RESEARCH GRANT WRITING
GRANT-O-THON
GUIDE FOR PARTICIPANTS

"Don't wait for the right opportunity: create it."

-George Bernard Shaw

"Research is formalized curiosity. It is poking and prying with purpose."

-Zora Neale Hurston

"If you can't explain it simply, you don't understand it well enough."

-Albert Einstein

Purpose: To enhance the capacity for early career researchers to submit successful US National Institute of Health research grants and spur collaboration.

Dates: February 21st – March 28th, 2023, on each Tuesday from 1 pm - 2:30 pm UTC (30-minute open lecture and a 60-minute interactive workshop)

Location: Zoom

Website: https://www.seshglobal.org/grant-o-thon-grant-writing-workshop-2023/"

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GRANT-O-THON INTRODUCTION

A grant-o-thon is a multi-stage participatory event that includes an open call for participants and ideas, an intensive period planning a research grant, and follow-up to enhance grant submission. This strategy is an example of crowdsourcing[1] and is related to designathons, hackathons, and other forms of collaboration.[2] The purpose of this grant-o-thon is twofold: (1) to build capacity for early career researchers (graduate students, postdoctoral fellows, and those within ten years of their terminal degree) to submit successful US NIH research grants; (2) to enhance collaboration between and within research teams.

We chose to organize this series of grant writing workshops as a grant-o-thon for the following reasons: (1) an expanding literature suggests that participatory activities like grant-o-thons can be effective; (2) a grant-o-thon will provide a way to enhance community engagement; (3) the approach may increase participation compared to conventional ways of teaching grant writing.

Learning about grant writing as part of an official class activity can be useful, but actually putting pen to paper is essential. This is why we are organizing this grant-o-thon.

Reference

1. WHO/TDR/SESH/SIHI. Crowdsourcing in Health and Health Research: A Practical Guide. 2018. Social Innovation in Health Initiative.
2. Tucker JD, Tang W, Li H, et al. Crowdsourcing Designathon: A New Model for Multisectoral Collaboration. BMJ Innovations. 2018;4:46-50.

Figure 1: "The NIH" James H. Shannon Building (Building One), NIH campus, Bethesda MD

INTRODUCTION TO NIH RESEARCH GRANTS

In 2022 the United States National Institutes of Health gave away half a million dollars every hour. This is the largest public source of research funding in the world. Over half of the US NIH budget is given out in research grants. In 2021 the overall NIH success rate was 19%, with an average award size of $581,293. NIH makes grants to institutions, so it is very important to determine the right institution to help you apply.

The NIH has special programs to help early-stage investigators (see here). Early-stage investigators with meritorious scores will be prioritized for funding. Early-stage investigators may be interested in K awards (career development grants, five years), R03 (two years, 100K USD total), R21 grants (two years, 275K USD total) and R34 (developing a clinical trial, three years, 450K USD total).

The NIH is composed of 27 separate institutes and centers. It is important to find the appropriate institute for your research grant.

BEFORE THE GRANT-O-THON

In order to prepare for the grant-o-thon, each individual participant needs to make a few careful decisions about key aspects of the grant application. These include the following:

1) Decide the appropriate research grant to apply for (see the previous section of this guide for several types of grants relevant to early career researchers). You may want to find a specific program announcement or request for applications.

2) Determine your eligibility for your target grant opportunity through discussions with a mentor and institutional official.

3) Confirm that your institution (university, research institute) will be supportive of submitting a grant application.

4) Identify a few key individuals who can either serve as co-investigators, mentors, or co-PIs and seek their feedback along the way.

5) Identify a realistic timeline for submitting the research grant application.

6) Polish the specific aims of the application so that they are strong and ready for the first session of the grant-o-thon. They need to be submitted by February 1st to us.

7) Review this handbook and get excited about grant writing!

WHAT TO EXPECT
DURING THE GRANT-O-THON

The key thing to expect is that you will write a first draft of an NIH grant over the course of the grant-o-thon. Each week will have a 30-minute Zoom lecture focused on explaining a specific section of an NIH research grant. This will be followed by a 60-minute interactive component involving breakout rooms. Each small group will have two mentors and two to three participants. The mentor will have experience with grant writing and will primarily serve as a facilitator to provide feedback and spur discussion. The purpose of the interactive component is to provide an opportunity for participants to give constructive criticism and receive feedback from others. Only participants who bring the required section will be able to participate in the 60-minute interactive component.

In addition, we will have an asynchronous WhatsApp thread that will provide support, guidance, and practical suggestions to facilitate grant writing.

Schedule of Events and Participation Requirements:

DATE	TOPIC	SPEAKER	REQUIREMENTS TO JOIN
February 21st	Specific aims	Prof. Bill Miller	Draft specific aims
February 28th	Innovation	Prof. Juliet Iwelunmor	Draft innovation section
March 7th	Significance	Dr. Weiming Tang	Draft of significance section
March 14th	Approach 1	Prof. Joe Tucker	Outline of the approach section
March 21st	Approach 2	Prof. Mina Hosseinipour	Draft of the approach section
March 28th	-	-	Focus on the entire grant application

TIPS FOR SUCCESS

1) ***Be tenacious.*** NIH grant writing takes time, and failure is part of the process. On the one hand, you need to create the most compelling grant that you possibly can. On the other, do not expect it to be funded on the first time around. Most NIH grants can be revised and resubmitted.

2) ***Set aside time every day for writing.*** Scheduling time to only focus on grant writing can be a useful way to make progress. Some people like writing in dyads or small groups.

3) ***Do something small well.*** You would be better served to write a beautiful small grant that is funded rather than a large grant that is unwieldy and ultimately unsuccessful. Think about feasibility when you are deciding which type of grant to aim for.

4) ***Identify successful examples****.* The NIH has a long list of research grant examples here. However, having a grant application focused on your specific topic is also useful. Talk to your mentor or department to see if there are folks who are willing to share their previous successful grant applications with you. The NIH REPORTER has a list of all funded grant abstracts and contact PIs.

5) ***Make a timeline for the grant-o-thon.*** Set deadlines for completing each section prior to the date that it is discussed.

FREQUENTLY ASKED QUESTIONS

I will miss one of the sessions. Can I still join?

We strongly recommend that all participants join all sessions. If you have a scheduling conflict, we recommend that you find a team member working with you on the application who can represent you and join for that specific day.

Will the lecture sessions be recorded?

Yes, all lectures will be recorded and archived on the website.

What if I do not have enough time to develop the required drafts?

We recommend that everyone make time to have an initial draft, even if it is rough. The point is to get pen to paper – not to talk about writing, but to actually write.

I do not have much experience with writing in science.

Don't worry! You are in good company. Only through practice will you improve.

Should I be worried about my good ideas being taken by others?

No! All participants will sign an agreement stating that all data discussed are confidential. Also, we will not have time actually to share your drafts. Just share the screen and discuss.

My friend heard about the grant-o-thon and now wants to join. Can they?

Anyone can attend the first 30 minutes-lecture, but the interactive component is limited to persons who have shared specific aims by February 1st.

English is not my first language; will this be a problem?

We know that many will have English as a second language. At the same time, you need to have strong enough English to write an English language grant application.

RESOURCES

1) **NIH resources for early career researchers:** Introduction to NIH career development awards at different stages
2) **NIH Office of AIDS Research early career investigator resources:** Lists of HIV priorities, HIV grants, and other resources
3) **NIH REPORTER:** Comprehensive list of all NIH-funded grants, including abstracts and easy to search
4) **Early Career Researchers Central:** Aggregator of early career research opportunities
5) **UK Research and Innovation resources for early career researchers:** Includes career pathways and networking opportunities
6) **WHO/TDR Health research mentorship in low and middle-income countries (HERMES):** Practical guide to spur research mentorship in LMICs