The Department of Chemistry at The University of Tennessee (UT) is seeking a scientist with a strong computational background in any area of nano and microscale science with a preference for the area of soft matter, to participate in a software modeling and simulation project aimed at solving complex micro-structural problems with small angle neutron scattering (SANS). The expanding interest in multidisciplinary research projects and the attendant increase in complexity of model systems and data, combined with the growing emphasis on coupling modeling and simulations to experiments, is putting computational science at the leading edge of today’s transformational research opportunities. The position is based at the NIST Center for Neutron Research (NCNR) in Gaithersburg, MD.

The NCNR is a world leader in neutron sciences with 24 operating instruments serving more than 2200 research participants/year resulting in 350 scientific publications/year. The NCNR operates 3 SANS and Ultra SANS (USANS) instruments which, combined, probe structural features in materials ranging from 1nm to 20,000 nm. More information about the NCNR can be found at the web site www.ncnr.nist.gov. The project is an NSF funded, multi institution, five-year software development project to develop the next generation framework and applications for data analysis, modeling, and simulation for neutron scattering experiments. More information is available at danse.chem.utk.edu.

The position requires a Ph.D. in the physical or biological sciences, engineering or a related field, and excellent programming, oral and written communication skills. Familiarity with object oriented programming concepts, a working knowledge of Python, and experience in microstructural characterization using x-ray or neutron diffraction technique are highly desirable. Responsibilities include identifying opportunities for innovations and helping to set project priorities, collaborating on experimental projects where our computational methods can make significant impact, and developing and implementing the appropriate and necessary algorithms to meet the projects goals while adhering to the group's software engineering process in doing so. The position thus provides an exciting opportunity to combine computational and programming skills with cutting edge research in materials science both in terms of algorithm development and of application of the project’s tools to important problems in colloid, polymer, complex fluid and related fields.

Appointment will be for two-three years. Salary is in the range from $55,000 to $70,000 depending on qualifications and experience. Expressions of interest along with a resume should be sent (preferably electronically) to Dr. Paul Butler, at paul.butler@nist.gov, and Dr. Mathieu Doucet, at mathieu.doucet@nist.gov. Applications will be accepted until a suitable candidate has been identified. In furtherance of the University’s fundamental commitment to diversity, minority group members and women are strongly encouraged to apply.