Science Serving the Nation

Science is about service—about a commitment to expanding human knowledge and driving discovery—and can drive innovation, technology development, and economic progress. This commitment, coupled with unique, world-class capabilities, is what makes the Department of Energy's (DOE’s) Office of Science an indispensable pillar of America's leadership in science and technology. We are the nation’s largest supporter of basic research in the physical sciences, the steward of national laboratories, and the lead federal agency supporting fundamental research for energy.

Our researchers have won 115 Nobel Prizes and more than 800 R&D 100 Awards highlighting our impact on economic growth, national security, and the environment. They have coaxed microbes to create sugars for biofuels and cut hazardous lead from common glass, steels, and plastics. They have coaxed microbes to create biological tools that improved antibiotic resistance, invented novel 3D-printed metals, and created new materials including super-high glasses and super-strong polymers, which are unlocking a genetic key to new therapies and diagnostic tools.

Innovation.

Our researchers help advance intelligent, interactive machine learning, from natural language processing to robotic autonomy to discovering new materials. They make world-class tools and software available to researchers around the world, advance magnetic confinement fusion, develop techniques to manage complex large-scale systems, and develop big data tools and frameworks to make handles big data.

Discovery.

Office of Science researchers are at the forefront of discovery. They are unveiling secrets of the basic building blocks of matter, such as quarks, neutrinos, and the higgs boson. They are also peering into the universe, seeking answers for what dominated the universe and what will come next. In areas ranging from drug discovery to the fundamental chemistry of combustion to the geophysics of earthquakes.

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