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Energy Department Early Career Scientists and Engineers Honored

WASHINGTON, DC – At a White House ceremony today, eight "early career" researchers, funded by the U.S. Department of Energy's (DOE) Office of Science and its National Nuclear Security Administration (NNSA), were honored for their work ranging from computer vision and machine intelligence to identifying genetic switches in the human genome.

DOE's scientists are among 58 researchers supported by nine federal departments and agencies who received the Presidential Early Career Award for Scientists and Engineers. The Presidential award is the highest honor bestowed by the U.S. government on outstanding scientists and engineers who are early in their independent research careers. Each Presidential award winner received a citation, a plaque and a commitment for continued funding of their work from their agency for five years. Dr. John Marburger, Director of the White House Office of Science and Technology Policy, presented the awards.

"These awards reflect our belief that the representatives of the new generation of scientists and engineers honored today are meeting demanding scientific and technical challenges with superior leadership, knowledge and insight," Secretary of Energy Samuel W. Bodman said. "I'm pleased to recognize the extraordinary scientific and technical achievements represented by the awardees' contributions."

The DOE-funded researchers are:

- Kyle Cranmer (DOE's Brookhaven National Laboratory, Upton, New York) received the Award for his unique contributions to the ATLAS experiment's search for the Higgs boson, including seminal studies of the Higgs boson production via Vector Boson Fusion and the trigger algorithms needed to identify missing transverse energy.
- Julia Laskin (DOE's Pacific Northwest National Laboratory, Richland, Washington) received the Award for her internationally recognized contributions to ion chemistry, mass spectrometry, and ion surface reactions leading to fundamental understanding of kinetics of dissociation of large molecules.
- Ho Nyung Lee (DOE's Oak Ridge National Laboratory, Oak Ridge, Tennessee) received the Award for his pioneering development of experimental methods and theoretical understanding leading to the atomic scale synthesis by pulsed-laser deposition of ultrathin complex oxide heterostructures and completely artificial superlattice crystals with designed-in functionalities.
- Len A. Pennacchio (DOE's Lawrence Berkeley National Laboratory, Berkeley, California) received the Award for systematically assigning gene regulatory function to the human genome through the coupling of vertebrate comparative genomics and large-scale studies in mice, using a world-class and unique mouse resource that he established.
- Brian J. Kirby (Cornell University, Ithaca, New York) received the Award for his pioneering work in nanoscale electrokinetic transport, pathogen and chemical detection, quantum data storage, and advanced microsystems that are critical to developing technical capabilities for stockpile stewardship,

enhanced surety and non-proliferation.

- Jeffrey Kysar (Columbia University, New York, New York) received the Award for his fundamental research into the deformation of materials under high-rate loading, including development of mechanistic models of microstructure and material fracture evolution for the Stockpile Stewardship Program.
- Shawn Newsam (University of California, Merced) received the Award for his outstanding research in image processing, pattern recognition, and data mining, and for his leading role in educating young scientists and engineers by developing a new and innovative academic program in computer science and engineering.
- Carlos Pantano-Rubino (University of Illinois at Urbana-Champaign) received the Award for his innovative development of computational turbulence models and advanced simulations of turbulent flows, contributions to the theory of laminar flames, and the statistical modeling of flame-hole dynamics.

While in Washington, D.C., the eight researchers were also honored at a ceremony at DOE headquarters with Deputy Secretary of Energy Clay Sell, DOE Under Secretary for Science Dr. Raymond L. Orbach and NNSA Principal Deputy Administrator for National Security William C. Ostendorff. At the DOE event, the four DOE laboratory scientists were also presented DOE's Office of Science Early Career Scientist and Engineer Award.
The four university researchers received the Office of Defense Programs Early Career Scientist and Engineer Award. NNSA's national security laboratories nominated the recipients in recognition of their work in support of the administration's national security mission.

Read the Biographical information (http://www.science.doe.gov/Accomplishments_Awards/PECASE/PECASE.htm) on the winners.

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