December 2008

The Rockefeller University 1901 SCIENCE FOR THE BENEFIT OF HUMANITY

Center for Clinical and Translational Science
e-NEWSLETTER

Center News

CTSA Consortium Focuses Its Priorities and Streamlines Its Committee Structure

By Dr. Barry Coller and Angela Slattery

The Clinical and Translational Science Award (CTSA) Steering Committee met in October of this year and, in an effort to improve the functions of the CTSA, distilled down the nine previously outlined CTSA priorities into four new themes. The meeting included representatives from all of the CTSA programs, including principal investigators, administrators, other key grant personnel, and National Institutes of Health (NIH) National Center for Research Resources (NCRR) staff.

Nine priorities were previously developed by the Principal Investigators and the NIH as part of the strategic planning process. After thorough discussion and debate, the CTSA Steering Committee and the Operations Group determined that the implementation plan for these nine priorities could not be designed to efficiently reach all of these goals in a timely manner. As a result, the groups reprioritized the nine priorities and consolidated them into four broad themes.

The first new theme is to enhance national clinical and translational research capability through streamlining the clinical research management system and the research infrastructure necessary to carry out these research endeavors. Additionally, human and preclinical models for phenotyping must be developed and implemented.

The second theme is to enhance the training and career development education for clinical and translational scientists. In order for new investigators to reach scientific independence, they must have opportunities for a rigorous experience that is long enough to both learn techniques and develop the requisite intellectual process needed to construct and test hypotheses.

The third theme is to enhance consortium-

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New Equipment Resources Available in the CCTS

Dr. Charles Rice, Dr. Juana Gonzalez and Maija Neville

The Rockefeller University Center for Clinical and Translational Science has added new scientific equipment to its Translational Immunomonitoring Resouce Center (TIRC). The TIRC is involved in developing immunological assays with investigators for different projects. The facility is located immediately adjacent to a tissue culture facility and laboratory space that permits immune assays to be conducted by the Core Director or Center Investigators as required. The following equipment is available:

- An LSRII flow cytometer that has four lasers with the ability to detect 12 different fluorochromes in a single sample. The flow cytometer has two options - to collect a sample with a tube or to collect samples from 96 well plate with the High Throughput Sampler device. It can process a 96-well plate in 15 minutes.

- A Luminex, which has a flow cytometer that detects analytes in the sample, bound to color coded microspheres conjugated to a mAb specific for that analyte. It can be used to detect extra cellular, intracellular, and nuclear proteins. It can be used to identify up to 25 different cytokine/chemokines is a single sample. The Luminex is also capable of analyzing multiple RNA targets simultaneously.

- Two 7900HT RT- PCR instruments. These instruments are the only real-time quantitative PCR systems that combines 384-well plate compatibility with both fully automated robotic loading and fast real-time PCR capability. This instrument enables one to achieve unprecedented throughput and flexibility, allowing

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Announcements

Seminars in Clinical Research

Title: Inherited Bone Marrow Failure Syndromes

Speaker: Farid Boulad, M.D.
Medical Director, Pediatric Day Hospital, Memorial Sloan-Kettering Cancer Center

Date: Wednesday, January 7, 2009
Time: 12:00 p.m.-1:00 p.m.
Location: 110B Nurses Residence

Title: Transcription and Signaling Pathways and their Therapeutic Targeting in Melanoma

Speaker: David Fisher, M.D., Ph.D.
Director, Melanoma Program, Dana Farber Cancer Institute, Harvard University

Date: Wednesday, January 21, 2009
Time: 12:00 p.m.-1:00 p.m.
Location: 110B Nurses Residence

CTSA Consortium Focuses Its Priorities and Streamlines Its Committee Structure

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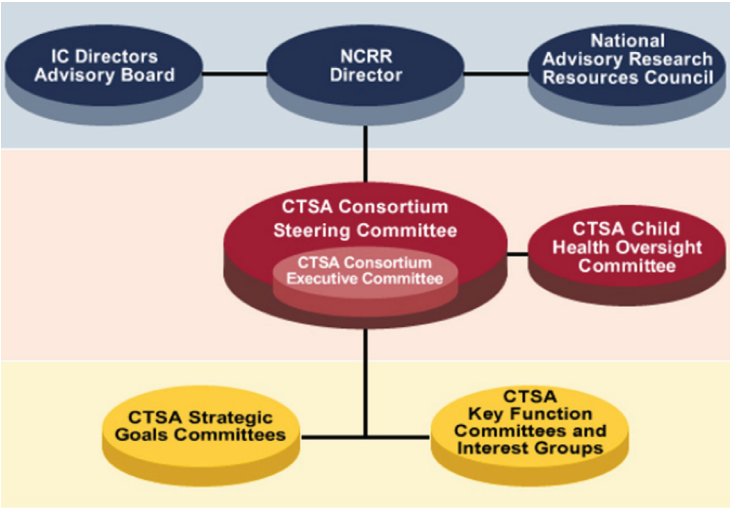
wide collaborations in social networking, data sharing, and developing an inventory of every institution's scientific and research resources. These efforts are meant to complement and simplify the often times difficult task of conducting research when collaborators do not share a home institution. This theme also addresses one of the major goals of the CTSA initiative, which is to develop a national consortium of institutions that work together to transform the discipline of clinical and translational research across the country.

The fourth and final theme is to enhance the health of our communities and the nation. The CTSA institutions have a responsibility to engage with the communities that surround them. The CTSA institutions must work with these communities to develop, conduct, and implement research that will have an impact on its citizens. Translating research findings into community education can only be done through interactivity with these community groups and organizations. The ultimate goal of these community engagement research projects is to influence public health policy by drawing from the research findings of these rigorous, well-designed, and community-partnered studies.

Complementing the newly defined priorities is a new administrative structure that is outlined in the diagram below. There was widespread support for the changes in priorities and structure, which should facilitate the CTSA program's success in achieving its goals.



- Dr. Barry Coller, Director of the Center for Clinical and Translational Science, published a paper entitled 'Translational Research: Forging a New Cultural Identity' in the October 2008 issue of Mount Sinai Journal of Medicine. Dr. Coller identified a number of challenges in developing a cultural identity for translational research and offered some specific suggestions for consideration.The paper can be accessed at www.mountsinaijournal.org in the Volume 75, Issue 5, Pages 478-487 (October 2008) edition.

- Dr. Coller also authored a brief description of some of the programs being developed at the Rockefeller University's CTSA for the Journal of Clinical and Translational Science.The title of the paper is 'Think Globally, Act Locally: The Rockefeller University's Enterprising CTSA Work.'This article is available at www.ctsjournal.com in the Volume 1, Issue 3, Pages 190-191 (December 2008) edition.

New Equipment Resources Available in the CCTS (continued from page 1)

an investigator to pursue projects beyond the scope of other real-time instruments.

- A Beckman Coulter, which counts cells in three regions of the cell population according to size at a rate of 500 cells/second.

- A Zeiss inverted microscope.

The TIRC is open from 9 am to 6 pm and is located in the Krueger Lab on the 2nd floor of the Hospital building.

The TIRC instruments can be reserved through an online booking system at

http://www.rockefeller.edu/tirc

For more information on the equipment outlined above please contact Dr. Juana Gonzalez, jmgonzalez@rockefeller.edu, ext. 7143.

The CCTS recently accquired a new FLUOstar Omega Microplate Reader from BMG Labtech. It is a multifunctional plate reader with fluorescence intensity, time-resolved fluorescence, luminescence, and UV/Vis absorbance detection modes. The FLUOstar Omega covers excitation and emission wavelengths from 230 to 900 nm. It can measure up to eight fluorophores/lumiphores/chromophores per well, collect kinetic data, and support dual excitation and emission applications such as FRET and BRET. The reader can accommodate all plate formats from 6 to 384 wells, can incubate at defined temperatures up to 60°C; it has integrated syringe injectors with volumes of 5 to 350 ƒÝl. The instrument has numerous applications, including ELISA, luciferase and fluorescence-based assays, cell viability and proliferation assays, protein and nucleic acid quantification, and Ca2+ flux measurements. The instrument is located in the Rice laboratory on the fifth floor of the Hospital building. Interested users should contact Maija Neville at mneville@rockefeller.edu to arrange a training session.

Translational Research on the Border: Protecting and Improving Long-Term Quality of Life in Minority and Underserved Children Living in the El Paso Border Region

By Dr. Christina Sobin

El Paso, Texas is a rich environment for conducting child clinical research. Minutes away from Juarez, Mexico, El Paso is a small city of approximately 700,000 residents, 90% of whom are Mexican-American/Hispanic, and more than one-third of whom are under the age of 18. The border here is all but transparent. Health, culture and economic privilege blend in complex ways, and define the needs of its Mexican-American/Hispanic children – the single fastest growing child population in the United States today. In coming here, I wanted to develop a translational program of research that was relevant to the children of the border region, and could also have broader impact for similar populations living in other parts of the country. As I soon learned, low-level lead exposure poses a unique threat.

Lead poisoning is extremely dangerous for children. Approximately 10,000 facilities across the United States emit between 1 and 1,000 pounds of lead per year, and it is well known that minority and underserved children are at inordinately higher risk. In El Paso, there are many possible sources of exposure. In downtown neighborhoods, 85% to 95% of the housing was constructed long before 1978, when the first lead paint law was enacted. Lead bathtubs and pipes are still found in some of these buildings. Pottery, cookware, traditional medicines, some candy wrappers and candies, children's jewelry and toys contribute to the risk. In addition, between 1899 and 1999, a lead smelter operated next to the growing downtown area, emitting tons of lead and other metals into the air and soil.

Once a child has a "toxic" blood lead level – currently defined as greater than 10 micrograms per deciliter – the only cure is source identification and removal; the child's blood lead level is subsequently monitored to confirm its decline. Chelation therapy, itself a dangerous procedure, is considered only in cases of very high exposure. Over the past 30 years, the CDC and the EPA, joining with state and local agencies, have had remarkable success in reducing the number of children with lead poisoning. A related hidden threat remains however. Over forty child clinical studies have suggested that chronic exposure to low-level lead, yielding blood lead levels consistently below the current threshold of concern, can result in diminished cognitive and motor functions. For children in the El Paso border region, and for thousands of other children nationwide living in high risk areas, these studies have grave implications.

Thus far, we have been successful in obtaining first local and then federal (NIH) funding to initiate clinical studies of lead levels in children of the El Paso border region. We have received strong support from the local school district, parents, teachers, and administrators, and from the University of Texas in El Paso. Without them, we could not conduct this research. These studies allow us to provide free blood lead level testing for hundreds of El Paso school children, and just as importantly, prevention education for parents, teachers, and professionals working with children in our studies. In addition to measuring blood lead, we conduct genetic and neurocognitive testing to examine heightened genetic risk and neurocognitive outcome. In our first samples, approximately 25% of children tested had detectable blood lead levels that were below the threshold of concern, and yet these were associated with statistically significant differences on measures of attention and motor behavior. We hope to continue expanding this program over the coming year. But our clinical research is only half of the story.

In 2003 the CDC convened an expert committee to critically review the scientific merit of child clinical studies reporting associations between chronic low-level lead exposure and diminished neurocognitive function. After lengthy review the committee unequivocally endorsed the validity of the findings, and at the same time, ruled to maintain the current threshold for several logical reasons. Perhaps most importantly, the committee noted that an animal model had not yet been developed that could account for functional differences following low level lead exposure. Of course, hundreds of animal studies had unequivocally demonstrated neurochemical, neuropathologic, and genetic causes and concomitants in lead exposure. And yet none of these addressed the specific questions raised by the clinical findings. Today, blood lead levels below 10 micrograms per deciliter are neither recorded nor tracked. No one knows the numbers of children currently at risk.

This situation exactly illustrates the importance of conceptualizing unresolved issues in clinical science from a translational perspective. Our clinical studies are critical to conduct for the health and well-being of children in the El Paso border region. It would be easy to stop there. But without complementary animal studies – specifically informed by our child clinical findings – to assess the effects, if any, of low level lead exposure on the developing brain, the value of our clinical research would end with its immediate impact.

In 2008, the Center for Clinical and Translational Science granted us a first pilot project grant to begin animal studies in low-level lead exposure. With the guidance, collaboration and expertise

2007 Pilot Project Support Leads to 2008 EUREKA grant for Dr. C. Erec Stebbins

By Angela Slattery

In 2007, Dr. C. Erec Stebbins, Head of Laboratory of Structural Microbiology, received a pilot project award from the Rockefeller University Center for Clinical and Translational Science (CCTS) to support his highly innovative project aimed at exploiting a bacteria-based "nanosyringe" as a means of delivering proteins into specific cells for therapeutic purposes.

Support from this pilot project award helped to generate preliminary data for Dr. Stebbins' EUREKA grant application. The EUREKA program — Exceptional, Unconventional Research Enabling Knowledge Acceleration — was established last year to help researchers test novel hypotheses or approach major methodological challenges in projects generally considered too risky for traditional funding mechanisms.

In September 2008, Dr. Stebbins was awarded one of the inaugural EUREKA grants from the National Institutes of Health to support further research on the nanosyringe concept. The award provides $200,000 a year for three years for research support.

Meet the Scholar: Marina Caskey, MD

By Jennifer Spada

Clinical Scholar, Dr. Marina Caskey trained in Infectious Diseases at Weill Cornell Medical Center, and after completing her fellowship she joined Dr. Ralph Steinman's laboratory. She is now studying the immune responses elicited by DEC-205 monoclonal antibody targeted HIV-1 vaccine. She is also working to bring this novel candidate HIV vaccine into Phase I clinical development at The Rockefeller University Center for Clinical and Translational Science. Dr. Caskey explained, "There is a crucial need for a new approach in the field of HIV vaccination and it is my hope that our work can provide that fresh idea."

Dr. Caskey was awarded a Pilot Project award in 2007 for her study titled, "Preclinical characterization of the immunity induced by a DEC205-HIV gag fusion antibody vaccine." This pilot study aims to characterize the magnitude and the quality of the immune response of prime-boost immunization with DEC-205-p24 plus poly IC in comparison to other standard immunizations. DEC-205-p24 fusion antibody has to be administered along with an adjuvant to induce immunity. As an adjuvant, poly

IC activates dendritic cells, allowing dendritic cells to present antigens and activate specific T cells. She will also compare the immune responses induced when poly ICLC, a poly IC analogue, is used. Poly ICLC is an adjuvant that has previously been administered to humans with no serious adverse events and is therefore a suitable choice to move the vaccine into the clinic.

Prior to her work with Dr. Steinman, Dr. Caskey had little experience in the laboratory. She stated, "My experience as a Clinical Scholar here at the Center has been a great learning experience. I am lucky to have two mentors in a way, Dr. Steinman in the lab and Dr. (Sarah) Schlessinger for the clinical piece. I also attend Dr. (Martin) Markowitz's clinic each Tuesday in order to keep myself in touch with the clinical side of HIV care."

When asked what she considers the advantages to conducting research here at the Center, Dr. Caskey replied, "At Rockefeller I am able to focus 100% on my research. I can control the amount of clinical responsibilities I have, which helps add to that focus. Also, the environment in the Hospital is extremely collaborative. As a Clinical Scholar, everyone is very eager to help with our training and assisting us in advancing our careers."

Dr. Caskey hopes to continue working in an academic institution in the future. More than anything she thrives on the opportunity to collaborate with so many different investigators in the field of vaccine development. "The ability to work in partnership with such a diverse group of Investigators at Rockefeller has been an exciting opportunity and I hope to be able to continue working collaboratively throughout my career."

Translational Research on the Border: Protecting and Improving Long-Term Quality of Life in Minority and Underserved Children Living in the El Paso Border Region (continued from page 3)

of Dr. Karen Bulloch and Dr. Bruce McEwen, we were able to begin using immunohistochemical staining techniques to examine neuroreceptor changes, and also the possible role of microglial activation in low-level lead exposure. Our first studies were both promising and preliminary. With our funding renewal, we will be able to replicate and expand on these first findings, and begin to develop an animal model and grant proposal for NIH. The children of El Paso are unique in so many ways, and yet at the same time, they represent thousands of other underserved minority children throughout the United States who are living in areas at high risk of low level lead exposure. With funding from the CCTS, we have been able to develop a program of research that will benefit the long-term quality of life for children in our study, while developing evidence of the mechanisms of action driving brain changes during chronic exposure to low-level lead.

Dr. Sobin can be contacted at casobin@utep.edu

Dr. Knut Wittkowski Named President-Elect of Association of Statisticians

By Angela Slattery

Dr. Knut Wittkowski, director of the CCTS Biostatistics, Epidemiology, and Research Design Core is the incoming President of the Association of General Clinical Research Centers (GCRC) and Clinical and Translational Science Award (CTSA) statisticians. The Association, whose formal name is currently in transition, has a large membership with representatives from both GCRC and CTSA institutions. The primary objectives of the Association are to enhance the design, implementation, and analysis of clinical and translational studies; to foster the establishment of appropriate methodological standards; to serve as an advocate for the GCRC and CTSA user community; and to provide a mechanism for making recommendations to the GCRC and CTSA programs.

Dr. Wittkowski will continue to work closely with the Association's current president, Dr. James J. Grady from the University of Texas Medical Branch – Galveston, until August 2009 when Dr. Wittkowski will begin a two-year term as President. Dr. Wittkowski's responsibilities as President will be to serve as the executive officer of the Association, to act as a liaison with the National Institutes of Health (NIH), and to organize and plan the agenda for the Association's annual meeting held every August.

Dr. Wittkowski stated that as President, he will continue to align the Association's goals with the CTSA program and will encourage active participation of biostatisticians in the grant writing process. Dr. Wittkowski described two statistical resources currently available to the scientific community. The first is available only to CTSA institutions through the Biostatistics / Epidemiology / Research Design (BERD) Key Function Committee. This committee serves as a forum for the exchange of information on current approaches to the integration of biostatistics, epidemiology, and research design into clinical and translational science research programs within and across CTSA institutions. The second resource is the CTSpedia.org website, which is available to any user. This Website showcases several statistical options, including the "muStat" package for R and S-Plus and the µStat Web server to run large-scale analyses on The Rockefeller University's grid of PCs, which is available from https://mustat.rockefeller.edu/. The µStat program was developed under the direction of Dr. Wittkowski with support from the Rockefeller University's Center for Clinical and Translational Science. This program is available to any investigator and provides tools and services for robust statistical analysis of multivariate ordinal data (multi-dimensional ranking and scoring).

Rockefeller University Hospital Implements Code of Conduct

By Cynthia Seidman, Dr. James Krueger, and Dr. Barry Coller

Beginning January 1, 2009, The Joint Commission (formerly JCAHO) will require all accredited facilities to implement new leadership standards. These requirements are designed to create and sustain a culture of patient safety. Additionally, facilities are required to outline the expectations for a code of conduct for all faculty and staff that will address issues of how to prevent and manage disruptive behavior.

The Rockefeller University Hospital Code of Conduct is designed for employees and medical staff to efficiently carry out daily activities within appropriate ethical and legal standards. These obligations apply to relationships with research participants, physicians, regulatory agencies, vendors, consultants, colleagues, and other individuals. While all of Rockefeller University Hospital staff are obligated to follow this code, it is expected that its leaders will set the example. These leaders must help to create a culture within the hospital that promotes the highest standards of ethics and compliance. This culture must encourage everyone in the organization to share concerns when they arise.

The Rockefeller University Hospital is committed to a work setting that treats all colleagues with fairness, dignity and respect, and affords them an opportunity to grow, to develop professionally, and to work in a team environment committed to continuous performance improvement and the sharing of ideas. We are committed to creating a work environment where disruptive or inappropriate behavior is not tolerated. Examples of disruptive behavior or inappropriate behavior include but are not limited to:

- Verbal or physical attacks on another person
- Disruptive conduct or behavior that intimidates others and/or affects morale or staff turnover
- Disruptive or inappropriate criticism of another person
- Inappropriate comments made in a patient medical record or other official document

The Rockefeller University Hospital is committed to holding accountable our hospital personnel for modeling good behavior. The objective of this new leadership policy is to ensure optimum patient care by promoting a safe, cooperative and professional healthcare environment, and to prevent or eliminate, to the extent possible, conduct that disrupts the operation of the hospital, affects the ability of others to do their jobs, creates a hostile work environment, interferes with an individual's ability to practice competently, or adversely affects the community's confidence in the hospital's ability to provide quality patient care. We are committed to carrying out our policies to promote the protection of workplace health and safety.

Bionutrition Core Services

By Suzanne Magnotta

Metabolic Diet Studies

The Rockefeller University Hospital Bionutrition Department is fully equipped to support all types of in-patient and out-patient research studies. Research Bionutritionists design metabolic and liquid formula diets that are palatable for the participants and meet the nutritional requirements of various protocols.

Highly trained staff produce metabolic diets accurately and consistently, weighing each food item to a tenth of a gram. Participants on regular diets are able to choose their menu items daily. The kitchen staff produces high quality meals for regular, therapeutic and metabolic diets and is able to accommodate any testing schedule.

Dietitians in the Bionutrition Department provide detailed nutrient analysis of metabolic research diets. They also assist in protocol development and implementation. The Bionutrition Department has the production capacity to support multi-unit clinical trials.

The Research Bionutritionist provides nutrition assessment and education for all participants on metabolic diets and for other participants as requested. The Bionutrition Department works closely with other members of the health care team to provide service excellence.

Metabolic Testing Services

Estimation of Resting Energy Expenditure

The VMAX Encore Indirect Calorimeter is used to determine resting metabolic rate. This test is important to those investigators who are conducting metabolic diet studies and who need to accurately assess a subject's weight maintenance calorie needs. Respiratory Quotient (RQ) measurements are also available to determine which substrate a subject is burning for fuel at a given time-point.

Free Living Energy Expenditure

To measure free living energy expenditure, the "Intelligent Device for Energy Expenditure and Activity" (IDEEA; MiniSun, Fresno, CA) can analyze body motion, measures physical activity, monitor behavior patterns, and estimate energy expenditure in a free-lying situation on 24-hour basis. The IDEEA consists of five small sensors that are attached to the body via flexible cables: one on chest, two on the anterior part of the thighs, and two on the feet. The IDEEA is a small 200-gram data collection device that can be clipped to a belt. During testing periods, subjects are connected to the device for 3 days while they perform ad lib activities. The output analyses include assessment of physical activity and energy expenditure, with high accuracy of activity type identification.

Exercise Testing

The VMAX Encore is capable of performing exercise testing when combined with a treadmill or ergonomic cycle. VO2 Max, heart rate and blood pressure are measured as a subject performs a timed, incremental exercise test to determine baseline exercise capabilities, or improvement/detraining over time.

Body Composition Measurements

The BodPod Body Composition Tracking System provides accurate, fast and safe measurements of body fat and lean body mass using air displacement technology. By measuring how much air a person's body displaces while enclosed in a known volume container, the amount of body mass, fat and fat-free mass can be calculated. The BodPod offers a more convenient method of body composition analysis than hydrostatic (underwater) weighing, without sacrificing accuracy.

Other Nutritional Services

- Administration of food frequency questionnaires, food records, and food diaries
- Nutritional analysis of food records, diaries, and diet questionnaires
- Bomb calorimetry for formula diets
- Recruiting and screening potential research study participants
- Preparation and aliquoting research diet samples to be sent out to laboratories for nutrient analysis

Center for Clinical and Translational Science Awards 18 Pilot Projects

By Angela Slattery

The Rockefeller University Center for Clinical and Translational Science (CCTS) awarded 18 pilot projects this year, ranging from $2,000 to $25,000. These pilot project awards will continue to support clinical and translational studies being conducted at the Rockefeller University.

CCTS Clinical Scholars

1) Jules Cohen, MD: Preclinical studies of a cancer vaccine targeted to dendritic cells using a protein prime, DNA boost strategy. This project aims to assess the magnitude and quality of the immune response to an anti-DEC205-mesothelin fusion mAb, which targets the antigen to dendritic cells, followed by boosting with a DNA plasmid encoding mesothelin. The functional activity of the prime/boost strategy against tumor challenge with pancreatic adneocarcinoma will be assessed.

2) Mina Pastagia, MD: Eradication of S. aureus from skin lesions through the use of a newly developed lytic enzyme called ClyS. This project aims to develop a topical formulation of ClyS that is temperature stable and topically active. Additionally, this project proposes to develop a skin mouse model to ascertain the safety and efficacy of ClyS against S. aureus.

3) Manish Ponda, MD: The effect of vitamin D3 repletion on endotoxemia and biomarkers of accelerated atherosclerosis in subjects with stage 3 chronic kidney disease and vitamin D deficiency. This project will compare blood endotoxin levels, blood pressure, intestinal permeability, and serum inflammatory markers in six vitamin D-deficient subjects with chronic kidney disease before and after the repletion of vitamin D3.

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Center for Clinical and Translational Science Awards 18 Pilot Projects

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4) Kristine Nograles, MD: This study will evaluate the role of Th17 cells in juvenile psoriatic arthritis.

5) Neil Renwick, MD, PhD: Fragile X mental retardation protein (FMRP) target sequence variation in fragile X syndrome and overlapping neurological disorders. This project is designed to identify FMRP targets and ascertain target sequence variation associated with Fragile X Syndrome and related disorders.

6) Patricia Maningat, MD: Quality of life and metabolic alterations in patients with statin-associated myopathy. This study will investigate the relationship between statin use and metabolic complications.

7) Andreas Mauer, MD: Assessment of bleeding symptoms in normal individuals using a comprehensive history immunophenotyping instrument.

Rockefeller University Hospital Community

8) Alex Ploss, PhD: Generation of humanized mice for the study and intervention of human infectious diseases.

9) Jonathan Schmitz: Mining clinical bacterial isolates for enyzbiotics: a functional multi-genomic approach.

10) Manu Capoor, MD: Stratification and surveillance systems to identify patients at high risk for Surgical Site Infections (SSI). This project is designed to actualize a stratification and surveillance system that identifies patients at high risk for surgical site infections (SSI) as a basis for a cost-effective and statistically significant clinical trial to gauge the significance of utilizing the Fischetti Lab Lysin in reducing SSI infections caused by staphylococcus.

11) Johannes Scheid: The search for broadly neutralizing antibodies against HIV. This research project aims to search for broadly neutralizing antibodies against HIV using a single B cell- lymphocte sorting and Ig cloning approach.

12) Ype de Jong, MD, PhD: Isolation of tumor cells from peripheral blood of patients with metastatic hepatocellular carcinoma (HCC). This project aims to define the feasibility of obtaining viable tumor cells from the blood of patients with HCC. Blood will be collected from patients with metastatic HCC and these samples will be used to identify tumor cells, which will then be cultured in vitro and/or injected into immunodeficient mice.

13) Lisa Zaba, PhD: Defining Pathogenic Dendritic Cell Subsets and Functions in Human Atherosclerosis. This project is designed to define pathogenic dendritic cell (DC) subsets and functions in human atherosclerosis. The project proposes to define DC subsets and maturation states present in human atherosclerosis, to compare the function of DCs from atheroscleraotic plaques compared to DCs from psoriatic skin lesions, and to perform gene expression analysis on cell subsets of atherosclerotic lesions. Specimens will be collected from 14-20 cadaveric aortas from the New York –Presbyterian Hospital Pathology Department.

14) Michelle Lowes, MD, PhD: Characterization of the skin in neonatal-onset multisystem inflammatory disease (NOMID). This project aims to test the hypothesis that the primary skin manifestation of NOMID, primary urticaria, is due to increased IL-17 production. The PI plans to characterize the leukocyte infiltrate in skin lesion of NOMID patients, and to characterize these patients' skin tissue genotypes using microarrays. The study will utilize paired skin biopsies that have been archived at Rockefeller University Hospital for the past five years.

15) Emmanuelle Jouanguy, PhD: Genetic predispositions to severe fibrosis in patients infected with hepatitis C virus (HCV). This project is designed to compare cytokine and gene expression profiles of PBMCs from HCV+ patients with and without fibrosis, and to perform genome-wide association studies.

16) Jan Luneman, MD: Autophagy-mediated antigen presentation in autoimmunity and central nervous system (CNS) inflammation. This project proposes to characterize autophagy-mediated major histocompatibility complex (MHC) II presentation in murine glial cells, as well as to identify substrates in inflamed CNS as candidate target antigens for this process. A long-term goal of validating potential findings in human subjects with multiple sclerosis is proposed.

17) Donna Brassil, MA, RN, CCRC: A Comparison of Hemolysis Rates and Laboratory Values Using Intravenous Catheters Versus Venipuncture for Obtaining Venous Blood Samples.

18) Christina Sobin, PhD: Translational Studies of Chronic Low-Level Lead Exposure. This project proposes to measure lead levels in a mouse model of chronic lead exposure.

Editors Note:
In the November 2008 CCTS *e*-Newsletter article titled, "Center for Clinical and Translational Science Awarded a $200,000 Admisistrative Supplement", the amount of the award was incorrectly stated. The Administrative Supplement was $150,000.