April 30, 2019

TO: NIH Intramural and Extramural Investigators

FROM: Deputy Director for Intramural Research, NIH
       Associate Director for Clinical Research & Chief Scientific Officer, Clinical Center

SUBJECT: 2019 Bench-to-Bedside Call for Proposals

Timeline:

Call for Proposals: April 30, 2019
Webinar to Address Applicant Questions: May 16, 2019
Letter of Intent (LOI) due date: May 31, 2019
Notification of invitation to submit full proposal: June 21, 2019
Application due date: July 26, 2019
Applications reviewed: September/October 2019
Investigators notified of decisions: January 2020
Earliest start date: February/March 2020

We are pleased to announce a call for proposals for the NIH Bench-to-Bedside (and Back) Program (BtB). This is the 21st cycle of BtB funding for two-year awards designed to seed new projects that propose to translate basic science observations to the patient and/or clinical observations to the laboratory with the goal of improving human health. The program promotes meaningful collaborations between basic and clinical investigators, which can involve either intramural investigators from different laboratories or intramural and extramural investigators.

Project Requirements: This program supports innovative small/pilot research projects designed to translate basic scientific findings into therapeutic interventions for patients and to increase understanding of important clinical observations of disease processes. Every project must include an intramural investigator who is responsible for submitting the application, and he or she must have at least one intramural and/or extramural co-investigator. Preference is shown for projects involving extramural partners, though this is not required. Projects may have single or multiple Principal Investigator(s). Extramural investigators may initiate or lead projects, though the extramural investigator must still have an intramural co-investigator who submits the application. Extramural investigators who need assistance identifying intramural partners may consult:

- NIH’s database of all current intramural research at http://intramural.nih.gov/search/index.tml;
- “Search the Studies” website to identify investigators on relevant protocols at http://clinicalstudies.info.nih.gov/index.html; or
- BtB Program Office (BenchtoBedside@mail.nih.gov) for assistance in identifying intramural partners.

**Funding:** Each award will be a maximum of $150,000/year in direct costs for two years. The extramural investigator(s) cannot receive all project funds, at least some funds must be directed to the intramural investigator(s). Year 1 project funds will be distributed in FY 2020 and Year 2 project funds will be distributed in FY 2021. The extramural investigator must have an active, in-scope NIH grant in order to receive any supplemental funding support. All appropriate indirect costs must be included in the submitted BtB application.

**Intramural Funds:** Intramural funds will be provided to intramural investigators via intra-agency agreements. At least one intramural investigator on the project must have responsibility for scientific and budgetary oversight (e.g., the investigator must have a budget/assigned CAN and resources).

**Extramural Funds:** Funds to extramural investigators will be provided as an administrative supplement to an eligible NIH grant. To receive funds, it is mandatory that the parent grant is aligned closely with the subject area of the proposal so the project can be supported within the aims and objectives of the parent grant. In order to ensure alignment with the parent grant, a written justification must be included in the budget section of the BtB application describing the scientific relationship. Please note, if the BtB extramural partner is NOT the PI on the NIH grant, he or she must ensure in writing that the parent NIH grant PI is supportive of the use of supplement funds to be used on the BtB project. Incomplete grant information in the full proposal (e.g., invalid project period dates or lack of scientific alignment) will eliminate the proposal from funding consideration. Indirect costs for extramural investigators will be covered beyond the direct cost limit of $150,000, if they are included in the budget request in the full proposal.

*NOTE: Due to NIH policy, there are no exceptions to the above requirements for receipt of extramural funds. Applications with ineligible extramural components may be eliminated from consideration or may have their funding reduced if awarded. Please contact the Bench-to-Bedside team with any eligibility questions.*

**Research Areas of Interest:** Awards will be available in topics relevant to the research interests and priorities of funding NIH Offices Institutes/Centers (ICs). If additional award categories are added prior to the LOI due date, these will be highlighted on the BtB Program website (http://www.cc.nih.gov/ccc/btb/index.html). All applications are automatically considered for
“general category” funding through the Office of Clinical Research’s BtB stable funds in addition to any funding consideration by the donor offices listed below.

(1) **AIDS (Support from Office of AIDS Research)** Exemplary HIV/AIDS projects aligned with the new overarching HIV/AIDS research priorities will be considered for funding (https://www.oar.nih.gov/hiv-policy-and-research/research-priorities).

(2) **Behavioral and Social Sciences (Support from Office of Behavioral and Social Sciences Research):** Projects will be considered for funding that facilitate the translation of basic behavioral and social science research findings into effective interventions to prevent disease and to promote and optimize health. Of particular interest are interdisciplinary research and systems thinking and modeling approaches that integrate multiple levels of analysis - from cells to society - of factors that influence health. Key problems in population health where scientists, practitioners, and decision-makers can work together to accelerate the translation, implementation, dissemination, and adoption of behavioral and social sciences research findings are of high priority to OBSSR. The Office has strong interests in the development of behavioral interventions to improve health, studies of gene-environment interactions, adherence (at the patient and provider levels), measurement harmonization, primary care, mobile health, health disparities, shared medical decision-making, the exposome, and other areas.

(3) **Dietary Supplements (Support from the Office of Dietary Supplements):** Awards in this funding category are designed to promote scientific study of the benefits of dietary supplements in maintaining health and preventing chronic disease and other health-related conditions but not in disease treatment. In the U.S., these ingredients are usually defined as including plant extracts, enzymes, vitamins, minerals, amino acids, and hormonal products that are available without prescription and are consumed in addition to the regular diet.

(4) **Health Disparities & Minority Health (Support from the National Institute on Minority Health & Health Disparities):** NIMHD will fund projects that support the overall NIH effort to reduce and ultimately eliminate health disparities, improve minority health and promote health equity. Research projects must focus on 1) improving our understanding of ways to reduce health disparities among racial/ethnic minorities, persons of less privileged socioeconomic status, sexual gender minorities, or underserved rural residents; or 2) health determinants and mechanisms of health outcomes in racial/ethnic minority populations as defined by the US Census.

(5) **Rare Diseases (Support from Office of Rare Diseases Research in the National Center for Advancing Translational Sciences):** ORDR/NCATS will provide funding in this category. Projects must focus on an area of science/research directly related to a rare disease. An orphan or rare disease is generally considered to have a prevalence of less than 200,000 affected individuals in the United States. Diseases with a prevalence of more than 200,000 affected individuals may be included if a biologically plausible subset
of the disease, with a prevalence less than 200,000, can be scientifically justified for focused research. A comprehensive list of rare diseases, updated regularly, is available at http://rarediseases.info.nih.gov/RareDiseaseList.aspx?PageIC=1.

(6) Women's Health (Support from the Office of Research on Women's Health): One project will be funded that focuses on efforts to improve the health of women through biomedical and behavioral research. The influence of sex and gender on health and disease is of particular interest, specifically comparing and contrasting female and male data from cells, animals, or tissues across a range of research questions. For information on the Trans-NIH Strategic Plan for Women’s Health Research, see: www.nih.gov/women/strategicplan.

Application Process

Meeting via WebEx to Address Applicant Questions (May 16, 2019 from 11:30-12:30)

Join Webex meeting
Meeting number (access code): 621 735 469
Meeting password: PdhWQnQ4

Join from a video system or application
Dial 621735469@nih.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

Join by phone
1-650-479-3208 Call-in toll number (US/Canada)
Global call-in numbers

Join using Microsoft Lync or Microsoft Skype for Business
Dial 621735469.ni@lync.webex.com

Please contact Dr. David Eckstein at 301-827-0749 or Hana Smith at 301-402-6313 with questions about this session.

Letter of Intent (LOI) (Due May 31, 2019): The LOI process allows investigators to describe the project idea for pre-submission approval. PIs will receive a decision letting them know if the Scientific Director(s) consider(s) the concept appropriate for consideration as a full proposal. LOIs will be submitted online by the lead intramural PI at https://proposalcentral.altum.com/default.asp?GMID=68. Tips for LOI submission can be found at http://www.cc.nih.gov/ccc/btb/deadlines.html#letterofintent.

The following content is required:
1. Project title and all applicable BtB categories
2. If a resubmission, indicate when the proposal was previously submitted
3. Contact information and IC(s)/institution(s) of all intramural and extramural investigators

4. Estimated budget, to show an estimate of annual total costs for each investigator receiving funds

5. Summary of Project, to include overall summary, specific project’s aims, approach, and a brief explanation of the contributions of each project collaborator. The character limit is 5,000, including spaces.

The lead PI can enable colleagues to access the LOI online during development; however, the lead intramural PI must submit the completed LOI, which will be reviewed by her/his Scientific Director and the Scientific Directors of the other intramural investigators listed on the project. The lead intramural PI will be notified via email as to whether or not the Scientific Director(s) has/have approved the project.

**Full Application (Due July 26, 2019):** Once endorsement from the Scientific Director has been received, the system can be accessed for development of the full proposal. Full proposals must be submitted online at [https://proposalcentral.altum.com/default.asp?GMID=68](https://proposalcentral.altum.com/default.asp?GMID=68).

The following information must be entered accurately and completely:

1. **Investigator(s) name(s), IC(s) or institution(s), contact information, and roles**

2. **Abstract:** This section will be automatically pre-populated by summary provided in LOI and may be amended.

3. **Research Proposal:** No more than 6 pages of 11-point Arial text with 0.5-inch margins, including tables and figures, excluding references. The following format is suggested:
   - Significance and background
   - Specific Aims
   - Research strategy, including hypotheses, preliminary results, experimental plan, and milestones (Note: if proposal involves a clinical trial, please include a separate protocol synopsis (limit 2 pages.)
   - Budget justification
   - Resubmission status (Note: if proposal is a resubmission, reviewer feedback from a prior cycle may be included, with an explanation of changes to the proposed project.)

4. **Budget Form:** download from program website: [http://www.cc.nih.gov/ccc/btb/deadlines.html](http://www.cc.nih.gov/ccc/btb/deadlines.html). If applicable, budget requests for extramural partners must include existing extramural grant number to receive supplement and must include the indirect costs.

5. **NIH Biosketch for all principal and associate investigators**


Customer support with online submissions for LOIs and/or full proposals will be provided by proposalCentral. Contact information is as follows: e-mail: pcsupport@altum.com; phone:
Review of Applications: A review team, appointed by the Chief Scientific Officer, NIH Clinical Center, will review and rank the proposals. The team will include both intramural and extramural basic and clinical scientists representing multiple institutes and centers and will include expertise in the funded research categories. Applications with an extramural component will be subject to further review prior to funding to ensure scientific alignment with the parent grant. Considerations for review will include:

- High quality of science (to be evaluated by the NIH Enhanced Review Criteria for Research Grants and Cooperative Agreements) with the potential to result in understanding an important disease process or lead to new therapeutic intervention;
- Strong translational science, with the bedside and bench components clearly related; one should lead logically to the next, and both should be strongly developed;
- The proposed translational work has the promise to evolve into an active clinical protocol with patient involvement in the future*.
- Although projects can be exclusively among intramural investigators preferably from more than one IC, collaborations between intramural and extramural investigators will receive priority review;
- The work should be a truly new initiative, not a funding request for work in progress.

*Translational component: Applicants must explain how the proposed project will involve clinical work with direct patient contact OR how the proposal results will lead to next steps involving clinical work (ultimately with direct patient contact). Involvement at the Clinical Center is a preference but not a requirement.

Requirements for Funded Projects: Principal Investigators for awarded projects will be required to submit annual progress reports. Please note that if you were previously the intramural lead on a BtB project and failed to provide a final progress report, you will be contacted to provide the final report before your new application is considered for funding.

Contact: Please feel free to contact us by email (BenchtoBedside@mail.nih.gov) with program questions. Additional information may be found on the Bench-to-Bedside program website: http://www.cc.nih.gov/ccc/btb/awards.shtml.

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cc: NIH Institute, Scientific and Clinical Directors
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