

Postdoctoral Research Associate: Protein Structure, Function & Dynamics

**Chemical Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee**

ORNL08-30-CSD

Project Description:

Oak Ridge National Laboratory (<http://www.ornl.gov>) is a world renowned institution for pioneering research and is the home of the Spallation Neutron Source (<http://neutrons.ornl.gov>), and the National Center for Computational Sciences (NCCS) (<http://www.nccs.gov>). NCCS currently has one of the fastest supercomputers in the world, which will become one of the first PetaFLOP supercomputers in the world by the year 2008. This supercomputer is being used to address challenging problems in molecular biophysics by investigating various aspects of biomolecules, including their structure, folding, dynamics and functions. We are currently using biomolecular simulations to study a variety of enzyme molecules to understand the various factors that lead to enzyme rate-enhancement. A post-doctoral position is immediately available, to work on challenging problems in molecular biochemistry and biophysics that combine neutron diffraction and spectroscopic measurements with state-of-the-art molecular dynamics simulation.

Responsibilities:

The postdoctoral research associate will work with biophysicists and computational biologists on biomolecular simulations of enzyme catalysis and focus on understanding the role of various factors, including intrinsic protein dynamics, in enzyme function. The successful candidate will have experience in all aspects of experimental protein crystallography, especially high-resolution analysis and computational modeling. Contact: Dr. Dean Myles, e-mail: mylesda@ornl.gov; Dr. Pratul Agarwal, e-mail: agarwalpk@ornl.gov.

How to Apply:

Qualified applicants may apply online at https://www2.ornl.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. All applications must be received by December 20, 2007. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number. This appointment is offered through the ORNL Postdoctoral Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). This appointment is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.

Ph.D. Required

Required Disciplines: Life Health and Medical Sciences, Chemistry, Physics

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment. U.S. citizenship or capability to achieve legal permanent resident status at initiation of the assignment is highly desired.