Researchers from SURA Member Universities Receive Early Career Awards from Department of Energy

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Washington, D.C. — The Department of Energy (DOE) has selected eighty-three scientists from across the nation—including twenty-seven from DOE's national laboratories and fifty-six from U.S. universities—to receive a total of $110 Million in funding for research as part of the DOE Office of Science's Early Career Research Program. Scientists from sixteen SURA member universities and one researcher from the Thomas Jefferson National Accelerator Facility, which is managed by Jefferson Science Associates, LLC, a wholly-owned subsidiary of SURA, are honored with awards this year.

"These highly sought-after research awards are incredibly impactful to early career scientists," said Dr. Sean J. Hearne, President and CEO of the Southeastern Universities Research Association. "They allow the scientist to focus for 5 years on pushing the boundaries of scientific knowledge."

SURA is honored to have seventeen advanced researchers representing member institutions from ten states and the Jefferson Lab among this year's group of Early Career Award recipients:

Dr. Alexander Austregesilo, from the Thomas Jefferson National Accelerator Facility, was recognized for his work in advanced methods for hybrid meson searches.

Dr. Lauren Beckingham of Auburn University was awarded for her research involving mechanisms of hydrogen interaction with earth materials in subsurface storage formations.

Dr. Livia Casali, from the University of Tennessee at Knoxville, was honored for her work on innovative core-edge solutions for tokamaks.

Dr. Yang-Ting Chien of Georgia State University was recognized for research probing quark matter and hadronization using energy flow substructure.

Dr. Christopher Dares of Florida International University received his award for work modulating actinide redox chemistry with metal oxide electrodes.

Dr. Tova Holmes, of the University of Tennessee at Knoxville, was honored for research expanding sensitivity to new physics at the LHC through unconventional track signatures.

Dr. Piran Kidambi from Vanderbilt University was recognized for studies toward understanding enhanced isotope sieving through defects in 2D membranes.

Dr. Christopher Monahan of the College of William & Mary received his award for research on the three-dimensional structure of the proton.

Dr. Guido Pagano of Rice University was honored for his trapped-ion quantum simulation for nuclear physics.

Dr. Denisia Popolan-Vaida from the University of Central Florida received her award for work on the mechanistic understanding of the Criegee intermediates reaction network in atmospheric and combustion systems.

Dr. Michael Schulz of Virginia Tech was recognized for work understanding polymeric chelators for rare-earth element extraction and separation.

Dr. Brian Summa from Tulane University received his award for research on efficient and accessible interactive visual analytics of exascale scientific data.

Dr. Jorge Villa, of the University of Louisiana at Lafayette, was recognized for his work assessing greenhouse gas structural and functional resilience of freshwater coastal wetlands subject to persistent saltwater intrusion events.

Dr. Yao Wang of Clemson University received his award for research on analog quantum simulation for solid-state spectroscopies.

Dr. Xiao-Xiao Zhang from the University of Florida was honored for work on optical manipulation of magnetic order in van der Waals heterostructures.

Dr. You Zhou, of the University of Maryland at College Park, was recognized for work probing and controlling novel electronic and magnetic ordering in electron-hole Wigner crystals.

Dr. Aleksandr Zhukhovitskiy, from the University of North Carolina at Chapel Hill, was awarded for upcycling of all-carbon polymer backbones into value-added amines via skeletal rearrangement.

These award recipients represented seven of the eight major program offices within the Department of Energy's Office of Science: Advanced Scientific Computing Research, Basic Energy Sciences, Fusion Energy Sciences, High Energy Physics, Isotope R&D and Production, Biological and Environmental Research, and Nuclear Physics. To be eligible for the DOE award, a researcher must be an untenured, tenure-track assistant, or associate professor at a U.S. academic institution or a full-time employee at a DOE national laboratory who has received a Ph.D. within the past 10 years.

Awardees were selected from a large pool of university- and national laboratory-based applicants. Selection was based on peer review by outside scientific experts. A total of $110 million was awarded for projects lasting up to five years.

The DOE Office of Science's Early Career Research Program is designed to boost America's scientific workforce by providing support to exceptional researchers early in their careers, when many do their most formative work. The Southeastern Universities Research Association (SURA) is a consortium of sixty member universities whose main

purpose is to foster collaboration that enhances members' capabilities of undertaking significant, transformative scientific research projects that no single institution or small consortium can handle independently.

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