One Year Introspective

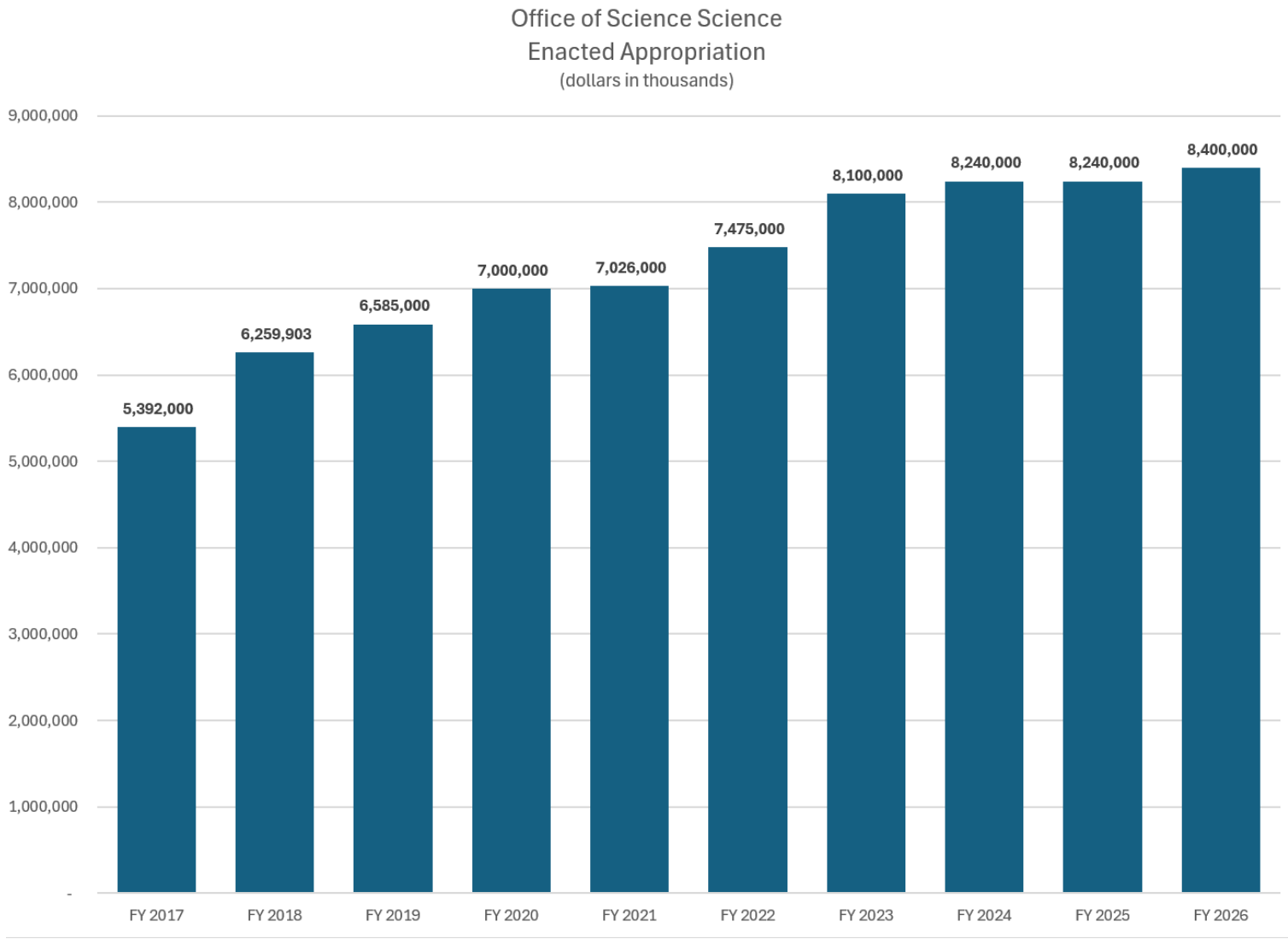
The Honorable Darío Gil, Ph.D.
Under Secretary for Science

November 12, 2026

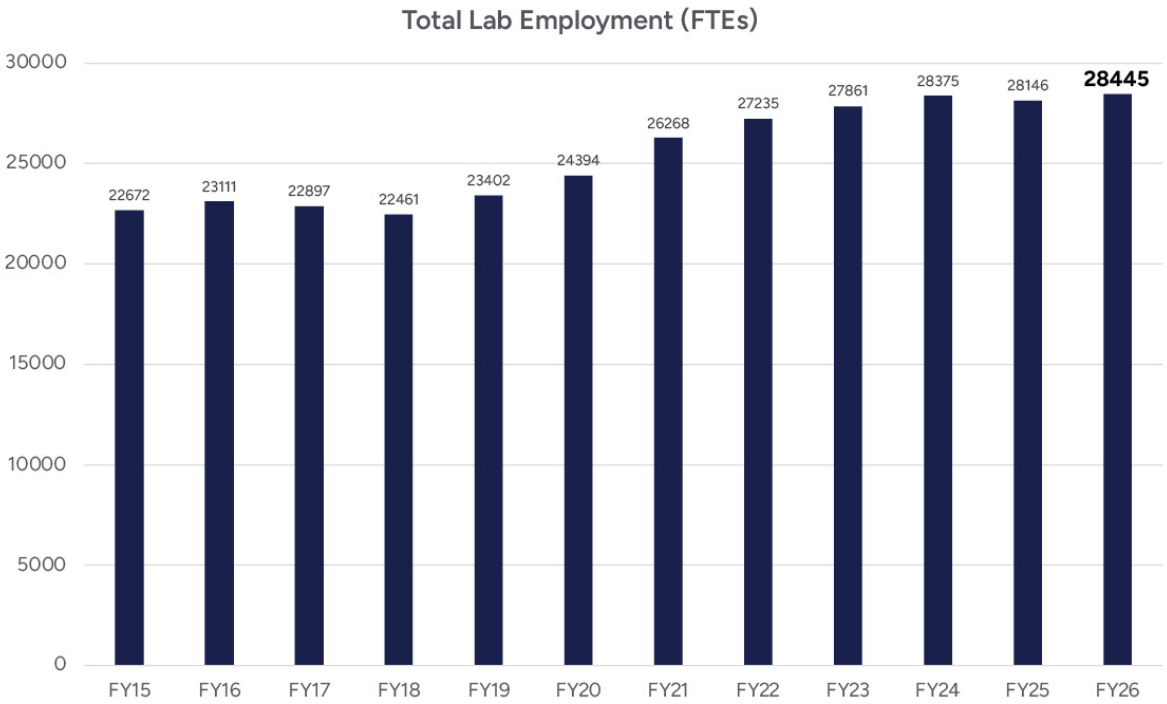


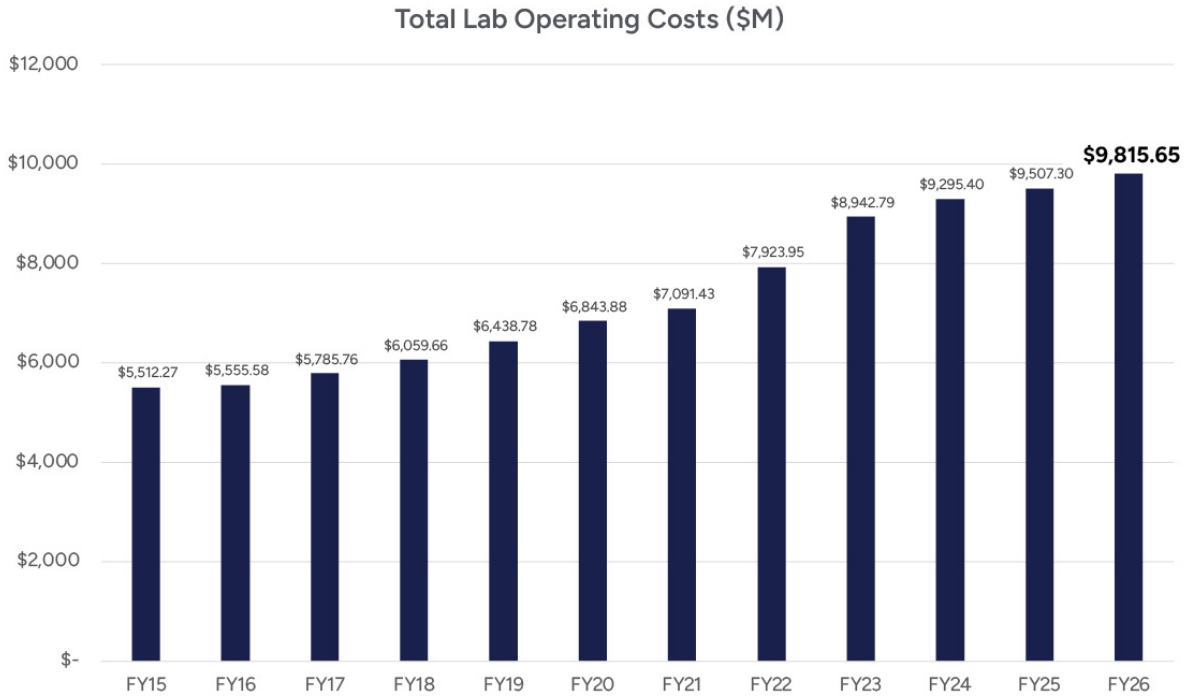
U.S. DEPARTMENT *of* ENERGY | Office of Science

This year, funding for the Office of Science reached an all-time high of $8.4 billion.



Office of Science National Laboratories saw a record operating budget of $9.8 billion, supported by a record of 28,445 personnel.

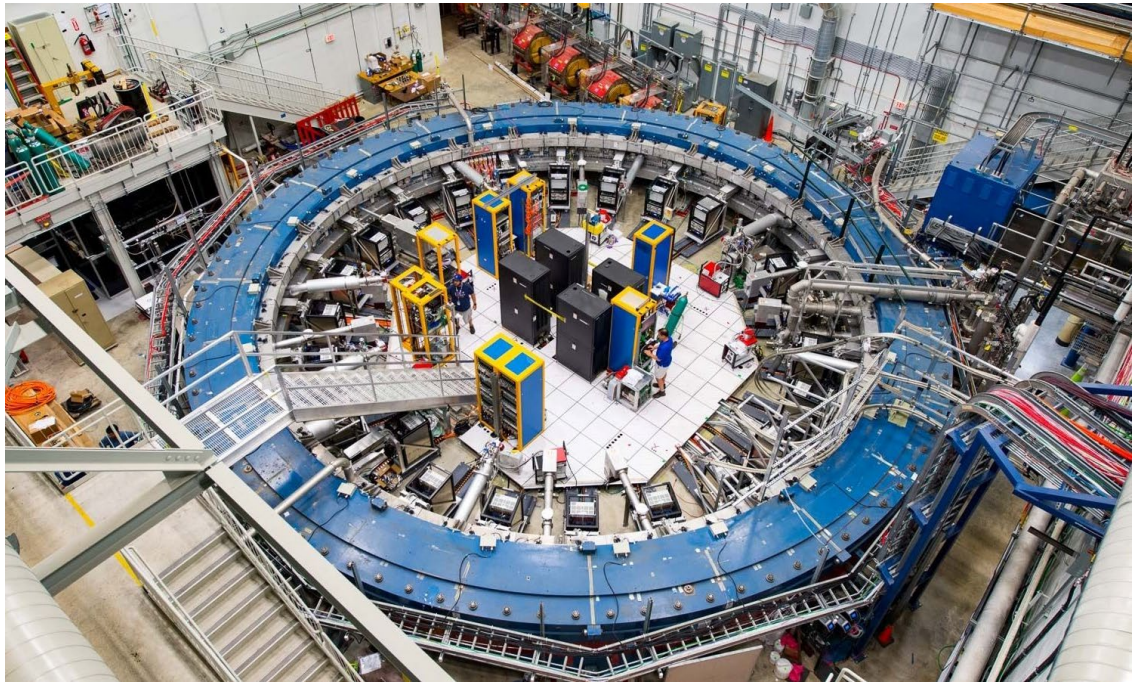




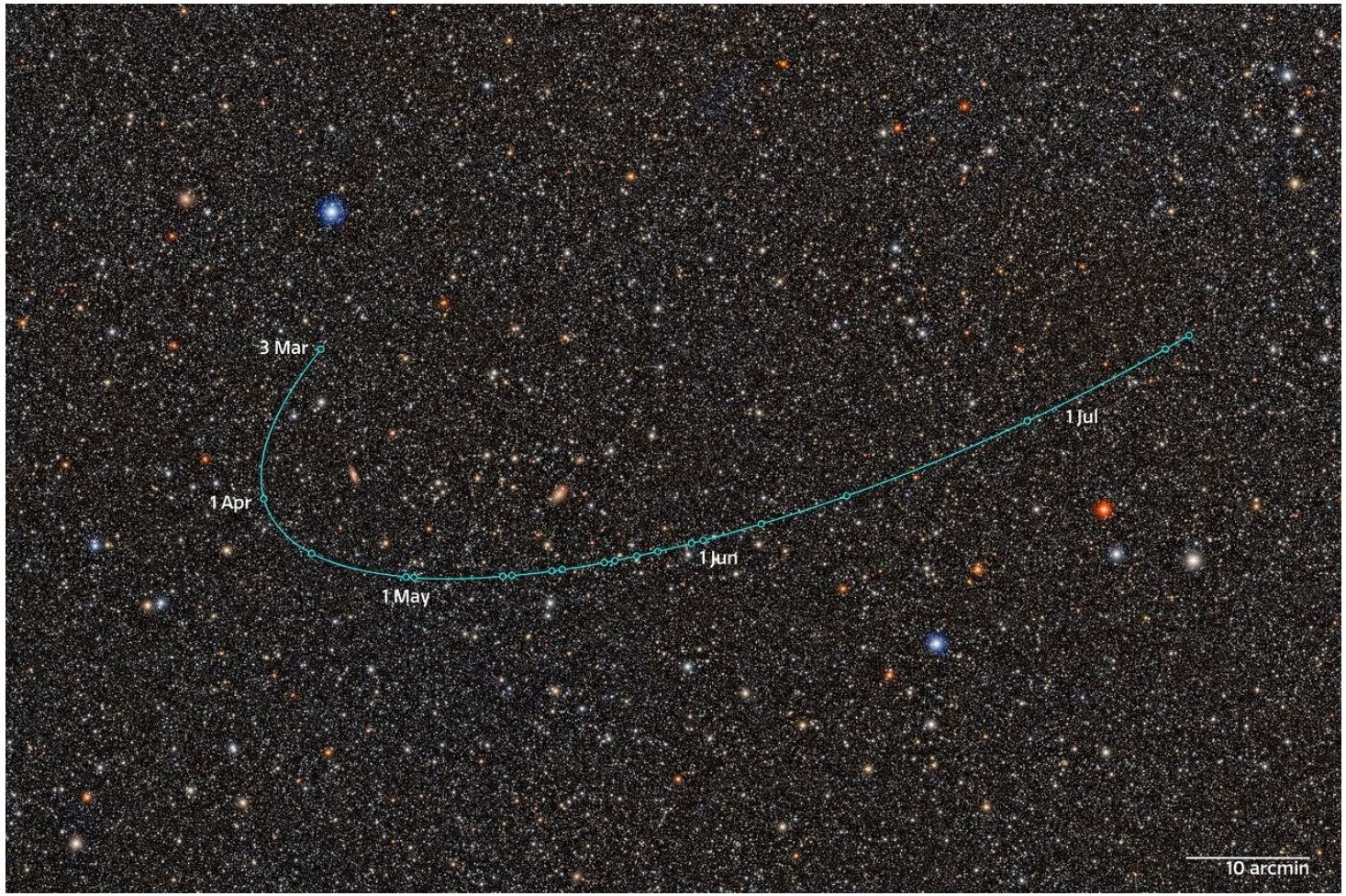


The 2026 Kavli Prize in Nanoscience

Muon g-2
2026 Breakthrough Prize in Fundamental Physics



Orbital pathway of newly discovered dwarf planet candidate 2026 ED138, as observed by NSF–DOE Vera C. Rubin Observatory.



Deep Underground Neutrino Experiment at the Sanford Underground Research Facility in South Dakota.





National
Quantum Information Science
Research Centers





Ames



ORNL



JLab



NLR



INL



NETL

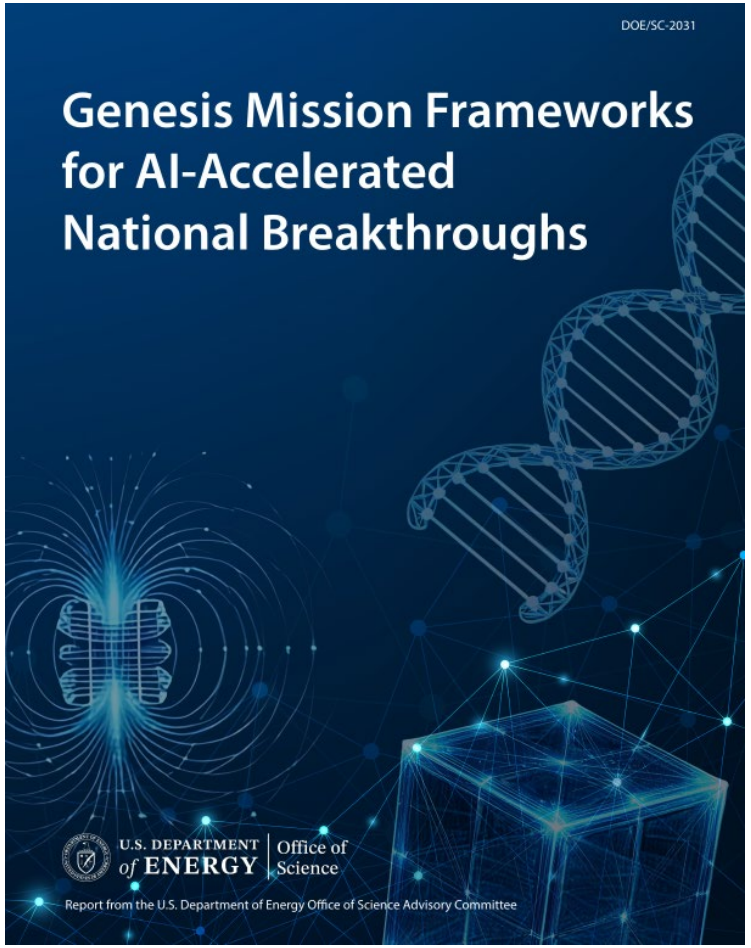


LANL



SRNL

SCAC Reports





President Trump signed the Executive Order establishing the Genesis Mission last November.



Lux went from announcement to online in under a year.



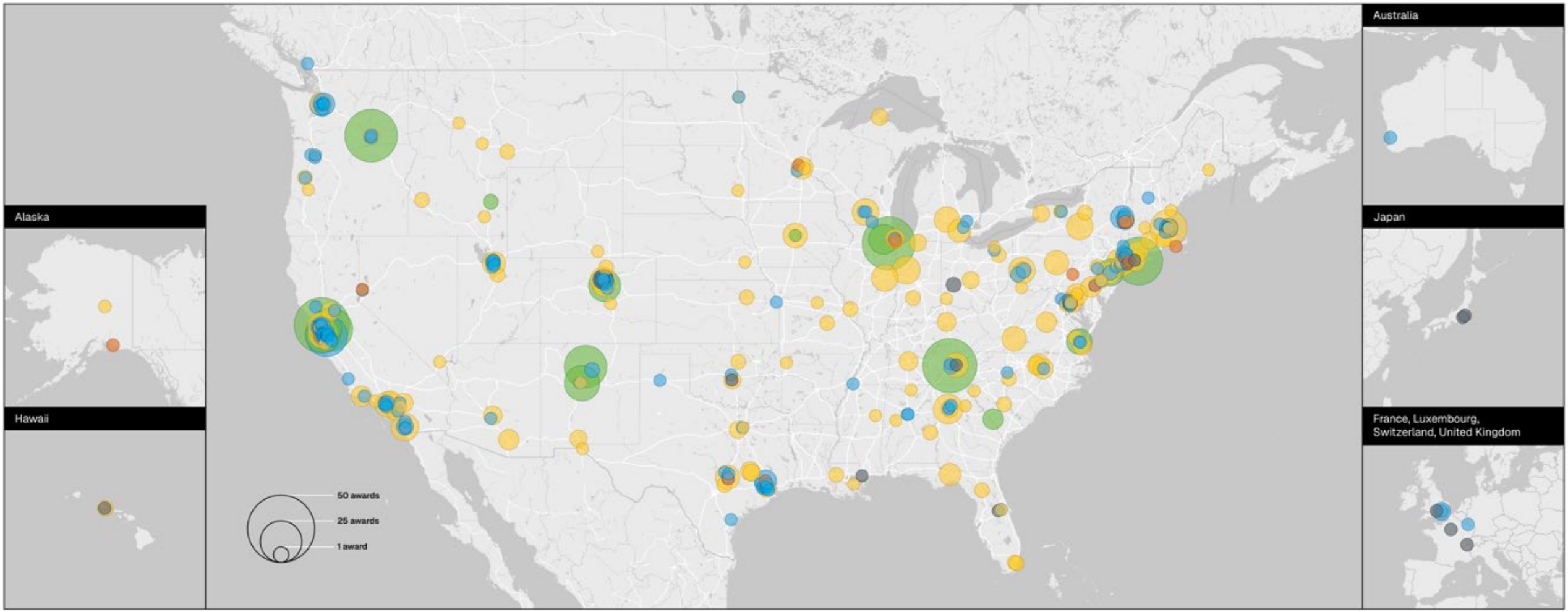
33 National S&T challenges

Reenvisioning Advanced Manufacturing and Industrial Productivity	Securing America's Critical Minerals Supply	Delivering Nuclear Energy That is Faster, Safer, Cheaper	Accelerating Delivery of Fusion Energy	Transforming Nuclear Cleanup and Restoration	Discovering Quantum Algorithms with Super Intelligence	Realizing Quantum Systems for Discovery and Use	Unleashing Subsurface Strategic Energy Assets	Securing U.S. Leadership in Data Centers
Achieving Super Intelligence-Driven Autonomous Laboratoriess	Designing Materials with Predictable Functionality	Enhancing Particle Accelerators for Discovery	Unifying Physics from Quarks to the Cosmos	Predicting U.S. Water for Energy	Scaling the Grid to Power the American Economy	Reimagining the Lifecycle of American Infrastructure	Recentering Microelectronics in America	Strengthening Deterrence Through Attribution of Nuclear Signatures
Detecting, Locating, Identifying, and Characterizing Proliferation Threats	Accelerating Materials Discovery, Production, and Qualification for Strategic Deterrence	Accelerating Nuclear Threat Assessment, Preparedness, and Response	Accelerating Experimental Design, Production, and Nuclear Deterrence Outcomes	Finding the Root Causes of Chronic Disease	Predicting Living Systems	Scaling Biology for American Industrial Leadership	Early Detection and Attribution of Biological Threats	Accelerating Drug Discovery and Clinical Translation
			Unlocking Cures for Pediatric Cancer	Accelerating Design of Weapon Components and Systems	Software Understanding for National Security	Ensuring American Space Superiority	Mining Decades of Space Data for Discovery	Delivering Better Health Outcomes for Veterans

Themes

- → Energy Dominance
- → Discovery Science
- → National Security
- → Bio
- → Space
- → Defense
- → Human Health
- → Veteran's Health

Genesis Mission → Phase I and Phase II Teams
297 Awards



Genesis Mission → Phase I and Phase II Teams

369 Participating Institutions

- 16 National Laboratories
- 145 Institutions of Higher Education
- 173 Companies
- 18 Non-profits
- 17 Other Organizations

297 awards across 21 National S&T Challenges

● Number of awards

1. Reenvisioning Advanced Manufacturing and Industrial Productivity ●●●●●●●●●●●●●●●
2. Scaling the Biotechnology Revolution ●●●●●●●●●●●●●●●●●●●●●
3. Securing America's Critical Minerals Supply ●●●●●●●●●●●●●●●●●●●●●●●
4. Delivering Nuclear Energy that is Faster, Safer, Cheaper ●●●●●●●●●●●●●●●●●●●
5. Accelerating Delivery of Fusion Energy ●●●●●●●●●●●●●●●●
6. Transforming Nuclear Restoration and Revitalization ●●●●
7. Discovering Quantum Algorithms with AI ●●●●●●●●●●●●●●●
8. Realizing Quantum Systems for Discovery ●●●●●●●●●●●●●●●
9. Reentering Microelectronics in America ●●●●●●●●●●●●●●●●●●
10. Securing U.S. Leadership in Data Centers ●●
11. Achieving AI-Driven Autonomous Laboratories ●●●●●●●●●●●●
12. Designing Materials with Predictable Functionality ●●●●●●●●●●●●●●●●●
13. Enhancing Particle Accelerators for Discovery ●●●●●●●●●●●●●●●●●
14. Unifying Physics from Quarks to the Cosmos ●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●
15. Predicting U.S. Water for Energy ●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●
16. Scaling the Grid to Power the American Economy ●●●●●●●●●
17. Unleashing Subsurface Strategic Energy Assets ●●●●●●●●●●●●●●●●●●●●●●●
18. HPC Code Curation, Translation, and Development for Accelerated Scientific Discoveries ●●●●●●●●●●●●●
19. AI for Scientific Reasoning ●●●●●●
20. Cybersecurity for AI-driven Science Workflows ●●●●●●●●●●
21. Artificial Intelligence in Fluid Flow for Energy Components and Technologies ●●●●●●●●●●●●●●

Participating U.S. Institutions

ALABAMA
- Alabama Power Company
- Auburn University
- Southern Company
- University of Alabama
- University of Alabama, Huntsville

ALASKA
- Cordova Electric Cooperative
- University of Alaska, Fairbanks

ARIZONA
- ALPEMI Consulting, LLC
- Arizona State University
- University of Arizona

ARKANSAS
- University of Arkansas

CALIFORNIA
- Advanced Micro Devices
- Aeolus Labs, Inc.
- A-Form Solutions, Inc.
- Antares Industries
- Applied Materials
- Atomic Canyon
- Automated Engineering Service, Inc.
- BlueQubit Inc.
- California Institute of Technology
- California State University, Channel Islands
- Calpine Corporation
- Cerebras Systems Inc.
- Certerra Subsurface Imaging
- Citrine Informatics
- Cognition AI, Inc.
- Cosylab USA, Inc.
- Deep Isolation US LLC
- EdenCode, Inc.
- Electric Power Research Institute
- Exabyte Inc.
- General Atomics
- Google
- Gravistar USA
- High Temperature Superconductors
- Hitachi
- Intel
- Inversion Semiconductor Inc.
- Invizyne Technologies, Inc.
- J. Craig Venter Institute
- Kairos Power
- Kepler Computing, Inc.
- La Sierra University
- Lawrence Berkeley National Laboratory
- Lawrence Livermore National Laboratory
- MedraAI
- Micro1
- Microllio Engineering
- NVIDIA
- Oklo Inc.
- OpenAI
- Orchestral AI
- Profluent Bio Inc.
- Q-CTRL Inc.
- Qolab Inc.
- Radial, Astera Inst.
- Rescale, Inc.
- Sandia National Laboratories, California
- SLAC National Accelerator Laboratory
- SRI International
- Stanford University
- Super Micro Computer, Inc.
- Synopsys, Inc.
- TAE Tech
- Thunderstone Inc.
- Unitary Fund
- University of California, Berkeley
- University of California, Davis
- University of California, Irvine
- University of California, Los Angeles
- University of California, Riverside
- University of California, San Diego
- University of California, San Francisco
- University of California, Santa Barbara
- University of California, Santa Cruz
- University of Southern California
- Valar Atomics
- Valency
- Velocity Bio, Inc.
- Weights & Biases
- xAI
- xLight Inc.

COLORADO
- Baseline Fission Inc.
- Colorado School of Mines
- Colorado State University
- Great Sky Inc.
- Inflegtion
- National Institute of Standards and Technology
- National Laboratory of the Rockies
- Quantinuum LLC
- RadiaSoft LLC
- University Corporation for Atmospheric Research
- University of Colorado, Boulder
- University of Colorado, Colorado Springs
- Ur-Energy USA Inc.

CONNECTICUT
- University of Connecticut
- Yale University

DELAWARE
- Apollo Atomics
- Linux Foundation Energy
- University of Delaware

DISTRICT OF COLUMBIA
- Alvarez & Marsal Federal
- Catholic University of America
- George Washington University
- Horizon Institute for Public Service
- Underwriters Laboratories, Inc.

FLORIDA
- Florida International University
- Florida State University
- Orlando Utilities Commission
- Siemens Energy, Inc.
- University of Central Florida
- University of Florida
- University of Miami

GEORGIA
- Emory University
- Georgia Institute of Technology
- NAC International
- Sentinel Devices LLC
- Teverra LLC
- University of Georgia

HAWAII
- Hawaii Electric
- University of Hawaii

IDAHO
- Boise State University
- Idaho National Laboratory
- Idaho State University

ILLINOIS
- Argonne National Laboratory
- Fermi National Accelerator Laboratory
- Illinois Institute of Technology
- Northwestern University
- Toyota Technological Institute at Chicago
- Transvalor
- University of Chicago
- University of Illinois
- University of Illinois, Urbana-Champaign

INDIANA
- Indiana University
- Purdue University
- University of Notre Dame

IOWA
- Ames Laboratory
- Iowa State University of Science and Technology

KANSAS
- Kansas State University
- Kiewit Nuclear Solutions Co.

KENTUCKY
- University of Kentucky

LOUISIANA
- Louisiana State University
- Tulane University

MAINE
- University of Maine

MARYLAND
- Aclara Technologies Inc.
- Howard Hughes Medical Institute
- Johns Hopkins University
- Loyola University, Maryland
- University of Maryland
- X-energy

MASSACHUSETTS
- Acceleron Fusion, Inc.
- All Hands AI, Inc.
- Boston University
- Commonwealth Fusion Systems
- Dayhoff Labs
- Glimpse
- Gravitate AI
- Greentown Labs
- Harvard Medical School
- Harvard University
- JuliaHub, Inc.
- LiftOFF Technology, Inc.
- Lila Sciences, Inc.
- Massachusetts Institute of Technology
- National Grid USA Service Company, Inc.
- Northeastern University
- QuEra Computing, Inc.
- Tufts University
- University of Massachusetts, Amherst
- Woods Hole Oceanographic Institution

MICHIGAN
- General Motors LLC
- Michigan State University
- Michigan Technological University
- Quantum Opus
- University of Michigan, Ann Arbor

MINNESOTA
- Great River Energy
- Metropolitan State University
- Physical Electronics
- University of Minnesota

MISSISSIPPI
- Mississippi State University
- Naval Research Laboratory, Stennis Space Center

MISSOURI
- Missouri University of Science and Technology
- University of Missouri
- Washington University

MONTANA
- Montana State University
- Montana Technological University
- University of Montana

NEBRASKA
- University of Nebraska-Lincoln

NEVADA
- Desert Research Institute
- Group Ten
- University of Nevada, Las Vegas
- University of Nevada, Reno

NEW HAMPSHIRE
- University of New Hampshire

NEW JERSEY
- MERCK
- New Jersey Institute of Technology
- Princeton Plasma Physics Laboratory
- Princeton University
- Siemens Corporation

NEW MEXICO
- EnviTrace LLC
- HeatFlow
- Los Alamos National Laboratory
- New Mexico State University, Las Cruces
- Sandia National Laboratories, New Mexico
- University of New Mexico

NEW YORK
- Advanced Energy Research and Technology Center
- Alpha-En Corporation
- AlphaPX Inc.
- Bay Compute
- Brookhaven National Laboratory
- Cold Spring Harbor Laboratory
- Columbia University
- Consolidated Edison Company of New York, Inc.
- Cornell University
- CUNY, Baruch College
- CUNY, City College
- Everstar
- GE Aerospace Research
- GE Vernova Advanced Research Center
- GlobalFoundries
- GridFM Corporation
- IBM
- IBM TJ Watson Research Center
- Kitware, Inc.
- Long Island Power Authority
- New York Independent System Operator, Inc.
- New York Power Authority
- New York University
- Rensselaer Polytechnic Institute
- Riven Corporation
- Rochester Institute of Technology
- Single Quantum USA Inc.
- St. Joseph's University
- SUNY, Buffalo State University
- SUNY, Stony Brook University
- Syracuse University
- Tritium Solutions Inc
- U.S. Geological Survey
- University of Rochester
- Valor Metals, Inc.

NORTH CAROLINA
- Depict Bio LLC
- Duke University
- Liburdi Dimetrics Corporation
- North Carolina State University
- University of North Carolina at Chapel Hill
- University of North Carolina at Charlotte

NORTH DAKOTA
- Dakota Lithium Materials
- University of North Dakota

OHIO
- Air Force Institute of Technology
- Case Western Reserve University
- Kent State University
- Ohio State University
- Quasar Energy Group, LLC
- University of Cincinnati

OKLAHOMA
- Oklahoma Electric Cooperative
- Oklahoma State University
- SkyHelm LLC
- University of Oklahoma

OREGON
- NuScale Power
- Oregon State University
- PacifiCorp
- Portland State University
- Spruce Oregon Holdings LLC
- Thermo-Fisher Scientific
- University of Oregon

PENNSYLVANIA
- Ansys
- Carnegie Mellon University
- Dataerai
- Drexel University
- Lehigh University
- Mxene Inc.
- Pennsylvania State University
- Team Pennsylvania Foundation
- Temple University
- University of Pennsylvania
- University of Pittsburgh
- Westinghouse Electric Company

RHODE ISLAND
- Brown University

SOUTH CAROLINA
- Clemson University
- Savannah River National Laboratory
- University of South Carolina

SOUTH DAKOTA
- Dakota State University

TENNESSEE
- Nucor Steel
- Oak Ridge National Laboratory
- PrimaLabs.AI, Inc.
- Standard Nuclear
- Tennessee Valley Authority
- University of Tennessee
- Vanderbilt University

TEXAS
- 400 C Energy, Inc.
- Aalo Atomics
- American Bureau of Shipping
- AMDG Consulting, Inc.
- Chevron Corporation
- Deployable Energy, Ltd.
- Electric Reliability Council of Texas
- ExxonMobil Technology and Engineering Corporation
- Halliburton Technology Partners LLC
- Hewlett Packard Enterprise
- HGP Intelligent Energy
- HiddenLayer, Inc.
- Inearth Ventures
- Micron Technology Inc.
- Quaise Energy
- Rice University
- Schlumberger Technology Corporation
- Shell
- Sophelio LLC
- Southern Methodist University
- Steel Dynamics
- Texas A&M Eng Exp Station
- Texas A&M University
- Texas State University
- University of Houston
- University of Texas at Arlington
- University of Texas at Austin
- University of Texas at El Paso
- Xcel Energy

UTAH
- Alpha Tech Research Corp
- Brigham Young University
- HiFunda LLC
- OxEon
- PrimisAI, Inc.
- QM Technologies, Inc.
- University of Utah
- Zanskar Geothermal & Minerals, Inc.

VERMONT
- New England Research, Inc.

VIRGINIA
- Accenture Federal Services
- Analytical Mechanics Associates, Inc.
- Atalanta Technologies Inc.
- College of William and Mary
- Dominion Engineering
- George Mason University
- MPR Associates, Inc.
- National Rural Electric Cooperative Association
- Old Dominion University
- Quantum Computing Inc.
- Siemens Industry Software, Inc.
- Thomas Jefferson National Accelerator Facility
- Triastron
- University of Virginia
- Virginia Polytechnic Institute and State University

WASHINGTON
- Amazon Web Services
- Breakthrough Energy Discovery
- Hanford Mission Integration Solutions
- Hanford Tank Waste Operations & Closure
- Microsoft
- OSC Technical Solutions
- Pacific Northwest National Laboratory
- Phaidra
- Planette Analytics Inc.
- Silurian AI
- Strange Mood Engineering
- TerraPower
- University of Washington
- Washington State University

WEST VIRGINIA
- West Virginia University

WISCONSIN
- Realta Fusion Inc.
- SHINE Technologies
- Type One Energy
- University of Wisconsin-Madison

WYOMING
- University of Wyoming

Participating International Institutions

AUSTRALIA
- Ekion Pty Ltd

CANADA
- Metallic Minerals

FRANCE
- French National Centre for Scientific Research (CNRS)

JAPAN
- High Energy Accelerator Research Organization (KEK)
- Institute of Physical and Chemical Research (RIKEN)

LUXEMBOURG
- Next Step Fusion

SWITZERLAND
- European Organization for Nuclear Research (CERN)

UNITED KINGDOM
- Google DeepMind
- Quantum Motion
- Rutherford Appleton Laboratory

Genesis Mission Graduate Fellowship Pilot

THE MODEL

Dual competency

Deep expertise in a scientific or engineering discipline + proficiency in SI.

Accelerated PhD

Fellows and participating institutions commit to a four-year doctoral pathway.

THE EXPERIENCE

Lab + industry immersion

Required practical experience at DOE National Laboratories, DOE user facilities, and with industry partners.

Pilot at national scale

FY 2027 pilot: ~100 Fellows across university-led teams, with National Laboratory and industry partners - establishing a model to inform future expansion.

Genesis Mission Consortium

Our Members

The Genesis Mission Consortium's network of members includes the Department of Energy (DOE), National Laboratories, private-sector leaders, academic institutions, and not-for-profit organizations.

Private Sector · DOE National Laboratories · NNSA Plants and Sites

Private Sector

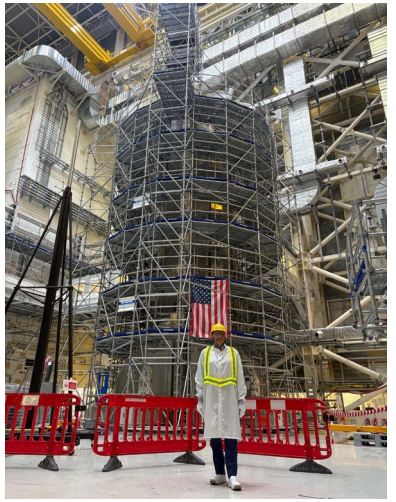
- Accenture Federal Services
- Advanced Micro Devices
- Amazon Web Services
- Arcee AI
- Astera Institute
- Astris AI
- Biohub

U.S.-Japan
Genesis partnership




DANGER
NO STEP





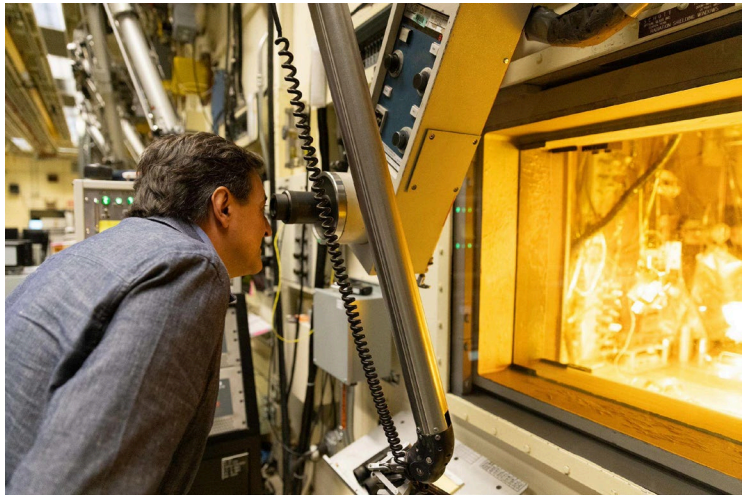

RESERVED
FOR
THESES






KAVLI PRIZE
WEEK
THE KAVLI PRIZE


Genesis Mission




AI-Driven Co-Design
Microelectronics
Genesis Mission
Critical Minerals & Materials to Unlock Supply (CM²US)

Thank you

