



CALL FOR PROPOSALS

2018 UW MEM-C Materials Research Seed Grants

Proposals are solicited for Seed funding offered by the University of Washington Molecular Engineering Materials Center (UW MEM-C), an NSF Materials Research Science and Engineering Center (MRSEC).

We are pleased to announce a call for proposals for **2018 UW MEM-C Materials Research Seed Grants**, open to all members of the UW materials research community. "MEM-Seed" grants are intended to provide short-term funding to help initiate exciting collaborative materials-research projects on campus, with the longer-term goal of supporting new research directions that will expand MEM-C's research activities beyond their existing scope, and that will position UW well for securing future federal block-funding in materials research, particularly in future NSF MRSEC competitions.

Two categories of MEM-Seed funding are offered:

- **Multidisciplinary Team Seed Grants** will provide up to \$75,000 per award to support collaborative research teams. These seeds require one PI and one Co-PI, and may have additional unfunded collaborators. The goals of these seeds are to support multidisciplinary materials-research teams (2 to ca. 4 faculty members) active in areas complementary to MEM-C's current research profile and to broaden MEM-C participation across campus. Multidisciplinary Team Seed funding is for one year with the possibility of extension for one additional year through the following year's open competition. Target start date is June 18, 2018.

- **Exploratory Seed Grants** will provide up to \$20,000 per award to help nascent innovative materials research efforts obtain preliminary results and increase their competitiveness for additional funding. Exploratory Seeds require just one PI but may have additional Co-PIs or unfunded collaborators. Exploratory Seed funding is limited to one year, but successful Exploratory Seeds will be eligible to apply for Multidisciplinary Team Seed support in next year's open competition. Target start date is June 18, 2018.

HOW TO APPLY

Eligibility

An applicant may serve as Principal Investigator (PI) on only one proposal in response to this call. The PI must hold a faculty-level appointment at UW. All proposed research must be clearly distinct from ongoing externally funded research. Current MEM-C senior investigators may not receive Seed funds but can participate in the proposed work as unfunded collaborators.

Proposal Submission

Proposals are due by **5:00 PM on Wednesday, May 23, 2018**. Proposals should be submitted by email as a single (one file) attachment in PDF format to uwmemc@uw.edu with a file name and email subject line of "MEM-Seed: PI NAME". Any submission that does not meet the deadline cannot be considered.

Proposal Preparation Instructions

1. Cover Page (1 page maximum) including:

- (a) Identification of the Seed category
- (b) Proposal title
- (c) Names, titles, and departmental affiliations of the PI, and Co-PIs or collaborators (if any)
- (d) Contact information for the PI only (mailing address, email, phone number)
- (e) Names of student or postdoc researchers who will receive salary support, if funded
- (f) Proposal abstract (250 words maximum)

2. Project Description (cannot exceed four (4) pages for Multidisciplinary Team Seed Grants, or two (2) pages for Exploratory Seed Grants, single-spaced, minimum 11-point Times or Arial font, 1" margins), addressing the following content:

- (a) *Introduction and Rationale*, providing brief context and justification for the proposed research, including its significance and potential impact.
- (b) *Objectives* of the proposed research project, including expected outcomes during the funding period.
- (c) *Description* of the research plan, methodology, etc. for reaching those objectives.
- (d) *Project Timeline* describing how the proposed research will advance during the one-year support period.
- (g) *Statement of Synergy* within the team that will allow the project to exceed in scope what the individual team members could accomplish on their own (not required of single-PI Exploratory Seed proposals)
- (h) *Management Plan* describing how the project will be executed as a team effort (not required of single-PI Exploratory Seed proposals)
- (i) *Justification* describing how MEM-Seed support of the proposed project might lead to extramural funding, help nucleate a multi-PI research team at UW that will be competitive for future block-funding opportunities, or otherwise advance the missions of MEM-C or of the broader MRSEC program (<https://mrsec.org/>).

3. References Cited (no page limit)

4. Budget Information (1 page maximum): Provide a proposed budget and brief justification addressing the following items.

- (a) *Salaries, benefits, tuition*. Seed funding can be used to support graduate students, undergraduate students, and postdoctoral scholars. Other salary types are not allowed.
- (b) *Materials and Supplies*.
- (c) *Contractual Services*. Facilities/instrumentation expenses are allowed if based on actual use and if required to advance the proposed research.

5. Curriculum Vitae (2 pages maximum each) for the PI and any co-PIs

6. Current & Pending Support (no page limit) for the PI and any co-PIs

Proposals longer than the stated page limits, deviating from the stated instructions, or omitting information requested above will not be reviewed.

ADDITIONAL NOTES

Diversity

Participation of undergraduate students, URM scholars, and veterans in MEM-Seed research is particularly welcomed and encouraged, as are other means of enhancing center diversity.

Budget Restrictions

MEM-Seed grants are intended to primarily support student and postdoctoral researcher salaries and associated benefits, tuition, as well as research materials and supplies and facilities user fees. The following expenses are not allowed: Faculty salaries/benefits; computer or equipment purchases; travel; food and entertainment.

Terms and Conditions

All selected proposals are subject to terms and conditions, including reporting requirements that will be detailed in the award notification letter, including:

- All publications resulting fully or partially from MEM-Seed funding must appropriately acknowledge the UW Molecular Engineering Materials Center, an NSF MRSEC.
- Seed investigators must submit brief Seed reports and NSF “highlight” slides for inclusion in MEM-C annual reports (generally in April).
- All purchases and HR appointments will be conducted in the home departments of the Seed investigators.

Selected Review Criteria

- Intellectual merit of the proposed research activities, including originality and potential for impactful contributions to science, technology, or education
- Potential to seed impactful collaborations in materials research at UW
- Distinction from ongoing funded research
- Potential to positively impact PI career trajectory
- Potential to complement or leverage existing MEM-C capabilities and synergies
- Potential to boost MEM-C visibility in research, technology, or education
- Team synergy
- Potential for winning federal funding
- Potential for team to grow beyond seed funding into a future MRSEC Interdisciplinary Research Group (IRG)

Please contact uwmemc@uw.edu with any questions.

UW MOLECULAR ENGINEERING MATERIALS CENTER

An NSF MRSEC

University of Washington, Seattle

DESIGNING, DEVELOPING, AND DEPLOYING NEW COMPLEX NANOMATERIALS that accelerate future technologies in broad sectors including information processing, sensing, energy, and research tools.

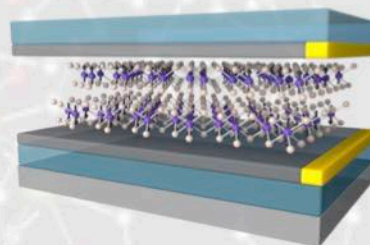
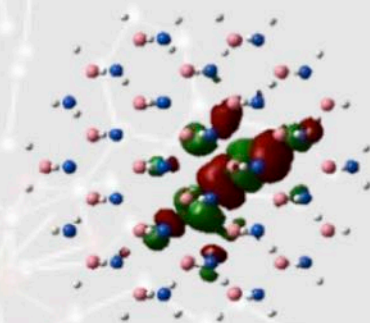
PREPARING TOMORROW'S TECHNOLOGY INNOVATORS AND SCIENTIFIC LEADERS through an integrated interdisciplinary research/education program bolstered by active industry, national laboratory, and international partnerships.

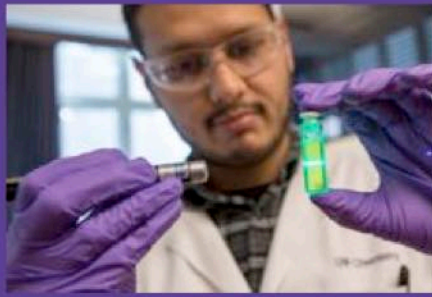
The **UW Molecular Engineering Materials Center** coordinates research efforts among two colleges and five departments across UW's campus and Pacific Northwest National Laboratory to address major trans-disciplinary challenges in materials research.

MEM-C's Interdisciplinary Research Groups (IRGs)

IRG-1: Defects in Nanostructures is engineering unprecedented physical properties into inorganic nanostructures by controlling defect formation and doping, and will exploit emergent properties to forge new technological frontiers ranging from laser cooling to solar concentration.

IRG-2: Layered Quantum Materials is creating and studying new forms of quantum matter in atomically layered materials and controlling novel topological and excitonic phase transitions within these materials, with potentially disruptive impact on energy and information technologies.





Education and Outreach

MEM-C's innovative education and outreach activities aim to inspire broader interest in science and engineering within our community and to engage a diverse and talented participant pool in our research activities. Signature MEM-C programs seek to facilitate STEM career opportunities for veterans, women, and underrepresented minorities. Activities also include REU and RET programs, K-20 outreach, and partnership with regional community colleges.

Research and Training Partnerships

MEM-C offers a framework for initiating and advancing collaborative materials research and development with industrial partners, and for translating the center's research innovations into commercial opportunities.

MEM-C promotes research collaborations and trainee exchange with partner laboratories abroad and at U.S. National Laboratories to advance the center's research goals and broaden the scientific and cultural experience base of its participants.

MEM-C is supported by NSF grant DMR-1719797

