CFAR Supplement Announcement in HIV/AIDS – FY2018

The **Providence/Boston CFAR** invites applications from HIV investigators and established investigators in non-HIV fields who have never received an R01 for HIV/AIDS studies, but may have received other R (i.e., R21, R34) or K series awards, to apply for internal supplemental funds in three specific scientific areas of interest as noted below.

Supplement awards are for one year with maximum funding per application of up to $50,000 Direct Costs, indirect costs not allowed. If awarded, projects must be started no later than June 22, 2018.

Purpose and Scientific Areas of Interest

The purpose of this opportunity is to **support innovative research from basic science through implementation research** that address key gaps in HIV/AIDS and will advance the field. This opportunity should build research capacity and be consistent with the recent NIH HIV/AIDS research priorities (NOT-OD-15-137).

1) **Basic Research on HIV Infection and Persistence**

In recent years the balance between basic and translational HIV research has shifted heavily towards the translational side, with increased focus on prevention modalities and curative strategies. While this is a natural progression given the maturity of the field, it is important to maintain a strong basic research foundation to fuel future innovation and discovery. The goal of this topic is to bolster basic research in new and emerging areas of HIV biology and immunology and leverage innovative technologies to address remaining scientific gaps in our understanding of either HIV infection or HIV persistence during long-term ART, including virus-host interactions and both innate and adaptive immune responses.

Supplement requests addressing one or more of the following topics will be of greatest interest:

- Mechanisms and host factors involved in post-fusion intracellular transit, uncoating, and nuclear import of the HIV pre-integration complex
- The role of novel, biologically active host and/or viral RNA species, RNA modifications, or extracellular vesicles in HIV infection or persistence
- Application of innovative single-cell analysis approaches to the study of HIV infection, persistence, or host immune response
- Utilization of innovative technologies for intracellular, intravital, or whole-body imaging to study HIV infection or persistence
- Virologic or immunologic mechanisms or predictive markers associated with spontaneous control of HIV or SIV observed in some individuals after ART interruption
- Novel assays for monitoring HIV persistence and predicting or detecting the earliest stages of viral rebound including the use of oral tissues and fluids

2) **The Evolving Opioid Epidemic and its HIV Consequences**

The opioid epidemic in the US appears dynamic with many different components and considerations. Continuing high rates of opioid overdose death in rural areas have been joined by increased overdose deaths in urban centers among long-term people who inject drugs (PWID) and non-injection drug users. Synthetic opioids and their widespread availability seem to be fueling these epidemics of overdose and there is some evidence that urban, suburban, and rural opioid epidemics may have

increasing areas of overlap and there is potential for newer opioid epidemics to be joined with established HIV epidemics among PWID and users of other drugs. Current trends increase the likelihood that the newer opioid epidemics may see more HIV cases and suggest more attention needs to be given to the needs of long-term drug users living with HIV to reduce the potential consequences of opioid use, including overdose and problems adhering to HIV care. Multidisciplinary investigator teams working together with clinicians, local community stakeholders, and public health officials are encouraged. The application should include a description of collaborative activities, including any prior relationships with these collaborators.

Projects should be responsive to the opioid epidemic and its recent evolution with particular consideration of preventing HIV and other infectious disease consequences. There is a continuing need to implement evidence-based interventions such as integrated drug/HIV treatment, needle/syringe services, and overdose prevention, particularly outside of urban areas with established opioid-driven HIV epidemics. Prevention of opioid injection in established drug using populations is needed. There needs to be a better understanding of how current opioid use trends may intersect with populations of long-term drug users living with HIV, as well as other risk groups. Note that projects related to needle exchange and syringe services need to be consistent with US Department of Health & Human Services policy: https://www.aids.gov/pdf/hhs-ssp-guidance.pdf.

Responsive studies could include, but are not limited to:

- Addressing knowledge gaps regarding HIV transmission among PWID, including identification of possible transmission networks that connect opioid epidemics in rural areas to established HIV epidemics
- Analysis of phylogenetic HIV transmission networks among PWID exploring spread between rural and historical urban opioid epidemics or how PWID cases may reflect networks that include other risks
- Rapid policy and epidemiology assessments that can inform implementation of evidence-based practices (e.g. PrEP, syringe services)
- Identification of promising approaches for implementing evidence-based infectious disease prevention interventions (e.g., PrEP) in rural or other non-urban areas
- Development of interventions to prevent opioid uptake among long-term drug users living with HIV
- Addressing the impact of pain management practices on the development of opioid use/misuse among PLWH

3) Implementation of Evidence-Based HIV Interventions and Treatments for Health Disparity Populations

There are a variety of evidence-based interventions and treatments to prevent HIV infection/transmission, and to achieve viral suppression in individuals infected with HIV. However, significant racial/ethnic, socioeconomic, and geographic disparities in new HIV infections and attainment of viral suppression persist in the US. Health disparity populations in the US still often lack access to culturally appropriate interventions and services, and service providers that serve these populations may lack resources to offer the most efficacious interventions and services. Thus, there is considerable need to conduct research regarding the implementation of evidence-based HIV interventions and treatments for health disparity populations.

The supplement will support pilot and feasibility studies to prepare for implementation science research proposals to understand how to best deliver evidence-based interventions and services for targeted health disparity populations, which include racial/ethnic minorities, socioeconomically disadvantaged populations, underserved rural populations, and sexual and gender minorities. This initiative targets behavioral and health services interventions to prevent HIV infection, increase engagement and retention in HIV care, and increase adherence to ART.

Responsive studies could include, but are not limited to:\

- Systematic review and evaluation of adapted evidence-based interventions/services tailored to be culturally appropriate, acceptable, or feasible in settings that serve health disparity populations
- Systematic review and evaluation of strategies to increase uptake of evidence-based interventions or treatments such as PrEP or ART by health disparity populations.
- Feasibility study to guide protocol development of comparative effectiveness research that would assess which evidence-based interventions/services in real-world settings are most effective for targeted health disparity populations
- Feasibility study to provide evidence and data to support the design and implementation of optimization research that identifies which elements of multi-component interventions/service models may be most effective or cost-effective in low-resource settings or for particular health disparity populations

Eligibility

Principal Investigators for all scientific areas of interest are restricted to HIV investigators and established investigators in non-HIV fields who have never received an R01 for HIV/AIDS studies. Applicants who may have received other R (i.e., R21, R34) or K series awards are eligible to apply for this announcement. Post-doctoral fellows are not eligible.

International proposals or those with an international component are not permitted for this funding opportunity.

Budget and Funding Information

Funding for supplements will be supported by the ProvBos CFAR. The maximum funding allowed per application is $50,000 Direct Costs. Funding for administrative supplements must be awarded prior to 6/22/2018 and spent within a 1-year timeframe.

The Providence/Boston CFAR Supplemental Application packet must be completed, signed and submitted on or before **May 9, 2018**. Applications received after 5:00pm EST on May 9th will be returned to the applicant without review. The application packet can be found on the CFAR website at this link.

Applications should be emailed as an e-mail attachment in a single PDF file to CFAR@lifespan.org.

Review Considerations

Upon receipt, applications will be reviewed by the CFAR Program Coordinator for completeness and responsiveness. Incomplete applications will be returned to the applicant without further consideration.

Applications that are complete and responsive to the announcement will be evaluated for scientific and technical merit, and alignment with the NIH AIDS research priorities by an internal CFAR review group.

Review Criteria

The following criteria apply to all applications, unless noted. Reviewers will also examine the appropriateness of the budget, in consideration of the research environment and the supplement request.

1. Evidence that the proposed project will enhance new multidisciplinary collaborations and exert a sustained, powerful influence on HIV/AIDS research;
2. Extent to which the supplement will address scientific gaps and/or development of new strategies which include a variety of scientific disciplines;
3. Adequacy that the strategy, methodology, and analyses are well reasoned and appropriate to accomplish the specific aims;
4. Utilization of existing resources (including CFAR Cores) and/or development of unique and appropriate expertise, technology, and resources at the CFAR institution(s) and other sites, as appropriate;
5. Degree of innovation in project selection and experimental design;
6. Quality and appropriateness of mentorship and collaboration for the research project;
7. Choice of appropriate project PI and co-investigators (e.g., scientific qualifications, commitment, and experience), as well as the collaborations with other institutions, if applicable;
8. Appropriateness of the budget, in consideration of the research environment, for the scientific projects and cores.
9. Feasibility to complete the project within the FY18 project period (e.g., project must be completed no later than 6/30/2019, no extensions will be approved).

Allowable Costs

Funding may be requested for any category normally funded by a CFAR grant that is required to fulfill the goals of the proposed request and must be fully justified. Funds for equipment (including computers) and indirects are not allowed.

Schedule for Applications

Announcement Release Date:	***3/01/18***
Application Receipt Date:	***5/09/18***
Review Date:	***5/16/18***
Anticipated Award (Start) Date:	***6/22/18***

Reporting

Awarded administrative supplements will be required to submit six-month progress reports to be reviewed by the Developmental Core Directors and included in the annual progress report of the CFAR grant. Progress reports should include a summary of the supplement projects and outcomes.

Award Criteria

The following will be considered in making awards:

- Relevance to NIH HIV/AIDS research priorities;
- Scientific and technical merit of the proposed project as determined by a convened internal review panel.

Inquiries

Prospective applicants are encouraged to discuss their applications, including proposed collaborators with the ProvBos CFAR contacts below.

For questions concerning a specific scientific area of interest, please communicate with the appropriate scientific contact below:

Basic Research on HIV Infection and Persistence

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The Evolving Opioid Epidemic and its HIV Consequences

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Implementation of Evidence-Based HIV Interventions and Treatments for Health Disparity Populations

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For questions concerning eligibility or administrative, budget and fiscal matters:

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