THE ROCKEFELLER UNIVERSITY HOSPITAL
CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

Winter 2018

Center for Clinical and Translational Science
e-NEWSLETTER

Center News

Rockefeller is a Leading Institution in Nature Index Ranking of Innovation

The Rockefeller University website

Rank	Institution	Country	Normalized Lens influence metric
1	The Scripps Research Institute (TSRI)	USA	18.15
2	The Rockefeller University	USA	15.43
3	Massachusetts Institute of Technology (MIT)	USA	9.48
4	University of Massachusetts Medical School (UMass Medical School)	USA	8.70
5	The University of Texas Southwestern Medical Center (UT Southwestern Medical Center)	USA	8.66
6	Weizmann Institute of Science (WIS)	Israel	8.03
7	National Institutes of Health (NIH)	USA	7.82
8	University of California San Francisco (UCSF)	USA	7.04
9	Stanford University	USA	7.02
10	Icahn School of Medicine at Mount Sinai (ISMMS), MSHS	USA	7.00

The Rockefeller University ranks highly in a survey of academic institutions that sheds light on the impact their research is having on innovation. By examining how research articles are cited in patents owned by third parties—informed by and citing academic work—rather than those held by institutions themselves, the Nature Index 2017 Innovation ranking shows the influence of research on the development of products and services.

Rockefeller receives the second to highest placement, surpassed only by The Scripps Research Institute. The Massachusetts Institute of Technology comes in third.

The ranking is based on the so-called normalized Lens influence metric, which considers an institution's output between 1980 and 2015 cited in patent literature, and the value of the patents as perceived by the applicants.

Earlier this year, Rockefeller was singled out as the top biomedical research institution worldwide in terms of scientific impact by U-Multirank and CWTS Leiden.

Rita K. Devine, RN, MPA, Director of Nursing and Patient Care Services

By Hospital Leadership

We are pleased to announce that Rita K. Devine, RN, MPA, was promoted to the position of Director of Nursing and Patient Care Services of Rockefeller University Hospital on December 1, 2017. In this role, Ms. Devine is responsible for overseeing clinical and administrative direction of the hospital's nursing operations. She will focus on staff and leadership development, improving quality and performance, enhancing research participant experience outcomes, and transforming the work environment through staff engagement.

Ms. Devine joined Rockefeller University Hospital in August 2010 as the Nursing Clinical Operations Manager. She has more than 35 years of nursing experience in diverse areas of nursing specialties including Maternal Child Health and Delivery Room, Medical/Surgical, Operating Room, and GYN Oncology Services, always focusing on clinical expertise, patient safety, and cultural diversity.

Ms. Devine holds a combined Masters of Science/Masters of Public Administration Degree from Long Island University where she won the Excellence in Health Administration Award. She is a member of the American Organization of Nurse Executives (AONE), the American Nurses Association (ANA), the International Association of Clinical Research Nurses (IACRN) and Association of Clinical Research Professionals (ACRP), National Association of Professional Women

Rita Devine

(NAPW), and National Honor Society for Public Affairs and Administration (PI-ALPHA). She spearheaded the creation of a New York City Chapter of IACRN and currently serves as the founding president of the chapter.

Please join us in welcoming Ms. Devine in her new position.

Susan Kohl Malone, Ph.D., RN, 2014 Heilbrunn Nurse Scholar Awarded a Pathway to Independence Award (K99/R00) from the National Institute of Nursing Research

By Patricia Eckardt, PhD, RN

Susan Kohl Malone

Susan Kohl Malone, Ph.D., RN, 2014 Heilbrunn Nurse Scholar and Senior Research Scientist at Rory Meyers College of Nursing, New York University (NYU), was awarded a Pathway to Independence Award (K99/R00) from the National Institute of Nursing Research. The K99/R00 project, titled "Personalizing sleep interventions to prevent type 2 diabetes in community dwelling adults with pre-diabetes", is a collaborative effort between researchers at NYU (Drs. Gail Melkus and Susan Malone), the University of Pennsylvania (Drs. Allan Pack and Barbara Riegel), and Johns Hopkins University (Drs. Ciprian Crainiceanu and Naresh Punjabi).

The K99/R00 project was informed by Dr. Malone's research as a Heilbrunn Nurse Scholar. This research identified a link between irregular sleep-wake patterns and poor metabolic health in adolescents. Specifically, irregular sleep-wake patterns, but not sleep duration, were linked to a higher body mass index and waist circumference. The K99 project will leverage existing data to quantify the effects of irregular sleep-wake patterns on glucose regulation in persons with diabetes, pre-diabetes, and normoglycemia. The R00 project will test the effects of a personalized sleep intervention versus habitual sleep on the percentage of time glucose is $\geq$ 140 mg/dL in sleep restricted community-dwelling adults with pre-diabetes using wearable sensor technologies. The overarching goal of the K99/R00 project is to determine the viability of sleep as a treatment intervention for persons with prediabetes and, thereby, expand intervention options beyond calorie restricted diets and increased physical activity. Mitigating T2D risk based on individual sleep profiles may particularly benefit persons resistant to diet and exercise interventions.

Rockefeller University Nurse Practitioners and Masters-prepared Nurses Partner with Columbia University School of Nursing to Prepare the Advance Practice Nurse Workforce in Translational Research

By Patricia Eckardt, PhD, RN

The International Association of ClinTo prepare an advanced practice nursing workforce in Clinical Research Nursing (CRN), the nurse practitioners and masters' prepared nurses of Rockefeller University, led by Allison Butler, MSN, FNP-BC and Mary M Sullivan-Whalen, RN, FNP developed and piloted a standardized practicum in CRN with academic partners at the Columbia University School of Nursing Masters Direct Entry program led by Karen Desjardins, DNP, Assistant Dean. This innovative pilot program was created to address the training needs of advanced practice nurses in CRN. As clinical research is moving into nontraditional and ommunity settings, advanced practice nurses are increasingly caring for patients on research protocols in these settings. Preparing advanced practice nurses with basic competence in CRN would improve the care of research participants and fidelity to research protocols, but standardized preceptor programs in CRN are not currently available in the United States or internationally.

Under the mentorship of Patricia Eckardt, PhD, RN, Director of the Heilbrunn Center for Research Nursing, a pilot standardized CRN practicum preceptor program was developed and tested this past year with an initial cohort of 55 nurse practitioner students. Participants were assigned pre-clinical practicum readings on CRN and the role of the advanced practice nurse, an onsite practicum overview of CRN, and a practicum experience with the clinical research NPs at Rockefeller University. The program included a pretest on CRN knowledge and experiences and a post test on knowledge of CRN and satisfaction with the pilot practicum experience. The novel standardized practicum program was well-received, with nursing students' knowledge of CRN improving significantly (p= .02), and with 95% of participants recommending the experience for future students. The results of the program were disseminated through the International Association of Clinical Research Nurses (IACRN) at the annual conference and with academic and clinical partners for evaluation and potential adoption. Based on this evidence of success, the practicum is being repeated this year.

Allison Butler, MSN, FNP-BC, Mary M Sullivan-Whalen, RN, FNP, Donna Brassil, MA, RN, CCRC, Mayu Okawa Frank, A.N.P., PhD, Rebecca Fry, MSN FNP, and Patricia Gilleaudeau, RN

Building a Research Pharmacy to Support Early Phase Clinical Investigators

By Robert B. MacArthur, PharmD, MS

Renovation of the Hospital Pharmacy has started!

The renovated pharmacy will have a greatly expanded range of products that can be compounded for Hospital and University investigators.

One key component is the state-of-the-art cleanroom.

The cleanroom has been designed to comply with United States Pharmacopeia (USP) chapters <797 > and <800>, and New York State regulations, among others. These USP chapters apply to sterile non-hazardous and sterile hazardous products, respectively. Importantly, the current rapidly evolving FDA regulations that apply to sterile compounding all require compliance with these USP chapters, and therefore such compliance is being built into the facility. These USP chapters are extremely broad in scope, and provide guidelines that apply to batch records, labeling, environmental quality, product quality control, quality assurance, product testing, storage, beyond-use-dating, staff training, and product transport.

The cleanroom itself is composed of 3 rooms, an anteroom (staging, handwashing, gown, glove), a buffer room (compounding, production), and an inventory room. All three rooms are negatively pressured to the surrounding environment, to prevent air and particulates from escaping to the outside environment. There are controls in place that prevent the anteroom door from being open at the same time as the buffer room door. This prevents inward air flow, stopping outside air from entering the ante and buffer rooms. Below, figure 1 depicts how air flows in the buffer room. From the ceiling, sterile HEPA filtered air blows straight downward and exits via floor level exhaust vents. This air is then filtered and exhausted outside, and no air is recirculated back into any of the rooms. The buffer room "air curtain" protects both the product from particulates (viable and non-viable) and operators from the product. This minimizes operator exposure to vapors and particulates that are released when working with active ingredients and formulated products. The sterile compounding procedures are performed within a laminar flow hood, within the buffer room. The area where products are compounded is referred to as the "Containment Primary Engineering Control" (CPEC) where air quality is ISO Class 5, or better. Effectively there are 2 solid walls and 3 unique air environments between the outside and the CPEC. Interestingly, within the buffer room, sterile air is changed at least 30 times per hour, while across the CPEC surface, sterile air flows are approximately 100 feet per minute.

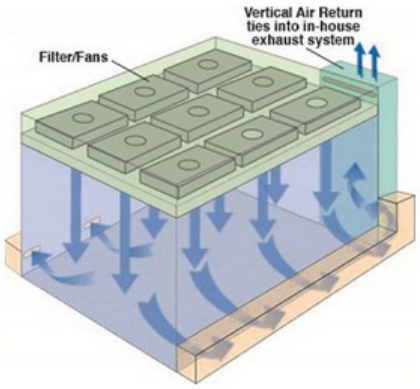


Figure 1: Schematic of USP<800> compliant

Having access to this cleanroom brings a number of advantages and service improvements.

Sterile products can be assigned Beyond-Use-Dates (BUD, similar to an expiration date) as outlined in USP<797>. This allows the pharmacists and investigators to decide which BUD is best for a given study product, and then they can tailor the compounding procedures, packaging, and storage methods per USP BUD requirements.

The air handing described (USP<800> compliant) allows for working with small batches of chemotherapy, hormones, immunomodulators, vaccines, peptides, proteins and other compounds. Such ingredients, and the resulting compounded finished products, will all be stored in the negatively pressured inventory room, which has 12 air changes per hour. Of note, phase 1 sterile investigational products may be compounded in such a cleanroom when complying with Good Manufacturing Practices (see Guidance for Industry CGMP for Phase 1 Investigational Drugs, CDER, CBER, ORA, July 2008).

On a historical note, during the renovation, we uncovered stored medication packages from an earlier era in medicine. Three of these products are shown in figures 2, 3, and 4, along with a description of how they were used at the time.

We are very excited about the possibilities that the renovation and cleanroom bring to the pharmacy and the Rockefeller research community, and look forward to providing expanded services to Hospital and University Investigators.

Fig 2: Scopolamine Hydrobromide (also known as Hyoscine) tablets were diluted and administered by injection to treat severe nausea and vomiting, and to decrease secretions.

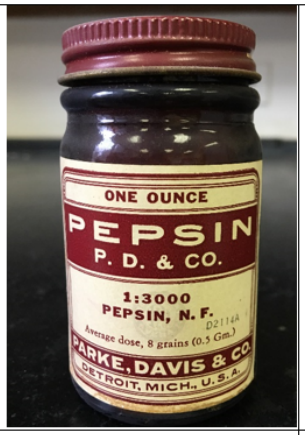


Fig 3: Pepsin, one of the digestive protease enzymes produced by the stomach was compounded into elixirs, tablets, and capsules to aid digestion and peptide absorption.

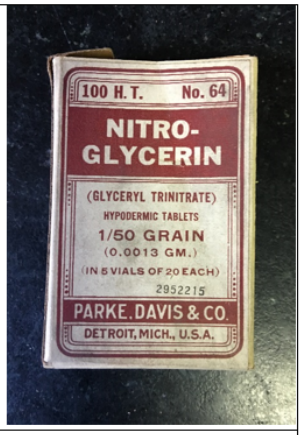


Fig 4: Nitroglycerin was given by injection to treat chest pain and to "calm" blood vessels.

International Fanconi Anemia Registry at Rockefeller University

By Agarta Smogorzewska, MD, PhD

Agarta Smogorzewska

International Fanconi Anemia Registry has entered its thirty sixth year at the Rockefeller University. Started by Dr. Arleen Auerbach, it is now being continued by Dr. Agata Smogorzewska, an Associate Professor and Head of the Laboratory of Genome Maintenance. The lab is studying how DNA is repaired during replication and has spent the last eight years on identifying new Fanconi anemia genes, studying their mechanism of function, and understanding the underlying pathogenesis of the disease. Major effort has been in genotyping all of the participants in the Fanconi anemia registry to permit the genotype-phenotype correlation analysis. Two recent papers, which concentrate on the mutational spectra of the genes FANCA (Kimble DC et al. Human Mutation 2018) and FANCB (Asur RS et al, Molecular Genetic and Genomic Medicine, 2017), investigate the great diversity of mostly private mutations in FANCA and start to explore the effects of the genotype and somatic mosaicism in patients with FANCB mutations. Access to cell lines that are part of the registry allows the investigators to bridge the knowledge gap between the patient and cellular phenotypes and facilitates insights into the pathology of the disease and the basic biology of DNA repair.

The majority of Fanconi anemia patients require hematopoietic stem cell transplantation in the first decade of life to treat their bone marrow failure. Thereafter, they face the further challenge of developing very early onset, aggressive squamous cell carcinoma (SCC) of the head, neck, and anogenital region. As a result, the Smogorzewska laboratory is now focusing on defining mutational signatures of these tumors from the Fanconi anemia patients. The registry has collected many tumor samples that are being analyzed using next generation sequencing platforms. Preliminary results suggest very heterogeneous and highly unstable genomic landscapes for these tumors. Future studies will concentrate on identifying pathways that are affected in the tumors and possible synthetic lethal interactions that may lead to the development of better therapies of the Fanconi anemia patients. The effort to identify preventive, diagnostic, and treatment modalities for Fanconi anemia tumors has also been a major focus the Fanconi Anemia Research Fund (http://fanconi.org/). Dr. Smogorzewska joined the Fanconi Anemia Research Fund Scientific Advisory Board this year and has set the understanding of tumorigenesis in Fanconi anemia patients as a high priority.

Hospital Information Technology (HIT) Update

By Harry Grossman, MBA

We are a **HIT**!

The Hospital Information Technology (HIT) staff is committed to providing top-notch, A-1 service to hospital staff and users of our systems. In order to achieve this objective, we have already expanded our on-site coverage to 8:30 – 5:30 with remote coverage available from early morning to late night. In addition, we are currently working on installing an iRIS upgrade to version 10.03.2.

Perhaps the most exciting development is the selection of a system to manage all service requests submitted to HIT. This system provides a front-end, user-friendly portal for end-users (those individuals who submit requests) to be able to track the status of those requests as HIT works on them. The objectives of the system are to provide real-time status and information, and improve the communication between HIT and those requesting assistance. All updates are automatically saved on the service request as well as emailed to the submitter. It also has an app that runs on both iPhone and Android so you can send or check any service request from your smart phone. Because this system is so flexible and robust, we are currently investigating whether it can be extended to other departments within the hospital that also provide services to requesters.

Ummey Johra, Cameron Coffrey, Abdul Olusekun, Harry Grossman

These are exciting times for HIT as we actively improve our services. Please contact Harry Grossman, Hospital IT Manager, hgrossman@rockefeller.edu, 212-327-7689, if you have questions, concerns, or comments. HIT is looking forward to hearing from you!

Meet the Scholar: Isaac Marin-Valencia, M.D., M.S.

By Michelle Romanick

Dr. Isaac Marin-Valencia joined the Clinical Scholars Program at the Rockefeller University in 2015. Dr. Marin-Valencia received his M.D. from University of Las Palmas de Gran Canaria, Spain. He completed his residency in pediatrics at the University of Barcelona, Spain. Dr. Marin-Valencia completed a pediatric neurology residency and was the pediatric neurology chief resident at University of Texas (UT) Southwestern Medical Center.

Dr. Marin-Valencia's interest in research and medicine started at an early age. His brother has autism and epilepsy and his desire to help his brother and other children with similar conditions influenced his decision to be a physician-scientist. A quote from his cell biology professor, "He who loves science, loves humanity," resonated with him as it captures perfectly his drive to conduct research on pediatric developmental disorders and develop treatments for these conditions.

To further understand the molecular mechanisms of neurodevelopmental disorders, Dr. Marin-Valencia did a postgraduate research fellowship in neurochemistry at UT Southwestern. He studied the cellular and molecular mechanisms by which disorders of brain glucose transport cause abnormal flux of energy substrates and alter oxidative metabolism in the native brain. After completing the research fellowship, Dr. Marin-Valencia did his pediatric neurology residency in the same institution where he integrated basic research and clinical duties.

As a Clinical Scholar in the Laboratory of Developmental Neurobiology, where he is mentored by Dr. Mary Beth Hatten, Dr. Marin-Valencia has been exposed to a diverse range of scientific disciplines that enhance his experimental and intellectual skills in developmental neurobiology. One learning opportunity that Dr. Marin-Valencia he especially appreciated was the opportunity to present his research presentation to the Rockefeller Institutional Review Board Committee. The feedback and experience was extremely instructive and valuable.

When ask about his experience in the Clinical Scholars Program, Dr. Marin-Valencia responded, "The program is very supportive in all aspects and has assembled excellent faculty to teach scholars several disciplines in clinical research, such as biostatistics, epidemiology, and clinical protocol preparation. Being a Clinical Scholars provides a great opportunity to expand skills in clinical investigation, work with the best scientists in the field, and work with state-of-the-art technology."

Isaac Marin-Valencia

Dr. Marin-Valencia is currently studying the mechanisms by which defective metabolism disrupt brain development. His research goal is to uncover new mechanisms and develop novel treatments for pediatric developmental disorders. He expects to continue his research at Rockefeller University with a future plan to transition to a faculty position in the United States.

Harry Grossman, MBA, New Manager of IT

By Editorial Staff

Harry Grossman

Harry Grossman, MBA, joined Rockefeller University Hospital in October 2017 as Hospital IT Manager in the Hospital's Medical Informatics department. In this role, Mr. Grossman works closely with Hospital Senior Staff and Leadership to provide IT leadership, direction, and best practices to the Hospital. In addition, Mr. Grossman works closely with University IT to ensure that the Hospital's systems, software, and IT needs are attended to and maintained in an expeditious and cost-effective manner.

Prior to joining Rockefeller University, Mr. Grossman was Director of Network Engineering at Tessellate, a consultant for Community Medical and Dental Care, Chief Information Officer at The Jewish Museum, and Director of Management Information Services at Empire State Development Corporation. Mr. Grossman has extensive experience in the medical, educational, and not-for-profit arenas.

Mr. Grossman earned an MBA from New York University, majoring in Information Systems. He also has a BS from New York University with a double major in Quantitative Analysis – Statistics and Operations Research and Computer Applications and Information Systems.

Mr. Grossman's focus is to ensure that Hospital Informatics provides top-notch, five star service to hospital staff and investigators through improved organization, systems, and communication. To that goal, he extended the window that IT staff are present on site by 1 hour. He will shortly be introducing a service request system that will enable both staff and Hospital Informatics to easily monitor and update the status of all service requests. Harry may be reached at hgrossman@rockefeller.edu or 212-327-7689.

Hospital Bionutrition Department Kicks Off Nutritious and Delicious Recipe Demonstrations

By Andrea Ronning, MA, RD

In keeping with the Hospital's commitment to improve the health of the community by reducing obesity, one of the top priorities of the New York Department of Health, the Bionutrition Department has initiated a series of nutrition and cooking demonstrations for Hospital staff that will go through May on the first Thursday of each month at lunch-time. The program is predicated on the evidence that one way to prevent obesity is to eat more home-cooked meals, which allows one to better control the food that one eats by selecting the ingredients and controlling portion size.

Participants will prepare their own lunch under the direction of Chef Victor Baez, who will provide short-cut ideas and describe cooking techniques. Ms. Glenis George-Alexander, RDN, Bionutrition Department Manager will advise on nutrition tips and ingredient substitutions, and Dacia Vasquez, DTR, Production Supervisor Bionutrition, will provide recommendations on where to purchase the ingredients and which ones to select to minimize preparation time.

The attendees who participated in the kick-off Nutritious and Delicious Recipe demonstration enjoyed making their own personal pizzas. Jackie Cheng from the Medical Staff Office commented, "I never knew how to take the extra water out of sautéed mushrooms."

Pauline Johnson, Clinical Research Specialist commented, "It is so easy to mince garlic to add to ricotta cheese for this delicious white pizza." Awilda Meijas from the Pharmacy Department expressed appreciation for the demonstration, and concluded "I never knew that making a personnel pizza can be easy, delicious, and nutritious."

The planned recipes for future demonstrations will be low in calories, but rich in a variety of nutrients. The goal is to be able to make the recipe within 30 minutes.

The hospital staff will be notified about future demonstrations via email. The messages will include instructions on how to reserve your place. Demonstrations will be scheduled for both lunch time and 5 pm to accommodate people's schedules. Participating in a demonstration is a great way to achieve almost everyone's New Year's resolution to eat healthier foods!

Upcoming Events

Seminars in Clinical Research, Wednesdays, 12:00 pm, Weiss 301

Date	Speaker	Talk Title
February 27, 2018	Sarah Huen, MD, PhD Yale University	Anorexia and Metabolic Changes in Sepsis: Adaptation or Dysfunction?
March 7, 2018	X. William Yan, MD, PhD UCLA	Integrated Genetic and Genomic Approaches to Dissect Huntingon's Disease Pathogenesis
March 14, 2018	Angels Garcia-Cazoria, MD, PhD University of Barcelona, Spain	Synaptic Metabolism, A New Approach to Inborn Errors of Neurotransmitters

The Beatrice Renfield Lectureship in Research Nursing

March 20, 2018, 6:00 pm, Carson Family Auditorium

Nursing: A Catalyst to Drive Value in Health Care

Featuring: Regina S. Cunningham, PhD, RN, NEA-BC, FAAN

Rockefeller Historical Vignette: Discovering a Biologic Basis for the Neuropsychiatric Effects of Stress

By Elizabeth (Betsy) Hanson

Bruce McEwen

At a time when most scientists studying the brain focused on ion movements and chemical neurotransmission, Bruce McEwen (1938-) wanted to understand how hormones regulate brain function and behavior by regulating genes in the brain. Conventional wisdom held that the brain was insulated from the effects of hormones, except for the hypothalamus, and that hormones acted rapidly, like neurotransmitters. But McEwen knew that certain steroid hormones—for example, the stress-response hormone, cortisol—could turn on genes in other parts of the body. And in 1968 he discovered how these hormones act in the brain but not just on the hypothalamus: he found receptors for adrenal steroids in the hippocampus of rats, and, later, rhesus monkeys.

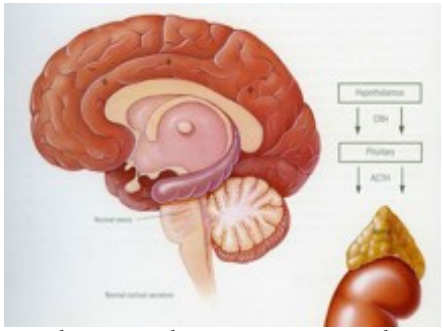
This discovery opened the door to a new understanding of how adrenal steroids and other hormones impact human mental health. The hippocampus, an area of the brain where memories related to recent events and spatial orientation are formed, is sensitive to degeneration in dementia, and vulnerable to seizures and stroke. Studies in McEwen's laboratory have shown that stress hormones alter the structure of hippocampal neurons. In the process, the McEwen lab found that the dentate gyrus region of the hippocampus continues to produce new neurons throughout adult life. These basic findings led to the discovery by other investigators that the hippocampus becomes smaller in depressive illness, posttraumatic stress disorder, Cushing's disease, and Alzheimer's disease.

The work in McEwen's laboratory also launched a new aspect of neuroendocrinology, at the intersection of neurobiology, endocrinology, and behavioral science. Many of McEwen's students and postdoctoral fellows have made groundbreaking discoveries and gone on to become leaders in this field. These contributions include elucidating the damaging role of adrenal steroids in aging, finding that new nerve cells are generated in the dentate gyrus in adult mammals, and defining the key role of early life experiences in shaping brain function.

Further basic studies in the McEwen laboratory have provided a foundation for the emerging scientific view of the adult brain as malleable not only by stress and stress hormones but also by sex hormones. A breakthrough on the sex hormone front came in 1990 when McEwen and Catherine Woolley discovered that ovarian hormones regulate formation of connections (synapses) between nerve cells in an unexpected part of the brain - the hippocampus, where certain types of memories are formed. The second breakthrough came in 2001, when McEwen, Steven Alves and Teresa Milner from the Weill Cornell Medical College, discovered receptors for estradiol (the dominant form of estrogen in the blood of premenopausal women) in the hippocampus. Using high resolution electron microscopy, they demonstrated estrogen receptors in the synapses, where chemical neurotransmission occurs. These findings launched a series of investigations in McEwen's Rockefeller laboratory that have revised scientific dogma, contributing to a new view that many regions of the adult brain are extremely responsive to circulating hormones, and in particular the idea that sex hormones influence the whole brain, not just those regions concerned with reproduction.

Under severe and persistent stress, cortisol secretion can rise above normal and this may cause a variety of damaging effects on the body. Medical illustrator: Lydia Kibiuk

McEwen has, in addition, developed a new definition of how the body and brain are affected by chronic stress: allostatic load, the wear and tear caused by chronic stress and stress-related lifestyles, which lead to disease. The term is based on the word "allostasis", meaning the beneficial ways in which the brain and body adapt to acute stress using hormones and other chemical mediators. Thus, allostatic load highlights how the protective effects of mediators of stress can also cause disease.



Under severe and persistent stress, cortisol secretion can rise above normal and this may cause a variety of damaging effects on the body. Medical illustrator: Lydia Kibiuk

These concepts are providing a biological basis for new approaches to public health and epidemiology. Through McEwen's activity in the MacArthur Foundation Research Network on Socioeconomic Status and Health and the National Council on the Developing Child, these concepts are providing a biological underpinning for new approaches to understanding and treating the growing problem of stress in human society.

Bruce S. McEwen received his bachelor's degree from Oberlin College in 1959, and his PhD from The Rockefeller University in 1964. He was a U.S. Public Health Service Postdoctoral Fellow at the Institute of Neurobiology in Goteborg, Sweden from 1964 to 1965, then assistant professor in zoology at the University of Minnesota, and returned to Rockefeller in 1966 as assistant professor. He was appointed associate professor in 1971, and professor and head of lab in 1981; he was named Alfred E. Mirsky Professor in 1999. McEwen is a past president of the Society for Neuroscience and a member of the U.S. National Academy of Sciences, the American Academy of Arts and Sciences, and the Institute of Medicine. His work has been recognized with the Dale Medal of the British Endocrine Society (2001), the Goldman-Rakic Prize for Cognitive Neuroscience (2005) from the National Alliance for Research for Schizophrenia and Depression, the Karl Lashley Award from the American Philosophical Society (2005), the Pasarow Award in Psychiatry (2006) and the Gold Medal of the Society of Biological Psychiatry (2009).