

# **DR. ERNEST J. RING ACADEMIC DEVELOPMENT GRANT**

## **PURPOSE**

To provide support to junior interventional radiology faculty members early in their academic careers to allow time for the conduct of research. The goal of this grant is to have the recipient subsequently obtain additional funding from other peer-reviewed sources, (e.g., National Institutes of Health (NIH) grants). SIR and SIR Foundation believe in promoting a culture of inclusion and strengthening the specialty of interventional radiology (IR) through different perspectives.

## **AWARD**

Up to \$100,000 (\$50,000 a year for two years).

## **NATURE OF PROJECTS**

This funding mechanism is intended for junior IR faculty with dedicated research time. Applications should propose research that will advance the science of Interventional Radiology.

## **EXAMPLES OF RESEARCH TOPICS**

Projects may include but are not limited to topics such as:

- Advanced Imaging to aid with interventions / Artificial Intelligence in IR
- Non-oncologic pain palliation with needle-based interventions
- Biliary Interventions / Endoscopy
- Amputation in underserved populations as well as racial disparities in CLI
- Education in the era of virtual learning

## **ELIGIBILITY**

Eligible candidates must be full-time faculty members at an accredited educational institution in the United States or Canada. Candidate must hold an MD, DO, PhD, or equivalent degree. Applications from non-Society of Interventional Radiology (SIR) members will be considered, but such applications are required to have significant input and involvement by an SIR member.

Applicants should be individuals who have not yet been recognized as independent investigators or recipients of major grant support (i.e., current grants exceeding \$50,000). Those in residencies or fellowships or those generally considered advanced students in training rather than full-time faculty are not eligible for this grant. Applicants must be within the first five years of their initial faculty appointment after having completed all formal training. Only applicants holding a position up to and including the assistant professor level at the time of application are eligible.

Applications will be accepted from citizens of the United States or Canada or those who have permanent resident status therein. Permanent residents must submit documentation of their status. If an applicant is at an institution in the US or Canada and is on a visa, a letter from the department chair guaranteeing completion of the project will be required.

The grant may be applied towards the applicant's salary and it is expected that the applicant will have a minimum of 30% dedicated research time. Only one application may be submitted in a given year from each institution. Support from the applicant's chair is required. In addition, the applicant must have a mentor who will guide and supervise the proposed research. The mentor should have documented research interests and accomplishments in the applicant's research area and must hold a position at the assistant professor level or higher.

Grant recipients will not be eligible for concurrent support through other SIR Foundation Research Grants. SIR Foundation will not accept applications that are essentially the same as one already reviewed and funded through another organization. There can be no scientific overlap.

- Scientific overlap occurs when (1) the same research proposal is submitted to more than one

application or submitted to two or more funding sources for funding consideration and (2) specific research objective and research design are the same or are closely related in two or more applications.

## **APPLICATION DEADLINE**

Applicants are to submit their completed application via the online form found at: [apply.sirfoundation.org](http://apply.sirfoundation.org).

**Applications are due by close of business day on January 15, 2022.** The deadline remains whether or not the date falls on a weekend and/or holiday. Applications that are not completed or do not comply with the guidelines, will be withdrawn.

**NOTE:** To enhance the competitiveness of the Dr. Ernest J. Ring Grant proposals, applicants are **required** to take advantage of the Proposal Development Form to obtain external input on the fundamentals of grant writing and how to maximize the impact of their research program. The form must be submitted by **June 30, 2021** to receive feedback.

## **REVIEW PROCESS**

Completed applications will be distributed to the members of the SIR Foundation Grant Review Study Section. A primary and secondary reviewer will be assigned based on their expertise in the particular area of the proposed investigation. A Study Section will be held at the SIR Annual Scientific Meeting. All applications will be discussed and funding recommendations will be made during this study section. Funding recommendations will be taken to the SIR Foundation Board and final decisions will be made in the weeks following the SIR Annual Scientific Meeting. Applicants will be notified in writing of the SIR Foundation's final funding decision.

Funding decisions are based on the overall impact/priority score which reflect assessment of the likelihood for the project to exert a sustained, powerful influence on the field of interventional radiology based on the following review criteria and additional review criteria:

- 1. Significance.** Does the project address an important problem or a critical barrier to progress in the interventional radiology? If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive the specialty of interventional radiology?
- 2. Investigator.** Are the PI, collaborators, and other researchers well suited to the project? Does the principal investigator have the appropriate experience and training? Have they demonstrated an ongoing record of accomplishments that have advanced interventional radiology?
- 3. Innovation.** Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?
- 4. Approach.** Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed?
- 5. Environment.** Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the

investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

**In addition, the review committee will take the following factors into consideration:**

**Protection of human subjects.** For research that involves human subjects, 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

**Inclusion of Women, Minorities, and Children:** When the proposed project involves clinical research, the committee will evaluate the proposed plans for inclusion of minorities and members of both genders, as well as the inclusion of children

**Vertebrate Animals.** The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following five points: 1) proposed use of the animals, and species, strains, ages, sex, and numbers to be used; 2) justifications for the use of animals and for the appropriateness of the species and numbers proposed; 3) adequacy of veterinary care; 4) procedures for limiting discomfort, distress, pain and injury to that which is unavoidable in the conduct of scientifically sound research including the use of analgesic, anesthetic, and tranquilizing drugs and/or comfortable restraining devices; and 5) methods of euthanasia and reason for selection

**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.

**Resubmission.** For Resubmissions, the committee will evaluate the application as now presented, taking into consideration the responses to comments from the previous scientific review group and changes made to the project.

**Applications from Foreign Organizations.** Reviewers will assess whether the project presents special opportunities for furthering research programs through the use of unusual talent, resources, populations, or environmental conditions that exist in other countries and either are not readily available in the United States or augment existing U.S. resources.

**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.

**Letters of support.** Letters of support from industry and/or memorandums of understanding with collaborators will be taken into consideration.

## **PAYMENT SCHEDULE**

Upon submission of a fully executed grant agreement, awarded funds will be transmitted to the institution for support of the grant recipient and the project. Funds will be distributed in three installments over the course of the grant project period: 50% at the start of the project, 40% upon receipt of the 12-month progress report, and 10% upon receipt of a cover letter and the final report in manuscript format.

Please provide the following information:

- 1) Grant Official or Grant Administrator's name, phone number, and email address
- 2) Check made payable to:
- 3) Mailing address (where payment should be mailed)

## APPLICATION PROCEDURES

Applicants should propose research that advances the science of interventional radiology. The application must contain a detailed research plan, including a two- year budget for the planned research with all funding sources indicated. All funds requested in the application must be fully justified. Insufficient justification or failure to describe completely the sources and use of other funds available to the investigator will result in deferral or disapproval of the application.

Two letters of recommendation are necessary. One should come from the department chair indicating commitment to provide the required level of protected research time and additional salary support for the applicant. A second letter should come from the applicant's mentor delineating the mentor's and applicant's interests and experiences in the proposed research area.

The application must be submitted electronically through the online application found at <https://sir.secure-platform.com/a/organizations/main/home> by **January 15, 2022**.

Applications must be submitted in PDF format. Incomplete applications and those submitted after the deadline of **January 15, 2022** will not be reviewed.

**NOTE:** Applicants are required to submit the Proposal Development Form by **June 30, 2021** to receive external input on the fundamentals of grant writing and how to maximize the impact of their research program. The form must be submitted by **June 30, 2021** to receive feedback.

## REPORTS

**An Interim Progress Report (IPR) is required after the first 12 months of the project.**

The interim progress report must be submitted electronically through the online forms found at [apply.sirfoundation.org](http://apply.sirfoundation.org). This report should be a one-page synopsis of the progress, unforeseen problems, and results to date.

Included with the report should be a cover letter that:

1. States the specific aims/goals of the research project(s) and summarizes the results to-date relating to each specific aim/goal (all supporting data should be included, if applicable);
2. Indicates the significance/possible clinical impact of the results;
3. States whether the results will be submitted for possible publication, and if so, to what journal;
4. Indicates whether results will be used to apply for additional funding from other sources, and if so, the funding agency and date of application (should be included).
5. When uploading your Interim Progress Report (IPR) to our online forms, you must save your Interim Progress Report using the naming convention below. The year should be the year that you were awarded.
  - a) **2022\_IPR\_Ring\_Mary Johnson**

**A final written report must be submitted within sixty (60) days of the project's completion.** The Final Progress Report (FPR) must be submitted electronically through the online forms found at [apply.sirfoundation.org](http://apply.sirfoundation.org).

The Final Progress Report (FPR) should include the following, as applicable:

1. A Statement of the accomplishments/outcomes of this grant
2. The current and future impact (e.g. success stories, statistics, benefits to patients, staff, and/or community)
3. The use of this award to leverage other funding
4. An account of any unexpended funds and/or major modifications of the budget.
5. Include Signature of Principal Investigator/Program Director's name, Signature of Authorized Institutional Official, and Date.
6. When uploading your Final Progress Report (FPR) to our online forms, you must save your Final

Progress Report using the naming convention below. The year should be the year that you were awarded.

a) **2022\_FPR\_Ring\_Mary Johnson**

### **PRESENTATIONS/PUBLICATIONS**

It is suggested that recipients submit their work primarily to JVIR or to the SIR Annual Scientific Meeting. All posters, oral presentations, and publications must contain appropriate acknowledgement of SIR Foundation's support.

### **NO-COST EXTENSION**

An extension of the term of the grant may be requested for up to twelve (12) months beyond the original ending date of the grant. The approval of an extension does not include the award of additional funds. A maximum of two 1-year extensions may be requested.

The request for a no-cost extension must be made in writing to the Grant Review Committee at SIR Foundation's address one (1) month before the original project end date. The request must include the reason for the extension, the length of the extension (not to exceed twelve (12) months), and a brief project progress report, including to date findings, problems encountered, presentations/publications resulting from the work, and budget expenditures. The request must be co-signed by the department chair or other authorized institutional official.

Other requests for changes to the terms of an award should also be addressed to the Grant Review Committee with similar documentation and institutional approvals.

### **MODIFICATION OR TERMINATION OF SUPPORT**

SIR Foundation reserves the right to modify or terminate the amount of any funds granted under the terms of the Dr. Ernest J. Ring Academic Development Grant. Generally, such action would be based on the awardee's receipt of support from sources other than SIR Foundation which might (1) limit the ability of the recipient to successfully complete the terms of the grant or (2) obviate the recipient's need for funding from SIR Foundation.

In the event that the awardee transfers to a different institution, a request in writing to relocate the grant to the new institution may be made to the [Manager of Research and Grants](#) at the Foundation's address. SIR Foundation will continue project funding provided the recipient is guaranteed support, protected research time, and adequate equipment/facilities from the new institution (i.e., letter from department chair) as well as IRB approvals, if applicable. If the new institution cannot provide the necessary support or IRB approvals for the project, the original institution may appoint a new principal investigator, with SIR Foundation's approval, to complete the project. If the project cannot be completed at the new or the original institution, then all unexpended funds must be returned to SIR Foundation.

### **AWARD EXPENSES**

The recipient is expected to be relieved from routine responsibilities to sufficiently devote at least 30% of time to the research project.

Budget expenses can be used for costs directly related to the project which include, but are not limited to the applicant's salary, salaries for research assistants/technicians working on the proposed project, materials and supplies, equipment, service function charges (e.g., pathology costs, animal per diem charges, reasonable imaging machine time, etc.), and travel expenses for attendance at related conferences. Institutional indirect costs, construction expenses, and secretarial or office expenses will not be funded.

If the project involves the use of human subjects, animals, radioisotopes, or biohazards, documentation of approval from the appropriate institutional review board(s) (IRB) must be provided before an award can be funded.

Any unused funds must be returned to SIR Foundation.

## **GRANT APPLICATION FORMAT**

When uploading your grant application to our online form, you must save your grant application using the naming convention below.

2022\_APP\_Pilot\_Mary Johnson  
2022\_APP\_Ring\_Mary Johnson  
2022\_APP\_Academic Transition\_Mary Johnson  
2022\_APP\_Funding Source\_Mary Johnson  
2022\_APP\_Resident Grant\_Mary Johnson  
2022\_APP\_Culp\_Mary Johnson  
2022\_APP\_Allied Scientist\_Mary Johnson

If you have a resubmission you must save your grant application using the naming convention below.

2022\_APP\_Resubmission1\_Ring\_Mary Johnson  
2022\_APP\_Resubmission2\_Ring\_Mary Johnson

All the items detailed below must be included in the application before it will be considered. The format should follow the guidelines used for NIH applications and an example is posted on the SIR Foundation website.

### **I. Title Page:**

- A. Title of research project;
- B. Lay statement of the proposed research project and its relevance to interventional radiology;
- C. Name, faculty position, and department of principal investigator and mentor, as well as other professional personnel collaborating in the research project;
- D. Brief abstract (ten (10) to twenty (20) lines), with keywords underlined;
- E. Beginning and termination dates of proposed expenditures;
- F. Total funding requested;
- G. Signatures of principal investigator, mentor, and department chairperson;
- H. Contact information (name, address, phone, fax, email) for the grants office at the principal investigator's institution.

**II. Description of Research Plan:** The applicant must present his/her research logically and clearly and show that the proposed research is meaningful. (LIMIT—Twelve (12) PAGES FOR SECTIONS A-B)

### **A. Specific Aims:**

State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the 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. (1 page)

**NOTE: The Proposal Development Form is intended to specifically address the creation of an effective Specific Aims page. The deadline for assistance using this program is **June 30, 2021.****

### **B. Research Strategy:**

Organize the Research Strategy in the specified order and using the instructions provided below. Start each section with the appropriate section heading – Significance, Innovation, Approach. Cite published

experimental details in the Research Strategy section and provide the full reference in the References Cited section

**Significance.** Explain the importance of the problem or critical barrier to progress in interventional radiology. Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in interventional radiology or other fields. Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive interventional radiology will be changed if the proposed aims are achieved. (0.5 pages)

**Innovation.** Explain how the application challenges and seeks to shift current research or clinical practice paradigms. Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions. Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation, or interventions. (0.5 pages)

**Approach.** Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims. If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high risk aspects of the proposed work. Point out any procedures, situations, or materials that may be hazardous to personnel and precautions to be exercised. (3-4 pages)

If an applicant has multiple Specific Aims, then the applicant may address Significance, Innovation and Approach for each Specific Aim individually, or may address Significance, Innovation and Approach for all of the Specific Aims collectively.

Include preliminary studies within the Research Strategy section, within one or more of the three sections listed above: Significance, Innovation, and Approach. Discuss the PI's preliminary studies, data, and or experience pertinent to this application, preliminary data is an essential part of a research grant application and help to establish the likelihood of success of the proposed project. Early Stage Investigators should include preliminary data.

**C. Human or Animal Subjects, Radioisotopes, and Biohazards:** Provide documentation that the institution has approved all proposed human, animal, radioisotope, and biohazard use

**D. Budget Proposal:** List budget items in the following main categories and give details and justification of the items in each category:

1. Salary of principal investigator. Salaries of technicians, students, or support personnel working on the project may be requested, but must be well justified;
2. Consumable supplies including animal purchase costs;
3. Equipment: Identify each item, show unit cost, and explain why it cannot be borrowed;
4. Other expenses including animal maintenance costs (only those costs essential to the conduct or reporting of the research);
5. Total budget (not to exceed \$50,000 per year).

**E. Other Support:** Describe all funding currently available to the applicant as well as any pending grant support, and describe the relationship these funds may have to the proposed research;

**F. Literature Cited.**

### **III. Supporting Materials**

- A. Resources: Describe the facilities available for conduct of the proposed research including lab space, equipment, computers, technical/statistical support, etc.
- B. Brief biographical sketch of all investigators in NIH format (Not to exceed four pages for each investigator).
- C. A letter from the department chair that:
  - 1. Indicates approval of the application;
  - 2. Comments on the merit of the project;
  - 3. Explains the extent to which the department is supporting the applicant's research in terms of funding, level of protected research time, technical support, and available facilities. It is essential that the chair's letter indicate commitment to support the salary of the applicant during the research period;
  - 4. If applicable (see "Eligibility" above), guarantees the proposed research will be completed if funded.
- D. A letter from the mentor that:
  - 1. Indicates a commitment to act as mentor for the applicant;
  - 2. Describes the mentor's and applicant's interests and experiences in the research area;
  - 3. Comments on the merits of the project and its relevance to interventional radiology.
- E. Letter(s) of confirmation from company(s) providing materials needed to complete the proposed research.