# Department of Energy Announces $87 Million for AI investments

| Principal Investigator | Title | Institution | City | State | ZIP Code |
|---|---|---|---|---|---|
| Sankaranarayanan, Subramanian | An "AlphaFold for Microelectronics": Decoding Defect-Mediated Mechanisms Governing Stability and Function | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Lumsden, Mark | MAIQMag: Multimodal AI for 2D Quantum Magnets | Oak Ridge National Laboratory | Oak Ridge | TN | 37831-6118 |
| Sokaras, Dimosthenis | Integrated Scientific Agentic AI for Catalysis (ISAAC) | SLAC National Accelerator Laboratory | Stanford | CA | 94305-2004 |
| Ramanathan, Arvind | IDeA: Intelligent Design Assistant for Enzyme Discovery and Biosynthetic Pathway Optimization | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Gu, Lianhong | A Generative Pretrained Transformer for Genomic Photosynthesis to Support Abundant Bioenergy Production | Oak Ridge National Laboratory | Oak Ridge | TN | 37831-6118 |
| Dehal, Paramvir | Artificial Intelligence Frameworks for Biological Science | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |
| Bardhan, Jay | Accelerating Biological Discovery by Enabling Genomic Resources in Deep Phenotyping on Automated Platforms | Pacific Northwest National Laboratory | Richland | WA | 99352-1793 |
| Webb, Samuel M. | AI-Driven Multimodal Imaging for Predicting Stress Response in Plants: Linking Genotype to Phenotype across Scales | SLAC National Accelerator Laboratory | Stanford | CA | 94305-2004 |
| Liu, Qun | Rare Earth Self-driving Cellular Uptake Engineering (RESCUE) | Brookhaven National Laboratory | Upton | NY | 11973-5000 |
| Adams, Paul | LAMBDA: A Lakehouse-enabled AI-ready Multi-modal Bioimaging Data Architecture | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |
| Romano, Paul | AI-Assisted Multiscale Modeling of Radiation Damage in Fusion Materials | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Tang, Xianzhu | A White Paper from LANL on American Science Cloud Initiative in Accelerating Fusion Energy Development with Generative and Agentic Artificial Intelligence | Los Alamos National Laboratory | Los Alamos | NM | 87545-0001 |
| Churchill, Michael | NSTX-U Digital Twins: Integrating AI, HPC, and Experimental Measurement for Accelerated Facility Operations | Princeton Plasma Physics Laboratory | Princeton | NJ | 08543-0451 |
| Stabler, Gary | MPEX AI Digital Twins | Oak Ridge National Laboratory | Oak Ridge | TN | 37831-6118 |
| Mariscal, Derek | Digital Twins and Data Integration for Accelerated Design and Operation of IFE Power Plant Systems | Lawrence Livermore National Laboratory | Livermore | CA | 94551-0808 |
| Heitmann, Katrin | HEP AmSC IDA Pilot: Knowledge Extraction | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Ferraro, Simone | HEP AmSC IDA Pilot: AI Universe | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |
| Cavaliere, Viviana | Hunting for TREASURE in HEP collider data: Tokenized Representations for Energy-frontier AI Searches via Understanding and Reasoning | Brookhaven National Laboratory | Upton | NY | 11973-5000 |
| Schram, Malachi | Developing AI-Ready Data Framework for DOE NP Particle Accelerators | Thomas Jefferson National Accelerator Facility | Newport News | VA | 23606-4468 |
| Dunlop, James C | Preparing QCD Data for Foundation Model | Brookhaven National Laboratory | Upton | NY | 11973-5000 |
| Cromaz, Mario | AI/ML-Ready Data Labeling for Low Energy Nuclear Physics | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |

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| Adams, Paul | OPAL: Orchestrated Platform for Autonomous Laboratories to Accelerate AI-Driven BioDesign | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |
| Stevens, Rick | OPAL: Orchestrated Platform for Autonomous Laboratories to Accelerate AI-Driven BioDesign | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Weston, David | OPAL: Orchestrated Platform for Autonomous Laboratories to Accelerate AI-Driven BioDesign | Oak Ridge National Laboratory | Oak Ridge | TN | 37831-6118 |
| Mans, Douglas | OPAL: Orchestrated Platform for Autonomous Laboratories to Accelerate AI-Driven BioDesign | Pacific Northwest National Laboratory | Richland | WA | 99354-1793 |
| Vasisht, Soumya | AETHER - Autonomous Experimentation Toolbox for High-Throughput Efficient Research | Pacific Northwest National Laboratory | Richland | WA | 99352-1793 |
| Yoo, Shinjae | Generalizing Scientific Acceleration with Humanoid Robots as Embodied AI | Brookhaven National Laboratory | Upton | NY | 11973-5000 |
| DeSousa, Kimberly | AI Agents for Automated Phenotyping Platforms | Pacific Northwest National Laboratory | Richland | WA | 99352-1793 |
| Ferreira da Silva, Rafael | A Testbed for Multi-Agent Autonomous Science: From Lab Bench to Supercomputer | Oak Ridge National Laboratory | Oak Ridge | TN | 37831-6118 |
| Ferrier, Nicola | RoSA: Robot Scientific Assistants for Accelerating Experimental Workflows | Argonne National Laboratory | Lemont | IL | 60439-4803 |
| Garcia Martin, Hector | A prototype for automated troubleshooting in a biomanufacturing self-driving lab | Lawrence Berkeley National Laboratory | Berkeley | CA | 94720-8099 |