

## **Announcement of Competition for Pilot Project Support to Utilize CTSC Core Facilities**

The **Clinical and Translational Science Collaborative (CTSC)** and the **Case Coulter Translational Research Partnership (CCTRP)** announce the quarterly competition for pilot funding of up to \$10,000 to support activities provided by any of the CTSC Core facilities. This program is being supported by Case Western Reserve University, University Hospitals of Cleveland, and MetroHealth Medical Center. Investigators whose primary appointments are based at these sites are eligible for this competition. Priorities of the program are to facilitate development of enabling technologies, new therapeutic, diagnostic or outcomes assessment approaches and/or devices, novel cross-disciplinary collaborative programs, and promote research in the community. The Coulter-CCTRP component focuses on those projects that may ultimately achieve translation to patients via product development and/or commercialization of intellectual property. Thus, research which envisions or creates a stronger potential for intellectual property is encouraged. The mission of the CTSC and the CCTRP small pilot program is to transform translational research not only by providing funding, but also by promoting basic and clinical investigator collaboration, increasing effective collaborations between biomedical engineers and clinicians, supporting the movement of promising technologies to clinical application, and providing access to valuable core technologies and services in a collaborative and service-oriented fashion.

The institutions supporting the CTSC have contributed funds to support investigators at their own institutions under the following terms:

- Support will be up to \$10,000 and the costs must be well justified (see below).
- Funds can be spent only in a CTSC supported facility (Appendix A). Other costs outside Core activities will be denied from funding by this announcement, but institutions, departments, or investigators may match funding or provide additional funds that are not for Core activities.
- Funds will support acquisition of pilot data clearly intended to be included in a subsequent grant application to a larger source of federal or non-federal support. Hence, the applicant must be eligible to submit an application to a larger source of federal or non-federal support.
- CCTRP projects are expected to have a Biomedical Engineering faculty member as a Co-Investigator.

### **Rationale**

For new investigators and pilot projects, obtaining that all-important preliminary data may be the critical step in competing for a larger grant. This pilot program is intended to support investigator use of and promote familiarity with CTSC Core operations and personnel, in anticipation of applications for extra-mural funding using CTSC resources. Preference will be given to K awardees, junior investigators, and investigators undertaking a novel line of work. Investigators who are well-funded and working in their main line of work need not apply. Support will be provided solely for study-related core facility use.

### **Examples of possible applications**

- An investigator wishes to compare the proteome of CSF in patients with MS before and after a new treatment intervention. She contacts the Case Proteomics Center and

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subsequently applies for support to measure proteomics of the CSF in three normal subjects and three with MS in order to demonstrate feasibility, identification of proteins of interest, and, possibly, a difference between normal and MS patients. The funds will be spent in the Case Proteomics Center.

- An investigator wishes to study imaging techniques in brain cancers. He contacts the Imaging Core Facility and applies for funds to conduct two ordinary MRI scans and two with a new imaging agent to demonstrate feasibility, safety, and possible efficacy. Funds will be spent in the Imaging Core Facility.
- An investigator has collected preliminary data on outcomes in prostate cancer and wishes to perform a data analysis to support his request for additional funding of this study. He contacts the BERD Core and then requests the appropriate funds for statistical work, which will be spent in the BERD.

### Requirements

- Must use an eligible core (Appendix A)
- Documented consultation with the core director or his/her designee
- Coulter related applications must have a biomedical engineering faculty member as a co-investigator.
- Application will be submitted electronically no later than 11:59 pm on the submission date (January 1<sup>st</sup>, April 1<sup>st</sup>, July 1<sup>st</sup>, or October 1<sup>st</sup>). Go to the website for details, <http://casemed.case.edu/ctsc/investigators/>.
- Only one investigator can be named as PI. Additional collaborating investigators will be named co-investigators.
- PI must have a faculty appointment at Case
- Institution of record for a proposal is the PI's primary institution
- **Information provided electronically must include**
  - A short (3-sentence maximum) summary of the work directed to the lay public
  - NIH biosketch of the PI and co-Investigators
  - Other support of PI and co-Investigator(s)
  - **Active IRB/IACUC approval letter, if IRB/IACUC is required for your study**
  - Detailed budget of core services and budget justification
  - One-page application (based on Arial, font 11, ½ " margins) in .pdf format to be uploaded in the Project Summary form of the WebGrants system
    - Describing the background, study hypothesis, design, expected results, expected timeline, and feasibility. The feasibility questions are:
      - Are the samples (data) already in hand, or do they need to be collected?
      - If the pilot data are successful, list any impediments to proposing a subsequent study (e.g., is there a sufficient number of subjects, is there sufficient capacity in CRU or core facilities to handle it, etc.)?
      - To which funding agency will an application for a larger study be submitted?
    - Justification of use of the CTSC Core(s)
    - Relevance and benefit to the CTSC

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### **Review**

Applications will be reviewed by the Scientific Review Committee of the CTSC. Detailed reviews will not be provided, but a standardized assessment and the sense of the review will be conveyed to all applicants. If the pilot study is successful, it is expected that further studies using the Core facilities will be written into the grant application and this further use of Core facilities will be supported from external funds. A summary of work completed is required for documentation of progress.

### **Publication Citation**

**As a reminder, the CTSC must receive acknowledgement on relevant publications. Please include the following text: "This publication was made possible by the Case Western Reserve University/Cleveland Clinic CTSA Grant Number UL1 RR024989 from the National Center for Research Resources (NCRR), a component of the National Institutes of Health and NIH roadmap for Medical Research. Its contents are solely the responsibility of the authors and do not necessarily represent the official view of NCRR or NIH.**



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**Appendix A  
Eligible Core Information: Fees and Core Consultation**

**Biostatistics, Epidemiology, and Research Design**

[\(http://casemed.case.edu/ctsc/berd/\)](http://casemed.case.edu/ctsc/berd/)

Contacts:

- Cleveland Clinic: Gerald Beck, PhD ([beckg@ccf.org](mailto:beckg@ccf.org))
- Case/UH: Denise Babineau ([denise.babineau@case.edu](mailto:denise.babineau@case.edu))
- MetroHealth: Thomas E. Love, PhD ([thomas.love@case.edu](mailto:thomas.love@case.edu))

**Biomedical Informatics**

[\(http://casemed.case.edu/ctsc/bioinformatics/\)](http://casemed.case.edu/ctsc/bioinformatics/)

Contacts:

- Data Management Consult: David Pilasky ([david.pilasky@case.edu](mailto:david.pilasky@case.edu))

**Clinical Research Unit**

[\(http://casemed.case.edu/ctsc/cru/\)](http://casemed.case.edu/ctsc/cru/)

Contacts:

- Cleveland Clinic: Charlotte Bhasin ([bhasinc@ccf.org](mailto:bhasinc@ccf.org))
- Case/UH: Joyce Dearborn ([joyce.dearborn@uhhospitals.org](mailto:joyce.dearborn@uhhospitals.org))
- MetroHealth: Amanda Ross ([aross@metrohealth.org](mailto:aross@metrohealth.org))

**Practice Based Research Networks**

[\(http://casemed.case.edu/ctsc/pbrn/\)](http://casemed.case.edu/ctsc/pbrn/)

Call: 216-368-4826 or Fax: 216-368-4348

- Kurt Stange, MD, PhD
- James Werner, PhD

**Translational Methodologies**

[\(http://casemed.case.edu/ctsc/tmr/\)](http://casemed.case.edu/ctsc/tmr/)

Contacts:

- Michael Kattan, PhD ([kattanm@ccf.org](mailto:kattanm@ccf.org))
- Sunil Rao, PhD ([i.rao@case.edu](mailto:i.rao@case.edu))

**Translational Technologies**

**Translational Technology Resources available through LRI's CTSC**

- Cell Services (<http://www.lerner.ccf.org/services/cell/>)
  - Manager: Carmel Burns, [burnsc@ccf.org](mailto:burnsc@ccf.org)
  - Services for clinical/translational research include mycoplasma testing, custom media and solution preparation, endotoxin testing, and EBV transformation of human peripheral blood cells.
- Flow Cytometry (<http://www.lerner.ccf.org/services/flow/>)
  - Manager: Catherine Shemo, [shemoc@ccf.org](mailto:shemoc@ccf.org)

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- Standard flow cytometry services including cell staining for cell cycle or apoptosis, cytometry for acquisition analysis of cell populations, and cell sorting.
- Genomics (<http://www.lerner.ccf.org/services/gc/>)
  - Manager: Pieter Faber, [faberp@ccf.org](mailto:faberp@ccf.org)
  - Services include DNA sequencing, SNP genotyping, and gene expression and methylation microarrays. Please check our site for qPCR and miRNA microarrays, coming soon.
- Hybridoma (<http://www.lerner.ccf.org/services/hybridoma/>)
  - Manager: Earl Poptic, [poptice@ccf.org](mailto:poptice@ccf.org)
  - Services include development of monoclonal cell lines, polyclonal antibodies in rabbits, and production of high-concentration, serum-free monoclonals from existing cell lines. An experimental new service, development of rabbit monoclonals, will be available soon.
- Imaging (<http://www.lerner.ccf.org/services/imaging/>)
  - Services include histology (paraffin or frozen sections, IHC, conventional stains); electron microscopy; fluorescence microscopy and digital image analysis; and laser capture microdissection.
- Mass Spectrometry (<http://www.lerner.ccf.org/services/ms2/>)
  - This core provides guidance on how to design fractionation strategies of biological fluids for marker analysis, and performs subsequent analysis of fractions by tandem mass spectrometry to detect and quantify specific biomarkers (typically < 5kDa MW)
- Molecular Biotechnology (<http://www.lerner.ccf.org/services/molecbiotech/>)
  - Services provided include peptide synthesis, analysis of macromolecular interactions in real time using the Biacore 3000, N-terminal protein sequencing, and CD spectroscopy.
- Proteomics ([http://www.lerner.ccf.org/services/mass\\_spec/](http://www.lerner.ccf.org/services/mass_spec/))
  - Services focus on using mass spectrometry to sequence and identify proteins.
- Small Molecule Screening (<http://www.lerner.ccf.org/services/smsc/>)
  - The core provides the expertise and reagents needed to design and perform medium throughput screens of several libraries of small molecules to identify biologically active compounds in a large variety of readout systems.

### **Translational Technology Resources available through CWRU's CTSC**

- Center for Proteomics and Bioinformatics (<http://proteomics.case.edu/>)
  - Contact: Janna Kiselar, Ph.D., [janna.kiselar@case.edu](mailto:janna.kiselar@case.edu)
  - Services include analysis of protein and gene expression, protein and gene modifications, and protein interactions, analysis of DNA and protein

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- sequences, protein interaction networks, linkage and association studies for simple and complex traits, and gene and protein expression profiles, structure determination, the combination of computational and experimental structural biology approaches, and developing and maintaining infrastructure for macromolecular structure determination.
- Gene Expression and Genotyping Core Facility (<http://cancer.case.edu/sharedresources/arrays/>)
    - Director: Martina Veigl, Ph.D., [martina.veigl@case.edu](mailto:martina.veigl@case.edu)
    - This core facilitates implementation of high throughput genetic technologies for translational research.
  - Comprehensive Cancer Center Cytometry Core (<http://cancer.case.edu/sharedresources/cytometry/>)
    - Director: James Jacobberger, Ph.D., [james.jacobberger@case.edu](mailto:james.jacobberger@case.edu)
    - Services focus on flow and image cytometry and cell sorting instrumentation, expertise, training, and consultation.
  - Center for Imaging Research (<http://cancer.case.edu/sharedresources/imaging/>)
    - Director: Christopher Flask, Ph.D., [Chris.Flask@UHHospital.org](mailto:Chris.Flask@UHHospital.org)
    - This core provides a range of imaging services including routine imaging services that are performed by facility staff; collaborative developmental imaging studies where more intense pilot studies are performed with the guidance of imaging faculty to obtain preliminary data; and necessary training for researchers to perform imaging experiments independently.
  - Transgenic and Targeting Core (<http://ko.cwru.edu/>)
    - Manager: Rachel Mann, Ph.D., [rachel.mann@case.edu](mailto:rachel.mann@case.edu)
    - Services include the creation of transgenic mice, knockout mice (null mutations, knockins, targeted point mutations, humanized genes, conditional knockouts) and chimeric mice, providing rederivation, cryopreservation services and the establishment of embryonic stem cell lines.
  - Bioinformatics Core (<http://bioinfo.case.edu/bioinfo/bioinfo.html>)
    - Contact: Jean-Eudes Dazard, Ph.D., [jean-eudes.dazard@case.edu](mailto:jean-eudes.dazard@case.edu)
    - This core can provide services on typical data which are focused on large scale information datasets (a.k.a. *omics* data) such as generated by high-throughput technologies from the broad area of genome sequencing, polymorphism genotyping (e.g. Single Nucleotide (SNP) and Copy Number (CNP) variations, LOH, ...) gene regulation (e.g. mRNA and miRNA microarray expression data, mass spectrometry-based spectra, LCMS, DIGE, etc...), and metabolomics.
  - DNA Sequencing Core ([http://genetics.case.edu/?page\\_id=3](http://genetics.case.edu/?page_id=3))
    - Contact: Simone Edelheit, [simone.wilson@case.edu](mailto:simone.wilson@case.edu)



**Announcement of Competition for  
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- This core provides sequencing and genotyping capabilities. Custom designed SNP projects as well as human and mouse linkage analysis projects can also be handled by the Core.

