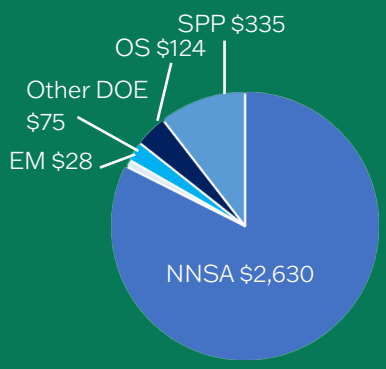
AT A GLANCE: LOS ALAMOS NATIONAL LABORATORY

As a premier national security science laboratory, Los Alamos National Laboratory applies innovative and multidisciplinary science, technology, and engineering to help solve the toughest challenges of the nation—and to protect it as well as the world. In delivering mission solutions, Los Alamos ensures the safety, security, and effectiveness of the U.S. nuclear deterrent and reduces emerging national security and global threats. The multidisciplinary focus of the laboratory's mission extends to nuclear nonproliferation, counterproliferation, energy and infrastructure security, and technology—to counter chemical, biological, radiological, and high-yield explosives threats.

FUNDING BY SOURCE

FY 2019 Costs (in $M)
Total Laboratory Operating Costs: $2,609
DOE/NNSA Costs: $2,361
SPP (Non-DOE/Non-DHS) Costs: $299
SPP as % of Total Laboratory Operating Costs: 9%
DHS Costs: $9



FACTS

Location: Los Alamos, NM
Type: Multiprogram Laboratory
Contractor: Triad National Security, LLC
Site Office: NNSA Los Alamos Field Office
Website: lanl.gov

PHYSICAL ASSETS

24,612 acres
896 buildings
8,240,164 GSF in buildings
Replacement Plant Value: $39.1 billion
1 million GSF in leased facilities

HUMAN CAPITAL

9,831 FTE employees
31 joint faculty
460 postdoctoral researchers
604 graduate students (688 during summer peak)
847 undergraduate students
995 faculty users
855 visiting scientists
1,080 craft employees

CORE CAPABILITIES

Complex Natural and Engineered Systems
Information, Science, and Technology
Materials for the Future
Nuclear and Particle Futures
Science of Signatures
Weapons Systems

MISSION UNIQUE FACILITIES

Atmospheric Radiation Measurement (ARM) (user facility)
Center for Explosives Science
Center for Integrated Nanotechnologies (CINT) (user facility)
Chemistry and Metallurgy Research Facility
Dual-Axis Radiographic Hydrodynamic Test Facility (DARHT)
Electron Microscopy Laboratory
Ion Beam Materials Laboratory
Los Alamos Neutron Science Center (LANSCE) (user facility)
National Criticality Experiments Research Center (NCERC), Nevada
Nonproliferation & Internal Security Facility
Plutonium Science & Manufacturing Facility
National High Magnetic Field Laboratory (NHMFL) (user facility)
NNSA's Plutonium Center of Excellence
Proton Radiography (pRad) @ LANSCE
SIGMA Complex for Materials Manufacturing & Machining
Strategic Computing Complex (SCC)
National High Magnetic Field Laboratory (NHMFL)
Weapons Neutron Research Facility @ LANSCE

U.S. DEPARTMENT OF ENERGY

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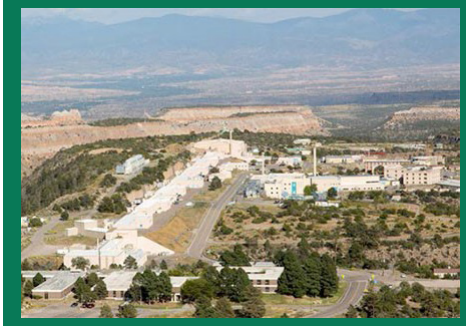
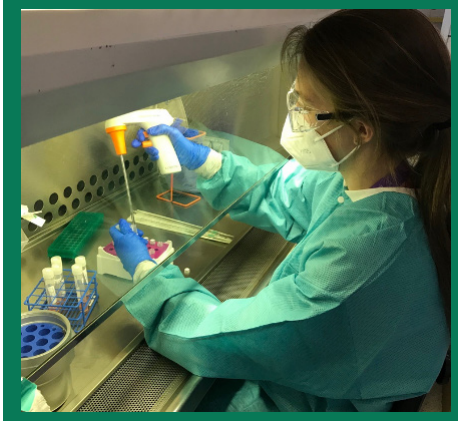
ACCOMPLISHMENTS



Unique Facility: Los Alamos Neutron Science Center (LANSCE) - LANSCE is a national user facility with one of the nation's most powerful linear accelerators. For more than 30 years, LANSCE has provided the scientific underpinnings in nuclear physics and material science needed to ensure the safety and surety of the nuclear stockpile into the future. In addition to national security research, the LANSCE user facility has a vibrant research program in fundamental science, providing the scientific community with intense sources of neutrons and protons—to perform experiments supporting civilian research as well as the production of medical and research isotopes.

Technology to Market: Next-Generation Fuel Cells - To address the high cost of precious metal catalysts used in conventional fuel cells, Los Alamos scientists developed electrocatalysts that use inexpensive, Earth-abundant, and easily sourced precursor materials—instead of precious metals. Los Alamos partnered with Pajarito Powder, LLC, which is taking the lead in commercializing the technology for numerous applications. These clean-energy electrocatalysts without precious metals generate performance quickly approaching that of precious metal catalysts—but at a fraction of the cost, thus reducing the time-to-market for fuel cell technologies that provide clean, reliable, and now affordable energy.



Research Highlight: Biotechnology - Los Alamos is advancing biotechnology research that is leading to innovations in energy, health, and sustainability. The Los Alamos expertise in synthetic biology, synthetic organic chemistry, biochemistry, and cell and molecular biology provides the basis for strong biotechnology capabilities. These capabilities address national needs such as producing bio-based alternatives to fossil fuels and petroleum-based products, as well as developing new therapeutics through natural products discovery. Biotechnology at Los Alamos is strengthened by a robust, interdisciplinary approach to science, including access to high performance computing and modeling, machine learning and artificial intelligence, next-generation sequencing, unique bioinformatics, flow cytometry and cell sorting, and customizable affinity reagents.