



Research Resident/Fellow Grant

Policies and Procedures
Revision Date: September 2022

Purpose

To provide young investigators an opportunity to gain further insight into scientific investigation and to gain competence in research techniques and methods in anticipation of establishing a career in academic radiologic science.

Nature of Projects

- Any area of research related to the radiologic sciences, from hypothesis-driven basic science and clinical investigations to topics such as drug, device, and therapy development; comparative effectiveness, evidence-based radiology, ethics and professionalism, quality improvement, clinical practice efficiency, and imaging informatics.
- Applications should describe the unique nature of the research effort independent of existing research efforts and should have well-defined goals for the funding period of the grant. Participation of the recipient in established funded research is encouraged, but the responsibility and project of the recipient should be clearly described in the application.
- Projects focused on advancing imaging science, developing or evaluating medical imaging technology, or making innovative use of imaging science to answer important biologic or clinical questions are encouraged.
- This program is not intended to support those whose primary aim is to obtain practical experience in clinical radiology.
- This program is not intended to fund PhD post-doc projects.

Amount

\$75,000 United States Dollars (USD) for Research Fellow project OR
\$50,000 USD for Research Resident project

- See eligibility criteria for restrictions on use of funds.
- The RSNA Research & Education Foundation does not pay institutional indirect costs or overhead costs.
- Travel expenses for the RSNA Scientific Assembly and Annual Meeting may not be paid by this grant.
- Unexpended funds must be returned to the Foundation.

Award Terms and Payment

Research Resident/Fellow Grants start July 1 of the awarded year. Research Resident/Fellows have the option to complete a one- or two-year project, the total project effort for the duration of the grant should total 3.6 calendar months or 30% effort. Grant funds will be paid to the institution in one installment. Ten percent (10%) of the total grant award will be withheld by the Foundation, to be released only upon receipt of an acceptable grant final report within 60 days of the termination of the grant.

Deadline for Application

Applications must be completed online and submitted with scanned signature page by 11:59 PM CT on **January 18**. Applicants may apply 6 months or 12 months before the scheduled start date. If the deadline date falls on a weekend or holiday, the deadline will be extended to the next business day. Applications will not be accepted after the deadline date. Applications that are not complete, do not comply with the instructions, or do not have properly executed signatures, will not be reviewed. See the Foundation's Website for details, [RSNA.org/foundation](https://www.rsna.org/foundation).

Eligibility

- Applicant must be an RSNA Member (at any level) at the time of application and throughout the duration of the award. If the applicant's membership category is Member-in-Training or any other non-dues paying category, the scientific advisor or one of the co-investigators must be a dues paying member.
- Applicants within North American educational institutions must be residents or fellows in a department of radiology, radiation oncology, nuclear medicine or medical physics at the time of application.
 - **Resident Grant:** Radiology, radiation oncology and nuclear medicine applicants must have completed the internship year (PGY-1) and at least 6-months of specialty training in the radiologic sciences (PGY-2). Medical physics residents must have completed at least 6-months of medical physics residency training.
 - **Fellow Grant:** Applicant should be in the last year of, or have completed, the prescribed residency training. If awarded, recipient must be in a fellowship position during the period of grant support.
 - Applicant must be certified by the American Board of Radiology (ABR)/ Royal College of Physicians and Surgeons of Canada, or on track for certification. See the American Board of Radiology Website for details, [TheABR.org](https://www.theabr.org).
 - Funds may be used for salary and/or non-personnel research expenses.
 - Integrated and Independent Interventional Radiology (IR) Residency Program trainees may apply for the Research Fellow Grant for funding to be used during their IR-specific residency years (PGY-5/PGY-6 for Integrated IR residents; PGY-6/PGY-7 for Independent IR residents).

- Applicants from outside North America must already be accepted into a one- or two-year Fellowship position at a North American education institution at the time of the grant application. Candidates may apply for the grant before arriving at the North American institution if documentation of the accepted fellowship is provided.
 - Applicant must be in the last year of, or have completed, the prescribed residency training.
 - Applicant must be certified, or on track for certification, by the radiology board in their home country.
 - The one-year research project must be completed while the recipient is at the North American institution.
 - R&E Foundation funds can only be used for non-stipend expenses associated with the proposed research.
- Applicants must not have ever held a faculty position in the radiologic sciences at or above the level of assistant professor (or equivalent).
- Applicant must not have been principal investigator on external/extramural grant/contract amounts totaling more than \$60,000 in a single year. The restriction on prior funding includes support from single or combined grants or contracts from any source including government, private or industrial/commercial sources.
- Applicant/co-principal investigator(s) must not be agents of any for-profit, commercial company in the radiologic sciences.
- Applicant may not submit more than one research or education grant application to the RSNA R&E Foundation per year.
- Recipients may not have concurrent RSNA grants.
- Supplementation of funding from other grant sources must be approved by Foundation staff if not described in the original research plan. Awards from other sources may be approved by Foundation staff if the investigator submits a satisfactory plan to address any budgetary overlap.

Selection Criteria/Review Process

A study section consisting of physicians and scientists 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 Board of Trustees of the Research & Education Foundation. Nominees will be notified of the outcome of their applications via email.

The following guidelines will be applied in the review process:

Research Plan: Evaluate the proposed research project as suitable for a resident or fellow in training. If the research is part of a larger effort in an established lab, is the project for which the resident or fellow is responsible clearly defined? An evaluation should include, but is not limited to the following criteria:

- **Significance and Innovation:** Does the research address an important and relevant problem in which imaging may play an important role? What is the likely impact on clinical care or advancing radiologic science if successful? Is the research to be considered innovative? Innovation and significance are important parameters, but not to the same degree as might be expected for a Seed or Scholar Grant.
- **Approach:** Is the hypothesis clear and well developed? Are the experiments well designed and appropriate to test the hypothesis? Is the proposed statistical analysis of the data appropriate for the study design? Is there a reasonable chance of completion within the time frame of the grant? Is the budget realistic for the research proposed? Proposals that are well beyond the expectations of a resident or fellow and cannot be completed in the timeline of the proposal and grant period, should be discouraged. Is there a suitable plan for the protection of human subjects as well as does the investigator address issues related to inclusion based on gender, minorities and children?

Applicant and Advisors: Evaluate the suitability of the applicant as it relates to the proposed research. Will this experience enhance the applicant's investigative or educational skills? Will the experience increase the likelihood that the resident candidate will pursue an academic career? Is the time commitment realistic? Has the applicant sought out suitable experienced sponsors or advisors that can help them through the process? Does the scientific sponsor/advisor have background knowledge and experience related to the proposed project, with evidence of ability and commitment to mentoring?

Facilities: Evaluate the commitment of the institution, the department and individual research labs, if applicable, to provide adequate support for the applicant. Is appropriate space and equipment available? Are the support faculties such as computer services and statistical assistance adequate?

CONDITIONS OF THE RSNA RESEARCH RESIDENT/FELLOW GRANT

1. Commercial Sponsorship

A portion of the total funds available for the RSNA R&E Foundation's grant programs is in the form of endowments from commercial companies or other sources; some recipients may have their grant named after a company. Grant awards are named only after funding decisions have been made. Company named awards do not imply commercial endorsement of the grant recipient, the research or the institution. Similarly, named awards do not imply endorsement of the commercial sponsor by the grant recipient or the institution. An institution's inability to accept endowed awards will not preclude the award.

2. Publicity of Award Recipients

The R&E Foundation will issue a press release and publicize the award in its print and electronic properties. Information submitted in the application and subsequent reports including the recipient's name, institution, likeness, project title and abstract can be utilized in the promotion of the award. Other external promotional opportunities are at the discretion of the individual recipient.

3. Progress Reports

Recipients must submit an interim report six months after the start of the project. A final report must be submitted to the Foundation's address within 60 days after completion of the project. Reports are distributed to the Foundation's Board of Trustees and cosponsoring entity if applicable, to determine the effectiveness and success of the program. Failure to comply with the final report requirement may negatively affect the home institution department's eligibility to receive future funds from the RSNA R&E Foundation.

Interim and final reports are to be submitted electronically (MS-Word) by email attachment with CC to the department chair and scientific advisor(s), if applicable. Complete reports must address each of the following:

Interim Report:

1. Provide a short summary statement of the project status.
2. Restate the specific aims/goals of your research plan and indicate the progress made toward each aim/goal. **Include all supporting data as an appendix.**
3. Indicate any deviations you have made from the original research plan and justify these changes.
4. Indicate the expenditures you have made to date and how they relate to the project.
5. Indicate any problems or delays that you have encountered; for example, problems in obtaining protected time to do research, slow patient accrual, etc.

Final Report:

1. Prepare an expanded abstract consisting of 1500 – 2000 words divided into Purpose, Methods, Results and Conclusions. Include appropriate tables, figures and references.
2. Restate the specific aims/goals of your research plan and indicate the progress made toward each aim/goal. **Include all supporting data as an appendix.**
3. Indicate any deviations you have made from the original research plan and justify these changes. If you did not reach one or more of your initial goals, explain why.
4. Indicate the expenditures you have made to date and how they relate to the project.
5. Indicate any problems or delays that you have encountered; for example, problems in obtaining protected time to do research, slow patient accrual in the study, etc.
6. Indicate if the results from your studies are being prepared for publication or will be prepared for publication within the next six months.
7. Indicate if the results from your studies will be used as preliminary data in a grant application to another granting agency.
8. Indicate the clinical significance and future clinical impact of the results of your study.
9. Indicate the strengths and weaknesses of the grant program in which you participated.
10. Indicate the influence or role that the grant from the RSNA Research & Education Foundation had on your career or will likely have in the future.

4. Annual Survey

Recipients agree to participate in an annual survey that will help the Foundation's Board of Trustees track current contact information, additional grant monies received from other sources, scientific publications, and career advancements.

5. Publications

Scientific and educational manuscripts resulting from R&E Foundation-funded projects must be submitted first to the RSNA Scientific Assembly and Annual Meeting to be considered for presentation, and/or to *Radiology*, *RadioGraphics*, *Medical Physics*, or the *International Journal of Radiation Oncology, Biology and Physics* to be considered for publication (right of first refusal). Manuscripts that are not accepted for publication in one of the four listed journals may be submitted to the journal(s) of the authors' choice. Authors who wish to bypass the right of first refusal process must receive written permission from the Grant Program Committee/Board of Trustees. One reprint of each publication produced as a result of RSNA R&E Foundation-funded work should be sent to the Foundation's address for distribution to the Trustees. All posters, publications, and oral presentations of R&E Foundation-funded projects must contain appropriate acknowledgment of the Foundation's support and sponsoring commercial company (if applicable).

6. Extension

Any request for a no-cost extension of this grant must be made in writing to the chair of the Grant Program Committee at the Foundation's address before the expiration of the original grant period. The request must state the reason(s) for the extension, length of the extension requested, and an explanation of how the reason(s) for the delay has been rectified. Requests must be co-signed by the department chair. Interim reports must be submitted every six months during the extension period. Other requests for changes to the terms of an award should be addressed to the chair of the Grant Program Committee with similar documentation and institutional approvals.

7. Modification or Termination of Support

The Trustees reserve the right to modify or terminate the amount of any funds granted under the terms of the Research Resident/Fellow Grant program. If the support level has to be modified by the RSNA R&E Foundation Board of Trustees for any reason, the grant recipient will be notified in writing at least 90 days prior, and the investigator will have the option to modify the research plan or terminate the grant.



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Application Instructions

To enter a new application click "New" application button under the appropriate grant type.

Section I: Proposed Research Title

Enter proposed research title, click save and continue to proceed to the application.

Section II: Abstract

Click "Enter Abstract Text" link to enter text into the abstract box.

Abstract not to exceed 300 words.

Abstract should serve as a succinct and accurate description of the proposed plan.

The abstract should include the long-term goals of the proposed work and the methods to be used. Data collection and analysis should be summarized along with the potential clinical significance and future clinical impact of this work.

Section III: Project Short Summary

Click "Enter Project Short Summary Text" link to enter text into the project short summary box.

Project Summary, maximum 3 sentences

Communicate the public health relevance of the project to donors and the general public. Using plain language understandable by a general audience.

Section IV: Research Profile

Select up to two research categories that align with your proposal. The information selected will be used to help match your proposal with study section members that have compatible interests, expertise and experience.

Section V: Additional Project Details

- A. Please enter the total dollar amount requested from RSNA to support this project (across all years of the project):

Note: You will need to include a budget and justification at the end of the application.

- B. Research Assurances.

Will the project involve any of the following? *Funded applicants will be required to submit appropriate forms before grant funds are released*

Human Subjects?

Vertebrate Animals?

Ionizing Radiation/Radioactive Isotopes?

Other, requiring institutional research assurance approvals? (recombinant DNA, etc)?

- C. Location of Study:

Specify the institution, department and country where the research/education project will take place

- D. Investigator Additional Details

Are you currently certified by the American Board of Radiology (ABR) or equivalent?

Enter name of certifying agency.

Select specialty.

Key Training Dates (degrees, completion of residency and fellowship training)

Current year of training, or faculty position/rank

Time allocated to the proposed project, and to other duties. Specify a percent and time.

- E. Priority Statement:

Describe your area of professional/scientific interest(s) and long-term career goals and objectives. Explain how the opportunity of a Research Scholar Grant relates to the personal plans and ambitions of the applicant, and to the priorities of the nominating institution. Describe the applicant's potential for advancement in faculty rank during or shortly after the proposed program, any other information that might be helpful in the evaluation of the application. **Not to exceed 1000 words.**

F. Resubmission Information:

Is this application based on a proposal previously submitted to the RSNA R&E Foundation within the past two years?

Please provide brief details of the previous submission. If you cannot recall the details, contact the R&E Foundation grants@rsna.org

The following details are needed:

- Grant Program:
- Year of Submission:
- Grant Title:
- Grant ID:
- Funding Outcome:
- Summary of the reviewer comments and explanation of how each issue has been addressed in the current application:

Section VI: Radiation Oncology Applicants Only

To support the Foundation's fundamental objective of supporting imaging science(s) along with a desire to promote team science with radiology collaborations, the R&E Foundation requires a multi-disciplinary approach for all radiation oncology grant applications. **To achieve this, radiation oncology grant applications are required to have (1) an imaging component or (2) partnership with a mentor/advisor or co-investigator in a radiology department.**

Section VII: Investigators

Other Investigators: (if any) Other investigators/scientific advisors/consultants who will contribute significantly to the project should be listed.

Please upload biosketches as ONE file at the end of the application. When uploading biosketches, include a description of the role they will play in the proposed research project within each personal statement.

Section VIII: Scientific Advisor

To be completed by the scientific advisor

- A. Name, degrees, title/faculty rank
- B. Percent of time that will be devoted to the proposed research project and brief description of the advisor's role as mentor for the applicant (an Advisor must be designated to provide advice on all aspects of the project, including the performance and interpretation of the data, and preparation of any publication, presentation or additional grant submissions arising from the grant). **Not to exceed 1000 words**
- C. Describe the extent to which the applicant was responsible for developing and writing the research proposal. Relationship and overlap with existing research programs should be specified in detail. **Not to exceed 500 words.**

Section IX: Uploads

Font, Page Formatting, and Figures: Conventional font types (*Arial, Times New Roman, Helvetica, etc.*) and a font size no smaller than 11-point should be used. Page margins should be no less than 0.5 inch. Embedded figures should adhere to the page margins and should have descriptive figure legends. Figure legends can be smaller than 11-point but must be legible.

Required files:

Submit ONE PDF file in the following order:

1. Biosketches For all key personnel, an NIH-style biosketch must be provided. When uploading biosketches, include a description of the role key personnel will play in the proposed research project within each personal statement. Biosketch page limits to be followed as those outlined by the NIH.

2. Resources and Environment: Describe major equipment, laboratory, clinical, animal, office/computer, support services, education resources, and other facilities (simulation centers, survey cores, etc) that will be available for this project.

3. Detailed Research Plan

Not to exceed 5 pages, including figures, tables, etc.. Use 0.5" margins and size 11 Arial font. Additional pages may be included for the bibliography.

A. Specific Aims

List the broad, long-term objectives and the goal of the specific research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology. One/half page is recommended.

- B. **Background and Significance**
Briefly sketch the background leading to the present application, critically evaluate existing knowledge, and specifically identify the gaps that the project is intended to fill. State concisely the importance and health relevance of the research described in this application by relating the specific aims to the broad, long-term objectives. If the aims of the application are achieved state how scientific knowledge or clinical practice will be advanced. Describe the effect of these studies on the concepts, methods, technologies, treatments, services or preventative interventions that drive this field.
- C. **Preliminary Studies**
For new applications, use this section to provide an account of the PI's preliminary studies pertinent to this application. This information will also help to establish the experience and competence of the investigator to pursue the proposed project. Preliminary data is welcome but not required for Resident, Fellow, Scholar and Seed Grant applications. If there is no preliminary data, provide supporting evidence in the existing literature.
- D. **Research Design and Methods**
Describe the research design conceptual or clinical framework, procedures, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. **Describe the applicant's specific roles in each phase of the project.** Describe any new methodology and its advantage over existing methodologies. Describe any novel concepts, approaches, tools, or technologies for the proposed studies. Discuss the potential difficulties and limitations of the proposed procedures and alternative approaches to achieve the aims.
- E. **Timeline of events**

4. Budget & Other Sources of Support

Detailed Budget & Justification. **The RSNA Research & Education Foundation does not pay institutional overhead costs or indirect costs.** Travel expenses for the RSNA Scientific Assembly and Annual Meeting may not be paid for by this grant.

Please use the provided budget template and include a budget justification along with detailed information on other sources of support (pending and received).

5. Letters of Support (if applicable)

Letters of recommendation/support are not required or accepted; however, if equipment or supplies for the proposed study will be provided by a source other than the applicant's department (such as a commercial company), include a letter of intent/agreement from that source. Similarly, if the study involves significant collaboration with individuals other than the scientific advisor, include appropriate letters of agreement.

- No letter from scientific advisor or department chair
- Letters of intent should be included only from sources/collaborators outside the applicant's institution;
- Letters should be written to the grant applicant, not to RSNA
- Letters should address only the deliverables that will be contributed to the project (equipment/supplies, time/expertise, etc.)
- Letters should not include specific comments on the project or recommendations of the applicant

6. Signatures

Enter names and contact information for your department chair, scientific advisor (if applicable) and grant administrator. Download the signature page (PDF), obtain signatures, and upload the signed document into the application.

Submit the Application Online

When all sections of the application have been completed, click the "Review My Work" button, to submit and view the compiled grant application. Make sure the data and uploaded documents have been formatted correctly. You may download a print-friendly version of your submission from this page and opt to have an emailed confirmation of your submission emailed to you.

Questions?

Keshia Osley, Assistant Director, Grant Administration
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