

REQUEST FOR APPLICATIONS

Cancer Research Pilot Projects

Pre-Application Workshop: August 23, 2012

Application Receipt Date: Noon, September 25, 2012

A. Background: The Penn State Hershey Cancer Institute (PSHCI) invites grant applications from Penn State *faculty members proposing new cancer research pilot projects. The Institute is especially interested in receiving applications that involve collaborations between two or more cancer investigators and which are translational in focus and likely to lead to projects funded by NIH or other national organizations in the future. Proposals that translate basic research findings into clinical interventions for prevention, early diagnosis or improved treatment of cancer or which make use of clinical observations that are further studied in a laboratory or community setting are especially encouraged. This program will be supported by funds from the Commonwealth Universal Research Enhancement (CURE) program and College of Medicine endowments.*

Although all cancer research proposals will be considered, applications in the following areas will be of particular interest:

- Studies focused on cancers with greater-than-expected incidence, mortality or later stage-at-diagnosis in our primary service area;
- Projects that will take drugs or technologies developed in PSU laboratories into clinical applications;
- Projects that will lead to novel investigator-initiated clinical trials involving cancer prevention, diagnosis, or treatment;
- Studies that capitalize on the research strengths in nanotechnology at Penn State University;
- Studies of nutrition, obesity and cancer risk;
- Tobacco-related studies including but not limited to those focused on mechanisms of tobacco use and addiction, development and testing cognitive and social strategies to reduce tobacco uptake in adolescents and young adults at risk for developing nicotine dependence, and evaluation of smoking cessation strategies for rural and disadvantaged populations in Central Pennsylvania;
- Projects with the goal of improving access to cancer control services in the diverse communities served by PSHCI including but not limited to intervention studies that reduce barriers to accessing recommended early detection of breast and colorectal cancers in rural Appalachia and underserved communities in Central PA, and intervention studies that develop and test patient and primary care provider-based interventions that reduce cancer risk and promote early detection of cancers;
- Studies that develop and test interventions to address the support needs of cancer survivors in central Pennsylvania using community outreach and translational science perspectives;
- Translational studies that advance ongoing basic research on viruses that cause cancer;
- Studies proposing development of virus-based and immunological approaches for treating human cancers; and
- Proposals focused on the monitoring of immune responses in cancer patients undergoing therapy.

B. Eligibility Criteria:

1. The Principal Investigator (PI) of a Cancer Research Pilot Project application must have an academic appointment at the rank of Assistant Professor or higher in one of the colleges at Penn State University. Among others, virtually all physicians employed by The Milton S. Hershey Medical Center have primary academic appointments in the College of Medicine;

2. Although PIs do not need to be members of PSHCI at the time of application, they must become members prior to receiving a grant award through this program. See <http://www.pennstatehershey.org/web/cancer/research/membership> for membership information;
3. Although both junior investigators and established PIs are eligible to apply to this program, all proposals must represent new research initiatives. This program is not intended to be used as “bridge funding” to maintain or extend previously-supported studies;
4. Investigators may submit only one application as PI or Co-PI in response to this RFA. However, there is no limit to the number of applications where an investigator may serve as a collaborator or co-investigator; and
5. Applicants to this program may be eligible to apply for and receive other types of competitive institutional research support (e.g., Resubmission Grants, Bridge Grants, etc.) provided there is no scientific overlap between the projects.

C. Program Guidelines:

1. Applications to the Cancer Research Pilot Project program may request from **\$25,000 to \$50,000 (direct costs)** for a period of 6 to 12 months beginning January 1, 2013. Restrictions on the funds utilized for these awards will not allow any extensions beyond that date;
2. Grant funds may be requested to support the salary and fringe benefits of fixed term faculty and staff members who will contribute to the project (other than the PI or Co-PI), student stipends, supplies, equipment, technical services, publication costs, and expenses related to the use of human subjects;
3. **Grant funds may not be requested to support the salaries of the PI or Co-PI**, either fixed term, tenured or tenure track, or any other tenured or tenure-track faculty members;
4. **Grant funds may not be used for travel to conferences**; however, travel expenses directly related to the conduct of the research project are allowable;
5. Applicants are reminded that proposed effort must be appropriate for the scope of the project and the work to be allocated to faculty investigators versus other personnel. When obtaining departmental commitments, investigators- especially those requiring more than 5% of his or her time for the proposed project- should discuss the allocation of effort with their department chair in light of the faculty member's plans for conduct and continuation of the work, and the resources available in the department;
6. Departmental cost sharing is required for the related salary and fringe benefits of the PI or Co-PIs and for any additional resources needed to ensure the successful completion of the project;
7. Other funding is required to support the contributions of any collaborators from other institutions;
8. It is expected that Cancer Research Pilot Project awards will result in preliminary data to be used in grant applications to external research sponsors;
9. PIs and Co-PIs of awards that will be recommended to Pennsylvania Department of Health for funding from the Commonwealth Universal Research Enrichment (C.U.R.E.) Program will need to a) prepare a Strategic Plan for their project; and b) submit several detailed progress reports and related information to comply with requirements of the Pennsylvania Department of Health. **Applications that involve the use of human subjects must have received IRB approval before their Strategic Plan**

can be submitted to the Department of Health for final approval. To avoid a delay in submitting the Strategic Plan to the Department of Health, we strongly encourage all applicants proposing studies that involve human subjects to submit their IRB application immediately following submission of the Cancer Research Pilot Project grant application;

10. PIs and Co-PIs of awards that will be funded by College of Medicine endowments will need to submit a final progress report and copies of any related publications to the Director, Research Development and notify the Director regarding any external funding that is subsequently received using preliminary data obtained with support from the Cancer Research Pilot Project grant; and
11. PIs and Co-PIs of all funded awards must agree to serve on the College of Medicine Scientific Review Committee for a two year period, upon request.

D. Pre-Application Workshop: All PIs who intend to submit an application are invited and encouraged to participate in a Pre-Application Workshop on **Thursday, August 23rd from 12:00-1:00 pm in the Physiology Conference Room (C4702)**. At that time, the requirements of the RFA will be reviewed briefly and there will be an open forum for discussion of related questions.

E. Pre-application Consultation

PIs are strongly encouraged to contact the appropriate PSHCI Program Leader to discuss the application they are planning to develop and its relevance to current PSHCI program priorities. The Program Leaders may be contacted as follows:

Program	Leader	Email
Cancer Virology & Immunology	Harriet C. Isom, PhD	hci1@psu.edu
Chemical Carcinogenesis & Chemoprevention	Karam El-Bayoumy, PhD	kelbayoumy@hmc.psu.edu
Cancer Control	Roger Anderson, PhD	randerson5@hmc.psu.edu
Experimental Therapeutics	Wafik E-Deiry, MD and Mark Kester, PhD	weldeiry@hmc.psu.edu mxx38@psu.edu

F. Application Format: We suggest that you develop each of the following sections of the application in MS WORD so they can be readily assembled into a single PDF document. The final PDF should include all of the information listed below in the order indicated.

- 1. Cover Page:** List a) “Cancer Research Pilot Project Application”; b) Principal Investigator’s name, academic title, department, and contact information including an email address and phone number; and c) a descriptive title of the proposal (limited to 81 letters/ characters).
- 2. Table of Contents:** Include page numbers starting with the cover page and numbering all pages consecutively.
- 3. Abstract of Project: (1 page or less)** State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved.

4. Specific Aims: (1 page) List succinctly the overall objective of the research proposed and the Specific Aims which must be achievable within a 6-12 month period and within the constraints of the funding requested. **Restrictions on the funds utilized for these awards will not allow any extensions beyond 12/31/2013.**

5. Research Strategy: Describe the studies that will be supported by the proposed award in 4 pages single spaced including any figures, tables and references.

- A. Significance:** Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses.
- B. Innovation:** Explain how the application challenges current research or clinical practice paradigms by utilizing novel approaches or proposes a new application of theoretical concepts, methodologies or interventions;
- C. Approach:** Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Describe how the data will be collected, analyzed, and interpreted. Briefly describe any preliminary studies.
- D. Timeline.** Use bulleted statements to list the major time points including the anticipated date for submission of an external research grant application or opening of a clinical trial. Please consider that the Specific Aims of the pilot project must be achieved and funds spent out by 12/31/2013. Restrictions on the funds utilized for these awards will not allow any extensions beyond that date.

6. Budget and Justification. Use the NIH 398 budget form for the detailed budget and provide a 1 page budget justification.

7. Future Plans. Assuming that this pilot project is successful, describe anticipated plans to apply for external funding including the identity of the most probable sponsor and the expected receipt date for submitting the first such application (1 page).

8. Biographical Sketch and Other Support. For each faculty member involved in the project, provide an NIH Biographical Sketch (<http://www.pennstatehershey.org/web/researchdevelopment/home/forms>) including current Other Support information. For all active and pending awards, list the sponsor, project title, project period and current year direct costs budget and clearly indicate whether there is or is not any duplication with the studies proposed for support by the Cancer Research Pilot Project grant application.

9. Attachments: If the studies proposed in the application require the use of facilities or other resources that are under the purview of another investigator(s), include a letter from that individual to document the availability of those resources for use in the proposed research. **Do not include any reprints, manuscripts, CDs, DVDs, or any other attachments!!**

G. Application Submission: Save the PDF and submit it electronically to the Research Development Dropbox, following the directions below, and provide 4 paper copies of the Application to Research Development in C1630 **on or before noon, September 25, 2012:**

1. Save the application in a single PDF file named as follows – Last name of the PI or Co-PIs_CancerPilot_Date.pdf (e.g. Jones_CancerPilot_09012012.pdf);

2. Navigate to the Research Development Dropbox website (<https://rddropbox.hmc.psu.edu/DocDrop/>) and use your Penn State Access ID to login in order submit your documents to the drop box;

2. Upload your application as a single PDF that is named as noted above; and

3. Deliver 4 printed copies of the application to Research Development (Room C1630).

IMPORTANT NOTES:

- A **Proposal Internal Approval Form (PIAF)** is not required at this time, but in the event that the proposal is selected for funding, a PIAF and Hershey Blue will be required prior to award.
- **Applicants proposing studies that involve human subjects should submit their IRB application immediately following submission of the Cancer Research Pilot Project grant application.** PIs must have IRB approval before their Strategic Plan can be submitted to the Department of Health for final approval.
- As a reminder, **these projects must be completed and funds awarded must be spent out by 12-31-2013.** Restrictions on the funds utilized for these awards will not allow any extensions.

H. Review and Award Criteria: Applications will undergo an initial review for scientific and technical merit by the College of Medicine Scientific Review Committee (SRC) that will use the NIH review criteria and scoring metric which may be accessed at :

(<http://www.pennstatehershey.org/web/researchdevelopment/home/internal/reviewcriteria>). Accordingly, the SRC will evaluate the significance, investigator(s), innovation, approach and environment and any additional criteria that are relevant to the application including the potential for the project to subsequently attract significant research support from an external sponsor. In addition, the SRC will be asked to identify changes in study design and methodology that would strengthen each proposal and these recommendations will be returned to the applicant with the reviewer's critique at the conclusion of the review process.

At the conclusion of the merit review process, the Vice Dean for Research and Graduate Studies and the Director, PSHCI will consider the following criteria in selecting projects for award:

- The recommendations of the SRC regarding scientific and technical merit; and
- The extent to which the proposal will strengthen and expand the PSHCI research base in areas of highest programmatic priority.

I. Awards: Contingent on the receipt of meritorious applications, it is anticipated that approximately 8-16 applications will be selected for award. Some awards will be supported with Endowed Funds and other awards will be supported with funds from the Commonwealth Universal Research Enhancement (CURE) Program.

J. Additional Information: Questions regarding this RFA should be referred to Research Development (researchdevelopment@hmc.psu.edu; Phone 717-531-6949).