

Innovation Awards

EXPANDING INDICATIONS FOR RADIATION THERAPY

2024-25 Request for Proposals

KEY DATES

LETTER OF INTENT DEADLINE
Required for all applicants
November 22, 2024

Full Proposal Invitations

December 2024

Full Proposal Deadline

By invitation only

February 14, 2025

NOTIFICATION OF AWARDS **April 2025**

AWARD START DATE
Summer 2025

ABOUT ROI

The Radiation Oncology Institute (ROI) – the ASTRO Foundation – was established in 2006 as the philanthropic partner to ASTRO to accelerate research and education. Since then, the ROI has invested \$4.7 million in bold and innovative ideas in radiation therapy to improve outcomes for patients so they can live longer, healthier lives.

ROI issues an annual request for proposals (RFP) to catalyze discovery in a high priority area of research for radiation oncology by awarding grants to the best and brightest investigators. The RFP topic is selected with input from stakeholders across the radiation oncology community to identify the most pressing challenges that can be addressed through research.

BACKGROUND

There is increasing interest in expanding the use of radiation therapy to conditions other than cancer, including but not limited to osteoarthritis, ventricular tachycardia, tremors, and wet-type age-related macular degeneration. However, more research is needed to establish the efficacy of radiation therapy in these conditions and others to help more patients than ever live longer, healthier lives. For this specific Request for Proposals, priority will be given to proposals that will lead to expanding indications for radiation therapy. While not specifically excluded, benign conditions for which radiation therapy is already commonly used will have lower priority.

PURPOSE

Through this request, the ROI is seeking proposals for research on radiation therapy for the treatment of non-cancerous conditions. The long-term goal is to ultimately expand the indications for radiation therapy. Aims of the research project can include but are not limited to:

- Understanding the underlying mechanisms of the treatment
- Demonstrating clinical efficacy
- Facilitating implementation at a larger number of practices
- Generating evidence on cost and/or comparative effectiveness
- Developing educational materials for patients, caregivers and other medical professionals
- Advancing health equity and reducing disparities in care for underserved populations

In addition to expanding indications for radiation therapy, the proposed research should align with the overall ROI Mission and Vision.

MISSION: Accelerating bold and innovative ideas in radiation therapy.

VISION: A world where every person has access to the best radiation therapy to live a longer,

healthier life.

Proposals should focus on the highest impact research questions for the field of radiation oncology and clearly demonstrate the potential for securing additional funding to continue the research trajectory. Projects resulting in tangible deliverables with practical applications for radiation oncology professionals and their patients such as decision support tools, educational materials, abstracts, and manuscripts will be given priority. Knowledge derived from these studies should aim to improve outcomes for all patients and transform practice.

AWARD AMOUNT

A typical budget for a project supported by this mechanism is expected to be limited to a total of \$50,000 over 2 years. However, larger budgets will be considered with the firm limit that costs may not exceed \$150,000. Special attention will be given to projects that demonstrate efficiency and economy of resources to pursue the research proposed. ROI will not pay indirect costs, but applicants should contact ROI at roi@astro.org if they could experience a hardship due to this policy. Each proposal's total budget and how it fits into the ROI's available funds will be part of the proposal's evaluation.

The number of grants in each funding cycle is not predetermined by ROI. Awards are made based on application merit and the availability of funds.

Grants may be approved for up to a two-year period. Funding for the second half of the award period is contingent upon submission and approval of an interim progress report. Projects must start by August 1, 2025 and end no later than July 31, 2027.

ELIGIBILITY

- Qualified individuals from institutions and organizations in the radiation oncology (RO) community. Pre-doctoral students are not eligible.
- Applicants enrolled in residency programs or post-doctoral fellowships require a faculty mentor.
- Individuals from institutions and organizations of the non-RO community who possess necessary qualifications for specified research are eligible.
- At least one of the key personnel (Principal Investigator (PI), co-PI, faculty mentor) must be an ASTRO member at the time of application.
- The Sponsoring Institution that will receive and manage the grant funds must be a qualified 501(c)(3) organization or government-sponsored university in the United States or their equivalent in Canada.*

ROI encourages applications submitted by:

- Researchers from diverse backgrounds, including individuals who are members of populations that are currently underrepresented in biomedical research.
- The full range of eligible institutions, including those serving primarily underserved groups, those that may be less research-intensive, and from all domestic geographic locations.

How to Apply

All application materials must be submitted through ProposalCentral at: proposalcentral.com. Log in, click on the "Grant Opportunities" tab and select "Radiation Oncology Institute" in the "Filter by GrantMaker" drop-down menu. Applicants are encouraged to start their application early to complete all required components by the deadline, including institutional signatures. The "Validate" button can be used to generate a list of missing required elements at any time before submitting the application.

STEP 1: LETTER OF INTENT - REQUIRED FOR ALL APPLICANTS

Submit a Letter of Intent (LOI) by **November 22, 2024, at 5:00 p.m. ET** through ProposalCentral. ROI will review the LOIs and send notifications in December about proceeding to the next step in the process of preparing and submitting a full proposal. The LOI consists of the items listed below and a separate letter is not required. **Each applicant may submit only one LOI for this RFP.**

APPLICATION: Complete all of the required fields in the application form on ProposalCentral (project title, estimated budget, applicant's name, institution, contact information, other key personnel, etc.). One or more ASTRO members must be named on the application as PI or key personnel. ROI strongly encourages PIs to set up an ORCiD profile and link it to their application. Key personnel must update their personal demographic information on their own ProposalCentral profile before the application can be submitted.

^{*}Applicants not affiliated with a 501(c)(3) organization or government-sponsored university are eligible but should contact roi@astro.org for more information about identifying a Sponsoring Institution prior to submitting an LOI.

ABSTRACT: Enter a preliminary technical abstract. The abstract should include the significance and innovation of the proposed research, the study question, the specific aims to be accomplished and a brief description of the experimental approach for each aim in a maximum of 4,000 characters including spaces. A system-generated page will be included in the application and a separate document does not need to be uploaded.

STATEMENT OF RELEVANCE: Explain how the proposed research fulfills the purpose of the RFP and its potential to impact practice and benefit patients. The statement of relevance should be no more than 2,000 characters including spaces. A system-generated page will be included in the application and a separate document does not need to be uploaded.

PRINCIPAL INVESTIGATOR BIOSKETCH: Upload the Principal Investigator's biosketch with selected relevant publications (following NIH format and not to exceed 5 pages) in the "Attachments" section of the LOI. The Faculty Mentor's biosketch must also be submitted if the PI is a resident or fellow.

SIGNATURES: Electronic signatures must be submitted through ProposalCentral. The e-signatures of the applicant and an authorized institutional official are required by ROI on all LOIs. Residents and fellows applying for an award must list a Faculty Mentor under Other Key Personnel, and the Faculty Mentor's e-signature is also required. Please account for any internal deadlines to secure institutional approval and check to see who is listed as the institutional official in ProposalCentral to make necessary changes before the deadline. Applicants will only be able to submit the LOI when all e-signatures are complete.

STEP 2: FULL PROPOSAL - BY INVITATION ONLY

After receiving an invitation, submit a full proposal by **February 14, 2025, at 5:00 p.m. ET** through ProposalCentral. Proposals must contain the items below.

APPLICATION: Complete all of the required fields in the application form on ProposalCentral (project title, applicant's name, institution, contact information, other key personnel, etc.). One or more ASTRO members must be named on the application as PI or key personnel. ROI strongly encourages PIs to set up an ORCiD profile and link it to their application. Key personnel must update their personal demographic information on their own ProposalCentral profile before the application can be submitted.

ABSTRACTS: Enter both a technical abstract and a lay abstract. The technical abstract will carryover from the approved LOI, and minor edits can be made prior to submitting the final proposal. The lay abstract should be a clear and concise summary for the general public and media. The technical abstract can be a maximum of 4,000 characters including spaces, and the lay abstract should be no more than 2,000 characters including spaces. System-generated pages with these items will be included in the application and separate documents do not need to be uploaded.

STATEMENT OF RELEVANCE: The statement of relevance will also carryover from the approved LOI. Small modifications are allowed to clarify how the proposed research fulfills the purpose of the RFP and its potential to impact practice and benefit patients. A system-generated page will be included in the application and a separate document does not need to be uploaded.

PROPOSAL: Upload a brief project description (up to 4 pages, single-spaced, including figures) that contains:

- A statement of the project's principal objectives
- A discussion of significance, outcomes and impact, including the value of the end-product to the radiation oncology community
- A statement of innovation
- A description of the research plan and methodologies to be employed, including clear discussion of how data will be collected
- A plan for evaluation that will measure the outcomes of the project in terms of the purpose and objectives
- A description of the tangible deliverables including, decision support tools, educational materials, abstracts and manuscripts, and additional grants resulting from the project
- A clear discussion of next steps and dissemination strategy
- A timetable

BUDGET: Grant funds may be used to support project staff salaries and benefits, consultant fees, data management, supplies and other direct expenses. All costs must be entered into the Budget Detail section and a justification describing each line item must be included in the Budget Summary & Justification section of the application on ProposalCentral. Be sure to include details on the following items:

- Personnel: List the names and roles of all professional and non-professional personnel involved in the project and whether salaries and fringe benefits are requested. Salary and benefits for the Principal Investigator may be requested but the combined costs are limited to 20% of the total award amount or a maximum of \$10,000 over the entire award period, whichever is lower. Costs for the salary and benefits of residents and clinical fellows participating in an ACGME-accredited program are not permitted. Indicate the percent effort on the project for all personnel even if salary and benefits costs are not being requested. The institutional base salary of an individual should not exceed the current federal salary cap established by NIH at the time of the proposal submission.
- **CONSULTANT FEES:** Give the name and institutional affiliation of any consultant and a brief description of the services to be performed.
- **EQUIPMENT AND SUPPLIES:** Include materials and software required to conduct the project. Equipment purchases are allowed with sufficient justification. List all items requested and the cost of each item.
- TRAVEL: Describe the purpose of any travel. Conference travel expenses are limited to \$2,500 to attend ASTRO-sponsored meetings and can only be charged if presenting an abstract that includes results of the ROI-funded research.
- **PUBLICATION COSTS:** Fees associated with publishing in ASTRO journals can be requested. Additional incentives for publishing in an ASTRO journal may be provided to award winners.
- OTHER DIRECT EXPENSES: Itemize other expenses by major categories, such as computer services, human subject participation fees, data management, etc.

In the justification, an explanation of how costs to carry out the research not covered by this grant, such as departmental funds or other grants, will be paid is also required. Any other grant sources of funding

supporting the same scope of work must be reported to the ROI as soon as possible if they are not described in the original proposal.

REFERENCES CITED: References should be numbered in the sequence that they appear in the text (not to exceed 1 page).

BIOGRAPHICAL SKETCHES: Upload biosketches with selected relevant publications for all of the key project personnel (following NIH format and not to exceed 5 pages each). This includes Co-PIs for all projects and/or the Faculty Mentor's biosketch if the applicant is a resident or fellow.

LETTERS OF SUPPORT: A letter of support from the department chair or other institutional research leader is required. Additional letters from collaborators or faculty mentors are optional.

APPENDICES: Only include if necessary to communicate essential information, but please limit to 2 pages (e.g., excerpts from in-press papers, essential figures or other media).

TRANSITION PLAN – REQUIRED FOR RESIDENTS AND FELLOWS: Residents and fellows must upload a statement that outlines a plan for the completion of the project if their training concludes and they move to another institution before the project has ended. A transition plan must be submitted even if the award end date is prior to the scheduled end date of training.

PROPOSAL FORMATTING

- **FONT:** Use an Aptos, Arial, Helvetica, Palatino Linotype, Calibri or Georgia typeface, a black font color, and a font size of 11 points or larger.
- PAGE MARGINS: Use at least 0.5 inch margins (top, bottom, left, and right) for all pages.
- **PAGE FORMATTING:** Single-spacing should be used, and applicants are strongly encouraged to use only standard, single-column format for the text. Page numbers should be included.
- PAGE LIMITS: Proposals are not to exceed the 4-page maximum (excludes application form, abstracts and statement of relevance, budget, references, biosketches, letters of support, appendices, and transition plan).

SIGNATURES: Electronic signatures must be submitted through ProposalCentral. The e-signatures of the applicant and an authorized institutional official are required by ROI on all proposals. Residents and fellows applying for an award must list a Faculty Mentor under Other Key Personnel, and the Faculty Mentor's e-signature is also required. Please account for any internal deadlines to secure institutional approval and check to see who is listed as the institutional official in ProposalCentral to make necessary changes before the deadline. Applicants will only be able to submit the proposal when all e-signatures are complete.

CONTACTS

Please contact ProposalCentral customer support for any issues with the online application site at pcsupport@altum.com or 800-875-2562 (toll free U.S. and Canada). Customer support specialists are available Monday through Friday from 8:30 a.m. to 5:00 p.m. ET. For questions regarding the RFP and required elements of the application, please contact ROI at roi@astro.org or 703-839-7356.

PEER REVIEW PROCESS

The ROI Research Committee reviews all applications for scientific and technical merit and relevance to the RFP topic and ROI's Mission and Vision. Additional expert reviewers also participate as needed. Funding of awards is based on the priority score assigned to each application and the recommendations of the Research Committee. The ROI Board of Trustees reviews and gives final approval to all award decisions.

- Each LOI and proposal will be scored by at least two qualified reviewers.
- Individuals who submit an application in response to this RFP or are designated as key personnel, including the mentor of an applicant, may not review applications for this RFP.
- The ROI Board of Trustees, ROI Research Committee and expert reviewers will not score or discuss applications from their own institution or organization.

REVIEW CRITERIA

Proposals for research projects will be evaluated by ROI on the following criteria.

OVERALL IMPACT

Likelihood for the project to lead to significant follow-on funding or initiate a new research direction
that will have a sustained, powerful influence on the field of radiation oncology. An application does
not need to be equally strong in all categories to be judged likely to have major scientific impact.

SIGNIFICANCE AND INNOVATION

- Importance of the proposed research in the context of current scientific challenges and
 opportunities, either for advancing knowledge within radiation oncology, or more broadly. The
 application should address an important gap in knowledge in the field, solve a critical problem, or
 create a valuable conceptual or technical advance.
- Rationale for undertaking the study, the rigor of the scientific background for the work (e.g., prior literature and/or preliminary data) and whether the scientific background justifies the proposed study.
- The extent to which innovation influences the importance of undertaking the proposed research. While technical or conceptual innovation can influence the importance of the proposed research, a project that is not applying novel concepts or approaches may be of critical importance for the field.
- Whether the proposed work applies novel concepts, methods or technologies or uses existing concepts, methods, technologies in novel ways, to enhance the overall impact of the project.
- How well the application addresses what the expected end-product is, the value of the end-product
 to the radiation oncology community, and how the product will be used for follow-on funding or to
 initiate a new research direction that will benefit the broader radiation oncology community.

APPROACH, RIGOR, AND FEASIBILITY

- The potential to produce unbiased, reproducible, robust data.
- The rigor of experimental design and whether appropriate controls are in place.
- Whether the sample size is sufficient and well-justified.
- The quality of the plans for analysis, interpretation, and reporting of results.
- The adequacy of plans to address relevant biological variables, such as sex or age, in the design, analysis, and reporting.

- For applications involving human subjects or vertebrate animals:
 - o The rigor of the intervention or study manipulation (if applicable to the study design).
 - Whether outcome variables are justified.
 - Whether the results will be generalizable or, in the case of a rare disease/special group, relevant to the particular subgroup.
 - Whether the sample is appropriate and sufficiently diverse to address the proposed question(s).
- The adequacy of inclusion plans as appropriate for the scientific goals of the research for applications involving human subjects, including clinical trials. Considerations of appropriateness may include disease/condition/behavior incidence, prevalence, or population burden, population representation, and/or current state of the science.
- Whether the proposed approach is sound and achievable, including plans to address problems or new challenges that emerge in the work. If feasibility is less certain, the uncertainty is balanced by the potential for major advances.
- The adequacy and feasibility of the plan to recruit and retain an appropriately diverse population of participants if the project involves human subjects.
- The timeline is reasonable for achieving the proposed specific aims.

TOPIC AND PRACTICAL APPLICATION

- How well the project addresses the RFP topic and aligns with the ROI Mission and Vision.
- The extent to which the project will result in tangible deliverables that are designed to have an impact on practice in the near future and outcomes that are scalable.

INVESTIGATOR AND ENVIRONMENT

- The investigator(s) have demonstrated background, training, and expertise, as appropriate for their career stage, to conduct the proposed work.
- The institutional resources are appropriate to ensure the successful execution of the proposed work.

BUDGET

• The budget and the requested period of support are fully justified and reasonable in relation to the proposed research.

AWARD REQUIREMENTS

The terms and conditions of accepting an ROI research award are included below. The PI and a representative of the Sponsoring Institution should review them before submitting an application.

Agreement

The parties hereby agree as follows:

1. Research Award and Purpose

a. The ROI will disburse the Research Award to the Sponsoring Institution for the Principal Investigator to conduct the project described in the Proposal. Principal Investigator agrees to implement the project activities described therein, effective as of <u>START DATE</u>.

The ROI is not obligated to disburse any of the	Research Award until after submission to the ROI of a
signed copy of this Agreement. The Research	Award will be paid to the Sponsoring Institution in two
payments with a first installment of \$, b	eginning on START DATE or upon execution of this

Agreement, whichever is later. The second installment of the Research Award funds (totaling \$_____) are contingent upon the submission and subsequent approval by the ROI Research Committee of an interim progress report ("Interim Report"), as outlined in section 3. If the Interim Report is more than 4 weeks late or the ROI Research Committee does not approve the Interim Report, funding will be discontinued, in which case the ROI shall have no further obligation to pay any further amount of the Research Award. If the ROI does not opt to discontinue funding in the above circumstance, the ROI may require additional reports before making the second payment if the initial interim progress report is not approved. In order to receive payment, please submit an invoice which includes the following:

- Grant # ROI
- Invoice #
- Invoice Date
- Invoice Amount (\$US)
- Description of the award, indicating the recipient and the institution
- Contact/Payment information (Name, Address, Phone)

All invoices should be mailed or emailed (preferred) to:

Radiation Oncology Institute (ROI)
Attn: Senior Governance and Research Officer
251 18th Street South, 8th Floor
Arlington, VA 22202
roi@astro.org

2. Expenditure of Funds

- a. The Research Award is made solely for the purposes outlined in the Proposal and may not be expended for any other purpose without the ROI's prior written approval. Without limiting the foregoing, in no event may the Research Award be used for any of the following purposes: To attempt to influence legislation or the outcome of any specific public election; to carry on, directly or indirectly, any voter registration drive; to make, without the ROI's written consent, grants to individuals or other organizations; or undertake any activities for other than a charitable, educational, or scientific purpose.
- b. Expenditures of the Research Award must adhere to the budget submitted to the ROI by the Principal Investigator and included in the Proposal, unless the ROI approves the expense in writing in advance. In addition, expenditures must comply with the budget guidelines in the RFP and all applicable laws and regulations.
- c. The Sponsoring Institution agrees to follow generally accepted accounting practices as practiced in the United States and to implement and maintain sufficient internal controls to ensure that the Research Award is used for the intended purposes.
- d. Any portion of the Research Award not expended or committed for the purposes of the Proposal during the Award Period must be returned to the ROI.

3. Evaluation, Records, and Reports

- a. The Principal Investigator and Sponsoring Institution agree to provide reports to the ROI on the use of the Research Award, as requested. A report requested by the ROI may require a narrative account of what was accomplished by the expenditure of funds (including a description of progress made towards achieving the goals of the Proposal), a financial statement (related to the use of the funds), and copies of any work product resulting from the funds (including, without limitation, research, findings, databases, manuscripts, and publications) ("Work Product"). The responsible financial officer for the Sponsoring Institution must attest to the accuracy of any financial statements.
- b. The Principal Investigator and Sponsoring Institution will submit an interim progress report and a final report as follows and maintain records for at least three (3) years after end of Award Period: (i) an

ongoing scientific interim report must be submitted by <u>(30 DAYS AFTER PERIOD 1)</u>, before additional grant installments can be paid; (ii) a final report is expected by no later than <u>(60 DAYS AFTER END DATE)</u>.

- c. Interim and final reports must be submitted electronically using the form(s) supplied by ROI and accompanied by a signed copy of the report form endorsed by the department chair or university official.
- d. The Principal Investigator is required to submit an abstract of the project's results to one or more ASTRO Annual Meetings. If the abstract is selected, the Principal Investigator must attend the ASTRO Annual Meeting. A full manuscript reporting the work must be submitted to an academic peer-reviewed journal.
- e. Requests for extensions of time to submit reports referenced in paragraph 3.b. above, with no additional funding due from the ROI (a "No Cost Extension"), must be made to the ROI ninety (90) days prior to the final report due date. Such No Cost Extensions are granted on a case-by-case basis and at the ROI's sole discretion. In the event that the ROI grants a No Cost Extension, the ROI may request additional reporting from the Principal Investigator and Sponsoring Institution in connection with the Research Award.
- f. Completed reports should be submitted via email to roi@astro.org or through ProposalCentral.

4. Required Notification

- a. The Principal Investigator or Sponsoring Institution will provide the ROI immediate written notification of:
 - i. Its inability to expend the funds for the purposes described in this Agreement.
 - ii. Any expenditure from the Research Award made for any purpose other than those for which it was awarded.
- b. The Principal Investigator or Sponsoring Institution will notify the ROI in writing within ten (10) working days of any change in the individual(s) assigned to manage the project or those involved in the project as indicated in the Proposal, including if the Principal Investigator departs from or is no longer affiliated with the Sponsoring Institution.
- c. The Principal Investigator will notify the ROI of any presentations or publications resulting from the research in a timely fashion. This obligation will continue after the termination of the Award Period and this Agreement.
- d. All notices to the parties shall, unless otherwise modified in writing and acknowledged in writing by the other party, be sent to the following addresses:

If to the ROI:

Radiation Oncology Institute (ROI)
Attn: Senior Governance and Research Officer
251 18th Street South, 8th Floor
Arlington, VA 22202
roi@astro.org

If to the Sponsoring Institution:

SPONSORING INSTITUTION
ADDRESS
CITY, STATE ZIP
EMAIL

e. Any such notice, communication or delivery will be deemed given upon receipt. Notice sent via email (return receipt requested) is deemed to be official notice.

5. Ownership

a. As between ROI and the Sponsoring Institution, the intellectual property rights in and to the Work Product created by use of the Research Award shall remain with the Sponsoring Institution subject to

the license below. The Sponsoring Institution hereby grants to the ROI a non-exclusive, royalty-free, perpetual, irrevocable, worldwide right and license to use, copy, distribute, display, publish, publicize, modify and perform the Work Product for non-commercial purposes only.

6. Acknowledgement and Publicity

- a. Whether during the Award Period or afterwards, Sponsoring Institution shall, and will ensure that the Principal Investigator shall, acknowledge the support of the Radiation Oncology Institute in any advertising, releases to the media, promotion, publication, distributions, or presentation of this research, its Work Product, and any accomplishments made through support by ROI grant funds. Grant #ROI_____ must be cited in manuscripts resulting from this research. Presentations or posters at major meetings must include the statement, "Supported by a grant from the Radiation Oncology Institute."
- b. The Sponsoring Institution will allow the ROI to review the text of any proposed publicity about the Research Award and its work product and shall not publicly release said text without prior written approval of the ROI, which shall not be unreasonably withheld. This shall not restrict the Sponsoring Institution's right to distribute work relating to the Research Award. A copy of any press release, announcement or public statement must be provided to the ROI.
- c. The ROI reserves the right to include factual information regarding the Research Award, the amount and purpose of the Research Award, Principal Investigator's general biographical information, any photographs or videos of the Principal Investigator, other published/printed information or materials (provided by the Principal Investigator) and Principal Investigator's activities, on the ROI's website (www.roinstitute.org), social media platforms, periodic public reports, newsletters, news releases, publicly accessible databases of privately funded grant awards, or in any other format.
- d. The Principal Investigator will respond to the ROI's requests for information on their career progress following the Award Period and may be requested to provide their current Curriculum Vitae, update their contact information, or provide other relevant information. The Principal Investigator understands that this obligation survives the Award Period and that they have an ongoing obligation to provide this information.

7. Right to Modify or Revoke; Assignability

- a. The ROI reserves the right to terminate this Agreement and discontinue any payments to be made under this Agreement if the Sponsoring Institution and/or Principal Investigator have not complied with the terms and conditions of this Agreement or to otherwise protect the purpose and objectives of the Research Award. Furthermore, if the Principal Investigator departs from or is otherwise no longer affiliated with the Sponsoring Institution, ROI reserves the right to terminate the Research Award with respect to any and all parties to the Research Award in its discretion.
- b. In the event the Sponsoring Institution or Principal Investigator commit Misconduct, as defined below, or in the case of breach of this Agreement or other early termination, the ROI shall have the right to require the refund of any payments made to Sponsoring Institution, which have been disbursed by the ROI but not yet spent or irrevocably committed prior to notice of breach, Misconduct, or other termination. As used herein, "Misconduct" shall mean (i) the falsification, fabrication or plagiarism of data or results, relating to the Research Award (ii) the omission of material data or results that occurs during the application process for, performance of or reporting on the Research Award, or (iii) any other fraudulent or unlawful act relating in any way to the Research Award.
- c. The rights and obligations under this Agreement may not be assigned by the Sponsoring Institution without the advance written permission of the ROI. Any such assignment by the Sponsoring Institution without permission will result in the cancellation of this Agreement, and the Sponsoring Institution shall return all disbursements of the Research Award previously paid.

8. Authority

a. The undersigned for the Sponsoring Institution certifies that he or she is a duly authorized officer of the Sponsoring Institution and, as such, is authorized to execute this Agreement on behalf of the Sponsoring Institution, to obligate the Sponsoring Institution to observe all of the terms and conditions contained in this Agreement, and in connection with this Agreement to make, execute, and deliver on behalf of the Sponsoring Institution all agreements, representations, receipts, reports, and other instruments of every kind.

9. Term and Termination

- a. The term of this Agreement is the Award Period, which begins on the Effective Date and concludes upon delivery of all final reports required.
- b. This Agreement shall terminate under the following circumstances:
 - i. The insolvency, receivership, bankruptcy filing, or dissolution of the Sponsoring Institution or the
 - ii. A breach in this Agreement by the Sponsoring Institution or Principal Investigator, unless such breach is waived in writing by the ROI or is cured within 30 days, subject to ROI's right to modify or revoke this Agreement, as set forth in Section 7 above.
 - iii. Upon the ROI providing written notice to the Sponsoring Institution.
 - iv. In the event of any Misconduct, as set forth in Section 7 above.

10. Indemnification and Liability

- a. ROI Disclaimer: ROI IS A PASSIVE GRANTOR AND HEREBY DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, CONCERNING THE RESEARCH AWARD, RFP, OR THE PROPOSAL. UNDER NO CIRCUMSTANCE SHALL ROI BE LIABLE TO ANY PRINCIPAL INVESTIGATOR OR SPONSORING INSTITUTION FOR ANY DAMAGES ARISING FROM OR IN RELATION TO THIS RESEARCH AWARD, RFP, THE PROPOSAL, OR THE USE OF THE RESEARCH RESULTS (WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, BY STATUTE, REGULATION OR OTHERWISE).
- b. Indemnification: Principal Investigator and Sponsoring Institution agree to indemnify, defend, and hold harmless ROI, its officers, directors, trustees, personnel and agents, from and against any and all actual and alleged third-party liabilities, damages, losses, claims or expenses (including court costs and reasonable attorneys' fees), resulting from or arising in connection with the grant of this Research Award, RFP or the performance of the Proposal, including without limitation, any claims brought by or on behalf of subjects participating in any research or activities related to the Proposal. Sponsoring Institution shall maintain insurance in adequate amounts and coverage to fulfill its obligations of Sponsoring Institution and all Recipients hereunder. This provision shall survive the expiration or earlier termination, for any reason, of the Award Period.

11. Miscellaneous

- This Agreement and the attached exhibits constitute the entire agreement and understanding of the parties with respect to the Research Award.
- b. This Agreement shall be governed by the laws of the State of Illinois.
- c. Nothing contained in this Agreement shall create or be deemed to create a partnership or employment relationship between the ROI and the Principal Investigator or Sponsoring Institution.

12. ROI Staff

a. The ROI Senior Governance and Research Officer will be your point of contact for all contractual issues, submission of progress and financial reports, as well as any issues related to the administration of the project. You may contact the ROI at any time at <u>roi@astro.org</u> or 703-839-7356.

13. Waiver

a. I, the Principal Investigator, acknowledge that I have read and understood the terms and conditions of this ROI grant and understand my obligations to comply therewith. I authorize ROI's use of my name, likeness, and personal information as set forth in the Terms and Conditions. I WAIVE ANY CLAIMS AGAINST ROI, ITS TRUSTEES, OFFICERS, EMPLOYEES OR AGENTS RELATED TO THE AWARD OR ANY PROJECT ASSOCIATED WITH THIS AWARD.