Linking Clinical Trials to Drug Discovery and Repurposing Award

REQUEST FOR APPLICATIONS
Issue Date: March 7, 2019
Application Due Date: July 19, 2019

Introduction
The Clinical and Translational Science Center (CTSC) of the University of New Mexico (UNM) Health Sciences Center (HSC) is soliciting applications from active CTSC investigators for projects that will link clinical research with drug discovery efforts in the Center for Molecular Discovery. The goal of this program is to provide seed funding to help investigators be successful in applying for new extramural awards. Projects should be short, and concentrate on obtaining key preliminary data needed to significantly strengthen a well-developed plan for an NIH application. Proposals are expected to be completed within one year and an extramural grant submitted at that time.

The purpose of this RFA is to support projects that address two or more of the following goals: 1) develop cell-based assays for use in high-throughput screening; 2) to use these cell-based assays for the identification of drugs for clinical repurposing efforts; and, 3) to utilize these previously FDA approved drugs in new clinical trials. This RFA supports projects that have the goal of identifying drugs for repurposing into clinical trials. Each proposal must identify the screening procedures to identify potential drugs for repurposing, and the clinical trial to be performed to test the efficacy of the identified compounds. Proposals are expected to have well developed scientific plans as well as well conceived clinical trials, even if funding for only numbers 1 and 2 (above) is requested.

As part of our CTSC award, the NIH has identified the need to speed the movement of clinical research findings into the everyday practice of health care delivery. To support this initiative, we will award several grants ranging from $5,000 to $50,000 each, to be spent between October 1, 2019 through September 30, 2020. Proposals that cover 2 of the 3 goals are eligible for $25,000 awards, and proposals which address all 3 goals are eligible for $50,000 awards. As part of the budget, investigators may request funds for services from the Drug Rescue, Repurposing, and Repositioning Network (DR3N) partners (KUMC Institute for Advancing Medical Innovation and UNC Psychoactive Drug Screening Program).

The emphasis of these awards is to stimulate drug discovery using cell-based assays in the Center for Drug Discovery. The previously FDA-approved drugs will be screened and the lead candidates are expected to be utilized rapidly in clinical trials. The bulk of the budgets are expected to be used in the screening of cell-based assays and initial small proof-of-principal clinical trials (less than 10 patients).
Definitions

- NIH Definition of Clinical Research: Research with human subjects that is:
  1) Patient-oriented research. Research conducted with human subjects (or on material of human origin such as tissues, specimens, and cognitive phenomena) for which an investigator (or colleague) directly interacts with human subjects. It includes:
    (a) mechanisms of human disease
    (b) therapeutic interventions
    (c) clinical trials
    (d) development of new technologies
    Excluded from this definition are in vitro studies that utilize human tissues that cannot be linked to a living individual.
  2) Epidemiological and behavioral studies
  3) Outcomes research and health services research

- NIH Definition of Clinical Trial: A research study in which one or more human subjects are prospectively assigned to one or more interventions (which may include placebo or other control) to evaluate the effects of those interventions on health-related biomedical or behavioral outcomes.

- NIH Definition of Human Subjects Research: According to 45 CFR 46 Link to Non-U.S. Government Site - Click for Disclaimer, a human subject is “a living individual about whom an investigator (whether professional or student) conducting research:
  - Obtains information or biospecimens through intervention or interaction with the individual, and uses, studies, or analyzes the information or biospecimens; or
  - Obtains, uses, studies, analyzes, or generates identifiable private information or identifiable biospecimens.

Application Deadline, Notice of Awards and Funding Cycle

Application Release Date: March 7, 2019
IRB Submission Deadline: May 24, 2019
Application Deadline: July 19, 2019 5:00 pm
IRB Approval Deadline for NIH Review: July 19, 2019
Notice of Intent to Fund/Decline: August 12, 2019
Earliest Notice of Award: September 13, 2019
Funding Cycle: October 1, 2019 through September 30, 2020

Eligibility and Project Requirements

- Principal Investigators for these pilot awards must be members of the UNM HSC faculty (junior or senior investigators). Any other investigator who cannot submit the grants emanating from this pilot award through the UNM HSC is not eligible to receive this award.
- Successful projects will exemplify the CTSC mission of developing clinical and translational research.
• All investigators selected to receive funding will be expected to submit progress reports on go/no-go milestones monthly to ensure continued funding.

• All investigators selected to receive funding will be expected to submit a Final Progress Report at the end of the funded project and an additional report one year later, detailing progress to date, expenditures, and all submitted publications and grant applications (pending or funded) relating to the pilot project.

Please note: All funds not spent by the end date of the Pilot Project Award (September 30, 2020) will be returned to the CTSC and NIH. No extensions will be granted. Applicants are eligible for no more than a total of two CTSC pilot awards, after which they need to demonstrate that they have received a score for an extramural grant submission before they will be considered for another CTSC pilot award.

Presentations and Publications
• Awardees are expected to publish their findings in scholarly peer-reviewed journals and present their research at professional meetings.

• All publications, grants, and presentations resulting from research funded by the CTSC or using CTSC resources should cite the CTSC as a contributing source of support and indicate the CTSC’s citation as follows: “This project was supported by the National Center for Research Resources and the National Center for Advancing Translational Sciences for the National Institutes of Health through Grant Number UL1TR001449, The University of New Mexico Clinical and Translational Science Center.”

• Investigators are responsible for submitting any peer-reviewed journal articles resulting from research funded by this award to PubMed Central, the NIH digital archive of biomedical and life sciences journal literature. This will generate not only a PubMed number but a PMCID number, as well. See http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-160.html.

Evaluation Criteria
Applications should be well written, precise, and succinct. Applications will be subject to both scientific and programmatic review and will receive scientific review by the CTSC Review Committee. The following criteria will be used in evaluating these proposals:

1. Overall Impact
2. Significance
3. Innovation
4. Approach (should include evaluation of the integration of special populations, approaches to articulated research barriers, and demonstration of feasible and generalizable translational research solutions, team science and interdisciplinary collaboration).
5. Investigator (including an evaluation of the status of prior pilot funding awards and the outcomes from those studies)
6. Environment
7. Probability that this project will lead to extramural funding
8. Utilization of CTSC resources
Additional review considerations will include:

9. Alignment with CTSC programmatic goals
10. “Go/No Go” Milestones (suggested by the investigator and/or established by the review committee)
11. Budgetary Considerations
12. Regulatory Approvals
13. Letters of Support and Commitment

**Scoring:** To emphasize the importance of extramural grant submission and attainment deriving from these pilot awards, each of the first 8 items above will be scored on a 1-9 scale (where 1 is best), and composite scores will then be weighted so that the final overall impact score is determined as follows:

- Innovation: 10%
- Significance: 10%
- Approach, Environment, and Investigator: 30%
- Plan for and probability of extramural funding: 30%
- Utilization of CTSC Resources: 20%.

**Budget Guidelines**

Utilization of CTSC Core services is strongly encouraged and will be a review consideration. Meeting with the CTSC Research Concierge, (HSC-CTSCResearchConcierge@salud.unm.edu), for consultation and planning purposes in the effective use of CTSC Core services utilization for your research proposal is required.

Responsible budgeting is critical for the 12 month project. Your proposed budget will be reviewed and potentially revised based on Peer Review feedback. If successfully funded, reallocation of the budget is strongly discouraged. However, consideration will be made for reallocation of funds within CTSC Cores if justified. Prior approval is necessary.

CTSC resources included in the budget will be covered using a non-refundable voucher program. These funds may not be reallocated to other expenses after the grant has been awarded. **Rationale for not using CTSC Core services needs to be specifically justified**

Details of services offered by each Core can be found at each of the following links:

- **Participant Clinical Interactions (formerly Clinical Research Unit [CRU]):** Offers clinical research support staff, recruitment assistance, clinic space, bionutrition, as well as consultation on protocol development and implementation.
- **Biomedical Informatics:** Offers clinical data warehouse mining, “honest broker” services for access to data from multiple sources, and web-based electronic data capture and survey tools via REDCap.
- **Biostatistics:** Offers HSC researchers ready access to appropriate expertise in study design, biostatistics, and basic data management through individual consultations with biostatistics faculty.
• **Community Engagement and Research (CERC):** provides grant application development, community engagement and outreach, study coordination and project implementation, qualitative interviewing and focus group facilitation, data management, and qualitative analysis for investigators

• **Translational Technologies**
  - **Translational Technologies Laboratory:** Offers state-of-the-art equipment, technical assistance, consultation on protocol and assay development for any CTSC partner institution.
  - **Clinical Laboratory:** Develop and carry out research related sample analysis for bulk standard immunodiagnostic and chemical assays, as well as sample processing for any CTSC partner institution.
  - **Center for Molecular Discovery:** Expertise with multiplexed, high throughput flow cytometry for drug discovery.
  - **Human Imaging (Mind Research Network):** Focus on human imaging providing MRI, MEG, and EEG services.
  - **UNM Human Imaging Core:** Focus on human imaging and providing MRI services.
  - **Animal Imaging (Brain and Behavioral Health Institute):** Specialize in neuroimaging of animal models with various neurological and psychiatric disorders.
  - **KUSAIR (Keck-UNM Small Animal Imaging Facility):** Provides high quality and customer specific functional imaging services on small animal research.

**Costs not covered under these awards:**
- faculty salaries
- postdoctoral salaries
- non-HSC staff salaries
- graduate student support (stipends, tuition, etc.)
- administrative or office supply costs (office supplies, paper, ink, telephone, etc.)
- meals or hospitality (i.e., no food, beverages, or alcohol)
- travel (per diem, hotel, rental car, mileage, flights, etc.)
- equipment >$5,000 (items <$5,000 are at the discretion of the committee and can be removed from the budget)
- computers, laptops, tablets
- monetary incentives to clinics or providers (e.g. recruitment bonus)
- other items typically supported by indirect costs (publication costs, printing/duplication costs)

**IRB Guidelines**
**Human Subjects Research:**
CTSA is required to obtain prior approval of all human subjects research from NIH prior to funding. All pilot submissions involving human subjects must have IRB Protocol approved at the time of submission. All projects involving human subjects are strongly encouraged to meet with the CTSA’s Regulatory Affairs Manager, Sherry Sazesh (SSazesh@salud.unm.edu; 505-272-9542) for consultation and planning purposes.
Amendments or a sub-study/ancillary study to an existing IRB-approved parent protocol are not allowed. Each pilot must have its own standalone IRB approval. Please note all pilot IRB protocol titles must match the title of the CTSA pilot application. All applicants will be required to submit proof of IRB Approval or proof of non-human subjects research at time of Pilot Application Deadline. Applications without IRB submission prior to May 24, 2019 will be administratively disqualified. Applications must have IRB approval no later than July 19, 2019. Projects that do not have full IRB approval by this date will not be considered for funding. IRB modifications to the approved pilot protocol are not permitted after NIH approval. Every effort should be made to execute the protocol as approved by the IRB, Pilot Review Committee and NIH.

Clinical Trial:
All studies meeting the NIH definition of a clinical trial must be registered on ClinicalTrials.gov and have an NCT number assigned to the study. Investigators should make sure the consent has the required language for Clinical Trial registration as it appears in the HRPO consent template. Investigators should register their protocol on CT.gov after receiving IRB approval. Registration is required prior to enrollment of the first participant. To have an account created, contact the UNM CT.gov administrator, Sherry Sazesh (SSazesh@salud.unm.edu).

How to Apply
1. Log on to the CTSC Funding Opportunities website, the application works best in Google Chrome Accessible from this webpage: http://hsc.unm.edu/research/ctsc/pilot-funding/current-opportunities/index.html
2. If you are accessing the application off campus, you must have VPN access (Cisco Any Connect)
3. Click on the “Apply for Pilot Funding” Link
4. Log In with your HSC Net Id and Password (same as your HSC workstation)
5. Once you are logged in, click on the Start New Pilot Application Button
6. Complete all application sections
7. Upload the required documents where advised
   a. General Information
      i. Title of Pilot Project
      ii. RFA
      iii. Animal Research Determination
      iv. Human Subjects Research Determination
      v. Clinical Trial Determination
      vi. Upload all Human Subjects Research Files
      vii. Enter Planned Enrollment
   b. Key Personnel/Biosketches
      i. Add Key Personnel
      ii. Upload Biosketch documents – Use the downloadable template provided on the webpage
c. Requested Services
   i. Select CTSC Services – Sort Services by selecting the specific
deptartment or by searching in the search box provided. Select services by
dragging and dropping the service below the teal box – you will then be
able to edit the Quantity of each selected item.

d. Budget Summary
   i. Review selected CTSC services
   ii. Add Non CTSC Services
   iii. Add Non-CTSC Personnel Salaries
   iv. Add Shared Facility Services
   v. Provide Budget Justification

e. Additional Information
   i. Upload Summary
   ii. Upload Research Plan – 5 page limit (use the downloadable template at
      the top of the pilot application web page)
      1. specific aims
      2. background and significance
      3. preliminary studies
      4. research design and methods
      5. bibliography and references cited (not included in the 5 page limit)
   iii. Upload Letters of Support(Suggested/Optional)
   iv. Describe Plan to Obtain Extramural Funding
   v. Describe how project meets the definition of Translational Research
   vi. Explain how proposal may be Generalizable

f. Go/No Go Milestones
   i. Two standard milestones are tracked, Funds Spent and Patient
   Enrollment. Please add two to three more Go/No Go milestones that can
   be used to track progress over the pilot award year. The CTSC Sage team
   will review milestones monthly for progress. Milestones should be
   quantifiable and realistic. Failure to reach stated milestones may result in
   reduction of award.

What to Upload
Emphasis on concise communication of the relevant information will help to demonstrate
effective proposal writing and communication skills, and the likelihood of success in
developing the full, competitive proposals to follow these pilots. Uploaded documents must
adhere to the following formatting specifications:
   • 11-point Arial font
   • Single-spaced
   • ¾” margins on all sides
   • 8 ½” x 11” (i.e., standard size) paper
   • Number all pages
   • Headers identifying the Principal Investigator
   • Footers identifying the document and page number (IRB-approval, consent,
     Biosketch, etc.)
Attach the following documents as individual PDF files using the following naming convention: **UNM_PILastNameFirstName_ProtocolShortTitle_Document_YYYYMMDD.pdf**
(e.g. UNM_AndersonC_PediatricAsthma_Biosketch_20170821.pdf) Templates for some of these forms can be found within the CTSC Camino Pilot Application once a new pilot project has been initiated.

**The following document is required for All Pilot Projects:**

1. **Human Subjects Research Study Document** – download from application

**The following documents are required if the pilot is Human Subjects Research along with the ones above:**

1. **Summary** - Provide a brief (< 500 words) summary of the specific aspects of the proposed study that will be supported and include a line item budget for each aspect (list supplies, services, and personnel costs)
   1. specific aims
   2. background and significance
   3. preliminary studies
   4. research design and methods
   5. bibliography and references cited (not included in the 5 page limit)
3. **Letters of Support**
4. **IRB Approval Letter** - If Human Subjects research
5. **IRB Exemption Determination** – if exempt from federal regulations
6. **Biosketch** – For the investigator, co-investigators and key personnel
7. **Human Subjects Training** - Certification that the PI, Co-I and key Personnel have education in protection of human subjects
8. **Protocol** - IRB approved pilot protocol
9. **Consent, Assent, Parental Permission, Waiver of Consent** – IRB approved consent documents
10. **Inclusion of Women, Minorities, and Children** - Provide a reason for limiting inclusion of any group by sex/gender, race, and/or ethnicity
11. **Recruitment and Retention Plan** - Describe both planned recruitment activities as well as proposed engagement strategies for retention.
12. **Study Timeline** - Provide a description or diagram describing the study timeline. The timeline should be general (e.g., "one year after notice of award"), and should not include specific dates
13. **Protection of Human Subjects** – Use Template in Application

**The following documents are required if the pilot is Human Subjects Research AND Meets NIH Definition of a Clinical Trial along with the ones above:**

1. **Data and Safety Monitoring Plan** (DSMP) - The overall framework for safety monitoring and what information will be monitored
2. **Overall Structure of the Study Team** - Provide a brief overview of the organizational/administrative structure and function of the study team, particularly the administrative sites, data coordinating sites, enrollment/participating sites, and any separate laboratory or testing centers.

3. **Statistical Design and Power** - Specify the number of subjects you expect to enroll, the expected effect size, the power, and the statistical methods you will use.

4. **Dissemination Plan** - Explain briefly your plan for the dissemination of NIH-funded clinical trial information and address how the expectations of the policy will be met.

5. **IND, IDE** - Documentation that an IND or IDE has been obtained, or letter from the FDA that the study is IND-exempt or the IDE has been waived.

6. **Product Info** - Product information such as the clinical investigator brochure, package insert, or description of the device.

Once you have reviewed the application for completeness, submit it to the CTSC for Review by clicking the Submit button at the bottom of the page. The CTSC will offer a basic administrative review to those who have their applications submitted at least one week in advance of the due date. Please contact Christina Anderson (ChAnderson@salud.unm.edu) to let her know you would like your pilot reviewed.

On your Camino Home Page, you will be able to see the status of your Pilot Application:
- Draft
- Submitted
- Under Review
- Administratively Denied
- Pilot Funding Denied
- Pilot Funding Awarded

All applications are due **by 5:00 pm on the due date**, which can be found at the top of this RFA. Applications that are late or do not adhere to the above instructions may be administratively denied and not reviewed for funding. Please call or email Christina Anderson (ChAnderson@salud.unm.edu; 505-272-0195) with any questions about this RFA or the application process.