



RESEARCH FUND OF THE AMERICAN OTOLOGICAL SOCIETY

FUNDING OPPORTUNITIES

I. PURPOSE

The purpose of the American Otological Society (AOS) Research Fund is to encourage and support academic research in sciences related to the ear. All of the AOS grant awards may involve research on any topic related to ear disorders. The research need not be directly on an otological disease but may explore normal functions of the cochlea, labyrinth, or central auditory or vestibular systems. However, the applicant must describe how the proposed research will benefit our understanding, diagnosis or treatment of otological disorders.

II. TYPES OF GRANT MECHANISMS

There are four types of funding opportunities available each year. Please review the following table and apply to the mechanisms that best fits your situation.

Title	Maximum Requested Budget	Renewable?	Targeted applicants
Research Grant	\$55K for one year (\$50K direct costs, \$5K indirect costs)	No. Re-applications will be reviewed as a new application	Faculty, either MD and/or PhD
Fellowship Grant	\$44K for one year (\$35K stipend, \$5K supplies, \$4K indirect costs)	No. Re-applications will be reviewed as a new application	Clinical fellows, residents, medical students, post-doctoral fellows (both MD and PhD), and graduate students
Clinical Investigations Grant	\$66K for one year (\$60K direct costs, \$6K indirect costs)	There is a possibility for renewal for a second year, but applications will be reviewed competitively as a new application	Anybody
Clinician-Scientist Award	\$240K for three years (\$80K per year)	A progress report is required for every year of funding, but the grant will typically be renewed unless something untoward happens or the PI gets a K08/K23 Award.	Faculty (MD), typically at a junior level who are aiming to develop a career as a clinician-scientist

Table 1. The four types of AOS grant mechanisms

III. POLICIES SPECIFIC TO THE RESEARCH GRANT, FELLOWSHIP GRANT, AND CLINICAL INVESTIGATIONS GRANT

A. ELIGIBILITY

These grants are available to physician or doctoral-level investigators in the United States and Canada only. Specific funding criteria are given in Table 1.

B. QUALIFICATION AND CRITERIA FOR REVIEW

A research proposal will qualify for review when it involves studies that pertain to the function or dysfunction of the ear, specifically the auditory and/or vestibular system. A statement is to be included under the Research Plan explaining how the proposed research will benefit our understanding, diagnosis or treatment of otological disorders.

C. AWARD LIMITATIONS

The maximum total award request is given in Table 1. in US dollars. Indirect costs (overhead) are allowed in an amount not to exceed 10% of direct costs, but the total award amount cannot exceed what is listed in the table. Thus, for example, a Research Grant could be submitted with a \$55K total budget, with \$50K in direct costs and \$5K in indirect costs.

No funds may be requested or used for investigators' travel or salary except for the stipend permitted with the Fellowship Grant, or in unusual circumstances which must be justified by the investigator and approved by the AOS Research Advisory Board.

These awards are intended to be for one year. The goal is for the applicants to accrue seed data that will permit them to apply to another agency (such as the NIH or DoD) for a larger, long-term grant. However, applicants may submit another application the following year but it will compete for funding with all of the other new applications.

D. CONDITIONS OF SUPPORT

The project period is for one year with a beginning date of July 1. A project period may be extended for another twelve months without additional funds (no cost extension) if requested by the Principal Investigator and approved by the Executive Secretary and Chairman before the end of the project period.

A grant may be revoked or terminated by the AOS Research Advisory Board at any time within the project period if it is determined that the Principal Investigator or the Grantee Institution has failed in a material respect to comply with the terms and conditions of the grant.

E. GRANT APPLICATION FORMATS

RESEARCH GRANTS

The American Otological Society uses a simplified version of the NIDCD Early Career Research Award (R21) application for this grant programs. There are no forms to fill out. Instead, all applications must be formatted using 11-point Arial font, with page margins set to be 0.5 inches circumferentially. The Principal Investigator's name must appear on each page. The completed application should be submitted in Adobe PDF format. Applications must meet the formatting rules to be considered.

For questions, please follow the NIH instructions for an R21 application as explained at: <http://grants.nih.gov/grants/how-to-apply-application-guide.htm>. All institutions that submit NIH grant applications will have personnel who can help you to follow the appropriate formatting and submission guidelines. If you follow the instructions, you will not be penalized.

Maximum number of pages permitted	Contents
1	Title page to include: <ol style="list-style-type: none"> 1) Title of the project 2) Dates of proposed research (must be 7/1 – 6/30) 3) Name, address, email, and phone for the Principal Investigator 4) Name, address, email, and phone for the Signing Official at the applicant institution 5) IRB/IACUC approval number or a statement indicating that it will be provided prior to the initiation of funding 6) Lines for the Signatures of the Principal Investigator and the Signing Official
1	Budget Page to include: <ol style="list-style-type: none"> 1) Budget and justification 2) A statement regarding the percent effort that the Principal Investigator will allocate to this project 3) A list of key personnel, their institutions, and their roles in the project
1	Specific Aims
3	Research Strategy to include these sections: <ol style="list-style-type: none"> 1) Significance 2) Innovation 3) Approach
No limit	Bibliography
Per NIH guidelines	Biosketches for each key personnel using the latest NIH format
No limit	Letters of support (i.e. from key personnel)

Table 2. Research grant application format.

FELLOWSHIP GRANTS

The American Otological Society uses a simplified version of the NIH NRSA Individual Postdoctoral Fellowship (F32) application for this grant programs. There are no forms to fill out. Instead, all applications must be formatted using 11-point Arial font, with page margins set to be 0.5 inches circumferentially. The Principal Investigator's name must appear on each page. The completed application should be submitted in Adobe PDF format. Applications must meet the formatting rules to be considered.

For questions, please follow the NIH instructions for an F32 grant application as explained at:

<http://grants.nih.gov/grants/how-to-apply-application-guide.htm>. All institutions that submit NIH grant applications will have personnel who can help you to follow the appropriate

formatting and submission guidelines. If you follow the instructions, you will not be penalized.

Maximum number of pages permitted	Contents
1	Title page to include: <ol style="list-style-type: none"> 1) Title of the project 2) Dates of proposed research (must be 7/1 – 6/30) 3) Name, address, email, and phone for the Principal Investigator 4) Name, address, email, and phone for the Signing Official at the applicant institution 5) IRB/IACUC approval number or a statement indicating that it will be provided prior to the initiation of funding 6) Signatures of the Principal Investigator and the Signing Official
1	Budget Page to include: <ol style="list-style-type: none"> 1) Budget and justification 2) A statement regarding the percent effort that the Principal Investigator will allocate to this project 3) A list of key personnel, their institutions, and their roles in the project
1	Applicant's background and goals for training
1	Specific Aims
3	Research Strategy to include these sections: <ol style="list-style-type: none"> 1) Significance 2) Innovation 3) Approach
No limit	Bibliography
3	Sponsor (mentor) statement to include: <ol style="list-style-type: none"> 1) Research support available 2) History and outcomes of previous trainees 3) Training plan 4) Applicant's qualifications and potential for a research career
Per NIH guidelines	Biosketches for each key personnel using the latest NIH format
No limit	Letters of support (from key personnel other than the mentor)

Table 3. Fellowship grant application format.

CLINICAL INVESTIGATIONS GRANTS

This grant is similar to a NIH R21 grant. The goal is to accrue preliminary data to support an R21 or R01 grant application to the NIH. Thus, the application requires a complete NIH-style R21 application, with all of the required sections.

Please use the R21 application as explained at:

http://grants.nih.gov/grants/guide/parent_announcements.htm

The application is a fillable PDF form that can be downloaded. It allows you to attach files containing the different sections of the grant.

We want you to follow the instructions and submit this exactly as if you were submitting an R21 grant application. The goal, of course, is that you will use this opportunity to also submit an application to the NIH. All institutions that submit NIH grant applications will have personnel who can help you to follow the appropriate formatting and submission guidelines. If you follow the instructions, you will not be penalized.

Applicants are to follow the NIH instructions, including page limits, as explained at:

<http://grants.nih.gov/grants/how-to-apply-application-guide.htm>

However, for the purposes of this grant mechanism, we require you to alter the submission process a little bit.

1) The maximum funding is only for 1 year, and the direct and indirect costs are detailed in Table 1. Thus, you should use the Modular Budget Form (not the R&R Budget Form), but keep the budget within these constraints.

2) Everything else should follow the NIH instructions. In particular, human subjects research requires including the planned enrollment report, protection of human subjects, inclusion of women and minorities, and inclusion of children sections. All institutions that submit NIH grant applications will have personnel who can help you to follow the appropriate formatting and submission guidelines. If you follow the instructions, you will not be penalized.

3) The Research Strategy section can only be 6 pages maximum.

IV. POLICIES SPECIFIC TO THE CLINICIAN-SCIENTIST AWARD

A. ELIGIBILITY

Candidates for this award must: 1) hold or be approved for full-time university faculty appointment at the rank of Assistant Professor in a department or division of Otolaryngology - Head and Neck Surgery; 2) be citizens of the United States, or have been lawfully admitted for permanent United States residency at the time of application; 3) hold a Doctor of Medicine (MD) or equivalent degree from an accredited institution awarded within the last 10 years; 4) have completed an ACGME-approved otolaryngology residency program; and 5) have demonstrated the capacity or potential for a highly productive, independent research career with an emphasis in otology/neurotology. Preference will be given to candidates who have recently (within the preceding three years) completed, or are currently enrolled in a two-year otology/neurotology fellowship.

The AOS Clinician-Scientist and his or her mentor(s) are encouraged to use preliminary research results from this award as pilot material for the development of a research grant application to a suitable funding agency. Specifically, this grant mechanism is designed to permit the budding clinician-scientist adequate time and mentoring to accrue preliminary data to

successfully apply for a K08/K23 grant from the NIH. Therefore, individuals who have already competed successfully for a career development award from a private or Federal funding agency are ineligible for this award program. The grantee may not receive concurrent research salary support from other agencies or sources during the period of this grant. Accordingly, funding from the AOS will be terminated once the Clinician-Scientist secures Federal funding for a Career Development Award.

B. QUALIFICATION AND CRITERIA FOR REVIEW

Research and research training supported by this award may be related to any research questions relevant to otology or neurotology, as long as it is demonstrated that the training will have a direct impact on the individual's ability to pursue his or her long-range research objectives. Note that the AOS Clinician-Scientist Award is not restricted to research pertaining to otosclerosis or Meniere's disease.

All candidates must be sponsored by the Chair of his/her Division or Department, and by an official representative of the institution which would administer the award and in whose name the application is formally submitted.

The applicant is responsible for selecting a research mentor at the academic institution to which the award will be made, and for making arrangements to work with that person. The designated mentor must be the faculty member who will directly supervise the proposed research training and evaluate the awardee's progress. An applicant may have a co-mentor if his or her research interests cross areas of expertise. **Selection of a mentor is a key step in the application process and will constitute an important review criterion.** In general, the applicant should seek a successful researcher who has recent publications in the area of research, experience in the research techniques to be applied, and, optimally, external grant support from NIH or other major agencies. Location in a department that will provide a stimulating and supportive research environment is an additional factor to consider.

The applicant's mentor should be an active investigator in the area of the proposed research who will directly supervise the candidate's research. The mentor must document the availability of staff, research support, and the curriculum and facilities for high-quality research career development in otology/neurotology.

The AOS Clinician-Scientist Award will be awarded on the basis of the scientific merit of the proposed research, the training and research environment at the parent institution, the qualification of the mentor(s) at the candidate's institution, the support of the Department Chair and the candidate's promise for a research career in otology/neurotology as a clinician-scientist.

C. AWARD LIMITATIONS

1. *Award amount:* Up to \$240,000 maximum total (direct plus indirect) costs (\$80,000 per year). Institutional indirect costs are limited to 8% of the direct costs, in conformity with NIH policy for career development awards.

2. *Period:* Up to 3 years, renewable yearly. Funds are available to support one project for up to three years.

3. *Funding:* One award to be made, contingent on the recommendation of the AOS Research Advisory Board.

4. *Use of Funds:* A detailed budget and budget justification constitute part of the application and will be evaluated for appropriateness as part of the review process. Funding may be used to support up to \$70,000 of the grantee's salary each year during the period of the award, within

the total allowable costs. The parent institution may supplement the stipend, provided that such supplementation is in accordance with its usual policies and does not impose a service obligation in conflict with the protected research time requirements.

Up to \$20,000 (within the total allowable costs) may be designated for research supplies, equipment, and other costs each year, and should be identified in the budget as such. The allowance may be used for supplies and equipment for the AOS Clinician-Scientist's research, purchase and maintenance of experimental animals; consultation fees (e.g. biostatistical fees), and similar research-related expenses. Equipment and supplies purchased with this Award become the property of the parent institution and may not be removed from the institution without its specific release.

D. CONDITIONS OF SUPPORT

The candidate must devote at least two and one-half days per week (i.e. 50% effort) to the proposed research and research training activities during the period of the award. Applications must be accompanied by letters of support from both the applicant's mentor *and* from the Department/Division Chair, verifying that the applicant will be permitted to devote the specified amount of time to the proposed research and research training activities.

Renewal of support for years two and three will depend on submission of progress reports from the grantee. This report is in addition to the reports required by all AOS grants, as explained in the following section. This progress report should be submitted in PDF format annually by the Jan 31 deadline, and it should include the following components:

- 1) A short progress report on the research project (max two pages).
- 2) A list of grants applied for since the last progress report.
- 3) A list of papers submitted since the last progress report. Highlight those manuscripts supported by the AOS Clinician-Scientist Award.
- 4) A statement regarding the trainee's perceived progress towards applying for a K08/K23 grant. If things are not moving forward as fast as expected, please list changes you are making to make appropriate progress (max two pages).
- 5) A letter from the mentor describing the trajectory of the trainee's career development and his/her productivity, with bullet point lists highlighting the strengths and weaknesses.
- 6) A letter from the Chair documenting a minimum of 50% research effort.
- 7) An updated biosketch of the trainee in the latest NIH format.

Compliance with this requirement may, rarely, be assessed in site visits by representatives of the AOS Research Advisory Board.

E. GRANT APPLICATION FORMAT

CLINICIAN-SCIENTIST AWARD

This grant is similar to a NIH K08/K23 grant. The goal is to accrue preliminary data to support a K08/K23 grant application to the NIH. Thus, the application requires a complete NIH-style K08/K23 application, with all of the required sections.

Please use the K08 or K23 application:

http://grants.nih.gov/grants/guide/parent_announcements.htm

Select the appropriate mechanism, click the button partway down the page to "Apply Using Downloadable Forms", and then select the small button in white entitled "Proceed to Grants.gov to Download Application". You can then "Select the package", enter your email

address, and then click "Submit" to download the application. You will only be able to open it using Adobe Reader outside of a web browser.

The application is a fillable PDF form that allows you to attach files containing the different sections of the grant. We want you to follow the instructions and submit this exactly as if you were submitting an K08/K21 grant application. All institutions that submit NIH grant applications will have personnel who can help you to follow the appropriate formatting and submission guidelines. If you follow the instructions, you will not be penalized.

Applicants are to follow the NIH instructions, including page limits, as explained at: <http://grants.nih.gov/grants/how-to-apply-application-guide.htm>

However, for the purposes of this grant mechanism, we require you to alter the submission process a little bit.

- 1) The funding is only for 3 years, and the direct and indirect costs are detailed in Table 1. Please keep the budget within these constraints.
- 2) Everything else should follow the NIH instructions. In particular, human subjects research requires including the planned enrollment report, protection of human subjects, inclusion of women and minorities, and inclusion of children sections. Animal research requires the vertebrate animal section.

V. GENERAL POLICIES FOR ALL AOS GRANTS

A. GRANTS ADMINISTRATION

Awards are made to an Institution on behalf of a Grantee. All investigators, any mentors and collaborators are responsible for using grant funds for the purposes set forth for the specific award type. The grantee's Institution is obligated to administer the award in accordance with regulations and policies currently in effect governing the United States Department of Health and Human Services' Public Health Service Grants except in those areas where the AOS has made noted exceptions.

B. PROJECT CHANGES

Changes in project methodology or approach are permissible if these changes expedite achievement of the project's objectives and are approved in writing by the Executive Secretary in response to a letter of request and explanation from the Principal Investigator.

When the Principal Investigator is to be absent for a period of three months or more, or wishes to withdraw from the project or to transfer to another institution, the Executive Secretary of the AOS Research Advisory Board must be notified immediately. Disposition of the grant will be determined by negotiation.

C. PUBLICATION AND PUBLICITY

Investigators are expected to make the results of their research promptly available to the scientific public. Publicity regarding scientific results of a project must conform to the policies of the Grantee Institution, with proper acknowledgment of support by the Research Fund of the American Otological Society, who should be notified.

In carrying out its stewardship of research programs, the American Otological Society may request information essential to an assessment of the effectiveness of this program. Accordingly, the recipient is hereby notified that s/he may be contacted after the completion of the award for periodic updates on various aspects of employment history, publications, support

from research grants or contracts, honors and awards, professional activities, and other information helpful in evaluating the impact of this program.

D. ACCOUNTING RECORDS AND AUDIT

Accounting records for the grant should be in accord with the Grantee Institution's accounting practices. A year-end report of expenditures must be completed to show the exact nature of expenditures for each project period, and submitted within four months after the end of the grant period.

E. REPORTS

1. **A 6-month progress report** is due by January 20th for publication in the Spring AOS Program & Abstract book. This should be written in Abstract form and be no more than 750 words.
2. **A Year-End Financial Report** (in US dollars) must be submitted within four months following the termination of the grant period (by October 31). For audit purposes and to insure financial and research accountability, this year-end report of expenditures must be completed for each one-year grant project period (July 1 - June 30). A single no-cost extension may be requested by the principal investigator prior to the end of the funding period via email to the Executive Secretary of the AOS Research Fund with an explanation and revised budget justification.
3. **A Research Report** must also be submitted within four months following the end of the grant period (by October 31).

F. HUMAN SUBJECTS AND ANIMAL RESEARCH

If the proposed research involves human subjects or vertebrate animals at any time, and does not qualify for a recognized exemption, the project must be reviewed and approved by the appropriate Institutional Review Board (IRB) and/or Institutional Animal Care and Use Committee (IACUC) of the applicant institution before an award can be issued. IRB or IACUC approval is not required in order for an application to be reviewed, however IRB or IACUC approval is required before an award can be funded.

G. GRANT SUBMISSION PROCESS

The American Otological Society Research Fund only accepts grant applications and reference letters electronically. Please prepare your application electronically with your preferred word-processor and after that convert the final document to a PDF file using Adobe Acrobat or the free Adobe Acrobat Reader. Reference letters may be electronically prepared and signed as PDF documents, or may be scanned as PDF documents, in order that they may be submitted as part of the grant application.

All components of the application be collated and submitted in a single PDF file. For the Research Grant and Fellowship Grant, this will be a PDF file created by the applicant. For the Clinical Investigations Grant and Clinician-Scientist Award, this will be the fillable NIH PDF form with all of the appropriate attachments uploaded into it.

The Principal Investigator (applicant) and Institutional Official are required to sign the original grant application's Face Page. All awards are made to the institution with which the Principal Investigator is affiliated, *not to the Investigator or his/her Division or Department*. For this reason, it is very important that applicants comply with their home institutions' policies with regard to pre-submission processing of grant applications. **THIS CAN TAKE TIME, SO IT IS WISE TO PLAN AHEAD, ALLOWING ADEQUATE TIME FOR INSTITUTIONAL PROCESSING AND APPROVALS.** Applicants are advised to consult their institution's office of research administration or sponsored projects for information on processing requirements for an application prior to its submission.

It is acceptable to scan the Face Page to capture the physical signatures. However, for the rest of the application, it is preferable to save as PDF from the word processing document if it is not already in PDF format. A final, single PDF can then be assembled and submitted.

H. DEADLINES

November 1: A letter of intent must be submitted by November 1st of the year prior to funding.

The letter must state the grant mechanism for the proposal, the Principal Investigator, Institution(s) for the work, a preliminary title, and an abstract that summarizes the proposal and contains the Specific Aims. The entire letter of intent can be no more than 2 pages. It should be formatted using 11-point Arial font, with page margins set to be 0.5 inches circumferentially. The Principal Investigator's name must appear on each page. It should be submitted via email in Adobe PDF format.

December 1: Complete grant applications will be invited from selected applicants based on our review of the letters of intent. Applicants will be notified whether they are invited to submit a grant application by December 1st.

January 31: Deadline for submitting the complete grant application. Applications are reviewed by members of the AOS Research Advisory Board. The Board makes recommendations regarding funding to the AOS Council. Final funding decisions are made by the AOS Council, which typically meets during the Combined Otolaryngology Spring Meetings, yielding decisions in May. Applicants are notified regarding a funding decision after the AOS Council has met.

I. Submission

Letters of Intent and complete Grant Applications are to be submitted via email simultaneously to both the Executive Secretary of the AOS Research Fund and the Administrator of the American Otological Society via the email addresses below.

Executive Secretary: John Oghalai, MD joghalai@stanford.edu

Administrator: Kristen Bordignon administrator@americanotologicalsociety.org