Research and Economic Development Newsletter

May 27, 2021

RED Updates

Funding Opportunities

RED Updates

A Message from the Vice Chancellor

Dear Research Community,

Once again, I am glad to report that all of the metrics associated with the COVID-19 pandemic continue to improve. Consistently with this improvement in conditions, Riverside County has moved into the orange tier in the state color system and we have continued to ramp-up our research activities. *Not only research labs but also all administrative facilities supporting the research activities are currently allowed to return to campus at 50% occupancy level.* More good news is on their way. Please take some time to look at the many contents of this newsletter.

And, also once again, thank you to all of you for your efforts in keeping as safe as you can and alive our vibrant research, scholarly work, and creative activities despite the difficult times we went through.

Stay safe,

Rodolfo

Extramural Funding Opportunity Preparation Award (EFOPA)
We have completed the first competition of our new EFOPA program announced in our last newsletter. We are happy to report that all the applications we received have been fully funded per their budget requests. These include 7 application in the Early-Career tier (limited to tenure-track assistant professors) and 3 in the General one. Congratulations to all the awardees. We intend to put out a new solicitation for the program next quarter.

Human Subject Research
The Research Ramp-up Committee has approved the restart of some behavioral human subject research, which has been put on hold because of the pandemic.

Campus laboratories that conduct human subjects research may resume operations as long as they abide by a matrix designed to assess the risk in conducting in-person research involving human subjects and their Work Site Specific Plans have been approved . The matrix is based on a similar matrix at UC Santa Barbara and adapted to the types of human subject research we conduct on our campus. The matrix uses locations, participants, and types of activity risks to determine the overall risk of each study.

Please note:

- As usual, lab PIs must obtain approval from the Institutional Review Board (IRB) before conducting the study. If the study has already been approved and not expired, and will be implementing no modifications, then no new approval from the IRB is needed.
- PIs must submit Work Site Specific Plans to Environmental Health and Safety for approval.
- All involved in the study must wear facemasks, practice physical distancing as described in the matrix, and have access to cleaning and hand washing supplies.
- All participants will have to fill out a daily Research Human Subject Wellness Survey for each day of the study.
- When possible, researchers must opt for phone/video sessions in place of in-person study visits.
- Researchers are strongly encouraged to use study areas that accommodate physical distancing.

OASIS: Opportunities to Advance Sustainability, Innovation, and Social Inclusion
We have been conducting extensive conversations in several internal and external fora about our economic development plan OASIS. As you may have heard already, the OASIS Hub is a regional economic development initiative envisioned as a combination of research laboratories, technology incubator, training facilities, and community spaces dispersed around the region that will catalyze research partnerships, technology transfer, and the creation and attraction to the region of innovation-based companies. OASIS aims to anchor a cluster of diverse and strategic stakeholders, including the California Air Resources Board

(CARB), the County and City of Riverside, and other community partners to activate and accelerate the growth of innovation clusters around clean logistics, agriculture, air quality and resource management, and address health disparity and other economic and social needs of the Inland Empire. We have now secured the assistant of Brailsford and Dunlavey (B&D), a nationally recognized development and management advisory services firm, to support us on the first phase of this important project. B&D has previously worked on planning efforts for UC Riverside and has extensive experience engaging with other universities on similar projects, such as the OASIS Hub. Please be alert for a soon upcoming townhall meeting at which we will provide additional information and hope to receive further feedback from our campus community.

UC-National Laboratory Southern California Hub (SoCal Hub)
Collaborations between UC faculty and colleagues at UC managed national laboratories span many different science and engineering disciplines. In the past, these collaborations have led to many high-profile science breakthroughs, yet the breadth and depth of these interactions have been limited by institutional barriers and physical distance, particularly for UC campuses in Southern California. Last year, in partnership with UCOP National Laboratory Office (UCNL) and the two UC managed NNSA laboratories (Los Alamos National Laboratory and Lawrence Livermore National Laboratory), the Irvine, Los Angeles, and San Diego UC campuses proposed a UCNL- SoCal Hub framework to sustain and expand critical campus-Laboratory collaborations. The vision for the Hub is to build/enhance collaborative networks between the UC managed National Labs and the UC campuses in the southern part of the state through a series of coordinated activities, e.g. workshops, working groups, strategic visits, and proposal development, which engage faculty and staff on high impact research collaborations, provide new training, education and career opportunities, and facilitate the development of strong pipelines with special attention to diversity and inclusion, from the southern California universities into the UC managed national laboratories.

I am very excited to report that UC Riverside has now been included as a full partner in the SoCal Hub with great enthusiasm from the existing partners. I am also very grateful that Professors Amit Roy-Chowdhury and Srikanth Krishnamurthy, co-directors of NC4: Center for Networked Configurable Command, Control and Communications for Rapid Situational Awareness, have kindly agreed to be our faculty representatives in the governance of SoCal Hub, which also includes the VCRs of the four UC campuses involved and the directors of the national labs. UCR will be responsible for organizing one of the workshops for this coming year. Please stay tuned for further information as this new opportunity for research and collaboration develops.

Two upcoming conferences

1. UC Wildfire Research Symposium, June 4, 8:00 am – noon. Wildfires and their aftermath impact all Californians and cost the state hundreds of millions of dollars every year. How can we plan for and prevent wildfires, address them quickly to minimize damages, and ensure equitable recovery? Join UC Office of Research and Innovation to learn how the cutting-edge work of experts from UC's campuses and national labs can help California achieve its wildfire resilience and recovery goals.

- The event is FREE and open to members of the UC community as well as the public. You can register here. Visit the UC Wildfire Research Symposium website to find the agenda, information about speakers, and more. A recording of the symposium will be posted after the event. This event is the first in the 2021 Resilience Symposium Series, which will focus on California's resiliency to wildfire, extreme drought, and climate change. Sponsored by UC Research and Innovation at the UC Office of the President, new symposia will be held approximately every two months through the summer.

2. I am happy to briefly wear my math hat and refer you to the 2021 Annual Meeting of the Society for Mathematical Biology (SMB) taking place June 13-17, 2021, to be hosted virtually by our campus.

- This important international event will be held in an innovative 24-hours a day format to maximize the participation of people across the world. I have learned that there are more than 1500 registered participants already. The main local organizer is Professor Mark Albert, who has led the quite impressive efforts to put together this extraordinary conference in partnership with the Society for Mathematical Biology, the European Society for Mathematical and Theoretical Biology, the Korean

Society for Industrial and Applied Mathematics, and a large number of campus and extramural sponsors. Please visit the conference website for further information.

Office of Technology Partnership Update

Proof of Concept (POC)

The Office of Technology Partnerships (OTP) at UC Riverside (UCR) has awarded $230,000 in grants and expert business mentorship to five (5) Proof of Concept (POC) faculty recipients to further the development and commercialization of their technologies. Congratulations to the five POC awardees:

- "*Solar battery*": Alfredo Martinez-Morales, Assistant Project Scientist at CE-CERT
- "*Targeting pancreatic cancer metastases with first-in-class EphA2 agonistic agents*": Maurizio Pellecchia, Professor of Biomedical Sciences
- "*Targeted delivery of pesticides enabled by nanotechnology*": Juan Pablo Giraldo, Assistant Professor of Botany and Plant Sciences
- "*Device to treat acute edema in spinal cord injury*": Victor Rodgers, Professor of Bioengineering
- "*A novel medical device for rapid and routine lung diagnosis and monitoring*": Mona Eskandari, Assistant Professor of Mechanical Engineering

Read more about the 2021 POC Awardees

EPIC Small Business Development Center (SBDC)

OTP's EPIC Small Business Development Center (SBDC) is excited to announce that it has partnered with the Murrieta Innovation Center (MIC) to bring additional resources and services to the Southwest Riverside County tech community by providing mentorship and entrepreneurial programming.

Read more about the partnership here

UCR Enters Collaboration with GALT to Advance Microbiome Research

With support from OTP, the UC Riverside Microbiome Initiative and California-based General Automation Lab Technologies, or GALT, have partnered to advance plant pathology, environmental microbiology, and insect and human gut microbiome studies. As part of this collaboration, GALT will support five UC Riverside research projects that will use the company's Prospector® high-throughput microbial isolation and cultivation system to generate banks of live microbial isolates. The GALT Prospector technology will be housed in a dedicated laboratory within the Life Sciences Incubator.

Read more about the collaboration here

Sensorygen Raises $1.5M Equity Funding Round

Sensorygen, a life science start-up founded by UC Riverside's professor Dr. Anandasankar Ray recently closed a $1.5 million equity funding raise. With this funding, Sensorygen will be able to continue advancing to reach the market, moving into the final phase of testing to obtain approval from the United States Environmental Protection Agency.

Read more about the funding raise here

Past Webinars and Workshops

- Watch the April SBIR Talks to hear from an expert panel of SBIR awardees talk about tips, tricks, and the role of incubators to increase proposal success!
- Interested in hiring student interns? Learn how about the resources available on campus in this Recruiting Interns Workshop!

Sponsored Programs Update

NSF NEWS

Effective today, the National Science Foundation (NSF) added functionality to enable Principal Investigators (PIs) to remove publications both from the NSF Public Access Repository (NSF-PAR) and from in-progress project reports in the Research.gov Project Reporting System without assistance from the NSF Help Desk. Streamlining this process helps to reduce administrative burden for both PIs and NSF staff and improves NSF-PAR and project report data quality. There are no changes to NSF's Public Access policy or project reporting requirements.

Here's what you need to know:

NSF-PAR Publication Removals

- Only the PI or co-PI who initially deposited a publication or associated an NSF award to a deposited publication can disassociate an NSF award from a publication in NSF-PAR. Disassociating an NSF award from a publication removes the publication from both the NSF-PAR publicly-facing search and the NSF.gov Award Search for the specific NSF award.
- Removing a deposited publication in NSF-PAR by dissociating the NSF award does not remove the publication from an in-progress project report for the award in Research.gov.
- If an NSF award is disassociated from a deposited publication in NSF-PAR, it can take up to six hours for the update to be reflected in the NSF-PAR publicly-facing search and the NSF.gov Award Search and for visual indicators to appear in project reports reminding the PI or co-PI to delete the publication from the project report.

In-progress Project Report Publication Removals

- Only the PI or co-PI who initially deposited a publication or associated an NSF award to a deposited publication in NSF-PAR can remove the publication from a related in-progress project report in the Research.gov Project Reporting System.
- Publications cannot be removed from approved project reports or from submitted project reports that are awaiting NSF review and approval.
- Removing a publication from an in-progress project report in Research.gov does not remove the publication from NSF-PAR.
- Research.gov processes NSF-PAR publication updates within six hours. After NSF-PAR removal information has been processed in Research.gov, an in-progress project report that still includes a publication removed from NSF-PAR will have a visual indicator reminding the PI or co-PI to delete the publication from the project report.

Training Resources

- A how-to guide with step-by-step instructions for both NSF-PAR and in-progress project report publication removal processes is available.
- Additional training resources are available on the Research.gov About Public Access page and Research.gov About Project Reports page. Please also refer to the NSF Frequently Asked Questions (FAQs) for Public Access for further Public Access information.

Questions? If you have IT system-related questions, please contact the NSF Help Desk at 1-800-381-1532 (7:00 AM - 9:00 PM ET; Monday - Friday except federal holidays) or via rgov@nsf.gov. Policy-related questions should be directed to policy@nsf.gov.

Regards,
Research.gov Team at the National Science Foundation

Federal Relations Update

Special thanks to Kathy Eiler, UCR Director of Federal Relations, for providing the information in this section.

UC's FY 2022 Funding Priorities & Recommendations

On April 16 President Michael Drake sent a letter to Congress with UC's FY 2022 Funding Priorities & Recommendations, including those impacting UC Riverside.

Organizing for Tomorrow: Double the Pell Today!

On May 3, the UC Student Associations (UCSA) in partnership with UC FGR, held an organizing webinar – Organizing for Tomorrow: Double the Pell Today! – focused on engaging students from across the country and providing them with advocacy tips, actions and resources to help grow this student-led effort. You can still advocate for Double the Pell using UC's updated advocacy toolkit.

Higher Education Emergency Relief Fund (HEERF)

On May 11, the U.S. Department of Education released the allocations for the third investment in the Higher Education Emergency Relief Fund (HEERF), including more than $690.2 million for UC's students and campuses. The Department of Education's updated guidance on permissible uses for these funds is linked here. UC Riverside received $81,467,469.

President Biden's Fiscal Year 2022 Budget Request

On Friday, May 28, President Biden is expected to release his full fiscal year (FY) 2022 budget request, a detailed outline of how his administration proposes to fund the federal government for the next fiscal year. This proposal follows the release of a "skinny" budget in early April. The University of California (UC) Office of Federal Governmental Relations (FGR) prepared a summary of the "skinny" budget, which can be found online.

Funding Opportunities

Limited Submissions with Upcoming Deadlines

For more information about current and past limited submission competitions, as well as details on how to apply, please visit our website at https://research.ucr.edu/ord/limitedsubmissions.

NSF Research Traineeship (NRT) Program

Internal Deadline: June 10, 2021
Agency Deadline for Nominations: September 6, 2021
Number of Submission Allowed: 2

Agency Application Instructions: https://www.nsf.gov/pubs/2021/nsf21536/nsf21536.htm

Overview:

For FY2021, Artificial Intelligence (AI) and Quantum Information Science and Engineering (QISE) have been added to the national priority areas in which the NRT Program encourages proposals. We seek proposals on any interdisciplinary research theme of national priority, with special emphasis on AI and QISE and the six research areas within NSF's 10 Big Ideas. The NSF research Big Ideas are Harnessing the Data Revolution (HDR), The Future of Work at the Human-Technology Frontier (FW-HTF), Navigating the New Arctic (NNA), Windows on the Universe: The Era of Multi-Messenger Astrophysics (WoU), The Quantum Leap: Leading the Next Quantum Revolution (QL), and Understanding the Rules of Life: Predicting Phenotype (URoL). Proposals that align with one of these designated priority areas should contain a title to reflect that alignment, as described in the program solicitation (e.g., NRT-AI: title, NRT-HDR: title, NRT-QL: title).

Proposals may be submitted under two tracks (i.e., Track 1 and Track 2). Track 1 proposals may request a total budget (up to five years in duration) up to $3 million for projects with a focus on STEM graduate students in research-based PhD and/or master's degree programs. Track 2 proposals may request a total budget (up to five years in duration) up to $2 million; NSF requires that Track 2 proposals focus on programs from institutions not classified as Doctoral Universities: Very High Research Activity (R1). Requirements for Track 1 and Track 2 are identical.

Please note restrictions on institutional eligibility. The number of NRT proposal submissions allowed per institution remains limited to two (2) submissions total. The number of NRT proposal submissions per PI or co-PI remains limited to one (1) submission total.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 20-1), which is effective for proposals submitted, or due, on or after June 1, 2020.

Other Funding Opportunities

RED 2021 Early NSF CAREER Proposal

If you are applying for an NSF CAREER award and you finish a complete draft and submit it to https://easychair.org/my/conference?conf=ecpr2021 by June 21st (11.59pm), RED will hold a review panel in early July and get prompt feedback to you.

As an incentive for finishing early, RED will support your research/travel with:

- $500 for first time submission
- $250 for resubmission if you include the reviews of your prior submission and a summary of how you HAVE already modified the proposal

If you are a CAREER awardee or have reviewed for the NSF program, and would like to serve as reviewer on RED's CAREER panel, send email to gillianw@ucr.edu. Panelists will review 5-8 CAREER proposals and receive $1,000 in a research fund.

UCR resources for CAREER proposers are available at the (password protected) site https://redit.ucr.edu/OrApps/RD/proposals/.

These include:

- Slides from Gillian Wilson's 2020 workshop presentation
- Recording of the 2020 workshop including advice from panelists and Q/A session
- CAREER handbook (15 years of experience; revised for 2021)
- Sample proposals, and more

NSF Social, Behavioral and Economic Sciences - Recovery, Renewal and Resilience in a Post-Pandemic World

Deadline for Submission: July 12, 2021

Please see Recovery, Renewal and Resilience in a Post-Pandemic World for details.

Recovery, Renewal and Resilience in a Post-Pandemic World is a new international funding opportunity supporting social, behavioral and economic science research on the impacts of the COVID-19 pandemic. Organized through the Trans-Atlantic Platform, the endeavor is a partnership between the U.S. National Science Foundation's Directorate for Social, Behavioral and Economic Sciences and scientific funding agencies in 11 other countries.

"The COVID-19 pandemic has affected so many aspects of our lives, challenging people and families around the world. It raises new questions about social and behavioral aspects of public health, the economy, education and more," says Arthur Lupia, head of NSF's Directorate for Social, Behavioral and Economic Sciences. "Social science research on an international scale can improve our understanding of the pandemic's effects and accelerate a robust recovery for communities large and small."

Proposals must be submitted by July 12, 2021 through the Trans-Atlantic Platform's website. Proposals requesting NSF funding must fit within the scientific purview of NSF's Social, Behavioral and Economic Sciences Directorate. Researchers are thus encouraged to contact NSF program director Kwabena Gyimah-Brempong to discuss their proposed projects prior to submission.

CNAS Delfino Agriculture Innovation Seed Funding Call for Proposals (CFP)

Proposal Due: Deadline has been extended to June , 2021
Funding Available: July 1, 2021

The goal of the seed funding is to initiate transdisciplinary collaborations that benefit agricultural innovation. This internal award should serve as an opportunity to form collaborations that can create springboards for future collaborations and be leveraged for larger funding opportunities.

CNAS has a total of ~$50,000 to distribute this year and will consider funding in the $10-25K range per project. Funds will be allocated for the duration of one year. If appropriate, an additional
$50,000 may be allocated by ORED in year two to advance the translation of the project (i.e., move to commercialization).

Application limitations
- CNAS PI must be the lead
- The co-PI must be from BCOE
- Budget must allocate at least 50% of the funds to CNAS PI
- Funds must be spent within one year of funding
- Award must be driven by a project that benefits agricultural innovation

Proposal requirements
The proposal is modeled after the NIH R03 grant mechanism to encourage exploratory and/or developmental research by supporting early and conceptual stages of project development.
- **Cover page** (1 page): Includes project title, names of faculty with affiliations and contact information; and project narrative (250 word) targeted for a broader audience.
- **Proposal** (3 pages maximum): Proposed research should include relevant background, novelty, milestones/anticipated outcomes, budget and budget justification as well as prospects for future funding. The 3-page proposal includes figures and references.
- **Biosketch** (4 pages maximum per investigator): NIH or NSF-style biosketch for each investigator
- **Format**: one-inch margins; Arial 11 or Times New Roman 12 font.

Proposal review criteria
Proposals will be reviewed by the CNAS Honors/Awards Committee and the CNAS deans using NIH-based criteria. The criteria include: Overall impact; Significance; Investigators; Innovation; Approach; and Environment. Prospects for extramural funding will be considered as well.

Additional notes:
All categories of expenses are allowed. Appropriate examples include, but are not limited to, graduate student tuition, equipment, travel, and supplies.

Junior and senior faculty from across CNAS are encouraged to apply.

For questions, please contact Rachel Alvarez in CNAS Dean's office (rachel.alvarez@ucr.edu).

DOD Air Office of Scientific Research - Air Force Fiscal Year 2022 Young Investigator Research Program (YIPP

Deadline for Submission: July12, 2021

Please see https://www.grants.gov/web/grants/view-opportunity.html?oppId=332937 for details.

Budget: up to 150k per year for 3 years
Eligibility: must be a U.S. citizen, national, or permanent resident at time of submission
Questions due: April 30, 2021
Whitepapers due: May 31, 2021
Proposals due: July 12th, 2021

The Fiscal Year 2022 Air Force Young Investigator Research Program (YIP) intends support for scientists and engineers who have either received Ph.D. or equivalent degrees post 01April 2015. These scientists and engineers have shown exceptional ability and promise for conducting basic research.

We seek unclassified proposals from qualified and responsible applicants in the research areas of interest identified in the most recent Broad Agency Announcement (BAA) titled “Research Interests of the Air Force Office of Scientific Research” published on Grants.gov at https://www.grants.gov/web/grants/view-opportunity.html?oppId=314753.

NSF Models for Uncovering Rules and Unexpected Phenomena in Biological Systems (MODULUS)

Deadline for Submission (due by 5 p.m. submitter's local time): Proposals Accepted Anytime

Please see https://www.nsf.gov/pubs/2021/nsf21509/nsf21509.pdf for details.

The Division of Molecular and Cellular Biosciences (MCB) supports quantitative, mechanistic, predictive, and theory-driven fundamental research designed to promote understanding of complex living systems at the molecular, subcellular, and cellular levels. While recognizing the need for thorough and accurate descriptions of biological complexes and pathways, the priority of the Division is to support work that advances the field by capturing the predictive power of mechanistic, quantitative, and evolutionary approaches. Proposals are solicited to support research relevant to the four MCB core clusters:

- Cellular Dynamics and Function
- Genetic Mechanisms
- Molecular Biophysics
- Systems and Synthetic Biology

MCB gives high priority to research projects that use theory, methods, and technologies from life and physical sciences, mathematics, computational sciences, and engineering to address major biological questions that elucidate the rules governing subcellular and cellular processes. Research supported by MCB uses a range of experimental and computational approaches—including in vivo, in vitro and in silico strategies—and a broad spectrum of model and non-model organisms, including microbes and plants. Typical research supported by MCB integrates theory and experimentation. Projects are particularly welcome that address the emerging areas of: multi-scale integration; transformative methods and resources (when driven by compelling biological questions); molecular and cellular evolution; the synthesis of lifelike systems; and the quantitative prediction of the phenome from genomic information. Highest funding priority is given to applications that have outstanding intellectual merit and strong broader impacts, while proposals with weaknesses in either category (or those that are perceived as likely to have an incremental impact) will not be competitive. Proposals that are motivated by relevance to human health and disease treatment are not appropriate for the Division and will be returned without review.

Launching Early-Career Academic Pathways in the Mathematical and Physical Sciences (LEAPS-MPS)

Deadline for Submission: June 14, 2021

Please see https://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=505892&ods_key=nsf21570 for details.

With emphasis in helping to launch the careers of pre-tenure faculty in Mathematical and Physical Sciences (MPS) fields at minority-serving institutions (MSIs), predominantly undergraduate institutions (PUIs), and Carnegie Research 2 (R2) universities, and with the goal of achieving excellence through diversity, the Directorate for Mathematical and Physical Sciences hereby announces a call for Launching Early-Career Academic Pathways (LEAPS-MPS) proposals. This LEAPS-MPS call also aims to broaden participation to include members from groups underrepresented in the Mathematical and Physical Sciences, including Blacks and African Americans, Hispanics, Native Americans, Alaska Natives, and Native Hawaiians, and other Pacific Islanders.

These grants are intended to support MPS principal investigators in initiating their research programs early in their careers, particularly at the aforementioned institutions. By providing this funding opportunity, MPS intends to help initiate viable independent research programs for researchers attempting to launch their research careers such that LEAPS-MPS awards are followed by competitive CAREER or individual-investigator grant submissions that build upon the research launched through this mechanism. This LEAPS-MPS solicitation welcomes proposals from principal investigators who share NSF's commitment to diversity.

Awards are for 24 months and are up to $250,000 total costs (direct plus indirect). Principal Investigators must be U.S. citizens or lawfully admitted U.S. permanent residents at the time of proposal submission; visa-holders are not eligible.

Proposals in response to this solicitation must be submitted to the Office of Multidisciplinary Activities (OMA) in the Directorate of Mathematical and Physical Sciences (MPS); they will subsequently be transferred to and managed by an appropriate MPS Division.

Research Experience for Post-Baccalaureate Students (REPS) in the Biological Sciences Supplemental Funding Opportunity

The National Science Foundation's (NSF) Directorate for Biological Sciences (BIO) recognizes the importance of early-career research experiences, especially for individuals contemplating a career in science, technology, engineering, and mathematics (STEM) research, and the impact that the COVID-19 pandemic has caused on the career trajectories of undergraduate students who were denied such a research experience.

Many undergraduates who had been planning to participate in research experiences this past year– whether through Research Experiences for Undergraduates (REU) Sites, REU supplements, or individual arrangements with faculty mentors– found that their host labs or research settings were not able to accommodate them due to restrictions imposed by the pandemic. Students from underrepresented groups and those from schools with no access to research are particularly impacted, because such research experiences are often the only way that these individuals get exposure to the kinds of field-, computationally- and/or laboratory-based research that will motivate them to enter a STEM graduate program or career. Students who are still enrolled as undergraduates may have future opportunities to participate in an REU once pandemic restrictions relax. However, those who graduated and obtained their baccalaureate degrees are no longer eligible to participate as an REU student and, thus, may have been denied the valuable opportunity to engage in independent research. The purpose of this Dear Colleague Letter (DCL) is to provide a mechanism to help fill this gap.

NSF BIO invites Principal Investigators (PI) of active awards to submit a supplemental funding request to support the research training of post-baccalaureate students. For the purposes of this DCL, a post-baccalaureate student is defined as an individual who has a bachelor's degree but is not currently enrolled in another degree program. The Research Experience for Post-Baccalaureate Students (REPS) DCL encourages requests for supplemental funding to existing awards for the purpose of supporting research experiences for post-baccalaureate students who desire to engage in research or who want to pursue a

career in STEM but were unable to have the opportunity to begin or complete a research experience as an undergraduate student due to pandemic-related interruptions. We expect that PIs will provide the REPS participants with an independent but guided research project and professional development to better prepare them for graduate education or entry into the workforce. Ideally, the REPS participants will be involved in the development of their research project. PIs are encouraged to use the resources available at their own institution or at http://www.bioreu.org to design a program that aims to develop further the participants' competency as a research scholar. At a minimum, PIs are expected to provide training in ethics and the responsible conduct of research and to inform participants of institutional policies or code of conduct on sexual harassment.

NSF BIO is particularly interested in increasing the participation of underrepresented groups in biological research and education such as women, persons with disabilities, underrepresented minorities [1][2], and those from geographically underrepresented areas in STEM. Proposals submitted in response to this DCL are strongly encouraged to substantively involve participants who are members of these groups. Proposers are also strongly encouraged to consider involving veterans of the U.S. Armed Forces as part of NSF's broader effort to promote veteran involvement in STEM research and education.

DESCRIPTION OF THE OPPORTUNITY
NSF BIO will consider supplemental funding requests for up to 12 months of participant support on active BIO-supported grants. Although participants are expected to do full time research, PIs should consider the individual needs of the participants so that they are able to balance their family or other obligations. Person-related participant support costs can include a stipend (recommended at $650/week for full-time participation) and, as appropriate, fringe benefits, and travel. NSF expects that participant costs are included under the Participant Support costs category (Line F) in the budget. A modest amount for materials and supplies can be requested and should be included on line G1 in the budget. All costs should be clearly explained in the budget justification. Indirect costs should be calculated only on the amount listed on line G1. A supplemental funding request may include support for more than one student. However, PIs are reminded that there is limited funding for this program, and requests for more than one student should be justified.

The supplemental funding request should be submitted in FastLane in accordance with the guidelines found in the PAPPG. The guidance below might be helpful in preparing the request.

- In the section entitled "Summary of Proposed Work," state that this is a REPS request and provide brief information on the number of participants, the mentor names and potential projects, and professional development activities that will be part of the program. This section typically does not exceed one page.
- In the section entitled "Justification for Supplement," describe in detail the participant's involvement in the research project, a description of the potential project, the mentoring plan for the participant including any professional development activities, and information on the recruited participant, including a brief biographical sketch. Describe how the proposed program would contribute to the participants' long-term career goal and how the supplemental funding will serve to broaden participation.

REPS supplemental funding requests will be reviewed for funding consideration upon receipt. To receive full funding consideration for FY2021, requests should be submitted by July 2, 2021. Supplemental funding requests submitted after that date will be considered if funds are available.