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

Research Advancement Grants are not 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 RDI.

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 rgw.arizona.edu) supersede those of the PPG.

Funding Opportunities

For academic year 2019 (Fall 2018 and Spring 2019), the following opportunities are available:

Fall 2018
- George H. Davis Travel Fellowship – October 15, 2018
- Equipment Enhancement Fund (Improving Health TRIF Initiative Only) – October 1, 2018 (Letter of Intent) and October 15, 2018 (Full Proposal)

Spring 2019
- Postdoctoral Research & Development Grants – March 27, 2019 (Full Proposal)
- Core Facilities Pilot Program – quarterly deadlines, see website

LOI submission deadline of March 13, 2019, Full Proposal due April 3, 2019
- Faculty Seed Grants
- International Research & Program Development Grants
- Student Team Awards: Interdisciplinary Link and Industry Engagement
- Accelerate for Success

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.

Letter of Intent

A LOI is required prior to the submission of a full proposal except for the Davis Travel Fellowship and the Postdoctoral Research & Development Grants. **Investigators will be unable to submit a full proposal if they miss the LOI deadline.** LOIs will be used to expedite the review process only and will not be used as a form of encouraging or discouraging full proposals. LOIs must include:

a. **Principal Investigator Information:** Name, Department, College, Rank, Contact Information
b. **Co-Principal Investigator Information** (up to four Co-PIs may be listed): Name, Department, College, Rank, Contact Information

    c. **Keywords/Key phrases:** Include up to five keywords or key phrases. This information will be copied into a text box in the system.

    d. **Proposal Summary** (submitted through textboxes, special characters are discouraged):
        a. Overview of Proposed Activities: 200-word limit. 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.
        b. Approach: 200-word limit. Describe the proposed activities, procedures and methodology to be used. Note any potential problems or limitations that might arise.
        c. Proposed Extramural Mechanism: 200-word limit.

    e. **Suggested Reviewers** (optional, submitted through textboxes): Add the name, department, and contact information of suggested reviewers at UA. While difficult to avoid all conflicts during the conduct of an internal review, prior collaborations and departmental, financial, and familial conflicts are generally avoided.

Full Proposal

Full proposals may only be submitted by PIs that have submitted a Letter of Intent. Each of the Research Advancement Grants require the following sections: Proposal Abstract, Keywords/Key phrases, Cover Sheet, Proposal Narrative, and Required Supplemental Documents.

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

- **Proposal Abstract:** Include a 200-word abstract of your proposal, ensure that you include: what it is you are proposing and the external funding opportunity(ies) targeted. This information will be copied into a text box in the system. Special characters are discouraged.
- **Keywords/Key phrases:** Include up to five keywords or key phrases. This information will be copied into a text box in the system.
- **Cover Sheet:** The following information will be copied into text boxes within the system.
  - Selecting a Track, if applicable
  - Identification of relevant compliance areas including human subjects, animal research, inclusion of Native Americans or international indigenous groups in the proposal, etc.
  - Budget amount requested
  - Identification of TRIF initiative (see below for details)
- **Proposal Narrative:** The proposal narrative is limited to two-pages unless otherwise specified in the solicitation. The narrative should include the following sections:
  - Brief description of the specific aims, objectives, and hypotheses
  - Statement of significance and expected outcomes
  - Description of the methodologies
  - Statement as to why the PI and/or team is uniquely positioned to be competitive in this area, and how the RDI grant will increase competitiveness
  - Identification of at least one extramural funding opportunity: Include a link to the solicitation (or program if the solicitation is not yet available). Provide the grant/program title, agency or foundation name, funding level, and submission deadline
- **Required Supplemental Documents**
  - 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
  - PI's CV (no more than five-pages) or agency-specific biographical sketch (formatting note: NIH biographical sketches are exempt from the 1" margin requirements as detailed above)

- Current & Pending Support, including support from RDI Research Advancement Grants
- Budget using the budget template provided in the submission software
- Budget Justification (no more than one-page) providing details from the budget
- Budget Approval Form from the appropriate research administrator or business manager
  - Equipment Enhancement Fund proposals proposing equipment for one of the UA Core Facilities must have approval from both your departmental (or college) research administrator and the Core Facilities Business Office (CoreBusiness@email.arizona.edu)
- **Supplemental Documents, if Applicable**
  - Up to four Co-PIs CV(s) (no more than five pages) or agency-specific biographical sketch(es)
  - Letters of Collaboration (from unfunded research collaborators or international collaborators)
  - Letters of Support, including in-kind support or match, i.e. letters committing financial resources.
    - Note: Dean's, Department Head, or Director's letters are only required if there is some form of institutional commitment associated with the proposal.
    - Note: 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)
  - RDI Research Advancement Grants Previous Support: if you are currently funded by an RDI Research Advancement Grant or have received funding since academic year 2015, include a PDF documenting the title of the award, amount of the award, and award period (start and end date). In addition, a copy of your final report must accompany the new submission.
  - Statement of Resubmission:
    - External: 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.
    - Internal: If you are resubmitting a Research Advancement Grant you may include up to one-page on how you plan to address the reviewer comments. This is not a requirement and you may resubmit a Research Advancement Grant as a "new" submission.
  - 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

TRIF Initiative Alignment: If the proposal aligns with a Technology and Research Initiative Fund (TRIF) initiative, applicants must select the most applicable initiative during proposal submission. TRIF initiative options include: Improving Health; Water, Environment & Energy Solutions; Space Exploration & Optical

Solutions; or Defense & Security Systems. The TRIF Initiative increased the state's sales tax per proposition 301 to promote university research, development, and technology transfer related to the knowledge-based global economy and to expand access to baccalaureate or post-baccalaureate education, among other priorities. For the most recent Arizona Board of Regents (ABOR) TRIF Annual Report visit the ABOR site.

Budget Preparation

Research Advancement Grants are intended for UA-related research expenditures. No Research Advancement Grant funds may be used for faculty or administrator salaries; neither may awards 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)
- 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
- Fees for UA Core facility use
- Travel
- Specialized equipment (capital and other) pertaining specifically to the project
- Proposal support limited to graphic design, speaking coaches (for reverse site visits), and technical editing and reference formatting

Proposed budgets may be revised prior to award.

Eligibility

Each of the Research Advancement Grants are open to faculty, continuing-eligible academic professionals, and/or continuing status 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 grant mechanism per cycle (there are currently two cycles: Fall and Spring). There is no limit on the number of submissions as Co-PI. 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.

Proposal Submission

Letters of Intent and proposals must be submitted through UA Competition Space by 5:00 pm no later than the deadlines listed above in Funding Opportunities or 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. To ensure successful submission, RDI recommends submitting your proposal no later than noon on the deadline date. Applications that do not meet the submission deadline will not be accepted.

Proposals must be linked to the PI's name and official UA email address. PIs 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. "How to" guides are also provided for download in the dark gray area on the right hand side of the competition submission homepage.

RDI 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).

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. Applicants will be notified that their proposal has been accepted for merit review; should the proposal be returned without review, applicants will also be notified.

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: Evidence of the project to initiate new research or scholarly activity
- Premise and Broader Impact: Evidence of the project to address identified gaps in knowledge and how the outcomes of the proposed work will benefit society
- Significance and Intellectual Merit: Evidence of the project to incorporate and explore novel, creative, or potentially transformative concepts
- Return on Investment: Feasibility of the plan to pursue external funding and 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. Where applicable, alignment of proposals with UA's Strategic Plan or with the 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.

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), please 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.

RDI 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.
- Recipients are expected to serve as reviewers on at least two RDI competitions over a three-year period.

Spring awards span the fiscal year (i.e., July 1 to June 30). Equipment Enhancement Fund awards are expected to be spent within the fiscal year awarded (i.e. by June 30). All other awards will typically be provided a one-year award period from date of notification. Accelerate for Success awards may span two fiscal years if well justified.

While RDI 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.

Reporting

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

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: 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 RDI leadership and Communications. RDI Communications may opt to publicize the findings of an RDI funded award. Prior to any publicity RDI Communications will contact the PI for additional information.

Financial reporting and account close-out is coordinated between RDI Business and Finance Manager and the investigator's unit business administrator.

In addition to the RDI 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.

Questions & Contacts

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

Award Processing & Budget Questions (including no-cost extensions and budget revisions):
  General & National Security System TRIF Initiative
    Sonia Vega, Manager, Finance & Administration
    Research, Discovery & Innovation
    soniav@email.arizona.edu
    (520) 621-3511
  Improving Health TRIF Initiative
    Kate Riley, Director, Finance-Operations
    BIO5 Institute
    ksriley@email.arizona.edu
    (520) 626-3967
  Space Exploration & Optical Sciences TRIF Initiative
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Water Environmental and Energy Solutions (WEES) TRIF Initiative

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