



Grant Review and Support Program

Program Guide



Program Website

<https://catalyst.harvard.edu/courses/grasp/>



Questions?

Email us at
GRASP@catalyst.harvard.edu



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Welcome

Harvard Catalyst's Grant Review and Support Program (GRASP) is a longitudinal program that provides Career Development Award recipients grant-related guidance and support throughout the duration of their award so that they can successfully apply for R01 or equivalent funding. Within this document we provide an overview of the program, which includes the following:

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- ❖ Accessibility, Diversity & Inclusion and CME Credit (*pages 11-12*)
- ❖ Appendix (*page 13*)

Program Faculty & Organizers

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Program Creation & Description

The Grant Review and Support Program (GRASP) was created by [Harvard Catalyst](#) in 2011 as it became increasingly clear that the rate of success in obtaining independent research funding was diminishing for young investigators. The 2013 funding success rate for new applicants seeking an NIH R01 independent research grant (or R01-equivalent grant) was 14.45%, down from 18.35% in 2005. These rates were particularly troubling because a grant of this nature and size was traditionally considered critical to sustain a career in research.

It was clear to [Harvard Catalyst Education Program](#) leadership that compelling science alone was not enough to secure funding. Based on national research, faculty observations, and community needs assessment, it was determined that investigators often lack the knowledge, planning skills, and support needed to adequately prepare for and write successful grant applications. Developing an effective teaching curriculum and a long-term grant-mentoring strategy became foundational to addressing this knowledge gap and critical need.

GRASP was designed to equip Harvard researchers, who received a Career Development Award, with the grant-writing skills, project management tools/strategies, and longitudinal support needed to successfully obtain R01 or independent research funding. Program curriculum continued to evolve over time to meet new and emerging needs. After several years of running GRASP, it became clear, based on NIH funding trends and faculty observations, that NIH grants, alone, were not enough to sustain an independent research career. Educating junior investigators on the techniques to seek and to apply successfully for funding from non-NIH sources (i.e. foundation, industry, philanthropy) became an additional goal.

The GRASP curriculum is crafted to provide diverse support throughout the duration of an awardee's 4- or 5-year award. Since the program's launch in July 2011, more than 700 participants have joined the program. Armed with the knowledge, tools, and longitudinal support provided by GRASP, participants have been better prepared to establish independent research careers, funded by a variety of different grants.



Program Creation & Description

57% of GRASP participants have had success in obtaining R01 or equivalent funding, as compared to the current NIH success rate of 21%*.

Learn more about the specifics aspects of the program in the following sections.

**(NIH Reporter "Research Project Grants: Competing Applications, Awards, and Success Rates." <https://report.nih.gov/nihdatabook/report/20>. Accessed July 2023.)*

Program Goals

By participating in the program, participants will:

1. Understand how to write and assemble a competitive grant application, specifically NIH R grants.
2. Learn the skills and attributes of a competent independent researcher.
3. Learn how to project manage milestones across the years of a Career Development Award to prepare to apply for independent funding.
4. Discover available funding opportunities and how to foster relationships with funding agencies.

These goals inform all aspects of the program curriculum, including the design of related learning opportunities that focus on intersecting needs in order to successfully prepare a R01 proposal. Consistent with the Harvard Catalyst Education Program's [curriculum development process](#), GRASP organizers continually iterate and refine the program using the guiding competencies and principles.



Participant Eligibility

To be eligible for GRASP, applicants must:

- be a [Harvard-affiliated](#) junior faculty clinician/translational-investigator.
- be a recipient of a 4- or 5- year Career Development Award. (Typically a NIH K grant such as a K23, K08, K07, K01, or K25 or equivalent Career Development Award from a grant-funding organization (such as the American Cancer Society, American Heart Association, or U.S. Department of Veteran Affairs)).
- be in the first or second year of their grant.
- agree to actively participate in the mandatory components of the program.
- receive an endorsement from a primary mentor supporting their participation in the program.

Eligible investigators are required to complete a program application; however, all participants are accepted if they meet the eligibility requirements.

Recipients of Harvard Catalyst's K12/CMeRIT Award are required to participate in GRASP. Please find more

information related to K12/CMeRIT participants of the program on page 11.

Ineligible participants include those:

- whose Career Development Award is less than 4 years in length.
- who are past the first or second year of their award.
- are K99/R00 recipients.



Participant Time Commitment & Expectations

Accepted participants are eligible to remain in the program throughout the duration of their Career Development Award. They are required to participate in certain components of the program, while other components are optional. Therefore, the time commitment can vary between participants.

Components of the program include the following:

Mandatory components:

- GRASP Orientation Workshop
- Planning and Writing Successful Grant Proposals Seminar
- Mentor/Mentee Expectations Form
- Participant Work Plans
- Work Plan Mentor Support
- Writing and Communication Center Grant Writing Tips

Optional components:

- Specific Aims Page Critique Modules
- 'Hot Topic' Modules
- Faculty Office Hours
- Staff Office Hours

A full description of each component is listed below. The monthly time commitment for the first year averages to about two hours per month, which decreases to about one hour per month in subsequent years.

In the appendix on page 13, we have provided an example of what some of the components and support from the program looks like over a participant's 5-year Career Development Award.



Program Components

Orientation Workshop (*Fall - 3 hours/week for 3 weeks - virtual, required*): During this workshop, GRASP faculty welcome participants into the program, review program tools and longitudinal support, discuss skills and attributes of a competent independent researcher, review the importance of diversifying a funding portfolio and provide an overview of the NIH grant review process. The workshop also facilitates networking between participants. Participants can attend subsequent workshops again as a refresher.

Planning and Writing Successful Grant Proposals Seminar (*Winter - 3 hours/week for 4 weeks - virtual, required*): For this seminar the GRASP team invites the AtKisson Training Group (ATG) to provide a comprehensive training on writing an NIH R grant, with the goal of helping participants understand how and why successful proposals work, to decrease their frustration with writing and to increase their chances of success. Facilitators provide in-depth instructions on how to prepare and write each part of an NIH R01 grant application through lecture and interactive discussion. Participants are required to attend this intensive grant writing seminar close to the start of their Career

Development Award as it allows them to properly plan for an R01 or equivalent grant submission early. It provides participants with an understanding of what is needed for a successful grant proposal and, therefore, allows them to incorporate necessary steps early in the development process. As this seminar is offered to new cohorts annually, participants have the option of the workshop again as a refresher closer to their R grant submission.

Mentor/Mentee Expectations Form (*required*): As part of properly planning for independent funding and a research career, it is vital to develop a strong mentoring relationship. To help facilitate this, the GRASP team developed a Mentor/Mentee Expectations form, allowing participants to ensure clarity of roles and responsibilities with their scientific mentor(s). The form was designed to aid in the process of recording agreements on areas such as publications, research space, and promotions. The form is introduced during the Orientation Workshop and must be submitted to GRASP staff within the first year of the program. We encourage participants to revisit the document as needed with their mentor(s).



Program Components

Participant Work Plan (*required*): Fundamental to the program is the belief that to be successful, one must adequately plan for and project manage their grant applications. To support this, each participant is provided a customized work plan developed (and routinely updated) by GRASP faculty. Using a timeline of a 4- or 5- year Career Development Award, the work plan maps out the yearly tasks that need to be completed in order to successfully apply for NIH R01 or equivalent funding, with the goal of minimizing a gap in funding. A work plan is provided to participants through individual Google Sheets and are shared during the Orientation Workshop. Google Sheets easily facilitates collaboration between the GRASP team and participants.

Participants are encouraged to customize and use their work plan in ways that are most supportive for them, with a minimum expectation that they use and update their work plan monthly. Additionally, participants are encouraged to share their work plan with their mentor, and other collaborators, to review their progress and develop their grant submission timeline. Active participants also receive support directly through their

work plan from an assigned GRASP work plan mentor quarterly.

Work Plan Peer Mentor Support (*required*): GRASP participants are provided work plan support throughout the program by a team of work plan mentors. Mentors are recent GRASP alumni who have received R01 funding. They provide support in the form of individualized feedback through direct comments on participant work plan. They answer questions and provide guidance related to planning, writing and submitting a grant. Each mentor is assigned a group of active GRASP participants, and they are required to review participant work plan's quarterly to answer questions and confirm that participants are staying on track. Since they have recently navigated the R01 submission process, they are a knowledgeable, independent resource participants can utilize for feedback and support. Participants of the program are expected to engage with work plan mentors in seeking support and guidance. See the full list of peer mentors below (page 10).



Program Components

Writing and Communication Center Grant Writing Tips (*required*): This Harvard Catalyst public resource provides strategies and tools to help effectively navigate the process of prewriting, writing, and rewriting your grant application to maximize chances of success. The resource was originally created for GRASP participants and compiles a list of tips, resources, and strategies to assist participants in navigating the grant writing process. Participants are often directed to this resource throughout the program and are expected to review it periodically.

Specific Aims Page Critique Modules (*Quarterly - 2 hours - virtual*): As participants begin drafting specific aims pages, they are invited to participate in a Specific Aims Page Critique Module. These modules provide a forum for participants to receive individualized, in-depth feedback on their draft aims pages by faculty members and peers. Each module is specifically designed for a small number of participants, a maximum of 3 participants per faculty member, so that each participant's aims page receives a 30-minute critique. Participants leave the module with a copy of their faculty-critiqued aims page and feedback from

the group discussion. Participants are allowed to participate in as many modules as available.

'Hot Topic' Modules (*Typically once per-year - virtual or in-person*): GRASP provides supplemental modules, typically once a year, that are targeted and relevant discussions related to supporting grant funding. Past modules have been on topics such as: how to carve out a research niche, Q & A on research and funding impacts in the wake of COVID-19, and how to respond effectively to a summary statement.

Faculty Office Hours (*Bi-weekly - virtual*): GRASP faculty host bi-weekly office hours for GRASP participants. Meetings are typically 30-60 minutes in length and are confidential. Faculty are available to discuss grant-related challenges, timeline considerations, grant summary statements and to review draft grant submissions. They also can direct participants to appropriate resources. Participants can schedule a meeting with faculty by contacting the GRASP team via email.



Program Components

Staff Office Hours (*Bi-weekly - virtual*): GRASP staff host bi-weekly office hours to discuss customizing and adjusting participant work plans, answer any logistical questions related to using their work plans and direct them to helpful Harvard Catalyst resources and educational activities. Staff provide potential options and solutions to assure work plans accommodate specific grant submission goals and timelines.

Work Plan Mentors

<u>Iman Agani, PhD</u> Massachusetts General Hospital Assistant Professor GRASP Cohort: April 2016	<u>Beth Costine-Bartell, PhD, MS</u> Massachusetts General Hospital Assistant Professor GRASP Cohort: October 2015
<u>Christopher Celano, MD</u> Massachusetts General Hospital Assistant Professor GRASP Cohort: October 2015	<u>Brittany Charlton, ScD</u> Harvard Pilgrim Healthcare Assistant Professor GRASP Cohort: December 2017
<u>Abby Fleisch, MD, MPH</u> Maine Medical Center Faculty Scientist GRASP Cohort: October 2015	<u>Josiemer Mattei, PhD</u> Harvard T.H. Chan School of Public Health Associate Professor GRASP Cohort: April 2015
<u>Sarita Patil, MD</u> Massachusetts General Hospital Assistant Professor GRASP Cohort: October 2015	<u>Christine Sieberg, PhD</u> Boston Children's Hospital Assistant Professor GRASP Cohort: April 2017



K12/CMeRIT Program Participants

The Grant Review and Support Program (GRASP) also supports [Harvard Catalyst Sponsored K12/CMeRIT](#) recipients throughout the duration of their 2-year award. The K12/Catalyst Medical Research Investigator Training (CMeRIT) program, formerly known as the KL2/CMeRIT program, provides advanced training in clinical and translational research to senior fellows and junior faculty from all health professions represented by Harvard Catalyst, including medicine, dentistry, and nursing. Awardees pursue a 2-year mentored research project in their area of expertise.

It is expected that the research performed by recipients within the K12/CMeRIT program will provide the basis for a career development or independent NIH award (e.g., K23, KO8, or RO1). Therefore, it is a requirement of the program that awardees participate in GRASP once they receive their K12/CMeRIT award.

Like other GRASP participants, K12 recipients are required to participate in the mandatory components of the program and are eligible to participate in the optional components. Depending on the award they intend to apply for (either a Career Development award or Independent Research award), all components of the program are customized to support them.

Accessibility

Harvard Catalyst Education Program is committed to creating an accessible learning environment. Participants can request accommodations or adjustments through the program application and/or by contacting GRASP staff directly.



Diversity & Inclusion

Harvard Catalyst Postgraduate Education is dedicated to addressing equity and intersectionality in medicine. We believe that the research community is strengthened by understanding how a number of factors including gender identity, sexual orientation, race and ethnicity, socioeconomic status, culture, religion, national origin, language, disability, and age shape the environment in which we live and work, affect each of our personal identities, and impacts all areas of human health.

We know that individual differences enrich our understanding of one another and of the world around us, creating a better learning environment. GRASP welcomes—and celebrates—the perspectives of all backgrounds, and those who are at the intersections of different identities. Furthermore, we aim to create a program environment that supports a diversity of thoughts, perspectives and experiences. We welcome any suggestions on how to improve the diversity and representation of educational activities and program materials. Please contact us at GRASP@catalyst.harvard.edu if you have any suggestions to improve the diversity and representation of authors/speakers in materials.

CME Credit

The Harvard Catalyst Education Program is accredited by the Massachusetts Medical Society to provide continuing medical education for physicians.

The *GRASP Orientation Workshop* and *Planning and Writing Successful Grant Proposals Seminar* receive continuing medical education (CME) credit.

Harvard Catalyst Education Program's policy requires full attendance and the completion of all activity surveys to be eligible for CME credit; no partial credit is allowed.

Physicians should claim only the credit commensurate with the extent of their participation in the activity.



Appendix: Sample Participant Timeline

We have provided an example of what some of the components and support from the program looks like over a participant's 5-year Career Development Award.

