



A MULTI-INSTITUTIONAL CONSORTIUM AT WEILL CORNELL MEDICAL COLLEGE WITH: Cornell University, Ithaca
Cornell University Cooperative Extension, New York City / Hospital for Special Surgery / Hunter College School of Nursing
Hunter Center for Study of Gene Structure and Function / Memorial Sloan-Kettering Cancer Center / NewYork-
Presbyterian Hospital/Weill Cornell Medical Center / Weill Cornell Graduate School of Medical Sciences

VOLUME III

FALL 2010

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Save the date !
**The CTSC is hosting a
research bazaar on
December 10, 2010.
Details will follow
soon.**

From the Director's Desk:



WELCOME to the fall 2010 issue of the CTSC eNews! As you will read, we at the CTSC have continued to promote our mission of fostering multidisciplinary, multi-institutional collaborative research to yield new, effective patient treatments, educate and mentor the translational research scientists of the future, and enhance health care to the underserved in our surrounding communities.

The CTSC recently funded a new round of seed funding and mentored education awards. These projects represent researchers from Weill Cornell Medical College and CTSC partner institutions. Please read our article on the newest class of awardees for more information.

In this issue, we also invite you to read the accomplishments of our researchers, as well as other CTSC initiatives. One article describes a pilot awardee who won a 2010 scholar poster award for her research in diabetes. In addition, several clinical translational KL2 scholars were selected to become Associate Scientific Advisors for one year in the journal of *Science Translational Medicine (Sci TM)*. We could not be more proud of the continued success of our investigators!

Julianne Imperato-McGinley, M.D.

Associate Dean, Translational Research and Education
Program Director, Clinical and Translational Science Center
Abby Rockefeller Mauzé Distinguished Professor of Endocrinology in Medicine



Spring 2010 Seed Funding Award Recipients

By Kaarel Laev

On May 25, 2010, the CTSC was delighted to announce the list of Pilot, Planning, and Community Engagement Award recipients from the most recent CTSC Seed Funding Award RFA. This is the fifth award cycle since the CTSC grant was funded by National Institutes of Health in September, 2007.

A total of \$740,000 for one- or two-year grants was awarded in support of 22 multi-institutional and multi-disciplinary projects involving nearly 100 investigators from approximately 50 separate departments, including all CTSC partner institutions. This brings the number of awards to 97—with 57 Pilot, 14 Planning,

12 Community Engagement and 14 Novel Research and Methodology— which together amount to nearly five million dollars in total Seed Funding Awards since the CTSC's inception. The recipients were chosen from over 250 applicants.

In the true spirit of the CTSC's multiple missions, the awarded projects run the gamut of the translational and clinical research spectrum, covering everything from human and animal studies to basic science studies. Community-based outcomes studies, registries, and novel uses for groundbreaking devices and technologies—are all represented in the projects awarded.

The settings range from residency training programs to com-

munity clinics, and span oceans to the farthest outposts of Weill Cornell.

For more information about the most recent and past awardees, please visit: www.med.cornell.edu/ctsc/funding_opportunities/past_seed_funding_awardees.html

The next Seed Funding RFA will be announced in December 2010 – forthcoming details will be posted on the CTSC website, in future CTSC Newsletter editions, and via broadcast e-mails to faculty and staff of all CTSC partners.

CTSC CTEP Awardees Named Associate Scientific Advisors for *Science Translational Medicine (Sci TM)* Journal

By Linda Baichoo

Three students, who received training awards from the Weill Cornell Clinical & Translational Science Center (CTSC) Education Program, have been awarded the role of Associate Scientific Advisors for *Science Translational Medicine (Sci TM)*, a new journal from *Science* and the American Association for the Advancement of Science (AAAS). Elaine Cheng, MD, of Weill Cornell Medical College (WCMC); Alexei Morozov, MD, PhD, of Memorial Sloan-Kettering Cancer Center (MSKCC); and Kenneth Ng, PhD, of Hospital for Special Surgery (HSS) have been selected from a nationally sponsored Clinical and Translational Science Award (CTSA) competition to function as Associate Scientific Advisors for one year.

This first group of trainees for *Sci TM* is currently developing associations in the area of translational medicine, at

the same time as obtaining up-to-date information on the latest studies. In addition to acting as research advisors for the journal, the responsibilities of the Associate Scientific Advisors is to examine selected peer-reviewed publications and compose their account of the main points of the scientific research they have reviewed. Their summation of the data appears in the Editor's Choice section of *Science Translational Medicine*. Drs. Cheng, Morozov, and Ng have covered current topics in translational medicine, including osteoarthritis, cancer, tissue engineering and obesity, among others. The opportunity of being named Associate Scientific Advisor offers these early-career scientists the chance to contribute to a distinguished academic journal while advancing their understanding of translational science's findings. The capability to communicate innovative information will not only benefit their vo-

cation on the science of translational medicine but also to researchers and trainees from all scientific disciplines.



Online cover image from *Science Translational Medicine* 4 August 2010 vol 2, issue 43. CREDIT: C. BICKEL/SCIENCE TRANSLATIONAL MEDICINE. Reprinted with permission from AAAS.

2010 Scholar Poster Award for CTSC Awardee

By Linda Baichoo

CTSC KL2 awardee and Weill Cornell clinical fellow Elaine Cheng, MD has been awarded a 2010 Scholar Poster Award. The awards ceremony took place at the 2010 Clinical and Translational Research and Education Meeting, co-sponsored by the Association for Clinical Research Training (ACRT) and the Society for Clinical and Translational Science (SCTS).

Dr. Cheng's poster, titled "A New Strategy To Minimize Islet Cell Mass In Type 1 Diabetic Recipients: Diannexin Improves Early Graft Function In The Marginal Islet Mass Transplantation Model," was selected out of two hundred

posters presented and submitted for consideration for the Scholar Poster Award. Forty trainees were given awards at the ACRT Annual meeting held on April 5 through April 7, 2010, in Washington, DC.

Dr. Cheng's research project, supported by the CTSC, has also been accepted for publication in the *Transplantation* journal as a "Rapid Communications" article, a title reserved only for high impact manuscripts.

In addition, Dr. Cheng was recently selected to join the Associate Scientific Advisors for the journal *Science Translational Medicine* for a period of one year.



Dr. Elaine Cheng, right, with her mentor Dr. Manikkam Suthanthiran

Dr. Heejung Bang Serves as Editor for New Reference Book

By Nelena Jackson

In response to the growing need in the research community to develop better links between the fields of molecular biology and statistics, Heejung Bang, Ph.D, of WCMC collaborated with other CTSC biostatisticians nationwide to develop the recently published, *Statistical Methods in Molecular Biology*.

A cross-institutional CTSA effort, *Statistical Methods in Molecular Biology* aims to address the dearth of literature in modern biology and statistics by identifying and explaining the wealth of statistical tools that can be directly applied to research in molecular biology. The book covers topics that range from introductory material to the very advanced. Dr. Bang was motivated by her concern regarding the challenges molecular biologists and mathematicians face in communicating with each other, and hopes that

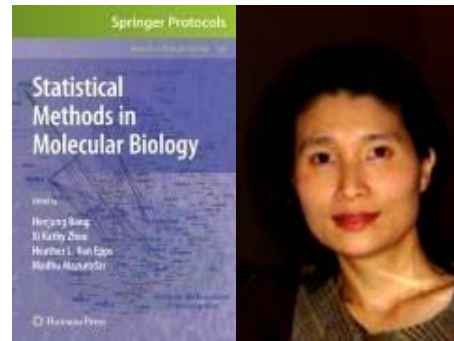
this reference book will improve that dynamic.

She expresses optimism that "The book will bridge the gap between molecular biology and statistics." Dr. Bang and her colleagues are confident that veteran researchers and students alike will be able to benefit from this valuable tool.

Dr. Bang acted as one of four editors for the book, as well as co-authoring the opening chapter, "Experimental Statistics for Biological Sciences," which lays the groundwork for the union of statistics and biology. The CTSC investigator also penned the reference book's preface.

Dr. Madhu Mazumdar, the Core Director of the Weill Cornell Division of Biostatistics and Epidemiology, and Dr. Xi Kathy Zhou also served as both authors and editors for the book. Dr. Mithat Gönen of MSKCC contributed as an author from our CTSC consor-

tium as well as Xutao Deng, Ph.D, Fabien Campagne, Ph.D and Samprit Banerjee, Ph.D of WCMC.



The cover of *Statistical Methods in Molecular Biology* on the left; Dr. Heejung Bang on the right.

CTSC Member Receives Young Investigator Award

By Linda Baichoo

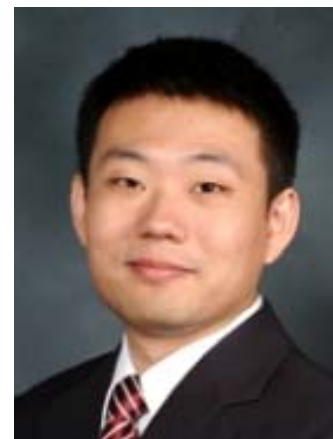
Dr. Yan Ma, a member of the CTSC Research Design and Biostatistics Core Team, has been selected to receive the Statistics in Epidemiology Young Investigator Award by the American Statistical Association (ASA). A scientific and educational society founded in Boston in 1839, the ASA is the second-oldest continuously operating professional society in the United States.

Every year, the finest papers in statistics in epidemiology are awarded this prestigious honor, and are presented at the Joint Statistical Meetings in Vancouver, Canada. The most recent presentation took place this past August.

Dr. Ma's winning paper, "Inferences for Kappas for Longitudinal Data," was

supported by the Clinical Translational Science Center (CTSC) (UL1-RR024996). The paper proposed a non-parametric method for estimating Kappa coefficient, within a longitudinal data setting in the presence of missing data. According to Dr. Ma, "the method can be applied to assessing raters' reliability and agreement over repeated measurements with missing data."

Dr. Ma, who is also Assistant Professor of Biostatistics in Public Health at the Hospital for Special Surgery, is currently working on a series of projects with CTSC partner institutions.



Yan Ma, Ph.D., M.A., M.S., Assistant Professor of Biostatistics and Epidemiology in the department of Public Health at WCMC

Telehealth and "Heart-to-Heart" Serve Local Communities

By Jeff Zhu

The Community Health and Wellness Program (CHWP), under the CTSC, is the umbrella initiative for the interactive Telehealth and the "Heart-to-Heart" Free Health Screenings; two programs created to assist the under-



CHWP team giving a blood pressure reading at health screening

served communities of New York City.

The Telehealth program utilizes video-conferencing to connect audiences throughout the city with medical experts. On June 6, 2010, another successful Telehealth video-conferencing event took place. William Borden, MD, and Maria Spinelli, NP, of WCMC, spoke to community members at churches in underserved areas of Queens for approximately 90 minutes, answering a

variety of questions regarding heart health. The most recent "Heart-to-Heart" health screening event took place on August 14, with over 75 members of the community participating. The screenings offer a multitude of services, including blood pressure readings and blood tests measuring total cholesterol, HDL, calculated LDL, triglycerides, A1C, and blood glucose. The tests are processed right on site, and participants engage in a one-on-one consultation with a WCMC physician afterwards.

In the "Heart-to-Heart" Campaign, the partnership between WCMC/CTSC and the Hunter College School of Nursing allows future health professionals (nurses, medical students, physician assistant students and MD/

PhD students) to work together as a team for the first time.

Jonathan Moreno, MD/PhD student at WCMC and screening participant, states, "We are [excited] at the resounding success of the program so far. Our strong cadre of medical professionals and community partners reaffirm our sense of civic responsibility to our at-risk, underserved communities." Community feedback for these screening initiatives is measured using surveys. So far, the response has been highly positive.

For the health screening programs, CHWP has partnered with a Senior Center and Senator John L. Sampson in March, and a Youth Community Center and Senator Jeffrey D. Klein in July for the outreach effort.



Senate Deputy Majority Leader Jeffrey D. Klein and Medical Students Suchit Patel (R) and Jonathan Moreno (L) before the Health Screening fair.

Expanded "Walk-in" Clinics Commence

By James Holahan

The CTSC is holding a series of monthly walk-in clinics for investigators, coordinators and other members of the research community. These clinics provide consultation and advice on submitting an application to the CTSC, using the electronic Protocol Authoring and Review system (ePAR), preparing a study budget, navigating regulatory/compliance issues, and utilizing services available through the CTSC and its partners.

The clinic is open to individuals from all CTSC partner institutions, including Weill Cornell Medical College, Memorial Sloan-Kettering Cancer Center, Hospital for Special Surgery, Hunter College School of Nursing, and the Hunter College Center for the Study of Gene Structure and Function.

The first session was held on August 3, 2010 and was attended by twelve researchers who span three different institutions. The next clinic will be

held on September 29, from 11am to 12pm in the Payson Solarium, 2nd floor of the Payson Building, 525 East 68th Street.

Please contact James Holahan at 646-962-8154 or jph2003@med.cornell.edu with any questions.

REDCap: CTSC's Global Venture

By Margareth Del Cid

In May 2010, REDCap underwent changes allowing researchers to more readily tailor databases to their specific needs, giving them better control of study data. Researchers can now edit forms online and generate calendars based on study-specific time points through a scheduling module.

REDCap is a database system, developed by Vanderbilt University and currently managed and updated through a national consortium supporting the rapid setup of secure, web-based study-specific database systems and associated forms.

As a web-based application, REDCap's portability allows it to be used anywhere in the world. For Weill Cornell researchers Dr. Daniel Fitzgerald and Dr. Jennifer Downs, even an unreliable internet connection won't hinder their research. Ms. Jessie Lee, the Database Project Manager, recently completed a database set-up for Drs. Fitzgerald and Downs, which will be used to store data for the study, "The efficacy of Praziquantel treatment on Female Urogenital Schistosomiasis," in women living in rural villages in Mwanza, Tanzania.

Because unreliable internet connections in the villages presented a challenge, an additional component was added to the standard REDCap database to capture data in the event of a disruption. This secondary system, which is installed on a laptop, acts as an offline version of the database. Once connectivity is restored, the data saved on the laptop can be imported into the main server at the researchers' convenience. Ms. Lee reports that there have not been any issues with internet connectivity thus far, commenting that, "sometimes it's a little slow, but workable."

CTSC Launches Grand Rounds Lecture Series

By Linda Baichoo

In May, 2010, the CTSC launched its Grand Rounds Lecture Series. The monthly series hosts leaders in translational research and basic science who share their ground-breaking work with CTSC's partners, investigators and staff, as well as with the WCMC community. Dr. John McNeish, Executive Director of Regenerative Medicine at Pfizer Global Research and Development, lead the series as its first speaker. Dr. McNeish spoke on "Regenerative Stem Cells in Drug Discovery and Regenerative Medicine." In his lec-

ture, Dr. McNeish explained how stem cells are advantageous for new therapeutic approaches in conventional drug discovery.

The second lecture by Michael L. Shuler, PhD of Cornell University's School of Chemical and Biomolecular Engineering, "Body-On-A-Chip: Towards In Vitro Evaluation of Drugs" described how in vitro, micro-fabricated devices with cell cultures provide a viable alternative to animal models to predict toxicity and efficacy in response to pharmaceuticals.

The CTSC Grand Rounds will resume in the fall of 2010, with future scheduled

topics including drug delivery and fluid transport in neural tissue and nanobiotechnology.

The Grand Rounds Lecture Series aims to inspire and promote cutting edge innovative research and provide a forum for discussion with experts in various fields of translational research with the faculty and students of our partner institutions and the WCMC community.

WCMC and Hunter College attend the Sixth Annual NYC- Walk Now for Autism Speaks

By James Holahan

On Sunday, June 13, the CTSC, Weill Cornell Autism Research Program (WCARP), and the Communication and Play Lab from the Hunter College Psychology Department joined more than 18,000 participants at the South Street Seaport in New York City to support the sixth annual NYC *Walk Now for Autism Speaks*. Participants and corporate sponsors raised over \$870,000 to fund autism research, advance advocacy, provide family services, and increase autism awareness.

Before the walk commenced, sixteen "Resource Fair" attendees shared information about their organizations and the services they provide while entertaining the children with toys and games. Nelena Jackson, a Research Aide for the Translational Research Support Team (TREST) at the CTSC, and Mary Jo Ward, PhD, an Investigator on the WCARP protocol, manned the booth and spoke to interested

families about participating in a research study to understand the genetics and neurochemistry of autism spectrum disorders. Working side-by-side with the team from Hunter College, the WCMC research team signed up forty-three potential participants and the team from Hunter has already begun scheduling interested subjects from the fair.



At the starting line of the Walk Now for Autism Speaks fair on June 13, 2010. Photo courtesy of Autism Speaks.

CTSC Web Portal Upgrade

By Nelena Jackson

On April 26, 2010, the CTSC introduced a upgraded and redesigned web portal. The CTSC site's make-over allows for greater ease and accessibility to the multitude of CTSC services for all who access the web portal.

What makes this web portal unique is that, "it is cross-institutional, and it addresses five main groups, with home pages that are tailored to each," states Informatics Core Director Liz Wood. On the home page of the web portal you can find the links to the individual group pages such as *Community Physicians and Organizations* and *Research Subject Participants*. In

addition, visitors will find news links, a calendar of events and an opportunity to share their

experience with the CTSC.

The new CTSC portal features quick-access and user-friendly links to CTSC services, resources, and information on how to apply for seed-funding and training awards. Data feed technology from other CTSC systems—replacing the standard hard html pages—keep the website up to date in real time.

To access the CTSC web portal, please visit:

www.weill.cornell.edu/ctsc

Do you have an announcement or article you would like to see in our next eNews issue or on the CTSC website? Contact the CTSC at CTSC@med.cornell.edu.



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Weill Cornell Medical College
1300 York Avenue, Box 149
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Online: <http://www.weill.cornell.edu/ctsc>

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