REQUEST FOR GRANT APPLICATIONS

SPONSOR: University of Massachusetts, Boston (UMass Boston) – Dana-Farber/Harvard Cancer Center (DF/HCC) Comprehensive Partnership to Advance Cancer Health Equity (CPACHE) (U54) Grant

FUNDING SOURCE: Federal

AWARD LEVEL: A. Pilot Projects (up to $75,000 in direct costs per year for two years)
B. Full Projects (up to $150,000 in direct costs per year for two years)

OVERVIEW & GOALS
The purpose of this joint grant between UMass Boston and DF/HCC is to foster and support intensive collaborations among investigators at UMass Boston (an institution that serves communities with cancer health disparities) and DF/HCC (an NCI-designated Comprehensive Cancer Center). The NCI Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE) (U54) Grant aims to develop stronger national cancer programs to understand the reasons behind the significant cancer disparities and related impacts on underserved communities and socio-economically disadvantaged populations. More specifically, the goal of the UMass Boston-DF/HCC Partnership is to improve cancer-related research, training, and outreach opportunities for under-represented minority (URM) students, fellows, and early stage investigators; and to develop information and resources toward closing the cancer health disparities gap. For more information about the Partnership please visit www.umb.edu/u54.

DEADLINES & KEY DATES

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ELIGIBILITY & REQUIREMENTS
All proposed research projects must illustrate collaboration between UMass Boston and DF/HCC researchers and must focus on an aspect of cancer or cancer disparities. Additionally, all research projects must have high potential for leading to external funding through the NIH K-series, R03, R21, R01 mechanisms or through foundation support; and should provide training opportunities for under-represented minority (URM) students and/or fellows. Interested faculty who do not have a DF/HCC or UMass Boston collaborator may request assistance from the Partnership at u54partnership@umb.edu.

Prior to receiving funding from this mechanism, PIs involved must either be current members of the DF/HCC or must submit an application for DF/HCC membership. Faculty at DF/HCC institutions and at UMass Boston are eligible to become DF/HCC members. To apply for membership in the DF/HCC please visit www.dfhcc.harvard.edu/membership. PIs must be appointed as faculty at their respective institutions; post-doctoral fellows are not permitted to serve as PIs on proposals.
Investigators may not a) submit a pilot project application if they have received Partnership pilot project funding within the last two years or b) submit more than one application.

We strongly encourage applications that:
- Create inter-programmatic interactions between members in clinical- and discipline-based research programs
- Evaluate biological risk factors that potentially contribute to cancer disparities
- Include biospecimen procurement for such studies
- Combine basic and population science methodologies
- Utilize the U54 cores (see below)
  - Focus on cancer outreach and include hypothesis-driven research that may lead to increased use of and access to beneficial care such as primary preventative measures and/or recruitment and retention of underserved and socio-economically disadvantaged populations into clinical trials for cancer prevention, early detection or treatment

NOTE: NCI is particularly interested in developing educational, outreach and research projects leading to increased biospecimen collection from underserved populations, a critical endeavor to potentially elucidate the biological and genetic factors associated with cancer health disparities.

Specific requirements for applications focused on cancer research vs. cancer disparities research: If more than 50% of the proposed research will be performed at UMass Boston, the project can focus on any area of cancer research OR cancer disparities research. If more than 50% of the proposed research will be performed at DF/HCC, the project MUST focus on cancer disparities research.

Specific requirements for applications focused on basic science, population sciences, outcomes and social science: Areas of interest: translational research, emerging technologies (emerging technologies include information and communication technology, nanotechnology, proteomics, genomics and imaging) as well as research focusing on pediatric, adolescent and young adult cancers.

Specific requirements for applications focused on community outreach, cancer education, and dissemination of evidenced-based programs: The proposed research project must focus on cancer disparities. Applications focusing on cancer outreach must include hypothesis-driven research that may lead to increased use of and access to beneficial medical procedures, such as primary preventative measures, for example, smoking cessation and cancer vaccines; or early detection procedures, such as mammography, PAP smear, colorectal cancer screening, etc.

LETTER OF INTENT (LOI) SUBMISSION INFORMATION
Submission of an LOI is required. LOIs are limited to two pages in length and should include the following information:
1) description of the proposed research;
2) specific aims;
3) a brief paragraph on the scientific significance and how it relates to the goals of the NCI CPACHE and UMass Boston – DF/HCC Partnership;
4) 2-3 bullet points on how the outcomes of the proposed work will position the project well for funding as a future Full Project and/or NIH (e.g. R01/R15/R21-level funding) mechanism; and
5) contact information for DF/HCC and UMass Boston investigators
APPLICATION SUBMISSION INFORMATION
The application must include all sections outlined below.

A. Title Page (limited to one page) including: title of the project, names of co-leaders from both partner institutions and a brief abstract stating the specific aims of the project.

B. Research Strategy (limited to 6 pages for Pilot Project applications and 12 pages for Full Project applications) including:

- Significance;
- Innovation;
- Preliminary Studies (encouraged for pilot projects, required for full projects); and
- Approach.

As part of the research strategy, describe how this project relates to the overall priorities of the CPACHE grant and UMass Boston – DF/HCC Partnership target area(s). Include any preliminary data (if available). Projects without preliminary data are expected to provide scientific rationale based on appropriate supporting literature. Describe, as appropriate for the nature of the project, experimental methods/study design, or education plans and objectives. Identify which aspects of the Pilot Project will be conducted primarily at UMass Boston and which at DF/HCC. Research projects conducted primarily at UMass Boston may be in any area of cancer research, but research projects conducted primarily at DF/HCC must specifically address cancer disparities research.

The research strategy must also include information on how the proposed project will lead to peer-reviewed funding (i.e. full project funding from the UMass Boston – DF/HCC Partnership or independent NIH R01/R15/R21-level funding); plans for inclusion of under-represented minority (URM) students/trainees; strategies for developing and maintaining an active collaboration between the DF/HCC and UMass Boston investigators, cross-institutional integration of research labs/programs; and plans for career development and mentorship for less experienced/early stage investigators/co-leaders.

Other Sections of PHS 398 Research Plan (Sections 4-16) must also be completed. In particular, Research Plan sections pertaining to human subjects and vertebrate animals must be strictly followed and appropriate documentation (described in PHS 398 instructions) attached as required.

- Section 5. Protection of Human Subjects;
- Section 7. Inclusion of Women and Minorities;
- Section 8. PHS Inclusion Enrollment Table;
- Section 9. Protection of Children; and
- Section 10. Vertebrate Animals.

Research components involving clinical trials must include a data and safety-monitoring plan as described in the PHS instructions. Funds should be budgeted for these activities and should be justified. The proposed provisions should not duplicate review and monitoring systems already in place at the institution. For any cancer treatment protocol supported directly or indirectly by the Partnership, early
stopping rules and procedures to detect and monitor adverse drug reactions (ADR) must be provided in the application, or in the case of protocols subsequent to funding of a U54, to the NCI Program Director.

Available Resources
*Utilization of the Partnership cores is strongly recommended.*

**Research Education Core**
The Research Education Core aims to increase the number of trainees, particularly those from under-represented minority (URM) backgrounds, who are interested in cancer/cancer disparities research. This core is available to investigators to assist with strategizing and developing a URM training program plan that suits the nature of their proposal. Additionally, this core can help investigators identify UMass Boston students to work as part of their research teams. To request an appointment, please contact Diedra Wrighting at Diedra.Wrighting@umb.edu.

**Shared Resources:** Research Design and Analysis Core, Genomics Core
The Research Design and Analysis Core (RDAC) offers consultation to investigators who would like guidance regarding the design of their proposal. The RDAC can assist with research design, measure development and general feedback on project feasibility. Population science and basic science research projects involving statistical analysis must consult with the RDAC to develop a strategy for study design and data analysis. To request an appointment, please contact Carol Lowenstein (Carol.Lowenstein@dfci.harvard.edu).

The Genomics Core (GC) is partially funded to assist investigators who wish to incorporate high-throughput NextGen sequencing studies in their study design. Funds are available to help develop incubator projects responding to this RFA for consideration for pilot or full project funding. To request an appointment, please contact Susan Patalano (susan.patalano@umb.edu) or Jill Macoska (jill.macoska@umb.edu).

**Outreach Core**
The Outreach Core aims to maximize the dissemination and implementation of evidence-based strategies to promote cancer prevention behaviors in faith-based and other community settings, provide training opportunities for students in outreach research, and offer resources and support to U54 new and ongoing research projects. The Outreach Core participates in the NCI National Outreach Network (NON) activities, including cross-cutting activities in biobanking. To request an appointment, please contact Shoba Ramanadhan (Shoba.Ramanadhan@dfci.harvard.edu), Tiffany Donaldson (tiffany.donaldson@umb.edu), or Eduardo Siqueira (Carlos.Siqueira@umb.edu).

**Biosketches:** A current NIH Biosketch (this should include all other funding sources) is required for each participating PI. Biosketches should be submitted on the PHS 398 Biographical Sketch Format Page.

**Budget:** In this joint application, DF/HCC and UMass Boston collaborators must complete separate budgets which, when combined, do not exceed the award amount. Funds can be utilized for PI salary, equipment and technician or post-doctoral fellow salary (RFA1). Funds (salaries/stipends) must be
budgeted to facilitate training undergraduate and graduate students. If selected for funding, the negotiated indirect costs will be awarded in addition to the proposed budget. Budgets should be submitted on the NIH 398 Detailed Budget for Initial Budget Period Format Page (fp4), and budget justifications should be submitted on the PHS 398 Budget for Entire Proposed Project Period Format Page (fp5). Outline major divisions of funds (personnel, equipment, supplies, other, etc.); and include adequate rationale in the budget justification. The proposed budget should be outlined in direct costs only.

IRB approval (if applicable): If IRB approval is necessary for the proposed research, contact u54partnership@umb.edu to determine a plan for approval submission.

IACUC approval (if applicable): If IACUC approval is necessary for the proposed research, approval will be required within 3 months from when the grant application was submitted.

PHS Inclusion Enrollment Reports: If required, these must be submitted on PHS 398 forms.

NOTE: This is a joint application. All materials must be compiled and submitted as a single PDF file.

Application Deadline: May 31, 2019 by 11:59 PM EST to u54Partnership@umb.edu.

PROPOSAL REVIEW CRITERIA
Applications will be reviewed by designated review committees. Reviewers will assign a score on the overall application based on the following review criteria:

Significance. The project addresses important problems or critical barriers to progress in cancer research or cancer disparities research. The aims of the project advance scientific knowledge, technical capability, and have near-term impact.

Innovation. The project utilizes novel theoretical concepts, approaches or methodologies, instrumentation, or interventions.

Investigator(s). The PIs, collaborators, and other key personnel have the necessary experience and expertise to accomplish the goals of the proposed research project. The investigators have complementary and integrated expertise.

Approach. The overall strategy, methodology, and analyses are well-reasoned and appropriate to accomplish the specific aims of the project, and cross-institutional integration of research labs/programs is clearly defined.

Career Development. There is a well thought-out and reasonable plan for career development of early stage investigator(s). Mentor(s) have been identified and the appropriate mechanisms are in place to achieve career development goals outlined.

Student Training. There will be significant opportunity for the training of URM students and fellows.
Potential for External Funding. There is a high likelihood that the proposed research project will lead to NIH K-series, R03, R21, R01 etc. mechanisms, or other types of foundation funding.

CONTACT INFORMATION

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Program Manager

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