Research Development Statewide Collaboration Pilot Awards
Funding Opportunity Announcement (FOA) – 2023

The Massey Cancer Center (MCC) will release a call for intramural pilot research funding once a year with specified priorities and multiple mechanisms to support different types of categorical research; both priorities and categories may vary annually. The 2022-2023 priorities and categories are outlined in this Funding Opportunity Announcement (FOA). In addition, the MCC will offer other rolling call funding opportunities as well as continue to offer support for junior investigators through the MCC's American Cancer Society Institution Research Grant and co-investing with the Pauley Heart Center and other institutional partners in high priority/scored research submissions through their respective calls for applications.

A. Purpose

- Provide pilot funding for new concepts in cancer-related research, including but not limited to: discovery, diagnosis, treatment, prevention and control, and survivorship.
- Address the most immediate cancer needs of MCC's catchment area (central and eastern Virginia) including the cause or reversal of cancer disparities.
- Catalyze discoveries by fostering transdisciplinary and translational collaborations among researchers and clinicians.
- Produce preliminary data to provide a basis for future applications to the NCI, other NIH institutes, or other peer-reviewing agencies or foundations.

B. Eligibility

- Both single and Multiple Principal Investigators (PI or MPIs) may apply. For MPIs, at least one PI must have a full-time faculty appointment at Virginia Commonwealth University (VCU) and is required to be an NCI Cancer Center Support Grant (CCSG)-eligible member (verify with MCC Administration before applying by contacting Alex Haynes, haynesa4@vcu.edu). The contact PI submitting the application must be an NCI CCSG-eligible MCC member.
- Effort between MPIs from different institutions must be comparable, and both MPIs must contribute to the overall project in similar magnitude.
- An individual may submit only one application as PI or MPI per year. An individual is allowed to be a co-investigator, consultant, or mentor on multiple submissions. A faculty member currently funded in the role of PI or MPI by an MCC pilot research award is not eligible to submit unless their current award will end by the scheduled start date.
- A Massey investigator may only hold one active pilot research award at a time. Exceptions may be granted for an NCI Catalyst award when the research focus is completely different from other funded Massey pilot awards.

C. Award Information

- Total awards are dependent upon available funding. The number of awards and the award amount may increase or decrease each year dependent upon the MCC budget and philanthropic funding available in any given year.

- The number of awards and the award amount may increase or decrease each year dependent upon scientific merit of the projects submitted for review and the priorities established for any released FOA.
- Projects are expected to be completed within the specific budget period. No cost extensions will only be granted in highly exceptional circumstances. Projects will be monitored quarterly for scientific progress and expenditures, and the PI will be expected to account for any inactivity in any given quarter.
- Projects must have compliance approvals (e.g., IRB, IACUC) in place within 90 days of receipt of the Notice of Award or funding may be rescinded. The official start date of the award and the release of funding will begin once the compliance approvals have been submitted.

D. 2022-2023 Massey Cancer Center Priorities

- Projects that genuinely demonstrate transdisciplinary, interdisciplinary, or translational approaches to addressing cancer-related research question(s).

- Proposals that represent collaborative, team science approaches, particularly those that involve investigators from more than one MCC research program in meaningful ways.

- Research that reveals insight or will directly impact the distinct cancer burden within the MCC catchment area.

- Research that directly examines the cause or potential reversal of cancer disparities.

- Research that promotes collaborations between biologists and organic/medicinal chemists to generate novel anticancer drugs.

- Research that promotes collaborations between tumor immunologists and immunotherapists to generate novel biologics to treat cancer.

- Projects that directly engage the community in the design, implementation, and/or evaluation of the proposed research. Applicants are strongly encouraged to contact the Office of Community Outreach and Engagement to discuss the incorporation of Massey Community Champions into their projects.

- Projects that utilize MCC-supported shared resources, especially those applicants who have collaborated with one or more MCC-supported shared resource directors to optimize the full capabilities or innovative capabilities of a shared resource.

E. 2022-2023 Statewide Collaboration Opportunities

STATEWIDE COLLABORATION PROJECTS (1-2 projects to be funded)

1. Mechanism to support statewide collaborations between VCU/MCC and other Virginia-based, higher education institutions who will provide a confirmed 1:1 dollar match (institutions eligible may include: UVA, Virginia Tech, EVMS, VSU, Hampton, Norfolk State University, and others).
   - Used to support collaborative projects between VCU/MCC and other Virginia-based higher education institution faculty investigators interested in collaborative cancer research. Applications should have MPIs; both MPIs should be comparable and both MPIs must contribute to the overall project in similar magnitude. Budgets from each institution must be

comparable. Projects not meeting these guidelines will not pass administrative review or be scientifically reviewed.
- Total project period may not exceed 2 years.
- Combined budget for direct costs for the total project period may not exceed $150,000 (VCU will provide up to $75,000 to support VCU-related costs, and the partner institution will provide a dollar for dollar match for their institution-related costs).
- Applicants may request up to the full amount and there is no minimum amount required.

F. 2023 Deadlines – Statewide Collaboration Pilots

FOA release:	**Rolling Call**
Statement of Intent due by 5:00 pm EST:	**Rolling Call**
Selected applicants invited to submit full application:	**Rolling Call**
Full applications due by 5:00 pm EST:	**Rolling Call**
Earliest start date:	**Rolling Call**

G. Submission Guidelines

Pre-submission Guidelines for STATEWIDE Pilots:

Submission of the Statement of Intent (SOI) form is required. Statewide SOIs are due by 5:00pm EST on (TBD). The SOI form can be accessed via the website or by clicking here. The SOIs will be reviewed by MCC Senior Leadership or designated reviewers and select individuals will be invited to submit a full application by (TBD). No feedback will be provided on the SOIs.

Formatting:

- Use Arial 11pt. font for text and half inch margins.

Required Application Components:

1. **Massey Cancer Center Cover Sheet** {Download from website}
2. **Project Summary/Abstract** (limit to 30 lines)
3. **NIH Biosketch for Principal Investigator(s) and all key personnel**
4. **Letter(s) of Support**
   - **Statewide Collaboration:** Must include letter from partnering institution delineating the match commitment as well as letters from supporting shared resources, mentors, collaborators, co-investors, etc. as appropriate for the application
5. **Budget Pages** (PHS 398 Form Page 4 and 5)
   - A detailed budget justification is required (See allowable/unallowable expenses below)
   - Applications involving a collaboration with a partner institution must complete budgets from each institution and they must be comparable.
   - For Team Science applications, please complete Form Pages 4 and 5 for each project/core.
   - **Facilities and Administrative (F&A)/Indirect Costs:** These are not allowed.
6. **Specific Aims and Research Strategy**
   - **Specific Aims** (1-page maximum)
     - State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that results from the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology.

- **Research Strategy**
  - **Innovation:** 6 pages maximum
  - **Statewide Collaboration:** 12 pages maximum
  - **Team Science:**
    - 3-page overview maximum, 6 pages maximum per project for which funding is requested and 3 pages maximum per core for which funding is requested.

Start each section with the appropriate section heading – Significance, Innovation, Approach. Cite published experimental details in the Research Strategy section and provide the full reference in the Bibliography and References Cited section.

A. Significance

- Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields.
- Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved.

B. Innovation

- Explain how the application challenges and seeks to shift current research or clinical practice paradigms.
- Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions.
- Explain any refinements, improvements, or new applications of theoretical concepts, approaches/methodologies, instrumentation, or interventions.

C. Approach

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work.
- All applicants are strongly encouraged to seek the support of the MCC Biostatistics Shared Resource in the design and statistics methods to be employed. Please indicate who will be providing biostatistical support. If assistance is needed from the MCC Biostatistics Shared Resource, please contact Dr. Nolan Wages at Nolan.Wages@vcuhealth.orgas soon as possible.

7. **Bibliography and References Cited**

8. **Multi-PI Leadership Plan** (if applicable; 1-page maximum)
   - For applications designating multiple PIs, a leadership plan is required. The rationale for choosing a multiple PI approach should be described, including the added benefit of this approach. The governance and organizational structure of the leadership team and the research project should be described, including communication plans, process for making decisions on scientific direction, and procedures for resolving conflicts. Each PI must bring key scientific knowledge and responsibilities. The roles and administrative, technical, and scientific responsibilities for the project or program should be delineated for the PIs, including responsibilities for human or live vertebrate animal subject studies as appropriate.

9. **Plans for Subsequent Funding** (1-page maximum)
   - Discuss how the findings from your pilot will be used to write a proposal for subsequent NCI/NIH funding. In this regard, applicants should list potential aims for a NIH proposal. This

section is an important criterion for award selection.

- Team Science applications must include a detailed timeline for submission and meeting Year 2 contingencies outlined above:
  - Pre-application consultation meeting with the NCI/NIH;
  - Submission of an External Advisory Board report; and
  - Presentation on progress with MCC's Senior Leadership.

10. **MCC Shared Resource Utilization** (1-page maximum)
    - Describe MCC shared resource usage. Project(s) are highly encouraged to use at least one MCC SharedResource. If no shared resources are utilized for the project, please include a page stating not applicable.

Massey Supported Shared Resources

1. Bioinformatics
2. Biostatistics
3. Cancer Informatics Core
4. Cancer Mouse Models
5. Flow Cytometry
6. Health Communication and Digital Information
7. Microscopy
8. Proteomics
9. Tissue and Data Acquisition and Analysis
10. Transgenic/Knockout Mouse
11. Lipidomics / Metabolomics
12. Heath Equity and Disparities Research

11. **Compliance Document(s)**
    - Include all applicable compliance approvals need on the cover sheet (e.g., animal, IRB). Funds will not be allocated and no aspect of the project can begin (including non-human subject research components) without documentation of required approvals.

Note: Appendix materials are <u>not allowed</u> unless specifically requested above.

Budget Guidelines:

<u>Expenditures Allowed:</u>

- Salary support for research staff
- Research supplies
- Per diem charges for patients if part of a clinical study, not reimbursable by standard payment terms
- Technical assistance
- Graduate student/postdoctoral stipends if relevant to the project with a detailed justification
- Domestic/foreign travel necessary to carry out proposed project based on institutional travel policies
- Computational services
- Other expenses such as laboratory and shared resource fees, pathology, imaging, etc.
- Consultant costs
- Equipment/technology with the intent to design, test, or facilitate a new device and non-office equipment necessary to carry out the proposed project. Requests over $5,000 must include a detailed justification.
- Publications costs not to exceed $2,000 across the total project period

<u>Expenditures NOT Allowed:</u>

- PI or other faculty salary expenses
- Secretarial/administrative personnel salary support
- Office equipment and supplies
- Computer and equipment maintenance fees
- Tuition

- Travel and/or registration/related fees for conferences
- Travel not essential to carrying out the proposed research
- Purchasing and binding of periodicals and books
- Dues and membership fees in scientific societies
- Faculty recruiting and relocation expenses
- Administrative or institutional charges for services normally considered overhead (e.g. space rental, utilities, building maintenance)
- Non-medical or personnel services to patients
- Sub-contracts to institutions not affiliated with Massey Cancer Center
- Pre-award costs

H. Terms of the Award

- Acceptance of funds implies a firm commitment to provide a brief verbal/email check in progress report quarterly (financial and scientific) by the deadline outlined in the NOA and subsequently, an annual update for a five-year follow-up period. Second year funding is contingent on submission of a written progress report by the stated deadline. Awardees who do not reply to five-year follow up requests will jeopardize future MCC awards.
- Massey expects that the grantee will completely utilize the full amount of funding during the term of the award. No-cost extensions are highly discouraged and will only be considered under exceptional circumstances. All unspent funds at the end of the grant period will be returned to the MCC.
- All awards must have appropriate institutional compliance approvals (e.g., IRB, IACUC) within 90 days of receipt of the Notice of Awardand before funds will be allocated. The award will now receive a start date until the institutional approvals have been given. No aspect of the project can begin (including non-human subject research components) without documentation of all required approvals.
- Projects must start within 90 days of receipt of the Notice of Award or funding may be rescinded.
- All awards, publications, and presentations must acknowledge Massey Cancer Center as specified in the NOA.
- Acceptance of funds implies a firm commitment to provide the MCC leaders access to meet the team, give talks to the public, and tours of your facilities. Access to your laboratory will be facilitated by MCC Administration.

I. Review Process

Applications will be evaluated and scored according to:

- Scientific merit using NIH guidelines for scoring. Please note that the MCC review is run similar to an NIH study section and while its score drivers are similar, there is an important distinction: the MCC exists to support projects that need vital data to become competitive for an R01 or similar award. For this reason, an IMPORTANT score driver in the MCC review is the potential for future funding. It is the PI's job to lay out how the MCC funds will ensure a competitive future application. One page is dedicated to this purpose and that page is carefully evaluated during the Study Section meeting and by MCC Senior Leadership when making funding decisions.
- Potential for achieving high-impact results on an accelerated timeline when compared to the traditional pace of cancer research.
- Alignment with MCC priorities outlined in each year's FOA.

J. Questions

For any questions, please contact:

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