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Professor, Chemistry Department, Brooklyn College

Request for Applications for Clinician Scientist Development Grant

Brooklyn College Cancer Center BCCC-CURE, Brooklyn College

SUB-AWARD REQUIREMENTS

Eligibility Requirements

1) Have clinical license and have a role in clinical care

2) Be at a faculty position (Instructor or Assistant Professor level) at Brooklyn College or one of Brooklyn College Cancer Center Collaborating Institutions

3) Cannot have more than 3 years of prior postdoctoral mentored research training

Grant Mechanisms	Total Budget	Grant Term	# Of Grants to be Supported
Clinician Scientist Development Grant	$$600,000 per clinician scientist, $150,000/year	4 years	2

APPLICATION REQUIREMENTS FOR SUBAWARD GRANT MECHANISMS

When preparing applications for the subaward mechanisms, please include the following requirements

Grant Mechanisms	Requirements	Page limits
Clinician Scientist Development Grant	1. Candidate Biosketch	5 pages
	2. Mentoring and Training Plan	3 pages
	3. Research Plan (B-F)	13 pages
	4. The Candidate and Career Goals	3 pages or less
	5. Compliance	No page limits
	6. Recommendation Letters	Three letters (no page limits)

1. **BIOSKETCH OF THE APPLICANT** Complete the NIH Biosketch template, following the format and instructions provided by the NIH. In addition, please provide all post-doctoral research experience in the Mentored Training section. Note: The Biographical Sketch may not exceed 5 pages.

2. MENTORING AND TRAINING PLAN

The following sections must be prepared by the proposed primary mentor(s)

Program Goals and Proposed Training Describe the overall goals of the proposed program and indicate how the grant, if awarded, will advance the candidate's career as an independent researcher. Provide a description of the specific plans for research training, including core curriculum studies, courses, and lectures. For each mentor, describe their role, area of expertise, and the frequency and mode of contact with the Candidate should be provided. Explain in detail the activities planned for the period of the award, including clinical, research, teaching, coursework, administrative duties, etc., and skills the candidate will gain from the mentoring experience. Estimate the percentage of time allocated to each area. The primary mentor is expected to compose the mentoring and training plan. If an additional mentor is involved in the candidate's training, describe this person's participation as well. Include a table indicating the timeline of implementation and completion of the Training Plan.

Training Experience of Mentor(s) Document your background and experience in training clinical and applied cancer researchers. Describe in detail (table format preferred) your mentoring experience (e.g., list the researchers you have trained, the extent of their training, and their current involvement in clinical or applied cancer research). Fully describe your current professional responsibilities and activities.

Biographical Sketch of Mentor(s) Provide biographical information requested for all mentors. Complete the NIH Biosketch template. Follow the format and instructions provided by the NIH. Use a separate “Biographical Sketch” template for each mentor. Note: The Biographical Sketch may not exceed 5 pages.

Mentor(s) Commitment Letter(s) A letter of commitment must be provided from each mentor. The letter should include assessment of the Candidate’s research ability and potential, motivation, ability to plan and conduct research, knowledge of the field of study, and ability to work as a member of a research team. Letters may also include other attributes of the Candidate such as character or motivation. The letters will need to be uploaded as an attachment to your application. Provide a description of the specific plans for research training, including core curriculum studies, courses, and lectures. For each mentor, describe their role, area of expertise, and the frequency and mode of contact with the Candidate should be provided. Explain in detail the activities planned for the period of the award, including clinical, research, teaching, coursework, administrative duties, etc., and skills the candidate will gain from the mentoring experience. Estimate the percentage of time allocated to each area. The primary mentor is expected to compose the mentoring and training plan. If an additional mentor is involved in the candidate's training, describe this person's participation as well. Include a table indicating the timeline of implementation and completion of the Training Plan.

3. Research Plan

Section A below (Specific Aims) should not exceed 1 page. Sections B- F below must not exceed 9 pages for Post-Doctoral Fellowships (PFs). These page limits do not apply to Sections (G) through (J).

A. **Specific Aims** (not to exceed 1 page) List the hypothesis, objectives and goals of your proposed research and briefly describe the scientific aims.

B. **Background and Significance** Concisely summarize and critically evaluate the literature. Provide a model (i.e., animal model, or conceptual model) or theoretical framework guiding your research. Specifically, state how the successful completion of the work proposed will advance scientific knowledge and/or aspects of clinical practice that are important for better understanding cancer or management of cancer patients or reduce burdens from cancer.

C. **Cancer Relevance** How is this research relevant or how will it impact persons at risk for, or living with, cancer and their family members and/or caregivers? The relevance to cancer may be indirect, but the connection must be clearly articulated by the applicant.

D. **Innovation** What is the potential that the proposed study will challenge and seek to shift current research understanding or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Does the research propose meaningful improvements

or address critical gaps?

E. Preliminary Studies Provide results of your prior research that are relevant to this proposal. Preliminary data aren't expected or required. Reprints or preprints may be included in the Appendix. Note that the entire application is considered confidential.

F. Research Design Describe your overall hypothesis, proposed methods, procedures, and data analysis in enough detail to permit evaluation by other scientists; include your rationale for approaches and analysis. Explain your project's feasibility and how the experiments proposed will address the Specific Aims. Discuss potential difficulties and limitations of your proposed methods and provide alternative approaches. Inclusion of an experimental timeline can be helpful.

G. Experimental Details (optional – not to exceed 3 pages) This section is available if more in-depth description of the experimental design, technologies, or assays are needed to convey the specific approaches and procedures proposed. This section is also appropriate for articulating specifics regarding how you plan to use findings from this research to inform a larger study.

H. Environment for Research and Training Briefly describe the existence of an appropriate academic and research environment for the proposed research study and/or training program, including:

- departmental and other institutional personnel.
- ongoing research and other relevant activities.
- facilities and resources.
- access to any populations or individuals to be studied.
- relevant collaborative relationships; and
- any relevant accreditation from professional societies or organizations.

Describe how the presence of these resources will directly benefit you and your research.

I. Statement of Science Outreach and Advocacy (not to exceed 1 page) ACS considers it important that scientists communicate the results of their research to a wide range of communities. Explain the potential impact of your proposed project on your community, and to the ACS's mission to save lives, celebrate lives, and lead the fight for a world without cancer. Share any previous experiences in science outreach and advocacy. Describe your plans for disseminating your work in the cancer arena through advocacy, awareness, education, or service. Please include your plans for sharing your research and research findings with your (non-academic) community members and for engaging with community partners in the dissemination process.

J. References Each literature citation should include title, authors, book or journal, volume number, page numbers, and year of publication. There is no page limitation; this section is not included in the research plan page limit of Sections (B) through (F).

4. THE CANDIDATE AND CAREER GOALS

STATEMENT OF EXPERIENCE AND CAREER GOALS OF THE APPLICANT
In 3 pages or less, describe:

1. Clinical and research experiences that have been impactful and why. For all research experience, state the nature, results, location, time frame, with whom the work was conducted, and your role.

2. Anticipated training or skills building the candidate anticipates receiving. Include new technical and conceptual approaches the training will offer.

3. Short- and long-term career goals in cancer research and how the proposed training and research plans align with these goals.

5. COMPLIANCE (Required for any grants dealing with human or animal subjects)

Human Subjects

Selection of study population. When conducting research on humans, provide the rationale for selection of your target population including the involvement of children, minorities, special vulnerable populations, such as,

neonates, pregnant women, prisoners, institutionalized individuals, or others who may be considered vulnerable populations*. This should include research subject gender and the rationale for why certain populations may be excluded based on your research question and specific aims. The institution is required to ensure IRB approval is obtained for the grant to start, and the approval documentation is uploaded into proposal CENTRAL within 3 months of grant activation.

Complete the planned enrollment form based on your proposed study sample size to estimate the total number of subjects by primary ethnicity and race, race/ethnicity subgroup (if applicable) and gender. Also include estimates of the sample distribution by gender and race and ethnicity (if available). For example, if your sample size is 200, to complete the total number for the subjects' column by race (based on what you know about the population demographics or the existing dataset you plan to analyze) multiply by the estimated percentage.

Estimated percentage of the Subjects	Estimated total number of population by race
50% White	100 (200 x 0.50)
49% AA	98 (200 x 0.49)
1% Asian	2 (200 x 0.01)

For applicants performing non-human subjects research, please check the box that most appropriately describes your research.

Potential benefits and risks and knowledge gained Succinctly describe the potential benefits and risks to subjects (physical, psychological, financial, legal, or other). Additionally, provide justification for why potential risks to subjects are reasonable in relation to the anticipated benefits to research participants and others. Where appropriate, describe alternative treatments and procedures, including the risks and potential benefits of the alternative treatments and procedures, to participants in the proposed research.

Research Specimens and Data If the proposed research involves biospecimens, provide a description of how the research material will be obtained from living subjects and what materials will be collected. Additionally, describe the specific non-biological data from human subjects and how it will be collected, managed and protected (e.g., demographic data elements), including who will have access to research data and what measures will be implemented to keep personally identifiable private information confidential.

Collaborating sites List any collaborating sites where research on human subjects will be performed and describe the role of those sites and collaborating investigators in performing the proposed research. Explain how data from the site(s) will be obtained, managed, and protected. Note: See the Department of Health and Human Services Office of Research Protection Subparts B-D for additional protections for vulnerable populations. http://www.hhs.gov/ohrp/policy/populations/index.html

Vertebrate Animals IACUC approval must be obtained before animal work begins. An IACUC approval letter must be uploaded to proposal CENTRAL immediately upon approval. Provide the rationale for inclusion of live vertebrate animals according to the

1) necessity for the use of the animals and species proposed;

2) appropriateness of the strains, ages, and gender of the animals to be used for the experimental plan proposed; and

3) justifications for, and appropriateness of, the numbers used for the experimental plan proposed. When completing the Targeted Enrollment Table, select non-human subjects' research and check the box that most appropriately describes your research.

Biohazards Briefly describe whether materials or procedures proposed are potentially hazardous to research personnel, equipment, and/or the environment, and describe what protections will be used to mitigate any risk. The assessment related to biohazards should include potential biological or chemical hazards.

Authentication of Key Biological and/or Chemical Resources Briefly describe methods to ensure the identity and validity of key biological and/or chemical resources used in the proposed studies. Key biological and/or chemical resources may or may not be generated with ACS funds and:

1. may differ from laboratory to laboratory or over time.

2. may have qualities and/or qualifications that could influence the research data; and

3. are integral to the proposed research.

These include, but are not limited to, cell lines, specialty chemicals, antibodies, and other biologics. Researchers should transparently report on what they have done to authenticate key resources, so that consensus can emerge. Standard laboratory reagents that are not expected to vary do not need to be included in the plan. Examples are buffers and other common biologicals or chemicals. Information in this section must focus only on authentication and/or validation of key resources to be used in the study; all other methods and preliminary data must be included within the page limits of the research strategy. Applications identified as non-compliant with this limitation may be withdrawn from the review process.

6. LIST OF RECOMMENDERS List the name, title, and email address of three persons, other than your proposed mentor(s), who can critically appraise your qualifications. They should be able to comment on your character, motivation, maturity, general knowledge, ability to use research techniques, originality, specialized experience, and training.

Key Dates to Remember:

***Application Due Date*: October 1st, 2023**

For questions please contact:

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