Department of Health and Human Services
National Institutes of Health

National Center for Advancing Translational Sciences Advisory Council
and
Cures Acceleration Network Review Board

Minutes of Joint Meeting
September 14, 2012

The National Center for Advancing Translational Sciences (NCATS) Advisory Council and the Cures Acceleration Network (CAN) Review Board held a joint meeting in open session, convening at 8:30 a.m. ET on September 14, 2012, in Conference Room 6, Building 31, on the National Institutes of Health (NIH) main campus. This was the first meeting for both groups. Thomas R. Insel, M.D., NCATS Advisory Council chair, and Freda C. Lewis-Hall, M.D., CAN Review Board chair, led the meeting. In accordance with Public Law 92-463, the session was open to the public.

Following the joint meeting, the NCATS Advisory Council met in closed session for review and consideration of grant applications.

NCATS ADVISORY COUNCIL MEMBERS PRESENT

Chair

Thomas R. Insel, M.D., NCATS Acting Director

Executive Secretary

Jane A. Steinberg, Ph.D., Acting Director, NCATS Office of Grants Management and Scientific Review

Council Members

Margaret A. Anderson, M.A.
R. Alta Charo, J.D.
Jorge L. Contreras, J.D.
Louis J. DeGennaro, Ph.D.
Mary L. Disis, M.D.
Frank L. Douglas, Ph.D., M.D.
Geoffrey S. Ginsburg, M.D., Ph.D. (by telephone)
Eric D. Kodish, M.D.
Freda C. Lewis-Hall, M.D.
Bernard H. Munos, M.B.A.
Franklyn G. Prendergast, M.D., Ph.D.
Todd B. Sherer, Ph.D.
Scott J. Weir, Pharm.D., Ph.D.
Paul G. Yock, M.D.

Representative Members

Ankit A. Mahadevia, M.D., M.B.A., Atlas Venture
Robert I. Tepper, M.D., Third Rock Ventures, LLC

Ex Officio Member

Francis S. Collins, M.D., Ph.D., NIH Director

CAN REVIEW BOARD MEMBERS PRESENT

Chair

Freda C. Lewis-Hall, M.D., Executive Vice President and Chief Medical Officer, Pfizer Inc.

Vice Chair

Geoffrey S. Ginsburg, M.D., Ph.D., Director of Genomic Medicine, Duke University Health System (by telephone)

Executive Secretary

Jane A. Steinberg, Ph.D., Acting Director, NCATS Office of Grants Management and Scientific Review

Board Members

Margaret A. Anderson, M.A.
Robert J. Beall, Ph.D.
R. Alta Charo, J.D.
Jorge L. Contreras, J.D.
Pamela B. Davis, Ph.D., M.D.
Louis J. DeGennaro, Ph.D.
Mary L. Disis, M.D.
Frank L. Douglas, Ph.D., M.D.
Victoria G. Hale, Ph.D.
Eric D. Kodish, M.D.
Bernard H. Munos, M.B.A.
Franklyn G. Prendergast, M.D., Ph.D.
Todd B. Sherer, Ph.D.
Lawrence A. Soler, J.D.
Myrl Weinberg, M.A.
Scott J. Weir, Pharm.D., Ph.D.
Paul G. Yock, M.D.

Representative Members

Ankit A. Mahadevia, M.D., M.B.A., Atlas Venture
Susan E. Siegel, M.S., Healthymagination
Robert I. Tepper, M.D., Third Rock Ventures, LLC
Tadataka Yamada, M.D., Takeda Pharmaceuticals International

CAN Review Board Ex Officio Members Present

Francis S. Collins, M.D., Ph.D., NIH Director
Margaret A. Hamburg, M.D., Commissioner, U.S. Food and Drug Administration (FDA)

INVITED PRESENTERS

Gordon R. Bernard, M.D., Vanderbilt University
Bradley A. Evanoff, M.D., M.P.H., Washington University

OTHERS PRESENT

Andrea Baruchin, Ph.D., Foundation of the National Institutes of Health
Benjamin T. Butler, NIH Office of General Counsel
Sanjay I. Bidichandani, M.B.B.S., Ph.D., Muscular Dystrophy Association
Kevin R. Fletcher, NIH Office of the Director, Office of Human Resources
Erica S. Froyd, Association of Independent Research Institutes
Sarah Garnett, M.H.A, PricewaterhouseCoopers
Erin Heath, M.Sc., American Association for the Advancement of Science
Stephen J. Heinig, Association of American Medical Colleges
Jenny Hopkins, R.N., B.S.N., Westat
Chris Houchin, M.B.A., PricewaterhouseCoopers
James F. Jorkasky, National Alliance for Eye and Vision Research
Annie Kennedy, Muscular Dystrophy Association
Rachel E. Levinson, Arizona State University
Cathy T. Liverman, M.L.S., Institute of Medicine
Judith Mun, American Association of Colleges of Osteopathic Medicine
Virginia Neale, Northwestern University
Eric M. Nelson, Ph.D., National Institute of Neurological Disorders and Stroke
Gilbert S. Omenn, M.D., Ph.D., University of Michigan Health System
Lori Pellnitz, M.A., SRI International
Mary E. Perry, NIH Office of the Director
Lisa B. Rovin, Food and Drug Administration
Bonnie L. Snyder, NIH Office of the Director, Office of Human Resources
Aditi Srivastav, M.P.H., American Academy of Pediatrics
Tyrone C. Spady, Ph.D., Federation of American Societies for Experimental Biology
Irena Tartakovsky, M.D., Association of American Medical Colleges
Lauren Tedesco, NIH Office of the Director, Office of Human Resources

NCATS leadership and staff

I. CALL TO ORDER AND INTRODUCTIONS

Dr. Insel welcomed members and guests to the meeting and explained that it was a joint meeting of the NCATS Advisory Council and the CAN Review Board because a number of members serve on both groups.

Dr. Lewis-Hall stated that today's meeting was being videocast and welcomed those viewing the meeting by Internet. She noted the meeting dates of the Advisory Council and the CAN Review Board for 2013 and 2014 and pointed out that the CAN Review Board's December meeting each year would be a virtual meeting.

Advisory Council members, CAN Review Board members, and NCATS leadership introduced themselves.

II. DIRECTOR'S REPORT — Thomas R. Insel, M.D., Acting Director, NCATS; Director, National Institute of Mental Health

Dr. Insel described the formation of NCATS as the convergence of two trends that had evolved over the past few years. The Scientific Management Review Board, which advises NIH on its organization and focus, identified the opportunity for increased translation of basic science discoveries into improvements in health. At the same time, the advocacy community was conveying the urgency for delivering new therapeutics to people in need. NCATS and its Cures Acceleration Network (CAN) were developed to marry this opportunity from basic science to this urgency for better translation. Congress provided the appropriation that launched NCATS in December 2011.

The NCATS mission statement addresses the requirements of the law that created it: *To catalyze the generation of innovative methods and technologies that will enhance the development, testing and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.*

Dr. Insel said that three themes underscore the work of NCATS. First, it is a catalyst for collaborations both inside and outside NIH, and to that end, partnerships are very important. Within NIH, NCATS provides resources to leverage the investments of other Institutes and Centers that conduct translational research. Outside NIH, NCATS' stakeholders are academia, advocacy groups, nonprofit organizations, the U.S. Food and Drug Administration (FDA), pharma and the biotechnical industry. Second, a key role of NCATS is developing new tools and resources for research, also an area in which partnerships are important. Third, NCATS is disease-agnostic. Within NIH, NCATS is an enabling institute, helping disease-specific programs to be more efficient and more effective.

Dr. Insel outlined the organizational structure of NCATS and briefly described the activities of each office and division:

- Division of Preclinical Innovation, Christopher P. Austin, M.D., Director
- Division of Clinical Innovation, Josephine P. Briggs, M.D., Acting Director
- Office of Rare Diseases Research, Stephen C. Groft, Pharm.D., Director
- Office of Policy, Communications and Strategic Alliances, Kathy L. Hudson, Ph.D., Acting Director
- Office of Grants Management and Scientific Review, Jane A. Steinberg, Ph.D., Acting Director
- Executive Office, Erin P. Shannon, M.B.A., Acting Executive Officer

NCATS has two new initiatives under way. The first is Discovering New Therapeutic Uses for Existing Molecules, a collaborative pilot program designed to develop partnerships between pharmaceutical companies and the biomedical research community to

advance therapeutic development. This innovative program matches researchers with a selection of 58 compounds from eight industry partners to test ideas for new therapeutic uses, with the ultimate goal of identifying promising new treatments for patients. NCATS also created prenegotiated template agreements for the program and released its funding announcement (PAR-12-203) in June, garnering 160 one-page proposals. Some of those who submitted proposals will be selected to submit full applications in December, and funding will be awarded in May/June 2013.

The second project, based on the need for better predictive toxicology and conducted in collaboration with the Defense Advanced Research Projects Agency (DARPA) and the FDA, aims to develop tissue chips that mimic human physiology to screen for safe and effective drugs. Two funding announcements for the tissue chip project (RFA-RM-11-022 and RFA-RM-12-001) were issued in November 2011 through the NIH Common Fund, and awards funded by NCATS and the Common Fund were issued in July 2012. The NIH and DARPA programs will be coordinated closely, and the FDA will help explore how this new technology might be implemented to assess drug safety, prior to approval for first-in-human studies.

Dr. Insel summarized the President's proposed NIH budget request for 2013. He noted that although the overall NIH budget will be relatively flat compared with 2012, the President has proposed that the NCATS budget be increased by 11 percent, which is an indication of the priority placed on NCATS. Congress likely will pass a continuing resolution for FY 2013, at FY 2012 levels, and disallow any expenditures on new programs until a new budget is passed.

Dr. Insel concluded by summarizing the roles of the Advisory Council members. The NCATS Advisory Council provides advice on activities, reviews applications and recommends approvals for NCATS grants and cooperative agreements, and may form working groups to examine issues on an ad hoc basis. The CAN Review Board provides advice on policies, programs and procedures related to the CAN, and advises on significant barriers to successful translation of basic science into clinical application.

III. INAUGURAL WELCOME — Francis S. Collins, M.D., Ph.D., Director, NIH

Dr. Collins welcomed the Advisory Council and the Review Board to this inaugural meeting and thanked the members of both groups for their willingness to serve. He acknowledged the contributions of the acting leadership of NCATS during its first nine months.

Dr. Collins stated that a search committee had completed a vigorous international effort to identify a permanent NCATS director. He announced that the first permanent director of NCATS will be Christopher P. Austin, M.D., effective September 23, 2012.

Dr. Collins gave a brief summary of Dr. Austin's career and noted that Dr. Austin's experience and personality are assets that will contribute to NCATS' vision of transforming translational research to be efficient, science-based and collaborative.

Dr. Austin expressed thanks for the confidence in his leadership abilities. He stated that after he began his career as a clinician and then went into basic science research, the goal of connecting the clinical and basic science worlds has driven his entire career. He sees becoming NCATS director as the culmination of everything he has accomplished thus far and an unprecedented opportunity to deliver on the promise of research for producing tangible improvements in human health.

Dr. Austin said that collaboration is mandatory in translational research. He told the Advisory Council and CAN Review Board members that he will count on their talent and experience in achieving the vision of NCATS for the stakeholders that he and they serve.

IV. NCATS AND THE CAN REVIEW BOARD — Kathy L. Hudson, Ph.D., Acting Deputy Director, NCATS, and Acting Director, NCATS Office of Policy, Communications and Strategic Alliances

Dr. Hudson outlined the origins of the CAN, which was spearheaded by then-Senator Arlen Specter, who introduced the Cures Acceleration Network Act in 2009. The bill was supported by a number of stakeholders, including patient advocacy organizations, scientific societies and industry groups.

Originally intended to be an entity outside of NIH, the concept of the CAN was passed as part of the Affordable Care Act. It was placed within the NIH Office of the Director (OD) and authorized to have a budget of $500 million but did not receive any funding. The CAN was given three mechanisms for supporting research: 1) grants, 2) partnership awards, which require a match, and 3) flexible research authority funded by a mechanism known as other transaction authority (OTA), a complex mechanism that supports research without a grant or a contract, thus offering a way of doing things faster and avoiding cumbersome rules. The CAN was moved from NIH OD to NCATS when NCATS was created.

The Affordable Care Act assigns the CAN to perform the following functions:

- Conduct and support revolutionary advances in basic research, translating scientific discoveries from bench to bedside.
- Award grants and contracts to accelerate the development of high-need cures.
- Provide the resources necessary for government agencies, independent investigators, research organizations, biotechnology companies, academic research institutions and other entities to develop high-need cures.

- Reduce the barriers between laboratory discoveries and clinical trials for new therapies.
- Facilitate FDA review for the high-need cures funded by the CAN.

The CAN Review Board membership must represent the fields of basic research, medicine, biopharmaceuticals, medical products, bioinformatics and gene therapy, medical instrumentation, and regulatory review and approval of medical products. It also must include individuals with venture capital expertise; representatives of disease advocacy organizations; and ex officio representatives from NIH, the Office of the Assistant Secretary of Defense for Health Affairs, the Office of the Under Secretary for Health for the Veterans Health Administration, the National Science Foundation and the FDA.

V. THE CAN REVIEW BOARD — Freda C. Lewis-Hall, M.D., Chair, CAN Review Board, and Executive Vice President and Chief Medical Officer, Pfizer Inc.

Dr. Lewis-Hall reviewed the overlapping constituencies of the NCATS Advisory Council and the CAN Review Board. She pointed out that the CAN began its activities by learning from others. For example, the NIH Advisory Committee to the Director formed a Working Group on NCATS that was very helpful in shaping the thinking of and supporting the direction of the CAN. An internal working group explored the use of other transaction authority (OTA), an alternative approach for funding research that needs to be used judiciously. Earlier this year, the Institute of Medicine (IOM) convened a diverse group of individuals who discussed ideas and offered support for the CAN. That discussion informed the recently released IOM report, *Maximizing the Impact of the Cures Acceleration Network.* Finally, another important source of ideas and guidance for the CAN was the NCATS Office of Policy, Communications and Strategic Alliances, which will be holding a workshop in October 2012.

Dr. Lewis-Hall highlighted the following aspects of the CAN's future work:

- Take risks, but ensure that the link between science and patients is clear.
- Support science that is catalytic and collaborative.
- Leverage new authorities by developing innovative partnership models using matching funds and identifying hurdles to cures that can be circumvented using OTA.

In concluding, Dr. Lewis-Hall said that the CAN was the result of strong activism that made it clear the status quo was not acceptable. The promise it holds requires new thinking and new authority to cut through red tape and do things differently. The CAN has the challenge of creating cultural change that is necessary to truly accelerate cures.

VI. OVERVIEW OF THE NCATS CLINICAL AND TRANSLATIONAL SCIENCE AWARD (CTSA) PROGRAM

The Institutional CTSA Program — Goals and Achievements: Bradley Evanoff, M.D., M.P.H., Sutter Professor of Occupational and Environmental Medicine, Washington University; CTSA Principal Investigator and Assistant Dean for Clinical and Translational Research, Washington University in St. Louis; and Co-Chair, CTSA Consortium Executive Committee and Steering Committee

Dr. Evanoff described the formation of the CTSA program and its charge to coordinate clinical and translational research and education within institutions. He summarized four categories of scientific aims that CTSA institutions share:

- Create an academic home for clinical and translational science.
- Change the institutional research support infrastructure by building new research resources and developing ways to provide broader access to existing resources.
- Expand and enhance education and career development programs.
- Promote communication and collaborate research within each CTSA institution and with regional and national partners.

Institutions receiving a CTSA must significantly reorganize functions, reporting structures and support systems to accommodate the broader vision for clinical and translational research embodied in the CTSA mission. Because of the significant organizational reengineering needed, each site goes through an evolutionary process that can take several years. Institutions added to the consortium in later years have accomplished this more quickly by using lessons learned and receiving advice from sites that already went through the process.

The transformative changes at the 61 CTSA institutions have increased the development of high-impact science, as exemplified by the high number of important publications that have cited CTSA funding and used local CTSA resources. The CTSAs also support development of important novel technologies, including animal models, assays and statistical methods. At CTSA institutions, this infrastructure supports and facilitates many of the research projects funded by other NIH Institutes and Centers.

The CTSAs have led demonstrably to greater interdisciplinary collaboration across and within institutions. For example, data from Washington University in St. Louis showed striking increases in the proportion of grant applications and published papers having authors from multiple disciplines since the advent of their CTSA. Social network analysis showed increasing interconnectedness of faculty in research collaborations along several measures. On average, each CTSA member at Washington University

collaborated with fewer than two other CTSA members on a grant submission in 2007; this number grew to almost five in 2010.

Training the next generation of clinical and translational science researchers is central to the CTSA mission. Across all CTSA institutions, postdoctoral and predoctoral training programs feature didactic training, mentored research and interdisciplinary interactions with peers. Training and career development programs are helping young clinical and translational investigators to achieve early career success in doing important and impactful translational research.

Dr. Evanoff referred to the evolutionary process that takes place at CTSA institutions as a "disruptive innovation," defined as innovation that changes social practices, creates new products and services, offers greater accessibility to resources, appeals to new groups and improves performance along novel dimensions.

Dr. Evanoff concluded by noting that the CTSA Consortium now has a critical mass of mature sites that have alignment of strategic goals, provide disease-agnostic infrastructure and resources that support the full spectrum of translational science, are collaborating effectively, and are training the next generation of translational researchers to accelerate scientific discovery toward application in prevention, diagnosis and treatment.

The CTSA Coordinating Center — Goals and Initial Steps: Gordon R. Bernard, M.D., Associate Vice Chancellor for Clinical and Translational Research, Senior Associate Dean for Clinical Sciences, and Melinda Owen Bass Chair in Medicine, Vanderbilt University

Dr. Bernard described six activities under way to meet the first strategic goal of the CTSA Consortium, which is to build national clinical and translational research capability.

1. Quickly secure IRB approvals. To secure multisite Institutional Review Board (IRB) approvals more rapidly, the consortium is launching a website called IRBshare. Following the first IRB review, IRBshare makes the documents available to all of the other IRBs that have an interest in the project. The other IRBs might conduct a local context review, such as whom to call in the case of an emergency, and combine that with the first review. The result is called a collaborative review, which can go into force immediately. At this point, 39 CTSA institutions are planning to sign the interinstitutional agreement that will put IRBshare in place and allow a pilot to begin.

2. Negotiate a site-specific addendum to master contract. To expedite contracting, the CTSA Consortium is developing standardized language for contract clauses used for federal grants and industry contracts. The group has identified more than two dozen such components and is starting with the ones that are the easiest contract terms to

negotiate, such as term dates, notices, conflict of terms and survival of terms. The group plans to develop a website called ContractShare, similar to the concept of IRBshare. Representatives of more than 39 CTSA institutions will meet in Nashville in September 2012 to begin work on this project.

3. Determine which sites have necessary technical cores. To identify sites that have necessary technical cores, the eagle-i project was developed at Harvard with funding from the National Center for Research Resources. The eagle-i project is a platform for sharing information about resources such as technology cores, knowledge bases, genetic algorithms and animal models. The online tool enables users to search across the entire data repository and provides links to people, institutions and uses. The free search tool is open to all investigators, not just those at CTSA institutions.

4. Use standardized case-report forms and data-collection systems for remote data entry. In the past, individual institutions have had to develop their own or purchase commercial case-report forms and data-collection systems allowing remote data entry. To respond to this need, the CTSA Consortium has built REDCap, a secure, Web-based application for building and managing online surveys and databases. Developed at Vanderbilt University, the tool now has 460 institutional partners that host the program on their own servers in 49 countries. Continually growing, REDCap currently supports 45,000 projects and has 60,000 users.

5. Quickly identify potential clinical trial participants. A tool in the early stages of development, ResearchMatch enables an individual to register personal and health information and indicate an interest in participating in clinical research. The registrant indicates how far he or she is willing to travel to participate in research. Investigators can access ResearchMatch to find potential participants. When a registrant is matched, an IRB-approved notice appears that describes the study and gives the volunteer the option of releasing his or her contact information to the investigator for that study. To date, ResearchMatch has been used by about 27,000 registered volunteers, 1,300 researchers and 300 active studies in more than 73 institutions.

6. Provide access to research space and high-quality nursing care. A catalog is being developed to identify resources within the 61 CTSA institutions that could be used to conduct early-stage clinical research. Information is being cataloged across many categories to create an online database of resources and locations that are available to outside investigators. For example, users looking for a clinical research center might specify needs such as adult or pediatric, and inpatient or outpatient, as well as specific requirements such as cardiovascular equipment or exercise resources.

Observing that the coordinating center at Vanderbilt has been in place for only a year, Bernard concluded by noting that many exciting possibilities exist for working with NCATS, such as supporting a drug-repurposing program, facilitating collaborative

research with the NIH Clinical Center, creating capacity for pragmatic clinical trials or supporting better integration of preclinical initiatives.

Evolution of the CTSA Program — An Update: Josephine P. Briggs, M.D., Acting Director, Division of Clinical Innovation, NCATS; Director, National Center for Complementary and Alternative Medicine

Dr. Briggs briefly summarized the history of the CTSA program, starting with the vision of then-NIH Director Elias A. Zerhouni, M.D., to create academic homes that would integrate intellectual and physical resources for development of clinical and translational science. She noted that one of the real successes of the CTSA program has been genuine culture change at the academic centers around the country.

A CTSA/NCATS working group has been guiding the transition of the CTSA program and has developed a vision for a "CTSA 2.0" that has the following elements:

- A consortial infrastructure that facilitates the more effective implementation of clinical studies, particularly multisite studies.
- An enriched pipeline of novel therapeutics and diagnostics moving from basic laboratories, particularly NIH-supported laboratories, into clinical testing.
- Innovation in translational research methods, including innovative strategies to promote community and patient engagement in the research process.
- National leadership in implementation of a new era in the protection of human subjects in order to simultaneously improve oversight and minimize burden and delays.
- National leadership in development of informatics standards to promote intraoperability of data resources and research tools.

Dr. Briggs reported that Congress has mandated an IOM study of the CTSA program that will be undertaken over the next eight months.

A solicitation (RFA-TR-12-006), the seventh Institutional CTSA FOA, has been released. Dr. Briggs highlighted some of the ways the current FOA differs from previous ones:

- It allows institutions greater administrative flexibility and more opportunities to build on institutional strengths. It does not mandate key functions, but rather allows institutions to build the resources and services that are most critical for their particular scientific and community strengths.
- More emphasis is placed on clear and transparent mechanisms to oversee efficient resource use.
- The application structure affords substantially greater flexibility, calling for a description of governance and training plans but omitting the requirement of describing key function components.

- Maximum budgets are linked to total NIH funding, rather than to legacy programs such as the General Clinical Research Centers. This approach is similar to that used by NCI-funded cancer centers and core sources for AIDS research, which, over time, should result in more appropriate use of resources. Dr. Briggs noted that the transition presents significant challenges for some applicant institutions.
- Applicants must document their institution's position regarding participation in NIH activities that centralize IRB review. Although a willingness to participate in centralized IRB review is not required, the working group believes that including this item in the application will serve as an incentive to promote participation in greater coordination of IRB reviews.

Dr. Briggs concluded by saying that 18 existing CTSA institutions are eligible to compete for this solicitation, along with institutions that currently do not have CTSA grants, and that the NCATS Advisory Council will review and recommend approval of applications in Spring 2013.

VII. OVERVIEW AND DISCUSSION OF THE DIVISION OF PRECLINICAL INNOVATION (DPI) AT NCATS — Christopher P. Austin, M.D., Director, DPI

Dr. Austin described a number of programs and projects within DPI, emphasizing that they fit within a collaborative pipeline that moves the science from a concept to the patient. The culture and operation of DPI is different from those in traditional academic settings. DPI is administratively intramural, but all projects are collaborations, 90 percent of which are with extramural partners. DPI currently has more than 300 collaborations with investigators around the world.

The focus of the research conducted at DPI is producing tangible deliverables, such as new technologies, enabling tools and dissemination. The DPI research is not structured by organ system or disease; rather, it is cross-cutting and disease agnostic. The division is organized in a matrix structure with three branches: Chemical Genomics, Probe Development and Therapeutic Development. Functional areas of informatics, chemistry, biology, analytical chemistry and automation, and compound management support all of the branches.

An example of technology development in DPI is the genome-wide RNA interference (RNAi) program, which conducts collaborative screening projects, develops new technologies to improve the efficiency of RNAi screening, and has created the first public RNAi screening database. In another example, quantitative high-throughput screening is used to assay compounds at multiple concentrations in a dose-response format that yields deep pharmacological data about the compound against the target. This approach dramatically decreases the cost and time required for conventional high-throughput screening.

In the development of toxicology technology, the DPI Tox21 program is novel in that it focuses on predictive toxicology and that four federal agencies work together on it — the FDA, the Environmental Protection Agency, the National Toxicology Program at the National Institute of Environmental Health Sciences and the NIH Chemical Genomics Center (NCGC) at NCATS. This initiative has a long-term goal of identifying the molecular pathway of toxins in different organ cells and developing predictive models of toxicity.

The NCGC conducts assay development, high-throughput screening, informatics and medicinal chemistry. Focusing on "undrugged" targets and rare and neglected diseases, it studies general principles of the interactions between small molecules and targets, as well as developing new technologies and paradigms to improve the success rates in the target-to-lead stage of drug development. An important project, completed in 2011 after five years of work, is a public comprehensive, searchable database of clinically approved drugs that facilitates drug repurposing. The database also identifies sources from which physical samples of the compounds can be obtained.

The Bridging Interventional Development Gaps (BrIDGs) program allows an investigator in a collaborating organization (extramural, intramural, or company) to access resources in any therapeutic modality, such as small molecules, peptides, gene therapy or antibodies. The investigator brings an identified clinical candidate to BrIDGs and, after a gap analysis is performed, data needed for IND filing are generated.

The Therapeutics for Rare and Neglected Diseases (TRND) program is a comprehensive drug development collaboration between DPI and collaborating labs with expertise in a specific disease area or target. An investigator (extramural, intramural, or company) working on a small molecule or biologic therapeutic modality can apply to TRND to develop the compound or biologic to a stage needed to attract an external organization to complete the clinical development. The targeted disease must meet either the FDA orphan drug criteria or be on the list of neglected tropical diseases developed by the World Health Organization. In TRND's first three years of operation, 15 projects have been adopted, and 3 already are in first-in-human trials.

VIII. CONCEPT PROPOSAL: STRENGTHENING COMMUNITY-ENGAGED RESEARCH IN THE NCATS CTSA AWARDS PROGRAM — Josephine P. Briggs, M.D.

Dr. Briggs described a proposal aimed at encouraging the development of innovative approaches to engage communities in the research process and to improve the dissemination and implementation of insights derived from NIH research. The proposed initiative will identify major challenges to effective community-engaged clinical research, especially those challenges encountered by NIH Institutes and Centers.

A small working group comprising individuals from major CTSA institutions is collecting ideas from NIH Institutes and Centers regarding potential community-engaged research and related challenges. Using the results of this effort, NCATS will issue a request for information (RFI) in the coming weeks.

The responses to this RFI will be used to develop a small solicitation focused on highly innovative demonstration projects to test strategies to overcome these barriers. This solicitation is expected to be issued near the end of 2012. The program is envisioned to fund small R01-sized projects of generalizable models that can be used in a number of settings.

The following are examples of innovations that might be considered:

- Development of quantitative metrics to assess the effectiveness of engagement of community members.
- Mixed-method evaluation strategies to categorize structural, personal and other issues that facilitate or impede engagement in the research process.
- Innovative approaches to implementation of science, such as development of analytic approaches to assessment of qualitative information from social media.
- Strategies to assess social determinants on health and interventions that influence social networks.
- Development and/or evaluation of telehealth programs and networks linking academic health centers and health care providers in medically underserved areas.

ADJOURNMENT OF CAN REVIEW BOARD MEETING

Dr. Lewis-Hall adjourned the CAN Review Board meeting at 2:34 p.m. ET.

ADJOURNMENT OF OPEN SESSION OF THE NCATS ADVISORY COUNCIL MEETING

Dr. Insel adjourned the open session of the NCATS Advisory Council meeting at 2:36 p.m. ET.

CLOSED SESSION OF NCATS ADVISORY COUNCIL

This portion of the Council meeting was closed to the public in accordance with the determination that it was concerned with matters exempt from mandatory disclosure under Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code and Section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2).

Council members discussed procedures and policies regarding voting and confidentiality of application materials, committee discussions, and recommendations. Members absented themselves from the meeting during discussion of and voting on applications

from their own institutions or other applications in which there was a potential conflict of interest, real or apparent.

IX. APPLICATION REVIEW

The Council reviewed five applications (with total direct costs of $832,237). The Council concurred with the review of all applications.

ADJOURNMENT OF CLOSED SESSION OF THE NCATS ADVISORY COUNCIL MEETING

Dr. Insel adjourned the closed session of the NCATS Advisory Council meeting at 4:08 p.m. ET.

CERTIFICATION

We hereby certify that, to the best of our knowledge, the forgoing minutes and supplements are accurate and complete.

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Thomas R. Insel, M.D. Date
Chair, NCATS Advisory Council
and
Acting Director, National Center for Advancing Translational Sciences, NIH

_____ _____

Jane A. Steinberg, Ph.D. Date
Executive Secretary, NCATS Advisory Council
Executive Secretary, Cures Acceleration Network Review Board
and
Acting Director, Office of Grants Management and Scientific Review, NCATS

_____ _____

Freda C. Lewis-Hall, M.D. Date
Chair, Cures Acceleration Network Review Board
and
Executive Vice President and Chief Medical Officer, Pfizer Inc.