#### About the Research Initiation Grant (RIG)

The New Mexico Space Grant Consortium (NMSGC) Research Initiation Grant (RIG) is designed to provide seed funding to faculty who are conducting research that aligns with NASA Mission Directorates and NASA Field Centers. The purpose of this program is to provide funding to develop competitive research, technology projects, and programs for the solution of scientific and technical problems of importance to NASA. As is true with all NMSGC programs, we support a balanced portfolio of education, research, public service, and include opportunities for all New Mexico faculty, students and New Mexicans. <u>This opportunity is open year-round; however, it is contingent upon grant funding availability and period of performance.</u>

#### **Application Submission**

Submit application and all required elements in one combined PDF to nmsgc@nmsu.edu

#### Note

Applications are accepted at any time and are contingent upon funding. Please note that if awarded, <u>the</u> <u>award process can take up to six weeks to be completed</u>. If you have any questions, contact NMSGC at <u>nmsgc@nmsu.edu</u>

Find more information about NASA's Mission Directorates	Aeronautics Research Mission Directorate (ARMD) https://www.nasa.gov/directorates/armd/
	Exploration Systems Development Mission Directorate (ESDMD) https://www.nasa.gov/exploration-systems-development-mission-directorate/
	Space Operations Mission Directorate (SOMD) https://www.nasa.gov/directorates/space-operations/
	Science Mission Directorate (SMD) https://science.nasa.gov/
	Space Technology Mission Directorate (STMD) https://www.nasa.gov/space-technology-mission-directorate/

## **Objectives**

The goal of the Research Initiation Grant program is to develop an academic research program directed toward long-term, self-sustaining, and nationally competitive capabilities in aerospace and Earth-related research directly supporting NASA's Research Areas of Interest. This capability will, in turn, contribute to New Mexico's economic viability and expand the nation's base for aerospace research, Earth science and development. The objectives of the program are:

- Create collaborative projects with NASA Field Centers and/or Mission Directorates. Projects must have the potential for follow-on funding from NASA and other sources. Indicate where follow-on funding will come from, either existing programs or upcoming agency announcements. Perform scientific research and/or technology development in areas that support NASA's Research Areas of Interest.
- Focus on projects that can contribute to building future research and innovative activities in New Mexico.
- Move progressively toward gaining support from sources outside the Research Initiation Grant (RIG) program by aggressively pursuing additional funding opportunities offered by NASA, industry, other federal agencies, and other sources.

## Eligibility

All full-time faculty at universities, colleges, and community colleges who are members of the New Mexico Space Grant Consortium are eligible to apply. The following list comprises current NMSGC higher education member institutions:

- Central New Mexico Community College
- Doña Ana Community College
- Eastern New Mexico University
- Navajo Technical University
- New Mexico Highlands University
- New Mexico Institute of Mining and Technology
- New Mexico State University
- Northern New Mexico University
- San Juan College
- Santa Fe Community College
- Southwestern Indian Polytechnic Institute
- University of New Mexico
- Western New Mexico University

### **Period of Performance and Award Amount**

Awards will be made for up to \$25,000. Period of performance (POP) is one year. Renewals will not be considered. Projects are eligible for one-time funding only. <u>Faculty must start spending funds within 3 months of the start date of the subaward.</u> No-cost extension (NCE) requests will be considered for approval at the discretion of the NMSGC director, Dr. Paulo Oemig, and must be submitted in writing 60 days prior to the end of the POP. NCEs are contingent upon the NMSGC funding cycle.

<u>Note:</u> The start date of your project's period of performance (POP) cannot start prior to the date that your proposal was submitted.

## **NASA Collaboration and Letter of Support**

All researchers requesting Research Initiation Grant funding must submit a Letter of Support from a NASA Field Center or Mission Directorate with their application submission. The Letter of Support should briefly describe whether the collaborator believes your project specifically can advance the work of NASA. Ask your collaborator to indicate this in one or two sentences, and how they will assist and interact with you. The Letter of Support must be on NASA letterhead, and should contain the name of your project as well as the name, title, and signature of your NASA collaborator. The letter should state how the proposed research program is a priority for NASA and how the Field Center and/or Mission Directorate will interact with and support the proposed research program.

## **Assessment of Applications**

Each application submitted under this program will be evaluated by the NMSGC Director. Applications will be competitively evaluated and selected for their scientific, technical, and management merit, including potential for student retention and achievement. Sufficient information must be provided to allow the director to make an informed decision. If any sections in the submitted application are left incomplete or more details are needed, NMSGC will return your application for revisions as many times as necessary. Failure to submit a completed application or meet requirements may result in non-award. Applications will be evaluated using the following criteria:

Review Criteria	Possible Points
The degree to which the research is competitive and builds core strength needed by NASA for the solution of scientific and technical problems as defined by one or more of NASA's Mission Directorates or the ten Field Centers, including JPL.	30

The scientific and technical merit of the proposed project.	20
The probability the project will support researcher's ability to develop	20
follow-on funding for proposed research.	
The degree to which the proposed research can contribute to the overall	
research infrastructure, science and/or technical capability, of NASA and	10
New Mexico.	
The probability the project will result in published research.	10
The overall utility and relevance to goals and objectives of the Research	
Initiation Grant (RIG).	10
Total	100

## Budget

### Allowable Expenses

If a portion of the project's budget is being used for the following, include the recommended items in the budget justification:

- a) <u>Salary and Fringe:</u> Faculty release time and summer support, support for undergraduate and graduate students, and hourly wages for staff and student employees are allowed. All students who receive direct support must be U.S. citizens.
- b) <u>Domestic Travel</u>: Must include name of persons who are traveling, purpose for travel, destination, dates of travel, per diem rate, and how the travel supports your research goal. Include all other costs in the budget justification: lodging, meals, transportation, etc. State and Federal government travel regulations apply to all travel. All travel supported by the project must be in the continental U.S.
- c) <u>Supplies and Materials</u>: Include a list of the supplies, estimated cost per item, and a description of how the supplies will be used in your project. If materials or software will be purchased, list the item(s) and describe how it supports the project's goals.
- d) Equipment: Up to \$5,000 for equipment is allowed.

### Non-allowable expenses:

- a) Foreign travel is not allowed.
- b) Civil service personnel travel is not allowed.
- c) Indirect Costs (IDC) or F&A (Financial and Administration) costs can be used to meet the matching funds requirements. They may not be billed as direct costs to this grant. It is recommended that waived IDCs are used to meet matching funds, otherwise your college or department will have to report voluntary cost-share.

### Cost Share (Matching Funds)

### Participants must provide 100% non-federal matching funds for this program.

Although the method of match is flexible (for instance, industry or community partner cost-

sharing is acceptable), NASA encourages researchers to consider methods that add value to New Mexico's existing research capabilities. In-kind cost share is allowed. In-kind cost share is non-cash cost share. There are several ways researchers can find in-kind cost share:

- a) <u>Faculty salary</u> can also be used as cost-share/matching funds. If a faculty member is donating time for cost-share contributions, in the budget justification provide the percentage of time (salary equivalent) that they will dedicate to the project. In addition, include fringe and IDC rates.
- b) <u>Indirect Costs (IDC) or F&A (Financial and Administration)</u> cannot be charged as direct costs to this program. However, it is recommended that IDCs or F&A are used to meet cost-share/matching fund requirements, otherwise the PI's college/department will have to report voluntary cost-share.

NMSU Applicants ONLY: When calculating F&A, please use a rate of <u>48%</u> as this was the rate in place at NMSU when the grant was awarded. All other institutions such as NMT and UNM, use the F&A rate allowed on your campus.

<u>Note</u>: Your department/institution's fiscal agent can help provide this information. All cost-share contributions are non-cash.

## **Specific Application Requirements and Format**

1. Cover Page and Certificate of Compliance

Please complete all items on cover page form and Certificate of Compliance. The Certificate of Compliance must be signed by PI, college/department's dean and fiscal agent.

2. Project Summary

The project summary (also called abstract) must be 250 words or less. It should concisely describe the proposed project by describing the objectives, key features, and proposed outcomes. The summary should also provide a timetable for project implementation. Write in general terms understandable by a non-expert in the field. Avoid technical jargon as much as possible and write at a level for the average scientist/engineer.

3. Project Narrative

The project narrative must be limited to five single-space or 10 double-spaced pages. Complete the following sections:

- I. <u>Introduction:</u> Indicate the technical or scientific problem to be addressed. Discuss the degree to which the application builds core strength needed by NASA for the solution of scientific and technical problems as defined by one or more of NASA's Mission Directorates or Field Centers.
- II. <u>Objectives:</u> Scientific, technical, and human resources development objectives

should be concisely delineated.

- III. <u>Timeline:</u> Provide a timeline table of the tasks to be completed during the project's period of performance (POP).
- IV. <u>Alignment with NASA Priorities and Letter of support:</u> In order to align with NASA priorities, faculty researchers must include a Letter of Support from a collaborator at a NASA Field Center or a NASA Mission Directorate. The letter should state how the proposed research program is a priority for NASA and how the Field Center and/or Mission Directorate will interact with and support the proposed research program. The letter must be attached to the application. Include plans or prospects for submitting a follow up application to NASA, other federal agencies, or non-public sources. Indicate which existing programs or upcoming agency announcements the follow-up funding will come from.
- V. <u>Key personnel:</u> Attach a one-page Vitae for each Principal Investigator. Do not submit publications lists. (These vitae are not included in page totals listed above.)
- VI. <u>Budget and Budget Justification</u>: Use the budget template provided on the application. All NMSGC grant applications require a budget and budget justification. The budget table should include the requested funds and the cost-share funds. All RIG projects require cost-share at 1:1, 100% non-federal matching funds. The budget justification should be succinct but provide sufficient information to judge the need for and importance of the funding requested. It should also include an explanation on the proposed cost-share contributions. For details, go to the Budget section on pages 4-5 of these guidelines.

If applicable, NMSU affiliated proposers need to consider: Health insurance for graduate assistants should be listed in financial aid/tuition in budgets and budget justifications to accurately reflect how the expense will be processed through the NMSU's financial system. The NMSU Research Administration Services office suggest adding a brief explanation to the budget justification such as "Tuition and health insurance for the Graduate Assistant on this proposal will be processed in the university's financial system as a scholarship, therefore these costs are listed under tuition/financial aid." If you have questions regarding this matter, please contact Barbara Gonzales, Associate Director at NMSU Research Administration Services at <u>barbarag@nmsu.edu</u>

## **Award Expectations**

#### 1. Award Letter

If awarded, applicants will receive an email notification from NMSGC staff and award letter one to two weeks after the application was submitted.

#### 2. Project Expenses

Please note that project funding may not be immediately available after receiving an award letter. <u>NMSU internal processes can take up to six weeks to create an account for your project.</u> Once your account has been created and your award is within NMSU, NMSGC will notify you and will request an onboarding meeting with you to review the Statement of Work (SOW), more details in the next sections. If your award is considered external, meaning at another university, your institution will inform you accordingly. As a reminder, once funding is available for expenses, you will be expected to start spending funds within the first three months of your POP.

#### 3. Statement of Work (SOW)

A Statement of Work (SOW) is an agreement between the NMSGC and the awardee's institution/department to comply with award requirements. Reporting and budget details will be provided on the SOW. If awarded, applicants can expect to receive their SOW four to six weeks after receiving their award letter.

### 4. Onboarding Meeting

After an account at the awardee's institution has been created, awardees will be required to meet with NMSGC staff to review the SOW and discuss any questions. The onboarding meeting is expected to happen before expenses are charged to an index or invoices are processed.

### 5. Data Reporting and Surveys

Awardees will be expected to complete report(s) at the time that NASA requests it. NASA may request multiple reports throughout the award period. The data provided in these reports is related to the financial aspects of the project (how many students were hired or working on the project, how many hours have they worked on the project, etc.), list of student names and contact information, demographics of the participants including the PI (race, ethnicity, gender, etc.). You will also be asked about the progress on your project and to provide pictures about project activities. In addition, you will be asked about any publications or papers presented supported by the project and collaborations with NASA Centers. All student and faculty participants will each be required to comply with

#### reporting requirements.

### **Post-Award Requirements**

- 1. A final report will be required from you no more than one month after the project end date. This final report must include the following, a template will be provided:
  - a) Name and contact information of all participants in the project
  - b) Demographic information of each participant (race, ethnicity, gender, etc.)
  - c) Total hours involved in project
  - d) List of publications and papers presented
  - e) Project summary
    - a. What was the main focus or objective of your research project?
    - b. Can you provide an overview of the methodology you used to conduct your research?
    - c. What were the key findings or outcomes of your research?
    - d. Did your research yield any unexpected results or insights? If so, can you elaborate?
    - e. What were the biggest challenges you encountered during the research process, and how did you address them?
    - f. How do you believe your research contributes to the existing body of knowledge in your field or area of study?
    - g. Did your research lead to any new questions or areas of inquiry that you'd like to explore further?
    - h. What was the most rewarding aspect of working on this research project?
    - i. Did you collaborate with anyone on this project? If so, how did collaboration enhance or influence your research?
    - j. How do you plan to disseminate your research findings (e.g., publications, presentations, conferences)?
  - f) Pictures of the project. If a person is identifiable in your pictures, please provide a completed <u>NASA Media Release Form</u>.
- 2. Final invoice (for external institutions) or Report of Final Expenses (RFE) for internal subawards (awards provided to New Mexico State University (NMSU). Final invoices will be due to the NMSGC office no later than 30 days after the end date of the period of performance (POP). RFEs will be due to the NMSGC office and to NMSU Sponsored Projects Accounting (SPA) no later than 45 days after the end of the POP.