

AWARD GUIDELINES

The IARS Mentored Research Awards (IMRA) are intended to support investigations that will further the understanding of clinical practice in anesthesiology and related sciences. Up to four research projects will be selected annually to receive up to \$175,000 each, payable over two years. The grants are intended to help create future leaders and prepare applicants to apply for independent research funding.

*Interested applicants may apply by submitting an online application (instructions included).
Applications for this award must be submitted by April 30, 2019.*

Applicant Eligibility Criteria

- Principal applicant must be an IARS member.
- Principal applicant must be an investigator who has yet to establish substantial independent research funding or who is initiating a new area of research.
- Duration since completion of clinical training or PhD must be under 10 years.
- Applicants must have a minimum of 45% protected non-clinical time.
- Prior recipients of the IARS Clinical Scholar Research Award are not eligible to apply.
- Prior or current recipients of NIH R grants, NIH K grants, AHA Young Investigator Awards, VA Career Development Awards, or the equivalent, are not eligible to apply. IMRA recipients may not be simultaneously receiving support from an NIH T32 grant. IARS does not allow for concurrent funding of an IMRA with these or similar awards.
- Prior or current recipients of Foundation for Anesthesia Education and Research (FAER) Mentored Research Training grants are not eligible to apply.

Research Project Guidelines

- The proposed project may be in any area of investigation (clinical, translational, basic science), but must have ultimate relevance to the broad practice of anesthesiology and its subspecialties.
- Applicants should present a clear research plan and the proposed project must be pertinent to anesthesiology.
- Applicants must identify a senior mentor whose participation is vital to the success of the study.
- Applicants must have an appointment in a successful Principal Investigator's group.
- The involvement of human subjects and/or vertebrate animals, as well as IRB and/or IACUC approval status, must be indicated in the application. Submitting the IMRA application with pending approvals is acceptable, however, approval must be obtained prior to award funds being allocated, and documentation of approval and patient informed consent forms (if applicable) must be submitted upon request.

Application Process

- The official online application on proposalCENTRAL must be used.
- All information requested in the application and attachments must be supplied. Failure to do so will disqualify the application.

Application Review and Recipient Selection

- An External Advisory Board, appointed by the IARS Board of Trustees and Research Committee, will review all applications. Awards are granted at the sole discretion of the IARS.
- Applications will be reviewed on the basis of scientific merit, adequate preliminary data, career potential of

the investigator, and importance of the investigation to the specialty of anesthesiology.

- Priority funding will be awarded to proposals that are independent of other extramural support.
- Up to four projects will be selected to receive a maximum of \$175,000 each, payable over two years.
- Winners will be announced in July 2019.

Award Details

- The maximum award amount for any selected project is \$175,000, payable over two years.
- Institutional indirect expenses will not be funded.
- Award funds will be allocated in two equal installments of \$87,500.
Consideration will be given to requests for unequal payment installments.
 - The second and final installment is contingent upon receipt of a satisfactory progress report submitted to IARS.
- A final progress report and budget reconciliation must be submitted to IARS at the conclusion of the project.
- Any and all publications resulting from research that has utilized IARS funds must indicate the following:
"Supported (or 'Supported in part') by a grant from the International Anesthesia Research Society."

APPLICATION INSTRUCTIONS

Applicants must be IARS members and must submit an online application using the proposalCENTRAL website (<https://proposalcentral.altum.com>).

Deadline to submit an application is 11:59 PM EST on April 30, 2019.

Getting started in proposalCENTRAL

- *If you are a new user of proposalCENTRAL*, click the orange 'Create One Now!' button to register as a new user in the system. After you register, complete your Professional Profile (4th tab from the left) before starting an application.
- *If you are already registered with proposalCENTRAL*, login with your username and password.
- To start an application, select the "Grant Opportunities" tab (tab furthest to the right). A list of applications will be displayed. Find the Grant Maker "International Anesthesia Research Society" and "IARS Mentored Research Award." Click the "Apply Now" link to create an application.

If you have difficulties registering, logging in, or creating your application, contact proposalCENTRAL Customer Support:

Toll-free U.S. and Canada: (800) 875-2562

Direct Dial International: (703) 964-5840

Email: pcsupport@altum.com

Application Format

The following information is required to submit a complete application. Numbers correspond to the application sections that appear on the left side of the online application.

1. **Title Page.** Enter the title of the research project. The title is limited to 75 characters in length (including

spaces). Enter total amount requested in U.S. dollars.

2. **Download Templates & Instructions.** The Program Guidelines and Application Instructions document and all required templates to be completed and submitted with the application can be downloaded from this section. Click the “Download” button to save each of the templates to your computer. Complete each template and convert completed templates to PDF format. You will upload these completed templates in PDF format, along with additional required attachments, in Section 11 of the application. Please see below in Section 11 for more instructions on how to complete and upload templates and attachments.
3. **Enable Other Users to Access this Proposal.** Optional. This section allows you to give other users access to your grant application, with varying levels of permissions.
4. **Applicant/PI.** Enter information for the applicant.
 - Indicate that the applicant is an active IARS member.
 - Indicate if the applicant is a resident in training.
 - Indicate that the duration since completion of clinical training or PhD is less than 10 years.
 - Indicate that the applicant has a minimum of 45% protected non-clinical time.
5. **Institution & Contacts.** Enter information regarding the lead institution, Signing Official, Financial Officer, Department Chair, Applicant’s Mentor for the proposed project, and the Principal Investigator of the research group, of which the applicant is a member. The applicant must identify a senior mentor whose participation is vital to the success of the study. The applicant must also have an appointment in a successful PI’s group.
6. **Collaborators.** Enter information regarding any co-investigators on the project. If no co-investigators are involved in the proposed project, leave this section blank. Additionally, please provide the names of significant contributors to the proposed research project. For example, list your Mentor, Co-Mentor, Previous Mentors (last 3 years), external advisors, advisory committee members, consultants and co-authors of publications (last 3 years).
7. **Project Summary.** Enter a brief description of the proposed project, including the aim and relevance to anesthesiology, directly into the space provided. Please note that your answer is limited to 2,000 characters (including spaces) and any additional characters beyond the limit will be truncated. To ensure that you comply with the character limits, it is advised to draft your answers in Microsoft Word or similar program before entering them into proposalCENTRAL.
8. **Budget Period Detail.** Enter direct research expenses per budget period (Budget Periods 1 and 2 are separated in different windows). Complete Year 1 expenses first, then Year 2. NOTE: Award funds may NOT be used for indirect costs or institutional overhead. These are not allowable expenses.
9. **Budget Summary.** A summary of the proposed budget appears here (fields are auto-populated per the data entered in Section 8). If applicable, provide a detailed budget justification in the space provided (explain and justify major equipment purchases, unusual supply requests, and patient care costs). Enter “N/A” if not applicable. Please note that your answer is limited to 3,000 characters (including spaces) and any additional characters beyond the limit will be truncated. To ensure that you comply with the character limits, it is advised to draft your answers in Microsoft Word or similar program before entering them into

proposalCENTRAL.

10. **Organization Assurances.** Indicate if the proposed project involves Human Subjects and/or Vertebrate Animals. If your study involves Human Subjects, please complete the Protections for Human Subjects checklist and indicate the status of IRB approval and the date of approval (if approval is pending, enter date the request was submitted). If your study involves Vertebrate Animals, please complete and upload the Vertebrate Animals Section checklist and indicate the status of IACUC approval and the date of approval (if approval is pending, enter date the request was submitted). The assurances/certifications are made and verified by the signature of the institutional official signing the "Certification and Acceptance of Terms" form. If a grant is awarded, documentation of IRB and/or IACUC approval (if applicable) must be submitted upon request. NOTE: submitting the IMRA application with pending IRB and/or IACUC approval is acceptable; however, approval must be obtained prior to the allocation of award funds.

11. **Attachments.** Prepare and upload the following documents into your application in portable document format (PDF). Use templates where provided.
 - Required documents:
 - 1) **NIH Biosketch – Applicant/Principal Investigator**
 - Upload this document as a PDF. Not to exceed 5 pages.
 - 2) **NIH Biosketch – Mentor**
 - Upload this document as a PDF. Not to exceed 5 pages.
 - 3) **Letter of Recommendation – from Mentor**
 - A letter of recommendation written by the applicant's mentor is required. The mentor must explain his/her participation in the proposed study.
 - The letter should be composed on institution or department letterhead, signed, and given to the applicant to be uploaded to the application in PDF format.
 - 4) **Mentorship Plan – from Mentor**
 - A mentorship plan prepared and written by the applicant's mentor is required.
 - The plan should be given to the applicant to be uploaded to the application in PDF format.
 - 5) **Letter of Recommendation – from Department Head**
 - A letter of recommendation written by the Department Chair is required. The Chair should address the applicant's non-clinical time commitment, the department's dedication to career development, and future plans relevant to the applicant and proposed project.
 - The letter should be composed on institution or department letterhead, signed, and given to the applicant to be uploaded to the application in PDF format.
 - 6) **Proposal Narrative (template)**
 - Download the template, complete, save as PDF, and upload.
 - Follow detailed instructions below. Proposal Narrative is limited to 7 pages, including figures and tables, excluding references.
 - 7) **Data and Safety Monitoring Plan – include only for clinical trials (template)**
 - Download the template, complete, save as PDF, and upload.
 - Provide a general description of a monitoring plan that you intend to establish as the overall framework for data and safety monitoring for your clinical trial.
 - 8) **Facilities (template)**
 - Download the template, complete, save as PDF, and upload.
 - Provide a description of the research facilities, resources, and equipment that are available to

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- the applicant and that will allow successful implementation of the proposed research program.
- 9) ***Applicant Activities During Award Period (template)***
 - Download the template, complete, save as PDF, and upload.
 - For each award year, indicate the applicant's percent effort/committed time dedicated to each area. (Note: Applicants must have a minimum of 45% protected non-clinical time to be eligible for this award.)
 - 10) ***Applicant Career Development Plan (template)***
 - Download the template, complete, save as PDF, and upload.
 - Per the instructions, outline how the proposed research project will complement the principal applicant's career development and help prepare for a future as an independent scientist.
 - 11) ***Other Support (template)***
 - Download the template, complete, save as PDF, and upload.
 - Per the instructions, provide active, applied for, and pending support for the principal applicant, mentor, and any co-investigators.
 - 12) ***Principal Applicant Current and Prior Research Funding (template)***
 - Download the template, complete, save as PDF, and upload.
 - Per the instructions, list all current and prior funding and career development awards.
 - 13) ***Certification and Acceptance of Terms (template)***
 - Download the template, complete, save as PDF, and upload.
 - This document requires three signatures (Applicant, Department Head, Dean/Designated Institutional Official).

Optional documents:

- ***NIH Biosketch – Co-Investigator*** (*Upload as PDF. Not to exceed 5 pages per co-investigator.*)
- ***Human Subjects Checklist***
- ***Vertebrate Animals Checklist***

12. **Validate.** Validate the application on proposalCENTRAL. This is an essential step and checks for required data and attachments. You will not be able to submit your application unless all of the required information has been provided. An application that has not been validated cannot be submitted.
13. **Application Preview.** After successfully validating your application, you may click "Print Signature Pages and Attached PDF Files" to preview your application. NOTE: The Signature Pages are NOT required. You do not need to do anything with these pages. Required signatures are obtained on the Certification and Acceptance of Terms document.
14. **Submit.** Once you have clicked the "Submit" button, an email will be sent to you confirming your submission.

Proposal Narrative Content and Guidelines

This section is adapted from the U.S. Department of Health and Human Services Public Health Service Grant Application Instructions (PHS 398).

Begin each section of the Proposal Narrative with a section header (e.g., Introduction, Specific Aims, Research Strategy, etc.).

- **Introduction and Specific Aims** (Limit: 1 page)
 - 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.
- **Research Strategy** (Limit: 6 pages)
 - **Significance**
 - Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
 - Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
 - Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.
 - **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 intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s).
 - Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation or interventions.
 - **Approach**
 - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Indicate how the data will be collected, analyzed, and interpreted, as well as any resource sharing plans as appropriate.
 - 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.
 - May include preliminary studies.
 - Discuss the PI's preliminary studies, data, and/or experience pertinent to this application.
- **Bibliography and References Cited** (No page limit)
 - Provide a bibliography of any references cited in the Proposal Narrative.
 - Each reference must include names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication.
 - Follow scholarly practices in providing citations for source materials relied upon in preparing any section of the application.

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- References should be limited to relevant and current literature that is pertinent to the proposed research.
 - **Rigor and Transparency Requirements**
 - In the planning process, investigators will need to consider how to address the basic principles of rigor and transparency and include how the following four areas of focus apply to their proposed research.
 - *Scientific Premise:* Applicants must ensure that there are key data to justify the premise for the project.
 - *Scientific Rigor:* The applicant must provide a rigorous experimental design, including strategies that ensure robust and unbiased results.
 - *Consideration of Relevant Biological Variables:* Applicant must address relevant critical biological variables, such as sex, age, source, weight, genetic strain.
 - *Authentication of Key Biological and/or Chemical Resources (not score-able):* Applicants should include a brief description of resources that are integral for the proposed project, for example cell lines, specialty chemicals, antibodies, and other biologics.

Formatting Guidelines for Attachments

- **Font:** Use an Arial, Helvetica, Palatino Linotype or Georgia typeface, a black font color, and a font size of 11 point or larger.
- **Margins:** Page margins should be no less than 0.5 inch on each side for all pages. Template margins may be altered within these specifications.
- **Spacing:** Single-spaced text is acceptable. Space between paragraphs is recommended.
- **Page numbering:** The Proposal Narrative must be numbered consecutively. Do not use suffixes (e.g.5a, 5b).
- **Figures, Graphs, Diagrams, Charts, Tables, Figures Legends, and Footnotes:** Text must be readily legible. Font size of 9 point of larger is recommended.
- **Grantsmanship:** Use English and avoid jargon. If terms are not universally known, spell out the term the first time it is used and note the appropriate abbreviation in parenthesis; the abbreviation may be used thereafter.

Inquiries

Inquiries or technical issues regarding proposalCENTRAL and the online application process should be directed to customer support at (703) 964-5840, or toll free at (800) 875-2562, or by email at pcsupport@altum.com.

Inquiries about the IMRA guidelines, eligibility requirements, and application materials can be directed to IARS. Please contact Tricia Brazil at tBrazil@iars.org or awards@iars.org.