

# Annual Report

*Office of Grants and Sponsored Programs*

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## Introduction to the Office of Grants and Sponsored Programs

Our office is committed to providing comprehensive support to faculty members engaged in grants and sponsored programs in support of their research, external impact, and curricular innovation efforts. We work with faculty across the grant lifecycle, from proposal development and submission to award management and close-out. As a small, primarily undergraduate institution, our faculty focus primarily on teaching. At the same time, many faculty maintain an impressive grant portfolio that supports their research, curricular change efforts, and external impact activities while providing invaluable experiences for participating Olin students.

We have an active and engaged community of faculty researchers. With 38 full-time faculty in AY23-24, 25 (65%) were either leading or part of a grant proposal team or managing active grants.



**Susan M. Mihailidis**

Associate Dean for Academic Affairs

Susan is responsible for working with faculty to support proposal development and submission. These are typically faculty-led projects.



**Lori Parmet**

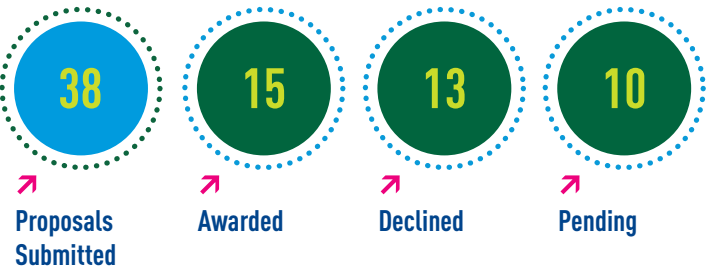
Associate Director of Sponsored Programs

Lori is responsible for working with faculty to manage their awarded grants and to ensure compliance with Olin College policies and sponsor regulations.

# Olin Grant Activity Overview

AY 23-24 • September 1, 2023 - August 31, 2024

## Proposals Submitted in AY23-24



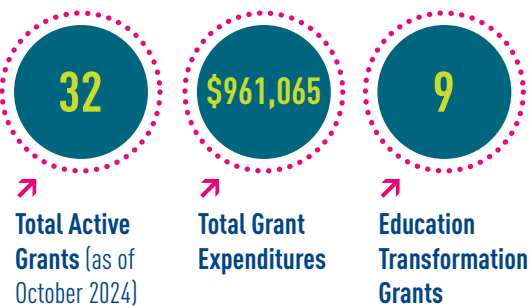
## New Awards (15)



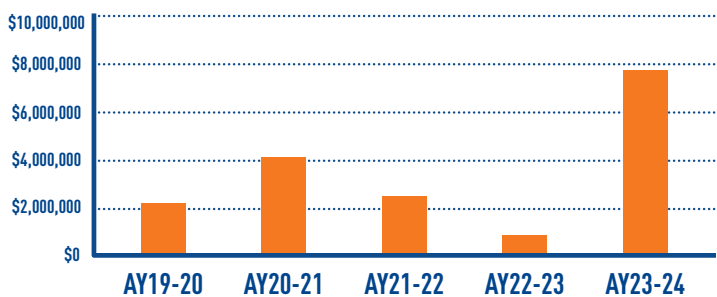
**\$1,090,513**  
in total funding

**\$72,071**  
average grant size

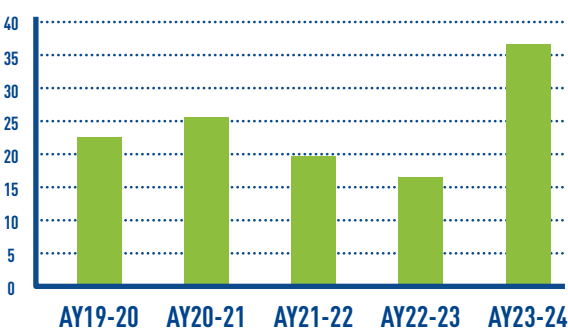
## AY23-24 Grant Portfolio



## Total Funding Requested



## Proposal Submissions by Academic Year



## Proposal Acceptance Rates



## New Awards Received AY23-24

PI	Project Title	Sponsor	Total Award
Barrett, David	CBRN Sensors Integration on Robotic Platforms Teaming Flight and Ground Testing	Draper Labs	\$20,000
Cuadra, Andrea	Betty Irene Moore Fellowship Program for Nurse Leaders and Innovators <i>(Grant transferred from Stanford)</i>	Gordon and Betty Moore Foundation <i>(subaward from Memorial Sloan Kettering Cancer Center)</i>	\$43,333
Dabby, Diana	REU Supplement to PFI-TT: Development of a Novel Audio Technology that Applies Dynamic System Variability to Create Musical Variations for Personal and Public Applications	National Science Foundation	\$8,000
Hersey, Scott	Grant to support community-driven air pollution reduction in Roxbury	Barr Foundation	\$150,000
Huang, Jean	Biotechnology and Bioprocessing Training program at Olin College	Massachusetts Tech Collaborative	\$80,000
Johansen, Elizabeth	Early Hearing Loss Detection for Improved Life Outcomes - Year 2	The Peabody Foundation	\$42,518
Lee, Chris	MIT Massachusetts Space Grant	MA Space Grant Consortium / MIT	\$30,720
Lynch, Caitrin	ASEE KnowLEDGE Change Team Initiative	American Society for Engineering Education	\$20,000
Lynch, Caitrin Martello, Robert	Faculty Development Workshops for Humanities/STEM Integration Featuring Artificial Intelligence and Climate Change Topics	National Endowment for the Humanities	\$59,633
Matsumoto, Steve	KEEN Annual Support Package	Kern Family Foundation	\$25,000
Matsumoto, Steve	Enhancing Inclusive Teaching Practices	Kern Family Foundation	\$10,000
Matsumoto, Steve	Research Initiation: Understanding the Opportunities and Impacts of Undergraduate Engineering Students' Adoption of Software Engineering Practices and Tools	National Science Foundation	\$137,800
Nugent, Carrie	Catalyst Fellows Funded Mentorship Program	LSST Discovery Alliance	\$49,953
Ruvolo, Paul Lynch, Caitrin Michalka, Sam	EducateAI: Educating Responsible Technologists: Integrating AI and Social Sciences via Immersive Learning Modules	National Science Foundation	\$399,564
Ruvolo, Paul	I-Corps: A Crowdsourced System to Support Widely Available, Accessible Wayfinding	National Science Foundation	\$50,000
Tow, Emily	New England Onsite Energy Technical Assistance Partnership	Department of Energy / Univ of New Hampshire	\$50,686

## Active Awards *(as of October 2024)*

PI	Project Title	Sponsor	Total Award
Cuadra, Andrea	Betty Irene Moore Fellowship Program for Nurse Leaders and Innovators <i>(Grant transferred from Stanford)</i>	Gordon and Betty Moore Foundation <i>(subaward from Memorial Sloan Kettering Cancer Center)</i>	\$43,333
Dabby, Diana	PFI-TT: Development of a Novel Audio Technology that Applies Dynamic System Variability to Create Musical Variations for Personal and Public Applications.	National Science Foundation	\$274,000
del Rosario, Zach	NSF ERI: Towards Data-Capable Engineers with a Variability-Capable Mindset	National Science Foundation	\$186,861
Goenka, Chhavi	Just Energy Hub: A learning lab for thriving together	VentureWell	\$30,000
Hersey, Scott	HAFTRAP - Home Air Filtration for Traffic Related Air Pollution	NIH <i>(subaward from UConn)</i>	\$330,081
Hersey, Scott	Grant to support community-driven air pollution reduction in Roxbury	Barr Foundation	\$865,000
Huang, Jean	Research for All (R4A): Expanding and Improving Undergraduate Participation in Research	Kern Foundation <i>(subaward from George Washington University)</i>	\$148,199
Johansen, Elizabeth	Early Hearing Loss Detection Program	The Peabody Foundation	\$81,043
Johansen, Elizabeth	Early Hearing Loss Detection for Improved Life Outcomes - Guatemala	Institute of Electrical and Electronics Engineers	\$5,950
Linder, Benjamin	The Social and Environmental Entrepreneurship and Design Fund	Individual Donors	\$25,000
Linder, Benjamin	Native RE/ Sustainable Design	MIT	\$5,008
Linder, Benjamin	IDIN School Program	Colegio Santa Cruz	\$14,000
Lohmeyer, Whitney	CubeSat Ideas Lab: Space Weather Atmospheric Reconfigurable Multiscale Experiment (SWARM-EX) CubeSats	National Science Foundation	\$330,956
Lohmeyer, Whitney	SII-Center: SpectrumX – An NSF Spectrum Innovation Center	National Science Foundation <i>(subaward from Notre Dame)</i>	\$482,785
Lynch, Caitrin Martello, Robert	Humanities/STEM Integration Workshops on Artificial Intelligence and Climate Change	National Endowment for the Humanities	\$59,633
Matsumoto, Steve	KEEN Annual Support Package	Kern Foundation	\$75,000

(Continued)

PI	Project Title	Sponsor	Total Award
Matsumoto, Steve	2024 Engineering Unleashed Fellowship	Kern Foundation	\$10,000
Matsumoto, Steve	Collaborative Research: Research Initiation: Understanding the Opportunities and Impacts of Undergraduate Engineering Students' Adoption of Software Engineering Practice and Tools	National Science Foundation	\$137,800
Mbanisi, Kenechukwu	Indoor Flying Hummingbird Prototype	Hummingbird	\$273,500
Michalka, Sam	Social Technology Enterprise with Purpose (STEP)	VentureWell	\$29,600
Nugent, Carrie	NEAT Revival: New Discoveries	NASA	\$326,194
Nugent, Carrie	Catalyst Fellows Funded Mentorship Program	LSST Discovery Alliance	\$49,995
Pratt, Joanne McCarthy, Jessica Townsend, Jessica	Developmental Learning Modules to Enhance Student Learning	Davis Educational Foundation	\$153,561
Ruvolo, Paul	CHS: Small: RUI: Creation of Assistive Technology for the Blind Through Largescale Co-Design the Blind Through Largescale Co-Design	National Science Foundation	\$343,842
Ruvolo, Paul	Co-Designing Assistive Apps with Students Who Are Blind	Peabody Foundation	\$173,145
Ruvolo, Paul Lynch, Caitrin Michalka, Sam	EducateAI: Integrating Artificial Intelligence and Social Sciences via Immersive Learning Modules to Educate the Next Generation of Technologists	National Science Foundation	\$399,890
Ruvolo, Paul Lynch, Caitrin Michalka, Sam	I-Corps: Translation Potential of a Crowdsourced System to Support Widely Available, Accessible Wayfinding	National Science Foundation	\$50,000
Tow, Emily	Bureau of Reclamation's More Water Less Concentrate Challenge	Common Pool	\$265,000
Tow, Emily	Regional Onsite Energy Technical Assistance Partnership (TAP) New England Region	Department of Energy <i>(subaward from University of New Hampshire)</i>	\$50,690
Van de Zande, Georgia	Milne Alumni Survey Project	George Milne Gift	\$91,211
Zastavker, Yevgeniya	Collaborative Research: Mixed Reality Transformation of Engineering Education	National Science Foundation / Northeastern	\$275,335

## Pending Proposals

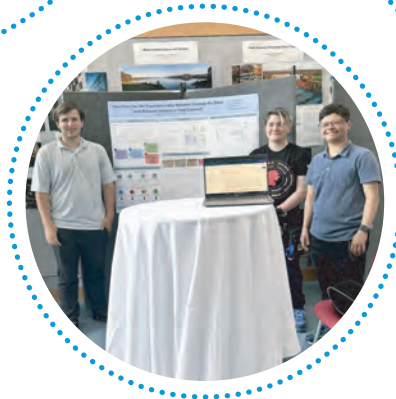
PI	Project Title	Sponsor	Total Award
Dean, Victoria Shuman, David	Campus Sustainability as a Living Lab: Fostering Engineer-Technician Classroom Collaborations Through Impact-Centered Education (Resubmission)	National Science Foundation	\$695,215
del Rosario, Zach	Economical Plastic Recycling via Additive Manufacturing as Quality Control	Environmental Research & Education Foundation / Boston University	\$24,992
del Rosario, Zach	Collaborative Research: Distributed Design in Engineering Education	National Science Foundation / Tufts University	\$96,433
del Rosario, Zach	CAREER: Illuminating the Assumptions and Limitations of Mathematical Models to Achieve Safer and More Equitable Engineering Solutions	National Science Foundation	\$649,944
Donis-Keller, Hellen	Technical Development of Industrial Scale Food-Grade Fiber Spinning Systems & Pilot Facility	Massachusetts Center for Advanced Manufacturing	\$160,000
Ferzoco, Alessandra	Embedding engineering students on farms for relationships, mindsets, and tool development	Northeast Regional Food Business Center / US Department of Agriculture	\$99,403
Graeff, Erhardt	Technologies of Political Polarization and the Civic Responsibilities of Engineers	National Endowment for the Humanities	\$74,995
Millner, Amon	Reach Every Reader: Phase 2	Chan Zuckerberg Initiative / Boston University	\$37,488
Zastavker, Yevgeniya	NLI: Design and Development: Community-Driven Game-Based Learning Module on Sustainability	National Science Foundation / Rensselaer Polytechnic Institute	\$61,998
Zastavker, Yevgeniya	Collaborative Research: Extending the realities of game-based learning to promote engineering judgment, student engagement, and belonging	National Science Foundation	\$349,878

## Non-Federal Contracts

Our office also manages contracts (funding for providing services connected to faculty research and initiatives). We are currently managing one contract of \$55,000 for Scott Hersey and the Air Partners group. They are providing services to Groundwork Hudson Valley. We are in negotiations for a second Air Partners contract with Highland Fleets.

## Academic Year and Summer Student Research Support from Sponsored Projects

In summer 2024, 42 summer student research positions were funded by grants across 15 sponsored projects. During the 2023-2024 academic year, 29 students had paid research positions in the fall and 30 students in the spring.





# Overview of Support for Grant Seeking and Research Programming

Resources and faculty support activities include:

- ➡ Updated [our website](#) to support Olin faculty and staff members engaged in grant-seeking.
  - ➡ Includes resources from proposal development and submission to award management and close-out, and links to various funding resource databases, templates, policies, and more.

## Website key elements include:

- ➡ [A comprehensive guide to finding funding](#)
- ➡ [Proposal preparation guide](#)
- ➡ [Sponsored research policies and guidelines](#)
- ➡ Host our Research Roundtable Lunch and Learn series, covering topics such as starting up a research lab, proposal planning and budgeting, approaching program officers, and qualitative research methods.
- ➡ Host individual meetings with all faculty interested in submitting grant proposals and we meet individually with faculty once they receive an award.
- ➡ Launched a new Grant Proposal Preview Form to alert academic and administrative leadership members of new proposals in the pipeline.
- ➡ At the start of each new academic year, we host orientation sessions about the Office of Grants and Sponsored Programs with new faculty. This is part of the new faculty onboarding program.
- ➡ Host Research Fair each fall semester. At this event, faculty showcase their research projects to students and advertise open research assistant positions for the spring and summer. Nearly 100 students attended in 2023. We partner with OFYI to encourage first-year student attendance.
- ➡ In summer 2024, we hosted our first [Summer Research Educational Program](#) for summer students. The program included Lunch & Learn sessions on topics such as attending academic conferences, writing research papers, and applying to graduate school. Each student had stated learning goals and participated in an end-of-summer poster session.

## Centralized Student Research Application Website

Funded via a KEEN grant, and led by Jean Huang, we continue to host a centralized portal for hiring student researchers. Faculty posted open research positions for the academic year and summer 2024. Twelve faculty posted 15 research projects with open student research positions.



## Community Research Seminar Series

We hosted eight research talks during the 2023-2024 academic year, including talks by Olin faculty and students and external speakers from other colleges and universities.

### *Olin Faculty and Students*

- **Erhardt Graeff:** Using Civic Professionalism to Frame Ethical and Social Responsibility in Engineering
- **Georgia Van de Zande and Peter Sapiro-Mitten '27:** From Global Insights to Local Solutions: Bridging the Gap for Small-Scale Farms in New England given Insights Gained from East Africa and the Middle East
- **Sam Michalka:** Wearable Tech in an Augmented World
- **Victoria Dean:** Train Offline, Test Online: A Democratized Robotics Benchmark
- **Zach del Rosario:** Targeting Variability: Combining Statistical Thinking and Engineering Practice

### *External Speakers*

- **Kevin Lin, Assistant Teaching Professor, Paul G. Allen School of Computer Science and Engineering University of Washington:** An Invitation to Reimagine: Empowering Students to Redesign Computing Problems and Artifacts
- **Yume Xu, PhD Student, Tufts University's Center for Engineering Education and Outreach:** A case study: Making facilitates an engineering student's identity negotiation
- **Trevion Henderson, Assistant Professor of Engineering, Tufts University School of Engineering:** Effective and Equitable Teaching



## Human Subjects Research at Olin

Since 2011, Olin College has contracted with the Institutional Review Board (IRB) of Brandeis University for oversight of human subjects research. The Brandeis IRB provides excellent service at a reasonable cost. On May 14, 2024, the Brandeis IRB director and staff returned to Olin for an annual luncheon with Olin faculty. They provided an overview of their services and answered questions about best practices in the ethical treatment of human subjects.