

GRAND

CHALLENGES GRANTS

Information Session

April 26, 2022

Welcome + Overview

Agenda for Today's Session:

- Vision for the Grand Challenges Grants Program
- Funding Priorities
- Overview of Grant Tracks
- Timeline
- Resources
- Questions



Vision for the Grand Challenges Grants

- The University of Maryland takes on humanity's grand challenges, setting forth an ambitious vision and agenda in pursuit of excellence and impact for the public good
- This program reflects our institutional commitment in ***Fearlessly Forward: the University of Maryland Strategic Plan.***



Funding Priorities

Proposals must demonstrate how the proposed effort will make meaningful advances to address a major societal challenge, *such as*:

- **Climate Change** (includes clean energy, sustainability, food and water insecurity)
- **Social and Racial Injustice** (includes poverty, education disparities, structural inequality)
- **Global Health** (includes health equity, pandemic preparedness, mental health, and wellness)
- **Threats to Democracy**
- **Ethical, Fair & Trustworthy Technology** (includes bias-free artificial intelligence, privacy, transparent uses of data)
- **Other Grand Challenges are welcome**



Overview of Grant Tracks

Multiple Tracks:



Institutional Grants



Project Grants for Teams



Project Grants for Individual Investigators



Grand Challenges **Institutional Grants**



- Efforts in this category will propose new institutional structures that catalyze cross-disciplinary collaborations around a grand challenge theme
 - Examples:
 - Interdisciplinary institute
 - Major center or school
 - New public-private partnership/consortia
- Proposals should put forward a transformative approach to collaboratively address a major societal challenge



Grand Challenges **Institutional Grants**



Eligibility:

- Tenured faculty, tenure-track faculty, and professional track faculty are eligible to apply as PIs
- Proposals submitted across multiple colleges are encouraged
- Proposals should draw upon expertise from across campus

Funding:

- Awards will provide up to \$500K per year for 3 years
- A 1:1 match is required from participating colleges and/or departments that includes cash and in-kind resources
- Up to three Institutional Grants will be awarded



Grand Challenges **Institutional Grants**



Successful Proposals will:

- Articulate a highly compelling need for the proposed institutional structure
- Detail the proposed reach, impact and potential of the proposed novel structure to address a grand challenge
- Describe internal and external partnerships that will enable, scale, and expand the impact and visibility of the effort
- Provide innovative and new opportunities for students' learning and classroom experiences
- Demonstrate a path to financial sustainability



Grand Challenges **Institutional Grants**



Proposal Process:

- A **3-5 page letter of intent** is required for submission by **July 1**
- **Optional workshops** will be available to provide assistance to interested teams who seek such support before the deadline
- For those teams whose letters of intent are selected to move forward to the **second stage of the process**, additional **required workshops** will be provided
- These teams will make a **presentation** to University Leadership
- A select number of teams who make presentations will be invited to submit **full and final proposals**



Individual + Team Project Grants



- Efforts in this category will support projects that are targeted toward a specific component of a grand challenge
- Proposals should not focus on incremental or piecemeal advances, but instead, should put forward a compelling, transformative and forward-leaning approach that will make meaningful advances to address a major societal challenge
- Proposals should clearly demonstrate how this new project could ultimately improve human lives and impact society



Individual + Team Project Grants



Successful Proposals will:

- Articulate a highly compelling need for the proposed project
- Detail the proposed reach, impact and potential of the proposed project to address a grand challenge
- Describe internal and external partnerships that will enable, scale, and expand the impact and visibility of the effort
- Provide innovative and new opportunities for students' learning and classroom experiences



Individual + Team Project Grants



Proposal Process:

- A proposal with a **5-page limit for Individual Project Grants** and a **7-page limit for Team Project Grants** must be submitted by **September 30**
- **Optional workshops** will be available to provide assistance to interested teams who seek such support before the proposal deadline



Grand Challenges **Project Grants: Teams**



Eligibility:

- Tenured faculty, tenure-track faculty, and professional track faculty are eligible to apply as PIs
- Team projects require multiple disciplines and collaborators
- Teams must have at least one PI and one co-PI
- There is no limitation on the number of team members
- Teams are encouraged to have at least one faculty member at the rank of assistant professor (or assistant research scientist)

Funding:

- Awards will provide up to \$250K per year for 3 years
- A 1:1 match is required from participating colleges and/or departments that includes cash and in-kind resources
- Up to 10 Team Projects are envisioned for funding

Grand Challenges **Project Grants: Individuals**



Eligibility:

- Tenured faculty, tenure-track faculty, and professional track faculty are eligible to apply as PIs

Funding:

- Awards will provide up to \$25,000 per year for 3 years
- A 1:1 match required from participating colleges and/or departments that includes in-kind resources
- Up to 50 single investigator awards are envisioned for funding



Timeline: **Institutional Grants**



Initial Letter of Intent Stage:

- Optional Participation in Ideation Sessions and Accelerator Workshops: **May 13, May 23, June 7**
- Letter of Intent Preliminary Proposal Deadline: **July 1, 2022**

Second Stage for LOIs Selected to Move Forward:

- Participation in Required Workshops: **July - September 2022**
- Presentation to University Leadership: **October 2022**
- Invitation to Submit Full Proposals: **November 2022**
- Deadline for Full Proposals: **February 2023**
- Funding Decisions Made: **March 2023**



Timeline: **Team + Individual Project Grants**



- Optional Participation in Ideation Sessions and Accelerator Workshops: **May 13, May 23, June 7**
- Proposals Due: **September 30, 2022**
- Peer Review Process: **October 2022**
- Funding Decisions Made: **November 2022**
- Notification of Awards: **December 2022**
- Start of Projects: **January 1, 2023**



Grand Challenges Grants Resources

- **Website:** research.umd.edu/gc
- **Information Session:** A video recording of this session will be made available
- **Office Hours:** recurring Office Hours will be held virtually on Fridays from 1:00-2:00 pm, info at: research.umd.edu/gc
- **Accelerator Workshops:** recurring virtual workshops to help with all stages of ideation and proposal development on **May 13, May 23, June 7**, register at: research.umd.edu/gc
- **Customized Support:** optional meetings upon request
- **Budget Template:** available at research.umd.edu/gc



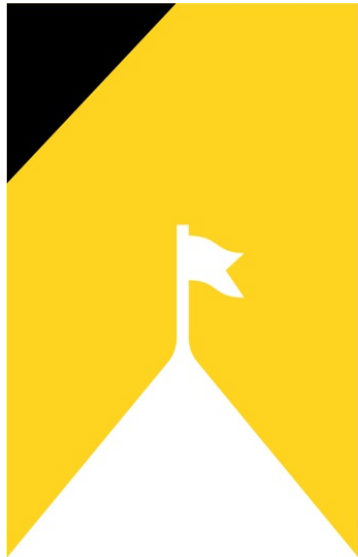
Grand Challenges Grants Q&A

- Please share your questions with us
- FAQ will be posted afterwards at: research.umd.edu/gc



Additional Grand Challenges Grants Info

- More details about the Grand Challenges Grants program



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Elements for a Successful Letter of Intent:

Institutional Grants

- 1. Grand Challenge Idea.** Provide an introduction to the grand challenge program that the new institutional structure will significantly impact in its first years; detail the specific sets of stakeholders your grand challenge solution will impact and benefit, how the grand challenge problem is affecting the daily lives of those stakeholders, and how your impact and benefit will be delivered to those stakeholders. Articulate clear objectives/goals.
- 2. State of the Art.** Describe the new institutional structure: How is it innovative and why is it needed? Why will this structure make a difference? Is what is being proposed redundant with existing institutional assets? Is it an extension of an existing effort?
- 3. Scalability.** Detail the potential strategies and partnerships that are needed to help execute and scale the effort. Identify the leadership team and key partners. Identify risks to successful execution of the proposed project.

Elements for a Successful Letter of Intent:

Institutional Grants

- 4. Metrics & Milestones.** Highlight initial goals and outcomes that can be expected in the first three years. Describe how you will measure success throughout the life of the project. The identification of milestones is strongly encouraged.
- 5. Impact.** Describe the impact the new structure will have in addressing a grand challenge at UMD, in the region, and more broadly. Describe how this new institutional structure could ultimately improve the lives of millions of people.



Elements for a Successful Proposal:

Team and Individual Project Grants

- 1. Challenge Idea/Area:** What are you trying to do for the research project challenge? Why is the proposed work important to society? Articulate clear objectives/goals using absolutely no jargon. Describe how the results would not be otherwise attainable or difficult to achieve without funding.
- 2. State of Art:** Describe how it is done today, and what are the limits of current practice?
- 3. Innovation:** What is new in your approach and why do you think it will be successful? What technology/policy/methodology/process/cultural innovation do you hope to achieve to reach your goal?
- 4. Metrics & Milestones:** How will you measure success throughout the course of the project? In 12 months after the project starts, how will progress be measured? List an important milestone that will be achieved with a corresponding qualitative or quantitative metric.

Elements for a Successful Proposal:

Team and Individual Project Grants

- 5. Impact:** Describe the impact the new project will have in addressing a grand challenge at UMD, in the region, and more broadly. Describe how this new project could ultimately improve the lives of millions of people.
- 6. Risks:** What are the risks to successful execution of the proposed project?
- 7. Resources:** How much will it cost over three years?
- 8. Partnerships:** Proposals should describe internal and external partnerships that will enable, scale, and expand the impact of the project
- 9. External Visibility and Funding:** As appropriate, proposals must identify how internal funding will be leveraged to secure external grants, contracts, awards, revenue sources and/or new visibility for the University of Maryland



Budget Guidelines for Grand Challenges Grants

- Assuming an award date of March 2023, build your budget with an indication of the first month in which actual expenditures would be incurred and the planned ending date. The funds should be expended over 3 years.
- Eligible expenses include well justified requests for salary support (including for temporary positions, research associates, graduate students), laboratory equipment, software, and program development.
- Faculty and students' stipends may vary depending on the amount of work involved for each person involved.
- Pro-rated fringe benefits must be included as a cost of the project in the proposed budget. Student wages must be calculated according to the unit's or program's guidelines.

Budget Guidelines for Grand Challenges Grants

- No overhead should be included in the budget.
- Budgeted items should be at or below the total amount of funds available per proposal.
- Proposals must include information about the roles and duties of each team member (including students if appropriate) and how they will collaborate.
- Some contribution must be made by all participating colleges/schools; specific allocations are left to the discretion of each team.
- Equipment purchased through the Grand Challenges Initiative will remain at UMD even if a PI or team member were to leave the university.

Template for Grand Challenge Institutional Grant PRELIMINARY BUDGET										
		Monthly	annual							
		Months								
		Rate	Time	Year 1	Year 2	Year 3				
Inflation Factor				1.00	1.03	1.06				
Ongoing Expenses							Comments			
A: Senior Personnel							annual salaries			
1	TTK Faculty annual FTE	\$15,000	6.0	\$90,000	12.0	\$185,400	12.0	\$190,800	\$180,000 avg 12-month TTK Salary	FTE-months: can be portions of individuals
2	PTK Faculty annual FTE	\$8,333	12.0	\$100,000	12.0	\$103,000	12.0	\$106,000	\$100,000 avg 12-month PTK Salary	
3	other	\$6,667	1.0	\$6,667	0.0	\$0	0.0	\$0	\$80,000 placeholder	
Total Senior Personnel Salaries				\$196,667	\$288,400	\$296,800				
B: Other Personnel										
1	PostDoctoral Associates	\$6,000	12.0	\$72,000	12.0	\$74,160	12.0	\$76,320	\$72,000 postdoc annual salary	
2	other professionals	\$5,833	12.0	\$70,000	12.0	\$72,100	12.0	\$74,200	\$70,000 Admin Staff	technical, communications, grants managers, etc.
3	Clerical	\$4,167	12.0	\$50,000	12.0	\$51,500	12.0	\$53,000	\$50,000 Support Staff	
4	Graduate Students	\$2,200	12.0	\$26,400	12.0	\$27,192	12.0	\$27,984	\$26,400 GA stipend (annual)	
5	Undergraduate Students	\$2,000	5.0	\$10,000	5.0	\$10,300	5.0	\$10,600	\$24,000 annual expenditure per student	
Total Salaries and Wages				\$228,400	\$235,252	\$242,104				
C: Fringe Benefits Rate:		benefit rate (simplified)								
	Faculty & Staff	33.0%		\$128,260		\$160,433		\$165,106		
	Grad Students	24.0%		\$6,336		\$6,526		\$6,716		
Total Fringe Benefits				\$134,596	\$166,959	\$171,822				
Total Salaries, Wages, and FB				\$362,996	\$402,211	\$413,926				
D: Other Ongoing										
1	Materials and Supplies			\$10,000		\$10,000		\$10,000		
2	Publications/Marketing			\$10,000		\$10,000		\$10,000		
3	Computing Resources			\$5,000		\$5,000		\$5,000		
4	Software Licensing, libraries, etc.			\$10,000		\$10,000		\$10,000		
5	Graduate Tuition Remissi	\$841	18.0	\$15,138		\$15,592		\$16,046	tuition/credit-hour; annual c.h. DO NOT CHANGE	
6	Travel			\$10,000		\$10,000		\$20,000		
7	Symposium/Seminar/Events			\$10,000		\$10,000		\$10,000		
8	Space lease (if applicable)			\$0		\$0		\$0		
Total Other				\$70,138	\$70,592	\$81,046				
Total Ongoing Expenses (3 years max)				\$433,134	\$472,803	\$494,972				