Resources for Career Success at CUMC

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January 2016
What is the CTSA?

• A national consortium of medical research institutions, funded through NIH’s Clinical and Translational Science Awards (CTSAs), working together to improve the translational research process.

• The hubs seek to develop, demonstrate and disseminate innovative methods and technologies to turn scientific discoveries into clinical advances more efficiently:
  – *Train and cultivate the translational science workforce;*
  – *Engage patients and communities in every phase of the translational process;*
  – *Promote the integration of special and underserved populations in translational research across the human lifespan;*
  – *Innovate processes to increase the quality and efficiency of translational research, particularly of multisite trials; and*
  – *Advance the use of cutting-edge informatics.*
NCATS studies translation on a system-wide level as a scientific & operational problem.
CTSA Program Hubs

62 institutions have received CTSA funding.
What is the *Columbia* CTSA?

- Columbia CTSA = IRVING INSTITUTE
- **OVERALL GOALS:**
  - To transform the culture of research to hasten the discovery and implementation of new treatments and prevention strategies.
  - **Key words:**
    - Translational
    - Interdisciplinary
    - Community-engaged
What are the components of the Irving Institute?

• Facilities:
  – The 10th floor of 2 contiguous buildings (PH and Harkness)
  – Adult inpatient and outpatient units
  – Administrative suite
  – Bionutrition unit with research kitchen
  – Biomarkers Core lab
  – Pediatric outpatient unit (and virtual in-patient facility)
  – Meeting and teaching space (PH10 stem)
  – Community Site: 178th St and Fort Washington Ave

• Resources
  – 10 units that provide a variety of support for clinical and translational research
WHAT DO THE IRVING INSTITUTE RESOURCES PROVIDE?
Pilot & Collaborative Studies Resource

• Provides seed funding for innovative, interdisciplinary research efforts – particularly those that bring together new investigative teams

• Key Components:
  – Pilot Awards: With the CTO, the Irving Institute awards 16 one-year awards of $50,000 each (with departmental matching funds).
    *TIMELINE:* Next RFA will be released in January 2016 for March 2016 deadline
  – CaMPR Awards: Provides 4 team-building grants ($15K) and 2 planning grants ($75K) for addressing an important problem at the cellular, individual, and community levels.
    *TIMELINE:* Next due date for Phase I has just passed (Jan 2016) – next round, next year.
Pilot & Collaborative Studies Resource

• Key Components (continued):
  – CaMPR-BASIC Awards: Two team-building awards with basic scientist and clinical scientist collaborating ($40,000)
    *TIMELINE:* Letter of intent deadline January 20, 2016
  – Imaging Pilot Awards: Small awards ($5,000-10,000) for projects involving MRI, PET, optical imaging, SPECDT/CT, ultrasound, etc.
    *TIMELINE:* Due February 5, 2016
  – Health Practice Research Awards: One-year grants for informatics-based projects
    *TIMELINE:* Due February 5, 2016
  – Community-Based Participatory Research Training and Awards Program: builds capacity for CBPR through linked course and pilot funding mechanism.
    *TIMELINE:* Apply for course by January 22, 2016; course starts March 1
  – For more opportunities, see website or contact director, Dr. Nancy Reame, at nr2188@cumc.columbia.edu; for CBPR course, contact is Alejandra Aguirre (ana2104@cumc.columbia.edu)
CaMPR Planning & Pilot Awards

- **Gravity Neutral Orthotic (GNO) - Design and Evaluation of a device to improve the lives of severely disabled children with Spinal Muscular Atrophy**
  __ Bioengineering, Rehabilitation Medicine, Neurology

- **Identifying barriers to acute stroke rehabilitation and recovery in a multi-ethnic population**
  __ Neurology, Rehabilitation Medicine, Sociomedical Sciences

- **An Interdisciplinary Collaboration to Create a Biobank to Enable Personalized Medicine at Columbia University**
  __ DBMI, Pediatrics, Medicine, Epidemiology, Psychiatry, NYPH

- **Improving Appropriate Use of Antibiotics for URI in Children of Recently Immigrated Latinos**
  __ Nursing, Pediatrics, Population and Family Medicine
Biomedical Informatics Resource

• Dual roles: Providing information services to support clinical and translational research; conducting original informatics research on the nature of research processes and how information services can improve their efficiency

• Key Components:
  – **Web Portal**: Single entry point for all Irving Institute activities ([http://irvinginstitute.columbia.edu](http://irvinginstitute.columbia.edu)).
  – **CUSP**: Columbia University Scientific Profiles. A unique search engine that incorporates information from HR, publication and grants databases that will allow investigators to identify new collaborators (in production).
  – **Clinical Data Warehouse/RedX**: Permits users to query data on sets of patients providers, departments, etc., for study planning.
Search Results

Grants

<table>
<thead>
<tr>
<th>Grants</th>
<th>4</th>
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<tbody>
<tr>
<td>Publications</td>
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NARSAD CU09-4594
ELUCIDATING THE EFFECTS OF BRAIN miRNA DYSREGULATION IN A GENETIC MOUSE MODEL OF SCHIZOPHRENIA
PI: Karayiorgou, Maria
(May 2010 - Apr 2012)

NARSAD CU10-1041
ELECTROPHYSIOLOGY CHARACTERIZATION OF THE DENTATE GYRUS IN DISC 1 MUTANT MOUSE MODEL OF SCHIZOPHRENIA
PI: Gogos, Joseph
(Jan 2010 - Dec 2011)

NARSAD CU08-9069
CROSS-SPECIES IMAGING OF SCHIZOPHRENIA IN HUMANS AND MOUSE MODELS OF DISEASE
PI: Small, Scott
(Jul 2008 - Jul 2011)

MEFN CU08-7618
A GENETIC MOUSE MODEL OF SCHIZOPHRENIA IMPLICATES miRNA BIOGENESIS IN DISEASE
PI: Karayiorgou, Maria
(Feb 2008 - Jan 2011)
Design & Biostatistics Resource

• Provides a wide range of design, statistical, and analytical support services to assist CUMC faculty with grant applications and publications

• Key Services:
  – Initial, one-hour consult and up to 5 hours of follow-up support ⇒ FREE TO CUMC FACULTY
  – Grant preparation, including hypothesis writing, study design, analytic plans, and sample size justification (at least 8 weeks lead time)
  – Manuscript writing (at least 4 weeks lead time)
  – Database development
Clinical Research Resource

• Provides research space and support to expedite and facilitate the collection of quality data in clinical and translational research

• Key Components:
  – Inpatient and outpatient space for adult and pediatric studies
  – Highly specialized research nursing services
  – Clinical study coordinators in satellites eg, EDs, ICUs
  – Phlebotomy services
Community Engagement Core Resource

• Fosters community-engaged research between investigators within and outside of CUMC, multi-sector stakeholders, and community partners

• Key resources and services:
  – Research and meeting space in the community
  – Research and logistical assistance
  – Get Healthy Heights Portal (http://www.gethealthyheights.org/)
  – Consumer health library
  – Organize, promote, and participate in health-related activities
    • health fairs, workshops, research symposia

• Upcoming activities
  – Short course in CBPR
    • Participants eligible to apply for pilot grants
Community Engagement
Core Resource: CCPH

Columbia Community Partnership for Health

ADDRESS
390 Fort Washington Ave,
Ground Floor
Btw 177th & 178th Streets

HOURS OF OPERATION
M-F, 9:30am-4:45pm
Evenings & weekends
upon arrangement

• BILINGUAL HEALTH LIBRARY
• COMPUTER LAB
• OPEN TO PUBLIC — FREE OF CHARGE!

ACCESSIBILITY
CCPH and its facilities are wheelchair accessible
Research & Meeting Space

CCPH FEATURES
✓ Physical examination room
✓ Interview/consultation room
✓ Conference room
✓ Reception and waiting room
✓ Health library
✓ Computer lab
✓ Audio/visual equipment

RESERVATION INFORMATION
Complete the Space Request Form and submit to Alejandra Aguirre by email at ana2104@columbia.edu or fax at (212) 568-3433.
Community Engagement
Core Resource: Research Services

• Connect academic and community stakeholders for research partnerships
• Consultation: research and design of community-engaged research CBPR
• Health literacy services: Irving Institute’s Health Literacy Task Force
  – Assess research material (e.g., consent forms, education materials, study flyers)
  – Consent forms for minimal risk research available on CUMC’s IRB website
• Facilitate recruitment for studies
  – Promote studies recruiting volunteers
    • Post flyers at CCPH
    • Through word-of-mouth with CCPH visitors
    • During community outreach activities
  – Assist in identifying sources for potential research participants
    • CCPH Research Registry
    • ResearchMatch
Translational Technology Resource

- Biomarkers Core: over 100 assays including Mass Spectrometry Lab with lipidomics and metabolomics
- Organic Synthesis Laboratory
- Cancer Center Cores
TRANSFORM Resources for Education & Career Development

- Provides long-term and short-term training and mentoring opportunities to a wide range of clinical and translational investigators, from pre-docs to junior faculty
Master’s Degree Programs

• For *fellows* and *junior faculty*
• Most relevant programs:
  – MS in Patient Oriented Research (30 pts):
    MARCH 1st PRIORITY DEADLINE FOR SCHOLARSHIPS
  – Executive MS In Epidemiology (deadline May 1)
  – MS in Biostatistics: Clinical Research Methods Track
    (30 pts; deadline April 15)
  – MPH in General Public Health – GPH (45 pts; deadline June 1)
  – MPH in Disciplines (45 pts; deadline Jan 15)
• Web Site for *Descriptions*:
  [https://www.mailman.columbia.edu/become-student](https://www.mailman.columbia.edu/become-student)
• Web Site for *Applying*:
  [https://www.mailman.columbia.edu/become-student/apply](https://www.mailman.columbia.edu/become-student/apply)
CTSA K12/KL2 Award

• For **junior faculty** (Assistant Professors) **only**
• Program offers:
  – Two years of salary support (75% effort; 50% for surgeons) plus funds for tuition, research costs, travel, etc. ($25K/year)
  – Didactic training (MS/POR for those without research Master’s)
  – Mentored research project
  – Colloquium on Career Development
  – Assistance with independent grant application
• Next Deadline: **Spring 2016 – SOON!**
• Web site: [http://irvinginstitute.columbia.edu/education/research_train.html](http://irvinginstitute.columbia.edu/education/research_train.html)
Reach for the First R01

• Non-credit course, offered twice per year: FALL & SPRING
• Eligibility: Must be an Early Stage Investigator as per NIH: http://grants.nih.gov/grants/new_investigators/index.htm
• Must be supported/recommended by a senior faculty member
• 4-6 junior investigators will be selected for this course each term, across all departments.
• Advantages: Expert pre-reviews on R01 applications, and a bi-monthly meeting to ensure structure and timeliness in completing the tasks required to submit a first application.
• For details, contact David Zhai, Administrative Coordinator for TRANSFORM Educational Programs (dz2214@cumc.columbia.edu)
• Intensive 5-week summer training program
• Curriculum includes: biostatistics, epidemiology, race and health, decision and cost-effectiveness analysis, grant-writing,
• Earn 10 academic pts; can be used towards full degree program
• Instructors are outstanding Mailman and P&S faculty
• Participants develop a grant proposal as part of the summer requirements
• Email: csri@columbia.edu
• Visit: http://csri.cumc.columbia.edu/
More Short Courses

http://irvinginstitute.columbia.edu/education/short_term_education.html

• Statistical Genetics (2-day, non-credit course)
  – Gain fundamental skills for the analysis of genetic data from human studies (other options in development!)

• Building Interdisciplinary Research Models (spring course; 2 credits)
  – Allows participants to build skills in interdisciplinary research by collaborating with scholars from various disciplines.

• Take individual courses through CSRI 2 (academic credit)

• EPIC (Epidemiology and Population Health Summer Institute at Columbia University)
  – Intensive, week-long, non-credit courses offered by the Department of Epidemiology (https://www.cuepissummer.org/)

• Take individual courses at the Mailman School (for academic credit)
  – Take coursework in epi, biostat, RCT as a non-degree student (https://www.mailman.columbia.edu/become-student/degrees/non-degree-programs)
How do I access these resources or get more info?

• To access the CTSA research resources, visit the web site:
  
  http://irvinginstitute.columbia.edu

  http://irvinginstitute.columbia.edu/resources/resources.html

• Fill out the request form on the web site for consultation or more information.

• To find out more about courses at MSPH, visit the website:
  
  http://mailman.columbia.edu

• Or contact the school at:
  
  ph-admit@columbia.edu