launch your Career

Argonne National Laboratory's Postdoctoral Program





Argonne materials scientist Vilas Pol (former postdoc) was recently featured on the PBS NOVA series "Making Stuff: Cleaner," where he shared his innovative approach of converting plastic bags into carbon nanotubes for use in advanced lithium-ion batteries.

Join the BEST and the BRIGHTEST

As one of the largest laboratories in the nation for science and engineering research, Argonne National Laboratory is home to many brilliant scientists who are among the most prolific and well-renowned in their fields. In pursuit of game-changing innovations, our researchers are consistently published in prestigious scientific journals and have been awarded hundreds of patents for groundbreaking work.

To continue our efforts to solve the nation's most pressing energy and environmental challenges, we are committed to maintaining a staff of world-class researchers to work alongside experts from industry, academia and other government laboratories.

Argonne's Postdoctoral Program has become an invaluable asset for attracting and retaining the best and brightest young minds in the world.

In fact, Argonne was ranked as the fourth-best place for postdocs to work in 2011 by The Scientist, a life sciences magazine. The magazine recognized Argonne as a leader in striking that fine balance in providing young researchers both guidance and independence.







ARGONNE_{at a} Glance



Argonne chemist Elena Timofeeva (former postdoc) conducts a quality control evaluation of thermal nanofluids, which can help enhance heat transfer.

At the U.S. Department of Energy's Argonne National Laboratory, we apply a unique mix of state-of-the-art user facilities and leading scientific and engineering staff to develop innovative solutions to the grand challenges of our time: renewable and safe energy, a healthy environment, economic competitiveness and a secure nation.

Founded in 1946 as America's first national laboratory, Argonne employs roughly 3,200 employees, including about 1,200 scientists and engineers, three-quarters of whom hold doctoral degrees. The laboratory's annual operating budget of around \$670 million supports upwards of 200 research projects.



Aeraj Ul Haque, a Director's Postdoctoral Fellow, is working to develop lab-on-a-chip technologies for applications such as biomedical diagnostics and biothreat agent detection.

Over the past few decades, Argonne has worked with more than 600 companies and numerous federal agencies and other organizations. We are active in seeking opportunities to transfer our technologies to the marketplace through licensing, joint research and many other collaborative relationships.

Argonne is managed by UChicago Argonne, LLC, for the U.S. Department of Energy's Office of Science.





Argonne postdoctoral appointee Ryan Nelson synthesizes novel organometallic catalysts.

Cutting-Edge Research

Argonne's energy and environmental research centers around eight major initiatives:

- ► Alternative Energy and Efficiency
- Biological and Environmental Systems
- Energy Storage
- ► Hard X-ray Sciences
- Leadership Computing
- Materials for Energy
- National Security
- Nuclear Energy

Mechanical engineer Thomas Wallner (former postdoc) adjusts the laboratory's "omnivorous engine," an automobile engine tailored to run at optimal efficiency on blends of gasoline, ethanol and butanol.

RESEARCH and FACILITIES

State-of-the-Art Facilities

Argonne scientists and engineers carry out both fundamental and applied research projects at a number of large scientific user facilities, including:

- Advanced Photon Source (APS)
- Center for Nanoscale Materials (CNM)
- Argonne Tandem Linac Accelerator System (ATLAS)
- Electron Microscopy Center (EMC)
- Argonne Leadership Computing Facility (ALCF)
- Transportation Research and Analysis Computing Center (TRACC)
- > Atmospheric Radiation Measurement (ARM) Climate Research Facility



David Minh, a Director's Postdoctoral Fellow, uses X-ray solution scattering at Argonne's Advanced Photo Source to study the physical properties of biomolecules.



Postdoc PERSPECTIVES

Seth Darling began his career at Argonne in 2003 as the recipient of the Glenn Seaborg Postdoctoral Fellowship. Today, he is the laboratory's strategy leader for solar energy systems research. As a scientist at the Center of Nanoscale Materials. Darling's research focuses on

"One of the biggest advantages of doing your postdoctoral work at a national laboratory is that it places you at the nexus of academia, government, and industry, giving you the greatest flexibility to venture into the next phase of your career," Darling said. "Access to state-of-the-art facilities and a blend of basic and applied researchers provides a powerful environment for innovation in your research endeavors."

polymer molecular engineering for photovoltaics, lithography and other technological applications.



Elizabeth Mader got her start at Argonne as a Director's Postdoctoral Fellow in 2007. She was recently promoted to the position of assistant scientist on Argonne's catalysis research team, where she is working to develop novel catalysts to enable new energy technologies. Mader is currently leading a project on the application of X-ray absorption spectroscopy to homogeneous catalytic systems, as well as the carbon-carbon coupling reactions of carbon dioxide.

"I chose to do my postdoc at Argonne because it is an exciting research environment with highly collaborative projects focused on making a difference in alternative energy," Mader said. "And the networking opportunities at the lab are tremendous - my group has strong collaborations with both industry and academics, making it easy to meet with scientists from across the country."



Postdoc PERKS

- Argonne offers competitive salary and benefits so that you can realize your passion for discovery, pursue your career goals, stay healthy, have financial security and live a balanced life.
- Multiple disciplines at the laboratory routinely work together to solve large, complex problems that can only be addressed as a team. You can be a part of Argonne's crosscutting R&D effort, working together to develop new ideas, approaches and synergies that advance innovation and discovery.
- Be a part of Argonne's amazing research network that includes numerous universities, industry partners and research institutions in the Chicago region, including the University of Chicago, Fermilab, Northwestern University, Illinois Institute of Technology, University of Illinois, Purdue University and many more.



 Argonne's proximity to Chicago offers employees easy access to world-class museums, a diverse music scene, major theatre and dance companies, professional and collegiate sporting events, the fabulous lakefront, premier shopping, distinct and culturally diverse neighborhoods, and more than 7,300 places to eat and drink.



ARGONNE'S Postdoc Community

Argonne's Postdoctoral Program provides emerging scientists with the opportunity to do meaningful, cutting-edge research in an inspired and resource-rich environment. As evidenced by our many highly successful postdoctoral alumni, the program offers a chance to jump-start long and rewarding careers at the forefront of science.

Argonne Postdoctoral Program Office

Launched and directed by former Argonne postdocs, our program office is well aware of the needs of the postdoc community. For brand new postdocs, we provide support and resources to help make the move to the area as smooth as possible. We also support several activities that enrich the Argonne experience for our postdocs, including:

- Annual Postdoctoral Research Symposium
- Postdoc Seminar Series
- Postdoctoral Safety Program
- Career Development Workshops
- Networking and Social Events

Argonne's Postdoctoral Mentoring Program

Argonne's mentoring program pairs postdocs with experienced scientists to help them get acclimated to their new work environment. Our mentors provide perspective and feedback that will enable young postdocs to maximize their research skills and productivity.



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Argonne offers three types of postdoctoral appointments to outstanding doctoral scientists and engineers who are at early points in their promising careers.

ARGONNE NAMED POSTDOCTORAL FELLOWSHIPS

Named after scientific and technical luminaries who have been associated with the laboratory, these special postdoctoral fellowships are awarded on an annual basis to candidates who display superb ability in scientific or engineering research and show definite promise of becoming outstanding leaders in the research they pursue.

DIRECTOR'S POSTDOCTORAL **FELLOWSHIPS**

Candidates for the Director's Postdoctoral Fellowships are selected based on their research and academic accomplishments, and the strength of their research proposal. They will collaborate with Argonne scientists and engineers on existing programs and on new initiatives.

To learn more about each program, requirements and application deadlines, please visit: www.dep.anl.gov/postdocs/appointments.htm





Beamline scientist Robert Winarski (former postdoc) peers at a sample inside Argonne's Hard X-Ray Nanoprobe at the Advanced Photon Source.



DIVISION POSTDOCTORAL

These appointments typically involve

conducting research on existing

science and technology programs at Argonne. Candidates are selected

and possible input to the research

program as described in their

based on their academic background

APPOINTMENTS

proposal.

Argonne scientists Karen Mulfort and Alex Martinson (both former postdocs) explore the possibility of coupling photovoltaic devices and solar fuel.



FOR MORE INFORMATION

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