ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant (Physics Seed)

Purpose:
The ASTRO-AAPM Physics Resident/Post-Doctoral Fellow Seed Grant (Physics Seed) is a joint effort to advance the field of radiation oncology in novel ways through the support of talented early-career scientists performing physics and radiation oncology-related research. The aim of the Physics Seed grant is to support the next generation of researchers.

The funded research must be focused on physics-related research in radiation oncology.

The award will provide up to $25,000 for 1 year. Neither ASTRO nor AAPM will pay indirect costs as part of this award. One award will be funded.

Eligibility Criteria:

- Applicants (PhD or equivalent) must be a postdoctoral fellow or physics resident at the start of the grant term on July 1, 2020.
- Applicants must be employed by a recognized US research institution at the time the application is submitted. Applicants from non-US institutions are not eligible for this award.
- The applicant must be an ASTRO and AAPM member in good standing.
- Applicants must designate a mentor, preferably one at the same institution, who will provide guidance and support for the successful completion of the proposed research project. Mentors should be accomplished investigators in the proposed research area, have a track record of success in training independent investigators and provide a letter of support detailing their oversight and support.
- The applicant must have available at the time of the award at least 75 percent of full-time professional effort devoted to research. The remainder may be devoted to clinical or other pursuits. Physics residents who provide written institutional support for 75% research time while completing a three-year residency or extension of a two-year residency are considered eligible.
- Recipients are required to contact ASTRO immediately if any problems are encountered that would prevent them from successfully completing the project.
- Recipients must submit available results of their research to (at least) either the ASTRO or AAPM Annual Meeting so they can present the findings of this research study at the meeting.
Commitment from Applicant’s 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.
- Applicants may also nominate co-mentors as appropriate to the goals of the program.
- It is expected that the mentor will meet with the recipient at least weekly.
- At least one mentor must be an active member of ASTRO and/or AAPM. This includes active, affiliate, international, associate, emeritus and honorary ASTRO members.

Commitment from the Applicant’s Institution

- The institution must be recognized as providing a rich environment for trainee career development.
- A responsible figure from the institution/department and the mentor must demonstrate, in writing, a commitment to the development of the applicant as a productive, independent investigator.
- A responsible figure from the institution/department and the mentor must demonstrate, in writing, intent for 75 percent of the recipient’s full-time professional effort to be devoted to research.
- The host department will act as the fiscal intermediary. The institution will pay the stipend to the winner and be responsible for satisfying tax withholding, deposit and/or reporting requirements applicable to the payment of the award. The winner will be responsible for individual income tax purposes.
- **ASTRO and AAPM do NOT pay institutional Facility and Administrative costs.**
- The institution will be required to provide sufficient additional funds to supplement salaries or supplies as needed for the research.
- Any change in institution, mentor and chair, or in the applicant’s position should be communicated as soon as possible to ASTRO so that appropriate action can be taken.
- When a mentor at the grantee 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 program and (3) the level of support for the applicant’s career development. The letter must also document that the specific aims of the research program will remain within the scope of the original peer reviewed research program.
General timeline

September 15, 2019  Release of RFA
February 15, 2020  Applications due at 11:59pm Eastern Standard time (GMT -5). ProposalCENTRAL application site closes
February - April, 2020  Review of application
June 30, 2020  Notification of award status
July 1, 2020  Awards begin

Application Guidelines

Applications must be submitted online at proposalCENTRAL: https://proposalcentral.altum.com/GrantOpportunities.asp?GMID=105

Deadline for submission is: 11:59 pm, Eastern Standard Time (GMT -5), Saturday, February 15, 2020

Formatting

All materials must be prepared in English, single spaced with normal spacing between letters and words, using a font style (size 10-12) that is easy to read such as Arial or Times New Roman. A minimum of one-half inch margins must be used on all page borders.

Each section must be loaded into ProposalCENTRAL. Applicants can stop at any point and save the application to be completed at a later time.

Submission Content

All applications must contain the following:

1. **Title Page**: Complete the grant application face page including the title, principal investigator name and contact information, human subject status, proposed dates of support, project costs, organization name and type, DUNS number, administrative official and signing official. Sign and date the application face page.

2. **Scientific Abstract**: Brief abstract (<750 words) that concisely describes the background, rationale, specific aims, experimental approach including model system and statistical approach, anticipated outcomes and impact of the project is required.

3. **Public Abstract** (will be posted on the ASTRO webpage): A brief abstract (<500 words) aimed at a public audience that concisely describes the project and impact is required. A clear statement of the study’s aim(s) (not to exceed one page).

4. **Research Proposal**: Proposal to include a narrative text and any preliminary data to justify a 1 year proposal, **limited to 6 pages maximum**, is required. Proposal should include within the 6 page limit the following sections:
   - Background
   - Preliminary data and figures (if applicable, but not required)
   - Specific aims
   - Experimental design/methods
   - Statistical analyses and statistics plan
   - Anticipated outcomes
• Potential pitfalls and alternatives
• Significance
• Future directions

References must be included but will not count toward the 6-page limit.

5. **Biosketches**: The applicant and lead mentor each must submit a biobibliography that includes a list of relevant publications and currently funded research projects (5-page limit). NIH or DoD formats will be accepted.

6. **Mentoring plan**: A detailed mentoring plan that outlines courses, lectures, meetings, and other ways to support the applicant and help increase likelihood of success should be included. This can be included in the letter of support from the mentor.

7. **Budget pages**: Submit a detailed budget (can be prepared using the NIH budget form like PHS39) with a breakdown of annual estimated costs and budget justification. ASTRO and AAPM will cover only direct costs, no facilities and administrative (F&A) costs will be covered.

8. **Letters of support (2)**: Upload 2 letters of support. One must be from your mentor and must outline the mentorship plan.

9. **Institutional letter of support**: Upload a letter of support from the institution or department. This letter should include a guarantee that the applicant will be afforded at least 75 percent protected time to perform research.

Applications lacking the required materials or in the incorrect format will be considered ineligible for review.

**Application Review Information**

All grant applications are subject to peer review. Reviewers come from the ASTRO Research Grants Evaluation Committee and the AAPM Science Council, typically. A study section consisting of researchers with expertise in the areas and topics of each grant will review the application for scientific merit and appropriateness for funding. Final decisions will be subject to the approval of the ASTRO and AAPM Boards of Directors.

Each grant will be evaluated based on several individual criteria scores. The final score will consider the overall impact and strength of the application, as well as individual criteria scores.

Individual scoring criteria are as follows:

1. **Impact** - The likelihood of the project to exert a sustained, powerful influence on the research field(s) involved (5%).
2. **Significance** – The significance of the proposed work to the research and/or the practice of radiation oncology. (15%)
3. **Investigator** – The Applicant’s strengths as an independent researcher, taking into account publications, training and experience. (25%)
4. **Project Plan** – The level of novelty and innovation of the proposed project, its feasibility of being completed within the grant timeline, the proposed statistical analyses, and the overall strength of the proposed plan. (30%)
5. **Statistical plan** – The statistical approach to data analysis (5%)
6. **Environment** – The level of commitment of resources, mentorship plan, time and resources that the applicant’s home institution can provide. (10%)
7. **Mentorship plan** – The efforts to be taken to help mentor the applicant and increase their potential success as a researcher. (10%)
In addition, the study section will consider the following factors, though they will not factor directly into the score:

1. The commitment of the applicant to a career in academic radiation oncology.
2. The budget of the proposed research plan is feasible to complete the aims outlined.

Selected proposals will have strong scientific merit and impact, possess an innovative and transformative approach, and demonstrate potential for progression to the clinic.

Funding decisions will be made through peer and programmatic review.

Questions can be directed to research@astro.org or 1.703.839.7368