

The North American Spine Society (NASS) is a premier multidisciplinary medical organization with nearly 8,000 physician, researcher and affiliated healthcare members worldwide dedicated to fostering the highest quality ethical, value-based and evidence-based spine care through education, research and advocacy. NASS membership includes the following spine-related specialties: orthopedics, neurosurgery, physiatry, pain management, research and other disciplines, including allied health professionals.

NASS strives to be a leading force in promoting and supporting spine research. Since 1989, NASS has funded more than \$4.4 million in multidisciplinary spine-related research. NASS relies on the generosity of its membership, nonmember donors and the spine industry* to provide funding for its research funds in support of the highest quality, peer-reviewed research.

NASS supports basic, clinical and translational science performed with integrity. The goal is to improve quality spine care for patients and understanding of underlying disorders. One way NASS achieves these goals is by funding grants and fellowships.

*Note: NASS retains full control of research award selection. Specific individuals or corporations do not have influence over the selection of recipients.

Deadlines

Letter of Proposal:

February 6, 2023 11:59 p.m. CST

Grants (By Invitation Only):

May 8, 2023 11:59 p.m. CDT

Traveling Fellowships:

May 8, 2023 11:59 p.m. CDT

Types of Funding Available

Grants

Research Grants

Basic Research

- May focus on projects that answer fundamental questions on the physical, chemical and functional mechanisms of processes and diseases that develop novel models for prevention and/or treatment.
- Projects use lab (basic medicine) sciences and animal models or cell/tissue culture of animal or human origin to answer these questions.

Clinical Research

- May focus on projects with human subjects (patients or other individuals) or on material of human origin in which the research unit is a person.
- Projects focus on evaluation, diagnosis, treatment and outcomes of diseases or clinical conditions.
- Typically involves descriptive or more advanced statistics, as well as other related methodologies.
- Includes: Epidemiological and behavioral studies, outcomes research and health services research.

Translational Research

- May focus on two types of translation;
 - » Process of applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans.
 - » Aimed at enhancing the adoption of best practices in the community.
- Includes: Cost-effective studies.

NASS research grants provide funding for promising research projects by qualified investigators in the field of spine. Funding amount and number of grants are at the discretion of the NASS Research Funding Committee based upon merit of applications and amount of funding available each year. It is recommended that approved grant budgets range between \$20,000-\$40,000 per year. In rare cases and at the discretion of the committee, each year may be up to \$50,000 per year.

Young Investigator Grants

NASS greatly values the development of Young Investigators (YI) and Early Career Professionals and thus, may award funding to promising YIs to encourage and promote quality spine-related research in one of the research priorities identified above. YIs must be NASS members and within five years of completion of doctoral program training at the time of application. Acceptable doctoral programs include: MD, DO, PhD, DPT, etc. PhD applicants must be within five years of their post-doc training. Applicants may not have received previous grant funding from the NASS Research Funding Committee. It is recommended that approved grant budgets range between \$20,000-\$40,000 per year. In rare cases and at the discretion of the committee, each year may be up to \$50,000 per year.

Nontraditional, Nonsurgical Treatment Grants

The Nontraditional, Nonsurgical Treatment Grant is the result of a donation to research as part of a settlement of a class action lawsuit unrelated to NASS. This grant supports research of disc-related and/or neuropathic back pain by nonsurgical techniques. These funds must be used for new, nontraditional methods of nonsurgical treatment of such back and neck pain and radiculopathy. If TNF-inhibitors other than etanercept are used in research and/or treatment funded, comparison studies using perispinal etanercept in at least as many research subjects or patients should be done. Funding amount and number of grants are at the discretion of the NASS Research Funding Committee based upon merit of applications and amount of funding available each year. It is recommended that approved grant budgets range between \$20,000-\$40,000 per year. In rare cases and at the discretion of the committee, each year may be up to \$50,000 per year.

Traveling Fellowships

Clinical Traveling Fellowship

The Clinical Traveling Fellowship spans at least one month to be spent in three to five different medical centers studying spine techniques. The centers selected by the applicant should agree in writing to accept the applicant if he/she receives the Fellowship. The Fellowship primarily covers the costs of travel and housing and typically ranges from \$3,000-\$7,000.

Research Traveling Fellowship

The Research Traveling Fellowship spans at least five months at one medical center (other than the facility at which the applicant currently practices). The center selected by the applicant should have appropriate research facilities and agree in writing to accept the applicant if he/she receives the Fellowship. The Fellowship primarily covers the costs of travel and housing and typically ranges from \$3,000-\$7,000. If funding for the actual research project is needed, please apply for one of the research grants.

General Guidelines

- The Principal Investigator is required to be a NASS Member for Letters of Proposal/Grant Invitations.
- Any spine-related proposal will be considered; a qualified NASS Member in any specialty will be considered. International NASS Members are welcome to apply. NASS Medical residents are eligible with the condition that they have a mentor/faculty support to work with them.
- NASS strongly encourages new investigators to apply.
- Any principal investigator or co-investigator that receives a research grant from NASS will not be eligible to apply for grant funding again until three years after the date of the previous award.
- Multiple grants will not be funded simultaneously to any principal investigator, co-investigator or collaborator.
- The Letter of Proposal may be submitted in only one category; not multiple categories.
- There is no limit to the amount that may be requested for funding. See Types of Funding Available for recommendations.
- Funds are for work to be performed or works in progress, not works already completed.
- As a 501(c)3 organization, NASS funding is typically NOT subject to IRB fees. NASS will pay reasonable IRB fees (Limit \$2,000) with provided IRB documentation detailing the applicability of these fees to research funded by non-profit organizations.

- NASS does not support research for independent manufacturers, industry development or personal business financial gain. NASS will be sensitive to this issue.
- All correspondence will be sent to the principal investigator.
 It is the responsibility of the principal investigator to provide information to co-investigators.
- Grants are awarded for one to two years at the discretion of the NASS Research Funding Committee.
- Applicants are strongly encouraged to have mentors or other senior researchers review Letters of Proposal and any Invited Grant Application before submission to NASS.
- All projects are required to be completed within three years.
- All fellowship applicants and invited grant applicants are required to submit a conflict of interest disclosure through the NASS website in accordance with NASS disclosure policy. See Policies and Agreements.
- Cost-sharing of projects is encouraged. Please list other funding institutions/organizations and amount requested and/or awarded.
- Funding will not be considered for applicants who:
 - » Are excluded from federally funded health care programs. (See the HHS Office of the Inspector General's List of Excluded Individuals and Entities at http://oig.hhs.gov/ exclusions/index.asp)
 - » Are debarred by the FDA (See FDA Debarment List http://www.fda.gov/ICECI/EnforcementActions/FDADebarmentList/default.htm).

Deadlines

February 6, 2023 11:59 p.m. CST

Deadline for letters of proposal

Week of March 20, 2023

Invitations to submit full grant applications

May 8, 2023 11:59 p.m. CDT

All applications due (invited grants and fellowships)

Week of May 15, 2023

Letters to applicants confirming receipt of application

Week of August 14, 2023

Notification to applicants of awards

September 4, 2023

Award payee information due

Week of **October 18-21, 2023**

Award ceremony at Annual Meeting **January 2, 2024**

Research commencement

Awards Presentation

All awards will be officially presented at the NASS 38th Annual Meeting, October 18-21, 2023 in Los Angeles, CA. Each award recipient or a designated representative is expected to attend the Annual Meeting to accept the award (date TBD).

Selection Process

Letters of proposal for grants will be reviewed by the entire NASS Research Funding Committee and scored in the same manner as that of invited grants (see below) after assuring that applicants are not excluded from federally funded health care programs nor debarred by the FDA. Those proposal holders with a strong merit in significance, approach and feasibility, will be invited to submit a full grant application within eight weeks of notification.

All invited grant applications and traveling fellowships are reviewed by the NASS Research Funding Committee. Applications are rated on the basis of their scientific merit. The criteria considered include:

Significance

The extent to which the project, if successfully carried out, will make an original and important contribution to biomedical and/or behavioral science in the spine community.

- Does this study address an important problem or scientific question?
- Does it address the significance of the topic, from either a health burden or biological importance standpoint?

Approach

The extent to which the conceptual framework, design, methods and analyses are properly developed, well-integrated and appropriate to the aims of the project.

- Are the theories underlying the approach supported by valid science?
- Are the aims of the project clear and reasonable in the context of the project?

Feasibility

The likelihood that the proposed work can be accomplished by the investigators, given their documented experience, expertise, etc. These criteria would consider the curriculum vitae of the investigators.

- Are the investigators appropriately trained and well-suited to carry out this work?
- Can the investigators deliver a result?

Scientific merit is the primary criterion for selection, but potential conflicts of interest will also be considered. The NASS Research Funding Committee will provide a brief, written critique of each **invited** application not approved for funding to the principal investigator. Applicants will not receive any feedback beyond the written critique; all scoring is confidential.

All applicants submitting a letter of proposal and/or invited application do so with the understanding that they will abide by the conditions, deadline policies and decisions of NASS. NASS reserves the right to change the format and/or amount of any awards at its sole discretion at any time, with or without notice. The number and amount of awards each year are at the discretion of the NASS Research Funding Committee, Evidence Analysis & Research Council and the Board of Directors. NASS makes no guarantee that applicants will be awarded the grant requested or that applicants will receive the total amount of funds requested if approved.

Application Instructions

The Principal Investigator is required to be a NASS member.

Grants: Research, Young Investigator, & Nontraditional Nonsurgical Treatment

Deadline: 11:59 p.m. CST on Feb. 6, 2023

Submit a Letter of Proposal (LOP) to NASS via email at **research@spine.org** with the Principal Investigator's name listed in the subject line of the email.

LOPs should contain the elements described under Letter of Proposal Guidelines and will only be accepted by email.

Traveling Fellowships: Clinical or Research

Deadline: 11:59 p.m. CDT on May 8, 2023

Complete the appropriate form (found on pages 7-8) and submit with requirements as listed on application form to NASS via email at **research@spine.org**.

All application materials (including any figures, tables, etc.) must be compiled into a single file (Word or PDF) for your full submission to be considered. **Fellowship applications will be accepted by email only.**

Questions? Email research@spine.org or call (630) 230-3694.

Letter of Proposal Guidelines

The Principal Investigator is required to be a NASS Member for Letters of Proposal/Grant Invitations. A two-page letter of proposal (Word or PDF) should be submitted by all grant applicants in no smaller than 10 point font via email to research@spine.org. Include the Principal Investigator's name in the subject line of the email.

Deadline: February 6, 2023, 11:59 p.m. CST

The Letter of Proposal should contain all the following items, with the exception of the optional final section, clearly outlined and labeled:

□ 1 Proposal title

☐ ② Type of grant being applied for (Indicate two items)

A. Indicate the type of grant being applied for: Research/Young Investigator/Nontraditional, Nonsurgical (*Select one*; refer to descriptions under **Types of Funding Available**)

B. Indicate if the research is Basic, Clinical or Translational.

☐ ③ Contact information for Principal Investigator

Include name, credentials, address, phone and email address.

□ **4** Summary

One- to two-sentence proposal overview. The entire proposal should be summarized within these one to two sentences.

☐ ⑤ Hypothesis statement

Description of problem/background as it relates to the spine

Not more than 100 words.

□ Purpose and method of research for the project

Not more than 400 words. If applying for a second year of funding, please include a separate summary of all work completed in the first year of the project, including all preliminary work. The committee will not review applications for a second year of funding if this information is not included.

□ 8 Capabilities

Indicate the identities (names), capabilities, credentials and contact information of all co-investigators/collaborators as well as any participating institution.

□ 9 Budget

List all funding related to the project, as outlined below, formatted in a table, broken down by year (if requesting for multiple years) and totaled overall. There is no limit to the amount applicants can request; however, most grants approved have budgets below \$50,000 per year. Budget should include:

- Overhead or institutional costs—not to exceed 10-15% of the total budget. (Note: this is included in the total budget amount)
- Permanent equipment—not to exceed \$5,000
- Statistical analyses—may include salaries for statisticians
- Consumable equipment
- Salaries to staff—only for lab technicians, statisticians and other support personnel. Salaries should not be included for the principal investigator or other investigators.
- Any other direct expenses
- As a 501(c)3 organization, NASS funding is typically NOT subject to IRB fees. NASS will pay reasonable IRB fees (up to \$2,000), with provided IRB documentation detailing the applicability of these fees to research funded by non-profit organizations.
- Cost-sharing: All other funding source(s) related to the project, with the funding institution/organization, amount requested/ awarded, and status of funding source (pending/awarded/ distributed).

Additional Budget Guidelines:

- Budget should not include costs for publication or attendance and presentation at the NASS Annual Meeting.
- Grants may be awarded for one to two years at the discretion of the NASS Research Funding Committee.
- The budget you submit on your Letter of Proposal should match your submission on the invited grant application, including the number of years funding is being requested for.

☐ **10** Closing statement

The closing statement should include any long-term research plans related to the study (e.g., plans to apply for NIH grants, etc.)

Optional: Consent in the event that NASS is invited to apply for additional funding sources (e.g., fund matching opportunities)

NASS requests permission to share the details within your letter of proposal (LOP) and, if invited, within your full grant application, with external organization(s) for cost-sharing application purposes. If you consent, include the statement below at the bottom of your LOP.

- This statement does not guarantee that your LOP/application will be shared with external funding sources, nor does it guarantee that additional funding opportunities will be available.
- If this statement is not included in your LOP, NASS will not share your LOP/application with any external organization(s), nor consider it for any external funding opportunities in which NASS participates.

Statement to include if consenting: "All investigators listed on this letter of proposal hereby grant permission to the North American Spine Society (NASS) to share the details included within this document and, if invited, within the full grant application, with potential external funding sources, per the sole discretion of NASS."

Policies and Agreements

Fellowship and Invited Grant Applicants Only

In accordance with the NASS Disclosure Policy, it is required that all fellowship and invited grant applicants (all investigators) complete the conflict of interest disclosure through the NASS website. The online disclosure is located at www.spine.org/disclosure. If you have previously completed a disclosure, please use your username and password to access and update the form. If you have not utilized the database in the past, you will need to sign up as a new contact. For more information about the NASS Disclosure Policy, please visit www.spine.org.

Annual Report Requirement

All applicants selected to receive a grant or fellowship are required to submit an annual status report to the NASS Evidence Analysis & Research Council on the progress of their project. All research projects are required to be completed within three years, regardless of whether the project is outlined as a one or two year project. All status reports are due July 31 of each year, to be submitted to NASS via email to research@spine.org.

Final Report & Presentation Requirements

Upon completion of research, the applicant agrees to submit a final report as mandated by NASS format, which includes an abstract in hard and electronic copy to the NASS Research Department with a permissions authorization to publish in any NASS Research publications, website, etc. Formatting instructions can be obtained from the NASS Research Department. A podium presentation at a future NASS Annual Meeting will be required for grants once the project is complete.

Citation

NASS must be cited as the source of funding in any publication, presentation or in any publicity resulting from the project or its results. NASS should be sent reprints of all papers and publications resulting from research supported by the grant.

Delinquent Research Reports

Investigators failing to submit an annual status report or final research findings will be noted as "nonresponsive" in any publication of NASS grants/funding, denied future funding and requested to return all funds distributed to them. This policy goes into effect one year past the due date of any delinquent report. Once submitted, eligibility is reinstated.

All Awards: Return of Funds

If the funded project does not take place, all monies awarded will be refunded to NASS. If it is terminated early, a partial refund with an accounting of the funds expended up to the termination date will be provided. At the conclusion of the completed project, any unused funds over \$50 will be refunded to NASS.

Clinical Traveling Fellowship Application

The Clinical Traveling Fellowship spans at least one month Applications should be page numbered at the bottom center to be spent in three to five different medical centers studying of each page that is not a pre-printed NASS form, with the spine techniques. The centers selected by the applicant should applicant's name on each page as a header in 12 pt. font. The agree in writing to accept the applicant if he/she receives the application should be submitted in the following order: Fellowship. The Fellowship primarily covers the costs of travel ☐ Completed Application Form. Please submit full and housing. Recipients will be required to write an article for name, academic degree(s), address, phone and email. SpineLine, the NASS magazine, following the conclusion of their fellowship to report their experiences to the NASS Membership. ☐ Narrative Description of Goals for the Fellowship ☐ Amount Requested With Expense Breakdown To apply for the Clinical Traveling Fellowship, please complete ☐ Curriculum Vitae this form and submit with requirements as outlined here, to NASS via email at research@spine.org by 11:59 p.m. CDT on ☐ Letters of Acceptance From Each Medical Center May 8, 2023. All application materials (including any figures, ☐ Three Letters of Recommendation tables, etc.) must be compiled into a single file (Word or PDF) for your full submission to be considered. Fellowship applications ☐ NASS Online Disclosure Form (See Policies and will be accepted by email only. Agreements) **Questions?** NOTE: All letters must be for current year. Email research@spine.org or call (630) 230-3694 Address ___ _____ State _____ Zip _____ ____ Email ____ State your area of spinal interest on your application. Please provide a narrative description of your goals and what you hope to accomplish during the Fellowship on your application. **Candidate's Agreement** If selected for an award, I shall present a report of my experience (including an accounting of funds) to the Evidence Analysis & Research Council upon completion of my Fellowship as well as a written account to the NASS membership in the form of a SpineLine article. If the funded Fellowship does not take place, all monies awarded will be refunded to NASS. If it is terminated early, a partial refund with an accounting of the funds expended up to the termination date will be provided. At the conclusion of the completed Fellowship, any unused funds over \$50 will be refunded to NASS. I have read and agree to all policies related to the NASS Traveling Fellowships. Signature ______ Date _____ Printed Name Office Use Only—Submission Date: ■ Not Approved

Research Traveling Fellowship Application

The Research Traveling Fellowship spans at least five months at Applications should be page numbered at the bottom center one medical center (other than the facility at which the applicant of each page that is not a pre-printed NASS form, with the currently practices). The center selected by the applicant should applicant's name on each page as a header in 12 pt. font. The application should be submitted in the following order: have appropriate research facilities and agree in writing to accept the applicant if he/she receives the Fellowship. The Fellowship ☐ Completed Application Form. Please submit full primarily covers the costs of travel and housing; if funding is name, academic degree(s), address, phone and email. needed for the actual research, please apply for a research grant. Recipients will be required to write an article for SpineLine, the NASS ☐ Narrative Description of Goals for the Fellowship magazine, following the conclusion of their fellowship to report their ☐ Amount Requested With Expense Breakdown experiences to the NASS Membership. ☐ Curriculum Vitae To apply for the Research Traveling Fellowship, please complete this ☐ Letters of Acceptance From Medical Center form and submit with requirements as outlined here, to NASS via ☐ Three Letters of Recommendation email at research@spine.org by 11:59 p.m. CDT on May 8, 2023. All application materials (including any figures, tables, etc.) must be ☐ NASS Online Disclosure Form (See Policies and compiled into a single file (Word or PDF) for your full submission to be Agreements) considered. Fellowship applications will be accepted by email only. NOTE: All letters must be for current year. **Questions?** Email research@spine.org or call (630) 230-3694 Address ___ City ______State _____Zip ____ Phone _____ Email ____ State your area of spinal interest on your application. Please provide a narrative description of your research project and what you hope to accomplish during the Fellowship on your application. **Candidate's Agreement** If selected for an award, I shall present a report of my experience (including an accounting of funds) to the Evidence Analysis & Research Council upon completion of my Fellowship as well as a written account to the NASS membership in the form of a SpineLine article. If the funded Fellowship does not take place, all monies awarded will be refunded to NASS. If it is terminated early, a partial refund with an accounting of the funds expended up to the termination date will be provided. At the conclusion of the completed Fellowship, any unused funds over \$50 will be refunded to NASS. I have read and agree to all policies related to the NASS Traveling Fellowships. Date ___ Signature _____ Printed Name _____ Office Use Only—Submission Date:_____ ■ Not Approved

North American Spine Society Research Priorities

The North American Spine Society (NASS) is committed to funding high-quality research that provides rigorously collected evidence to provide preliminary data to support future grant applications and/or to definitively answer research questions that challenge the field of spine research. In this document, the NASS Research Funding Committee provides quidance on research definitions and priorities.

Basic Research may focus on projects that answer fundamental questions on the physical, chemical and functional mechanisms of processes and diseases that develop novel models for prevention and/or treatment. Basic research projects use lab (basic medicine) sciences and animal models or cell/tissue culture of animal or human origin to answer questions on the fundamental mechanisms of biological processes and diseases.

Clinical Research may focus on projects with human subjects (patients or other individuals) or on material of human origin in which the research unit is a person. Clinical research focuses on the evaluation, diagnosis, treatment and outcomes of diseases or clinical conditions. Clinical research typically involves descriptive or more advanced statistics, as well as other related methodologies. Epidemiological and behavioral studies, outcomes research and health services research are also considered clinical research.

Translational Research may focus on two types of translation. One is the process of applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans. The second type of translation concerns research aimed at enhancing the adoption of best practices in the community. Cost-effectiveness studies are considered translational research.

Basic Research

- Research on the etiology and mechanisms of spinal pain.
- Research related to the pathobiology and/or treatment of disorders involving the spine and soft tissue (including the intervertebral disc).
 - » Spinal deformity
 - » Spinal cord injury (both traumatic and nontraumatic, including degenerative cervical myelopathy)
 - » Oncologic conditions of the spine and spinal cord
 - » Congenital disorders of the spine

Clinical Research

(Studies evaluating treatment outcomes should use validated outcome measures and include results specific to each of the treatment methods implemented in the study for all subgroups studied.)

- Research on the treatment and management of degenerative disc disease.
- Research on strategies to improve clinical outcomes in the treatment of the spine.
- Surgical
 - » Examination of the efficacy of lumbar fusion, including, but not limited to:
 - Studies evaluating efficacy of fusion for degenerative disc disease in specific patient populations.
 - Prospective research to identify subgroups of patients with lumbar disc herniation with radiculopathy who may benefit from the addition of fusion to decompression as a primary procedure.
 - Studies comparing different fusion techniques in similar patient populations.
 - » Antibiotic prophylaxis in spine surgery, including, studies evaluating specific antibiotic regimens, particularly for patients with significant co-morbidities.
 - » Explore the role and efficacy of minimally invasive techniques in spine surgery.

Medical/Interventional Research

- Long-term outcomes studies of specific spinal conditions that include results specific to medical/interventional treatment methods (e.g., injections, physical therapy, bracing, exercise).
- The role and efficacy of physical therapy in the management of back pain as related to specific spinal conditions.
- Role of complementary and alternative treatments for the spine as related to specific spinal conditions.
- Study of the efficacy and safety of pain management strategies (pharmaceutical and non-pharmaceutical) in the treatment of spine pain.
- Identifying patients or conditions that would better respond to early non-surgical intervention instead of interventional treatments.

Additional Funding Priorities

- Economy of spine care
 - » Examining the impact of payment models on clinical outcomes of spine care.
- » Examining cost-effectiveness/value of various strategies for spine pain and disease.
- Comparative effectiveness
 - » Studies on various treatment strategies for spine pain and disease.
- Multidisciplinary care
 - » Development of models of multidisciplinary collaboration in the care of the spine.
 - » Examination of alternative delivery models that may be applied to spine and other specialty care.
- Research around imaging of the spine
 - » New technologies for diagnosis of spinal disorders.