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CTSA Clinical & Translational
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EVENTS:

First International Conference on Translational Medicine

The First International Conference on Translational Medicine (The 13th Frank and Bobbie Fenner Conference), bringing together leaders of different types of national initiatives on translational science, will be held at the John Curtin School of Medical Research, Australian National University on **November 1-4, 2010** in Canberra, Australia. Key program leaders from the United States (including leadership from NIH, CTSA's, and the FDA), the British Isles, China, Singapore and Australia will compare and contrast different approaches to foster translational medicine across the globe.

Innovative panels and discussions will include:

- Where should the money go? To fundamental discovery or translation?
- How to create academic structures and partnerships that integrate fundamental discovery, translational medicine, health care and global health
- Developing a Global Translational Research Workforce
- Translational approaches to disease of global impact such as obesity, malaria, traumatic brain injury, autoimmunity and breast cancer

Outcomes of the conference will include guidelines for international strategies to facilitate the pathways from fundamental discovery through translational science that is aimed at improving global health.

Poster submissions, particularly by young investigators, are encouraged.

For more information including registration and the full program, visit the [meeting website](#).

NEW — Inaugural Clinical Research Ethics Key Functions Committee Annual Meeting

The CTSA Clinical Research Ethics Key Functions Committee will hold its first independent national meeting in Chicago, IL, **November 4 -5, 2010**. The meeting is hosted by Northwestern University and the University of Chicago CTSA programs.

This year's meeting will focus on consult programs and will open with a summary of a national survey conducted by the Consultation Working Group. Other topics for discussion will include relations with consult requestors, placement within the institution, the logistics of consults, and plans to develop a national consult sharing system.

The meeting will also include concurrent breakout sessions, the annual business meeting, and discussion of future priorities and next steps.

For more information and to register to attend, visit [the meeting website](#).

NEW — Moving Forward in the Efficient Management and Use of Core Facilities

The National Center for Research Resources (NCRR) at the National Institutes of Health (NIH) presents "Moving Forward in the Efficient Management and Use of Core Facilities," on **November 15-16, 2010** at the Natcher Conference Center (Bldg. 45) at the National Institutes of Health in Bethesda, Md.

The two-day conference is designed to provide updates on issues such as maximizing the use and efficiency of existing NIH-funded core facilities, developing effective training programs for core facility directors, exploring software options for enhancing administrative management of core facilities, creating a national registry of core resources and standardizing compliance with OMB Circular A21.

This free event, which is open to the public and will be [VideoCast](#), also will feature poster sessions and software demonstrations.

Registration deadline is November 1. Early registration is strongly encouraged due to space limitations.

For more information and to register, visit [the conference website](#).

For questions about the workshop content or to participate in the software demonstrations, contact [Sylvia Parsons](#), NCRR.

Save the Date — Evaluation Key Function Face-to-Face Meeting

The CTSA Evaluation Key Function Committee face-to-face meeting will be held **December 7-8, 2010**, at the Hilton Washington DC/Rockville Hotel and Executive Meeting Center in Rockville, Md.

For more information, contact [Lori Mulligan](#), NCRR, or [Meryl Sufian](#), NCRR.

CTSA Committee Meetings and Activities

View the full [CTSA Committee Meetings and Activities calendar](#) on CTSAweb.org.

NEWS AND ANNOUNCEMENTS:

Mayo Clinic Announces Formal Collaboration with the University of Puerto Rico

After nearly two decades of successful collaborations, Mayo Clinic, led by their CTSA, and the Medical Sciences Campus — University of Puerto Rico (UPR) have formalized their relationship. A memorandum of understanding (MOU) was signed in August marking a turning point in the relationship, which until now has consisted of individual or one-time efforts.

Over the years, a number of faculty and students have participated in exchange programs, career development programs,

medical school rotations, research practicums and other scholarly activities, which are facilitated by CTSA Education Resources. Many other institutional-level activities are ongoing as well, contributing to the overall research and educational capabilities of both Mayo Clinic and the University of Puerto Rico. [Read more.](#)

The Ohio State University CTSA Produces Clinical Research Informational Video

The Ohio State University Center for Clinical and Translational Science has produced an informational video designed to communicate to the public the importance of participating in clinical research. This video was created with the intention of being used by others, and The OSU CCTS welcomes and encourages institutions to embed *Participating in Research: You Can Be Part of the Answer* into their web pages and online social media outlets. The OSU CCTS believes that one way to move science forward is to collaborate with other institutions so that we can drive the message about the importance of participating in clinical research.

The OSU CCTS video, along with other materials for communicating to and informing audiences about clinical and translational science and the CTSA Consortium, are available for use on the [Communications Toolkit](#) page on CTSAweb.org.

CTSA National Evaluation Stakeholder Meeting Summary Now Available

A summary of the CTSA National Evaluation Stakeholder Meeting, [Building a CTSA Evaluation Framework: Stakeholder Perspectives](#) (1.3MB PDF, requires free [Acrobat Reader](#)), is now available on the [NCRN website](#).

Held July 20, 2010 in Bethesda, Md., the meeting brought together leadership from NIH Institutes and Centers, representatives from CTSA institutions, NCRN staff, the private sector and evaluators. The meeting goals were to have an initial discussion about evaluating large, complex research initiatives and to investigate the needs, challenges and opportunities that the CTSA program evaluation provides.

For more information, contact [Meryl Sufian](#), NCRN.

CTSA Public-Private Partnership KFC Seeking Co-Chair Nominations

The CTSA Public Private Partnership (PPP) KFC is seeking nominations from Consortium members for the upcoming election of two new co-Chairs for the PPP committee. The co-Chairs will help set the upcoming 2011 agenda for the PPP KFC. The deadline for nominations is Wednesday, October 20, 2010.

For more information, contact [Lili Portilla](#), NCRN.

FUNDING OPPORTUNITIES:

Economics of Prevention (R21)

This Funding Opportunity Announcement (FOA) solicits exploratory/developmental research grant (R21) applications for research to conduct economic analyses of prevention and health. Applications must be responsive to one of four topic areas that target research that addresses costs of health care, benefits to the health care system and other sectors of the economy and cost-effectiveness all within the context of prevention and health. [View the announcement.](#)

Scientific Meetings for Creating Interdisciplinary Research Teams (R13)

This NIH funding opportunity announcement ([PA-10-106](#)) encourages Research Conference Grant (R13) applications from institutions and organizations that propose to develop interdisciplinary research teams. Teams must include investigators from the social and/or behavioral sciences, and may include the life and/or physical sciences. The goal is to broaden the scope of investigation into scientific problems, yield fresh and possibly unexpected insights, and increase the sophistication of theoretical, methodological and analytical approaches by integrating the analytical strengths of two or more disparate scientific disciplines while addressing gaps in terminology, approach and methodology. This program will allow investigators from multiple disciplines to hold meetings to provide the foundation for developing interdisciplinary research projects. [View the announcement.](#)

FEATURES:

Einstein CTSA Consolidates Core Facilities to Modernize Lab and Breakdown Silos

The Einstein-Montefiore Institute for Clinical and Translational Research (ICTR), a partnership between the Albert Einstein College of Medicine and Montefiore Medical Center, in the Bronx, New York, promotes multidisciplinary collaboration, enhanced training, education and career development. Consolidating some of its core facilities has helped enhance both collaboration and the quality of research at the ICTR.

Cutting Laboratory Duplication Frees Up Resources, Enhances Core Abilities

At research institutions, shared facilities and core laboratories can be vital assets or, conversely, resource-draining duplications of effort. At Einstein, many investigators used both the Diabetes Center's Hormone Assay Laboratory, funded by the National Institute of Diabetes and Digestive and Kidney Diseases, and the NCRR-supported CTSA Analytic Core Laboratory. Despite being located only three floors apart within the same building, the two laboratories employed separate administrations and staff, which added to costs. In addition, maxed-out labor-intensive analyses limited throughput and precluded timely results. Combining the two facilities into the



At the suggestion of ICTR Director Harry Shamon, M.D. (right), biochemist Matthew Levy, Ph.D. (left), and endocrinologist Daniel Stein, M.D. (center), began collaborating. Dr. Stein's knowledge of thyroid tumor biology and Dr. Levy's skill with aptamers — the nucleic-acid equivalent of antibodies — will form the basis of a new thyroid cancer test.

Biomarker Analytical Resource Center (BARC) eliminated overlapping administration, yielded a new laboratory for an additional Diabetes Center investigator and will increase sample throughput by three to five times.

Leveraging Government Recovery Money and Institutional Funds Yields Multiplier Effect

The catalyst for consolidation was an administrative supplement awarded through the American Recovery and Reinvestment Act (ARRA). The grant provided leverage to secure additional dollars from Montefiore's Clinical Pathology department. Combined funding enabled Einstein to invest in a fully automated biomarker facility, integrated around a Nanocell™ industrial robot from Massachusetts-based HighRes Biosolutions. This equipment will speed up precise handling and analysis via bar-coded samples, ensuring their integrity and anonymity through an unbroken chain of custody.

Creating Better Resources for Investigators Around the Corner, Around the Country

The BARC laboratory's increased throughput will allow researchers to measure turnaround times in days as opposed to weeks. This core consolidation also breaks down institutional silos and streamlines access to over 83 assay protocols, regardless of an investigator's funding source. Samples that would have been sent out — including those for hospital clinical evaluation — will be evaluated in-house at less expense with state-of-the-art mass spectroscopy methods. Outside investigators can benefit from the BARC laboratory's expertise in measuring proteins and peptides using novel techniques pioneered at the Einstein ICTR. For the first time, a unique ICTR reference method designed to measure C-peptide, a key biomarker in diabetes, will be available to the broader research community. An additional ARRA grant and institutional backing promise more to come: development of a new antibody-independent thyroglobulin assay for a critical biomarker in detecting thyroid cancer.

Forum Yields Recommendations for Effective Public-Private Partnerships

The CTSA Public-Private Partnerships Key Function Committee (KFC) convened a forum on February 17–18 to explore mechanisms for efficient, effective collaboration among private industry, nonprofit organizations, academic institutions, government agencies and CTSA organizations. The two-day event brought together over 500 stakeholders from all of these sectors to discuss leveraging NIH's investment in the CTSA program in order to accelerate the discovery and development of commercially viable therapies and diagnostics. Attendees also discussed the challenges and barriers to

improving the productivity and efficiency of commercially meaningful translational research. [View the meeting presentations.](#)

Several manuscripts describing the conference recommendations and outcomes will be published in October 2010. For example, *Science Translational Medicine* will publish a commentary on the meeting as well as articles summarizing the recommendations that resulted from the forum's five break-out sessions. The Forum Planning Team, which includes CTSA, NIH and industry representatives, is organizing next steps to implement the recommendations.

A conference panel highlighted training programs and coursework offered by individual CTSA institutions, the Food and Drug Administration and Merck. The panel provided an overview of potential areas for collaboration and shared training experiences between academia and industry and noted gaps in education and training. As a result, the Education Career Development KFC formed the Academic-Industry Working Group, which was charged with the following tasks:

- Address collaborative efforts among academia, industry and the federal government for training investigators and scholars on how to interface with industry.
- Lead the effort to integrate training resources across sectors by identifying courses, training modules and technical experiences for training research teams.
- Identify relevant courses across the consortium that may be shared via the Virtual Learning Resource web portal on topics such as drug and device development, industry collaborations, scientific careers in industry and regulatory knowledge.
- Develop or adapt practical, technical experiences or visiting scholarships for CTSA scholars that contribute to better understanding of industry science and federal regulatory agencies.
- Define competencies for training clinical investigators to facilitate interaction with industry.
- Broaden educational opportunities—for example, develop a visiting scientist series for industry scientists to lecture at CTSA institutions.

ARTICLES:

Mayo Clinic CTSA Hosts REDCap Day 2010

The Mayo Clinic Center for Translational Science Activities (CTSA) welcomed more than 70 participants from more than 30 institutions on August 17 for the second annual Research Electronic Data Capture (REDCap) Day, the yearly gathering of the REDCap Consortium. The consortium guides the ongoing development of REDCap, a suite of Web-based tools designed to support data capture for research studies. REDCap Day provides a forum for consortium members to share best practices, network with colleagues, discuss collective challenges and learn about future REDCap software development efforts.



The day began with a welcome from Christopher Chute, M.D., Dr. P.H., informatics director of the Mayo Clinic CTSA; opening remarks from Paul Harris, Ph.D., director of the Office of Research Informatics Operations at Vanderbilt University; and a keynote talk by NCCR's Elaine Collier, M.D, senior adviser to the director. The workshop included five panel discussions, each of which featured several subject matter experts from across the REDCap Consortium:

- Business model and use cases
- New features, customized development and potential use cases
- Data interoperability
- Regulatory compliance
- Data standards

"The active REDCap Consortium feeds site adoption as well as new functionality," said Elaine Collier, M.D. "The enthusiasm and broad knowledge of how researchers work plus the focused energy of members leads to a constantly enhanced tool for researchers."

REDCap software is now available in four languages and is employed by more than 11,800 end-users in 17 countries.

Given the continuing growth of REDCap software and tools, REDCap Day organizers plan to extend next year's event to two days and include more hands-on training sessions. REDCap Day 2011 will be held in late August at the Colorado Clinical and Translational Sciences Institute in Aurora, Colo.

"The annual REDCap Day works to strengthen the cohesiveness of the REDCap Consortium and sparks new, creative ideas," said Michael Lin, informatics manager of the Mayo Clinic CTSA. "And overall, the REDCap Consortium exemplifies how collective intelligence and effort can work to advance a great cause at an accelerated pace."

The REDCap Consortium includes 150 active institutional partners supported by CTSA's, Research Centers in Minority Institutions and other academic and nonprofit organizations. Learn more about [REDCap and the REDCap Consortium](#).

BERD Watch — Rockefeller University Combines Computer Power to Do More with Less

The BERD core at The Rockefeller University's Center for Clinical and Translational Science (CCTS) is capitalizing on the power of networking desktop computers to mine better genetic data from fewer samples. The CCTS is expanding the use of μ statistics — a method that can produce an unbiased estimator with minimum variance for ordered, non-linear data — to analyze multivariate genetic data.

Common complex diseases, such as cancer, diabetes and obesity, are caused by combinations of several risk factors — in contrast to rare, monogenetic diseases. To gather useful information from multivariate data using traditional statistical methods, the researcher must know the interactions and relative importance of the various risk factors. Without this information, these traditional (or parametric) approaches often fail. So-called non-parametric methods are more appropriate for analyzing multivariate data. However, until recently, it was not computationally feasible to use non-parametric methods in complex analyses such as screening 500,000 single-nucleotide polymorphisms (SNPs) or 30,000 genes. Thus, non-parametric approaches have been less well developed.

The Rockefeller University CCTS extended μ statistics for multivariate data to include information about genetic position and genomic pathways. Then, investigators combined the Rockefeller University Hospital's desktop computers into a virtual super-computer for genome-wide association studies (GWAS) and family-based association tests (FBATs) of complex diseases.

By increasing the number of SNPs that can be analyzed comprehensively, reliable results can now be obtained from GWAS comprised of only a few hundred cases, rather than thousands. At the Rockefeller University's CCTS, this combination of methodological and technological advances has been applied to identify genetic risk factors for complex diseases, such as Fanconi anemia and multiple sclerosis, moving the potential for personalized medicine closer to reality.

The same methodology that allows investigators to combine information from neighboring SNPs (i.e., μ statistics for multivariate structured data) also allows them to combine information from recurrent events that are "graded" according to their importance in relation to the disease — such as time points of hospitalization, stroke, myocardial infarction and death — with similar advantages. Applying this approach could cut the size of a clinical trial substantially while yielding more relevant results. With funding from the NIH's NCCR, the [\$\mu\$ Stat Web server for GWAS and FBATs](#) is available to researchers worldwide at www.CTSPedia.org.

GENERAL INFORMATION:

Updated Information on CTSAweb.org

The **CTSAweb.org** home page, in keeping with the website's role of ensuring access to CTSA resources, enhancing communication and encouraging sharing, features:

- New CTSA [Collaboration Opportunities](#) page listing CTSA collaboration opportunities
- Newly updated sections on the [Resources for Researchers](#) page enable targeted searches
- Updated CTSA [Governance Document](#) available at CTSAweb.org "For the Consortium" menu on the left

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