



2019 OSU Materials Research Seed Grant Program

Key Dates:

- Request for Proposals Issued: Thursday, October 25, 2018
- Seed Grant Program Panel Discussion: Wednesday, December 5, 2018 (4:15-5:15 PM, room 4138 Physics Research Building)
- Letters of Intent Due: Monday, January 14, 2019 at 5:00 PM
- Multidisciplinary Team Building Grants Funding Tier Proposal Team Mandatory Presentations: January 23, 30, and February 6, 2019 (4:15--5:15 PM, room 4138 Physics Research Building)
- Proposals Due (all Funding Tiers): Monday, March 18, 2019 at 5:00 PM
- Awards Announced (anticipated): July 2019
- Funded Projects Start Date (anticipated): September 1, 2019



OSU Materials Research Seed Grant Program

2019 Request for Proposals

We are pleased to announce the **2019 OSU Materials Research Seed Grant Program Request for Proposals (RFP)**, which is open to The Ohio State University (OSU) materials community. This enhanced seed program leverages resources and best practices of the Center for Emergent Materials (CEM), the Center for Exploration of Novel Complex Materials (ENCOMM), and the Institute for Materials Research (IMR). The result is a unified RFP with Funding Tiers designed to achieve the greatest impact for seeding excellence in materials research of varying scopes, and with the goal of generating new directions that extend beyond the boundaries of existing research programs.

The three Funding Tiers of the 2019 OSU Materials Research Seed Grant Program are:

1. **Renewal IRG Grants** to select the interdisciplinary research groups (IRGs) for the Center for Emergent Material's proposal to renew its funding as a National Science Foundation (NSF) funded Materials Research Science and Engineering Center (MRSEC) has a separate request for proposals this year--please see the CEM website <http://cem.osu.edu/irg-proposals-for-mrsec-renewal> for proposal submission instructions and timeline for this tier.
2. **Multidisciplinary Team Building Grants**, which provide funds up to \$60,000/year per award in direct costs, and require one PI and one Co-PI, and may have unfunded collaborators, with the goal of forming multidisciplinary materials research teams that can compete effectively for federal block-funding opportunities, such as the NSF MRSEC program.
3. **Exploratory Materials Research Grants**, which provide funds up to \$40,000/year per award in direct costs, and require one PI, and may have Co-PIs and/or unfunded collaborators, with the goal of enabling nascent and innovative materials research to emerge to the point of being competitive for external funding.

The following pages describe the three tiers of seed funding opportunities and provide details on how to apply. Please visit imr.osu.edu, encomm.osu.edu or cem.osu.edu for additional information and updates related to this year's seed grant RFP.

Description of the Three Funding Tiers

1. Renewal IRG Proposals

The Center for Emergent Materials, an NSF MRSEC (CEM), is requesting proposals for Interdisciplinary Research Groups (IRGs) to participate in its proposal to renew its funding as a National Science Foundation (NSF) funded Materials Research Science and Engineering Center (MRSEC). CEM's request for renewal IRG proposals can be found on their website at <http://cem.osu.edu/irg-proposals-for-mrsec-renewal>.

As part of this process, CEM will sponsor a poster session on Friday, November 9, 2018, from 3:00-5:00 PM in Room 4138 in the Physics Research Building. The session will offer prospective IRGs the opportunity to present their proposed science concepts and trans-disciplinary teams in advance of the proposal submission. Prospective IRG teams will also obtain feedback on their proposals and researchers will become familiar with putative teams and identify possible synergies. Full event information can be found in the RFP.

Interested teams are encouraged to read the most recent NSF request for proposals to familiarize themselves with the expectations for IRGs. A poster template PPT download is available on the CEM website. In order to present a poster please submit an electronic version to Alison Scott (scott.1452@osu.edu) by 5:00 PM on November 8, 2018 to ensure that enough easels are available. Please bring a hard copy of the poster to post at the event.

Contact Information

Contact Prof. P. Chris Hammel (hammel.7@osu.edu, 614-247-6928), or Alison Scott, scott.1452@osu.edu with any questions.

2. Multidisciplinary Team Building Grants

The aim of these grants is to enable and to invigorate new interdisciplinary collaborations with high potential to have broad impact and win substantial federal block funding. These grants require one Principal Investigator and one Co-PI. Additional unfunded collaborators may be included. The goal is to form multidisciplinary materials research teams of 2 to 4 faculty members each.

Awards will be up to \$60,000 in direct costs per grant per year. The initial funding period is one year, but successful Multidisciplinary Teams may apply for a maximum of one additional year renewal in the next year's open competition of the OSU Materials Research Seed Grant Program. Tentative start date is September 1, 2019.

Contact Information

Contact Profs. Steven A. Ringel (ringel.5@osu.edu, 614-292-6904), Fengyuan Yang (yang.1006@osu.edu, 614-688-4390) or P. Chris Hammel (hammel@physics.osu.edu, 614-247-6928) with any questions.

3. Exploratory Materials Research Grants

The aim of these grants is to stimulate nascent and innovative materials-allied research to the point where a highly competitive external proposal can be developed. These grants require one Principal Investigator. Additional Co-PI(s) and/or unfunded collaborators may be included. These grants complement the Multidisciplinary Team Building grants. The Exploratory Materials Research Grants program, while open to all faculty, emphasizes support of pre-tenure faculty members.

Awards will be up to \$40,000 in direct costs per grant per year. The initial funding period is one year, but successful PIs may apply for a maximum of one additional year renewal in the next year's open competition of the OSU Materials Research Seed Grant Program. Tentative start date is September 1, 2019.

Contact Information

Contact Profs. Steven A. Ringel (ringel.5@osu.edu, 614-292-6904), Fengyuan Yang (yang.1006@osu.edu, 614-688-4390) or P. Chris Hammel (hammel@physics.osu.edu, 614-247-6928) with any questions.

How to Apply

Eligibility

An applicant may serve as Principal Investigator on only **one** proposal in response to this RFP (Multidisciplinary Team Building and Exploratory grants only). The PI must hold a faculty-level appointment at OSU. **All proposed research must be clearly distinct from ongoing externally or internally funded research.**

Letters of Intent

Applicants planning to submit a proposal in response to this RFP (Multidisciplinary Team Building and Exploratory grants only) must first submit a brief Letter of Intent as **one file in PDF format** via email to OSU_MRSGP@osu.edu. **by 5:00 PM on Monday, January 14, 2019.** The Letter of Intent should include: names, titles, and departmental affiliations of PI, Co-PIs (if applicable) and collaborators (if known); contact

information for the PI only (mailing address, email, phone and fax numbers); identification of the Funding Tier; tentative project title; short description of the proposed research (100 words maximum). For letters of intent to the Multidisciplinary Team Building Grant funding tier the letter of intent must also include the team's date preference of a mandatory presentation (see next section for more details): January 23, 30, and February 6, 2019. **Any Letter of Intent that does not provide this information or does not meet the deadline will not be considered.**

Presentations and Discussion

The Multidisciplinary Team Building Grants proposals are required to make an informal presentation on their proposed collaborative. The presentations (up to 30 minutes) will be hosted by ENCOMM in special Materials Seed Grant Team Planning Meetings during the early spring semester of 2019 (January 23, 30, or February 6, 2019), and a panel discussion on "best practices" will be held December 5, 2018 for interested applicants. Teams that have presented their proposed research at an ENCOMM meeting within the 12 months prior to the proposal deadline are deemed to have met this requirement.

While these presentations are required, their content will not be part of the formal review criteria. The purpose of these presentations is to provide a forum for forming and enhancing interdisciplinary collaborative connections amongst OSU materials researchers in an informal setting, and to provide an opportunity to strengthen the proposals.

Proposal Submission

All proposals are due by **5:00 PM on Monday, March 18, 2019** (for all funding tiers). Submit your proposal as an email attachment in **one file in PDF format** to OSU_MRSGP@osu.edu. **Any proposal that does not meet the deadline will not be considered.**

Proposal Preparation Instructions (Multidisciplinary Team Building and Exploratory Grants)

1. **Cover Page** (1 page maximum) including: identification of the Funding Tier; proposal title; names, titles, and departmental affiliations of PI, Co-PIs (if applicable) and collaborators (if any); contact information for the PI only (mailing address, email, phone and fax numbers); date and title of team building presentation (Multidisciplinary Team Building); proposal abstract (200 words maximum)
2. **Project Description** (4 pages maximum) including:
 - a. Objectives of the proposed research project
 - b. Description and scope of research
 - c. Work plan and methodology
 - d. Expected outcomes
 - e. Research facilities that may be used to conduct the research
 - f. Expertise of the team and synergy among team members to enable research of a scope and complexity requiring the advantages of scale and inter-/multi-disciplinarily provided by a team (required only of Proto-IRG and Multidisciplinary Team Building proposals)

- g. A coherent management plan detailing how the project will be executed as a team effort (required only of Proto-IRG and Multidisciplinary Team Building proposals)
 - h. A list of targeted federal block-funding opportunity(ies) with deadline(s) (if known), and a description of how the team will be able to compete effectively for those opportunity(ies) if the proposed research objectives are met (required only of Multidisciplinary Team Building proposals)
 - i. A list of targeted external funding agency(ies), with deadline(s) (if known), and a description and how meeting the objectives of the proposed research would translate into external proposal development (required only of Exploratory Materials Research proposals)
 - j. Plan for expansion to a full IRG with integrated experimental and theoretical components (required only of Proto-IRG proposals)
3. References Cited (no page limit)
 4. Budget Information (1 page maximum): Provide a detailed budget for the proposed project and a brief explanation of the proposed budget items.
 5. Curriculum Vitae (2 pages maximum each) for PI and all co-PIs (if applicable)
 6. Current & Pending Support (no page limit) for PI and all co-PIs (if applicable)
 7. Performance on Prior Internal Awards: For those Principal Investigators who have previously received **any** research funding through the OSU Materials Research Seed Grant Program - Exploratory Materials Research Grants, Multidisciplinary Team Building Grants, or Proto-IRG Grants) - we require a synopsis of every funded project(s) including details on all outcomes. The application must include a brief paragraph explaining the outcomes of each project and full citations for all publications, presentations, and externally funded projects related to your activities on that project. This information should be included as part of the application as an addendum, and is **not** included in the page limit.

Use a minimum 11-point font size, single line-spacing, and 1" margins. **Proposals longer than the stated page limits and/or omitting information requested above will not be reviewed.**

Budget Restrictions

These seed grants are intended to support primarily student and postdoctoral researcher salaries and benefits; tuition; materials and supplies; and equipment user fees. The following expenses are **NOT** allowed (all Funding Tiers): faculty salaries and benefits; computers and equipment purchases; and food and entertainment.

Terms and Conditions

All selected proposals are subject to terms and conditions, including reporting requirements, that will be specified when the awards are made.

- All publications that result from seed funding must appropriately acknowledge OSU MRS GP support.

- Investigators are required to submit reports consisting of one page of text and one “highlight” slide in April for inclusion in annual reports. The exact deadline and requirements will be communicated to PI’s of the awarded seed grants.
- F&A distribution for CEM funded awards is assigned per CEM’s cost share agreement and cannot be changed
- All purchases, travel, and HR appointments will be conducted in the home departments of the investigators.
- Funds cannot be transferred from this project to another chartfield.

Review Process

Each proposal (all Funding Tiers) will be reviewed by external and OSU reviewers. At the time of award notification, PI(s) will receive an anonymous copy of the reviews.

Review Criteria (Multi-Team Disciplinary Team Building and Exploratory grants only)

- Intellectual merit of proposed research activity, including originality, novelty, and potential for contribution to science, technology and education
- Potential for the proposed research to be funded through existing federal funding mechanisms
- Potential to seed transformative advances involving materials-allied research
- Clearly distinct from ongoing externally or internally funded research including OSU Materials Seed Grant Program funding
- Potential to positively impact Investigators’ career trajectory

Additional Review Criteria (Multidisciplinary Team Building)

- Evidence of team synergy
- Potential for winning federal block funding
- Presentation at ENCOMM meeting

Additional Review Criterion (Exploratory Materials Research)

- Plan for external proposal development