Launch an Exciting Career in Science and Engineering

For more than 75 years, Oak Ridge National Laboratory has helped shape our world with discoveries in neutron science, high-performance computing, advanced materials, biology and environmental science, nuclear science and isotopes, and national security. ORNL offers dedicated mentors, world-leading scientific resources, and professional development opportunities to well-qualified PhD students and outstanding early-career scientists or engineers.

Apply at www.ornl.gov/postdoc
Solve Big Problems with International Impact

As a postdoctoral researcher at ORNL, you will have the opportunity to work with and be mentored by world-class scientists and engineers. You will work to solve today’s tough scientific and engineering challenges, with international impact.

Advanced Materials: ORNL and university collaborators used neutron scattering and other advanced characterization techniques to study how a widely used catalyst enables the water–gas shift reaction to purify and generate hydrogen at an industrial scale.

Biology and Environment: ORNL leads convergence research in biology, ecology, engineering, data discovery, physical sciences, and computing to advance US competitiveness in the global bioeconomy and Earth system sustainability.

Clean Energy: ORNL and Gate Precast demonstrated that 3D-printed molds are more durable than traditional ones in producing precast concrete façades for a 42-story building at the Domino Sugar Factory site in New York.

Isotopes: NASA’s Mars rover Perseverance, which started exploring the red planet in early 2021, is powered by ORNL-produced plutonium-238. Pu-238 decay generates heat converted to electricity by the rover’s radioisotope thermoelectric generator to power lithium-ion batteries.

National Security: Using ORNL’s Vehicle Security Lab, researchers are pioneering a set of algorithms and technology that will detect a cyberattack on a moving vehicle and alert the driver.

Nuclear Science: ORNL has developed MiniFuel, a miniature irradiation vehicle for rapid nuclear fuel experiments. Conventional fuel test pellets have volumes more than 1,000 times the size of MiniFuel’s pinhead-size fuel kernels.

Neutron Science: Using the Spallation Neutron Source, ORNL researchers observed crystalline ice phases, enabling them to challenge previous theories about super-cooled water and noncrystalline ice and promote better understanding of various ice phases found in space.

Supercomputing: Using ORNL’s Summit supercomputer, scientists uncovered the specific gene that controls an important symbiotic relationship between plants and soil fungi. The discovery could lead to more productive, disease-resistant crops.

World-Leading Equipment and Facilities

Summit
The nation’s most powerful supercomputer

Spallation Neutron Source and High Flux Isotope Reactor
Two of the world’s most intense neutron sources

Manufacturing Demonstration Facility
A state-of-the-art advanced manufacturing facility where researchers can 3D-print almost anything
ORNL Postdoctoral Association

ORNL was established in 1943 during the Manhattan Project and, for over 75 years, has been a leader in science and energy research. Today, as America’s largest science and energy laboratory, ORNL is a thriving multiprogram research campus with world-leading facilities and talented 5,800+ employees from over 60 countries who are innovators in their fields.

Our staff have innumerable opportunities to collaborate on cutting-edge scientific, operational, engineering, and support activities. In addition, ORNL offers professional development training at no cost to employees, supports numerous employee resource groups that promote diversity and inclusion efforts across the Laboratory, and provides networking opportunities.

Ideal Location

Located near the Great Smoky Mountains of Tennessee, ORNL’s campus is just 1 hour away from the nation’s most visited national park. Within a day’s drive of all major cities on the East Coast, ORNL provides the best of both worlds: proximity to the great outdoors and growing urban centers with diverse cultural attractions. The city of Oak Ridge has 150 miles of shoreline for water recreation, rowing, and boating, and nearby Knoxville is home to the thriving research campus of the University of Tennessee and a historic downtown known for its dining, theaters, shopping, and cultural and music festivals.

In addition, East Tennessee is affordable, with a cost of living 10% lower than the national average* and no state income tax. It is one of the safest areas in the United States and has excellent school systems, including the Oak Ridge School District, one of two districts in the world that are K–12 STEM certified.

* According to data provided by erieri.com on 1/1/2022.

Total Rewards and Amenities

Combined with competitive salaries, ORNL offers employees and their families a comprehensive and valuable benefits program. ORNL also has numerous on-site amenities that make life more convenient.

Pay & Perks
- Competitive salaries
- Bonuses and awards
- Flexible work schedule
- Professional society membership dues
- Cell phone discount
- Club ORNL discounts
- HP discount
- Apple discount
- Employee club sports

Benefits
- Medical plan (dental, vision, HSA)
- Educational assistance
- Life insurance
- Legal insurance
- Employee Assistance Program
- Generous vacation and holidays
- Wellness programs
- Disability benefits

Amenities
- On-site medical clinic
- Bank
- Coffee shop
- Cafeteria
- Gym
- Exercise classes
- Walking/running trails

ORNL is a sustaining member of the National Postdoctoral Association (NPA), which entitles our postdocs to individual NPA membership. For more information, visit nationalpostdoc.org.
Success After ORNL*
Postdoctoral researchers from ORNL are highly sought after by government institutions, industry, academia, and nonprofits. Postdocs from ORNL have been hired by:

- Industry 35%
- University or Research Institution 32%
- ORNL 19%
- State and Local Government 4%
- DOE National Labs 3%
- Federal Government 3%
- Self-employed 3%
- Other 1%

Upon completion of their postdoctoral appointment, over 98% of ORNL postdocs find paid employment. 80% earn more than $75,000 a year, while only 50% of other postdocs in the United States earn as much.*

* Based on a survey by Oak Ridge Associated Universities

"I enjoyed being a postdoc at ORNL because it is culturally diverse and located in a beautiful and affordable area with lots to do—and because I had the opportunity to learn from and collaborate with leading scientists and visiting researchers from around the world. Nowhere else could I spend my day shooting lasers and x-rays at uranium materials to gain new insights and solve challenging problems related to its fundamental chemistry while being exposed to new science, fresh ideas, and potential connections for my next career step."

—Tyler Spano, Research Associate, Nuclear Nonproliferation Division

"As a postdoc at ORNL, I have contributed to research in a new field that is much different from my PhD experience and is a hot topic of current research. Through this experience, I have developed the expertise to contribute in this field and compete for jobs across the world."

—Phil Lotshaw, Postdoctoral Researcher

"My work as a postdoc at SNS allowed me to apply powerful neutron techniques to study battery materials. This invaluable experience enhanced my skill set and really allowed me to find a job in industry, where I could apply my knowledge to solve real-world problems."

—Bohang Song, Solid State Synthesis Team Leader, BASF Corporation

Find your Big Science Opportunity with a postdoctoral appointment at ORNL!

Apply at www.ornl.gov/postdoc

Questions? Contact recruiting@ornl.gov