THE ROCKEFELLER UNIVERSITY HOSPITAL
CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

Spring 2018

Center for Clinical and Translational Science
e-NEWSLETTER

Center News

James Krueger and Marina Caskey, Representing the Nussenzweig Lab Team, Honored at Translational Science 2018 Meeting

By Hospital Leadership

Dr. James Krueger received the Association for Clinical and Translational Science (ACTS) Distinguished Investigator Award for his groundbreaking research on psoriasis at the Translational Science 2018 meeting attended by more than 1,100 people in Washington, DC in April. His research has led to a fundamental change in the paradigm for understanding the pathophysiology of the disorder, and this in turn has led to the development of a series of novel medications that precisely modulate the immune system and dramatically improve the therapy of the disorder.

Dr. James Krueger with his ACTS Distiguished Investigator Award & his research team, Mary Sullivan-Whalen, Patricia Gilleaudeau & Rita Devine

Dr. Barry Coller, Director of the Center for Clinical and Translational Science commented "It is wonderful that Jim Krueger's landmark studies, which fulfill the translation research paradigm of going from bench to bedside, have been recognized by this most prestigious national recognition. It is well deserved!" Upon receiving the award, Dr. Krueger noted, "This award would not have been possible without the support of many others associated with the Rockefeller CTSA enterprise: my lab members, the nursing staff, all other support departments and, of course, hundreds of patients who directly tested progressively better drugs that are now used to so effectively treat psoriasis."

Each year, Clinical Research Forum sponsors a competition to identify the "Top Ten" Clinical Research studies reported in the previous year. The competition is intense and so it is a true tribute to the novelty and importance of the study led by Dr. Marina Caskey and her colleagues in Michel Nussenzweig's laboratory that their paper in Nature Medicine on their project entitled, "Treatment and Prevention of HIV-1 Infection by Highly Potent Neutralizing Monoclonal Antibodies," was selected as one of the this year's winners. These antibodies were developed from patient blood cells by advanced technology developed in the Nussenzweig laboratory. Dr. Coller

Dr. Caskey Receiving "Top Ten" Award from Drs. Harry Selker and Herb Pardes

commented that "The study reflects the very best in translational science: the careful analysis of patient phenotypes; the identification of unique clinical responses to infection; the development of novel tools to interrogate the system; the identification of antibodies with unique features with therapeutic potential; the scale up of antibody production under the most stringent manufacturing controls; the creative design and execution of a landmark Phase 1 study; the collection of the key pharmacokinetic and pharmacodynamic

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Dr. Rhonda Kost Promoted to Associate Professor of Clinical Investigation

By Hospital Leadership

At Rockefeller, Dr. Kost has served as Research Subject Advocate and Clinical Research Officer in the Center for Clinical and Translational Science (CCTS). In these roles she has insured the protection of research participants in studies conducted at Rockefeller, including their safety and informed consent. She initially served as the liaison to the Institutional Review Board (IRB) and currently serves as a Vice Chair of the IRB. She has also co-lead with Dr. Jonathan Tobin the CCTS Community Engaged Research program. In this role she has helped build strong ongoing relationships with community groups and connected Rockefeller trainees and faculty to the groups to pursue mutual research goals. Dr. Kost also leads the Participant Recruitment Program in the CCTS, including the creation of a Research Volunteer Repository with information on more than 7,000 individuals who have expressed an interest in participating in research studies. Dr. Kost also plays a central educational role in the Clinical Scholars

Rhonda Kost, MD

program in addition to ongoing education of the entire hospital staff in evolving regulations covering clinical research.

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Art of Teams: Leadership and Music

By Michelle Romanick

Since teams play such a vital role in translational research, there is increasing interest in teaching team science and team leadership. On February 27, 2018, Benjamin Wolff, musician-educator and Director of The Art of Teams lead a demonstration, performance, and working discussion on team leadership, using the string quartet as an example of an effective team with shifting team leadership. Senior leadership, Clinical Scholars, and Rockefeller Early Phase Physician Scientists attended the event, which was followed by a lively discussion about the similarities and differences in team leadership between the string quartet and teams conducting clinical research.

As described by Mr. Wolff, "The Art of Teams program is designed for individuals who need to navigate collaborative relationships, especially in cross-functional and senior leadership teams where there is often no obvious hierarchy. It models how sharing leadership strengthens the team. It demonstrates the important difference between following and supporting. Participants come away with a greater understanding of how to listen actively in a team—and then how to communicate clearly and decisively."

Dr. Barry Coller introducing Mr. Benjamin Wolff and the members of the string quartet

Clinical Scholars Visit Capitol Hill During Translational Science 2018 Conference in Washington, DC

By Patrick Brunner, MD

During the Annual Translational Science 2018 Meeting held in Washington DC in April, the Coalition for Clinical and Translational Sciences (CCTS) sponsored a visit to Capitol Hill for junior investigators. The goal was to make political decision makers aware of the importance of clinical and translational science. The CCTS, represents the Association for Clinical and Translational Science, Clinical Research Forum, and the translational research community providing a unified voice that can speak in support of clinical and translational research.

Participants first underwent advocacy training, helping them focus their presentations, and then met with House or Senate Congressional aides on Capitol Hill in small teams of 4-5 people.

Congress decides each year on the amount of money to commit to National Institutes of Health (NIH) research programs. Consequently, discussions were focused primarily on encouraging research funding of NIH Clinical and Translational Science Awards (CTSA) programs. In addition, since the Patient Centered Outcomes Research Institute (PCORI), another federal program funded as part of the Affordable Care Act, also supports translational research, participants also advocated for Congress renewing PCORI in 2019.

Discussions emphasized that in order to translate breakthroughs in basic science into innovative diagnostic and therapeutic tools for the benefit of patients, a full spectrum of medical research is necessary, as is the training and career development of young investigators who are vital for tomorrow's scientific breakthroughs.

This visit was a great opportunity for members of the translational research community to both educate legislators and to learn about the legislative process. Thus, the visit not only allowed us to convey our translational research message to members of Congress, but taught us to continuously engage ourselves in the political process, because only those who speak will be heard!

Translational Investigatgors Visit Capitol Hill

Visit to Senator Gillibrand's Office

Rockefeller KL2 Clinical Scholars Tour the FDA

By Tukisa Smith, MD

The Association for Clinical and Translational Science (ACTS), a professional society that focuses on the advancement of research and education across various disciplines as well as forming partnerships with governmental agencies, the private sector and philanthropic organizations, holds an annual meeting in Washington DC that focuses on the clinical/translational research needs of trainees, junior faculty, and senior scientists. During the meeting, members have the opportunity to either travel to Capitol Hill, visit the National Institutes of Health (NIH) or tour the U.S. Food and Drug Administration (FDA). As a consumer, physician and scientist, my curiosity compelled me to take the FDA tour.

Although established under its current name in 1930, the FDA has been in its consumer protection and monitoring role since early colonial times and expanded its function of drug import inspections in 1848. The regulatory function of the FDA was established after the passage of the 1906 Pure Food and Drugs Act and since then it's authority has changed significantly overtime. The FDA regulates over 1 trillion dollars' worth of products, which translates to 22 cents of every dollar spent annually by American consumers, as reported by the FDA commissioner Dr. Scott Gottlieb. As a science-based regulatory agency, FDA's broad mission is to promote and protect the U.S. public health through regulation of products, which include human and animal drugs, medical devices, biologics such as vaccines and blood products, dietary supplements, and cosmetics, as well as tobacco regulation and at-risk prevention. The FDA is organized into eight centers with regulatory responsibilities in specific product areas, as well as a number of administrative and program offices under the Office of the Commissioner.

After an extensive security search, we toured the pristine 130-acre White Oak campus, formerly the site of the historic Naval Surface Warfare Center in Silver Spring MD. In addition to exclusive access to the high-tech laboratories housed in the Center for Biologics Evaluation and Research (CBER) and the Center for Devices and Radiological

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FDA Tour Group

Dr. Margaret Bash of FDA & Dr. Tukisa Smith, Clinical Scholar

The Pulse of Art – Connections between the History of Art and the History of Medicine and Science

By Patrick Brunner, MD

On March 22, 2018, the Clinical Scholars enjoyed a special evening tutorial entitled "The Pulse of Art", led by Dr. Barry Coller, David Rockefeller Professor of Medicine and Head of the Laboratory of Blood and Vascular Biology, as well as his wife, Dr. Bobbi Coller, an art historian. The tutorial was inspired by a course that they co-teach at the Icahn School of Medicine at Mount Sinai. This course aims at weaving together the history of medicine with the history of art, by analyzing great works of art that illuminate the experience of illness as well as historic advances in healing, the role of the physician in society, and on the human condition.

During this tutorial, several works of art were discussed as to their initial impact on the public, their historical context, compared to today's perceptions

Clinical Scholars and REPPS check a detail on the projected image of Thomas Eakins's painting *The Gross Clinic*

by the Clinical Scholars. One example was The Gross Clinic, an 1875 painting by Thomas Eakins that is considered one of the key works of American realism. In a mercilessly realistic fashion, this painting shows Samuel D. Gross lecturing a group of medical students during an osteomyelitis operation at an era when surgery was developing into a healing profession with the aim of saving the limb, as opposed to previous times when amputation was the only solution to this condition. Surgeons were still dressed in black frock coats, in contrast to Eakins' Agnew Clinic from 1889, showing the advent of the "white coat" as a consequence of the newly developed concept of asepsis, a piece of clothing that has been so iconic ever since for the medical profession. Importantly, these

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Dinner with Dr. José Esparza: A Virologist Life's Work

By Jaspm Hawkes, MD

On April 10, 2018 members of the Clinical Scholars Program had the honor of hosting Dr. José Esparza for dinner and a roundtable discussion about his life's work as an internationally recognized virologist and distinguished expert on HIV/AIDS, global health, and the development and testing of vaccines. During the dinner and discussion, he spoke to Clinical Scholars and faculty about his career path and lessons learned during his study and pursuit of an HIV vaccine.

Born and raised in Northwestern Venezuela, Dr. Esparza's early career in virology began as an undergraduate student during a research project aimed at characterizing polio viruses and a local outbreak of Venezuelan equine encephalitis. He subsequently went on to earn his medical degree from the Universidad del Zulia Medical School in Maracaibo, Venezuela (1968) and a PhD degree in virology and cell biology from Baylor College of Medicine (1974).

Following the completion of his PhD dissertation, Dr. Esparza returned to Venezuela's Institute for Scientific Research (IVIC) where he became Chairman of the Center of Microbiology and Cell Biology and Head of the Laboratory of Biology of Viruses. In 1986, he left Venezuela to pursue a number of unanticipated career opportunities in Switzerland, including work in the Division of Communicable Diseases at the World Health Organization (WHO), the WHO Global Program on AIDS, and the Vaccine Development Unit (WHO-UNAIDS). From 2004 to 2014 he served in the Bill and Melinda Gates Foundation as Senior Advisor on HIV Vaccines and Global Health.

During his academic career, Dr. Esparza made many meaningful contributions to the field of virology, including the discovery of the Mucambo subtype of the Venezuelan equine encephalitis virus and insights into the molecular pathogenesis of the Herpes and Reovirus families. His lifelong passion for virology and curiosity about the early scientific efforts that led to the eradication of smallpox in 1980 led him to begin collecting ancient smallpox vaccine vials in an effort to better understand the origin and evolution of the vaccinia virus. In a recent paper published in the New England Journal of Medicine, Dr. Esparza

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Dr. Jose Esparza, Drs. Coller and Schlesinger, Clinical Scholars, and REPPS

Beatrice Renfield Lectureship in Research Nursing 2018

By Rita Devine, RN, MPA

The Rockefeller University Hospital and the Heilbrunn Family Center for Research Nursing hosted the annual Beatrice Renfield Lecture in Research Nursing on March 20, 2018 in the Carson Family Auditorium. Dr. Barry Coller, Physician-in-Chief of the Rockefeller University Hospital began the event with a brief history of Rockefeller University and a tribute to Ms. Nancy Ellicott, Rockefeller University Hospital's first Superintendent of Nursing, who developed the principles and practice of clinical research nursing. Rita Devine, Director of Nursing and Patient Care Services, hosted the program and introduced this year's speaker, Regina Cunningham, PhD., R.N., NEA-BC, FAAN, who serves as the Chief Executive Officer (CEO) of the Hospital of the University of Pennsylvania (HUP).

Dr. Cunningham's presentation, "Nursing: A Catalyst to Drive Value in Health Care" explored the concept of value and contextualized its importance in healthcare delivery today. She also discussed the work of nurses within this context and provided specific examples of how the implementation of nurse-driven protocols has led to improvements in cost, quality, and safety outcomes for patients, as well as the distinct yet interdependent roles that nurse scientists and clinical research nurses play in advancing healthcare throughout the continuum from bench to bedside.

Dr. Cunningham is an accomplished nurse executive, scientist, and educator helping to advance nurse practice and clinical care. As the CEO of HUP and Adjunct Professor and Assistant Dean for Clinical Practice at the University of Pennsylvania School of Nursing, she is responsible for the institution's strategic vision and effective function. In her previous roles as Senior Vice President of the University of Pennsylvania Health System and the Chief Nursing Executive and Associate Executive Director of HUP, Dr. Cunningham developed extensive experience in the organization and delivery of nursing services across the care continuum. Throughout her tenure with Penn Medicine, she has been responsible for the development of professional practice standards, oversight of quality, and strengthening

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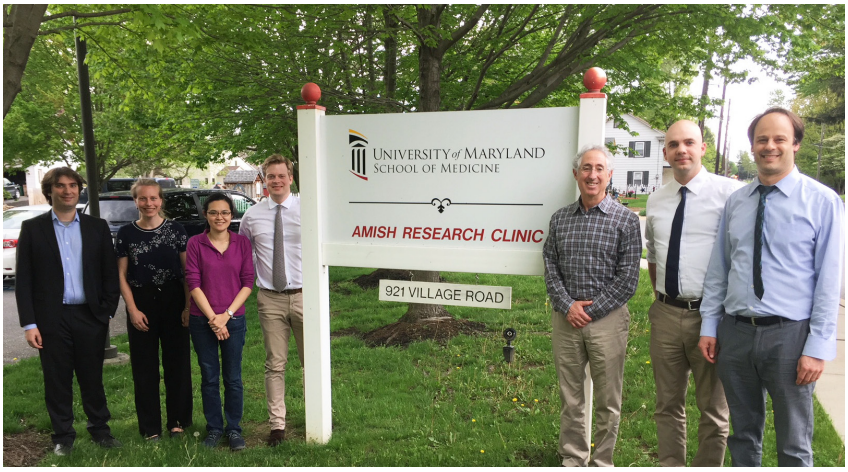
Dr. Barry Coller, Dr. Regina Cunningham, and Ms. Rita Devine

Clinical Scholars Visit Amish Research Clinic in Lancaster County, PA

By Patrick Brunner, MD

Dr. Alan R. Shuldiner, Director of the Program for Personalized and Genomic Medicine at the University of Maryland School of Medicine, and Vice President at the Regeneron Genetics Center, lectured on November 15, 2017 in the Seminar in Clinical Research series on "Human Genetics in Drug Development or The Path to Precision Medicine: From Discovery to Patient Care." Following a stimulating discussion with the Rockefeller Clinical Scholars over lunch, Dr. Shuldiner invited the Clinical Scholars to visit his Research Clinic in Lancaster County, which the Scholars enthusiastically accepted.



Drs. Franck Rapaport, Barbara Bosch, Chin-Lang Lu, Patrick Brunner, Tobias Becher, & Scott Drutman with Dr. Alan Shuldiner

The Amish Clinic is a research center of the Division of Endocrinology, Diabetes and Nutrition of the University of Maryland School of Medicine. Since 1995, Dr. Shuldiner, founder and director of the clinic, has been studying the genetics of metabolic and cardiovascular health in the Amish population. The Amish community, due to its homogeneous lifestyle and common ancestry, is an ideal population for genetic studies. Nurses at the Amish Research Clinic work together with local Amish women to engage the Amish community in planning and conducting studies, which results in a fruitful mutual research endeavor. Impressively, results from studies conducted at this center have led to pivotal studies identifying genes associated with increased risks for type 2 diabetes, arterial hypertension, resistance to antiplatelet medication, and heart disease, with outcomes not only important for the Amish, but relevant to the overall population.

The Rockefeller Clinical Scholars had a chance to shadow research nurses during their clinic day or accompany them during house visits. They were also invited to the Clinic for Special Children,

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Heilbrunn Family Center for Research Nursing Scholars 2018-2019

By Patricia Eckardt, PhD, RN

Six nurses from around the country have been selected to receive Heilbrunn Nurse Scholar Awards, given by The Rockefeller University's Heilbrunn Family Center for Research Nursing to support nurses while they pursue independent research projects that will make a significant contribution to the discipline of nursing. Each award provides a maximum of $25,000 for one or two years. Funding for the awards, now in their fifth year, is from an endowment established by sisters Helaine Lerner and Joan Rechnitz in honor of their parents, Harriet and Robert Heilbrunn.

This year's winners will study topics ranging from neurodevelopment in preterm infants to optimizing the use of primary care provider workforce during chronic disease care, seeking answers to complex questions through rigorous scientific approaches. A committee of internationally recognized nurse scientists selected the winners from 40 applications submitted by doctoral and postdoctoral nurses across the United States. Dr. Barry Coller, director of Rockefeller University Center for Clinical and Translational Science (CCTS) commented that "We are delighted that the Heilbrunn Center will support these six exceptional nurses in their research endeavors. We are very proud that the Heilbrunn Nurse Scholar program continues Rockefeller's long tradition of supporting innovations in research nursing."

Bridget Basile Ibrahim, MSN, MA

Ms. Basile Ibrahim's research explores women's experiences seeking a vaginal birth after a previous cesarean section delivery in a diverse U.S. population. Her other research interests include physiologic birth, primary cesarean prevention, and health disparities in maternal and infant mortality. Bridget is a Jonas Nurse Leaders Scholar and an NINR T32 pre-doctoral trainee.

Ms. Basile Ibrahim has just completed her PhD coursework at Yale University and will be starting her dissertation research this summer. Prior to returning to school full time, Bridget worked as a Family Nurse Practitioner, providing primary care in Community Health Centers in Boston and Ottawa, Canada. She holds an MSN from UCLA, where she completed a subspecialty in the care of vulnerable and underserved populations, and a BSN from Johns Hopkins University. Bridget is also a Certified Breastfeeding Specialist and has trained as a doula. Prior to nursing school, Bridget worked in international development as a Cultural Anthropologist. She holds a BA and MA in Cultural Anthropology from Boston University.

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Heilbrunn Family Center for Research Nursing Scholars 2018-2019

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Christina Fleming, MA

Ms. Fleming will conduct a two-phase study to construct and validate a novel instrument that will assess health care provider knowledge for the care of women and girls affected by Female Genital Mutilation and Cutting (FGMC) using an exploratory sequential mixed-methods design. This study will result in a validated knowledge assessment instrument that will enable health care systems, organizations, and/or researchers to assess health care providers' knowledge about FGMC, including the practice itself, its legal and ethical implications, its adverse health consequences, and its appropriate clinical management.

Ms. Fleming is a PhD Candidate at Johns Hopkins University School of Nursing, an Instructor in the Midwifery and Women's Health Nurse Practitioner Program at Georgetown University School of Nursing and Health Studies, and a Certified-Nurse Midwife practicing in Washington D.C. Ms. Fleming completed her undergraduate degree in International Affairs at Georgetown University. She holds a Master's degree in Conflict Resolution from the University of Bradford in the United Kingdom, and a Master's of Science in Nursing from Yale University. Ms. Fleming's clinical practice in midwifery has focused on refugee and migrant populations both in the US and abroad. Ms. Fleming's international work includes volunteering with Doctors Without Borders in South Sudan, and research on the reproductive health of women affected by violent conflict in Guatemala, Sierra Leone, and Syria, as well as Somali-refugees in Kenya.

Jennifer Morone, MA

To address persistent racial health disparities seen in pediatric Type 1 diabetes, Ms. Morone's study aims to expand our understanding of how social determinants of health may influence family and self-management of pediatric Type 1 diabetes in single-caregiver black families. Outcomes from this study will inform pediatric diabetes care delivery and the development of culturally relevant, family and community interventions to better support family and self-management of pediatric Type 1 diabetes.

Ms. Morone is currently a doctoral candidate and Ruth L. Kirschstein NRSA (NINR T32) doctoral fellow at the University of Pennsylvania School of Nursing. She received her M.A. in art therapy and mental health counseling from Lesley University and her B.S.N in nursing from Russell Sage College. She has over 15 years of pediatric clinical and research experience as an art therapist and registered nurse, working in a variety of inpatient and outpatient pediatric settings with children and families experiencing chronic illness. As an independent nurse scientist, her goal is to develop a program of research that addresses health disparities across pediatric chronic illnesses.

Marliese Nist, BSN

Ms. Nist's dissertation research will focus on preterm infants' stress exposure in the neonatal intensive care unit NICU, as it is associated with significant, long-term neurodevelopmental impairments in cognition, motor performance, social and behavioral functioning, and sensory perception. Systemic inflammation may be an important, modifiable mediator of stress exposure and neurodevelopment, but the relationships among stress exposure, inflammation, and neurodevelopment have not been fully explored in the context of the preterm infant's developing brain. Using a non-experimental, repeated measures design, this study will more clearly delineate the relationships among these variables so that interventions can be developed to improve preterm infant neurodevelopment.

Ms. Nist is a NINR F31 Pre-Doctoral Fellow and PhD Candidate at The Ohio State University College of Nursing. After earning a bachelor's degree in biology from the University of Virginia and working as a research assistant for several years, she returned to school at The Ohio State University and earned a bachelor's in nursing. She accepted a staff nurse position in the neonatal intensive care unit where she found her passion. Ms. Nist is interested in the biological pathways mediating neurodevelopmental impairment in preterm infants.

Allison A. Norful, PhD, MPhil

Dr. Norful will validate and psychometrically evaluate a novel health services research instrument, the Provider Co-Management Index (PCMI). The PCMI, the first of its kind, will measure co-management when two or more providers share care management responsibilities for the same patient. The tool will also be used to determine if a co-management care delivery model alleviates provider burnout, improves job satisfaction and/or increases provider retention.

Dr. Norful is a postdoctoral research fellow at Columbia University School of Nursing with a joint appointment in the Columbia University Medical Center Irving Institute for Clinical and Translational Research. Over the past 15 years, Dr. Norful has held several clinical, administrative, and academic positions. She practices as an adult nurse practitioner with a clinical expertise focused on chronic disease prevention and management. Her research and clinical practice are strongly integrated. Her current research program investigates interprofessional team remodeling and provider co-management to achieve optimal patient and practice outcomes. She earned a PhD and MPhil from Columbia University, MSN from New York University, and a BSN from La Salle University. She is an adjunct clinical faculty member at NYU Rory Meyers College of Nursing, a past Hermann Biggs Society/Macy Foundation Scholar, and a fellow of the New York Academy of Medicine.

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Heilbrunn Family Center for Research Nursing Scholars 2018-2019

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Abigail Wilpers, MSN

With the support of the Heilbrunn Nurse Scholar Award, Ms. Wilpers is conducting her dissertation research designed to generate a model of nursing practice and identify research priorities in the emerging field of fetal care. Fetal care is comprehensive perinatal care provided by a multidisciplinary team following the prenatal diagnosis of a fetal anomaly. This includes evidence-based and experimental fetal therapies. This study will serve as a primary step in developing a nursing specialty in fetal care and studying nursing's impact on clinical outcomes. The findings will significantly contribute to defining, building, and enhancing fetal care.

Ms. Wilpers is a doctoral candidate at Yale University. She received her MSN from the Yale School of Nursing and her BA in psychology from Barnard College of Columbia University. She has 10 years of experience working with families whose pregnancies have become complicated by a fetal anomaly. She is currently working at the Yale Fetal Care Center developing a Perinatal Palliative Care and Bereavement Program. Ms. Wilpers is also a Robert Wood Johnson Future of Nursing Scholar. Her long-term goal is to become a nurse scientist and develop a program of research focused on the needs of families facing severe fetal complications.

Dr. Rhonda Kost Promoted to Associate Professor of Clinical Investigation

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Dr. Kost's scholarly activities include leading the creation, validation, and deployment of a Research Participant Perception Survey that provides vital outcome data on the participant's experience. She led a 15-institution study that provided data on the experiences of nearly 5,000 broadly diverse research participants, providing the largest body of outcome data on the quality of the informed consent process as well as insights into participants' motivations to participate and desire for the return of information from the studies. The survey, and variants of the survey that Dr. Kost subsequently developed, are being utilized in a number of academic centers, including Rockefeller on an ongoing basis.

Dr. Kost has made major contributions to the CTSA grant proposals that have resulted in 3 successful grants, including the inaugural award in 2006, as well as in several supplemental grants. Dr. Kost published a series of papers on her research, including one on in the New England Journal of Medicine and has been invited to present the results of her research at many national meetings. She has also been selected to serve on numerous CTSA-related committees. She currently serves on a National Academy of Sciences, Engineering, and Medicine Committee studying the return of research information to participants, a key issue that was highlighted by her research on research participants' perceptions.

Dr. Barry Coller, Director of the CCTS commented, "Dr. Kost has played a vital role in building the clinical research and educational programs in the CCTS while simultaneously making profound contributions to clinical investigation at the national level by bringing the tools of empiric science to study the clinical research enterprise itself. We are enormously fortunate to have her leadership at Rockefeller." Dr. Kost commented, "It has been gratifying to develop the potential of the CCTS infrastructure, and with Rockefeller colleagues and others, to use scholarly approaches to develop novel and effective methods that accelerate discovery and its translation to improve human health. "

Rockefeller KL2 Clinical Scholars Tour the FDA

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Health (CDHR), we sat down with FDA scientists, engineers, pharmacists and health promotions specialists, both uniformed and civilian, who gave insight into each of the specialized centers. Surprisingly, after 13 years, I had the fortunate coincidence of reuniting with my NIH postbacclaureate mentor, Dr. Margaret Bash, a pediatric infectious disease physician who trained the Walter Reed Army Medical Center and whose laboratory focuses on vaccine safety and effectiveness for encapsulated bacterial pathogens.

I paid special attention to the roles of CBER and the Office of Translational Sciences (OTS) housed in the Center of Drug Evaluation and Research (CDER). CEBR regulates a variety of different product types including biologics such as allergenics, blood and blood products, cellular & gene therapies, tissue and tissue-based products, vaccines and xenotransplantation products. OTS, on the other hand, focuses on supporting translational medicine efforts for CDER, which regulates over-the-counter and prescription drugs. The OTS leads the areas of technology transfer, data mining, health information technology, and both science and research oversight. Learning about the FDA review and regulatory process as it relates to innovation hits close to home as Rockefeller scientists hold an impressive record for patented technologies that have been developed through the University and tri-institutional therapeutic discovery initiatives.

Given the longstanding history of the FDA, its role in consumer protection and influence on stakeholder interests, mixed opinions about this government agency vary from friend to foe. However, as I have learned during this tour and speaking with FDA scientists and health promotions specialists, the scientific drive and commitment to ensure public safety stems from personal incentives to protect and to ensure the health and well-being of their loved ones and themselves as consumers.

Dinner with Dr. José Esparza: A Virologist Life's Work

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and his colleagues analyzed a smallpox vaccine manufactured in Philadelphia in 1902, which revealed that the virus contained in the vial had a high degree of similarity to the horsepox virus. This finding provides evidence that suggests that the horsepox virus rather than the cowpox virus may be the ancestor of the vaccinia lineage – a hypothesis suspected by Edward Jenner himself.

As Dr. Esparza recounted the many facets of his extraordinary career and the unexpected nature of his work with HIV, he also took the time to share personal insights and offer career advice to the Clinical Scholars. Dr. Esparza strongly encouraged scholars to embrace "big science" and collaborative science. He also encouraged those in attendance to 1) Always follow your passion, 2) Use science to solve important problems that negatively impact others, 3) Seize opportunities whenever they present themselves, 4) Be open-minded and maintain a tolerance for differing opinions, and 5) Avoid the belief that you can afford to work in silos and for personal gain.

Beatrice Renfield Lectureship in Research Nursing 2018

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the integration of scholarship within the practice of nursing. Her research interests include the effect of nursing on medical outcomes, clinical trials, and innovative models of care delivery. She has received extensive grant funding and currently serves as Principal Investigator of a National Cancer Institute study focused on developing strategies to improve accrual of patients into clinical trials.

The lecture was attended by more than 120 individuals including 28 representatives from Rockefeller University Hospital nursing department, Clinical Research Office, Facilitation Office, and several Laboratories. As in past years, the Renfield lecture attracted nurses form many nearby institutions, including New York University, Weill Cornell Mdical Center, New York Presbyterian Hsoital, and Memorial Sloan Kettering Cancer Center. Also in attendance were several members of the International Association of Clinical Research Nurses. Over 60 guests registered to view Dr. Cunningham's presentation via webcast provided through the Clinical Directors Network (CDN). The webcast is available on the CDN website under the CCTS Webcast Series section.

Clinical Scholars Visit Amish Research Clinic in Lancaster County, PA

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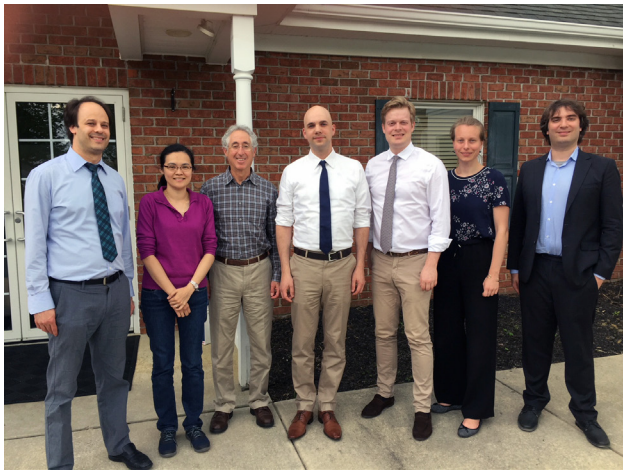
another renowned, highly specialized research facility for studies of children and their families suffering from genetic or other complex medical disorders. As a specialized clinic, they offer a broad array of medical, laboratory and consultative services for the Amish and Mennonite communities of Southeastern Pennsylvania. These include amino acid quantification, genetic counseling and education, as well as clinical care.

After these visits, the Clinical Scholars were invited for lunch to an Amish home, followed by a horse and buggy ride through picturesque Lancaster County. A discussion with Dr. Shuldiner on the past, present, and future research projects at the Amish Clinic concluded an exciting day of witnessing groundbreaking work and innovative technology of these research institutions in Lancaster County.



Drs. Drutman, Lu, Becher, Brunner, Bosch, and Rapaport with Dr. Shuldiner

Drs. Brunnner and Bosch enjoying the buggy ride

Rockefeller Historical Vignette: Launching the Modern Field of Research Nursing

By Elizabeth (Betsy) Hanson

Ellicott, Nancy
Courtesy of Johns Hopkins University School of Medicine

The founders of the Rockefeller Hospital knew that successful clinical research would require the participation of well-educated nurses. Nancy P. Ellicott (1872-1944) was hired as Superintendent of Nurses in 1909, even before the Hospital's official opening. She was a graduate of the Johns Hopkins Hospital School of Nursing—among the most rigorous schools at the time—and in the Hospital's first decades she recruited most of her staff from Hopkins. Ellicott's leadership set a high standard for the role of nurses in the new field of clinical research. The Rockefeller Hospital served as an important training ground for research nurses, and many women who worked under Ellicott early in their careers carried their expertise in nursing in a research setting to other medical institutions around the country.

At a time when training for nurses was only beginning to be formalized and clinical research was a new endeavor entirely, Ellicott understood well the important role of nurses on the research team. She wrote, "In order to make possible the realization of the aspirations of the founders of the hospital, the nursing must be of the very highest type. Records must be most carefully and accurately kept, symptoms observed and recorded, reports intelligently and faithfully made, for a lapse in vigilance, or in a specimen lost in a moment of heedlessness, might render worthless the labor of many weeks."

Ellicott also constantly searched for new ways to redesign the many labor-intensive tasks in nursing, maintain a germ-free environment, and tend to the comfort of patients. She invented a hamper on wheels for transporting dirty linens, thus freeing nurses from having to carry sheets in their arms and the associated risk of soiling their uniforms in the process. Instead of cumbersome and heavy freestanding screens that nurses had to take to and from patient beds to achieve privacy, she proposed the system of ceiling-mounted runners and pull curtains between beds. She also designed a trolley for food trays, heated by electric coils, and a washable canvas back rest that carried her name and was used to raise patients to a sitting position in their beds. In addition, Ellicott advocated the use of newly available hospital beds on wheels,

The Rockefeller Institute Hospital

Soiled Linen Conveyor

An Actually Useful Article.

A typical scene enacted any morning in any Hospital shows the nurse removing the soiled linen from the beds, along with the towels. Usually she throws these in a heap on the floor, where they remain until the room is put in order. Usually they are soiled (sometimes offensively infected) but she nevertheless gathers them up in her arms and carries them to the laundry.

This Procedure is Uncleanly. It is also Time-Wasteful.

Rockefeller Hospital designed a means of expediting the collection of soiled linen and doing away with its disagreeable features.

The "R. I. H." Soiled Linen Conveyor.

A strong bag is suspended in a White Enameled Steel Frame which is set on casters, rubber tired and so light that it can be moved with one finger, and noiselessly, from bed to bed or room to room. When filled, simply remove Bag and send Bag and all to the laundry.

Stand and Bag Complete $12.00 *Extra Bag $1.50*

SPECIAL PRICE FOR 30 DAYS Each . . . $9.00

Soiled and clean linen carrier on wheels has been proposed by Nancy Ellicott. Courtesy of Johns Hopkins University School of Medicine

which were much easier for nurses to move. These and other of Ellicott's inventions were sold to many institutions by the Hospital Supply Company of New York as part of its Rockefeller collection.

Nancy Poultney Ellicott was educated at the Johns Hopkins Hospital School of Nursing (1900-1903). After two years in charge of Ward H in the Johns Hopkins Hospital she became superintendent of Nurses at the Church Home and Infirmary in Baltimore from 1905 to 1907, and the next year served as that institution's superintendent. In 1909 she was appointed superintendent of nursing at the Rockefeller Institute Hospital, where she remained until 1938, when she retired. For her work at the War Demonstration Hospital on the Rockefeller campus during World War I, Ellicott was awarded a Medal of Honor from the Minister of Hygiene of France (1926)

The Pulse of Art – Connections between the History of Art and the History of Medicine and Science

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paintings are all echoing Rembrandt's Anatomy Lesson of Dr. Nicolaes Tulp, a painting that itself reflects back on the Fabrica by Vesalius, thus spanning centuries of the practice of medicine.

Discussions ensued on the role of careful observation in both art and medicine, and focused on the connection between creativity in art and medicine. These connections are not only driven by medical and artistic ingenuity, but are usually closely connected to technological and philosophical advances at those respective times. This fact should prompt us today to reflect on how deeply we ourselves are entrenched in certain constructs of ideas that, ultimately, might found to be incomplete or completely incorrect. Appreciate this gives us a means to glimpse beyond these trenches, for the good of medical and scientific advancement.

James Krueger and Marina Caskey, Representing the Nussenzweig Lab Team, Honored at Translational Science 2018 Meeting

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data; the careful analysis of the data at the molecular and genetic level; and the definition of a path forward to improve the therapy and prophylaxis of HIV infection." Dr. Caskey commented, "I was honored to receive this recognition on behalf of our group here at Rockefeller and our colleagues at the University of Cologne. It was a great opportunity to meet and interact with other translational researchers from various fields who also received awards, and to learn about their successes and the challenges they have faced over the years."