise of today's leading research universities and collaborate with DoD scientists/engineers to enhance in-house research capabilities.

Laboratory University Collaboration Initiative (LUCI)

Identify and competitively fund three-year basic research collaborations between leading scientists at the DoD laboratories and the Vannevar Bush fellows and MURI PIs at US universities, in fields of critical interest to the Department.

The MINERVA Research Initiative

Minerva Research Initiative supports methodologically innovative social science research and builds a cadre of experts who can advise DoD-Policy and Combatant Commands (CCMDs) on the security challenges in which they operate.

Defense Established Program to Stimulate Competitive Research (DEPSCor)

DEPSCoR seeks to build national infrastructure for research by funding activities in science and engineering fields important to national defense.

DoD Research Opportunities Cont.

Basic Research Programs Overview

Multidisciplinary University Research Initiative (MURI)

The tri-Service MURI program is a five-year grant that convene teams of investigators with the hope that collective insights drawn from research across multiple disciplines could facilitate the advancement of newly emerging technologies and address the Department's unique problem sets

Defense University Research Instrumentation Program (DURIP)

DURIP augments research capabilities at universities conducting cutting edge research for DoD, through the procurement of state-of-the-art equipment. Awards are administered through a merit competition jointly conducted by the Army Research Office, Office of Naval Research, and Air Force Office of Scientific Research. Solicited proposals target university investigators conducting foundational science and engineering research of importance to national defense