

**UC Riverside Research and Economic Development
Request for Applications
OASIS Entrepreneurial Postdoctoral Fellowship**

UCR Research and Economic Development (RED) and the Office of Technology Partnerships (OTP) are seeking applicants interested in being awarded the **OASIS Entrepreneurial Postdoctoral Fellowship** for 2023. The fellowship is a 15-month award open to a postdoctoral researcher who is interested in pursuing research translation and the development of solutions that address the Inland Southern California's most pressing needs around climate change and climate resilience.

This program is funded via a \$1 million grant as part of a University of California effort to support innovation and entrepreneurship to advance California's climate action goals. For more information, please see [OASIS program awarded \\$1 million UC grant for climate action projects | Inside UCR.](#)

Applications should focus on areas of research that will result in more resilient infrastructure, economic resilience, and increase access for vulnerable communities impacted by climate change in the following areas:

- Extreme Heat
- Wildfire
- Drought
- Flooding
- Air Quality, Human Health, and Ecological Hazards (e.g., Salton Sea desertification)
- Extreme Wind
- Severe Weather
- Landslides

More background **information can be found in the background section of this RFA.**

Program Description and Award

The selected UCR postdoctoral researcher be awarded **\$110,000** to conduct translation and technology commercialization activities resulting from their research. Funding is intended to be used to conduct research translation and technology validation studies to increase the commercialization potential of climate adaptation and resilience inventions, programs, products, and services. This is not a typical generic seed funding award, but rather an opportunity to move quickly "from the bench to the marketplace" or have a quick impact in the community.

As a condition for the award, the selected OASIS Fellow will need to participate in a series of guided activities throughout the award period focused on increasing exposure to the research translation process and to the resources that RED and OTP offer to support it.

The OASIS Fellow will need to participate in guided sessions delivered by OTP and its partners that include how to submit invention disclosures and identify opportunities to protect and commercialize intellectual property; how to engage with industry and developed sponsored research projects, and how to partner and submit proposals for Federal SBIR/STTR grants. The OASIS Fellow will be expected to:

- Become an associate member of the UCR Chapter of the National Academy of Inventors.
- Participate in a visit to San Diego to meet with investors, corporations, and incubators to learn how investors and industry partners select opportunities to commercialize.
- Participate in the NSF I -Corps workshops delivered by OTP to learn more about the technology entrepreneurship process.
- Participate in the program's annual conference of Climate Resilience and Adaptation.

The OASIS Fellow will be supported by an assigned Entrepreneur in Residence (EIR) from UCR's EPIC Small Business Development Center (EPIC SBDC), and expert advisors drawn from UCR alumni and community partners and companies who will provide guidance with respect to the definition of technical and market validation milestones. The EIR will provide coaching and mentoring, as well as access to a broad network of resources throughout the funding period and beyond.

At the end of the award period, it is expected that the OASIS Postdoctoral Fellow will have accomplished at least one of the following:

- Submission of an invention disclosure and patent application.
- Submission of a proposal to a state or federal agency, industry partner, or nonprofit organizations to support further development.
- Identification of at least one commercialization partner to pursue further development of the technology.
- Validation of the solution under real environments or at demonstration sites.
- Explore creation of a startup company.

Use of Funds

Funds may be used for any scholarly, creative, or outreach activity directly related to the conduct of research that will lead to quick innovation, translation, and/or commercialization. Examples include salaries and benefits for any participant, staff, undergraduate students, graduate students, other postdoctoral researchers, or similar position; software or supplies; small pieces of equipment (less than \$5,000); facility recharges; travel to meet with potential

collaborators, industry partners, and investors, and to conduct fieldwork or proof of concept studies.

All funds must be expended by the end of the project period. To focus on projects that can make rapid progress, no extensions of the award will be approved, and unexpended funds will be recovered.

Eligibility:

- Applicant must be a postdoctoral researcher employed at UCR
- Project needs to be endorsed by the postdoctoral researcher faculty advisor.

To be considered for the Fellowship, interested applicants need to apply by submitting a **Notice of Intent by 11:59 PDT on Friday September 22, 2023.**

Fellowship recipient will be notified by October 1st 2023 or earlier. Please send your submission to judy.swineford@ucr.edu.

Notice of Intent Application Format

Narrative should be no more than 5 pages, single-spaced, 12-point font (Calibri, Arial, or Times New Roman) with at least one-inch margins all around. Appendix does not count towards the narrative page limit.

The Application needs to contain the following information:

1. Title of the project.
2. Postdoctoral researcher name, department/center affiliation, and contact information.
3. Name of faculty advisor and contact information
4. Other members of the team, including students and other faculty that will be part of the collaboration, and their contact information.
5. The technology area(s), listed above, that the proposal addresses.
6. Project goals and objectives and anticipated outcomes.
7. Description of the problem or unmet need that the project addresses.
8. Proposed research and translation plan using language accessible to reviewers with different backgrounds. The research and translation plan should address the following:
 - a. Why will the proposed plan be more effective in addressing the identified problem or unmet need? Include relevant data and results that support your rationale.
 - b. Describe other research groups and/or companies that are addressing the same problem.

- c. Who are the potential customers, users, or licensees of the outcomes of your project.
 - d. If applicable, indicate the UC case number and title of the invention disclosure submitted to UCR Office of Technology Commercialization that is relevant to the proposed project.
9. Proposed plan of activities, timeline, milestones, and deliverables.
 10. Postdoctoral researcher and team members bios Appendix
 - a. Budget with breakdown of cost categories and brief justification (no more than 2 pages).
 - b. CVs of the Applicant (no more than 2 pages).
 - c. References
 - d. Letter of Project support signed by Postdoctoral researcher faculty advisor.

Review Criteria: In support of the goal of this initiative, external reviewers will focus on the strengths and weaknesses of each application in these areas:

1. Unmet need or potential opportunity.
2. Impact and innovation potential of the project.
3. Feasibility for the project to achieve proposed goals within the specified timeline (project must be completed within a 12-to-18-month period).
4. Potential for translation and commercialization.

Progress Tracking and Reporting

Fellowship recipients will be expected to work with their assigned EIR to:

- Provide a quarterly update detailing their project progress and use of funds, including mid-year and end-of-project reviews.
- Develop a translational plan for their research by accomplishing at least one of the following:
 - Submission of an invention disclosure and patent application.
 - Submission of a proposal to state or federal agencies, industry partners, or nonprofit organizations to support further development.
 - Identify at least one additional commercialization partner to pursue further development of the technology.
 - Validation of the solution under real environments or at demonstration sites.
 - Explore the creation of a startup company.

If you have any questions, please reach out to Rosibel Ochoa, Associate Vice Chancellor for Technology Partnerships, at rosibel.ochoa@ucr.edu.

Background

Climate Exposure Vulnerability Assessment and Resilience Strategy in Riverside and San Bernardino Counties

The Counties of Riverside and San Bernardino have each commissioned a Vulnerability Assessment report to determine potential exposure and impacts of climate hazards. These reports evaluate the sectors at highest risk and the potential mitigation and resilience strategies for local governments to pursue.

Extreme heat, wildfire, drought, poor air quality, flooding, mudslides, and landslides have been identified as some of the climate hazards that pose a greater risk for the most vulnerable populations in Riverside and San Bernardino Counties. Populations at risk include seasonal residents and migrant workers, outdoor workers, homeless persons, senior citizens living alone, and individuals with disabilities or medical conditions.

Unmet needs that need to be addressed in the short term to support vulnerable communities.

The following are some examples of the unmet needs that have been identified in the mentioned reports that need to be addressed to increase the adaptation capacity of the most vulnerable populations in the Inland Empire.

Increased Accessibility

- Tools, methods, and strategies that increase access by disadvantaged communities to government, community, and private funding sources and programs.
- Warning systems to alert vulnerable populations when they are at risk and where to seek shelter.
- Solutions that support individuals with restricted mobility, elderly populations, and those who live in isolated areas.
- Devices or other solutions to protect outdoor workers and at-risk populations from poor air quality.
- Affordable appliances (AC units, air filters, etc.) that are energy efficient.

Resilient Infrastructure

- Low- cost structures, technologies, and designs that can serve as cooling centers.
- Infrastructure, devices, systems that can deliver mobile backup power to run air conditioning units at cooling centers in the event of power outages.

- Construction materials and designs that are fire resistant or that are more energy efficient.
- Approaches that increase reliability and redundancy of the utility infrastructure.

Economic Resilience

- Climate smart cultivation techniques and controlled environment systems to help small farmers withstand the impact of drought and extreme heat.
- Support for at risk small businesses on climate mitigation strategies and exploration of new business opportunities.

References

1. <https://wrcog.us/DocumentCenter/View/7478/Western-Riverside-Adaptation-and-Resiliency-Strategy-Vulnerability-Assessment>
2. <https://wrcog.us/DocumentCenter/View/7477/San-Bernardino-County-Vulnerability>
3. https://wrcog.us/DocumentCenter/View/7660/San-Bernardino-County-Resilience-Strategy2019_FINAL