Research, Innovation & Impact (RII) supports all levels of staged research development through Research Advancement Grants. Research Advancement Grants are intended to provide a pathway to success for research and scholarship with the goal of accelerating project competitiveness prior to extramural proposal submission

Research Advancement Grants should support one or more of the following:

- 1. Implementation of the <u>UA Strategic Plan</u> or <u>UAHS Strategic Plan</u> with a focus on Pillar 2: Grand Challenges (although well-developed research opportunities that support the other Pillars are welcome)
- 2. Advancement of graduate and particularly undergraduate research opportunities
- 3. COVID-19 pandemic response (open to all scholarly fields)

Research Advancement Grants are <u>not</u> intended to provide bridge funding. All Research Advancement Grant awards are dependent upon review and availability of funds. Failure to meet the Award or Reporting expectations described below results in ineligibility for receipt of subsequent funding from RII.

This Proposal Preparation Guide (PPG) provides information and guidance on the full lifecycle of Research Advancement Grants. If an individual solicitation differs from the PPG, the guidelines provided in the solicitation (available on Research Gateway) supersede those of the PPG.

A. Proposal Preparation

All documents must have 1" margins, and no smaller than 11 pt. font. The following are acceptable fonts: Arial, Times New Roman, Calibri, or Tahoma. Reduced font sizes in figures and legends are acceptable although font sizes should be legible. Reducing margins or font size will result in administrative return without review. If a proposal is returned without review, the PI must wait until the next funding cycle to resubmit. All documents, except the budget sheet, must be saved and uploaded as PDF files. The budget sheet should be uploaded as an editable Excel document.

Full Proposal

Each of the Research Advancement Grants require the following sections: Cover Sheet, Proposal Narrative, and Required Supplemental Documents. As a reminder, should there be deviances between the PPG and the solicitation on the <u>Research Gateway</u>, the Research Gateway supersedes this PPG.

Full Proposal Sections (including step-by-step upload into the submission system):

- a) Cover Sheet: The following information will be copied into text boxes within the system. Special characters are discouraged.
 - i) Principal Investigator: Name, Department, College, Rank, Contact Information
 - **ii)** Co-Investigators (up to four Co-Is may be listed): Name, Department, College, Rank, Contact Information
 - **iii)** Proposal Summary: Include a 200-word summary of your proposal. A self-contained description of the proposed work and outcomes that would result if funded. Include the significance and potential impacts of the proposed work. This should be understandable to a scientifically or technically literate lay reader.
 - **iv)** Proposed Extramural Mechanism: 200-word limit. Include the targeted solicitation (including funding level and deadline) and/or sponsor. If you do not have a solicitation, discuss fit to the potential sponsor.
 - **v)** Keywords/Key phrases: Include up to five keywords or key phrases.

- vi) Proposal Specific Sections:
 - (1) Select a Track, if applicable
 - (2) Identification of relevant compliance areas including human subjects, animal research, inclusion of Native Americans or international indigenous groups in the proposal, etc.
 - (3) Budget amount requested (round up to the nearest dollar)
 - (4) Identification of primary TRIF initiative (see below for details) or select "none"
 - (5) Identification of Co-Reviewed TRIF initiative
 - (6) Review Panel Selection (select primary and secondary, if applicable): Clinical, Life, and Biomedical Sciences; Physical, Data, and Earth Sciences; Engineering, Space, and Optical Sciences; Social Sciences and Humanities; Arts
- **b) Proposal Narrative:** The proposal narrative is limited to two-pages. The narrative should include the following sections:
 - i) Brief description of the specific aims or objectives
 - ii) Significance, expected outcomes, and relationship to UA/UAHS strategic plan (or other priority areas)
 - iii) Approach
 - iv) Brief description as to why the PI and/or team is uniquely positioned to be competitive and how the RII grant will increase competitiveness

c) Required Supplemental Documents

- i) References cited (no more than one-page) using the discipline-specific reference standard, i.e. the reference style you would use when submitting a journal article in your field
- ii) PI's CV or agency-specific biographical sketch
 - (1) NIH biographical sketches are exempt from the 1" margin requirements as detailed above and may be a maximum of five-pages per NIH guidance
 - (2) CV's should be no longer than two-pages
- iii) Budget using the budget template provided in the submission software
- iv) Budget Justification (no more than one-page) providing details from the budget
- v) Current & Pending Support: provide your current and pending sources of support, both internal (e.g., previous seed funding) and external. Use the template provided or submit in the NSF or NIH Current & Pending format.
- vi) Budget Approval Form from the appropriate research administrator, business manager, or designated individual who can approve and submit budgets on behalf of your unit

d) Supplemental Documents, if Applicable

- (1) Up to four Co-Is CV(s) or agency-specific biographical sketch(es), proposal formatting and limitations described above in PI CV section apply
- (2) Letters of Collaboration (from unfunded research collaborators, including all international collaborators)
- (3) Letters of Support, including in-kind support or match, i.e. letters committing financial resources.
 - (a) Dean's, Department Head, or Director's letters are only required if there is some form of institutional commitment associated with the proposal.
 - (b) If there is a collaborating institution, a letter of support indicating the institutional commitment of the collaborating institution must be provided. That is, collaborating institutions must provide support for their faculty, this letter should document that support (see Budget Preparation section for additional information on allowable costs)
- (4) Resubmission Statement: If your Research Advancement Grant proposal requests funds to enhance the competitiveness of a recently declined extramural proposal, include a

- one-page (maximum) description of how you plan to address the reviewer comments. Attach this statement to the reviewer comments (e.g., NIH Summary Statement or NSF Panel Summary) and upload as one PDF document.
- (5) If you have an existing protocol, upload a PDF of your current approval letter only (not the full protocol) related to human subjects or animal research. Any items proposed in the grant that do not fall under the approval will be submitted as an amendment upon award recommendation. Note that all funded proposals are expected to comply with applicable institutional research policies, including but not limited to, human subjects, animal research, conflict of interest, HIPAA, export control, and laboratory safety.

The following document templates are provided:

- Budget Form Microsoft Excel
- Budget Approval Form PDF Form
- Current & Pending Support Microsoft Word (unless using the NIH or NSF standard reporting form)

TRIF Initiative Alignment:

In November of 2000, Arizona voters made a 20-year commitment to stimulate innovation and research and to support Arizona's knowledge-based economy. The landmark passage of Proposition 301, a 0.6% sales tax to be used for education in Arizona, included a new University-directed funding source, the Technology and Research Initiative Fund (TRIF), which has been used to catalyze research and technology transfer at Arizona's academic institutions. Additionally, TRIF seeks to expand access to baccalaureate or post baccalaureate education. Proposals funded under the TRIF initiative must be completed by June 30, 2021. Reauthorization of TRIF in 2021 is pending legislative approval.

If the proposal aligns with a Technology and Research Initiative Fund (TRIF) initiative, applicants must select the most applicable initiative during proposal submission. If proposals align with two TRIF initiatives, applicants will have the option to select two initiatives. TRIF initiative options include:

- Improving Health, supports UA researchers tackling complex and pressing health problems of
 critical importance to Arizona and the nation, as well as major challenges in the agricultural life
 sciences. Current focus areas include Precision Medicine Enabling Omics Technology, Infectious
 Disease and Microbiome Science, Aging and Age-Related Diseases, Technology Enabled Health,
 Bioimaging, and Bioinformatics.
- 2. Water, Environment & Energy Solutions projects are helping secure adequate supplies of clean water for Arizona's economic vitality, provide the knowledge to optimize the sustainable use of lands, create a state that is resilient in the face of drought and other extreme events, and lead the creation of a vibrant renewable energy industry in Arizona. See https://wees.arizona.edu/ for fit and priorities
- 3. Space Exploration & Optical Solutions incubates novel research directions to spawn future technologies and impact regional economic development by leveraging research resources to benefit small and large businesses and expand educational opportunities for Arizona students.
- 4. National Security Systems impacts a range of technology and research at the university and stimulates and promotes collaboration, innovation, and research and development to support Arizona's high-tech economy. Specific areas of interest include optics to high-temperature materials to hypersonics.

For the most recent Arizona Board of Regents (ABOR) TRIF Annual Report visit the ABOR site.

B. Budget Preparation

Research Advancement Grants are intended for UA-related research expenditures. Awards may not be used to replace current sources of support for personnel. **No Research Advancement Grant funds may be used for salaries for personnel from other institutions**. If there is a collaborating institution, the proposal must indicate, through letters of support (i.e., institutional commitment), a summary of the commitments that the collaborating institution is making toward the proposed effort. Consultants may be used in very limited, exceptional, and well-justified cases.

The following provides a list of generally allowable costs:

- Short-term hourly student wages and associated ERE
- Research technical staff, including graduate students, and associated ERE and tuition and fees (when applicable)
- Extremely well-justified release for faculty with a greater than 2:2 teaching load OR faculty pursuing large/complex research efforts (this requires a letter of support from your department head and should be used judiciously)
- Honoraria or participant stipends
- Meeting costs, e.g., room rentals, meals/breaks, etc.
- Supplies, including research supplies and/or items such as musical scores and art supplies
- UA RII Core Facility use (include an iLabs quote for use of the Core, if applicable)
- Domestic travel (international travel funding is only available in very well justified cases or as part of the International Research Grant Program)
- Specialized equipment (capital and other) pertaining specifically to the project
- Proposal support limited to graphic design, speaking coaches (for site visits), and technical editing and reference formatting

RII may request that proposal budgets are revised prior to award.

In general, Research Advancement Grants should not be used to supplement existing faculty start-up. Applicants with significant start up may apply in very well justified cases and must explain how access to Research Advancement Grants will enable new, interdisciplinary discovery or a proposal with significant return on investment.

C. Eligibility

Each of the Research Advancement Grants are open to <u>faculty</u>, <u>continuing-eligible</u> academic professionals, and/or <u>continuing status</u> academic professionals across all disciplines and levels. If you are unsure of your eligibility, please consult your unit's HR or business manager.

For Research Advancement Grants promoting interdisciplinary and transdisciplinary research, successful applicants will include PI/Co-PI teams from multiple departments and generally, multiple colleges.

PI's are limited to one submission per cycle. Co-PIs may be listed on no more than three (3) proposals. Previous awardees should be judicious in submitting applications immediately following a successful award. Exceptions may include potentially high-risk, high-reward research or research related to a particularly timely event.

D. Proposal Submission

Proposals must be submitted through <u>UA Competition Space</u> by 5:00 pm no later than the deadlines listed on the solicitation page.

It is strongly suggested that applicants complete and submit their application much earlier than 5:00 pm as the system will not accept applications after the deadline. There have been instances of application failure when submitting minutes prior to the 5:00 pm deadline. To ensure successful submission, RII recommends submitting your proposal no later than noon on the deadline date.

Applications that do not meet the submission deadline will not be accepted. There are no exceptions, plan accordingly.

Proposals must be linked to the Pl's name and official UA email address. Pls may designate an individual, such as a research administrator, to proxy in the proposal materials. Information on submitting proposals by proxy is available in the "Help" section of the submission website.

RII Research Advancement Grants do not require UAccess Research routing or UA Sponsored Projects & Contracting Services approval prior to submission. However, all proposals require a signed Budget Approval Form by the appropriate unit administrator (see Required Supplemental Documents).

E. Proposal Processing & Review

Proposers should allow up to three months for proposal processing and review. Submitted proposals will first undergo a compliance check that includes: confirmation of all required documents, page-limit and formatting compliance, and confirmation that the budget is allowable and within the amount specified for the solicitation. Once the proposal is reviewed as compliant it enters merit review. At this stage, applicants will only be notified if their proposal will be returned without review.

Review is conducted by UA faculty and qualified staff. PIs should write proposals that are jargon-free and understandable to an interdisciplinary audience. The following criteria will be considered:

- Overall Impact & Significance: Evidence of the project to address identified gaps in knowledge, initiate new research or scholarly activity, and how the project will explore novel, creative, or potentially transformative concepts
- Fit to FY21 Research Priorities: including support of the UA or UAHS Strategic Plan, support for graduate and undergraduate research, support for COVID-19 pandemic response
- Budget & Return on Investment: Fit and reasonableness of the budget to the scope as well
 as the feasibility of the plan to pursue external funding and the likelihood of a competitive
 proposal
- Investigator/Research Team: Qualifications and expertise of the investigator or research team to conduct the proposed research, creative, or scholarly activity. If applicable, the history of successful collaborations by the proposing team

Selection will be based first on the outcome of the merit review, including alignment with institutional priorities. Where applicable, alignment of proposals with UA's TRIF plan will be considered.

Conflict of Interest (COI) and Confidentiality: All information contained in a grant application and associated supplemental documents are considered highly confidential and all efforts will be made to ensure the fair, objective, and confidential review of each proposal. Reviewers will be required to sign a

COI statement prior to proposal assignment and review and to adhere to strict guidelines to ensure the confidentiality of the content of all grant applications as well as any information conferred during the ensuing panel discussions. Generally, any prior collaborations, mentorship roles, and/or departmental, financial, and familial conflicts are considered COIs. During panel discussion, conflicted reviewers will be recused and released during the dialogue regarding the proposal with which s/he has an apparent or perceived COI.

F. Award

The PIs of all proposals, whether awarded or declined, will receive a notification. Award notification will be sent to PIs, heads/directors, deans, and business offices. Reviewer comments will be sent only to the PI (or designated proxy in the system). After funding decisions have been made (approximately three months after the submission deadline) note that it can often take up to one week to send all notifications.

Upon award, the PI must comply with all applicable institutional research policies, including but not limited to, those related to research with human subjects, animal research, conflict of interest, HIPAA, export control, and laboratory safety.

RII Research Advancement Grant awards must be leveraged to acquire external support for the proposed research or scholarly activity. It is expected that recipients:

- Prepare at least one proposal for an external grant during the award period, and
- Serve as a reviewer on at least two RII competitions over a three-year period.

Awards span the Academic Year, August 15 to August 14 of the following year. Workshop grants have a nine month award cycle, equipment grants must be expended in the Fiscal Year in which they are awarded. Multi-year projects are discouraged and awarded in rare and very well justified circumstances.

While RII recognizes that the original project scope may change, in general, no-cost extensions are not permitted. If, under extenuating circumstances, a no-cost extension is required, the PI must provide sufficient documentation justifying the request. A request merely for the purpose of using unliquidated balances is not considered sufficient justification. Changes to the budget must be well justified; contact the appropriate budget administrator (listed below) for additional information.

G. Reporting

Failure to meet the Award or Reporting expectations described here results in ineligibility for receipt of subsequent funding from RII.

Final reports are due within one month of the award's end date. PIs must submit final reports via UA Competition Space. Final reports are submitted via textbox, and therefore, special characters are discouraged. If you require the use of special characters, please contact us. Multi-year projects are required to submit annual progress reports with similar information. Reporting requirements include the following:

- Start & End Dates of Funding
- Project Title
- Outcomes: 750 words. A statement on the research findings, creative or scholarly activity completed.

- List of Submitted Proposals: 500 words. Include the following information: proposal title, funder, program name, solicitation number, UAccess Research document number (if applicable), requested amount, and status. If you have not completed a proposal, enter "N/A" and you must complete the Proposal Development Plan section.
- Proposal Development Plan (applicable only if you have entered "N/A" above): 500 words. If you have not submitted a proposal, enter proposal development plan including targets and dates.
- Partnerships & Collaborations Developed: 500 words. Describe an identify the new partnerships that have been developed due to this funding. These may include new research/scholarly partnerships, institutional collaborations, etc.
- Changes or Problems: 500 words. Describe any changes to your initial plan, including any problems that you encountered, and how you addressed these issues.
- Products or Publications (Completed or In Progress): 1000 words. Products include journals or
 juried conference papers, books, book chapters, other conference presentations/papers, other
 publications, technologies or techniques, patents, inventions, licenses, websites, other products.

Reports will be shared with RII leadership and Communications. RII Communications may opt to publicize the findings of an RII funded award. Prior to any publicity RII Communications will contact the PI for additional information.

Investigators may credit the University of Arizona Research Advancement Grant program with the year of award in applicable products.

Financial reporting and account close-out are coordinated by the appropriate Post-Award administrator (see Section H.) and the investigator's unit business administrator.

In addition to the RII reporting requirements, TRIF funded projects will be asked to complete an annual TRIF survey including information on the number and types of students supported, postdocs supported, and tech transfer/knowledge transfer activities. TRIF reporting may be requested for up to five years following the award.

H. Questions & Contacts

Proposal Submission & Annual Technical Reporting:
Connie Gardner, Senior Program Coordinator
Dan Moseke, Senior Program Manager
Research Development Services
ResDev@arizona.edu
(520) 621-8585

Post-Award: Award Processing & Budget Questions (including no-cost extensions and budget revisions):

General Enquires, Space Exploration & Optical Sciences and National Security System TRIF
Initiatives

Donna Sloan, Manager, Research Administration Shana McClelland, Senior Research Administrator Research, Innovation & Innovation RII-Funding@arizona.edu (520) 621-6060

Improving Health TRIF Initiative

Kate Riley, Director, Finance-Operations BIO5 Institute

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(520) 626-3967

Water Environmental and Energy Solutions (WEES) TRIF Initiative

Claire Zucker, Program Director, WEES

Associate Director, Water Resources Research Center

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