



WORKFORCE DEVELOPMENT

PROJECT: DOE-FIU Science and Technology Workforce Development Program

CLIENT: U.S. Department of Energy PRINCIPAL INVESTIGATOR: Dr. Leonel Lagos LOCATION: DOE HQ, DOE Sites & National Labs

Description:

The DOE-FIU Science and Technology Workforce Development Program is an innovative program between the U.S. Department of Energy's Office of Environmental Management (DOE-EM) and Florida International University's Applied Research Center designed to create a "pipeline" of minority engineers specifically trained and mentored to enter the DOE workforce in technical areas of need. This innovative program was designed to help address DOE's future workforce needs by partnering with academic, government and DOE contractor organizations to mentor future minority scientists and engineers in the research, development, and deployment of new technologies addressing DOE's environmental cleanup challenges. Students selected as DOE Fellows will perform DOE-EM related hands on research at FIU by working alongside FIU-ARC's scientists and engineers as well as with FIU faculty.



Dr. Monica Regalbuto (Assistant Secretary for Environmental Management – US DOE) with DOE Fellows, Program Director - Dr. Leonel Lagos, and ARC Executive Director - Dr. Inés Triay, at Waste Management 2015

The students also participate in summer internship assignments at DOE facilities such as national laboratories and DOE sites. Upon graduation and completion of this fellowship, the students will submit an application to join Federal internship programs such as the Pathways Program, or apply to DOE national laboratories and DOE contractors.

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DOE Fellows participated in summer 2015 student internships



DOE Fellows and mentor conducting research in the ARC Radiological Laboratory

Since 1995, the Applied Research Center (ARC) at Florida International University (FIU) has provided critical support to the Department of Energy's Office of Environmental Management (DOE-EM) mission of accelerated risk reduction and cleanup of the environmental legacy of the nation's nuclear weapons program. ARC's applied research is performed under the DOE-FIU Cooperative Agreement (under Contract # DE-EM0000598) and provides technical support to DOE EM in the area of environmental remediation and STEM workforce development and training.

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Benefits:

- Students gain professional development and work experience through hands on research conducted alongside ARC and FIU scientists.
- 10-week internships at DOE national laboratories such as Oak Ridge, Pacific Northwest, Lawrence Livermore, Savannah River, Los Alamos, and Idaho, as well as DOE-HQ, and DOE sites.
- Opportunities for graduate students to develop Master's thesis and/or PhD dissertation topics with direct supervision of ARC scientists and FIU faculty.
- Students attend national and international conferences such as the Waste Management Symposia, American Nuclear Society's annual meetings and topical conferences.
- Students develop presentation skills by showcasing their research via oral and poster presentations.
- Opportunities for students to seek employment with DOE, DOE national labs, and DOE contractors.

Accomplishments:

- 108 FIU STEM minority students (graduates and undergraduates) have been inducted as DOE Fellows since program inception.
- 8 DOE Fellows hired by DOE EM HQ (3), DOE national research laboratories (2), and private contractors for EM (3). In addition, 13 DOE Fellows have been hired by other federal, state or local governments including: Dept. of Defense, NASA, Dept. of Commerce, Florida Dept. of Environmental Protection, DERM, Dept. of the Navy (NAVSEA).
- **53 DOE Fellows** graduated FIU with BS or MS degrees and obtained employment in STEM industry, including Florida Power & Light, GE, Lockheed Martin, Raytheon, Texas Instruments, and others. Hiring rate for DOE Fellows is over 99%.
- 95 internships completed at DOE sites and national labs (SRS, ORNL, DOE ORO, PNNL, LLNL, Idaho, and Hanford), DOE HQ and DOE contractors. Technical reports available at http://fellows.fiu.edu.
- Over 142 student posters and professional presentations given at national & international conferences (e.g., Waste Management Symposia, American Nuclear Society, etc.).

- Waste Management Symposia Best Student Posters awarded to Christine Wipfli (WM15), Alexandra Fleitas (WM14), Stephen Wood (WM11), Denny Carvajal (WM10) and Denisse Aranda (WM09). Best Overall Professional Poster awarded to Leydi Velez (WM09).
- 45 Fellows have obtained or are currently pursuing Master's or PhD degrees at FIU and other institutions, including MIT, Michigan, Purdue, Stanford, Virginia Tech, U. of Tenn., U. of South Florida, and others.





DOE Fellows presenting at WM15



DOE Fellow (Winner of Best Student Poster) at WM15