Grants
Overview and Internal Resources

Research Idea

- Is it hypothesis driven, asking a question or fishing
- Is it innovative
- Is it significant
- Has it been done before
- How passionate are you about this
- What method are you going to use
- Does it involve people
- Do I need a grant
- Does the subject I am interested in fit the grant

Innovative

Its probably not innovative if lots of people are talking about it, unless you have a slant that no one else has thought about.

Significant

Its probably not significant if no one is talking about it.
Unless you are an Einstein.

Significant

- Are you significant?
  - Do you have data for your work or are you a newbie?
  - Do you have a track record in the field-publications, presentations?
- Is your institution significant?
  - Does it have a track record of funding?
  - Does it have a reputation in the field?
  - Does it have the resources to support your research grant?
- Is the work significant?
  - What are the largest real (not pie in the sky) scientific implications for the field of the work you want to do?
- Think about catch phrases describing significance

Passion

- Grant-It takes time
  - Give at least 6 months to write a grant if this is a new idea
  - Be prepared to rewrite at least once (12 – 18 mo)
  - Be prepared to submit to more than one place
  - Protected time- after 9 pm and weekends
- Research-It takes time and energy
  - Do you have the time, ability or have people
  - Other resources you might need
- ROI
  - To add something to mankind
  - Promotion/tenure
  - Reputation

Identify

- Collaborators-are they willing or paying lip service
- Consultants
- Laboratory, imaging, sample storage,-available
- Data storage-Red Cap, Excel
- Personnel
- Space
- Equipment
- Other expenses

RedCap Process

- Contact and meet with Alison McNabb or Eric Heidel PhD to set up a project in RedCap
- Identify all people who will enter data and have access and level of access
- Have a copy of research instrument (rough sketch of data collection form)
- Develop a research timeline (start and duration of collection)
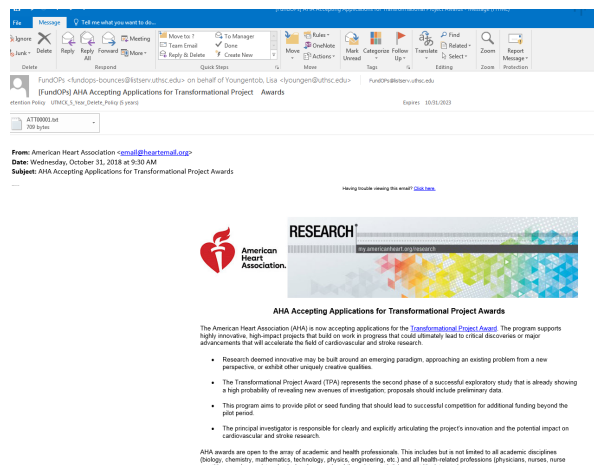- Watch the videos

RedCap

https://gsmredcap.utmck.edu/

Finding grants

- Local knowledge
- Getting on individual websites
- Notices from UTHSC and UTK offices of research
- Grants.gov
- Pivot
- UTHSC Listserv-http://listserv.uthsc.edu/mailman/listinfo/fundops
- UTK-Office of Research *Research Digest*-fdt@utk.edu

UTHSC Listserv
http://listserv.uthsc.edu/mailman/listinfo/fundops

Youngentob, Lisa <lyoungen@uthsc.edu>

pivot™ University of Tennessee - Knoxville

Announcements Mitchell Goldman HELP

Home Funding Profiles Papers Invited

Funding Vascular surgery

Search Funding Results

Your Search: ((Vascular AND surgery))

Advanced Search   Save Search   Refine Search

34 Results Sort▼   Deadline   Amount

Submission type
Limited Submission: 1

Top funding types
Training or Scholarshi...:   14
Research: 11
Prize or Award: 9
Travel: 7
Program or Curriculum ...:   5

Top sponsor types
Professional Society o...:   26
Academic Institution: 4
Other Nonprofit: 3
Commercial: 1

Top applicant types
Individuals: Early Car...:   26
Individuals: Mid-Caree...:   14
Individuals: Graduate ...:   7
Women: 2
Individuals: Undergrad...:   2

Top keywords
Vein & Artery Diseases: 21
Vascular Biology: 20
Vascular Surgery: 20

Medal for Innovation in Vascular Surgery
Society for Vascular Surgery (SVS)
01 Mar 2019 Nomination Anticipated   see record

E.J. Wylie Traveling Fellowship
Society for Vascular Surgery (SVS)
SVS Foundation
01 Mar 2019 Application Anticipated $12,000 USD

SVS Vascular Surgery Trainee Advocacy Travel Scholarship
Society for Vascular Surgery (SVS)
31 Oct 2018 Application Confirmed $1,500 USD

ESVS Research Grant
European Society for Vascular Surgery (ESVS)
31 May 2019 Application Anticipated   see record

Distinguished Fellow Designation
Society for Vascular Surgery (SVS)
01 Mar 2019 Application Anticipated   see record

SVS Lifetime Achievement Award
Society for Vascular Surgery (SVS)
01 Mar 2019 Nomination Anticipated   see record

Student Research Fellowship
Society for Vascular Surgery (SVS)
SVS Foundation
06 Feb 2019 Application Anticipated $3,000 USD

Student Research Fellowship
Society for Vascular Surgery (SVS)
01 Feb 2019 Application $3,000 USD

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https://www.uthsc.edu/research/development/proposal-manuscript-development/grant-consulting.php

THE UNIVERSITY OF TENNESSEE
HEALTH SCIENCE CENTER

Office of Research > Research Development > Proposal & Manuscript Development > Grant Consulting

Intramural Funding   Extramural Funding   Proposals & Manuscripts   Research Toolkit

Grant Consulting

The Office of Research has contracted with **Hanover Research**, a grant development firm headquartered in Arlington, VA, to provide grant consultant services to UTHSC faculty. The primary goal of this partnership is to increase the quality and success rate of extramural research proposals.

Hanover helps to strengthen competitive grant proposals to federal agencies such as the National Institutes of Health (NIH) and the National Science Foundation (NSF) as well as grants to private and non-profit foundations. Hanover Grants Consultants work with faculty by providing reviews that underscore key insights into funder priorities and recommendations for improvement.

Hanover Services

Hanover can touch a proposal up to two times, based on any combination of the services outlined below. The number of reviews and level of service Hanover can provide varies depending on the turnaround time required by the proposal.

Consultation   Proposal Review Services   Grantsmanship Training and Workshops

Download Proposal Summary Form

Hanover Grant Consulting Form

University of Tennessee Health Science Center
Office of Vice Chancellor for Research
Grant Consultant Request – Hanover Research
Proposal Summary Form

The Office of Research has partnered with Hanover Research, a grant consulting firm in Arlington, VA, to provide grant support services to UTHSC faculty pursuing external funding. **PIs seeking Hanover's support should complete and submit this form to lyoungen@uthsc.edu.** The Office of Research Development will evaluate each PI request and determine if the project can be accepted into Hanover's pipeline, which is limited to 6 active proposals at any one time.
To allow Hanover ample time to review your proposal, they require, at minimum, **two weeks (10 business days)** lead time before the established Office of Sponsored Programs internal grant deadline.

Please see Office of Research Development webpage for additional information regarding services provided by Hanover Research https://www.uthsc.edu/research/development/proposal-manuscript-development/grant-consulting.php

Cayuse SP internal routing #: _____
   (if this is a new grant, please send routing number to the email below, as soon as the grant has been entered into the Cayuse SP system)

Date:

PI Name:

PI email:

PI Phone #:

Co PIs (or secondary contacts) that should be included on project communication (name, email, phone):

Service requested: _____ Consultation   _____ Proposal Review

Intended date to submit draft materials to Hanover:

Intended deadline for completion of these Hanover services:

Grant Title:

Funding Agency (Sponsor) and Institute (if applicable):

Funding Agency Submission Deadline:

Grant mechanism:
___ R01   ___ R21   ___ U-Series   ___ K-Series   ___ Collaborative
___Other   please describe _____

Choose one:

___ New submission
___ Re-submission
         If a resubmission, what was your Impact Score _____
                              Percentile Ranking _____

Required Materials:
For a new submission, please attach:
1. If written, a draft of your proposal (Specific Aims and Research Plan) in Word format
2. If available, a link to specific proposal announcement or guidelines

For a re-submission, please attach:
1. Specific Aims and Research Plan of reviewed grant (Word format)
2. Summary Statement or Reviewer Critiques (pdf format)
3. If written, a draft of your new/revised Specific Aims and Research Plan (Word format)
4. If written, a draft of your Response to Prior Review (Word format)

Please describe any additional grant-specific information that you would like Hanover to know about your proposal
_____

Please note:
1. To allow Hanover ample time to review your proposal, they require, at minimum, two weeks (10 business days) lead time before the established Office of Sponsored Programs internal grant deadline.
2. The Office of Research Development cannot schedule grant consulting services with Hanover until this completed form, and grant material listed above, have been received by Lisa Youngentob, Director of Research Development lyoungen@uthsc.edu.
3. Hanover's services are intended for faculty members pursuing external grants. Hanover cannot provide feedback on internal funding opportunities.
4. Editing proposal content for clarity and effective use of language, (including punctuation and grammar) is not included in Hanover's services, although, these services are available through the UTHSC Office of Scientific Writing.

End of document ■

The National Institutes of Health

Institutes: NIH is made up of **27 Institutes and Centers**, each with a specific research agenda, often focusing on particular diseases or body systems – NCI (cancer), NIDDK (diabetes, digestive, kidney), NHLBI (heart, lung blood), etc

Scientific Review Groups: The initial step of the peer review process takes place in Scientific Review Groups (SRGs) that are managed by the Institutes and Centers that are components of the NIH. The Center for Scientific Review (CSR) is one of the NIH components that manage the scientific review groups that evaluate investigator-initiated applications. **There are LOTS of them!**

Finding the best "fit" for your application is critical

The National Institutes of Health

Program Announcement - A PA is a formal statement from the NIH about a new or ongoing extramural activity or **program**. It may serve as a reminder of continuing interest in a research area, describe modification in an activity or **program**, and/or invite applications for grant support

PAR (Reviewed in an Institute) - **Program Announcement** with special receipt, referral and/or review considerations

PAR-18-744	NIDDK	Release date 04/04/2018	Opening Date 05/16/2018	Expiration Date 05/08/2021	R21	Pilot and Feasibility Clinical Research Grants in Kidney Diseases (R21 Clinical Trial Optional)

The National Institutes of Health

Request for Applications (RFA) - An RFA is a formal statement that solicits grant or cooperative agreement applications in a well-defined scientific area to accomplish specific program objectives. An RFA indicates the estimated amount of funds set aside for the competition, the estimated number of awards to be made, whether cost sharing is required, and the application submission date(s).
Applications submitted in response to an RFA are usually reviewed by a Scientific Review Group (SRG) specially convened by the awarding component that issued the RFA.

RFA-DK-18-021	NIDDK	Release Date 10/16/2018	Opening Date 01/21/2019	Expiration Date 02/22/2019	R01	Lymphatics in Health and Disease in the Digestive System (R01 Clinical Trial Not Allowed)

What types of NIH Grants are Available?

NIH Small Grant Program (R03):
•Provides limited funding for a short period of time to support a variety of types of projects, including: pilot or feasibility studies, collection of preliminary data, secondary analysis of existing data, small, self-contained research projects, development of new research technology, etc.

R03 •**Limited to two years of funding**
•**Direct costs generally up to $50,000 per year**
•**Not renewable**
•Utilized by more than half of the NIH ICs
•See parent FOA: PA-18-488

https://grants.nih.gov/grants/funding/funding_program.htm

What types of NIH Grants are Available?

NIH Exploratory/Developmental Research Grant Award (R21)
•Encourages new, exploratory and developmental research projects by providing support for the early stages of project development. Sometimes used for pilot and feasibility studies.

R21 •**Limited to up to two years of funding**
•**Combined budget for direct costs for the two year project period usually may not exceed $275,000.**
•**No preliminary data is generally required**
•Most ICs utilize
•See parent FOAs: PA-18-489 and PA-18-344

https://grants.nih.gov/grants/funding/funding_program.htm

What types of NIH Grants are Available?

NIH Research Project Grant Program (R01)
•Used to support a discrete, specified, circumscribed research project
•**NIH's most commonly used grant program**
•**No specific dollar limit unless specified in FOA**
R01 •Advance permission required for $500K or more (direct costs) in any year
•**Generally awarded for 3 -5 years**
•Utilized by all ICs
•See parent FOAs: PA-18-484 and PA-18-345

https://grants.nih.gov/grants/funding/funding_program.htm

What types of NIH Grants are Available?

NIH Academic Research Enhancement Award (AREA)
•Support small research projects in the biomedical and behavioral sciences conducted by undergraduate and/or graduate students and faculty **in institutions of higher education that have not been major recipients of NIH research grant funds**
R15 •Eligibility limited (see https://grants.nih.gov//grants/funding/area.htm)
•Direct cost limited to $300,000 over entire project period
•Project period limited to up to 3 years
•All NIH ICs utilize except FIC and NCATS
•See parent FOA: PA-18-504
•**NOT AVAILABLE FOR FACULTY IN THE UTHSC COM – UTK is eligible**

https://grants.nih.gov/grants/funding/funding_program.htm

Specialized NIH Grants

NIH Support for Conferences and Scientific Meetings (R13 and U13)

R13
- Support for high quality conferences/scientific meetings that are relevant to NIH's scientific mission and to the public health
- Requires advance permission from the funding IC
- Foreign institutions are not eligible to apply
- Award amounts vary and limits are set by individual ICs
- Support for up to 5 years may be possible
- See parent FOA: PA-18-648

https://grants.nih.gov/grants/funding/funding_program.htm

Specialized NIH Grants

NIH Clinical Trial Planning Grant (R34) Program

R34
- Designed to permit early peer review of the rationale for the proposed clinical trial and support development of essential elements of a clinical trial
- Usually project period of one year, sometimes up to 3
- Usually, allows for a budget of up to $100,000 direct costs, sometimes up to $450,000
- Used only by select ICs; no parent FOA

https://grants.nih.gov/grants/funding/funding_program.htm

Specialized NIH Grants

Other Awards are available:
- Small Business Innovative Research (SBIR – R43/R44)
- Small Business Technology Transfer (STTR - R41/R42)
- Research Project Cooperative Agreement (U01)
- NIH Pathway to Independence (PI) Award (K99/R00)
- Program Project/Center Grants (P01, P20. P30, P50)
- Resource-Related Research Projects (R24)
- Education Projects (R25)
- Resource Access Program (X01)

https://grants.nih.gov/grants/funding/funding_program.htm

Components of R03, R21, and R01 NIH Grants

- **Specific Aims**
- Abstract
- Narrative
- Budget – detailed
- **Research Design**
- Bibliography
- **NIH Biosketch**
- Authentication of Agents
- Equipment
- Facilities
- Cover page
- Resource sharing plan
- MyNCBI List of Publications (for Biosketch)

Components of R03, R21, and R01 NIH Grants

Section of Application	Activity Codes	Page Limits * (if different from FOA, FOA supersedes)
Project Summary/Abstract	For all Activity Codes	30 lines of text
Project Narrative	For all Activity Codes.	Three sentences
Introduction to Resubmission and Revision Applications	For all Activity Codes (including each applicable component of a multi-component application)	1
Specific Aims	For all Activity Codes that use an application form with the Specific Aims section (including each component of a multi-component application)	1
Research Strategy	For Activity Codes R03, R13, R21	6
	For Activity Codes R01, R15,	12
	For all other Activity Codes	Follow FOA instructions
Biographical Sketch	For all Activity Codes	5

Components of R03, R21, and R01 NIH Grants

Specific Aims Page – Often the only page that all but three reviewers will read

- You must quickly gain the reviewers' trust and confidence while simultaneously convincing them that your work is important to fund.
- You must also convey that you and your team are the best people to complete the work you've proposed.
- **Introductory Paragraph**:
- Introduce your research subject to the reviewers and quickly capture their attention.
- Describe the significant gap in knowledge that directly relates to the critical need the funding entity deals with.
- First sentence is the "hook".
- Then state what is known and the gap in the knowledge.
- Critical need (hypothesis driven).

http://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx

Specific Aims Page

Second Paragraph:
- Introduce the solution that fills the gap in knowledge. Convince your reviewers that you (and your colleagues) have the solution to address the current knowledge gap and the expertise to accomplish this solution. Keep wording simple, relevant, and to the point.
- Long-Term Goal - important to ensure that your long-term goals align with the mission of your funding entity.
- Hypothesis and Objectives - State your central hypothesis clearly, specifically, and with simple language. You want to demonstrate to the reviewers that you have a hypothesis-driven proposal that is testable. Describe how your project addresses the critical need, and clearly state the proposed solution.
- Rationale - Explain how you arrived at your central hypothesis (for example, using past studies and published literature). Briefly, state what your project's completion would make possible (e.g., new therapeutics).
- Qualifications - state why your experimental design and your team are the best to accomplish the research goals.

http://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx

Specific Aims Page

Aims:
- Describe briefly each of the aims you will use to test your hypothesis. Ideally, the aims should be related, but not dependent, upon each other.

Final Summary Paragraph
- Innovation - Plainly state what is innovative about your project.
- Expected Outcomes - Specifically state your expected outcomes for this project. Use plain language. What do you expect to see at the completion of each aim?
- Impact - State how your project would help those who need it, (i.e. the development of a new treatment, vaccine, disease model or diagnostic tool). Include a broad impact statement about how your proposal will benefit the people or other subjects that you mentioned in the opening paragraph

http://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx

Research Plan Section

Research Plan – Probably only read by 2 or 3 reviewers

(a) Significance (R01 ~4 pages: R21 ~2 pages)
(b) Innovation (R01 ~1 page: R21 ~1 page)
(c) Approach (R01 ~7 Pages: R21~3 pages)

When writing your Research Strategy, your goal is to present a well-organized, visually appealing, and readable description of your proposed project. That means your writing should be streamlined and organized so your reviewers can readily grasp the information.

- When reviewers read your application, they'll look for the answers to three basic questions:
- Can your research move your field forward?
- Is the field important—will progress make a difference to human health?
- Can you and your team carry out the work?

Research Plan Section

Research Plan

Add Emphasis
- Emphasize the project's importance and highlight the team's expertise.
- Don't take a chance your reviewer will gloss over that one critical sentence buried somewhere in your Research Strategy. **If it's a key point, repeat it, then repeat it again**.
- Add more emphasis by putting the text in bold, or *bold italics*.

- While describing a method in the Approach section, state collaborators' experience with it.
- Point out that you have access to a necessary piece of equipment.
- When explaining the research field and the status of current research, weave in your own work and preliminary data.

Research Plan Section

Research Plan

Although you will emphasize your project's significance throughout the application, the Significance section should give the most details.

Don't skimp—the farther removed your reviewers are from your field, the more information you'll need to provide on basic biology, importance of the area, research opportunities, and new findings.

When you describe your project's significance, put it in the context of
1) the state of your field
2) your long-term research plans
3) your preliminary data.

Research Plan Section

Research Plan

Innovation - Be cautious about seeming too innovative. Not only is innovation just one of five review criteria, but there might be a paradigm shift in your area of science. A reviewer may take a challenge to the status quo as a challenge to his or her world view.

- Show how the proposed research is new and unique, e.g., explores new scientific avenues, has a novel hypothesis, will create new knowledge.
- Explain how the project's research can refine, improve, or propose a new application of an existing concept or method.
- Show how the research can shift a current paradigm…..BUT, must:
  - Have a very strong case for challenging the existing paradigm.
  - Have data to support the innovative approach.
  - Have strong evidence that I can do the work.

Research Plan Section

Research Plan

Approach –
- Enter a bold header for each Specific Aim.
- Under each aim, describe the first set of experiments.
- Outline the branching of next steps (omit detail if you don't have the space):
- If you get result X, you will follow pathway X; if you get result Y, you will follow pathway Y.
- Consider illustrating this with a flowchart.

Trim the fat—omit all information not needed to make your case. If you try to wow reviewers with your knowledge, they'll find flaws and penalize you heavily. Don't give them ammunition by including anything you don't need

Research Plan Section

Research Plan

Approach –
- If you are a new investigator, you need enough detail to convince reviewers that you understand what you are undertaking and can handle the method.
- Cite a publication that shows you can handle the method where you can, but give more details if you and your team don't have a proven record using the method—and state explicitly why you think you will succeed.
- If space is short, you could also focus on experiments that highlight your expertise or are especially interesting. For experiments that are pedestrian or contracted out, just list the method.
- Be sure to lay out a plan for **alternative experiments and approaches** in case you get negative or surprising results. Show reviewers you have a plan for spending the four or five years you will be funded no matter where the experiments lead.

NIH – Rigor and Transparency

1. The scientific premise of the proposed research
    • The **scientific premise** for an application is the research that is used to form the basis for the proposed research question(s). NIH expects applicants to describe the general strengths and weaknesses of the prior research being cited by the applicant as crucial to support the application - include attention to the rigor of the previous experimental designs.
2. Rigorous experimental design for robust and unbiased results
    • **Scientific rigor** is the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results. This includes full transparency in reporting experimental details so that others may reproduce and extend the findings.
3. Consideration of relevant biological variables
    • **Biological variables**, such as sex, age, weight, and underlying health conditions, are often critical factors affecting health or disease. In particular, sex is a biological variable that is frequently ignored.
    NIH expects that sex as a biological variable will be factored into research designs, analyses, and reporting in vertebrate animal and human studies.
4. Authentication of key biological and/or chemical resources
    • **Key biological and/or chemical resources** include, but are not limited to, cell lines, specialty chemicals, antibodies and other biologics.
    The quality of resources used to conduct research is critical to the ability to reproduce the results. Each investigator will have to determine which resources used in their research fit these criteria and are therefore key to the proposed research.

https://grants.nih.gov/reproducibility/index.htm

Biosketch

Along with any principal investigators, include a biographical sketch with research support information for everyone you designate as senior/key personnel or other significant contributors (OSCs). This includes consultants and technical staff with senior/key personnel or OSC designations, even if they are not paid a salary from the grant. OSCs who contribute at least one person month or more effort must be designated as senior/key personnel.

Reviewers check carefully to see whether the PI and others have enough experience with the techniques to execute the Research Plan. The personal statement and contributions to science can be big factors in how you rate on the Investigator review criterion.

• Your personal statement can be a big factor in how you the PI rate on the Investigator review criterion.
• All key personnel's biosketches must explicitly state how their experience qualifies them for **their role on your project**, including relevant education, expertise, and accomplishments.

Other Grantsmanship Considerations

Citations – "Use whatever format you want". Numbered references saves space.

Documents - Everything uploaded into the NIH grant package must be PDF format.

Font – Must be 11 point or larger. Figure legends can be smaller but must be legible. No more than 15 characters per linear inch and no more than six lines per linear inch. Use Arial or Helvetica font with 11 point font or larger.

Headers and Footers – No.

Subheadings – Yes.

Margins – Narrow (1/2" all around) is minimum and advised – creates more space.

Figures – Use lots of them to demonstrate preliminary data and capabilities. Use text boxes with tight wrapping and add a figure legend to each.

Information for form pages

- All institutional information is pre-filled in Cayuse
- We will help fill those in and create the package in Cayuse
- Most grants allow for a pending IRB or IACUC protocol

Budget

- Salary information will be provided by Business Office

- We will build a budget like this together and help input it into Cayuse

	Salary	% effort	Requested	Fringe	Total
Heidel, R. Eric					
Kennel, Stephen J					
Macy, Sallie D					
Richey, Tina A					
Wall, Jonathan S					
Williams, Angela					
				Total	34,858.11
Supplies					
HPLC and CD supplies					3,000.00
Radionuclides					0.00
Chemicals (autoradiography reagents, slides, microplates)					5,000.00
					8,000.00
Animals					
60 Balb/c mice (purchase of mice and shipping costs)					0.00
Mouse housing					0.00
					0.00
Travel					3000.00
Total Direct UTMC					45,858.11
Indirect (F&A) - 40%					18,343.24
Total					64,201.35

Process for submitting a grant

- Contact Jon Wall as soon as you find a grant you want to apply for
- Grants submitted in Cayuse through the Research Office 5-7 days prior to the agency deadline
- UTHSC will review it and submit it