



DOE-FIU Cooperative Agreement Annual Research Review – FIU Year 2

Tuesday, September 27, 2022

9:30 - 9:35 am EDT	Kick-Off /Welcoming Remarks (DOE-EM)	Kurt Gerdes (Director, Technology Development) – DOE EM-3.2
9:35 - 9:40 am EDT	Welcoming Remarks (DOE-LM)	Leonel Lagos on behalf of DOE Office of Legacy Management
9:40 - 10:00 am EDT	Projects 4 & 5: STEM Workforce Development and Training	FIU, DOE HQ (EM & LM), SRNL, PNNL, WIPP, SRS, ORP, LBNL, WRPS, INL, Grand Junction
BREAK		
11:00 - 12:00 pm EDT	Projects 4 & 5 (cont'd): STEM Workforce Development and Training	FIU, DOE HQ (EM & LM), SRNL, PNNL, WIPP, SRS, ORP, LBNL, WRPS, INL, Grand Junction
BREAK		
1:00 - 2:30 pm EDT	Project 1: Chemical Process Alternatives for Radioactive Waste	FIU, DOE HQ, PNNL, WRPS, SRNL, SRS
2:30 - 4:00 pm EDT	Project 3: Waste and D&D Engineering & Technology Development	FIU, DOE HQ, SRNL, PNNL, LBNL, INL, ANL

Wednesday, September 28, 2022

10:00 - 11:30 am EDT	Project 2: Environmental Remediation Science & Technology	FIU, DOE HQ, SRNL, PNNL, ORNL, LANL, CBFO
11:30 - 1:00 pm EDT	Wrap Up (FIU Projects 1, 2, 3, 4 & 5)	FIU, DOE HQ (EM & LM)

FIU

Applied Research
Center



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PROJECT 4

DOE-FIU Science & Technology Workforce Development Initiative

Worlds
Ahead

Advancing the research and academic mission of Florida International University

FIU Personnel and Collaborators

Program Director: Leonel Lagos

Program Manager: Ravi Gudavalli

Faculty/Staff: Walter Quintero, Clint Miller, Angelique Lawrence, Anthony Abrahao

DOE Fellows: Angel Almaguer, Aubrey Litzinger, Aurelien Meray, Brendon Cintas, Caridad Estrada, Christian Dau, Christian Gonzalez Lopez*, Daniel Martin*, David Mareno*, Desmond Sinnott, Gisselle Gutierrez*, Jeff Natividad*, Joel Adams, Josue Estrada Martinez, Juan Morales*, Juana Perucina*, Karina Hernandez*, Mariah Doughman, Nicholas Espinal, Oscar Roa*, Philip Moore, Phuong Pham*, Raymond Piloto*, Roger Boza, Rohan Shanbhag, Sebastian Story, Sebastian Trevino*, Stevens Charles, Thi Tran*

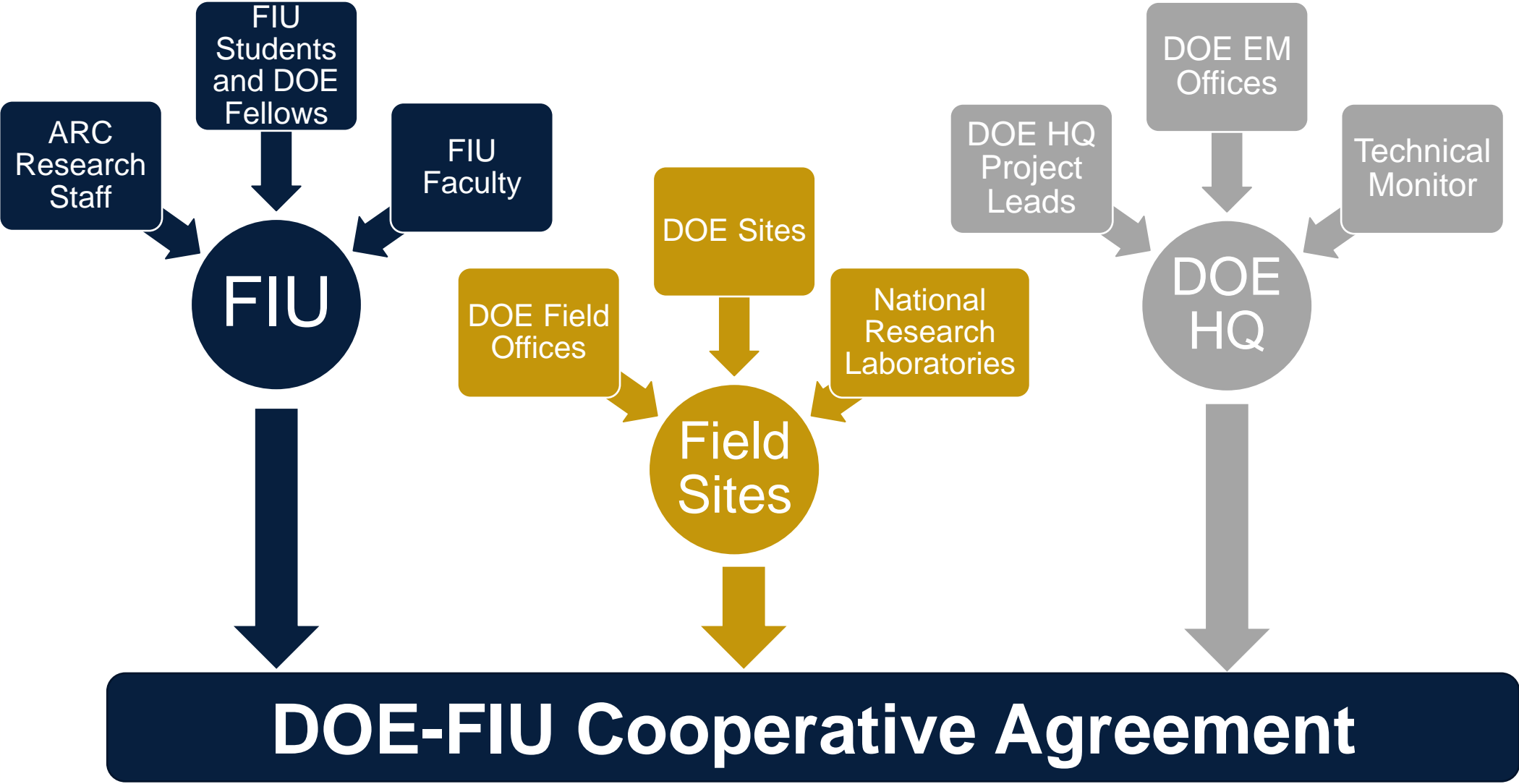
DOE-EM: Kurt Gerdes, Mary Ann Maloney, Genia McKinley, Jean Pabon, Junita Turner

DOE National Laboratories, Sites, Contractors

*Former staff/student contributors



Cooperative Agreement Team

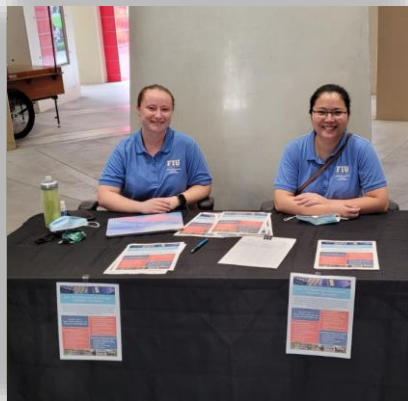


DOE Fellows Program Components



FIU Year 2 Highlights & Accomplishments:

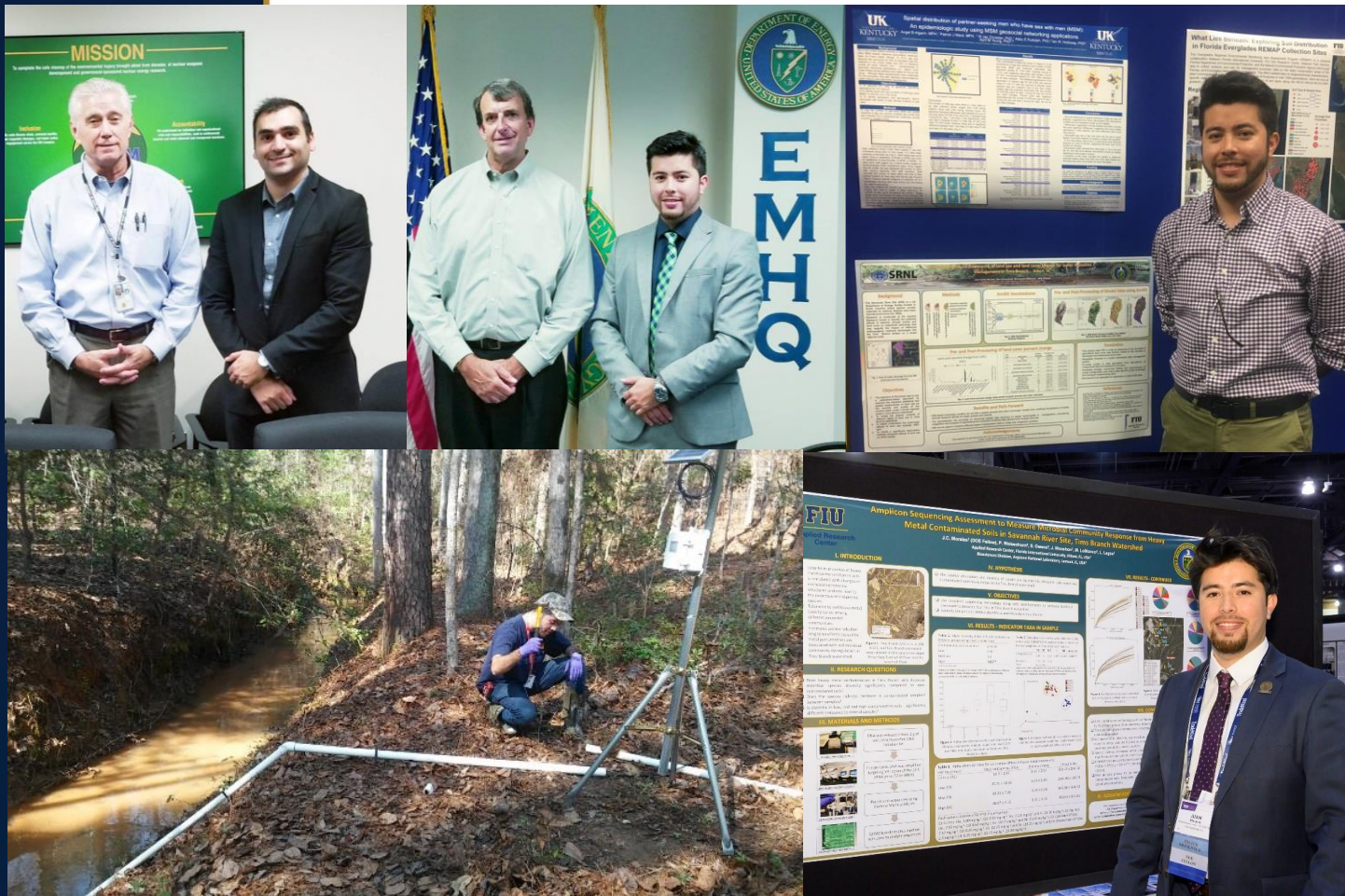
- Conducted recruitment campaigns and selected **5** FIU students to join the programs
- **32** Fellows supported FIU scientists and engineers in the development of the technical work
- Conducted introduction ceremony and inducted DOE Fellows Class of 2020 (**12**) and 2021 (**11**)
- **19** summer internships were conducted across the DOE complex, including **1** LM Fellow Internship
- **26** DOE Fellows participated and presented posters during DOE Fellows Poster exhibition



Joining the Workforce

Juan Morales

Ph.D. Environmental Health Sciences
Postdoctoral Researcher - SRNL



- Participated in 4 internships at DOE-HQ (2017 & 2018), ANL (2019) & PNNL (2020)
- Presented his research findings at numerous conferences, including the Waste Management Symposia, the American Geophysical Union and RemPlex
- Deployed remote monitoring stations in Tims Branch, SRS for environmental data collection

Joining the Workforce

Phuong Pham
Ph.D. Chemistry
Postdoctoral Researcher - SRNL



- Studied the effect of environmental factors on iodine attenuation and release at SRS wetlands
- Participated in two internships at SRNL (2021 & 2022)
- Presented her research findings at numerous conferences, including the Waste Management Symposia and the American Chemical Society

Joining the Workforce

Jeff Natividad

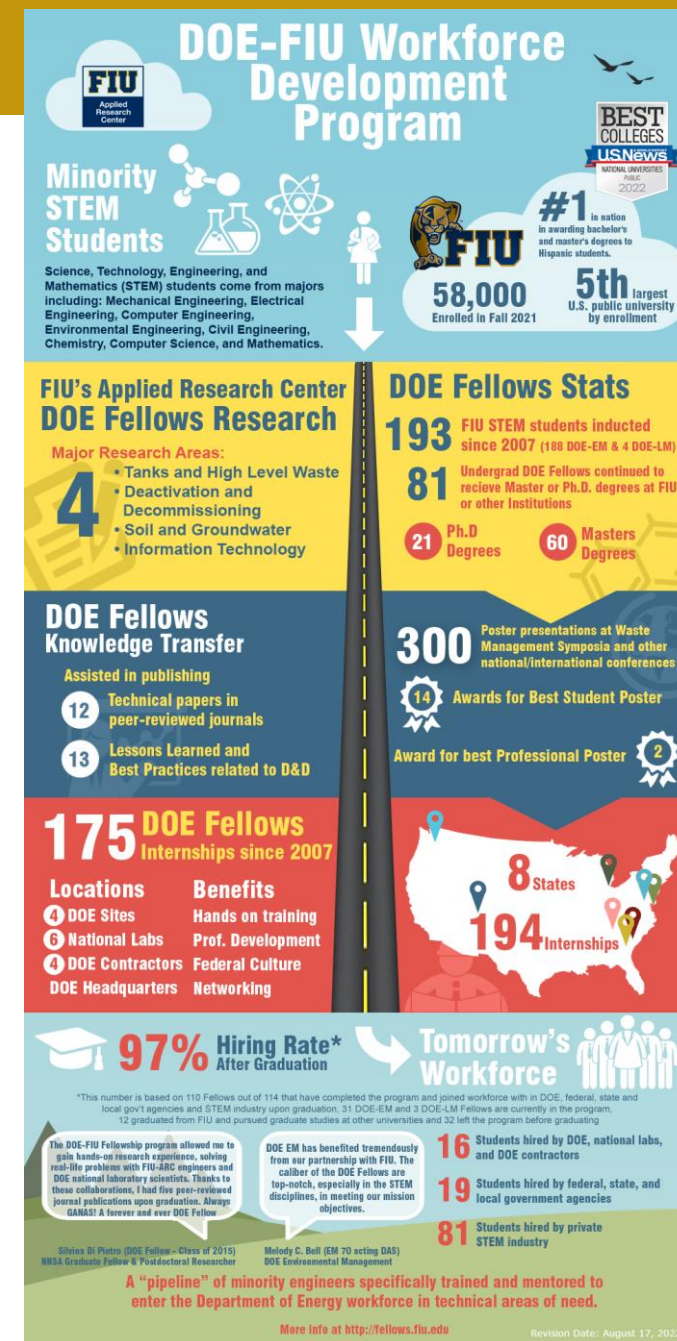
M.S. Mechanical Engineering
Mechanical Engineer - WRPS



- Developed several mobile platforms featuring vertical surface movement capabilities for the application of concrete fixatives within the H-Canyon Exhaust Tunnel at SRNL
- Participated in internships at WRPS (2020 & 2021) and UCOR (2022)
- Presented at Waste Management Symposia and co-authored several papers

Overall Accomplishments

- **193 FIU STEM** minority students (graduates and undergraduates) have been inducted as DOE Fellows since program inception.
- **16 DOE Fellows** hired throughout the DOE Complex: DOE EM HQ (3), DOE national laboratories (10), NNSA (1), and DOE EM contractors (2).
- **19 Fellows** have been hired by other federal, state or local governments including: Dept. of Defense, NASA, Army Corp of Engineers, Dept. of Commerce, Florida Dept. of Environmental Protection, DERM, Dept. of the Navy (NAVSEA).
- **81 DOE Fellows** graduated FIU with bachelor's or master's degrees and obtained employment in STEM industry.
- **12 DOE Fellows** graduated FIU and pursued graduate STEM degrees at other major Universities (MIT, Virginia Tech, Georgia Tech, Stanford, etc.).
- **18** are still pursuing their respective degrees at FIU and continue to be part of the DOE Fellows Program.
- DOE Fellows graduate FIU and immediately obtain employment with federal government, state/local government and STEM industry in general. The hiring rate upon graduation is approximately 97%.



FIU Year 3 Projected Scope

Active hands-on research assisting ARC scientists/engineers during the execution of DOE-EM research in order to integrate education with practical experience in the DOE-EM problem areas.

- Recruit qualified talented FIU minority STEM students
- Engage in DOE-EM research under the technical projects
- Conduct poster exhibition & competition
- Host DOE Fellows induction ceremony
- Coordinate summer internship program and internship technical reports
- Conference participation & presentations, including WM Symposia, American Nuclear Society, American Geophysical Union (AGU)
- DOE-EM HBCU collaboration/interactions - extend recruitment to include HBCU/MSI students interested in a Ph.D. at FIU
- Work closely with DOE nat. labs to identify opportunities for Ph.D. students including extended work assignments that can lead to post-doctoral positions





Thank You. Questions?