Macromolecules Innovation Institute (MII)
1040 Drillfield Drive
Davidson Hall, Suite 313
Blacksburg, Virginia 24061
(540) 231-6015
mii@vt.edu

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Dear MII Faculty:

MII is pleased to release a new **FY 2023 Request for Proposals (RFP)** in two funding opportunities with anticipated support beginning December 25, 2022 (FY 2023). A 5-page (max) proposal will be requested for panel review and subsequent consideration of funding (contingent upon available FY 23 resources). Note that all MII affiliated faculty are eligible for these funding opportunities, but that there is a limit of one proposal per PI in each of the two seed grant categories.

For each of the two funding opportunities below, proposals demonstrating alignment with one or more of the **Four Frontier Areas** (a new initiative from the OVPRI) is encouraged.

- ***The Health Frontier****: Leading One Health towards Whole Health*
  Changing the paradigm from a focus on disease and symptoms to one of whole health, integrating intersections of animal, environment, and human health and building in communities and systems to empower multifaceted well-being.

- ***The AI Frontier****: Harnessing artificial intelligence for intelligence augmentation*
  Building on expertise in AI and data science, systems engineering, neuroscience, human factors, robotics, immersive visualization, and education, among others, to accelerate human-technology partnerships towards seamless augmentation, ethically and sustainably.

- ***The Security Frontier****: Innovating for secure and resilient communities*
  Ensuring our communities are prepared to face global threats, from climate change to natural disasters to national defense, through advances in preparation, defense, mitigation, and recovery.

- ***The Quantum Frontier****: Advancing the Quantum Leap*
  With an unparalleled transdisciplinary focus, accelerating the integration of quantum technologies across society, realizing unprecedented computing and communication capabilities and restructuring our social framework.

FY 2023 MII Request for Seed Proposals (Seed-RFP)

1) Interdisciplinary Collaborative Seed Program (ICSP)

This 1-year funding opportunity is targeted to support and enhance new or existing collaborations between MII research groups in different departments, and preferably different colleges at Virginia Tech. Proposals in this category will demonstrate an **interdisciplinary**, collaborative research

relationship needed to address complex goals and problems in macromolecular science and engineering. Moreover, the proposal must address a plan for building upon this seed project toward a long-term extramurally supported program. Since our most successful collaborations are often grounded in close working relationships between our talented students, this funding will be dedicated to supporting a student in each of the two collaborating groups. Each student will receive support from MII totaling 50% CY funding (stipend plus tuition, e.g., 1 AY semester and ½ summer). Proposals in this category should demonstrate a clear, synergistic benefit of the interdisciplinary collaboration, and a plan to ensure a balanced distribution of tasks between all collaborators. Each of the two students will be designated as MII Interdisciplinary Graduate Collaborative Fellows.

2) Industrial Partnership Enhancement Program (IPEP)

This 1-year funding opportunity is targeted to stimulate growth in the industrially sponsored project portfolio of MII. In this program, a new or existing industrially sponsored project will be selected for MII matching support. The selected project must include full CY support for one MII affiliated student from the industrial sponsor to be eligible for the full CY matching support for an additional MII student. It is recognized that the benefit of this program will involve significant coordination and planning with the prospective industrial sponsor during the project conception and agreement phases, but the goal here is to offer the prospective/current sponsor with a leveraging opportunity. Note that, for pending projects (currently under negotiation and not yet funded) the industrial support must not be contingent upon support from MII. Proposals in this category should demonstrate a clear and unique benefit to the broader goals of the project (i.e., an outcome more impactful than just a 2X increase in productivity).

Proposal Guidelines:

- Proposals should not exceed 5 pages (Times 12pt, 1-inch margins), including: abstract, body, references and figures.
- 1st page should include:
  - Title,
  - PI names and contact information,
  - Names of student participants,
  - Industrial Sponsor (for IPEP Proposals)
  - Abstract / Summary of Project
- Project Description
  - Introduction with clear purpose statement
  - Project background highlighting the scope of the field relevant to proposed project
  - Research plan and technical approach
  - Scope and benefit of industrial participation (for IPEP Proposals)
  - Impact of project relevant to the mission of MII
  - Alignment with one or more of the new VT Frontier Areas
- References

- Proposals should be submitted (as a single PDF document) to mii@vt.edu
- Questions may be addressed to rbmoore3@vt.edu or (540) 231-6015

I look forward to your participation in these funding opportunities, and to your success in furthering the research mission of MII.

Sincerely,

Robert B. Moore, Ph.D.
Director, Macromolecules Innovation Institute (MII)
Professor, Department of Chemistry
Virginia Polytechnic Institute and State University