

# DOE Mission Space

- DOE mission is broad: ranging from “quarks to quagmires to windmills”
  - Types of Research: Discovery science to applied research to demonstration to deployment
  - Topics: Particle physics to the power grid
- DOE and the National Labs must **BOTH**:
  - Promote international collaboration & attract as well as retain talent to maintain U.S. S&T competitiveness and leadership capabilities
  - Balance protection of research results and IP in certain areas in order to bolster economic and national security interests



# Attract and Retain Global Talent

- ❑ STEM Workforce Training Opportunities at DOE National Laboratories
- ❑ New Investigators for Office of Science research
- ❑ DOE National Lab Staff Recruitment and Retention
- ❑ Global Access to Scientific User Facilities

# STEM Workforce Training at DOE National Laboratories

STEM Workforce Training Programs at DOE National Laboratories are open to both U.S. Citizens and Lawful Permanent Residents, including:

☐ Undergraduate Internships

<https://science.osti.gov/WDTTS/SULI>,

<https://science.osti.gov/WDTTS/CCI>

☐ Graduate Thesis Research

<https://science.osti.gov/WDTTS/SCGSR>

☐ Visiting Faculty appointments

<https://science.osti.gov/WDTTS/VFP>



# Attracting New Investigators to Office of Science Research

- ❑ Reaching a New Energy Sciences Workforce (RENEW)

<https://science.osti.gov/Initiatives/RENEW>

- ❑ Funding for Accelerated, Inclusive Research (FAIR)

<https://science.osti.gov/Initiatives/FAIR>

- ❑ Early Career Research Program

<https://science.osti.gov/early-career>

- ❑ DOE Established Program to Stimulate Competitive Research (DOE EPSCoR)

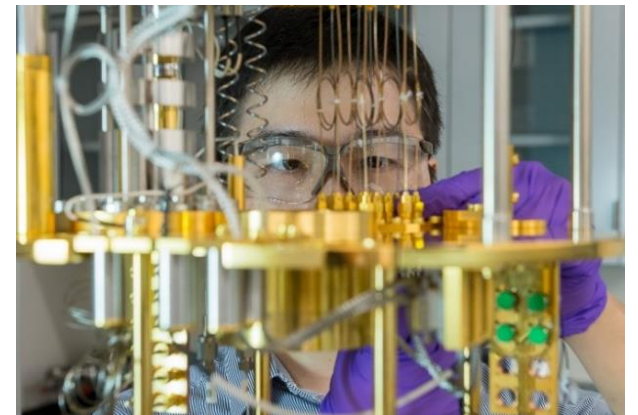
<https://science.osti.gov/bes/epscor>





# DOE National Laboratory Efforts

- ❑ DOE's 17 national laboratories provide broad opportunities for advancing scientific discovery and technology development
- ❑ DOE's laboratories have a strong culture of team science, attracting a diverse workforce of the best and brightest scientists and engineers from around the globe
- ❑ Each laboratory has established programs to attract and retain S&T staff, such as
  - Fellowship programs for high potential new employees
  - Formal training and mentorship programs for early career development
  - Opportunities to support work/life balance, including flexible work hours, remote work, and childcare, among others



# DOE Office of Science: Scientific User Facilities

- ❑ The Office of Science provides world-class scientific user facilities for researchers to advance science and innovation.
- ❑ Open to proposals from all interested potential users without regard to nationality or institutional affiliation.
- ❑ Each facility manages allocation of facility time & resources through merit-based peer review of short research proposals.



# SC International Benchmarking

- ❑ Basic Energy Sciences' Advisory Committee provided the first international benchmarking assessment for SC programs, focusing on Basic Energy Sciences
- ❑ An entire chapter of the report focused on "Strategies for Success, Recruitment, and Retention"
- ❑ Attraction and retention of global talents recognized as critical for strong science programs
- ❑ Recommended boosting support for early-career and mid-career scientists to levels comparable to leading programs elsewhere (globally) to better attract and retain talent

# DOE Office of Science: Visa Processes for Retaining Foreign STEM Talent

## ▪ National Interest Waiver for Second Preference Employment-Based Green Card Applicants

- To retain foreign nationals with exceptional ability or advanced degrees, employers typically file petitions for Second Preference Employment-Based Green Cards (EB-2) visas on an applicant's behalf.
  - Advanced STEM degree holders, especially STEM PhDs in areas of national interest, can self-petition by seeking a national interest waiver (NIW), which can allow them to pursue an EB-2 and stay in the U.S. without requiring a job offer.
- Office of Science federal employees and contractors at DOE Laboratories can provide *statements of fact* for candidates applying for the EB-2 via the NIW process, which can help strengthen the visa applications of those with significant, SC-relevant STEM talent.

## ▪ J-1 Visa Two Year Home Stay Requirement Waiver

- Exchange visitor visas (J-1) are for visiting scholars and researchers. Visa holders are required to return to their home country after their J-1 visa expires and stay for two years before returning to the U.S.
- DOE can act as an Interested Government Agency and sponsor waivers of the home stay requirement on behalf of an exchange visitor who is working in a National Lab or other DOE-sponsored laboratory.



# Risk Mitigation

- ❑ Countries of Concern: China, Russia, Iran and North Korea
- ❑ Talent Program Prohibition
- ❑ Restrictions in Other Sponsored or Affiliated Activities
- ❑ Address Potential Conflicts of Interest

# Foreign Government Sponsored or Affiliated Activities Order

- The Order's purpose is to continue the flow of scientific and technical information consistent with the Department of Energy's (DOE) broad scientific mission, while also:
  - ensuring protection of U.S. competitive and national security interests and DOE program objectives
  - preventing potential conflicts of interest, e.g., financial interests, conflicts of commitment, and outside employment, which may undermine the DOE research enterprise
  - limiting unauthorized transfers of scientific and technical information
- The Order was expanded in September 2020 to include "Other Foreign Government Sponsored or Affiliated activities" managed by countries of risk
- These other activities include, employment, other support, grants/contracts, appointments to positions, etc.
- The Order prohibits participation in foreign talent recruitment programs from a country of risk and restricts participation in other foreign government sponsored or affiliated activities of a country of risk.
- The Order provides an option to seek an exemption for certain reported other activities, which will in turn be evaluated by risk and threat
- The Order requires disclosure of participation in country of risk talents programs and other sponsored activities and taking actions necessary to comply with the policy