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**Achieving the extraordinary: Careers in Nuclear Physics at the NNSA Laboratories**

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The broad and diverse National Security mission given to the National Nuclear Security Administrations laboratories requires strategic investments in maintaining and growing its core expertise and technologies in the area of nuclear physics. Nancy Jo Nicholas, Associate Laboratory Director for Global Security at Los Alamos National Laboratory, will discuss the breadth of opportunities for nuclear physicists at the NNSA Laboratories. Nicholas holds a Masters Degree in Experimental Nuclear Physics.

The mission of Los Alamos National Laboratory is to solve the most complex national security challenges through scientific excellence. The Laboratory maintains an agile, responsive, and innovative workforce dedicated to multidisciplinary science, technology, and engineering capabilities. In addition, LANL maintains unique experimental and computational facilities, eleven of them nuclear. Lab personnel with degrees in nuclear physics work in a wide range of basic and applied research fields, technology development, as well as numerous non-traditional technical fields.

The NNSA Labs support diverse programs that include scientists of many nationalities, participation in experiments worldwide, sponsorship of workshops and conferences, and classified experiments and analysis. Areas of research at Los Alamos include nuclear science, plasma physics, quantum information science, weapon stockpile modernization, weapons physics, semiconductor irradiations, detector development, neutron radiography, advanced imaging, weapons data analysis, biosecurity, image analysis, signal processing, neural computation, experimental and computational neuroscience, and more. In the Global Security Directorate, nuclear physicists work on multidisciplinary teams in the physics of arms controls, space, nuclear safeguards, and intelligence. Researchers use nuclear material in a variety of forms to pioneer nuclear safeguards concepts, develop instruments and techniques to monitor and measure nuclear materials, operate the Nations only capability for nuclear criticality experiments, and lead the development of unique and innovative special-purpose nuclear reactor concepts.

Nicholas will also touch on the national laboratories significant investments in Laboratory Directed Research and Development, career development, internships, and a wide range of summer schools.