



ARGONNE NATIONAL LABORATORY A SCIENCE AND TECHNOLOGY POWERHOUSE

Argonne scientists and engineers make game-changing discoveries and inspire new technology to meet national needs for sustainable energy, economic competitiveness, and security.

From the start, Argonne has been at the forefront of research and innovation. In 1946, as an outgrowth of the Manhattan Project at the University of Chicago, Argonne was established as a chemistry, materials and nuclear engineering laboratory to develop peaceful uses for a revolutionary new source of energy: nuclear power.

The world has changed greatly since then. Growing demands on energy and water resources, nuclear proliferation, aging infrastructure, global economic shifts, and extreme weather events have given rise to new needs for knowledge and solutions. In response, Argonne has evolved into a collaborative, multidisciplinary research powerhouse.



1,500 wooded acres in the southeastern corner of DuPage County, near Chicago

\$270 million
Procurement in FY 2017

\$750 million
Operating budget in FY 2017

Paul K. Kearns
Laboratory Director

UChicago Argonne, LLC
Operating Contractor

3,200
Full-time employees

1,320
Scientists and engineers

270
Postdocs





Argonne's national user facilities, such as the Center for Nanoscale Materials (pictured here), provide unique experimental opportunities to researchers from industry, universities, and other laboratories.

Today, as a U.S. Department of Energy Office of Science national laboratory, Argonne addresses the greatest scientific, technological, and societal challenges facing our nation:

- **Basic science** that seeks to understand how nature works, through experimental and theoretical studies in materials science, nuclear physics, particle physics, chemistry, biology, and atmospheric science.
- **Computation and analysis**, grounded in applied mathematics and computer science, that enable next-generation supercomputing, develop methods to defeat cyber threats, and inform decisions about complex technological and societal issues.
- **Engineering of advanced energy systems** to drive practical advances in nuclear power, transportation, battery performance, and renewable fuels.

BREAKTHROUGH SCIENCE

Argonne's achievements and team-based culture reflect the influence of the University of Chicago. Operating under the University's auspices, Argonne nurtures an environment of rigorous intellectual inquiry and is a testament to the power of ideas. Currently, Argonne and the University share dozens of joint programs and hundreds of joint appointments of individuals who conduct research at both institutions.

COLLABORATION

Along with the University of Chicago, Argonne plays a key role in the Midwest's innovation ecosystem, partnering with other universities, government agencies, and industry.

Argonne brings world-class scientists and engineers from these organizations together with its own staff and the most sophisticated scientific facilities to solve problems too large for any one institution to take on by itself.

These collaborations take on critical challenges in areas ranging from developing new materials and energy technology concepts to meeting human needs for clean water and disease prevention to unlocking the basic secrets of the universe.

SCIENTIFIC USER FACILITIES

Within the research community, Argonne is known for its unparalleled suite of experimental and computing facilities, used by scientists and engineers from the laboratory and organizations across the country and around the world.

These facilities include a synchrotron with X-ray imaging technology that enables the study of objects as small as 100 atoms and supercomputers that perform up to 8.5 quadrillion operations per second.

Argonne operates five national user facilities that offer extraordinary insights into the structure of matter and physical, biological, and societal processes:

- **Advanced Photon Source**
- **Argonne Leadership Computing Facility**
- **Argonne Tandem Linear Accelerator System**
- **Center for Nanoscale Materials**
- **Atmospheric Radiation Measurement Climate Research Facility – Southern Great Plains Site**

In FY 2017, 8,300 individuals used these facilities to conduct groundbreaking studies in nearly every field of science and engineering.

MAKING AN IMPACT

As they look to the future, Argonne researchers continue to set their sights on the most compelling questions in science and technology, and remain committed to making discoveries and finding solutions that make a real difference in the world.

CONTACT

Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439
Phone: 630-252-2000
www.anl.gov