F.19 RESEARCH INITIATION AWARDS

NOTICE: Amended May 16, 2024. This amendment releases final text for this program element, which had been listed as "TBD". Neither an NOI nor Step-1 proposal is requested. Proposals are due August 15, 2024.

Neither NSPIRES cover page budgets nor detailed budgets are requested at the time of proposal submission, see Section 3.9 The total award value for two years is a capped at $300,000.

The Science/Technical/Management section of proposals is limited to six pages. This program will evaluate proposals using dual-anonymous peer review, see Section 4 and the associated "Guidelines for Anonymous Proposals" document under "Other Documents" on the NSPIRES page for this program element.

The Proposers Overview Webinar is scheduled for June 6, 2024, from 1-2:30 p.m. Eastern Time. Those who register at https://nasa-gov.zoomgov.com/webinar/register/WN_pSKzagdRQNeeeDw19seGFA will receive a Zoom calendar invitation that will be updated with connect information. To submit questions prior or during the webinar, please register for the event and use this link to submit questions. All questions will be submitted anonymously and may be upvoted.

1. Scope of Program and Purpose

The NASA Science Mission Directorate (SMD) Research Initiation Awards (RIA) program aims to broaden the base of institutions involved in the SMD research and technology development ecosystem. The program has two principal objectives:

1) Enable investigators with no prior or recent research funding to pursue research at institutions underrepresented in the SMD ecosystem to initiate activities that, over the course of a two-year period, will provide the foundation for a competitive, sustainable, and productive program of research.
    *   First, the proposing institution may not be a "Doctoral University with Very High Research Activity" (i.e., an R1 institution) according to the Carnegie Classification guide.
    *   Second, the PI may not have received Federal funding as PI of a project that is related to the proposed research activities within the last five years (with exceptions described in Section 2.2).
2) Enable undergraduate students affiliated with the proposing investigator to perform cutting-edge research in an SMD-relevant field. Funding for undergraduate students is a required element of the proposed project.

An RIA award, including indirect costs, must not exceed $300,000 for a duration of 24 months. SMD acknowledges that institutional teaching and service commitments at non-R1 institutions may be high, and therefore encourages proposers to include funding for teaching buyouts (to include sabbaticals) and/or summer salary, as appropriate and allowable by the proposing institution.

1.1 Introduction for proposers new to the ROSES Solicitation

This RIA program element, the text that you are reading right now, takes precedence over instructions elsewhere in the ROSES Solicitation. This element's requirements reside in the context of the *ROSES-2024 Summary of Solicitation* (SoS), which lays out the default requirements for all ROSES program elements. If this element does not contain any explicit requirements for something, then the requirements found in the SoS apply. For example, having read this document only, a new proposer may need more information about the content of the Open Science and Data Management Plan (OSDMP, see Section 4.3). To learn more about the OSDMP the proposer should refer to Section II(c) of the *ROSES-2024 Summary of Solicitation* (SoS) which lays out the default requirements for all ROSES program elements. However, the requirements in any program element, like this one, takes precedence; where the instructions in this program element differ from the default requirements in the ROSES SoS (e.g., eligibility), the instructions here supersede those in the SoS. Similarly, the *NASA Proposer's Guide* (Guidebook) lays out default requirements for all NASA solicitations, but those are lowest priority so where they differ from what you read in ROSES, then ROSES takes precedence. If you understand what you read within this program element, then you do not need to go further than this document. If you need more information, read the ROSES SoS. If you find what you need there then go no further than that document. If you still have not found what you are seeking, then look for it in the *NASA Proposer's Guide*. For examples of differences in instructions please see Section I(g) of the *ROSES-2024 Summary of Solicitation*. If you have questions, please email hq-smd-ria@mail.nasa.gov.

1.2 Scope of SMD-Relevant Research

RIA proposals must be relevant to NASA's Science Mission Directorate research goals. The proposed candidate investigation(s) may be analytical, experimental, observational, computational, theoretical, or use data analytical approaches. SMD is an integrated Directorate that seeks to discover the secrets of the universe, to search for life elsewhere in the universe, and to protect and improve life on Earth and in space. SMD is organized into five interconnected divisions:

- Astrophysics
- Biological and Physical Sciences
- Earth Science
- Heliophysics
- Planetary Science

In addition to sponsoring basic research and data analysis, each SMD science division also develops new technologies. Often, these efforts are accomplished via division-sponsored technology development or mission programs. For more information see https://science.nasa.gov/technology. Regardless of whether the proposed project involves research, data analysis, or technology development, proposals must demonstrate how the development may contribute to the objective of providing a

foundation for a competitive, sustainable, and productive program of research relevant to one or more of the above named divisions.

2. Eligibility

Unlike other program elements in ROSES, the RIA program places eligibility requirements on both the institutions submitting proposals and the Principal Investigator (PI).

2.1 Institutional Eligibility

Proposals may be submitted only by institutions in the U.S. or its territories. Proposals may only be submitted by institutions of Higher Education (IHEs) not currently classified as a "Doctoral University with Very High Research Activity" (R1 institutions) according to the 2021 Carnegie Classification guide: https://carnegieclassifications.acenet.edu. The "Other Documents" section on the NSPIRES page for this solicitation will be updated with relevant documents useful for proposers and should be consulted. Proposers from eligible minority-serving institutions (MSIs), Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), Hispanic Serving Institutions (HSIs), Asian American and Native American Pacific Islander (AANAPISI), primarily undergraduate institutions (PUIs), and community colleges are encouraged to apply. The majority of the work proposed must be performed at the non-R1 institution and 75 percent or more of funds must remain at the non-R1 institution.

2.2. PI Eligibility

There are two key PI eligibility requirements:
- The PI must hold an appointment at an eligible institution and may not hold any appointments, including adjunct positions, at an R1 institution.
- RIA is for individuals at eligible institutions who are starting to build or are rebuilding a research program. Therefore, the PI, in the last five years, may not have been a PI on any current or prior Federal research award for funds to advance research. This includes proposals recently recommended for selection at the time of submission, or which have had monetary research support from any other Federal Agency within the United States during the last five years. This also includes proposals recommended for selection leading up to time of the RIA award. The proposer is responsible for notifying the RIA program officer of any changes in their eligibility including but not limited to whether or not they have received a notification for selection on any pending Federal support.

However, the following types of Federal support are not disqualifying for otherwise eligible PIs:
- Non-disqualifying types of support for eligible PIs:
  - Conference or travel awards;
  - Doctoral dissertation improvement grants and any other award made while the PI was a student, including Future Investigators in NASA Earth and Space Science and Technology (FINESST);
  - Postdoctoral research fellowship awards that exclusively support pre-tenure-track activities;

- Institutional capability improvement awards such as major instrumentation, planning and training awards such as NASA Planetary Science Enabling Facilities, NSF Major Research Instrumentation Program (MRI or equivalent), NSF or NASA Innovation Corps Pilot, Minority University Research and Education Project (MUREP) M-Plan, Research Experiences for Undergraduates (REU), Research Experiences for Teachers (RET);
    - Federal funding that is not for research e.g., funds for community engagement to address equity and environmental justice issues and/or Space Grant awards. This must be described in the current and pending support section in the "Expertise and Resources Not Anonymized" Document, see below.
- If the Proposing PI has served as a Co-I on one or more research awards within the last five years, they may not have received over $100K during that period for their participation to remain eligible for the RIA program.

3. Proposal Format and Contents

3.1 Proposal Sections and Page Count

The sections that follow provide the proposal documents and their sections, along with maximum page limits per section. Content that belongs in one section must not be placed in another. Violation of the page limits, i.e., by exceeding the page limit or by placing content that belongs in a page limited Section in another Section and/or Scientific/Technical/Management Section and the Anticipated Results/Outcomes section(s) may result in the proposal being returned without review.

3.1.1 *NSPIRES Cover Page*

NSPIRES Proposal Cover Page.........………..As found on NSPIRES site or Grants.gov
Anonymized Proposal Summary..4000 characters
Reviewer Recommendations...Respond to question

3.1.2 *Anonymized Proposal Document (PDF upload)*

This uploaded PDF is anonymized per Section 4. The anonymized proposal document is a single, unlocked, PDF file. This uploaded PDF is anonymized per Section 4. Where the section or page limits in the table below differ from Table 1 of ROSES, those presented here take precedence.

Section	Page Limit
Table of Contents	1 page
Scientific/Technical/Management (S/T/M) • Figures and tables as appropriate, integrated into the text if possible	6 pages
Anticipated Results/Outcomes	2 pages
References and citations	As many as needed
Anonymized Open Science and Data Management Plan	2 pages
Anonymized Table of Personnel and Work Effort	As many as needed
Anonymized and redacted Budget Narrative	2 pages

3.1.3 *Separate "Expertise and Resources Not Anonymized" (E&R) Document (PDF upload)*

This not anonymized document is separately uploaded as a single, unlocked PDF file. See items i-ix in Section 4.1 for a list of the components of the E&R Document.

Element	Page Limit
Expertise/Team Member(s)	As many as needed.
Biographical Sketches/Curriculum Vitae	
Principal Investigator	2 pages
Each Co-Investigator	1 page
Facilities and Equipment	As many as needed
A summary of work effort (non-anonymized table of work effort)	As many as needed
Current and Pending Support	As many as needed
Any other additional information anonymized in the proposal submittal	As many as needed

3.2 Proposal Summary

The Proposal Summary, which is included in the NSPIRES cover page, must be anonymized. If selected, the summary will be made public along with the names of the PI and the proposing organization. Note that this is a part of the NSPIRES cover page but will be reviewed as an abstract to the proposal submission. The Proposal Summary should include the following (4000 characters or fewer):
- A brief description of the proposed science described in the S/T/M Section.
- Explain the project's significance and importance.
- Provide how the project has relevance to the RIA program and advances the goals of NASA's SMD.

3.3 Recommendations for Reviewers

Proposers are encouraged to respond to the optional NSPIRES cover page question and email the Program at hq-smd-ria@mail.nasa.gov to provide names and email addresses of up to five experts qualified to review the proposal who are not from the institutions of the PI or Co-Is.

3.4 Table of Contents

Proposers shall include a Table of Contents that provides a guide to the organization and contents of the proposal submission. This section is limited to one page.

3.5 Scientific/Technical/Management Section

Please note there is a six (6) page limit for the Scientific/Technical/Management (S/T/M) section, rather than the default fifteen (15)-page limit given in the ROSES SoS and the Guidebook. As the main body of the proposal submission, this section must be anonymized and cover the following material in the following order:

1. Project Title/Description: Proposals must include a project title and description of the proposed science investigation to be executed over a two-year period that will provide the foundation for a competitive, sustainable, and productive program of SMD-relevant research. The description must be detailed enough to be subject to

expert review but also provide accessibility and appeal for broad non-experts that may serve as reviewers.

2. PI Background: Provide anonymized information on the PI's eligibility compliance and any additional detail to provide necessary context. This may include professional responsibilities, and resource challenges on the PI's ability to maintain a cutting-edge program of research.

3. Work Plan: Provide a clear and concise outline of the plan of work including the research questions, the broad design of activities to be undertaken, and, where appropriate, a clear description of methods and procedures.

4. Motivations: Provide a detailed motivation for the research and a discussion of the novelty of the work in the context of existing literature.

5. Student Involvement and Support: Provide a description of how undergraduate students at the proposing institution will be involved in the research, including how many and the level of support the students will be provided in their experience. If there are graduate students or others involved, also detail how they will work with the undergraduates;

6. Relevance to NASA: Proposals must include a minimum of 1 statement about the relevance to a SMD division or multiple divisions (Astrophysics, Biological and Physical Science, Earth Science, Heliophysics, Planetary Science). Proposals that include a technology development component must include a second relevance statement specifically about the relevance of the technology itself to SMD's objectives. SMD-relevant technology investigations may be considered for co-funding by the [Space Technology Mission Directorate](#) (STMD). For relevance to SMD, proposers may refer to the NASA Science Strategy or Plan for the Science Mission Directorate entitled *[Science 2020-2024: A Vision for Scientific Excellence - 2023 Update](#)* or to the SMD division research overviews (i.e., [A.1](#), [B.1](#), [C.1](#), [D.1](#), and [E.1](#)) found in Tables [2](#) and [3](#) of ROSES-2024. Located in the "Other Documents" on the NSPIRES page for this program element you will also find updated documents providing more detail on demonstrating relevance leading up to the proposal deadline.

3.6   Anticipated Results/Outcomes

This section describes the expected results and outcomes of the proposed RIA project specific to the proposed science, student, and institutional success. Please note this section must also be anonymized and no more than two (2) pages.

- This section must include a clear description of the potential impact(s) for undergraduate involvement in this research including, but not limited to, how involvement will advance and promote opportunities, and access, for participating students engaged at the institution(s).
- Articulate the measures and/or values (both quantitative and qualitative) the team will use to determine the success of the project.
- Identify risks to research success and potential for future sustainability.

3.7 Open Science and Data Management Plan

All proposals must provide an "Open Science and Data Management Plan" (OSDMP) of up to two pages in length, immediately following the references and citations for the S/T/M Section. As part of the anonymized proposal document, the OSDMP must be anonymized, see below. Proposers are strongly encouraged to follow the Planetary Science OSDMP template for the program elements in Appendix C (Planetary Science) found here. See the instructions in this program element, the *SMD Open-Source Science Guidance* at https://science.nasa.gov/oss-guidance and https://science.nasa.gov/researchers/sara/faqs/OSDMP.

Proposers are required to write the Open Science and Data Management Plan section of the proposal document in an anonymized format that does not explicitly identify the names of the team members or their institutions (see guidelines in Section 4.1, below). If a proposer is planning to use an archive that might identify the proposing organization (e.g., one that can only be used by staff at a particular organization) it should not be intelligible in the anonymized proposal but fully described in the Expertise and Resources (E&R) Not Anonymized document.

The OSDMP must address how publications, data, and software will be made available. For information on OSDMP content see Section II(c) of the *ROSES-2024 Summary of Solicitation* and https://science.nasa.gov/researchers/sara/faqs/OSDMP. All proposals are strongly encouraged to use the Planetary Science OSDMP template found here.

3.8 Table of Personnel and Work Effort

All work efforts should be given in fractions of a person-work-year (where a year is a 12 month year, not a 9-month academic year. The planned work commitment should be described in years regardless of whether it will be funded by the proposal. Proposers are strongly encouraged to use the Table of Work Effort template from Planetary Science found here, see item 2. The work effort in the proposal must be anonymized (e.g., PI; Co-I-1; Co-I-2) but not anonymized in the separate "Expertise and Resources Not Anonymized" document (see Section 4.1).

3.9 Budget

In lieu of a detailed budget, only an anonymized and redacted budget narrative shall be provided, see Subsection 3.9.3. Neither NSPIRES cover page budgets nor detailed budgets, nor separately uploaded Total Budget files are requested at the time of proposal submission. However, total funding requested must not exceed $300,000 for a duration of 24 months and the funding may be split in uneven amounts for each of the two years. Later, following evaluation, NASA will request detailed unredacted budgets from a subset of selectable proposals. RIA awardees may in the future propose for an additional two-year RIA award for a total of four years of support; however, RIA is not intended to be a form of long-term support for investigators.

3.9.1 *RIA Funding Principles*

An RIA award must not exceed $300,000 over 24 months. Allowable expenses are those that are standard for Federal awards, as described in 2 CFR Part 200 Subpart E. For example, funds may be used for PI support, Co-I support, postdoctoral scholar support, graduate student support, undergraduate student support (as stated in the

principle objectives of RIA), and conference and travel support. Funds may also be used for computing support, lab support, technology development costs, and equipment and other costs necessary for the successful initiation and conduct of the proposed research.

- In cases where equipment is procured, please detail in the S/T/M section how the equipment will be incorporated into the research effort.
- While there is no limit placed on the amount of the budget that may be used for equipment, the costs of equipment are a component of the $300,000 total award. In any case where a non-trivial portion of the total cost is for equipment, the proposal must convincingly demonstrate how the proposer can still create a sustainable research program with the remaining funds.
- As noted above, SMD acknowledges that institutional teaching and service commitments at non-R1 institutions may be high, and therefore encourages proposers to include funding for teaching buyouts (to include sabbaticals) and/or summer salary, as appropriate and allowable by the proposing institution. In cases where this would be utilized, please note in S/T/M PI Background section.
- SMD further acknowledges that the lack of adequate research support often may be a barrier to the participation of undergraduate students in research activities. Accordingly, SMD requests proposers include fair funding for undergraduates engaged in full-time summer activities and that they be compensated at a minimum base level of $600 plus locality adjustments (see https://www.federalpay.org/gs/locality) per student per week.
- Organizations may propose payments to such students via specialized, existing financial systems, such as but not limited to, 1) an employee payroll system or 2) a non-employee or "fellowship" system or 3) some other unique system.
- Amounts for academic-year students must be comparable to summer students on a pro rata basis. Therefore, if the written policy of the proposing organization requires it, students may be compensated via 1) scholarship or other student aid consistent with 2 CFR 200.466; 2) stipend as a participant support cost as defined in 2 CFR 200.1; 3) as an employee; or 4) as a consultant. In the budget narrative, specify whether the institution is treating an undergraduate as 1) an employee; or 2) a participant; or 3) some organizationally unique category, e.g., scholarship student, as this may impact cost allowability. In the budget narrative, detail the specific mechanisms being utilized and any related information necessary to provide context for the narrative. Grants Officers at the NSSC will decide allowability of costs.

3.9.2 *Cost Evaluation*

RIA award must not exceed $300,000 over 24 months. Panel reviewers may be requested to comment on whether the requested costs and person time appear sufficient to implement the project and to check whether the requested budget exceeds the maximum $300,000 over 24 months for the entire performance period. NOTE: Upon notification of selection, the comparison of the proposed cost to available funds and compliance with 2 CFR 200 will be performed by NASA program and NSSC grant officer personnel.

3.9.3 *Budget Narrative*

In lieu of a detailed budget, only an anonymized budget narrative shall be provided. Typically, a single page is adequate for the budget narrative, but up to two (2) pages are allowed. The budget narrative in the proposal must not give salary, fringe or overhead (see Section IV(b)iii of the *ROSES Summary of Solicitation*) but must provide adequate detail and justification for the peer reviewers to evaluate whether costs of things (other than team members) are reasonable and in compliance with the budget principles (see above).

4.   Preparing Proposals for Dual-Anonymous Peer Review

NASA's Science Mission Directorate is strongly committed to ensuring that the review of proposals is performed in an equitable and fair manner. Proposals submitted to this program will be evaluated using a dual-anonymous peer review (DAPR). Under this system, not only are proposers unaware of the identity of the members on the review panel, but the reviewers are not told the identities of the proposers until after the evaluation and rating of all proposals is complete (see below). The objective of dual-anonymous peer review is to minimize the impact of implicit or unconscious bias in the evaluation of the merit of a proposal. This document provides instructions to proposers submitting to DAPR ROSES program elements. See also https://science.nasa.gov/researchers/dual-anonymous-peer-review.

The forms filled out on the NSPIRES web pages with Proposal Summary, Proposal Team and Program Specific and Business Data known as the NSPIRES "cover pages" will be partly hidden for the peer reviewers. The Proposal Summary must be anonymized but all other sections of the NSPIRES cover page should be completed as normal and NSPIRES will hide the identifying information from the reviewers.

4.1   The Separate "Expertise and Resources Not Anonymized" Document

Proposers will also be required to upload a separate "Expertise and Resources Not Anonymized" document (hereafter, simply the "E&R document"). As the name suggests, the contents of the E&R document are not anonymized. There is no overall page limit to the E&R document, but page limitations might apply to individual components of the document (e.g., the Bio Sketches, description of facilities, etc.). In addition to the instructions provided below, proposers must follow any instructions regarding the required content and applicable page limits of the required E&R document provided in Section 3.1.3. Moreover, proposers must restrict the material contained in the E&R document to the elements described below. In NSPIRES, upload as Attachment type "Expertise and Resources Not Anonymized". (For proposers with an HEC appendix, there will be two uploaded attachments, in addition to the proposal itself.)

The "Expertise and Resources Not Anonymized" document will contain the following elements:

i.   On the first page, a list of all team members, together with their institutional affiliations and roles (e.g., PI, Co-I, collaborator).

ii.   Brief descriptions of the scientific and technical expertise each team member brings, emphasizing the experiences necessary to be successful in executing the proposed work.

iii. A discussion of the contribution that each team member will make to the proposed investigation.
iv. A discussion of specific resources ("Facilities and Equipment", e.g., access to a laboratory, observatory, specific instrumentation, or specific samples or sites) that are required to perform the proposed investigation.
v. A summary of work effort, to include the non-anonymized table of work effort. Given that the program element requires an anonymized version of this table in the main proposal body, the table here should be identical, but with the roles now also identified with names (e.g., Sandra Cauffman PI; Nicky Fox Co-I-1; Lori Glaze Co-I-2).
vi. Bio sketches, (limit 2 pages for the PI, 1 page for each Co-I).
vii. Statements of Current and Pending support.
viii. Letters of resource support, as applicable.
ix. Any additional information needed to clarify or describe something that was anonymized in the main proposal document. However, this shall not be used as an attempt to add additional technical content that should have been included in the S/T/M section of the anonymized proposal.

Review panels will evaluate the anonymized proposals without considering the qualifications and capabilities of the proposers. After the evaluation of the anonymized proposal has been finalized for all proposals, panelists will be provided with the "Expertise and Resources Not Anonymized" documents, typically for a subset of proposals that scored highly (depending on the grades and projected selection rates). The panel will then assess the qualifications and capabilities of the team for these proposals and provide comments to NASA.

A summary of the key requirements for anonymized proposals, adapted from the "Guidelines for Anonymous Proposals" document, is listed in section F.19 -1.

Table F.19-1 Summary of Requirements for Anonymized Proposals

Item	Requirement
Proposal Document PDF file	In addition to anonymizing the content, ensure that any PDF bookmarks are anonymous, and the document properties do not reveal names of author or organization.
Science-Technical-Management (S/T/M) section of proposal	The S/T/M section must be anonymized. Omit all names of team members, names of their associated organizations, and other personally-identifiable information. See Section 3.5.
Anticipated Results/Outcomes	The Anticipated Results/Outcomes Section must be anonymized
References	Reference callouts must be in numerical form using the [1], [2] format. Citations should not include author names in the text of the S/T/M section (see Section. 3.1.2).
Open Science and Data Management Plan	The Open Science and Data Management Plan must be anonymized. Two pages are allotted for the Plan.

Biographical Sketches	Do not include in main proposal document. Include in separate "Expertise and Resources Not Anonymized" document.
Table of Personnel and Work Effort	Include in an anonymized fashion (e.g., PI; Co-I#1; Co-I#2) in the main proposal document and in non-anonymized fashion in the separate "Expertise and Resources Not Anonymized" document.
Current and Pending Support	Do not include in main proposal document. Include in separate "Expertise and Resources Not Anonymized" document.
Letters or Statements – As needed	All Statements of Commitment and Letters of Support, Feasibility or Endorsement are to be included in the separate "Expertise and Resources Not Anonymized" document
Redacted Budget Narrative	Include a redacted narrative in proposal document in an anonymized format. Redacted budgets must not include institutional logos or insignia.
Facilities and Equipment – As needed	The Facilities and Equipment Section is to be placed only in the separate "Expertise and Resources Not Anonymized" document. However, the S/T/M Section of the anonymized proposal should address the need for and capabilities of facilities and equipment necessary for the proposed research in an anonymized fashion. Any unique/identifying descriptions of facilities and evidence of access to or affiliation with facilities are to be included in the separate "Expertise and Resources Not Anonymized" document.
Separate "Expertise and Resources Not Anonymized" document	Upload as a separate document in NSPIRES. Choose Attachment Type = "Expertise and Resources Not Anonymized". This document provides a list of all team members, their roles, institutional affiliations, expertise, and contributions to the work. The document should also discuss any specific resources that are key to completing the proposed work, as well as a summary of work effort. Statements of Current and Pending Support and citations must also be included.
High-End Computing (HEC) request – As needed	Submit optional not-anonymized PDF HEC form as attachment type "Optional HEC request" in NSPIRES. The S/T/M section in the main proposal must state that a HEC request is included and must provide an outline of the computing resources required in an anonymized fashion.

5. Evaluation of Proposals

Proposals will be evaluated against three evaluation criteria: Intrinsic Merit, Relevance, and Cost, as defined in Appendix D of the *NASA Proposer's Guide* and implemented as described in Section VI(a) of the *ROSES Summary of Solicitation*. The evaluation of the intrinsic merit shall also include the following factors:

A) Intrinsic Merit

    i.   The extent to which the proposed project would provide the foundation for a competitive, sustainable, and productive program of research relevant to SMD.

    ii.   The extent to which the proposed research will expand the research capabilities of the PI's lab and their institution. This may include but is not limited to the expanded partnerships, access to new resources i.e. labs and equipment, and visibility of the research to help the PI maintain future funding overtime.

    iii.   The extent to which the mechanisms and plans for assessing the success of the research described in the proposal are reasonable.

    iv.   The extent to which undergraduate students will be involved in meaningful research activities as part of the RIA award, and how involvement in this research will advance and promote opportunities for students at the PI's institution and beyond.

B) Cost and Relevance

Proposals will be evaluated against Cost Reasonableness, as defined in Appendix D of *the NASA Proposer's Guide* and implemented as described in Section 3.9*,* and the relevance to NASA SMD. SMD-relevant proposals that have additional relevance to STMD will be considered for STMD co-funding.

C) Programmatic Considerations

The selection official(s) may consider programmatic considerations such as: impact on current or future missions, balance across subdisciplines, source of funding for subject invention/technology, technologies, methodologies, career stage, risk, innovation, and types of institutions.

6.   <u>Summary of Key Information</u>

Expected program budget for new awards	~$2M/Year
Number of new awards pending adequate proposals of merit	10-15 total
Maximum duration of awards	2 years
Maximum award value	Total request to NASA may not exceed $300,000
Neither an NOI nor Step-1 proposal is requested	
Due date for proposals	See Tables 2 and 3 of this ROSES NRA
Planning date for start of investigation	~6 months after proposal due date.
Page limit for the central Science/Technical/Management section of proposal	6 pp; see Section 3.1.2, Table 1 of *ROSES-2024* and *the NASA Proposer's Guide*.

Relevance	This program is relevant to the goals and objectives in the NASA Science Strategy or Plan for the Science Mission Directorate entitled *Science 2020-2024: A Vision for Scientific Excellence - 2023 Update* or to the SMD division research overviews (i.e., A.1, B.1, C.1, D.1, and E.1) found in Tables 2 and 3 of ROSES-2024. Proposals that are relevant to this program are, by definition, relevant to NASA.
General information and overview of this solicitation	See the *ROSES-2024 Summary of Solicitation*.
General requirements for content of proposals	Electronic proposal submission is required; no hard copy is permitted.
Detailed instructions for the submission of proposals	https://nspires.nasaprs.com/ (help desk available at nspires-help@nasaprs.com or (202) 479-9376)
Submission medium	Electronic proposal submission is required; no hard copy is permitted.
Web site for submission of proposals via NSPIRES	See NSPIRES Online Help, Sections 3.22-4.4 of the *Proposer's Guide* and Section IV(b) of *the ROSES Summary of Solicitation*.
Web site for submission of proposals via Grants.gov	https://grants.gov/ (help desk available at support@grants.gov or (800) 518-4726)
Funding opportunity number for downloading an application package from Grants.gov	NNH24ZDA001N-RIA
Point of contact concerning this program:	Maggie Yancey Science Mission Directorate NASA Headquarters Washington, DC 20546-0001 Email: hq-smd-ria@mail.nasa.gov