Mentorship at the national laboratories and the advancement of students and early career scientists are critical components of LFRP. Since 2008, the program has supported a total of 633 UC graduate students and postdoctoral fellows. LFRP awards provide unique training and hands-on professional opportunities at the national laboratories, preparing UC graduate students and postdoctoral fellows for careers in science and national security.

Covering a full range of scientific inquiry from energy and environment to engineering and computational sciences, LFRP funding catalyzes multi-disciplinary and inter-disciplinary teams to tackle challenging problems and find solutions to critical issues. Recently funded projects include:

**ENVIRONMENT**
5 UC campuses joined with researchers at LANL and LLNL to develop guidelines for maximizing the effectiveness of coastal wetlands to mitigate climate change.

**HEALTH**
UC Merced Grad Fellow and LLNL researchers are investigating the impact of Valley Fever and the immune regulatory mechanisms controlling disease severity.

**SECURITY**
Collaboration between UCSD, UC Berkeley, UC1, UCLA and researchers from LLNL on the 21st-century great power competition results in a new book by lead-PI.
**Fostering New and Lasting UC-NL Collaborations**

Since 2008, LFRP has supported UC-NL partnerships between and among all 10 campuses and both LANL and LLNL. These collaborations capitalize on the strengths and resources of each institution to launch compelling, cutting-edge research across a full range of thematic topics.

LFRP prides itself as a mechanism for fostering new and lasting collaborations across the UC and the national labs. The majority of partnerships are new at the time of application, and more than half of these teams maintain cohesion for at least two years beyond the life of the grant.

With seed funding from LFRP, UC-NL collaborations have attracted $260 million in extramural funding and have produced over 1,200 peer-reviewed publications.

**Stimulating Cutting-Edge Discoveries**

In 2017, LFRP began directing funds towards strategic areas of scientific and national security importance, identified as high-impact areas for UC-national lab synergy. The more than $90 million investment since 2017 has funded multicampus-national laboratory teams to pursue breakthroughs in:

- Accelerator research
- Biological applications of advanced computing
- Climate science
- Cybersecurity
- High energy density science
- Mesoscale materials science
- National security through social sciences
- Quantum information sciences
- Wildfire-related research

**Positioning UC and California for National Leadership in Science, Technology and Policy**

The programmatic strength of LFRP to produce impactful partnerships is evident in the role these partnerships play nationally and internationally. For example, a combined UC-NL group spanning 5 UC campuses and three national labs contributed crucial developments to the field of mesoscopic science. They established UC scientific leadership in atomic-scale semiconductor optoelectronics with over $27 million secured in leveraged funds from six national organizations including the DoD, DoE, and NSF. LFRP’s collaboration model enables groups to integrate core expertise areas, and to leverage research innovations to maximum advantage. Since 2008, LFRP’s many partnerships have secured a total of $260 million in extramural funds from over 25 sources.

**Example Sources of Extramural Funds**

- MacArthur Foundation
- National Aeronautics and Space Administration
- National Institutes of Health
- US Environmental Protection Agency
- US Department of Defense
- US Department of Energy
- Sloan Foundation
- National Science Foundation

*updated 10.26.23*