

A Public–Private Partnership: The New York University–Health and Hospitals Corporation Clinical and Translational Science Institute

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The NYU–HHC Clinical and Translational Science Institute (CTSI), directed by Drs. Judith Hochman and Bruce Cronstein, represents a strategic public–private alliance between two of New York’s leading institutions in the service of the people of the city (see *Figure 1*). New York University (“NYU”), founded in 1831, is the country’s largest private university with 14 schools and over 40,000 students in New York City (NYC). The New York City Health and Hospitals Corporation (“HHC”) is the largest public health care delivery system in the United States, overseeing eleven acute-care hospitals, six diagnostic and treatment centers, four long-term care centers, 100 community health centers, a certified home health agency, and a managed care plan for 450,000 enrollees. In 2011, the HHC Emergency Departments alone provided care to more than one million patients. Of the eleven acute-care hospitals, eight are included in the NYU–HHC CTSI: Bellevue Hospital Center, Coler-Goldwater Specialty Hospital and Nursing Facility, Coney Island Hospital, Gouverneur Diagnostic and Treatment Center, Kings County Hospital Center, Lincoln Medical and Mental Health Center, Metropolitan Hospital Center and Woodhull Medical and Mental Health Center.

The CTSI offers multifaceted support for clinical and translational research. Our Clinical Research Center is currently housed in a 3,200-sf space within Bellevue Hospital but will soon move to a 9,000-sf space that was newly renovated to better support the types of research carried out on our unit. The NYU–HHC CTSI has a strong educational component, supporting both degree granting and certificate programs in Clinical Investigation, Comparative Effectiveness Research, and Population Health. In addition, strong and successful programs designed to develop investigative careers by residents, fellows, and junior faculty are in place. The Center for Health Informatics and Bioinformatics (CHIBI) offers state-of-the-art informatics support for analysis of large datasets, examining best practices in informatics and examining the success of analytic software. NYU School of Medicine has been in the forefront of efforts to forge academic–industry alliances, with ongoing programs in collaboration with Pfizer and a strong history of developing technologies that have been licensed to Pharma, where they were developed into therapies to benefit patients. One of the unique strengths of the NYU–HHC CTSI is our Community Engagement and Population Health Research Core which, in combination with the partnership with NYC HHC, has the ability to promote community-based research in our diverse communities, determine the most pressing areas of research for each of our communities, and promote the well-being of the citizens of our great city.

NYU–HHC CTSI Community Engagement and Population Health Research (CEPHR) Core

The Community Engagement and Population Health Research Core has developed numerous activities to engage community level input, buy-in and expertise in the development of the larger CTSI agenda. CEPHR is guided by an actively engaged Community Advisory Board (CAB), which includes representation from a diverse cross-section of NYC’s racial and ethnic communities and government, healthcare, social services, and community leader sectors. The CAB is cochaired by Rosa Gil, ScD, director of Comunilife, and Ruth Browne, ScD, director of the Arthur Ashe Institute for Urban Health. The CAB meets quarterly, and a portion of each meeting is devoted to presentations from leadership of the CTSI Cores.

Using a Delphi technique, CEPHR generated consensus from the CAB on a list of research priorities that included behavioral health, diabetes, obesity, access, cardiovascular disease (CVD), and mental health. Joint brainstorming at meetings with the CAB and the CEPHR Faculty Steering Committee yielded several important collaborations. Two workgroups were formed to identify community–academic collaborations in mental health and in obesity/CVD disease. With the support of a 2012 CTSI pilot award, the obesity/CVD group is currently collecting formative data on workplace interventions to address obesity and physical activity in nonprofit settings. The Mental Health group is developing depression and suicide prevention interventions for adolescent boys in low-income communities.

CEPHR works with community partners to facilitate their participation in the CTSI pilot project program. Community partners benefit from the availability of additional resources by increasing their capacity to secure extramural funds and from the opportunity to enrich their experience as researchers. Awards were made to community partners during each cycle of CTSI pilot project funding. In 2010, Dr. Marilyn Fraser-White and the Arthur Ashe Institute for Urban Health received a pilot for “Stylists as Heart Health Advocates: A Pilot Intervention for African American Women.” In 2011, Dr. Emerson Ea and Potri Ranka Manis, who work with community partner Kalusugan Coalition (KC), received funding for “Project Hakbang: Understanding Cardiovascular Health of Filipino Immigrants.” In 2012, Dr. Balavenkatesh Kanna (Lincoln Hospital and Medical Center of HHC) and CEPHR’s Obesity/CVD Workgroup received funding for “A CBPR Assessment of Community-based Organization Worksites in NYC to Develop Obesity Interventions.”

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Figure 1. The Bellevue Hospital Center and NYU Langone Medical Center. Located on First Avenue in Manhattan are, from south to north, Bellevue Hospital, one of the hospitals of the New York City Health and Hospitals Corporation, and the NYU Langone Medical Center.



Dr. Fraser-White and the Arthur Ashe Institute for Urban Health subsequently received funding from the Empire Blue Cross Blue Shield Foundation to expand their pilot. Carried out in partnership with eight hair salons, “Heart of a Woman” increases awareness of Black women’s risk of CVD and how simple changes in diet and exercise reduce their risk. Heart of a Woman trains salon stylists to serve as lay health advocates for their customers, offering information about heart health and encouragement.

The National Institutes of Health’s (NIH) National Heart, Lung, and blood Institute (NHLBI) Community Health Worker (CHW) Health Disparities Initiative recently selected the NYU Center for the Study of Asian American Health (CSAAH) as a Strategic Champion Demonstration Project awardee. This grant will enable CSAAH, in partnership with the KC, to expand a successful CHW heart health project, Project AsPIRE, and establish the Alliance of Filipino American CHWs. CSAAH and KC will work with Filipino-serving organizations in four cities to broaden the use of NHLBI’s training and Healthy Heart, Healthy Family (HHHF) curriculum through capacity building, network development, and multimedia tools. This award builds on the foundation of community capacity-building and partnership development supported by the NIH NIMHD Project AsPIRE and the NYU–HHC CTSI-funded Project Hakbang. Project Hakbang’s coinvestigator and NYU CTSI’s CAB member, Potri Ranka Manis, will play a key role in building the capacity of CHWs at these new partner sites for the project.

CEPHR also engages community through its Community-empowered Research Training Initiative (CERT). A collaboration of the CEPHR Core of the CTSI and the NYU Prevention Research Center, the goal of the CERT program is to increase racial and ethnic diversity in the field of research and community health by encouraging community-based organizations to engage in research. CERT training is delivered in person with follow-up training by webinars. The NYU–HHC CTSI is collaborating with other Community Engagement Cores from the NY CTSAs and the Tufts University CTSAs to expand and coordinate CERT-related activities.

Finally, CEPHR partners with community members in advocacy and system change activities. CEPHR faculty and CAB

members participated in The New York State Department of Health’s Medicaid Redesign Team, in national Hepatitis B activities resulting in the promotion of the new HHS Hepatitis B plan, and in statewide initiatives to integrate and professionalize CHWs.

NYC HHC

From the start of the NYU–HHC CTSI, HHC has strengthened its research infrastructure through: the establishment of the HHC Research Council; the continuation of the quarterly HHC Faculty Principal Investigator (PI) meetings; the hosting of a system-wide conference on Research Enhancement, Compliance, Orientation, and Resource Development (R.E.C.O.R.D.); its efforts to streamline the research approval process and to develop systems for research billing; and the establishment of the H1 Grant Program, providing funding to three research projects addressing conditions prevalent in HHC patients. Looking to the future, HHC plans to: offer additional pilot project funding under the H2 Grant Program; increase recruiting of HHC patients into beneficial and relevant research studies; host additional R.E.C.O.R.D. events and workshops; and continue to foster collaboration between NYU and HHC investigators conducting research.

H1 and H2 Pilot Project Grants

In late 2010, HHC announced the availability of funds through the CTSI in support of up to three clinical research projects. The purpose of this grant program, the HHC Clinical Research Grant Program (H1), is to encourage the development and implementation of clinical research projects at HHC that focus on significant medical and/or behavioral health conditions prevalent among the HHC patient population. HHC sought observational and/or interventional studies focusing on diseases and conditions affecting a large number of HHC’s diverse patient population. Strong consideration was given to projects that encompass multiple HHC sites. Following extensive review, the following three projects were selected for funding:

- (1) Screening for depression in Mexican, Ecuadorian, and Puerto Rican primary care patients.
- (2) Disseminating new hypertension treatment guidelines to reduce clinical inertia in a public health system.
- (3) Dissemination of a health literacy intervention to improve provider-parent communication of medication instruction.

The H1 projects, which were completed in March 2012, have been so successful that a second round of funding for “H2” grantees has been approved. With applications due in late April 2012, the H2 Request for Applications (RFA) seeks to fund two pilot projects for up to \$50,000 for early- to mid-career researchers in HHC’s Brooklyn network. Projects can focus on inpatient, outpatient or long-term care populations or a combination therein. As with the H1 grants, special attention will be given to projects whose area of study includes a medical and/or behavioral health condition prevalent among the HHC patient population. Additional consideration will be given to projects that are multisite projects, encompassing two of the three Brooklyn HHC facilities.

Research Council and Facility PIs

The HHC Research Council, chaired by Dr. Ross Wilson, HHC’s Chief Medical Officer, continues to hold quarterly meetings. The standing agenda includes updates on the NYU–HHC CTSI activities, which are provided by HHC’s Dr. Louis Capponi,

Dr. Joseph Conigliaro, and NYU's Dr. Bruce Cronstein. The Council includes representatives from across all HHC facilities and affords an opportunity for interaction of researchers from several NYC CTSA's affiliated with HHC facilities. Having all stakeholders at the table allows HHC to communicate our vision and the needs we have for research in specific areas. It also provides uniform expectations for research practice at HHC and sets the stage for possible future collaboration amongst CTSA's. HHC's facility PIs continue to meet quarterly during the year. The agenda includes a review of potential collaborations and presentations by investigators looking to expand research projects to other HHC facilities.

R.E.C.O.R.D. Conference

In October 2010, HHC hosted the first annual R.E.C.O.R.D. Conference. The R.E.C.O.R.D. initiative is a comprehensive educational and training program, made possible through an initial educational grant from the Agency for Healthcare Research and Quality (AHRQ) and continued funding from the HHC Research Administration office, to support researchers throughout HHC. The Conference included lectures from NYU-HHC CTSA researchers and compliance officers and featured course workshops for investigators and research administration staff that included the following topics:

- (1) Translational research to improve access and treatment for minority populations
- (2) Clinical and health care services research in NYC
- (3) Health Care IT solutions to enhance clinical and health services research
- (4) Historical perspective of research in vulnerable populations
- (5) Regulatory compliance/law in research
- (6) Challenges in human ethics review of vulnerable populations
- (7) A principal investigators workshop
- (8) Grant opportunities and grant writing workshops
- (9) Research compliance for research administrators and coordinators in HHC

This conference was a great success and achieved the intended effect of increasing the visibility of research at HHC. It also emphasized standards for research practice and compliance. The latter is of particular interest to leadership at large, and the visibility and attention to this topic is important to continued support of the research agenda.

Currently, the R.E.C.O.R.D. program is planning a series of quarterly workshops focused on expanding the skills of HHC's investigators. The inaugural workshop will host the CTSA's Program Director for Study Design, Biostatistics and Research Ethics, Dr. Judith Goldberg, who will present on the topic of biostatistics.

Clinical Trial Enrollment

HHC treats a culturally diverse, medically complex, and clinically underserved population. In addition to being underserved medically, the patients at HHC are underrepresented in clinical research. Thus, clinical research is necessary within these populations to extend the impact of research to broader populations, such as those served by HHC.

Enrollment in clinical trials is often limited for patients seen outside of academic institutions. The result is not only a

lack of access to potentially valuable investigational treatments, but perhaps more importantly a suboptimal understanding of the impacts of treatments upon the populations we serve. To this end, HHC continues to focus on enrollment of patients in trials. HHC has already launched several new CTSA projects that include HHC patients and is in discussions to add additional trials of potential benefit to our patient population. One such trial partnership, the NHLBI-ISCHEMIA Trial, testing the optimal management strategy for patients with stable ischemia heart disease, will be launched shortly (<http://clinicaltrials.gov/ct2/show/NCT01471522>).

Gaining and maintaining support for research activities at safety-net institutions such as HHC necessitates continuous effort. Awareness and understanding of the importance of research is different in the context of a public hospital system, where securing access to care for uninsured and vulnerable populations is the primary mission. The increased communication and alignment between NYU and HHC, via the CTSA, facilitates increased appreciation for the benefits of clinical research at safety-net institutions. This alignment joins the expertise of researchers with the organizations' need and desire to study specific populations, disease states, and systems of care delivery.

Conclusion

New York City is one of the most ethnically, racially and socioeconomically diverse communities in the country if not the world. Joining the strengths of the largest private university in the country, NYU ("A private institution in the public service"), with the largest municipal health system in the United States, NYC HHC, provides an outstanding resource for meeting the research needs of this wonderfully diverse community. This strategic partnership is a central feature of the NYU-HHC CTSA, which can also be leveraged in collaboration with the other members of the CTSA Consortium.

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Conflict of Interest

Bruce N. Cronstein holds patents on use of adenosine A2A receptor agonists to promote wound healing and use of A2A receptor antagonists to inhibit fibrosis, use of adenosine A1 receptor antagonists to treat osteoporosis and other diseases of bone, use of adenosine A1 and A2B Receptor antagonists to treat fatty liver and use of adenosine A2A receptor agonists to prevent prosthesis loosening. Bruce N. Cronstein is consultant for Bristol-Myers Squibb, Novartis, CanFite Biopharmaceuticals, Cypress Laboratories, Regeneron (Westat, DSMB), Endocyte, Protalex, Allos, Inc., Savient, Gismo Therapeutics, Antares Pharmaceutical, and Medivector.

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