

Call for Pilot Project Applications

Chemical Biology of Infectious Disease

NIH Center of Biomedical Research Excellence

University of Kansas

Letter of intent due: December 6, 2019, 5 p.m.

Those selected to submit full applications will be notified December 16, 2019.

Applications due: Feb 19, 2020, 12 p.m.

Anticipated Decision Date: Mar 16, 2020

Anticipated Start Date: May 1, 2020

The KU NIH CoBRE in Chemical Biology of Infectious Disease will provide investigators with support for research activities, mentoring, and access to Core Lab Services. **Three** pilot projects at up to \$60,000 in total direct costs starting May 1st, 2020 are anticipated for support. Pilot projects are for one year starting May 1, 2020, potentially renewable for a second year pending scientific progress and available funds.

Applications must describe a pilot research project that fits well with the scientific theme of Chemical Biology of Infectious Disease and incorporates substantial use of one or more associated core labs at KU. The competition is open to all full-time faculty at any State of Kansas Regents Universities. Tenure-track is not required. K99/R00 holders are not eligible to lead a Pilot Project. A Pilot Project recipient cannot hold any IDeA award concurrently with a CoBRE Pilot Project.

The CoBRE pilot grant program is intended to enable junior and senior investigators to generate preliminary data for submission of competitive grant applications, develop new technologies, and/or achieve other goals as defined by the PI that will better position the institution to conduct biomedical research.

Criteria for evaluation of CoBRE applications. The basic criteria for NIH grant review may be found at <http://grants.nih.gov/grants/peer/peer.htm>. Additional CoBRE-specific review criteria include:

- Strength of the science, and the quality and clarity of its presentation;
- Likelihood of the project becoming competitive for independent R01 funding;
- Likelihood of getting a publishable result within the one-year time frame;
- Relevance to the CoBRE theme of Chemical Biology of Infectious Disease;
- Clear, detailed plan for utilization of one or more CBID CoBRE Core Labs (or, when justified, another relevant Core Lab at KU);
- Background, experience and career status of the applicant;
- Track record of past research, research grant applications and research funding.

Questions about eligibility, program details, or the appropriate inclusion within this CoBRE scientific theme are encouraged to contact Scott Hefty (pshefty@ku.edu).

Chemical Biology of Infectious Disease Core Facilities and Director Information

IDAD Core Facility (Infectious Disease Assay Development)

Director: Anuradha Roy (anuroy@ku.edu); <http://idad.cobre.ku.edu/>

The overall goal of the IDAD Core is to provide expertise, facilities, services, and training in the area of HTS assay design, development, validation, small and large-scale screening for organism (cell) based or biochemical infectious disease targets. Core staff will facilitate design, development and validation of assays suitable for automated high-throughput chemical screening. They will also facilitate small- or large-scale screening of compounds (at KU or external sources). The expected outcomes of this core and associated efforts are well developed and validated assays suitable for automated large-scale screening that can be performed internally or externally. Hits generated through successful assay development and limited- or large-scale screening efforts will be directed into CCB and SCB to identify lead compounds for use as molecular probes and pre-therapeutics for infectious diseases.

CCB Core Facility (Computational Chemical Biology)

Interim Director: David Johnson (dkjohnson@ku.edu); <http://ccb.cobre.ku.edu/>

Computational Chemical Biology (CCB) Core will provide comprehensive computational support, with capabilities focused on four distinct classes of computational tasks: cheminformatics, 3D ligand comparisons, structure-based approaches, and protein modeling. These capabilities will support activities such as virtual screening, lead optimization, target identification, and protein design.

SCB Core Facility (Synthetic Chemical Biology)

Director: Chamani Perera (chamani@ku.edu); <http://scb.cobre.ku.edu/>

The purpose of the SCB is to provide synthetic chemistry support, including the validation of hit compounds obtained through high-throughput screening, quality control and analysis of compounds, synthesis of compounds unavailable commercially but needed by researchers, structure–activity relationship studies based on HTS campaigns, and optimization of fragment binders.

Other associated Core Facilities (<https://corelabs.ku.edu/>)

- Protein Structure Labs (Director: Scott Lovell) <http://psf.cobre.ku.edu/cores/psl/about>
- Protein Production Group (Director: Philip Gao) <http://psf.cobre.ku.edu/cores/ppg/about>
- Biomolecular NMR Lab (Director: Justin Douglas) <http://psf.cobre.ku.edu/cores/bnmrl/about>
- Genome Sequencing Core (Director: Jennifer Hackett) <http://gsc.ku.edu/>
- Microfabrication facility (Director: Ryan Grigsby) <http://microfab.ku.edu/>
- Microscopy and Analytical Imaging Laboratory (Director: Ed Molinar) <https://mai.ku.edu/>
- Mass Spectrometry and Proteomics Lab (Director: Todd Williams) <http://msl.ku.edu/>

General Terms and Conditions of CoBRE-CBID Pilot Project Awards.

1. Projects must make significant use of at least one Core Lab. Prospective applicants highly encouraged to consult with the appropriate Core Lab Director(s) before applying. Letter of support from core director reflecting the feasibility of proposed core utility is strongly recommended for the application
2. Summer salary is limited to a maximum of one person-month. Funds may be used for consumable supplies, services or small laboratory hardware, but not for equipment (i.e., items costing > \$5000). Personnel costs are allowable but preference will be given to applications that name specific individuals who are assured to be present on-site,

eligible to work and ready to begin no later than May 2020. Personnel costs may not be used to support first-year graduate students. Travel costs are limited to essential research-related travel and must be pre-approved by PI (Scott Hefty). Tuition costs are allowable as per standard institutional policies.

3. Investigators who receive CoBRE pilot project support are **REQUIRED** to participate as fully as possible in the regular monthly research meetings of the Center, as well as in the seminars, workshops and other special activities organized or sponsored by the Center.
4. A standard NIH-type progress report (ca. 2 pages in length) is required from each CoBRE Pilot Project Leader by February 15th, 2021 and 2022 for inclusion in the COBRE annual report to NIH.
5. Junior faculty recipients are expected to have a CoBRE-approved senior faculty Mentor
6. **All** pilot project grant recipients are expected to submit an R01 (or similar) proposal within the first year of the pilot project funding period.
7. Term and budget adjustments. The CoBRE Director reserves the right to make term and budget adjustments in accordance with the intent of the CBID-CoBRE program and NIH policies concerning scientific overlap of projects. For example, if a CoBRE investigator receives his/her own R01 grant CoBRE grant may be reduced to adjust for overlap, up to and including 100% reduction if the scientific overlap is extensive.
8. Unanticipated new requirements. By accepting CoBRE funds, awardees agree to comply with any and all requirements not already mentioned that may be imposed on CBID-CoBRE by NIH or other institutional authorities.

Application Process

You are encouraged to obtain assistance from the appropriate Grant Services agency at your university (**required if a KU participant**). Suggested contacts are listed below:

- KSU [Office of Research and Sponsored Projects](#) 785-532-6195 research@k-state.edu
- KU [Higuchi Biosciences Center Proposal Preparation Office](#) 785-864-4244 or 785-864-8015 hbcgrant@ku.edu
- KUMC [Sponsored Programs Administration](#) 913-588-1251 spa@kumc.edu
- WSU [Office of Research and Technology Transfer](#) 316-978-3285 proposals@wichita.edu

Send Email Letter of Intent (These *required* letters help us in planning.)

Letters of intent should be sent as a PDF attached to an email to kucbid@ku.edu, with a copy to sandberg@ku.edu. Your letter of intent **must**:

1. Be **received** by 5:00 p.m. on December 6, 2019;
2. Be no longer than one page, sent by email as a PDF attachment **along with** the applicant's NIH biosketch;
3. Explain briefly how the applicant meets the eligibility criteria set forth above;
4. Explain briefly the nature or focus of the research that will be proposed and, if not obvious, how it fits the scientific theme of CBID CoBRE, and
5. Explain briefly how the project will utilize one or more of the CBID CoBRE Core Labs.
6. Along with your letter, **please also include** a separate listing of **complete** contact information (including mailing address, email, phone, and website URL if possible) for five (5) potential reviewers for your application. For convenience and familiarity with NIH grant systems, these individuals **must** be located in the U.S., and must **NOT** currently be serving on an NIH study section.

Based on your letter of intent, you will be notified by December 16, 2019 if you should prepare and submit a full application.

Prepare and Submit a Complete Application.

1. Applications should be prepared in general accord with the NIH PHS 398 application guidelines.
2. Please type the applicant's name in the upper right hand corner of every page.
3. Include the Face Page, Project Summary and Relevance section (form page 2), Detailed Budget page (use a continuation page to provide a budget explanation/justification), NIH Biosketch (applicant and Mentor if applicable), Other Support (applicant only, not mentor) and Checklist. Please include Rigor and Reproducibility description. Budget dates are 05/01/20 – 4/30/21 and a second year budget will be requested at a later date if the project is considered for funding extension.
4. Number all pages consecutively starting with the face page as page 1.
5. Omit the Table of Contents page and the Resources page(s).
6. Letters of support from Directors of Core Labs that you will use are highly encouraged, but not required. Appendices are not allowed.

In addition, please observe the following CoBRE-specific requirements for Step 2:

1. Please use 11-point Arial font with one half-inch (1/2") margins on all four sides. (Write concisely and limit the amount of general background to the essentials that reviewers will need to know in order to understand and appreciate the proposed research.) Keep references to a minimum.
2. The Specific Aims section (maximum of two specific aims for a pilot project) must fit entirely on one page.
3. The Research Plan may not exceed **six (6) pages** in length including the Specific Aims page and all figures and tables, but excluding the reference list. References must be complete citations in the NIH style. Limit the reference list to a single page at most.
4. All figures and lettering **MUST** be large enough to be clearly legible (redraw if necessary).
5. For Junior Investigators, please include a letter of support from your CoBRE Mentor.

Submission Requirements

1. Submit applications as a single PDF document labeled as "PI LAST NAME" and "INSTITUTION" (e.g. NAME KU).
2. Submit applications to Shelley Sandberg (sandberg@ku.edu) which must be received no later than 12:00 p.m. on February 19, 2020.
3. If selected for funding, applicants will be required to furnish copies of all relevant compliance approvals (rDNA, vertebrate animals, etc.) prior to release of award funds, but **DO NOT** submit these items at this time.

CoBRE Pilot Project applications will be reviewed administratively according to the NIH criteria and the CoBRE-specific criteria mentioned above.