

CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

Center for Clinical and Translational Science e-NEWSLETTER

Center News

Clinical Scholars Program Graduate Reunion Symposium

By Hospital Leadership

Clinical Scholars Program The Graduate Reunion Symposium on May 31, 2019 was well attended by the campus community and external attendees. Dr. Richard P. Lifton, President, Rockefeller University, welcomed the attendees and expressed his support of the Clinical Scholars Program. Dr. Barry Coller, Physicianin-Chief, founder of the modern Clinical Scholars Program, and Director or Co-Director of the program since 2006, provided a history of the program from 1976-2018, detailing how it has tried to provide the best learning opportunity for early stage physician scientists.

Special awards were given to Rockefeller leaders who made important contributions to the Clinical Scholars Program throughout the years, including Emil C. Gotschlich, M.D., Marnie Imhoff, Attallah Kappas, M.D., and Torsten N. Wiesel, M.D. Their vision and leadership created the opportunities for the Clinical Scholars program to develop and flourish as it fulfils its mission to prepare physician-scientists for independent careers in clinical and patient-oriented translational research.



Dr. Torsten Wiesel and Ms. Marnie Imhoff received the Clinical Scholars program medal from Dr. Barry Coller

The symposium included alumni presentations with the focus on research in academia, government, and industry. The key-note speaker was Emma A. Meagher, M.D., Vice Dean and Chief Clinical Research Officer at the Perelman School of Medicine, University of Pennsylvania who spoke on Strategies for Empowering Translational Scientists. Clinical Scholar graduate speakers included Iddo Z. Ben-Dov, M.D., Ph.D., Attending Physician, Department of Nephrology, Hadassah-

Hebrew University Medical Center in Jerusalem, Israel, who presented his research on Ribonucleic Acids as Biomarkers of Disease; Delivette Castor, Ph.D., Senior Research Advisor, United States Agency for International Development (USAID) who spoke on Research and Evaluation within HIV Public Health Programs - Examples from PEPFAR; Marina Caskey, M.D., Associate Professor of Clinical Investigation at Rockefeller University spoke on Potential

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Beatrice Renfield Lectureship in Research Nursing 2019

By Bernadette 'Candy' Capili, PhD, NP-C



Drs. Barry Coller, Christine Miaskowski, Bernadette Capili, and Marilyn DeLuca

Research Nursing hosted the 11th Annual Beatrice Renfield Lecture in PhD, FAAN. Research Nursing on March 26, 2019. Dr. Barry Coller, Physician-in-Chief of the Rockefeller University Hospital began the event with a short tribute to Nancy Ellicot, Rockefeller University Hospital's first Superintendent of Nursing, who established the standards for the practice of clinical research nursing and invented several novel devices to improve nursing care. Dr. Bernadette 'Candy' Capili, Director of the Heilbrunn Family

The Rockefeller University Hospital Center for Research Nursing, hosted and Heilbrunn Family Center for the program and introduced this year's speaker, Christine Miaskowski, RN,

> Dr. Miaskowski's presentation, "Advancing Symptom Science and Symptom Management in the Era of Precision Health" focused on the benefits associated with precision health initiatives in the context of managing symptoms in cancer patients and survivors. She is an internationally recognized expert in pain and symptom management. For the past 30 years,

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Clinical Research Nurses Tour NIH Clinical Center

By Rita K. Devine MS, MPA, RN

On Thursday October 18, 2018, Dr. Gwenyth Wallen, Chief Nursing Officer, and Dr. Cheryl Fischer, Senior Nurse Consultant for Extramural Collaborations of the NIH Clinical Center (NIHCC) arranged a private tour of selected areas of the NIHCC for a small group of attendees of the International Association of Clinical Research Nursing 10th Anniversary conference, including Jill McCabe, NCOM, Mimi Shim, CRN, Rita Devine, Director of Nursing, Patricia Gilleaudeau, FNP and Mary S. Whalen, from Rockefeller University FNP Hospital.

The NIHCC and Rockefeller University Hospital are the only research hospitals in the U.S., with virtually all patients on a research protocol Last year, the NIHCC had 92,329 outpatient visits, and 4564 inpatient admissions for a total of 40,707 inpatient days on 1,631 active protocols.

After gathering in the Medical Board Room and receiving a warm welcome from Dr. Wallen, the tour began at Dr. Susan Persky's Virtual Reality Lab. Dr Persky launched "IVETA" - the Immersive Virtual Environment Testing Area in 2007. The lab's primary purpose is to serve the Social and Behavioral Research Branch within NHGRI. Each tour member had the opportunity to use an nVisor and Sony Head Mounted Display. Viewing choices included a simulation of a clinical environment to study doctor/patient interactions or a virtual buffet used in a protocol to study food choices. By working with this technology, the lab can design research environments that can isolate the variables they want to study, yet look and



International Association for Clinical Research Nursing attendees

feel realistic to research participants. The Rockefeller participants confirmed that the technology produced a very realistic environment.

The next area on the tour was the Metabolic Suite. The group was escorted into the metabolic chamber - a room constructed as a scientific instrument in which volunteers could live - to study how the body uses air, food, and water under different conditions. The research nurse on the unit explained that during the usual two 24 hour metabolic chamber admissions, the nurse closely monitors participants with 24 hour urine collections, telemetry monitoring, prescribed activity, and hourly safety checks for CO₂, temperature, and air flow. Participants are then tested for body fat composition with two different methods - the BodPod and a dexa scan.

The group was granted access to the Special Clinical Studies Unit (SCSU). In operation since 2010, the SCSU is an inpatient unit designed with state-of-theart infrastructure that allows for isolation capabilities and infection control while

patients participate in clinical research studies. These include studies of influenza and Ebola virus. Numerous redundant systems and precautions are in place to maintain isolation of the SCSU from the rest of the NIHCC and the surrounding area. These systems and precautions include special air handling systems, cardkey restricted access, separate entrance and exit pathways for staff, including a shower prior to exit, and specific protocols for handling waste.

The tour concluded with Commander Julie Erb-Alvarez's very moving presentation of the US Public Health Service presence in Liberia during the Ebola outbreak. She and other US staff deployed to support and treat healthcare workers exposed to the virus, as well as to educate the community on health, improved hygiene, care of the dead, and burial practices in the community. It furnished an impressive wrap-up to an extraordinary day.

We are very grateful to Dr. Wallen and her dedicated staff for their time and sharing with us their experiences and expertise.

Tour of the NIH Clinical Center Metabolic Suite

By Andrea Ronning, MA, RDN

Rockefeller University Hospital bionutritionists Glenis George-Alexander, RDN, Andrea Ronning MA, RDN, and dietetic technician Dacia Vasquez, DTR toured the NIH Clinical Center (NIHCC) Metabolic Suite. Two of the NIHCC bionutrionists, Sara Turner, MPH, RD, and Shanna Bernstein, MPH, RD led the tour.

The NIHCC has four bionutritionists and ten dietitans who provide clinical nutritional care, which includes nutritional assessment and evaluation of the medical nutrition therapy provided to research participants with chronic diseases such as hypertension and diabetes. The clinical dietitians also assist



Glenis George-Alexander, RDN, Andrea Ronning MA, RDN, & Dacia Vasquez, DTR with NIH Bionutritionists, Shanna Bernstein, MPH, Sara Turner, MPH & National Association of Research Nutrition members, Linda Easter, MS, RD, and Kristen Heitmann, MA, RD

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Prasanth Manukonda, MS, MA, New Hospital IT Manager

By Michelle Romanick



Prasanth Manukonda

Mr. Prasanth Manukonda, MS, MA, joined Rockefeller University Hospital in April 2019 as the Hospital IT Manager in the Hospital's Medical Informatics department. In this role, Prasanth will help implement an Electronic Health Record system, as well as provide IT Leadership and

industry best practices while working closely with Hospital Senior Staff and Leadership.

Prasanth is a graduate from the University of Houston with a Masters in Management Information Systems and a Master's degree in Human Resource Management from Gandhi Institute of Technology and Management in India.

Prior to joining Rockefeller University, Prasanth worked at the Medical Clinic of Houston supporting Hospital and lab information Systems. He joined the University of Texas, providing Systems Administration, IT strategy and Project Management for Lab Information Systems, Research Information Systems, and PeopleSoft ERP solutions (HR, Financials, and Campus Solutions). He has served as a compliance expert

and consultant for Electronic Data Management in laboratory environments and worked on programming robotic equipment for laboratories supporting clinical and regulated nonclinical studies.

Prasanth has extensive experience in the analysis of report requests, system enhancements, and software and hardware upgrades, as well as risk assessment, Installation Qualification, Qualification, Operational Performance Qualification. He also has expertise in highly specialized areas of scientific applications, system analysis, and design, including authoring and reviewing software development, testing, and computer system validation. Prasanth can be reached at pmanukonda@ rockefeller.edu and 212-327-7689.

Lisa Sacerio, BA, New Clinical Research Specialist Joins the Clinical Research Office

By Michelle Romanick



Lica Sacerio

Ms. Lisa Sacerio joined the Clinical Research Office in the Rockefeller University Hospital Center for Clinical and Translational Research in the role of Clinical Research Specialist. Lisa will conduct not-for-cause and for-cause audits, identify patterns in audit findings, and work with other investigators to develop educational programs that address audit findings. She will also assist Investigators with ClinicalTrials. gov registration and updates. She will be a resource on Good Clinical Practice (GCP), study conduct, and regulatory compliance for investigators and research teams. Lisa will also coordinate the quarterly GCP newsletters. Lisa received her Bachelors of Arts in Psychology and Spanish Literature from Wesleyan University.

Prior to joining Rockefeller University, Lisa was the project manager for global central nervous system pharmaceutical trials at Syneos Health, Clinical Research Coordinator for neurologic and psychiatric pharmaceutical trials at FutureSearch Trials, and the Research coordinator for investigator-initiated cocaine and alcohol dependence clinical trials at the University of Pennsylvania.

In addition to her current responsibilities, Lisa will also streamline and update the online Investigator's Manual, which is located on the Rockefeller Hospital internal webpage, http://clinfo.rockefeller.edu/index.php. Lisa can be reached at lsacerio@rockefeller.edu or 212-327-7408.

Neha Singh, BA, MS, New Statistical Programmer in the Department of Hospital Biostatistics

By Michelle Romanick



Neha Singh

Ms. Neha Singh joined the Department of Hospital Biostatistics in the Rockefeller University Hospital Center for Clinical and Translational Research in the role

of Statistical Programmer. She will use statistical software such as R, SAS, and Python to provide assistance on various ongoing clinical research projects by performing data management, data analysis, and data visualization. Through these methods, she will assess data quality and trends, along with formulating study designs that best support the objectives and goals of the research hypothesis. Ms. Neha received her Bachelors of Arts in Psychology from Hunter College, City University of New York and Master's of Science in Applied Statistics with a concentration in Biostatistics with Distinction from DePaul University in Chicago.

Prior to joining Rockefeller University,

Neha was the Clinical Research Coordinator (CRC) in the Department of Neurology at Icahn School of Medicine at Mount Sinai, where she was the CRC on the study "Vagus Nerve Stimulation: Treatment for Gulf Veterans with Gulf War Illness". While at Mount Sinai, Neha prepared grant applications and IRB and Grants and Contracts Organization submissions as well assisted with clinical and non-clinical data collection and analysis. In addition, she worked with an interdisciplinary team of principal investigators, engineers, and physicians.

Prior to Mount Sinai, as a graduate student at DePaul University, Neha was the Statistical Consultant at the Statistical Consulting Center of DePaul

Career Development Dinner with Dr. Sandhya Vasan

By Michelle Romanick

As part of the Clinical Scholars Program's focus on career development, Clinical Scholars and faculty hosted a dinner on May 21, 2019 with Dr. Sandhya Vasan. Dr. Vasan completed her clinical training in pediatrics and was a Rockefeller Clinical Scholar in the laboratory of Dr. David Ho at the Aaron Diamond AIDS Research Center (ADARC) from 2001 - 2004. She continued to work at Rockefeller under Dr. Ho and Dr. Ralph Steinman until 2011, conducting clinical trials of candidate HIV vaccines and associated immunologic investigations. She moved to Bangkok, Thailand in 2011 to work at the Armed Forces Research Institute of Medical Sciences and the US Military HIV Research Program (MHRP) to conduct clinical trials of candidate HIV vaccines while also conducting clinical studies on HIV therapies in early infection and establishing a nonhuman primate research laboratory. She returned to the MHRP in 2018 and now serves as the Director of the Henry M. Jackson Foundation component of the Henry M. Jackson Foundation and Emerging Infectious Disease Branch at the Walter Reed Army Institute of Research to oversee laboratory and clinical research on HIV and emerging pathogens.

Dr. Vasan shared with the Clinical Scholars her personal experiences as an investigator conducting international research and working in government. Dr. Vasan emphasized the importance of involving participants in research development. Participants in her studies provided valuable insights on Thai culture that aided in the success of the research. She also discussed with Scholars

several real-world examples of successful and unsuccessful approaches when conducting international research and how those lessons are applicable to all research regardless of subject area.

Towards the end of the evening, Dr. Vasan shared career advice with the Scholars. She provided an insightful and colorful account on how living abroad and conducting research in a foreign culture may provide both opportunities and challenges. Her experiences as a clinical scientist in Bangkok, Thailand enabled her to appreciate the benefits of international, cross-cultural collaborations in conducting successful translational research.



Dr. Vasan (center) with Drs. Coller, Caskey, and the Center for Clinical and Translational Science Clinical Scholars

Clinical Scholars Program Graduate Reunion Symposium

Roles of Anti-HIV-1 Neutralizing Antibodies in HIV-1 Treatment and Prevention; Gavin Bart, M.D., Ph.D., FACP, DFASAM, Director, Division of Addiction Medicine, Department of Medicine, Hennepin Healthcare spoke on Heading Toward Precision Medicine for Opioid Use Disorders; Edgar D. Charles, M.D., M.Sc., Lead, Liver Fibrosis, Exploratory Clinical and Translational

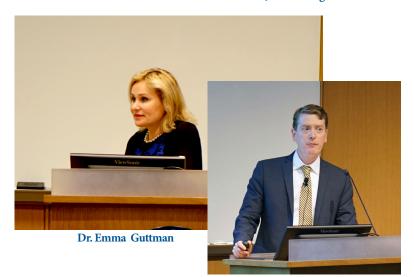
Research at Bristol-Myers Squibb provided insight into Addressing Unmet Medical Need in the Age of Big Data; and Emma Guttman, M.D., Ph.D., Sol and Clara Kest Professor of Dermatology at the Icahn School of Medicine at Mount Sinai spoke on The Translational Path to Atopic Dermatitis. Sarah Schlesinger, M.D., Director of the Clinical Scholars Program, provided the closing remarks

in which she emphasized the pride the faculty feel in all of the remarkable accomplishments of the graduates of the program. The event concluded with many of the attendees expressing excitement about planning another reunion!





Drs. Emil Gotschlich and James Krueger



Dr. Edgar Charles



Dr. Marina Caskey





Drs. Jose Aleman and Delivette Castor

with protocol-specific requirements, such as administration of a Food Frequency Questionnaire. The NIHCC is also a dietetic internship site and hosts four dietetic interns a year.

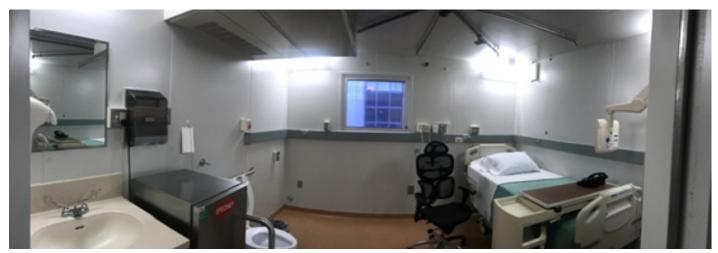
The tour included a visit to the metabolic kitchen located in the metabolic suite. All phases of designing and producing research diets at the NIH were discussed. Opinions and experiences were shared on the different nutrient analysis software programs used at NIHCC Nutrient Data System-Research (NDSR)) and the Rockefeller University Hospital (Food Processor, from ESHA). The tour included viewing the tray assembly for in-patients and

packing of food for out-patient diet studies, as well as a discussion of food safety principles when food is not in refrigerators and freezers. The metabolic kitchen at the NIH is adjacent to the main hospital kitchen, allowing for shared food products and supplies.

Research diets are designed using ProNutra software, which is also used at Rockefeller. Research trays are checked for accuracy prior to serving the research participant using checklists and labels.

The tour also included the metabolic chambers that are used for indirect calorimetry. Of the 30 metabolic chambers in the world, three reside at the

NIH and two are in New York academic medical centers (Mount Sinai-St. Luke's Hospital and Columbia /New York Presbyterian Hospital). Body composition by air displacement is measured with the BodPod for some protocols. Research participants dine in a communal dining area, but there is also a secluded room that can be used for observational diet/feeding studies. The Rockefeller and NIHCC bionutrionists learned much from the visit and the exchange of ideas and look forward to future interactions.



Inside the metabolic chamber

Neha Singh, BA, MS, New Statistical Programmer in the Department of Hospital Biostatistics

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University, where she managed a variety of financial, electronic health record, and DePaul alumni data, as well as assisted in a genome-wide association study data analysis using Dallas Heart Study data. She also worked as a Graduate Assistant for the College of Education, teaching graduate/doctorate level students mathematics and quantitative research methods.

Neha shared her vision and expectations in her role:

"My passion to improve patient

quality care as well as contributing towards the development of biomedical research led me to choosing this career path. I have developed expertise while assisting in statistical analyses of clinical and observational studies. There are many rewards that come with this career, including direct interaction with physician scientists, contributing statistical concepts to studies, and seeing results from these studies published in prestigious journals. I look forward to using my skills and knowledge in statistics to help achieve the mission and vision of

Rockefeller University. I look forward to attending research seminars/conferences at Rockefeller and neighboring institutions, as it will provide me with the opportunity to not only further develop my skills set as a statistician, but also provide the opportunity to learn more about the research conducted at Rockefeller, Cornell University, and Memorial Sloan Kettering." Neha can be reached at nsingh02@rockefeller.edu or 212-327-7563.

Rockefeller Historical Vignette: The Founding of Clinical Chemistry By Elizabeth (Betsy) Hanson

Donald D. Van Slyke (1883-1971) pioneered chemical techniques that allowed physicians, for the first time, to analyze blood samples quantitatively in order to diagnose disease and monitor disease progress. In the late 19-teens he invented an apparatus to measure oxygen and carbon dioxide in blood. With this device he could detect acidosis—an accumulation of acid in the blood-in patients at the Rockefeller Hospital with diabetes, before fatal clinical symptoms developed. Later, Van Slyke's interest in quantifying blood gases, as well as substances in other body fluids, led him to study the changes in metabolism, blood chemistry, and urine excretion that characterize kidney diseases. Although he was a chemist, and not an MD, with the hospital's medical staff he oversaw the care of hundreds of kidney patients at the Rockefeller Hospital in the 1930s and 1940s. Van Slyke's quantitative techniques were widely adopted, and the so-called Van Slyke apparatus became standard equipment in clinical and research laboratories before electronic instruments such as spectrophotometers were available.

Beyond clinical research, Van Slyke's many contributions to understanding the physiology of blood and of kidney function in health and disease include: quantification gas and electrolyte equilibria in blood, as well as the organic and inorganic constituents of blood; a physico-chemical description of the role of hemoglobin in oxygen and carbon

dioxide transport in blood; quantification of blood chlorides, urea, and ketone bodies in blood and urine; studies of the metabolism of proteins and amino acids; and discovery of a new amino acid, hydroxylysine.

Donald D. Van Slyke received the BA and PhD degrees in chemistry at the University of Michigan. In 1907 he joined the Rockefeller Institute as an assistant to chemist Phoebus A.T. Levene. Levene arranged for Van Slyke to spend the year of 1911 in Berlin, in the laboratory of Emil Fischer, then the world's most eminent chemist. In 1914 Van Slyke was appointed chief chemist of the new Rockefeller Institute Hospital. Some of his most important work on gases in blood was done during a period spent at Peking Union Medical College, with Chinese collaborators. After his retirement from Rockefeller in 1948, Van Slyke continued his research at the newly established Brookhaven National Laboratory. His achievements were recognized with numerous awards and honorary degrees, including the National Medal of Science in 1965. He was elected to the U.S. National Academy of Sciences, and he was the author, with J.P. Peters, of the first textbook of clinical chemistry.



Donald Van Slyke (center) working in P.A.T. Levene's Founder's Hall chemistry laboratory, 1908. Courtesy of the Rockefeller Archive Center

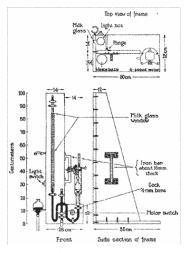


Diagram of portable manometric apparatus. From Quantitative Clinical Chemistry by Peters, J. and Van Slyke, D., 1932

Beatrice Renfield Lectureship in Research Nursing 2019

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she has received continuous funding from the National Institutes of Health. Dr. Miaskowski is a Professor and Vice Chair for Research in the Department of Physiological Nursing and Sharon A. Lamb Endowed Chair in Symptom Management Research, in the School of Nursing at the University of California in San Francisco. She is also the first nurse to be awarded an American Cancer Society Clinical Research Professorship.

In her presentation, Dr. Miaskowski provided robust data on factors in

cancer patients that correlate with their symptoms, including phenotypic and genomic characteristics that place oncology patients at risk for a higher symptom burden. The presentation concluded with recommendations for future research and implications for clinical practice.

Seventy-three guests attended the lecture, including 20 representatives from the Rockefeller University Hospital nursing department, the Clinical Research Office, the Facilitation Office,

Regulatory Affairs, and Rockefeller Laboratories. Also in attendance was Dr. Allison A. Norful, a 2018 Heilbrunn Nurse Scholar. Sixty-one guests registered to view Dr. Miaskowski's presentation via a webcast provided through the Clinical Director's Network (CDN). The webcast is available through the CDN website under the CCTS Webcast Series section.