



Request for Proposals (RFP)

Breast Cancer Research Foundation (BCRF) and Speed of Light – The ASTRO Foundation Emerging Investigator Award

Last Updated: September 24, 2026

Opportunity	Emerging Investigator Award
Partner	Breast Cancer Research Foundation (BCRF)
Purpose	To foster and develop talented early-career breast radiation oncology researchers in biomedical research.
Topic	Radiation medicine and its role in treating patients with breast cancer. Proposals must fall into one or more of the following categories: basic discovery research/biology; early detection/prognosis/diagnosis; etiology; outcomes research; prevention; scientific model systems; and treatment.
Program Year	2027
Award Duration	One year
Award Amount	Up to \$115,000
PI Career Stage(s)	Applicants must hold a doctorate degree such as PhD, MD/PhD, MD, DO, or other equivalent degree(s) and must be Early-Stage Investigators as defined by NIH. Investigators must be working in the fields of radiation oncology, radiation or cancer biology, or radiation physics. The PI is required to commit at least 20% of their career responsibilities to the research project and career development/training plan described in the application.
Key Dates	Deadline for Proposals: January 25, 2027 Notifications Expected: April 2027
Start Date	August 1, 2027

ABOUT BREAST CANCER RESEARCH FOUNDATION (BCRF)

BCRF is a nonprofit organization committed to achieving prevention and a cure for breast cancer. BCRF provides critical funding for cancer research worldwide to fuel advances in tumor biology, genetics, prevention, treatment, metastasis and survivorship.

Since its founding in 1993 by Evelyn H. Lauder, BCRF has raised more than a billion dollars to fuel its mission to be the end of breast cancer. Through a unique and streamlined grants program, they seek out the brightest minds in science and medicine and give them the necessary resources to pursue their best ideas. This enables researchers to make discoveries and design new approaches to address all aspects of breast cancer — and do so in record time.

In 2026 - 2027, BCRF will commit over \$75 million to fuel breast cancer research. This will support more than 280 scientists at leading academic and medical institutions across 18 countries. BCRF is once again the largest private funder of breast cancer research — and metastatic breast cancer research — in the world.

The thousands of women and men suffering from breast cancer today depend on us. No institution can conquer this disease alone. Together, we can.

ABOUT SPEED OF LIGHT – THE ASTRO FOUNDATION

Founded in 2006 by the American Society for Radiation Oncology (ASTRO) as the Radiation Oncology Institute (ROI), the Foundation relaunched in 2026 as Speed of Light, reflecting a clearer, more focused approach to advancing science and patient care. Since 2006, ASTRO and Speed of Light – The ASTRO Foundation have invested \$15.8 million in the best and brightest investigators who are pursuing bold and innovative ideas in radiation therapy.

Powered by purpose and partnerships, the Foundation is a 501(c)(3) public charity accelerating high-impact science, expanding trusted patient resources and strengthening the radiation oncology workforce. The Foundation issues annual requests for proposals (RFPs) to catalyze discovery in radiation oncology by awarding grants to support high-priority research that will improve outcomes for patients. This Innovation Awards 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.

All awarded applications must align with the Vision and Mission of the Foundation:

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

MISSION: To accelerate bold and innovative ideas in radiation therapy.

Learn more at SpeedofLightFoundation.org.

PURPOSE

To foster and develop talented early-career breast radiation oncology researchers in biomedical research. Research topic must be radiation medicine and its role in treating patients with breast cancer. Proposals must fall into one or more of the following categories: basic discovery

research/biology; early detection/prognosis/diagnosis; etiology; outcomes research; prevention; scientific model systems; and treatment.

AWARD AMOUNT

Up to \$115,000 over one year.

ELIGIBILITY

Any candidate with the skills, knowledge, and resources necessary to carry out the proposed research as the Principal Investigator (PI) is invited to work with their mentor(s) and organization to develop an application for support.

Multiple PIs are **not** allowed.

- Applicants must hold a doctorate degree such as PhD, MD/PhD, MD, DO, or other equivalent degrees(s) and must be [Early-Stage Investigators as defined by NIH](#). Generally, residents, postdoctoral fellows, or other trainees are not eligible to apply. However, if at the time of application submission, a trainee has secured an independent faculty position and provided supporting evidence and endorsement from an Eligible Organization which offers the aforementioned independent faculty position, the Foundation and BCRF can choose to accept the application from such a trainee for review, if all other eligibility criteria for such an application have been satisfied.
- A faculty mentor is required. Mentors should be senior investigators with a minimum of R01 or equivalent level funding and provide a letter of support detailing their oversight and support.
- Investigators must be working in the fields of radiation oncology, radiation or cancer biology, or radiation physics.
- Level of effort: The PI is required to commit at least 20% of their career responsibilities to the research project and career development/training plan described in the application.
- The 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.*

*Applicants not affiliated with a 501(c)(3) organization or government-sponsored university may be eligible but should contact SpeedOfLight@astro.org for more information about identifying a qualifying Institution prior to submitting an LOI.

Qualified individuals may:

- Apply for more than one Speed of Light – The ASTRO Foundation funding opportunity per year.
- Submit only one application per funding cycle for each research grant funding opportunity.

- Only serve as Principal Investigator for one active research grant from Speed of Light – The ASTRO Foundation at a time.
- Not hold a comparable award from another organization to complete the same scope of work. If independent funding is obtained for the same scope of work selected by ASTRO for this award, the applicant must refuse either this or the competing award(s).

Commitment from the Applicant

- The applicant must designate a mentor at their Institution who will provide guidance and support for the research project. Mentors should be senior investigators with a minimum of R01 or equivalent level funding and provide a letter of support detailing their oversight and support.
- If awarded, the PI must ensure research papers supported by this award that are accepted for publication in a peer-reviewed journal be made immediately and freely available upon publication in the journal. Grantees may comply with this policy by publishing in an open-access journal, publishing in a subscription journal with an open-access option, or by making a copy of their Author Accepted Manuscript available via a trusted open repository (e.g., PubMed Central).
- If awarded, the PI is expected to attend at least one ASTRO Annual Meeting to present their research findings.
- If awarded, the PI is invited, at BCRF's expense, to attend the annual BCRF Scientific Conference, Symposium and Awards Luncheon held in October in New York City.

Commitment from the Faculty Mentor

- The mentor should be an accomplished investigator in the proposed research area and have a track record of success in training independent investigators.
- The mentor should have sufficient independent research support to cover the costs of the proposed research project in excess of the allowable costs of this award.
- The mentor must demonstrate, in writing, a commitment to the development of the applicant as a productive, independent investigator.
- Applicants may also nominate co-mentors as appropriate to the goals of the program.

Sponsoring Institutions

The Sponsoring Institution will receive and manage the grant funds on behalf of the Principal Investigator. The signature of an Authorized Official of the Sponsoring Institution is required on the grant application to indicate that the Institution is willing to act in this capacity. Any research grant is contingent upon the Foundation's ability to transfer grant funds to the Sponsoring Institution and support the proposed research project in compliance with all applicable legal requirements.

Commitment from the Sponsoring Institution

- If awarded, the host department will act as the fiscal intermediary. The Institution will administer the funds to the PI for the project, agree to the Terms of the Award, and be responsible for satisfying tax withholding, deposit and/or reporting requirements applicable to the payment of the award. The PI will be responsible for individual income taxes.
- If awarded, the Institution will be required to provide sufficient additional funds to supplement salaries or supplies as needed for the research project. The Terms and Conditions for this Award are attached and should be shared with organizational officials before applications are submitted.
- Any change in Institution, mentor or in the applicant's position that might affect their ability to successfully complete their project should be communicated as soon as possible so that appropriate action can be taken.
- If a mentor at the grantee's Institution is to be replaced, the Institution must submit a letter from the proposed mentor documenting: 1) the need for substitution; 2) the new mentor's qualifications for supervising the project; and 3) the level of support for the applicant's career development.

USE OF ARTIFICIAL INTELLIGENCE

Applicants

A large language model, such as ChatGPT, or a generative artificial intelligence (AI) tool can be used to generate and/or edit content in research proposals submitted to Speed of Light – The ASTRO Foundation. This information must be disclosed at the time of submission. Disclosure of this information does not impact peer review. Should this information not be disclosed accurately, and use of these tools is identified, the proposal may be administratively withdrawn.

Peer Reviewers

The Foundation does not permit the use of large language models, such as ChatGPT, or a generative AI tool to generate and/or edit content in the peer review process. Uploading any portion of a research proposal into a large language model or an AI tool to assist in writing a critique of the proposal is explicitly prohibited.

OPEN SCHOLARSHIP POLICY

Article Sharing Requirements

To align with norms across the private and public funder landscape, BCRF requires electronic copies of research papers, accepted for publication in a peer-reviewed journal and supported in whole or in part by BCRF to be made immediately and freely available upon publication in the journal. Grantees may comply with this policy by publishing in an open-access journal, publishing in a subscription journal with an open-access option, or by making a copy of their Author Accepted Manuscript available via a trusted open repository (e.g., PubMed Central).

Most journals' publishing agreements specify when, and how, the Author's Accepted Manuscript can be made open access. Therefore, to achieve this, the PI or (Sponsoring Institution) need to retain sufficient rights to apply a CC BY license to the Author Accepted Manuscript. This is known as rights retention.

By applying a CC BY public copyright license to journal submissions, you retain the right to deposit a copy of the Author Accepted Manuscript in PMC and for your work to be shared in this way under this license.

Should you wish to retain your right to self-archive, it is advisable to notify the publisher of this intention at the point of submission. If your institution has a rights retention policy, they may provide standard language to use. If your institution does not have a rights retention policy, you can use the following language:

"This research was funded by BCRF and Speed of Light – The ASTRO Foundation [Grant ID]. For the purpose of open access, the author has applied a CC BY public copyright license to any Author Accepted Manuscript version arising from this submission."

Data Sharing Requirements

To align with norms across the private and public funder landscape, BCRF expects grantees to maximize the availability any factual data with as few restrictions as possible by making it freely and publicly available in the BCRF Global Data Hub (<https://bcrfglobaldatahub.org/>) as soon as possible, and no later than the time of an associated publication or the end of the award period (and any no-cost extension), whichever comes first.

Preprinting Recommendations

To align with norms across the private and public funder landscape, BCRF grantees are encouraged to deposit their submitted manuscripts, and subsequent versions, on a publicly accessible preprint server (e.g., bioRxiv or medRxiv). BCRF recognizes preprints as evidence of productivity for purposes of grant applications, reviews, and reporting.

HOW TO APPLY

All application materials must be submitted through ProposalCentral at proposalcentral.com by January 25, 2027.

To access the proposal, log in, then click on the "Grant Opportunities" tab and select "Speed of Light - ASTRO" in the "Filter by Grant Maker" 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.

Formatting

- **Font:** Use 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.

Application: Complete all the required fields in the application form on ProposalCentral (project title, Principal Investigator's name, institution, contact information, other key personnel, etc.). Applicants are required to set up an ORCID profile and link it to their application.

Applicants must select the discipline of their research as well as one area of focus that best describes the scope of the research plan.

The areas of focus are:

- Metastasis
- Prevention
- Survivorship
- Treatment

Abstracts: Enter a general audience abstract, a technical abstract, and a short scientific abstract. The general audience 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 general audience abstract should be no more than 2,000 characters including spaces. The short scientific abstract should be no more than 500 characters including spaces. System-generated pages with these items will be included in the application and separate documents do not need to be uploaded.

Modalities and Common Scientific Outline (CSO) Codes: Select all relevant Modalities and CSO Codes that best represent the proposed research.

Impact Statement: Statement of Proposal's Benefit to radiation oncology research (1,000 characters max, including spaces).

Proposal: Upload a brief project description (up to 6 pages, single-spaced, including figures, not including references) 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 medicine community
- A description of the research plan and methodologies to be employed, including clear discussion of how data will be collected. Clinical studies must specify the sample size.
- 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. 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. **Funding cannot go towards supporting salaries of mentors or collaborators.** Up to 20% of the awarded budget should support the PI's stated career development or training objectives.
- **Data Sharing:** Published data generated from this Award is expected to be made available to the research community to the fullest extent possible, subject to applicable government regulations and policies. BCRF and the Foundation expect any data that supports published work supported by BCRF to be uploaded to the BCRF Global Data Hub (<https://bcrglobaldatahub.org/>). The cost associated with data sharing is an allowable direct cost, up to five percent (5%) of the budget for the Award Funds.
- **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 and can only be charged if presenting an abstract that includes results of the Foundation-funded research.
- **Publication Costs:** Fees associated with publishing manuscripts can be requested. 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 or institutional funds, will be paid is also required.** Any other sources of funding supporting the same scope of work must be reported to the Foundation immediately 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).

Required SciENCv files: Upload the Principal Investigator's SciENCv with selected relevant publications (following NIH format and not to exceed 5 pages) in the "Attachments" section. The Faculty Mentor's SciENCv must also be submitted.

Letters of Support (2): A letter of support from the faculty mentor is required. A letter of support from the Institution or Department is also required. This letter must indicate the level of commitment through matching funds or in-kind contribution from the Institution to this award. This letter should include a guarantee that the applicant will be afforded at least 20 percent protected time to perform research. Additional letters from collaborators or faculty mentors are optional.

Professional and Career Development Plan: Describe the applicant's career development and/or training objectives. It is important to clearly state the applicant's career goal(s), specify what competencies will be required to achieve those goals, what competencies the applicant plans to acquire/strengthen through this EIA, and how the applicant plans to develop those competencies (not to exceed 2 pages).

Mentoring Plan: A detailed mentoring plan from the applicant's mentor that outlines courses, lectures, meetings, and other ways to support the applicant and help increase likelihood of success must be included (not to exceed 2 pages).

Signatures: Electronic signatures must be submitted through ProposalCentral. **The e-signatures of the applicant and an authorized institutional official are required by the Foundation on all proposals.** Applicants 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.**

REVIEW CRITERIA

Overall Impact

Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on the radiation medicine research field. In addition, Reviewers should, if relevant, provide their assessment of the likelihood that the proposed mentorship and research plan will enhance the candidate's potential for a productive, independent scientific research career, taking into consideration the criteria below in determining the overall impact score. An application does not need to be equally strong in all categories to be judged likely to have major scientific impact.

Scored Review Criteria

Reviewers will score (rate 1-9) Factor 1 and 2 and will determine whether Factor 3 is sufficient or insufficient.

Factor 1: Importance of the Research

Significance

- Evaluate the importance of the proposed research in the context of current scientific challenges and opportunities, either for advancing knowledge within the field, or more broadly. Assess whether the application addresses an important gap in knowledge in the field, would solve a critical problem, or create a valuable conceptual or technical advance.
- Evaluate the 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.

Innovation

- Evaluate the extent to which innovation influences the importance of undertaking the proposed research. Note that 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.
- Evaluate 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.

Factor 2. Rigor and Feasibility

Approach. Evaluate the scientific quality of the proposed work. Evaluate the likelihood that compelling, reproducible findings will result (rigor) and assess whether the proposed studies can be done well and within the timeframes proposed (feasibility).

Rigor

- Evaluate the potential to produce unbiased, reproducible, robust data.
- Evaluate the rigor of experimental design and whether appropriate controls are in place.
- Evaluate whether the sample size is sufficient and well-justified.
- Assess the quality of the plans for analysis, interpretation, and reporting of results.
- Evaluate whether the investigators presented adequate 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, also evaluate:
 - 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).

For applications involving human subjects, including clinical trials, assess the adequacy of inclusion plans as appropriate for the scientific goals of the research. Considerations of appropriateness may include disease/condition/behavior incidence, prevalence, or population burden, population representation, and/or current state of the science.

Feasibility

- Evaluate whether the proposed approach is sound and achievable, including plans to address problems or new challenges that emerge in the work. For proposed studies in which feasibility may be less certain, evaluate whether the uncertainty is balanced by the potential for major advances.
- For applications involving human subjects, including clinical trials, evaluate the adequacy and feasibility of the plan to recruit and retain an appropriately diverse population of participants. Additionally, evaluate the likelihood of successfully achieving the proposed enrollment based on age, racial, ethnic, and sex/gender categories.
- For clinical trial applications, evaluate whether the study timeline and milestones are feasible.

Factor 3: Expertise and Resources

Investigator. Evaluate whether the investigator(s) have demonstrated background, training, and expertise, as appropriate for their career stage, to conduct the proposed work.

Environment. Evaluate whether the institutional resources are appropriate to ensure the successful execution of the proposed work.

Additional Review Criteria:

As applicable for the project proposed, reviewers will consider the following additional items while determining scientific and technical merit and in providing an overall impact score, but will not give scores for these items:

Protections for Human Subjects

- For research that involves human subjects but does not involve one of the categories of research that are exempt under 45 CFR Part 46, the committee will evaluate the justification for involvement of human subjects and the proposed protections from research risk relating to their participation according to the following five review criteria: (1) risk to subjects, (2) adequacy of protection against risks, (3) potential benefits to the subjects and others, (4) importance of the knowledge to be gained, and (5) data and safety monitoring for clinical trials.
- For research that involves human subjects and meets the criteria for one or more of the categories of research that are exempt under 45 CFR Part 46, the committee will evaluate: (1) the justification for the exemption, (2) human subjects involvement and characteristics, and (3) sources of materials. For additional information on review of the Human Subjects section, please refer to the [NIH Guidelines for the Review of Human Subjects](#).

- When the proposed project involves human subjects and/or NIH-defined clinical research, the committee will evaluate the proposed plans for the inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion (or exclusion) of individuals across the lifespan (including children and older adults) to determine if it is justified in terms of the scientific goals and research strategy proposed. For additional information on review of the Inclusion section, please refer to the [NIH Guidelines for the Review of Inclusion in Clinical Research](#).

Vertebrate Animals

- The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following criteria: (1) description of proposed procedures involving animals, including species, strains, ages, sex, and total number to be used; (2) justifications for the use of animals versus alternative models and for the appropriateness of the species proposed; (3) interventions to minimize discomfort, distress, pain and injury; and (4) justification for euthanasia method if NOT consistent with the American Veterinary Medical Association (AVMA) Guidelines for the Euthanasia of Animals. Reviewers will assess the use of chimpanzees as they would any other application proposing the use of vertebrate animals. For additional information on review of the Vertebrate Animals section, please refer to the [NIH Worksheet for Review of the Vertebrate Animal Section](#).

Biohazards

- Reviewers will assess whether materials or procedures proposed are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

Budget and Period of Support

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research. Please refer to the allowable costs described in the Proposal Budget section above.

AWARD REQUIREMENTS

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

NOTE: Principal Investigators (PIs) must ensure that Institutional Signing Officials have reviewed award Terms and Conditions included in this RFP thoroughly before submitting proposals to prevent delays in award distribution. Only minimal changes will be considered.

2027 Breast Cancer Research Foundation (BCRF) and Speed of Light – The ASTRO Foundation
Emerging Investigator Award
Terms and Conditions

This document contains the Award Terms and Conditions (“Terms and Conditions”) applicable to Emerging Investigator Awards (“Award”) from Speed of Light – the ASTRO Foundation, the American Society for Radiation Oncology and their affiliates (“ASTRO”) and the Breast Cancer Research Foundation (BCRF). Please read these Terms and Conditions carefully. By accepting the Award as set forth in the Award letter (“Award Letter”), both the Principal Investigator and the Institution acknowledge that they have read, understand, and agree to comply with the Terms and Conditions herein. ASTRO and Institution may each be referred to as a “Party” and collectively as the “Parties.”

1. Conditions of the Award.

As a condition of receiving the Award granted in the Award Letter, the Principal Investigator (“Principal Investigator”) acknowledges, and the Institution (“Institution”) agrees to enter into an agreement to comply with the Terms and Conditions as follows (“Agreement”).

- (A) Compliance: Institution is responsible for ensuring the research (“Research”) described in the submitted Research Proposal (“Research Proposal”) is performed by the Principal Investigator in full compliance with (i) all applicable laws and regulations; (ii) the Request for Proposal (“RFP”); (iii) these Terms and Conditions, referenced herein or later modified with notice provided in writing per Section 1(D); (iv) the Award Letter; and (v) the Research Proposal.
- (B) Approvals: Institution shall obtain ASTRO’s written approval prior to making any significant changes to the Research Proposal. In addition, Institution shall promptly notify ASTRO in writing 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 individual designated as the Principal Investigator in the Award Letter (i) ceases to conduct the Research; (ii) is unable to continue to serve as the Principal Investigator; or (iii) departs from, or is otherwise no longer affiliated with the Institution named in the Award. Institution shall fully comply with ASTRO’s written instructions regarding the continuation of the Research Proposal.
- (C) Progress Reports: Institution, in collaboration with the Principal Investigator, shall provide ASTRO with a Final Report, as set forth in the Reporting Schedule. Institution will use the progress report form provided by ASTRO and grants ASTRO permission to review, use, and retain such reports, in whatever manner ASTRO chooses in its sole discretion. The reports shall include, at a minimum, the following (in addition to any other items reasonably requested in writing by ASTRO):

- i. Summary of expenditures, activities, and findings from the performance of the Research Proposal during the year, including a financial statement related to the use of the funds and additional funding received from other sources. The responsible financial officer for the Institution must attest to the accuracy of any financial statements.
- ii. List and copies of any research outcomes produced during the performance of the Research Proposal funded by the Award (including, without limitation, publications, presentations, conferences, research, findings and manuscripts) (“Research Outcomes”), Award IP (as defined below), and any similar professional activities and outcomes supported by the Award. “Award IP” is defined as any patentable invention, discovery, improvement, and/or other product conceived and reduced to practice during the performance of the Research Proposal funded by the Award.
- iii. Discussion of any collaborations with industry groups relating to the Research Proposal, if applicable.

All required reporting in this paragraph (C) should be submitted through ProposalCentral.

(D) Notices:

1. Institution shall promptly notify ASTRO in writing if any item in the below list occurs, whether during the Award Period, or after:
 - i. Findings, breakthroughs, or events of unusual interest funded with this Award.
 - ii. Filing of an Invention Disclosure (or similar form) regarding any Award IP.
 - iii. Any monetization event that occurs regarding Award IP or Research Outcomes.
 - iv. Problems, delays, or adverse conditions that will or may materially affect the Research Proposal, its objectives, or time schedules or budget, together with proposed Institution actions to address such problems, delays, or adverse conditions.
 - v. Expected or unexpected adverse events that negatively impacted the safety or wellbeing of any human or vertebrate animal subjects associated with the activities, as described in the Research Proposal.
 - vi. Any expenditure from the Award made for any purpose other than those for which it was awarded.
2. All notices to ASTRO or Institution shall, unless otherwise modified in writing and acknowledged in writing by the other Party, be sent to the following addresses:

If to ASTRO:

American Society for Radiation Oncology

Attn: Speed of Light – The ASTRO Foundation

251 18th Street South, 8th Floor

Arlington, VA 22202

speedoflight@astro.org

If to the Institution: (enter your information below)

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

2. **Award Management and Payment.**

- (A) Distribution: Subject to Institution's and Principal Investigator's submission of a signed copy of this Agreement and compliance with the Terms and Conditions required herein, ASTRO will distribute the Award as set forth in the RFP. The Award may only be used to fund the direct expenses of conducting the Research Proposal, and in no event may any portion of the Award be used for any indirect or overhead costs. Allowable costs for the Grant are defined in the RFP. Payments will be disbursed through ACH.
- (B) No Cost Extensions: Requests for extensions of time beyond the end date of the Award must be made to ASTRO in writing thirty (30) days prior to the end date of the Award and in compliance with ASTRO's written instructions. No additional funding will be made available for such extensions ("No Cost Extensions"). No Cost Extensions are granted on a case-by-case basis and in ASTRO's sole discretion, which approval shall not be unreasonably withheld. If a No Cost Extension is granted, ASTRO may request additional reporting from Institution and Principal Investigator in connection with the Research Proposal similar to that reporting set forth in Section 1(C) above.
- (C) Budget Deviations: Expenditures must adhere to the budget submitted to ASTRO by the Principal Investigator and included in the Research Proposal. In addition, expenditures must comply with the budget guidelines in the RFP and all applicable laws and regulations. Significant changes to the award budget requests are granted on a case-by-case basis in ASTRO's sole discretion.
- (D) Restrictions on Use of Funds: In no event may the Award be used for any of the following purposes:
 - i. To attempt to influence legislation or the outcome of any specific public election;
 - ii. To carry on, directly or indirectly, any voter registration drive;

- iii. To make, without ASTRO's written consent, grants to individuals or other organizations; or undertake any activities for other than a charitable, educational, or scientific purpose.

- (E) Award Closeout: To close out the Award, the Institution shall ensure submission of the Final Report and refund any unspent portion of the Award to ASTRO. Refunds should be received within 30 days after submission of the Final Report.

3. Confidentiality.

During the term of this Agreement, certain confidential information ("Confidential Information") may be disclosed by Principal Investigator and/or Institution to ASTRO or by ASTRO to the Principal Investigator and/or Institution. In such circumstances, ASTRO, Principal Investigator and Institution may all be considered either a Disclosing Party or a Receiving Party. Each Disclosing Party agrees to clearly identify in writing any such information as "Confidential Information" to any Receiving Party. If Confidential Information is transmitted orally, Disclosing Party shall provide written notice within thirty (30) days indicating that such oral communication constitutes Confidential Information. Notwithstanding the foregoing, any failure by either Party to mark documents confidential or to reduce oral disclosures to writing will not relieve the Receiving Party of its obligations herein if by the nature of the information, would reasonably constitute proprietary or confidential information. Each Receiving Party agrees: (A) to take reasonable measures, but in any event, no less stringent measures than it uses to protect its own confidential information, to protect the Confidential Information of the Disclosing Party; (B) the Confidential Information shall remain the sole property of the Disclosing Party; (C) to restrict internal access to Confidential Information and only disseminate such Confidential Information on a need to know basis, provided that representatives who receive such shall be bound by the confidentiality obligations set forth in this Section; (D) to use Confidential Information solely for the purpose of the Award; and (E) except as otherwise provided in these Terms and Conditions, not disclose such Confidential Information to any third parties. These confidentiality obligations shall not apply to information which is: (A) information known to the Receiving Party prior to receipt from or on behalf of the Disclosing Party; (B) information that is disclosed to the Receiving Party by a third person who has a right to make such disclosure without any obligation of confidentiality to the Disclosing Party seeking to enforce its rights under this Section; (C) information that is or becomes generally known in the trade without violation of this Agreement by the Receiving Party or is or becomes public knowledge without breach of this Award Letter; (D) information that is independently developed by the Receiving Party or its employees or affiliates without reference to the Disclosing Party's information, (E) information that is authorized for release in writing by the Disclosing Party, or (F) is required by law or regulation to be disclosed.

In the event that information is required to be disclosed pursuant to subsection (F), the Party required to make such disclosure shall notify the other to allow that Party to assert whatever exclusions or exemptions may be available to it under such law or regulation.

4. **Institution Representations and Certifications.**

Institution represents and certifies to ASTRO to the best of its knowledge that the Terms and Conditions hereof do not and will not conflict with or violate any provision of the articles of incorporation, bylaws, limited partnership agreement or any similar instrument of Institution, as applicable, in any material way, and do not and will not conflict with, violate, or breach or constitute a default or require any consent under, any contractual obligation, policy or law by which Institution is bound, including any agreements with or policies applied to its researchers, employees, contractors, or other sources of funding.

5. **Publications and Publicity.**

- (A) Publication and Presentations: BCRF and ASTRO anticipate that all scientifically significant results of the Research Proposal, whether negative or positive, will be published or otherwise publicly presented by Principal Investigator, the Institution or their designees. Any publication of research using the funding under the Award, unless otherwise requested by ASTRO, shall conspicuously acknowledge the support of the Breast Cancer Research Foundation (BCRF) and Speed of Light – The ASTRO Foundation Emerging Investigator Award and include the Grant Number provided in the Award Letter. Principal Investigator and Institution shall also acknowledge the Breast Cancer Research Foundation (BCRF) and Speed of Light – The ASTRO Foundation Emerging Investigator Award as a funding source in presentations reporting on research supported by the Award. Principal Investigator and Institution are expected to submit an abstract with results of the Research to the ASTRO Annual Meeting. Presentations or posters at major meetings must include a statement acknowledging support by a grant from Speed of Light – The ASTRO Foundation and the Breast Cancer Research Foundation.
- (B) Release of Information: Copies of all publications, articles, abstracts, or presentations, whether written or oral, related to the Research Proposal shall be provided to ASTRO, subject to the rights of publishers or other third parties to the extent such rights have been communicated to ASTRO in writing by Institution.
- (C) License: ASTRO will be entitled to use, refer to, reproduce, and disseminate reprints of scientific, medical, and other published articles, subject to the rights of other third parties, directly relating to the Research Proposal or this Award, without any further compensation to Principal Investigator, Institution or any third party under applicable copyright law. As between ASTRO and Institution, the intellectual property rights in and to the Research Outcomes created by use of the Award shall remain with Institution subject to the license below. Institution hereby grants to ASTRO a non-exclusive, royalty-free, perpetual, irrevocable, worldwide right and license to use, copy, distribute, display, publish, publicize, modify and perform the Research Outcomes for non-

commercial purposes only, subject to the rights of other third parties in the Research Outcomes.

- (D) Publicity: Except as set forth in this section, neither Party will use the name, symbols, or marks of the other Party in any form of publicity without prior written consent of the other Party; provided, however, that the Principal Investigator, Institution, and ASTRO may state factually on any of their websites and other materials the information authorized or approved per this Agreement. Furthermore, ASTRO may issue a press release and make public statements regarding the Award, the identity and general biographical information, any photographs or videos of the Principal Investigator and/or Institution and the general nature of the Award, its purpose, and the title and abstracts of any Research named as part of the Research Proposal, other published/printed information or materials (provided by the Principal Investigator) and Principal Investigator's activities on the ASTRO websites, social media platforms, periodic public reports, newsletters, news releases, publicly accessible databases of privately funded grant awards, or in any other format. If a Party wishes to make any other press or other announcement or release relating to this Agreement, the Research Proposal, or the Research occurring under this Agreement, that Party will discuss with, and obtain advance written agreement from the other Party regarding the content, form and manner of the announcement or release. If, and to the extent that the announcement or release is required to be made by the Party by law or by a stock exchange regulation, the Party will notify the other Party, Principal Investigator, and Institution, as applicable, in advance of the announcement or release to the greatest extent possible.

6. **Other Award Obligations.**

- (A) Principal Investigator must obtain all relevant approvals [e.g. Institutional Review Board ("IRB") or Institutional Animal Care and Use Committee ("IACUC") approvals] for the conduct of human- or vertebrate animal-subject research before research can begin. Principal Investigator and/or Institution must make these approvals available to ASTRO for review or audit upon request. ASTRO reserves the right to retract ASTRO funds from the Principal Investigator and/or Institution if the Principal Investigator and/or Institution conducts human or vertebrate animal subject research without having obtained relevant approvals from regulatory bodies such as an IRB or IACUC.
- (B) Principal Investigator is expected to send an electronic high-resolution, 300DPI, 4-color headshot photo (preferably 5x7 inches) and brief bio (~250 words) to ASTRO for use on the ASTRO websites, *ASTROnews* and in other applicable ASTRO publications.
- (C) To assist ASTRO with tracking the Principal Investigator's grant progress and career progression and impact of the ASTRO Grant program, Principal Investigator is expected to respond to ASTRO's related survey or email requests during or after the Award Period.

- (D) Records: Institution shall keep systematic and complete records on the receipt and disbursement of all Award funds and may not co-mingle any funds from other sources with the Award funds. Institution shall retain all such records for a period of at least three (3) years after the expiration date of the Award Period (as defined in the Award Letter), or for longer period(s) as may otherwise be required by applicable law. Institution shall make these records available to ASTRO for review or audit upon request at mutually agreeable times and during normal administrative business hours.

7. **Termination.**

(A) Termination

1. ASTRO reserves the right to terminate the Award immediately upon written notice if Institution (i) is unable to complete the Research Proposal; (ii) terminates or suspends the Research Proposal provided that Institution shall have the opportunity to cure such situation within thirty (30) days of receiving notice from ASTRO before termination may be effected; (iii) materially alters the Research Proposal; (iv) violates applicable laws or standards, or commits misconduct (including falsification, fabrication or plagiarism of data or results, omission of material data or results that occurs during the application process for, performance of or reporting on the Research Award, or other fraudulent or unlawful activity), as determined in ASTRO's discretion, or (v) upon the insolvency, receivership, bankruptcy filing, or dissolution of the Institution or ASTRO.
2. In addition, ASTRO may terminate this Award for breach of the Award Letter or these Terms and Conditions, if such breach is not cured within thirty (30) days of receipt of written notice thereof or immediately if such breach is deemed material or not subject to cure in ASTRO's reasonable discretion. Use of the Award grant for prohibited expenses shall be considered a breach of these Terms and Conditions.
3. Furthermore, if the Principal Investigator departs from, or is otherwise no longer affiliated with, the Institution (each, an "Investigator Departure"), ASTRO reserves the right to terminate the Award with respect to any or all parties to the Award in its discretion.
4. ASTRO reserves the right to modify or terminate the amount of funds granted under the terms of the ASTRO Award upon advance written notice.

- (B) Effects of Termination: In no event shall either Party be responsible for any lost profits or other lost opportunities arising from any early termination of this Award. In the event of early termination of the Award, the Institution shall promptly refund any unspent portion of the Award to ASTRO not associated with non-cancellable obligations in accordance with ASTRO's written instructions.

- (C) Transition Assistance: In the event of an Investigator Departure, the Institution agrees to assist ASTRO and/or its designee, with the orderly transfer of any of its obligations under the Award to ASTRO or ASTRO's designee as expeditiously as possible.
- (D) Survival: In addition to any provisions that by their nature survive expiration or termination of the Award, Section 1(C)-(D), 3-6, 7(C)-(D), and 8-9 shall survive the termination or expiration of the Award for any reason.

8. **Indemnification and Liability.**

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

9. **Miscellaneous Provisions.**

- (A) Force Majeure: Neither Party shall be liable for any failure to perform any obligations under the Award if such failure results from causes beyond its reasonable control, including, but not limited to, war, sabotage, insurrection, riots, civil unrest, fires, flood, epidemics, earthquake, or other similar occurrences (including any mechanical, electronic, or communications failure, but excluding failure caused by Institution's own financial condition or negligence). If a Party is unable to perform any obligations under the Award pursuant to this provision, the affected Party shall give immediate written notice to the other Party.

- (B) Governing Law: This Agreement will be governed by and construed in accordance with the laws of Virginia, without giving effect to its principles or rules of conflict of laws to the extent such principles or rules would require or permit the application of the laws of another jurisdiction.
- (C) Amendments: ASTRO may, with mutual written agreement with Institution, amend or add to these Terms and Conditions, subject to ASTRO's rights in Section 7 above
- (D) Nature of Relationship: Nothing in these Terms and Conditions or the Award Letter shall constitute a partnership or joint venture or establish a relationship of agency between or among ASTRO and any Institution. No employee of ASTRO or any Institution shall be considered to be an employee of any of the others, and neither ASTRO nor the Institution shall enter into any contract or agreement with a third party that purports to obligate or bind any of the others.
- (E) Waiver of Default or Breach: Failure to enforce the rights hereunder, regardless of the length of time such failure continues, shall not constitute a waiver of those or any other rights.
- (F) Assignment: The Award Letter or Award may not be assigned or transferred without ASTRO's prior written consent, and any attempted transfer or assignment in violation of the Award Letter or these Terms and Conditions shall be void and of no force or effect.
- (G) Entire Agreement: These Terms and Conditions, along with the Award Letter, the RFP, the Research Proposal, and the ASTRO Research Grant Policies, all of which are incorporated by reference, constitute the full agreement of the parties as it relates to the Award. In the event of any inconsistency between the Terms and Conditions and the Award Letter, the terms of the Award Letter shall govern and control.
- (H) Severability: Should any term or condition of the Award or these Terms and Conditions be determined to be unlawful by a court of law or adjudicative body with jurisdiction over the parties, the remainder will continue to remain in force and effect and shall be interpreted to best effect the original intentions of the parties.

The undersigned certify that they have read the above Terms and Conditions and are authorized to execute this Agreement to the Terms and Conditions on behalf of Institution, to obligate 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 Institution all agreements, representations, receipts, reports, and other instruments of every kind.

ACKNOWLEDGEMENT:

I, the **Principal Investigator**, acknowledge that I have read and understood the terms and conditions of this Grant and provide my consent and agreement on the provisions that pertain to the Principal Investigator, including but not limited to the provisions that relate to submitting to ASTRO's Annual Meeting, as well as the permissions granted regarding ASTRO's use of the Research Outcomes produced during the performance of the Research Proposal funded by the Award and of my name, likeness, and personal information as set forth in the Terms and Conditions. **I WAIVE ANY CLAIMS AGAINST BCRF, ASTRO, SPEED OF LIGHT – THE ASTRO FOUNDATION, AND THEIR AFFILIATES, DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS RELATED TO THE AWARD OR ANY PROJECT ASSOCIATED WITH THIS AWARD.**