Funding Resources & Training

Yale

Funding Resources

http://grants.yale.edu/calendar

Explore these resources to identify support for your research efforts.
If you have questions, contact the Funding Resource Center Manager.
melanie.smith@yale.edu or (203) 785-4978

- **Calendar of Research Funding Opportunities**
  Deadlines and links to information from foundations, non-governmental organizations, State of Connecticut, and new federal funding opportunities
- **Scholar Awards**
  Prestigious limited submission foundation grants, primarily for junior faculty – internal competitions
- **Limited Submissions**
  Federal funding opportunities that limit the number of applications per institution – internal competitions
- **Internal Awards**
  Pilot/feasibility awards to kick-start your research
- **Yale-University College London**
  Funding for collaborations
- **Equipment Grants**
  NIH and NSF support for acquisition and/or development of major instrumentation
- **Funding Databases & Sponsor Websites**
  Generate funding searches and email alerts for relevant funding opportunities

Grantsmanship Training

http://grants.yale.edu/funding-opportunities/funding-grantsmanship-training

Attend free monthly programs designed to help faculty and trainees identify funding opportunities for their research and prepare successful, well-targeted grant applications. To register for upcoming events, click here.

The programs listed below are presented regularly.

- **Developing A Funded Research Program**
- **Science Writing for Grants and Manuscripts**
- **How to Write A Compelling Grant Abstract:** A Hands-On, Skill-Building Workshop
- **All About Career Awards:** Applications, Review, and Stepping Stones to Funding Your Future
- **Show Me The Money:** Using Online Databases to Identify Funding Opportunities for Your Research
- **Behind the Scenes at NSF, DOE, DOD and Other Funding Agencies:** An Insiders' Perspective on Grant Review
- **Behind the Scenes at NIH:** Study Section Members Share Their Experience with Application Review
- **Revising and Resubmitting:** Practical Considerations Based on the Psychology of Re-Reviews
- **Funding Q&A Clinic:** An informal conference room session to answer questions about identifying funding for your research.
- **How to Write A Successful R01**

Funding Opportunities & Resources

http://grants.yale.edu/funding-opportunities/funding-opportunities-deadlines

Yale subscribes to the InfoEd SPIN database of funding opportunities. Simply enter "postdoctoral fellowships" as your keyword or text and you will obtain a good list of the postdoctoral research fellowships available.

SPIN: https://spin.infoedglobal.com/Home/GridResults
You can start a search immediately. If you'd like to save your search and run it in real time, sign in and register your profile. Add as much information as you'd like to your profile. This will enable you to receive email alerts about funding opportunities in your area and about specific opportunities that you tag for new and updated information. The help videos are short and really helpful!

GrantForward: https://www.grantforward.com/index.
Although Yale does not subscribe to this database, some of their functionality is open to everyone. It's a very intuitive system and GrantForward includes an excellent list of all grantmaking organizations.

Grants.gov / Funding Opportunities: http://www.grants.gov/

The Department of Health & Human Services (DHHS) includes the National Institutes of Health (**NIH**), the Agency for Health Care Research and Quality (**AHRQ**), the Centers for Disease Control (**CDC**), and the Food and Drug Administration (**FDA**) among others. Think in terms of where your research might fit, or search on all of these at once.

NIH supports individual and institutional training programs for postdoctoral investigators. The NRSA Individual Fellowships (F32), http://grants.nih.gov/grants/guide/pa-files/PA-14-149.html, are an excellent source of support as are slots on institutional training grants (T32). Yale has more than 50 institutional training grants. A complete list is available at: http://grants.yale.edu/proposals/yales-nih-institutional-training-grant-resources. See where you might fit and contact the person listed under email about your interest.

Look for slots on K12 awards. These are institutional career awards and usually have 4 or 5 slots. Yale has 7 K12 awards presently. Check these out on the NIH Report Tool, https://report.nih.gov/. Under organization, type in yale; under project number, over the R01, type in K12. Use the NIH Report Tool, also, to check out success rates by funding mechanism and by institute.

Use the NIH Report Tool to check out success rates on all of the NIH grant mechanisms, include the K and F awards (with information available by institute and year). https://report.nih.gov/success_rates/index.aspx

The Yale School of Medicine funds the Brown Coxe Fellowships, http://grants.yale.edu/funding-opportunities/scholar-awards/brown-coxe-fellowships, for first and second year postdoctoral fellows. These are open to MDs and PhDs without regard to citizenship and provide support for one year of training. Deadlines are annually in January-February for start dates of July 1 of the same year. Current deadlines are: February 15 for PhDs and February 17 for MDs. 9-12 fellowships are funded annually.

There are other agencies that support biomedical and related research, notably the Department of Defense, Congressionally Directed Medical Research Programs, http://cdmrp.army.mil/researchprograms.shtml, and the Army Research Office, http://www.arl.army.mil/www/default.cfm?Action=29&Page=29. Funding opportunities are

often included for postdocs and junior faculty (including support for associate research scientists, ladder faculty, and instructors).

The Connecticut Department of Public Health, http://www.ct.gov/dph/cwp/view.asp?a=3152&q=389676&dphNav_GID=1601, posts research funding opportunities that frequently include eligibility for young investigators, including postdocs. Likewise, BioInnovation Connecticut, which manages the Regenerative Medicine Research Fund (formerly called the Connecticut Stem Cell Program), provides seed grants to mentored postdoctoral investigators as well as other more senior investigators. http://www.bioinnovationct.com/regen/

Albert Einstein College of Medicine / Office of Grant Support has the most complete list of postdoctoral fellowships available. The list is annotated to include fields of interest and deadline dates and is updated regularly.
http://www.einstein.yu.edu/administration/grant-support/post-doc-awards.aspx (just for postdocs)
http://www.einstein.yu.edu/administration/grant-support/funding-opportunities.aspx (for all funding opportunities)

Other Resources:

Ask your immediate predecessors, those who are within 5 years of where you are now. What fellowships or career awards did they apply for? Receive?

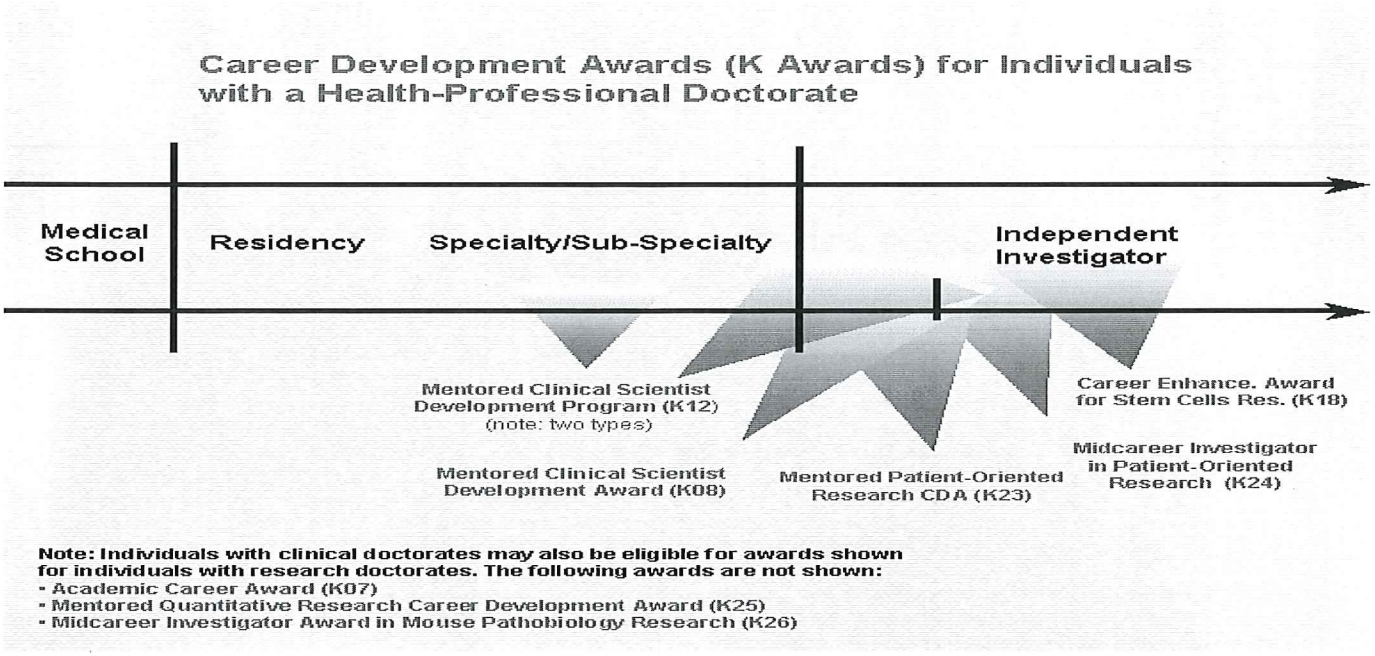
As you read the literature of your field, note the sponsors of the research conducted.

Look for internal funding opportunities to cover your research expenses. Center grants typically include a portion of money to support pilot and feasibilities studies by Yale faculty investigators, and often-times this will include postdoctoral investigators. Use the list at: http://grants.yale.edu/funding-opportunities/internal-awards as a starting point and check bulletin boards.

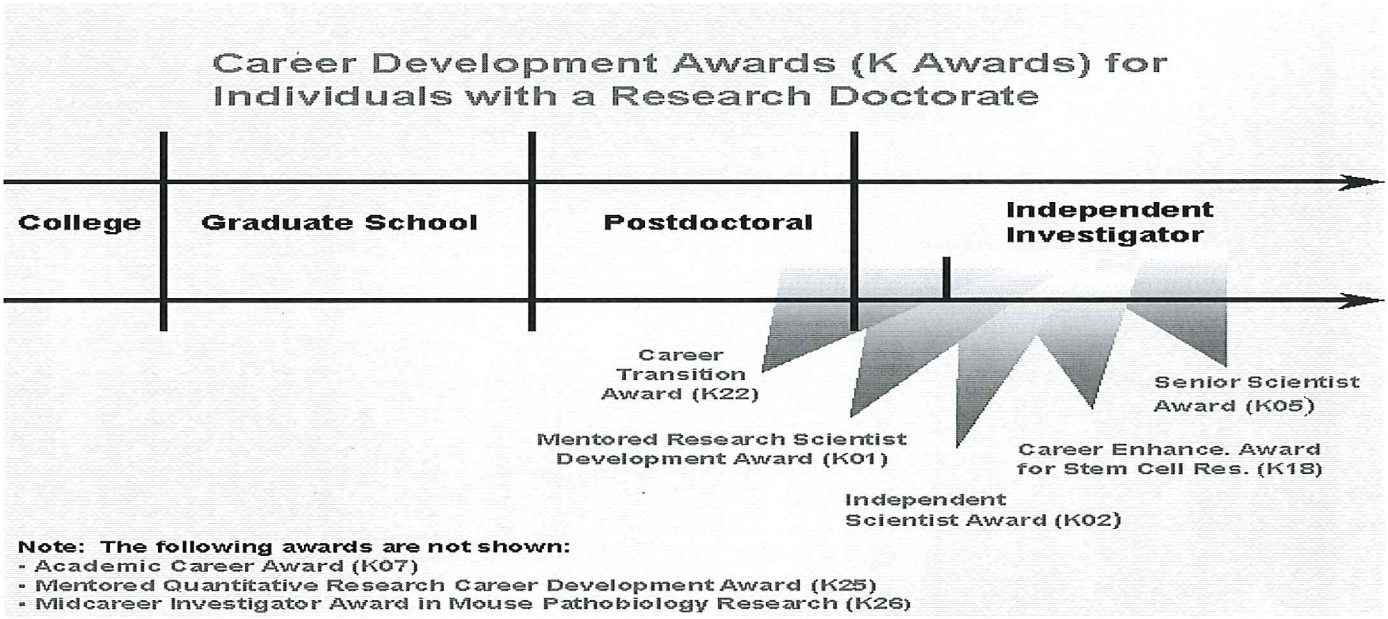
At the same time you are looking at postdoctoral awards, look at "young investigator" awards. These are often intended for beginning faculty, but some include support for postdocs as well. These will typically provide salary and research expenses.

Think about this:

It is much easier to get a grant once you have one. It's just like getting that first job as a teenager. Think in terms of your career. Are you planning to make research an important element in your career? If so, you will need to apply for grants. Yes, your mentor may have funds for you. But ... go out and get a grant in your own name. Not only will your mentor appreciate this, but you will be on the road to demonstrating that you can manage a grant (albeit small in some cases), and will gain experience in fulfilling the reporting required for your grant. Do this successfully and you have a sponsor that will be much more willing to support your research in the future. And, other sponsors figure that if you've had a grant (or fellowship), you're a more worthy risk to fund in the future. It also shows that you are pro-active and a go-getter, not resting on your mentor's laurels. You will also gain valuable experience writing a grant proposal. Write a really good proposal and you'll find that you have thought through your proposed research in-depth, including your resources, the pitfalls if any of your aims falling apart, and so on. To paraphrase one of my favorite speakers on the topic of successful grantwriting, "when you have finished writing a grant proposal, you rule on that research."



There are nine Different Career Development awards that individuals with a health professional doctorate should consider. Most of these awards support individuals after they have completed clinical training and have accepted a faculty position. There is the Mentored Clinical Scientist Developmental Program Award (K12) that is an award to specific institutions and interested candidates should ask the chair of their department if such an award exists. There are also a series of individual awards including the Mentored Clinical Scientist Award (K08) that supports career development experiences for individuals interested in research in areas that don't involve human subjects. If you want a career that does include work with human subjects, consider the Mentored Patient-Oriented Research Career Development Award (K23). If you have already been trained and want to serve as a mentor to more junior clinicians try the MidCareer Investigator in Patient-Oriented Research Award (K24) . There are other awards that should be examined including the Career Enhancement Award in Stem Cell Research (K18) the Academic Career Award (K07), the Mentored Quantitative Research Career Development Award (K25), and the Midcareer Investigator Award in Mouse Pathobiology Research (K26). Information on all of these awards can be found on the K Kiosk at http://grants.nih.gov/training/careerdevelopmentawards.htm.



There are at least eight different awards that individuals with a research doctorate should consider. Most of these awards support individuals that have accepted or are ready for a faculty position. There is the Career Transition Award (K22) that provides support during the early years of a new faculty position. This award is used differently by the NIH institutes and centers that participate and interested applicants should carefully review the relevant program announcements. New faculty members that need additional supervised research experience because they have had a career hiatus or they are moving to a substantially new area of research should consider the Mentored Research Scientist Development Award (K01). Scientists who have recently received independent research support might consider the Independent Scientist Award (K02) that protects at least 75 percent of their effort so that they can focus on the development of their research program. Individuals interested in Stem Cell research or Quantitative Methods or Mouse Pathobiology might consider the K18, K25, or K 26. A few of the NIH Institutes offer an award called the Senior Scientist Award (K05) that provides protected time and salary support for more senior, established scientists. Finally there is the Academic Award (K07) that is used to recruit research faculty into areas where there is a growing need for research and instructional capabilities. Information on all of these awards can be found on the K Kiosk at http://grants.nih.gov/training/careerdevelopmentawards.htm.

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All About Grants: Tutorials and Samples

All About Grants helps investigators plan and write grant applications and manage their awards. Help us improve our outreach to you by emailing deaweb@niaid.nih.gov.

All Investigators

Strategy for NIH Funding

Get sound guidance and a solid strategy for R01 applications and grants in the Strategy for NIH Funding.

More Tutorials in Topic Areas

- New Investigator Guide to NIH Funding
- Guidance for Preparing a Multiproject Research Application
- How to Write an Application Involving Research Animals
- NIAID Human Subjects Application and Grant Handbook and Checklists for Human Subjects
- Advice on Research Training and Career Awards
- How to Apply for SBIR and STTR Awards
- Grants Policy and Management Training for Foreign Investigators

Contacts

Communicating With NIAID—How to Get Help. Talk to a program officer about whether your area of science fits NIAID's mission and learn about our opportunities.

Learn When to Contact an NIAID Program Officer.

NIAID Grant Portals

For more information, go to our other Grants portals by stage, audience, and science area.

New Investigators

Resources by Career Stage

Find resources for your career stage.

- Advice on Research Training and Career Awards—get advice on fellowships, career awards, institutional T32 training grants, and supplements.
  - Training and Career portal—find information for early career stages.
- New and Early-Stage Investigators portal—find out which support types are appropriate for you.
  - New Investigator Guide to NIH Funding—learn the basics about NIH and how to qualify as a new PI of an independent grant.
  - Checklist for New Investigators

Application Tools

Sample Applications

- Samples and Examples—find examples of whole and sections of grant applications from NIAID and NIH.
  - Sample Applications and Summary Statements

Timelines

- Strategy Timelines in the Strategy for NIH Funding
- R01 Planning to Award Timeline by Review Cycle
- Grants Timeline for Fiscal Year—for staff

Other Links

- NIAID Funding Opportunity Planning and the Budget Cycle
- Laws and Regulations That Affect NIH's Programs
- Center for Scientific Review
  - Integrated Review Groups
  - NIH Grant Review Process YouTube Videos. See a video of a mock study section.

Website Tool
Print this page
Order publica
Highlights
- NIAID Funding January 20, 20
- All About Grant
- Strategy for NIH
- Samples and E
- Sample Applica
- Top Policy Cha
- Resources for Researchers
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- Center for Scier Review (CSR)
- early-stage inv
- human subjects
- new investigato
- peer review
- principal investi
- program officer
- R01
- resubmission
- Small Business Research (SBI R44)
- Small Business Technology Tra (STTR, R41, R4
- study section
- summary staten
- training grant (T
See the Glossary f terms.

With thanks to the authors, whoever they may have been . . . this is a good list

Common Proposal Mistakes to Avoid

1. Ideas not original or significant.
2. Unrealistic amount of work proposed (overambitious).
3. Project too diffuse, lacks focus.
4. Rationale to do project not clear or valid.
5. Project is fishing expedition and/or lacks hypothesis driven research.
6. Studies are based on a shaky hypothesis or shaky data.
7. Proposed experiments are descriptive and do not test a hypothesis.
8. The proposal is technology driven not hypothesis driven.
9. Rationale for experiments not given.
10. Direction or sense of priority not clearly defined.
11. Lack of alternative methodological approaches in case primary approach does not work out.
12. Insufficient methodological detail to support feasibility (no recognition of potential problems).
13. If initial experiment fails, the subsequent experiments fail.
14. Proposed model system does not address the proposed question.
15. Experiments lack relevant controls.
16. Proposal innovative but lacks preliminary data.
17. PI has no experience with proposed techniques and no collaborator who does.
18. Preliminary data does not support feasibility of the project or hypotheses.
19. Proposal lacks critical literature references so that reviewers think the PI does not know literature or purposely neglected critical publications.
20. Not clear which data were obtained by PI and which data were obtained by others.
21. PI has not been productive, no recognition in the field for which the proposal is submitted.

Basics of Grant Writing

Central writing principle: Write with the reader in mind

Major basic writing principles:

Principles of word choice and location:

- Words should be simple
- Avoid unnecessary words and phrases
- Place old and familiar information at the beginning of a sentence in the topic position
- Place new/important information at the end of a sentence in the stress position

Principles of sentence structure and location

- Write short sentences
- Use first person and active voice
- Use correct verb tense

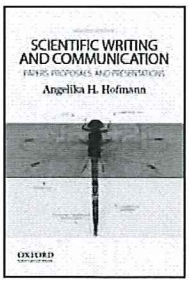
Principles of paragraph structure

- Each paragraph must be organized
- Establish importance: first power position is most powerful within a paragraph
- Create continuity using word/sentence location, repeating key terms, and transitions

Principles for grants writing:

- Obtain and strictly follow the proposal guidelines.
- Consult administrators (department chair or dean and proposal coordinators)
- Adjust your level of writing to your audience
- Make sure the first page is perfect
- State the objective of your proposal precisely
- Indicate what is unknown or problematic and logical next steps
- Be realistic when listing aims and do not make aims too interdependent
- State the significance of the study
- Provide pertinent background information
- Summarize and generalize previous results relevant to the topic
- Use figures and tables if necessary to enhance findings (prefer color)
- State expected outcomes clearly
- Demonstrate your expertise and that of your colleagues
- Convey confidence

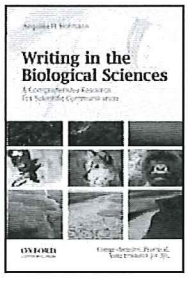
Scientific Writing and Communication
Author: Angelika Hofmann



For grad students, postdocs, faculty

- Multi-disciplinary examples
- Extensive end-of-chapter exercises
- Writing guidelines and checklists
- Annotated text passages
- Eight chapters on grant writing

Writing in the Biological Sciences
Author: Angelika Hofmann



- For undergraduates and graduates
- Includes lab reports, term papers, essay questions, oral presentations, posters, job and graduate school applications
- Annotated text passages
- Exercise sets
- Top 20 tips for MS Word, Excel and PowerPoint

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