



Weill Cornell
Medicine

Weill Department of Medicine

Care. Discover. Teach.

Annual Report 2020

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In FY19, the Weill Department of Medicine's sponsored **research portfolio increased** to \$80.0 million from \$75.4 million in FY18.



Grant revenue increased 21% from \$53.1 million to \$64.1 million, while clinical trial revenue decreased 28% from \$22.3 million to \$15.9 million.



Patient visits increased from 275,599 in 2018 to 290,488 in 2019.

Dear Colleagues and Friends:



This annual report seems different from all others I have been involved with throughout my career. While this report features news highlights from calendar year 2019, it is impossible not to discuss the first several months of 2020. As of this message, we are still in the midst of the COVID-19 pandemic and, at the same time, working tirelessly on issues of racial justice that pervade our society. From March 6, 2020 onwards, the entire Weill Department of Medicine, along with the other departments at Weill Cornell and our hospital partner, NewYork-Presbyterian, has been focused on providing the most outstanding care and support for the many patients we saw with COVID-19. I have never been as proud as to see the collaboration, excellence, and compassion displayed by all members of our department, including our faculty, trainees, and staff. This work continues and will do so for the foreseeable future.

It is clear that recent events have forever changed medicine and have transformed what Departments of Medicine must do going forward. Prior to the onset of COVID-19, and during the pandemic, our department has upheld its tradition of excellence. Most importantly, the department has excelled in providing high-quality clinical care, advancing state-of-the-art research, and training our next generation of physicians and scientists. We continue to grow and lead nationally in each of these areas.

Inside this year's report, you will find examples of some of the wonderful work being done by our outstanding faculty, profiles on each of our divisions, awards received by members of the department, details on educational programs, and information on our administrative structure. In addition, we share details of the arrival of two new Division Chiefs to the department. You will also find metrics of growth covering clinical and research activities during 2019.

I hope you enjoy the report.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Hollenberg'.

Anthony Hollenberg, M.D.

Sanford I. Weill Chair of Medicine
Joan and Sanford I. Weill Department of Medicine
Weill Cornell Medical College

Physician-in-Chief
NewYork-Presbyterian Hospital/Weill Cornell Medical Center

Dr. Laura Alonso Appointed to Chief of the Division of Endocrinology, Diabetes and Metabolism: Improving Patient Outcomes

Recruited from the University of Massachusetts Medical School, where she was the George F. and Sybil H. Fuller Term Chair in Diabetes and the Director of Beta Cell Biological Studies, Dr. Laura Alonso has been appointed to Chief of the Division of Endocrinology, Diabetes and Metabolism in the Weill Department of Medicine. She is also the newly appointed Director of the Weill Center for Metabolic Health. Dr. Alonso, an elected member of the American Society for Clinical Investigation, is a leading physician-scientist in the field of endocrinology and an authority on the basic biology of pancreatic beta cell regeneration.

From the start of her career, Dr. Alonso has achieved landmark advances in research, beginning with her earliest study on islet biology in which she produced an *in vivo* mouse model of chronic hyperglycemia induced by direct intravenous glucose infusion. This early model defined Dr. Alonso's signature state-of-the-art approach to research and laid the groundwork for many of her future discoveries. Her most important discovery to date has been describing a new way that the pancreas controls the number of beta cells it makes,

by "reading" how much insulin the body needs in relation to how much insulin the existing beta cells are comfortably able to make. Since diabetes occurs when the number of beta cells is too low, following this lead could lead to a new approach to treat diabetes by increasing beta cell number. With support from multiple grants from the National Institutes of Health and the American Diabetes Association, Dr. Alonso is pushing her critical discovery towards the dream of one day being able to measure and modulate the number of beta cells in people at risk for diabetes to prevent or treat this difficult disease.

Since her arrival to Weill Cornell Medicine in September of 2019, Dr. Alonso has been launching vital initiatives across her division's tripartite mission that encompasses patient care, research, and education. Whether it be the advancement of innovative research studies, clinical care programs and training models, or the recruitment of multidisciplinary faculty, Dr. Alonso's ultimate goal is to improve patient outcomes across the full spectrum of endocrine disorders, diabetes, and obesity, and to train and inspire the next generation of physicians and endocrine scientists. Additionally, from her vantage point as Director of the Weill Center for Metabolic Health, she has also begun to assemble investigations that are accelerating the science of metabolic health and disease. Basic science research projects, as well as intra-institutional and external collaborations, are underway with a focus on personalized medicine. Researchers are utilizing and developing high-tech approaches, including human genomics, sophisticated mouse genetic models of metabolic disease, stem cell biology, live-animal metabolic physiology

testing, and much more. The scope of research in the Weill Center for Metabolic Health spans from basic research through human clinical studies, and from lifestyle and disease-focused studies through molecular understanding of how metabolism works in different organs in the body.

"It's an exciting time in terms of research, both basic and clinically oriented. One of the major goals for our division is to recruit a top-tier NIH-funded leader in patient-oriented research to springboard our existing strengths in research and clinical care," explains Dr. Alonso. "Improving patient outcomes in the treatment of diabetes, obesity and related metabolic syndromes is our ultimate goal. Our work will ensure that the division is a top-tier destination for both outpatient and inpatient care in the field."

Building on the division's existing strengths, Dr. Alonso is casting a wide net that includes many new lines of clinical investigation. The breadth of this net includes the division's ongoing NIH study on the lifelong impact of early glycemic control in type 1 diabetes, as well as recently launched studies such as using dietary therapy to see if reducing blood insulin levels in certain types of cancer may improve patient outcomes. In another new study, researchers are exploring the intriguing observation that the order in which different foods are eaten can impact a patient's glucose and insulin profile. Studies have also been spurred in response to the recent COVID-19 pandemic. Researchers are pursuing questions regarding the impact of the virus in patients who have metabolic diseases such as diabetes or obesity, the safety and efficacy of novel in-hospital diabetes treatment regimens developed during the pandemic, and a deep dive into specialty-specific benefits and barriers to the use of telemedicine.

"Improving patient outcomes in the treatment of diabetes, obesity and related metabolic syndromes is our ultimate goal. Our work will ensure that the division is a top-tier destination for both outpatient and inpatient care in the field."

Dr. Laura Alonso



Dr. Alonso is spearheading **growth of the division's team-based clinical care model.** Newly recruited physicians, diabetes educators, nutritionists, and nurse practitioners are implementing strategies to provide high-quality seamless patient care for diabetes.

"As a result of the dramatic movement towards delivery of care through videoconferencing during the COVID-19 pandemic, we have learned that our specialty is very well-suited to this type of care," explains Dr. Alonso. To fully realize the potential benefits, a pilot study on telemedicine is gathering patient and provider feedback. "This data will be essential in order to implement best practices moving forward, as telemedicine may become an essential tool in the practice of medicine."

Dr. Alonso is spearheading growth of the division's team-based clinical care model. Newly recruited physicians, diabetes educators, nutritionists, and nurse practitioners are implementing strategies to provide high-quality seamless patient care for diabetes. This team-based model incorporates sophisticated diabetes technologies to monitor patients' blood sugar trends, such as the array of new-to-market continuous glucose monitoring systems, as well as the rapidly evolving technology of insulin pumps and partial closed-loop devices in which the automated insulin delivery is informed directly by the glucose measurement. These technologies can be implemented and managed using both in-office and remote capabilities. For adolescents and young adults who have type 1 diabetes, another new project is working to improve support and guidance through what can often be a traumatic transition from pediatric to adult endocrine care.

"Another essential goal for our division is to grow the next generation of superstars in our field," says Dr. Alonso. "We have already matched two stellar MRT (Medical Research Training) candidates who are interested in endocrinology, one of our junior faculty has been awarded the Weill Department of Medicine's prestigious Fund for the Future Award, and we are developing closer relationships with Weill Cornell Medicine's Ph.D. and M.D./Ph.D. programs. It's a great start."

Under Dr. Alonso's leadership, the Division of Endocrinology, Diabetes and Metabolism is set to usher in a new era of scientific discovery, progressive education, and improved patient outcomes on all fronts – the ultimate goal.

Dr. Alonso received a B.A. from Harvard College in Biochemistry, an M.D. from the University of Pennsylvania, and trained in Internal Medicine at the University of Chicago and in Endocrinology at the University of Chicago and NYU. She completed postdoctoral fellowship training in stem cell biology at the University of Chicago and Rockefeller University and in pancreatic islet biology at the University of Pittsburgh. Dr. Alonso is a standing member of, and has co-chaired, the NIH's Molecular and Cellular Endocrinology Study Section and serves on the organizing panel for the Scientific Sessions of the American Diabetes Association.

Dr. Manuel Hidalgo Appointed to Chief of the Division of Hematology and Medical Oncology: Scientific Advances Accrue with a Focus on Bringing Patient Care to the Underserved

Recruited from Harvard Medical School, Dr. Manuel Hidalgo is the newly appointed Chief of the Division of Hematology and Medical Oncology in the Weill Department of Medicine (WDOM). A world-renowned expert in pancreatic cancer, Dr. Hidalgo has been at the helm of the early clinical development of more than 50 new anticancer agents. Among these agents, he led erlotinib, temsirolimus, and nab-paclitaxel, which are now approved by the FDA for the treatment of cancer.

Among his many advances in research, Dr. Hidalgo and colleagues recently published a paper in *Nature Medicine* (March 2020) that showed promising results using a triple approach to pancreatic cancer. In this international Phase 2a trial (COMBAT), patients with the most common type of metastatic pancreatic cancer – who had not responded to a first-line treatment – were treated with an investigational drug, an immunotherapy drug, and chemotherapy. This 1-2-3 punch strategy showed improved results in terms of whether tumors shrank or stayed the same in size, as compared to standard chemotherapy alone. Dr. Hidalgo and team look forward to maximizing their promising findings in a future phase 3 clinical trial.

"Our division is forming new disease management teams that are **integrating multidisciplinary hubs that provide a targeted approach** to clinical care for specific diseases."

Dr. Manuel Hidalgo



Dr. Hidalgo has been leading an expansion of clinical programs and clinical trials since his arrival to the Division of Hematology and Medical Oncology in June of 2019. “Our division is forming new disease management teams that are integrating multidisciplinary hubs that provide a targeted approach to clinical care for specific diseases,” explains Dr. Hidalgo. “These management teams span all areas of oncology from prostate and breast cancer, to lymphoma, thoracic oncology, and more.”

Dr. Hidalgo’s expansion of cancer care services in the division includes a focus on bringing life-saving therapies to all patients. During the COVID-19 pandemic, which began soon after his recruitment to Weill Cornell, Dr. Hidalgo observed many disparities in healthcare for patients in underserved populations. As the pandemic emerged, he also saw the significant benefits of using telemedicine on the Weill Cornell campus and has since decided to launch a telemedicine referral program for patients seen at New York-Presbyterian Brooklyn Methodist Hospital and New York-Presbyterian Queens.

“One of the goals for our division is to create and formalize a telemedicine referral program for patients seen at our Brooklyn and Queens hospitals so that patients who may live in underserved communities can access the same cancer care specialties that we provide here on the Weill Cornell campus,” says Dr. Hidalgo. “This will be a multidisciplinary telemedicine program that will allow patients to receive a second opinion on treatment options for a particular tumor type. We are also currently working with New York-Presbyterian Brooklyn Methodist Hospital and New York-Presbyterian Queens to advance the integration of cancer programs between our hospitals. Programs already underway include breast, prostate, and lung cancers, and we are also looking at GI cancers on the horizon.”

Clinical programs in the Division of Hematology and Medical Oncology are melded to both basic and clinical research. “The number of clinical trials underway in our division are too many to list, and we are fortunate to have an outstanding cadre of established investigators in our division,” says Dr. Hidalgo. “We are also growing our research portfolio with the arrival of new recruits.” One of those new recruits, Dr. Cora N. Sternberg, is a leading international researcher and expert in the field of medical oncology, genitourinary cancers, and drug development.

“Dr. Sternberg is a key opinion leader in three different types of genitourinary cancers, and she and her colleagues recently published results in *The New England Journal of Medicine* from a phase 3 trial on nonmetastatic, castration-resistant prostate cancer. Enzalutamide plus androgen-deprivation therapy was used and resulted in longer median overall survival than placebo plus androgen-deprivation. It was also found that the risk of death associated with enzalutamide was 27% lower than with placebo. A breakthrough such as this is one of many that our talented investigators are achieving.”

To further support the division’s growth in clinical trials, Dr. Giuseppe Giaccone, newly recruited from Georgetown University, is leading a revitalization of the division’s Cancer Clinical Trials Office (CCTO) with the goal of accelerating investigator-initiated trials. Internationally recognized in the field of lung cancer and developmental therapeutics, Dr. Giaccone is also serving as Chief of Thoracic Oncology and as the Associate Director for Clinical Research at the Sandra and Edward Meyer Cancer Center. A part of Dr. Giaccone’s mission for the CCTO will be streamlining critical clinical research according to National Cancer Institute guidelines.

On another front, Dr. Hidalgo is working with Dr. Lew Cantley (Director, Meyer Cancer Center) to attain a National Cancer Institute designation for the Myer Cancer Center at Weill Cornell Medicine. “Our division will play a key role in helping to further this important goal,” says Dr. Hidalgo.

Under Dr. Hidalgo’s leadership, the Division of Hematology and Medical Oncology is rapidly growing its clinical research arsenal for the treatment of the full spectrum of cancer and hematological disorders. As scientific advances accrue, patients are sure to benefit not only on the Weill Cornell campus, but also in the neighborhoods of Brooklyn and Queens.

Dr. Hidalgo was recruited from Harvard Medical School where he was the Theodore W. and Evelyn G. Berenson Professor of Medicine and served as Chief of the Division of Hematology/Oncology. He obtained his M.D. from the University of Navarra in Pamplona, Spain, and a Ph.D. in Infectious Diseases and Cancer from the University Autonoma of Madrid, Spain. He also holds a M.Sc. in Medicine from Harvard University. He completed his residency training at the Hospital “12 de Octubre” in Madrid and a fellowship in Medical Oncology at University of Texas Health Science Center in San Antonio (UTHSCSA). Dr. Hidalgo was the Clinical Director of the Rosenberg Clinical Cancer Center at Beth Israel Deaconess Medical Center in Boston. He also served as the Deputy Associate Director for Clinical Sciences at the Dana-Farber/Harvard Cancer Center in Boston. Dr. Hidalgo’s funding sources include The National Cancer Institute and the European Research Council.

“The number of clinical trials underway in our division are too many to list, and we are fortunate to have an outstanding cadre of established investigators in our division.”

Dr. Longman Appointed to Director of the Jill Roberts Center for Inflammatory Bowel Disease (JRC): Translational Research a Cornerstone for Growth



Dr. Randy S. Longman, Associate Professor of Medicine, Division of Gastroenterology and Hepatology, has been appointed to serve as Director of the Jill Roberts Center for Inflammatory Bowel Disease (JRC) at Weill Cornell Medicine. Dr. Longman is widely recognized for his pioneering research in mechanisms by which the human body's immune system interacts with gut bacteria in both health and disease. In particular, Dr. Longman is focused on using these discoveries to create improved diagnostics and novel therapies for inflammatory bowel disease (IBD). As the Director of the JRC, Dr. Longman aims to grow the Center's unique multidisciplinary approach and commitment to translational research to improve IBD care.

IBD is a group of chronic inflammatory disease of the digestive track including ulcerative colitis and Crohn's disease. Although the underlying cause of IBD is not known, both inherited genetic risk as well as environmental triggers, such as intestinal bacteria and diet, contribute to the onset of disease. It is estimated that IBD totals some 200,000 cases per year in the United States. IBD can be treated with both oral and intravenous medications and, in some cases, with surgery.

Dr. Ellen J. Scherl, the Jill Roberts Professor of Inflammatory Bowel Disease at Weill Cornell Medicine and Founding Director of the JRC, established the Center in 2006. Under her leadership, the JRC has grown into a world-renowned IBD center. Dr. Scherl continues to serve on the Center's staff, along with a roster of top-tier IBD-focused gastroenterologists. Today, the JRC treats more than 10,000 patients per year. The number of gastroenterologists on staff has grown to seven and includes new recruits, Dr. Dana Lukin, who serves as the JRC's Clinical Director of Translational Research, and Dr. Robert Battat, who is an expert in noninvasive IBD diagnostics. The entire team of gastroenterologists at the JRC, which includes Drs. Robert Burakoff, Vinita Jacob, and Meira Abramowitz, deliver high-quality care across the full spectrum of IBD. In addition, their clinical practices are greatly enhanced by multiple lines of research.

As the incoming Director of the JRC, Dr. Longman seeks to build on this tradition of excellence by advancing translational research that will bring therapeutic discoveries to the JRC's clinical care settings, both inpatient and outpatient. As part of his overall research strategy, he works in synergy with the Jill Roberts Institute for Research in Inflammatory Bowel Disease (JRI) (Director, Dr. David Artis) to study the pathophysiology of IBD, and, ultimately, to discover improved therapies for the full spectrum of IBD.

Both the JRC and the JRI could not have thrived without generous support from Jill Roberts and the Roberts family. In March of 2020, Jill Roberts passed away, and, with her passing, the JRC and JRI lost an unwavering benefactor and champion in the fight against IBD.

"The JRC is fortunate to have such an extraordinary legacy in IBD based upon the pioneering work of Dr. Scherl and the generosity of Jill Roberts," explains Dr. Longman. "The mission now is to build upon that strong foundation by furthering state-of-the-art studies in translational research. I believe that translational research is the cornerstone for growth at the JRC, and, certainly, one of the highlights of our program is the robust scientific

exchange we enjoy with our colleagues at the Jill Roberts Institute for Research in IBD. This unique synergy will enable us to provide the best in personalized medicine across the full spectrum of IBD.”

Under Dr. Longman’s leadership, the JRC is experiencing exponential growth in clinical care and research, beginning with the creation of an IBD inpatient service. Coordinated by Dr. Lukin, the inpatient service is critical to the delivery of complex IBD care for both JRC and Weill Cornell IBD patients. This inpatient service facilitates coordination of care between the JRC and colleagues in the Department of Surgery (Chair, Dr. Fabrizio Michelassi) at NewYork-Presbyterian/Weill Cornell Medicine. Additionally, in the newly constructed David H. Koch Center, the Jill Roberts Center now has physical proximity to a colorectal surgical unit. “This has allowed for the new possibility of having the surgeon, physician and patient in the same room to discuss all options, including surgical procedures,” says Dr. Longman. “This physical proximity allows the patient to be an active participant in decisions about their health.”

In addition to coordination of care with colleagues in the field of surgery, the JRC’s full array of multidisciplinary expertise includes dermatologists, rheumatologists, psychologists, and nutritionists. Jill Roberts was a strong proponent of nutritional support for IBD patients and enabled a complimentary nutritional consultation for all patients seen at the JRC. As nutrition and diet play a significant role in affecting IBD, this consultation is a valuable piece of patient care that offers helpful dietary guidelines while tailoring a unique patient plan.

The reality of living with IBD, a lifelong illness, can be challenging. Many patients benefit from psychological support. A trailblazer in this area, Jill Roberts spearheaded a support group at the JRC that has included physician speakers on a wide array of IBD expertise. Currently, the JRC collaborates with the Center for Advanced Digestive Care (CADC) at Weill Cornell, which enables JRC patients to have access to a CADC social worker. The JRC believes that providing psychological support empowers its patients in dealing with IBD. This critical piece rounds out the JRC’s comprehensive circle of care.

The JRC serves as a referral site for patients with complex IBD throughout the world. The international reputation of the JRC for IBD care has enabled partnerships with pharmaceutical companies to offer patients early access to new and experimental medications to treat complex IBD. This critical aspect of JRC patient care has allowed for the faculty to become leaders in the use of emerging medications.

“We have maintained one of the largest sponsored research programs in the country, and, in 2020, we were recognized as a lead recruiting center for several novel therapeutics. This includes promising emerging therapies such as anti-TL1A (Pfizer) and ozanimod (Celgene) for the treatment of ulcerative colitis,” says Dr. Longman.

Translational studies at the JRC are growing and encompass many lines of study directly targeting central issues in IBD clinical care, including the impact of diet and the gut microbiome. With funding from the Kenneth Rainin Foundation, the research team led by Dr. Lukin is set to launch a study on time-restricted eating for the treatment of Crohn’s disease. Time-restricted eating has been shown to be effective in improving metabolic function in diabetes and obesity, but, to date, there have been no studies for IBD. In another study, with support from the Crohn’s and Colitis Foundation, a research team led by Dr. Longman is studying the role for dietary fiber in shaping the efficacy of fecal transplant for the treatment of ulcerative colitis. Fecal transplant is a newly emerging treatment for IBD involving a procedure in which stool (containing healthy bacteria, fungi, and other microbes) is transferred from a donor to the patient to help heal inflammation in the digestive tract. This study will test if diet can guide bacterial engraftment and improve clinical efficacy.

A major need in IBD is to understand why certain medicines work for some people and not for others. To address this central question, the JRC has developed a novel study (the SMART-IBD study) to track all patients that need medical therapy. With support from the Kenneth Rainin Foundation and the Helmsley Trust, samples from this cohort are used to develop new noninvasive diagnostic and prognostic tests to guide IBD therapy. Research led by Dr. Battat also aims to develop noninvasive biomarkers of disease to optimize the therapeutic use of medicines.

The JRC is internationally recognized for the clinical evaluation and treatment of extra-intestinal manifestations of IBD. It is known that IBD is not limited to the intestine but can occur throughout the body, affecting the eyes, mouth, liver, kidneys, skin, and circulation. The most common extra-intestinal manifestation of IBD is joint inflammation, or spondyloarthritis. Although evaluation and treatment frequently fall in a gap between gastroenterology and rheumatology, the unique multidisciplinary approach at the JRC has enabled NIH-funded research, led by Dr. Longman, to address the clinical need for diagnostic and therapeutic approaches for early and effective treatment of joint inflammation in IBD.

On the heels of a long legacy of progress in the field of IBD, the Jill Roberts Center for Inflammatory Bowel Disease is rapidly expanding its mission in clinical care and research.

A graduate of Yale University, Dr. Longman received his M.D. degree from Weill Cornell Medical College and his Ph.D. from Rockefeller University. He completed his residency and fellowship training at New York-Presbyterian Hospital/ Columbia University Medical Center. This was followed by a postdoctoral fellowship at the New York University Skirball Institute of Biomolecular Medicine.

“We have maintained one of the largest sponsored research programs in the country, and, in 2020, we were recognized as a lead recruiting center for several novel therapeutics.”

Dr. Randy S. Longman

Pulmonary and Critical Care Medicine and Infectious Diseases Join Forces on COVID-19 Guidelines

Weill Cornell Medicine Physicians Author Guide to Management of Severe COVID-19

Critical care physicians, infectious disease specialists and pulmonologists from Weill Cornell Medicine and NewYork-Presbyterian have published a clinical practice guide for managing severe COVID-19 in the New England Journal of Medicine. Clinical practice guides are provided by medical journals and associations to help physicians worldwide reach the best healthcare decisions for patients with complicated illnesses.

The new guide covering severe COVID-19, published on May 15, describes typical signs and symptoms of the disease and how the illness usually progresses in severe cases; advises on risk factors such as age, obesity and diabetes; and sets out in detail the current best practices on patient management and treatment, including the use of the experimental drug remdesivir as well as ventilator breathing support.

“Patients with severe COVID-19 have a substantial risk of prolonged critical illness and death,” wrote the co-authors Dr. David Berlin, associate professor of clinical medicine at Weill Cornell Medicine and medical director for critical care services at NewYork-Presbyterian/Weill Cornell Medical Center; Dr. Fernando Martinez, the Bruce Webster Professor of Internal Medicine at Weill Cornell Medicine and chief of the Division of Pulmonary and Critical Care Medicine at Weill Cornell Medicine and NewYork-Presbyterian/Weill Cornell Medical Center; and Dr. Roy Gulick, the Rochelle Belfer Professor in Medicine and chief of the Division of Infectious Diseases at Weill Cornell Medicine and NewYork-Presbyterian/Weill Cornell Medical Center.

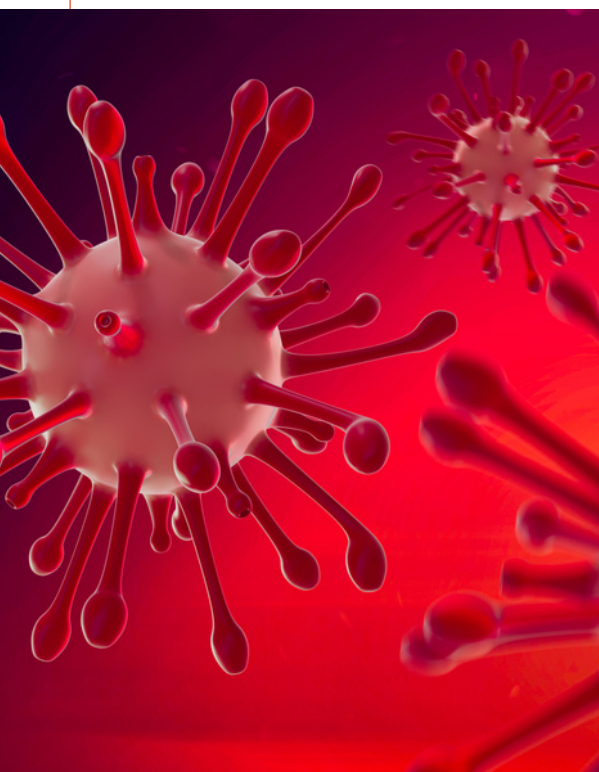
The physicians note in the guide that the most common early symptoms of COVID-19 are fever, fatigue, cough, muscle aches, lack of appetite and diarrhea. When severe symptoms appear, they usually do so about a week into the illness, and typically include shortness of breath and abnormally low blood-oxygen levels as measured on a pulse oximeter. These early signs of respiratory distress may progress rapidly as lung function deteriorates.

Many patients with severe disease develop a “cytokine release syndrome,” sometimes called a “cytokine storm,” in which virus-affected cells release very high levels of inflammatory compounds. This can lead to harmful inflammation not only in the lungs but also in the heart, kidneys, liver, blood vessels and muscles, with complications that include dangerously low blood pressure (shock), stroke-causing blood clots, kidney failure and heart arrhythmias.

Most patients with severe COVID-19 show depletion of white blood cells called lymphocytes, which include T cells—normally considered the most powerful immune cells in the fight against viral infection. Some severe COVID-19 patients also have neurological signs and symptoms including the loss of smell

and taste, seizures, dizziness and impaired consciousness. Usually patients with severe COVID-19 will show a pneumonia-related pattern of cloudy abnormalities on chest X-rays, called “ground-glass opacities.” Patients also will generally test positive for the presence of the coronavirus’s genetic material in nasal or throat swabs.

Some patients with severe COVID-19 will become critically ill with organ failure and will require intensive support. The physicians cited a large study of COVID-19 cases from the Wuhan, China outbreak which found that 81 percent were mild, and 14 percent severe, with the remaining 5 percent becoming critically ill. Of the latter group, about half died.



A blurred hospital hallway with an IV drip in the foreground. The hallway is brightly lit with overhead lights, and two people in blue scrubs are walking away in the distance. The IV drip is in sharp focus, showing the clear liquid and the drip chamber.

Guidelines

Best practices

The authors provide extensive guidance about the decision to place patients on a mechanical ventilator. “Deciding whether or not to intubate is a critical aspect of caring for seriously ill patients with COVID-19,” they wrote. Clinicians must weigh the risks of premature intubation against the risk of sudden respiratory arrest, the authors added, with an intubation that exposes staff to a greater risk of infection.

The guide describes best practices for ventilator settings and management, and advises that turning patients into the prone, or face-down position can also be used in some cases to improve lung function and blood-oxygen levels.

The authors also cover the management of shock, blood clots and other serious complications that often arise in severe COVID-19 cases.

They note that although the experimental antiviral drug remdesivir can be given to patients under an emergency-use authorization by the Food and Drug Administration (FDA), evidence for its effectiveness in severely ill patients is so far preliminary.

“Although many trials of prospective treatments are ongoing, so far none has been FDA-approved for severe COVID-19,” the paper notes.

Dr. Fernando Martinez has participated in paid advisory boards for AstraZeneca, Boehringer Ingelheim, CSL Behring, Genentech/Roche, GlaxoSmithKline, and Sanofi/Regeneron. He has been a member of clinical studies supported by AstraZeneca, BioScale/ProTERRIXBio, Biogen, GlaxoSmithKline, RespiVant, Promedior/Roche and Veracyte.

Note: This article is courtesy of External Affairs, Weill Cornell Medicine. It was published in the External Affairs Newsroom on June 5, 2020.

On the Frontlines of COVID-19 in the WDOM

Researchers in WDOM Launch Clinical Trials and Other Exploratory Research in COVID-19

Clinical researchers, as well as patients, their families, and all Americans, are hoping for effective treatments and, ultimately, a vaccine for COVID-19. To that end, physicians and scientists in the WDOM are forging much-needed clinical trials for the treatment of COVID-19, a form of coronavirus that has led to a national emergency in the United States. The WDOM is happy to announce that several lines of research are underway. All potential clinical trials are being evaluated by a committee led by Dr. Roy M. Gulick, Chief, Division of Infectious Diseases, WDOM, and members from a number of divisions in the WDOM as well as members of other departments at Weill Cornell Medicine.

Among other studies in the WDOM, the following faculty in the Division of Infectious Diseases are carrying out novel research using Remdesivir, Sarilumab, in addition to a collection initiative for the use of convalescent plasma.

Principal Investigator, Dr. Kristen Marks, is conducting a Phase 3 randomized study to evaluate the safety and antiviral activity of the drug Remdesivir. This study involves hospitalized patients who have moderate COVID-19.

Principal Investigator, Dr. Marshall Glesby, is conducting an adaptive Phase 2/3 study to assess the efficacy and safety of using Sarilumab, a monoclonal antibody, for hospitalized patients with severe or life-threatening COVID-19. The purpose of the study is to evaluate the safety and efficacy of sarilumab for treatment of severe or life-threatening COVID-19. Sarilumab is a monoclonal antibody that blocks the action of interleukin-6 (IL-6) by binding to its receptor. IL-6 is a key mediator of the inflammatory response to infections and may play a role in driving the disease process of this viral infection in some patients.

Principal Investigators, Dr. Grant Ellsworth and Dr. Robert DeSimone (Department of Pathology, WCM) are working on a convalescent plasma study, entitled, "Qualification of COVID-19 Convalescent Plasma Donors." Screening of potential donors who have recovered from confirmed COVID-19 for the donation of convalescent plasma began in early 2020.

The Cornell COVID-19 Registry

As the COVID pandemic reached New York City, researchers in the Division of General Internal Medicine recognized that our front line clinicians were facing a new disease entity with very little data to guide clinical care. Drs. Parag Goyal, Justin Choi, Laura Pinheiro, and Monika Safford (Division Chief) quickly engaged dozens of furloughed medical students to abstract data from nearly 2,000 patients to create a registry that continues to serve as the basis for numerous studies. The Cornell COVID-19 registry has led to reports in the *New England Journal of Medicine*, *the Annals of Internal Medicine*, and other high-impact journals, quickly providing needed information to optimize the care of patients hospitalized with COVID.

Symptoms
Diagnosis
Treatments

Dr. Gulick Named Co-Chair of the NIH COVID-19 Treatment Guidelines

Dr. Roy M. Gulick, Chief, Division of Infectious Diseases, WDOM, was named Co-Chair of the NIH COVID-19 Treatment Guidelines in 2020. Working with two other co-chairs, Dr. Henry Masur and Dr. H. Clifford Lane of the NIH, the guidelines will draw on the knowledge of a panel of experts and will be updated frequently with scientific evidence and data to inform clinicians on how to best manage patients with COVID-19.

Letter-to-the-Editor: Clinical Characteristics of COVID-19 in New York City

Dr. Parag Goyal (first author), Assistant Professor of Medicine, Division of General Internal Medicine, and Dr. Monika Safford (last author), Chief, Division of General Internal Medicine, wrote a Letter-to-the Editor in *The New England Journal of Medicine*, published on April 17, 2020, that described the clinical characteristics of COVID-19 in New York City. These Weill Cornell Medicine and NewYork-Presbyterian investigators examined the data from the first 393 patients with COVID-19—median age, 62—who were admitted to NewYork-Presbyterian/Weill Cornell Medical Center and NewYork-Presbyterian Lower Manhattan Hospital. Most were male; the overwhelming majority had a cough and fever; a little more than half had difficulty breathing; and, unlike COVID-19 case studies in China, a significant number (around one in four) experienced gastrointestinal problems like diarrhea, nausea, and vomiting. Obesity (a risk factor for respiratory failure) was common and may account for the one in three patients who were put on a ventilator as a result of respiratory failure. That is 10 times greater than the number in China, the study authors noted, adding that 30% of them didn't require such help breathing when they were first admitted to hospital.

WDOM Faculty Forge New Lines of Study on COVID-19: Multiple Papers Published in Top-Tier Journals

In response to the COVID-19 pandemic, faculty from across the Weill Department of Medicine have been pursuing critical research. A variety of study lines have been unfolding and faculty members are publishing key papers in top-tier journals, including:

Dr. Parag Goyal
Assistant Professor of Medicine, Division of General Internal Medicine
The New England Journal of Medicine
Topic: Clinical Characteristics of Covid-19 in New York City

Dr. Kelly Griffin
Assistant Professor of Clinical Medicine, Division of Pulmonary and Critical Care Medicine
American Journal of Respiratory and Critical Care Medicine
Topic: Hospital Preparedness for COVID-19

Dr. Jeffrey Laurence
Professor of Medicine, Division of Hematology and Medical Oncology
Translation Research
Topic: Complement associated microvascular injury and thrombosis in the pathogenesis of severe COVID-19 infection

Hairstyles for Heroes

Thank You to WDOM Faculty
for the Outpouring of Support for
#HairstylesForHeroes!



Above: Some of the WDOM faculty (left to right) who participated in the HairstylesforHeroes fundraising effort; Drs. Manish Shah, Anthony Hollenberg (Chair, WDOM), Robert Brown, Gagandeep Brar, Arthur Evans, Laura Alonso, John Leonard.

The Weill Department of Medicine launched HairstylesForHeroes during the beginning of the COVID-19 pandemic, and funds raised will support the academic efforts of our trainees and junior faculty, whose work has been impacted, and often delayed, by the need to join the COVID-19 response. This fundraising effort will help support their careers and amplify their work during the recovery phase.

Weill Department of Medicine faculty who participated in #HairstylesForHeroes showcased their outrageous new hairstyles, as part of the effort, on Friday, May 29, 2020! There was an array of fun hairstyles from red mohawks, rainbow hair, and purple wigs, to red beards, and more!

As of June 1, 2020, more than \$80,000 was raised from 180 donors – more than 160% of our initial \$50,000 goal.



Leadership (2019)



Anthony Hollenberg, M.D.

Sanford I. Weill Chair of Medicine

Dr. Anthony Hollenberg is the Sanford I. Weill Chair of Medicine in the Joan and Sanford I. Weill Department of Medicine at Weill Cornell Medicine and the Physician-in-Chief at NewYork-Presbyterian Hospital. Dr. Hollenberg received his M.D. from the University of Calgary in Canada in 1986. He completed his Internal Medicine residency in 1989 and was Chief Resident in Medicine from 1990 to 1991 at the Beth Israel Hospital. Dr. Hollenberg then completed a fellowship in Endocrinology, Diabetes, and Metabolism at Massachusetts General Hospital in 1993 and was recruited back to Beth Israel to start his laboratory. From 2011 until his recruitment to Weill Cornell

Medicine and NewYork-Presbyterian Hospital, Dr. Hollenberg was Chief of the Division of Endocrinology, Diabetes and Metabolism, at Beth Israel Deaconess Medical Center and Director of Clinical and Translational Research Training Programs at Harvard Catalyst and Harvard Medical School where he was also a Professor of Medicine. Dr. Hollenberg's research focuses on the hormonal regulation of metabolism, with a particular emphasis on the role of thyroid hormone. His work has important ramifications for the regulation of body weight and metabolism. Additionally, The Hollenberg Lab focuses on understanding thyroid gland development and the possibilities for regenerative medicine. Dr. Hollenberg's many honors include the American Thyroid Association's 2018 Sidney H. Ingbar Distinguished Lectureship Award.

Robert Brown, Jr., M.D., M.P.H.

Vice Chair for Mentorship and Academic Development

Dr. Robert S. Brown, Jr. is the Gladys and Roland Harriman Professor of Medicine and Clinical Chief of the Division of Gastroenterology and Hepatology, as well as Vice Chair for Mentorship and Academic Development for the Weill Department of Medicine. Dr. Brown is the co-founder and Director of the Center for Liver Disease and Transplantation at NewYork-Presbyterian Hospital. He has been part of the liver transplant effort at Weill Cornell since 1999 and joined the faculty full-time in 2015. A pioneer in laparoscopic living liver donation, the liver transplant program has the best outcomes and among the largest volume in the region. Dr. Brown is heavily involved in clinical research on viral hepatitis, alcohol-related liver disease, and liver transplantation. He received his B.A. from Harvard College, M.D. from New York University, and his M.P.H. from the Graduate School of Public Health, University of California, Berkeley. He completed his internship in medicine at Beth Israel Hospital, Harvard Medical School in Boston, and a fellowship in gastroenterology and hepatology at the University of California, San Francisco. An internationally recognized expert in liver disease and liver transplantation, he has co-authored more than 200 peer-reviewed articles and mentored many trainees and junior faculty. He is the incoming Editor-in-Chief of *Liver Transplantation*, an Associate Editor for *Hepatology*, and published a book, *Common Liver Diseases and Transplantation: An Algorithmic Approach to Work-up and Management*. Dr. Brown is the recipient of a Young Investigator Award from the American Society of Transplant Physicians, the Senior Attending Teacher Award from Columbia University Medical Center, and the American Liver Foundation New York Chapter's Physician of the Year.





Robert Burakoff, M.D.

Vice Chair for Ambulatory Services

Dr. Robert Burakoff, an expert in inflammatory bowel diseases (IBD), is Vice Chair for Ambulatory Services for the Weill Department of Medicine and serves as Site Chief for the Division of Gastroenterology and Hepatology at NewYork-Presbyterian Lower Manhattan Hospital and Weill Cornell Medicine. Dr. Burakoff was recruited from Brigham and Women's Hospital in 2017, where he had served as Clinical Chief of the Division of Gastroenterology and Director of the Center for Digestive Health, as well as Professor of Medicine at Harvard Medical School. He has served on the National Scientific Advisory Cabinet of the CCFA as Chair of the Editorial Board since 1985 and as Co-Editor in Chief of the *Journal of*

Inflammatory Bowel Diseases. He was named a Humanitarian of the Year by the NE Chapter of CCFA and was recently appointed Editor-in-Chief of *Scientific American Medicine*. He is also Chair of the editorial board of the National Scientific Advisory Cabinet of the Crohn's and Colitis Foundation of America (CCFA) and a past Chair of the American Gastroenterological Association's Advocacy and Public Policy Committee. He received his M.D. from Albany Medical College of Union University, served his residency at NewYork-Presbyterian/Weill Cornell, completed fellowships at Beth Israel Deaconess Medical Center and Harvard Medical School, and has a Master of Public Health in Health Policy and Management from Columbia University Mailman School of Public Health.

Joseph Cooke, M.D.

Chief of Medicine at NYP/Queens

Vice Chair, WDOM

Joseph T. Cooke, M.D. is the Chief of the Department of Medicine at NewYork-Presbyterian/Queens and as Vice Chairman of the Weill Department of Medicine. Beginning with internship and residency, Dr. Cooke has served in numerous roles through what is now his 35th year at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. Before joining NewYork-Presbyterian/Queens, Dr. Cooke, an Associate Professor of Clinical Medicine and Public Health, was the department's Chief of the Division of Pulmonary and Critical Care Medicine, Chairman of the General Faculty Council, and Chief Quality and Patient Safety Officer for the NewYork-Presbyterian Hospital/Weill Cornell Medical Center. Board certified in internal medicine, pulmonary disease, and critical care medicine, Dr. Cooke is a fellow of the American College of Chest Physicians and the American College of Physicians. He earned an undergraduate degree in Biology with honors from New York University and obtained his M.D. from SUNY Downstate. He and Dr. Vlad Kvetan founded and co-chaired the Critical Care Leadership Network of GNYHA (2006-2009). Currently, Dr. Cooke is the Treasurer for the Queens County Medical Society and continues to serve on the Medical Advisory Board for the New York Organ Donation Network. He had previously served on the Institute of Medicine's subcommittee on organ donation after cardiac death. In addition to earning numerous teaching awards at Weill Cornell, Dr. Cooke has been honored with the NYPH Physician of the Year Award, the New York Weill Cornell Center Alumni Council Award for Outstanding Service, and the Lorraine Tredge Award from HHC for leadership in quality and patient safety. At the 2008 HRSA National Learning Congress, he was named one of 11 national champions for his work in organ donation for NewYork-Presbyterian Hospital/Weill Cornell Medical Center.





Orli Etingin, M.D.

Vice Chair for Faculty

Dr. Orli Etingin is the founder and Medical Director of the Iris Cantor Health Center at NewYork-Presbyterian/Weill Cornell Medical Center, a multidisciplinary group practice sponsored by the Departments of Dermatology, Medicine, Obstetrics and Gynecology, Radiology, Surgery and Urology. She is the Lisa and Sanford B. Ehrenkranz Professor of Clinical Medicine at Weill Cornell Medicine and serves as Vice Chair for Faculty in the Weill Department of Medicine. Dr. Etingin's clinical expertise is in internal medicine and coagulation disorders, such as blood clotting in pregnancy. Dr. Etingin received her undergraduate degree from Johns Hopkins University. After receiving her M.D. from Albert Einstein College of Medicine in New York, she completed residency training in

internal medicine, subspecialty training in hematology-oncology and a Chief Residency at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. As the recipient of an NIH Clinical Investigator Award from 1987 to 1992, she conducted basic scientific research on thrombosis in vascular cells, leading to numerous publications in the journals *Cell*, *Biochemistry*, and *Journal of Clinical Investigation*. Dr. Etingin is listed in *Who's Who*, *Castle Connolly's Best Doctors Guides*, and *US News Top Doctors*. She was the associate editor of the *Textbook of Women's Health*, a comprehensive manual for physicians in the field. A frequently invited speaker at women's health symposia, she has served as Moderator of the annual Women's Health Symposium at NewYork-Presbyterian Hospital since 1998 and as Moderator of the annual Women and the Brain Conference since 2006. Dr. Etingin is a member of the American Medical Women's Association and the American Medical Association. She is the editor of two nationally distributed newsletters, *Women's Health Advisor* and *Women's Nutrition Connection*, and is a contributor to *Everyday Health*.

Kirana Gudi, M.D.

Vice Chair of Education

Dr. Gudi serves as Vice Chair of Education in the Weill Department of Medicine. As Vice Chair, she oversees a broad range of training programs and works closely with the Weill Department of Medicine to advance its educational mission in furthering faculty development. Dr. Gudi is an Assistant Professor of Medicine in the Division of Pulmonary and Critical Care Medicine and is the Program Director of the department's residency training program in internal medicine. She received her medical training on the Weill Cornell campus, beginning with an M.D. from Weill Cornell Medicine. She served as a Chief Resident and completed her residency training, as well as a fellowship in Pulmonary and Critical Care Medicine, at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. She maintains an active outpatient pulmonary practice, attends on the Inpatient Pulmonary Consult and the ICU Consult services, and is a passionate advocate of medicine and medical education.





Jennifer Lee, M.D.

Vice Chair for Quality and Patient Safety (QPS)

Dr. Jennifer I. Lee is an Associate Professor of Clinical Medicine and a hospitalist in the Division of General Internal Medicine. Board certified in internal medicine, Dr. Lee earned her M.D. degree from the State University of New York Buffalo School of Medicine and Biomedical Sciences, and completed her combined internal medicine and pediatrics residency at Mount Sinai Medical Center in New York City. In her role as Vice Chair for Quality and Safety, she collaborates with the NewYork-Presbyterian Hospital's Division of Quality and Patient Safety, Weill Cornell Medicine Physician Organization QPS, and Weill Department of Medicine aiming to align improvement efforts across the institution. She designed and co-chairs the department's Quality Improvement/Patient Safety (QIPS) committee

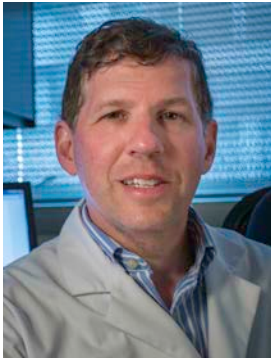
and spearheaded the launch of the Quality Improvement Academy, an advanced QI faculty development program designed to provide a pathway for promotion for junior faculty in all clinical departments through academic achievement in quality improvement. She was awarded the AAMC Learning Health Systems Champion Research Award and was featured as the Research on Care Community's Member spotlight. Her focus is the education of students, residents and faculty in quality improvement and safety science to ensure high-quality, high-value care delivery for patients in both the inpatient and outpatient settings.

John Leonard, M.D.

Executive Vice Chair, WDOM

Dr. John P. Leonard is the Executive Vice Chair of the Weill Department of Medicine, a role in which he is advancing key academic and educational activities as well as other critical initiatives for the department. A nationally and internationally recognized authority on hematological malignancies, Dr. Leonard serves as the Senior Associate Dean for Innovation and Initiatives at Weill Cornell Medicine. The Richard T. Silver Distinguished Professor of Hematology and Medical Oncology, Dr. Leonard has pioneered the development of novel therapeutics in lymphoma, and he serves as one of the leaders of the national lymphoma clinical trials effort as leader of the Lymphoma Committee for the Alliance for Clinical Trials in Oncology (a part of the National Clinical Trials Network of the National Cancer Institute). Dr. Leonard has been an elected member of the American Board of Internal Medicine subspecialty board for Hematology and has also been elected to membership in the American Society of Clinical Investigation. He has served as Chair of the Scientific Advisory Board and Board Member of the Lymphoma Research Foundation and Board Member of the Leukemia and Lymphoma Society/New York City Chapter. In 2017, he received the Miriam G. Wallach Award for Excellence in Humanistic Medical Care from NewYork-Presbyterian Hospital. Dr. Leonard has spearheaded many innovative initiatives in the Weill Department of Medicine to facilitate cutting-edge patient-oriented research.





Steven Lipkin, M.D., Ph.D.

Vice Chair for Research

Dr. Steven M. Lipkin, Professor of Medicine, Division of Gastroenterology and Hepatology, is the Vice Chair for Research. Dr. Lipkin works with departmental and divisional leadership to enhance and foster the research activities of our faculty and trainees. A nationally and internationally regarded leader in the field of adult genetics, he was recently elected as a Member of the American Society of Clinical Investigation. His research focuses on genetic testing for hereditary cancer disorders, including the Lynch Syndrome, Familial Adenomatous Polyposis, and Hereditary Pancreatic Cancer, among others. He is an authority on cancer genetic syndromes, with a particular emphasis on hereditary gastrointestinal cancer syndromes, and authored MAPP-MMR, a bioinformatic program that is used to interpret whether Lynch syndrome missense variants are deleterious mutations or benign polymorphisms. Dr. Lipkin has more than 80 published papers in the top peer-reviewed journals and is the author of *The Genome Generation: Tales From the Front Lines of Genetic Medicine*, published in 2016 by Beacon Press. Dr. Lipkin has practiced at NewYork-Presbyterian Hospital/Weill Cornell Medicine since 2009. He trained in internal medicine at Duke University and in medical genetics at the National Human Genome Research Institute, where he performed post-doctoral work in the laboratory of Francis Collins, now Director of the NIH.

Susana R. Morales, M.D.

Vice Chair for Diversity

Dr. Susana Morales serves as the Vice Chair for Diversity in the Weill Department of Medicine. An Associate Professor of Clinical Medicine, Dr. Morales joined the Weill Cornell Medicine faculty in 1998. She serves as the Associate Director of the House Staff Training Program in Internal Medicine and is the Director of the Education Core for the Cornell Center for Health Equity. In 2018, she became the Principal Investigator and Director of the Weill Cornell Medicine Diversity Center of Excellence. At Columbia Presbyterian Medical Center, Dr. Morales had previously served as Assistant Director for Education and Training in the Division of General Medicine. Dr. Morales has served as a member of the governing Council of the Society of General Internal Medicine (SGIM) and on the Advisory Boards of the Commonwealth Fund's "Bettering the Health of Minority Americans" program and the National Hispanic Medical Association. She is also a board member of both the United Hospital Fund and the Latino Commission on AIDS and has served on the NYS Council on Graduate Medical Education. In 2017, Dr. Morales served on the NewYork-Presbyterian Hospital Disaster Medical Response Team in Puerto Rico. Dr. Morales obtained her M.D. from the Columbia University College of Physicians and Surgeons and completed residency training in internal medicine at the Presbyterian Hospital of the City of New York. Her honors include: J. James Smith Memorial Award (presented annually by the Weill Cornell house staff); National Medical Fellowships Community Service Award; "Senior List" (selected by four graduating classes at Weill Cornell Medicine); Pioneers in Diversity/Bruce Laine Ballard M.D. Award for Excellence in Mentoring (presented by the Office of Faculty Diversity in Medicine and Science, Weill Cornell Medicine); Elnora M. Rhodes SGIM Service Award; and Hispanic Health Leadership Award from the National Hispanic Medical Association.





Stephen Peterson, M.D., M.A.C.P.

Chief of Medicine, NYP/Brooklyn Methodist Hospital

Vice Chair, Weill Department of Medicine

Dr. Stephen J. Peterson is Chief of the Department of Medicine at NewYork-Presbyterian/Brooklyn Methodist Hospital and Professor of Clinical Medicine at Weill Cornell Medicine and the Vice Chair of the Weill Department of Medicine. He is also the Assistant Dean of Weill Cornell Medicine for the NYPBMH Campus. Dr. Peterson is certified by the American Board of Internal Medicine, and has a wealth of experience in the field of medicine. He is particularly renowned, however, for his basic science research in the field of obesity. He has over 120 publications in peer-reviewed journals and has been awarded the coveted titles of Master of the American

College of Physicians, Fellow of the American Heart Association, and Fellow of the New York Academy of Medicine. He is a former President of the New York Chapter of the American College of Physicians. Dr. Peterson is dedicated to teaching and has numerous teaching awards from four institutions over 35 years. He has been named in the 2017 and 2018 *Top Doctor* lists for Brooklyn, New York.

Judy Tung, M.D.

Chair of Medicine, NYP/Lower Manhattan Hospital

Dr. Judy Tung is the Chair of the Department of Medicine at the NewYork-Presbyterian/Lower Manhattan Hospital (NYP/LMH). She is also Section Chief of Ambulatory Medicine in the Weill Department of Medicine's Division of General Internal Medicine. Dr. Tung obtained her M.D. from the Albert Einstein College of Medicine of Yeshiva University in 1997 and completed her internal medicine residency training at the University of California, San Francisco, in 2000. She served for one year as a Chief Resident in Primary Care Internal Medicine at New York University before joining the faculty at NewYork-Presbyterian Hospital/Weill Cornell Medicine in 2001. Dr. Tung served as the Director of Weill Cornell Internal Medicine Associates (WCIMA) and as Interim Chief of the Division of Internal Medicine from 2009-2016. She has also held many other leadership positions at Weill Cornell, including Director of the Primary Care Residency, Associate Director of the Internal Medicine Residency, and Associate Chair of Educational Affairs. As a respected educator, Dr. Tung has received a J. James Smith Teacher of the Year Award, a Primary Care Teaching Excellence Award, and she is on the Dean's List for teaching excellence. A leading expert in general internal medicine, Dr. Tung has spoken nationally on innovative models of primary care, including the Hospital Medical Home and the ambulatory teaching practice. Additionally, she is a champion for faculty development and teaches the Leadership in Academic Medicine Program (LAMP). Dr. Tung's life's work is the cultivation of individuals to reach their highest potential. Dr. Tung was recently appointed to Dean of Faculty Development at Weill Cornell Medicine.



Thomas A. McGrath, M.B.A.

Chief Administrative Officer

Thomas A. McGrath serves as the Chief Administrative Officer for the Weill Department of Medicine. Mr. McGrath directs administrative and business activities within the department, including finance, accounting, research administration, clinical operations, capital planning, ITS, academic appointments and education. Before joining Weill Cornell Medicine, Mr. McGrath served as Chief Operating Officer at the University of Miami Health System, Director of Finance and Administration for the Department of Medicine at Stanford University, and Vice President and UCH Officer of the Comer Children's Hospital at The University of Chicago. He holds a B.A. and an M.B.A. from the University of Illinois.



Honors & Awards

Weill Department of Medicine

Honors & Awards

Research Awards

The Department of Medicine Young Investigators Award

This award is presented annually to members of the Department of Medicine below the rank of professor who perform on outstanding levels in the areas of clinical and/or basic biomedical research. Supported by the Michael Wolk Foundation.

Winner

Dan Landau, M.D., Ph.D.

Topic: Single-cell Multi-omics to Chart Malignant Blood Cell Evolution

Division: Hematology & Medical Oncology

Runners-Up

Iliyan D. Iliev, Ph.D.

Topic: Gut Mycobiota Shapes Host Immunity and Inflammatory Disease
Division: Gastroenterology & Hepatology

Marcus Goncalves, M.D., M.S.E., Ph.D.

Topic: High-Fructose Corn Syrup Enhances Intestinal Tumor Growth in Mice
Division: Endocrinology, Diabetes and Metabolism

The David E. Rogers Memorial Research Award

This award was established in 1995 to encourage medical residents to continue their investigative research in internal medicine. Four finalists are chosen to present their research at Medical Grand Rounds. The award was founded and is chaired by Holly S. Andersen, M.D., Director of Education and Outreach at The Ronald O. Perelman Heart Institute (and Associate Attending Physician at NewYork-Presbyterian Hospital and Associate Professor of Clinical Medicine at Weill Cornell Medical College) and is funded by the Holly Andersen Heart Foundation.

Winner

Maria Pabon, M.D.

Topic: Beclin-1 Regulates Cigarette Smoke-Induced Kidney Injury in a Murine Model of Chronic Obstructive Pulmonary Disease

First Runner Up

Yasin Hussain, M.D.

Topic: Role of Calcium Channel Activation in Pathogenesis of Calcific Aortic Valve Stenosis

Finalists

Peter Kennel, M.D.

Topic: Prevalence and Determinants of Hyperpolypharmacy in Adults with Heart Failure: An Observational Study from the National and Nutrition Examination Survey (NHANES)

Samuel Yamshon, M.D.

Topic: Venous Thromboembolism in Patients with B-Cell Non-Hodgkin Lymphoma Treated with Lenalidomide: A Systematic Review and Meta Analysis

The Department of Medicine Annual Fellow in Research Award

Initiated in 2002, the Fellow Award in Research is presented annually to fellows within the Weill Department of Medicine who have presented outstanding research.

Winner

Alexandra Racanelli, M.D.

Topic: Disruption of Endothelial-derived Angiocrine Factor Signaling Perturbs the Development of Pulmonary Hypertension

Runners-Up

Christopher Brown, M.D., Ph.D.

Topic: Bacterially Encoded Determinants of Transmission in Mycobacterium Tuberculosis: A New Strategy to End the Epidemic

William Zhang, M.D.

Topic: NCOA4 and Ferritin Turnover in Alveolar Macrophages: Implications for Chronic Obstructive Pulmonary Disease

Visiting Professors

The Richard T. Silver, MD Visiting Professor

April 3, 2019

David Steensma, M.D.

Dana-Farber Cancer Institute

Rogosin Institute Visiting Professor
May 15, 2019

Prabir Roy-Chaudhury, M.D.
University of North Carolina Kidney Center

Feder Visiting Professorship
October 2, 2019

Carol M. Mangione, M.D.
University of California Los Angeles

B.H. Kean-Boxer Family Foundation
Lecture in Global Health
October 23, 2019
Roger Glass, M.D.
National Institutes of Health

Dr. Robert C. and Veronica Atkins
Foundation Curriculum in Metabolic Disease Lecture
November 13, 2019
Brian A Ference, M.D., M. Phil., M.Sc.,
FACC, FESC
University of Cambridge, Cambridge, UK

Arthur Ashe Endowment-Christopher L. Barley, MD Lecturer
December 4, 2019
Adaora Adimora, M.D., M.P.H.
University of North Carolina at Chapel Hill

Endowed Professorships

Dr. Ronald D. Adelman
Emilie Roy Corey Professor in Geriatrics and Gerontology

Dr. David Artis
Michael Kors Professor in Immunology

Dr. Louis J. Aronne
Sanford I. Weill Professor of Metabolic Research

Dr. Phyllis August
Ralph A. Baer Professor of Medical Research

Dr. Ann B. Beeder
Jeanette and Jeffrey Lasdon Associate Professor of Clinical Public Health and Psychiatry

Honors & Awards (continued)

Dr. Julie Magarian Blander
Gladys and Roland Harriman Professor
of Immunology in Medicine

Dr. Carl Blobel (HSS)
Virginia F. and William R. Salomon Chair
in Musculoskeletal Research

Dr. Jon David Blumenfeld (Rogosin
Institute)
Maxwell Professor of Clinical Medicine

Dr. Robert Brown Jr.
Gladys and Roland Harriman Professor
of Medicine

Dr. Lewis C. Cantley
Meyer Directorship Endowed Chair
Margaret and Herman Sokol Professor in
Oncology Research

Dr. Mary E. Charlson
William T. Foley Distinguished Professor
in Medicine

Dr. Augustine M.K. Choi
Stephen and Suzanne Weiss Dean
Weill Cornell Medicine

Dr. David E. Cohen
Vincent Astor Distinguished Professor of
Medicine

Dr. Mary K. Crow (HSS)
Joseph P. Routh Professor of Rheumatic
Diseases in Medicine
Benjamin M. Rosen Chair in Immunology
and Inflammation Research

Dr. Ronald G. Crystal
The Bruce Webster Professor of Internal
Medicine

Dr. Andrew J. Dannenberg
Henry R. Erle, MD-Roberts Family
Professor of Medicine

Dr. Orli R. Etingin
Lisa and Sanford B. Ehrenkranz Professor
in Women's Health

Dr. Douglas Fearon
Walter B. Wriston Professor of
Pancreatic Cancer Research

Dr. Joseph J. Fins
E. William Davis, MD Professorship of
Medical Ethics

Dr. Richard R. Furman
Morton Coleman, MD Distinguished
Professor of Medicine

Dr. Roy M. Gulick
Rochelle Belfer Professorship

Dr. Barbara Hempstead
O. Wayne Isom Professor of Medicine

Dr. Anthony N. Hollenberg
Sanford I. Weill Chairman of the Weill
Department of Medicine

Dr. Julianne L. Imperato-McGinley
The Abby Rockefeller Mauzé
Distinguished Professorship in
Endocrinology in Medicine

Dr. Lionel B. Ivashkiv (HSS)
David H. Koch Chair for Arthritis and
Tissue Degeneration Research
Richard L. Menschel Research Chair

Dr. Elizabeth Leef Jacobson
Ehrenkranz Family/Orli R. Etingin, MD
Associate Professor in Women's Health

Dr. Warren D. Johnson, Jr.
B. H. Kean Professor of Tropical Medicine

Dr. Yoon Kang
Richard P. Cohen, MD Associate Professor
of Medical Education

Dr. Harvey Klein
The William S. Paley Professor of Clinical
Medicine

Dr. Mark S. Lachs
The Irene F. & I. Roy Psaty Distinguished
Professor of Clinical Medicine

Dr. John P. Leonard
Richard T. Silver Distinguished Professor
of Hematology and Medical Oncology

Dr. Bruce B. Lerman
Hilda Altschul Master Professor of
Medicine

Dr. Steven M. Lipkin
Gladys and Roland Harriman Professor of
Medicine

Dr. C. Ronald MacKenzie (HSS)
C. Ronald MacKenzie, MD, Chair in Ethics
and Medicine

Dr. Fernando J. Martinez
Bruce Webster Professor of Internal
Medicine

Dr. Bassem M. Masri
Daisy and Paul Soros/Recanati-Kaplan
Family Assistant Professor in Preventive
Cardiology

Dr. Ari Melnick
Gebroe Family Professor of Hematology-
Oncology

Dr. Henry W. Murray
Arthur R. Ashe, Jr. Professor of Medicine

Dr. David M. Nanus
Mark W. Pasmantier Professor of
Hematology and Oncology in Medicine

Dr. Stephen A. Paget (HSS)
Stephen A. Paget, MD, Chair in
Rheumatology

Dr. Jean William Pape
Howard and Carol Holtzmann Professor in
Clinical Medicine

Dr. Alessandra B. Pernis (HSS)
Peter Jay Sharp Chair in Lupus Research

Dr. Geoffrey Pitt
Ida and Theo Rossi Distinguished Professor
of Medicine

Dr. Holly G. Prigerson
Irving Sherwood Wright Professor in
Geriatrics

Dr. Shahin Rafii
Arthur B. Belfer Professor in Genetic
Medicine

Dr. M. Carry Reid
Irving Sherwood Wright Associate
Professor in Geriatrics and Gerontology

Dr. Linda Russell (HSS)
The Anne and Joel Ehrenkranz Chair in
Perioperative Medicine

Dr. Monika Safford
John J. Kuiper Professor of Medicine

Dr. Jane E. Salmon (HSS)
Collette Kean Research Chair

Dr. Ellen J. Scherl
Jill Roberts Professor of Inflammatory
Bowel Disease

Dr. Manish Shah
Bartlett Family Associate Professor of
Gastrointestinal Oncology

Dr. Eugenia L. Siegler
Mason Adams Professor of Geriatric
Medicine

Dr. Harsimran Singh
David S. Blumenthal Assistant Professor of
of Medicine

Dr. Kotha Subbaramaiah
Jack Fishman Professor of Cancer
Prevention

Dr. Manikkam Suthanthiran
Stanton Griffis Distinguished Professor of
Medicine

Dr. Scott Tagawa
Richard A. Stratton Associate
Professorship in Hematology and
Oncology

Dr. Harold E. Varmus
Lewis Thomas University Professor of
Medicine

Clinical Scholars

The Clinical Scholar Endowment is designed to provide outstanding junior faculty members in the Department of Medicine with financial support early in their careers. Support is provided specifically to help young physicians balance patient care with research and teaching. The awards allow junior faculty to make a commitment to academic medicine and, as a result, support promising new talent.

Dr. Eleni Andreopoulou
Madeline and Stephen Anbinder Clinical
Scholar in Hematology/Oncology

Dr. Eftychia Apostolou
Raymond and Beverly Sackler Research
Scholar

Dr. Tessa Del Carmen
Roland Balay Clinical Scholar

Dr. Pinkal Desai (6/1/2019 – present)
Charles, Lillian, and Betty Neuwirth
Clinical Scholar in Oncology

Dr. Jennifer Downs
Friedman Research Scholar

Dr. Bishoy Faltas
Gellert Family-John P. Leonard, M.D.
Research Scholar

Dr. Maria G. Karas
Michael Wolk Heart Foundation
Clinical Scholar in Cardiology

Dr. Jiwon Kim
Bruce B. Lerman Clinical Scholar

Dr. Sonal Kumar
Anne and Ken Estabrook Clinical
Scholar in Gastroenterology

Dr. Cynthia Lien (10/1/2019 – present)
Joachim Silberman Family Clinical
Scholar in Geriatrics

Dr. Peter Martin (1/1/2019 –
5/31/2019)
Charles, Lillian, and Betty Neuwirth
Clinical Scholar in Oncology

Dr. Margaret L. McNairy
Bonnie Johnson Sacerdote Clinical
Scholar

Dr. Sonal Mehta
Joachim Silberman Family Clinical
Scholar in Geriatric Palliative Care

Dr. Ana Molina
Anne Moore M.D. Clinical Scholar in
Hematology-Oncology

Dr. Karin-Elizabeth Ouchida (1/1/2019
– 9/30/2019)
Joachim Silberman Family Clinical
Scholar in Geriatrics

Dr. Hasina Outtz Reed
Manning Foundation Research Scholar

Dr. Sharda D. Ramsaroop (1/1/2019 –
6/30/2019)
Joachim Silberman Family Clinical
Scholar

Dr. Sarah Rutherford
John P. Leonard, M.D./Gwirtzman
Family Research Scholar in Lymphoma

Dr. Michael Satlin
William Randolph Hearst Foundation
Clinical Scholar in Microbiology &
Infectious Diseases

Dr. Edward Schenk
James P. Smith M.D. Scholar

Dr. Amy Shaw (7/1/2019 – present)
Joachim Silberman Family Clinical
Scholar

Dr. Selin Somersan-Karakaya
Nan and Stephen Swid Research
Scholar

Dr. Allison Liao Yang
Linda Horowitz Cancer Research
Foundation Clinical Scholar in
Gastroenterology

Teaching Awards

The WDOM congratulates its faculty who received teaching awards at the Weill Cornell Medicine Class of 2020 Commencement ceremony on May 28, 2020.

Leonard Tow Humanism Teacher
Susana Morales, M.D.

The Elliot Hochstein Teaching Award
Ernie Esquivel, M.D.

Class of 1952 Resident Physician Prize
Dario Villamar, M.D.

Volunteer Clinical Faculty Award of Alpha Omega Alpha
Shari Midoneck, M.D.

Senior List
Juliet Aizer, M.D.
Brian Eiss, M.D.
Ernie Esquivel, M.D.
Sydney Katz, M.D.
Michael Torres Lizardi, M.D.
Anthony Ogedegbe, M.D.
Amanda Ramsdell, M.D.
Melissa Rusli, M.D.
Alice Tang, M.D.

The National Academy of Medicine

Dr. Jeremiah A. Barondess (NY Academy of Medicine - Emeritus)
 Dr. Lewis C. Cantley
 Dr. R. Gordon Douglas, Jr. (Emeritus)
 Dr. Joseph J. Fins
 Dr. Antonio M. Gotto, Jr. (Dean Emeritus)
 Dr. Gary A. Koretzky
 Dr. Ralph L. Nachman (Emeritus)
 Dr. Carl F. Nathan
 Dr. Jean W. Pape
 Dr. Jane E. Salmon (HSS)
 Dr. Andrew I. Schafer
 Dr. Harold E. Varmus

Association of American Physicians

Dr. Peter B. Bach (MSKCC Affiliate)
 Dr. Jeremiah A. Barondess (NY Academy of Medicine - Emeritus)
 Dr. Carl P. Blobel (HSS Affiliate)
 Dr. Mary E. Charlson
 Dr. Augustine M.K. Choi
 Dr. Bayard D. Clarkson (MSKCC Affiliate – Emeritus)
 Dr. David E. Cohen
 Dr. Ronald G. Crystal
 Dr. Andrew J. Dannenberg
 Dr. R. Gordon Douglas, Jr. (Emeritus)
 Dr. James A. Fagin (MSKCC Affiliate)
 Dr. Daniel Fitzgerald
 Dr. Michael Glickman (MSKCC Affiliate)
 Dr. Antonio M. Gotto, Jr. (Dean Emeritus)
 Dr. Roy M. Gulick
 Dr. Katherine A. Hajjar (secondary appt)
 Dr. Barbara L. Hempstead
 Dr. Anthony Hollenberg
 Dr. Julianne L. Imperato-McGinley
 Dr. Lionel B. Ivashkiv (HSS Affiliate)
 Dr. Warren D. Johnson, Jr.
 Dr. Philip W. Kantoff (MSKCC Affiliate)
 Dr. Attallah Kappas (Rockefeller Affiliate – Emeritus)
 Dr. Gary Koretzky
 Dr. Mary Jeanne Kreek (Rockefeller Affiliate)
 Dr. James Krueger (Rockefeller Affiliate)
 Dr. Ross L. Levine (MSKCC Affiliate)
 Dr. Fernando Martinez
 Dr. Ari M. Melnick
 Dr. Henry W. Murray
 Dr. Ralph L. Nachman (Emeritus)

Dr. David M. Nanus
 Dr. Carl Nathan (secondary appt)
 Dr. Kenneth Offit (MSKCC Affiliate)
 Dr. Eric G. Pamer (MSKCC Affiliate)
 Dr. Geoffrey Pitt
 Dr. Marcus M. Reidenberg (Emeritus)
 Dr. Neal Rosen (MSKCC Affiliate)
 Dr. Jane E. Salmon (HSS Affiliate)
 Dr. Charles L. Sawyers (MSKCC Affiliate)
 Dr. Andrew I. Schafer
 Dr. David A. Scheinberg (MSKCC Affiliate)
 Dr. Howard I. Scher (MSKCC Affiliate)
 Dr. David B. Solit (MSKCC Affiliate)
 Dr. Wadi N. Suki (Baylor – Emeritus)
 Dr. Manikkam Suthanthiran
 Dr. Marcel R.M. van den Brink (MSKCC Affiliate)
 Dr. Thomas J. Walsh
 Dr. Babette B. Weksler (Emeritus)
 Dr. Marc E. Weksler (Emeritus)
 Dr. Jedd Wolchok (MSKCC Affiliate)
 Dr. Alastair J. J. Wood (Courtesy – Emeritus)

The American Society for Clinical Investigation

Dr. Omar Abdel-Wahab (MSKCC Affiliate)
 Dr. Abdul B. Abou-Samra (Hamad Medical Corporation Affiliate)
 Dr. Laura C. Alonso
 Dr. Peter B. Bach (MSKCC Affiliate)
 Dr. Marina Fernandes de Barros Caskey (Rockefeller Affiliate)
 Dr. John Blass (secondary appt – Emeritus)
 Dr. Richard S. Bockman (HSS Affiliate)
 Dr. Renier J. Brentjens (MSKCC Affiliate)
 Dr. Sarat Chandarlapaty (MSKCC Affiliate)
 Dr. Yu Chen (MSKCC Affiliate)
 Dr. Ping Chi (MSKCC Affiliate)
 Dr. Augustine M.K. Choi
 Dr. Bayard D. Clarkson (MSKCC Affiliate)
 Dr. David E. Cohen
 Dr. Ronald G. Crystal
 Dr. Andrew Dannenberg
 Dr. Luis A. Diaz, Jr. (MSKCC Affiliate)
 Dr. R. Gordon Douglas, Jr. (Emeritus)
 Dr. James A. Fagin (MSKCC Affiliate)
 Dr. Daniel W. Fitzgerald
 Dr. Edward Paul Gelmann (Columbia Affiliate)
 Dr. Michael S. Glickman (MSKCC Affiliate)

Dr. Antonio M. Gotto, Jr. (Dean Emeritus)
 Dr. Roy M. Gulick
 Dr. Katharine A. Hajjar
 Dr. Alan M. Hanash (MSKCC Affiliate)
 Dr. Barbara L. Hempstead
 Dr. Tobias M. Hohl (MSKCC Affiliate)
 Dr. Peter R. Holt (Rockefeller Affiliate)
 Dr. Katherine C. Hsu (MSKCC Affiliate)
 Dr. Lionel B. Ivashkiv
 Dr. Richard N. Kolesnick (MSKCC Affiliate)
 Dr. Gary Koretzky
 Dr. James G. Krueger (Rockefeller Affiliate)
 Dr. Dan A. Landau
 Dr. C. Ola Landgren (MSKCC Affiliate)
 Dr. Jeffrey C. Laurence
 Dr. John P. Leonard
 Dr. Ross L. Levine (MSKCC Affiliate)
 Dr. Steven M. Lipkin
 Dr. Ari M. Melnick
 Dr. James K. Min (secondary appt)
 Dr. Henry W. Murray
 Dr. Thangamani Muthukumar
 Dr. Ralph L. Nachman (Emeritus)
 Dr. David M. Nanus
 Dr. Carl F. Nathan
 Dr. Douglas F. Nixon
 Dr. Kenneth Offit (MSKCC Affiliate)
 Dr. Eric G. Pamer (MSKCC Affiliate)
 Dr. Alessandra B. Pernis (HSS Affiliate)
 Dr. Geoffrey S. Pitt
 Dr. David N. Posnett (Emeritus)
 Dr. Shahin Rafii
 Dr. Marcus M. Reidenberg (Emeritus)
 Dr. Kyu Y. Rhee
 Dr. Arleen B. Rifkind (secondary appt)
 Dr. Charles M. Rudin (MSKCC Affiliate)
 Dr. Michel Sadelain (MSKCC Affiliate)
 Dr. Charles L. Sawyers (MSKCC Affiliate)
 Dr. Andrew I. Schafer
 Dr. David A. Scheinberg (MSKCC Affiliate)
 Dr. Kendall A. Smith
 Dr. David Solit (MSKCC Affiliate)
 Dr. Manikkam Suthanthiran
 Dr. William D. Tap (MSKCC Affiliate)
 Dr. Marcel R.M. van den Brink (MSKCC Affiliate)
 Dr. Alan M. Weinstein
 Dr. Babette B. Weksler (Emeritus)
 Dr. Marc E. Weksler (Emeritus)
 Dr. Jedd Wolchok (MSKCC Affiliate)
 Dr. Alastair J.J. Wood (Courtesy)
 Dr. Stefan Worgall (secondary appt)

Castle Connolly Top Doctors

(This list is based on an online search of Castle Connolly America's Top Doctors conducted as of March 2020 and does not include Castle Connolly metro listings. This list includes physicians who hold titles in the WDOM.)

Allergy & Immunology

Dr. Daniel A. Burton
Dr. Michael J. Chandler
Dr. Elena S. Resnick

Cardiac Electrophysiology

Dr. Jim Cheung
Dr. James Ip
Dr. Bruce Lerman
Dr. Steven M. Markowitz
Dr. David J. Slotwiner (NYP/Queens)
Dr. Gioia Turitto (NYP/Brooklyn Methodist)
Dr. Miguel Valderrabano (Houston Methodist)

Cardiovascular Disease

Dr. Olakunle Akinboboye (NYP/Queens)
Dr. Holly Andersen
Dr. James A. Blake
Dr. David S. Blumenthal
Dr. Jeffrey S. Borer
Dr. Robert D. Campagna
Dr. Adam Deutsch
Dr. Richard B. Devereux
Dr. Hajir E. Dilmanian (NYP/Brooklyn Methodist)
Dr. Timothy C. Dutta
Dr. Jeffrey D. Fisher
Dr. Kenneth W. Franklin
Dr. Richard M. Fuchs
Dr. Harvey L. Goldberg
Dr. Kirsten O. Healy
Dr. John F. Heitner (NYP/Brooklyn Methodist)
Dr. Evelyn M. Horn
Dr. John Tzu-Lang Hsueh (NYP/Queens)
Dr. Lawrence A. Inra
Dr. Mazen O. Kamen
Dr. Robert J. Kim
Dr. Karla M. Kurrelmeyer (Houston Methodist)
Dr. John J. Mahmarian (Houston Methodist)
Dr. Bassem M. Masri
Dr. Ellen Mellow
Dr. David H. Miller
Dr. Richard L. Mueller
Dr. Sherif F. Nagueh (Houston Methodist)
Dr. Martin R. Post
Dr. Craig M. Pratt (Houston Methodist)
Dr. Miguel A. Quinones (Houston Methodist)
Dr. Mary J. Roman

Dr. Howard S. Rubin (Houston Methodist)
Dr. Steven J. Siskind (NYP/Queens)
Dr. Allison Spatz
Dr. Theodore Tyberg
Dr. Nir Uriel (NYP/Columbia)
Dr. Michael J. Wolk
Dr. Hooman Yaghoobzadeh
Dr. William A. Zoghbi (Houston Methodist)

Endocrinology, Diabetes, and Metabolism

Dr. Laura C. Alonso
Dr. Richard S. Bockman
Dr. Edmund W. Giegerich (NYP/Brooklyn Methodist)
Dr. Dale J. Hamilton (Houston Methodist)
Dr. Lainie Hurst
Dr. Barry J. Klyde
Dr. Andrew J. Martorella
Dr. Steven M. Petak (Houston Methodist)
Dr. Richard J. Robbins (Houston Methodist)
Joseph M. Tibaldi (NYP/Queens)

Family Medicine

Dr. George J. Kessler
Dr. Thomas G. Molnar (NYP/Queens)

Gastroenterology

Dr. Paul M. Basuk
Dr. Robert S. Brown, Jr.
Dr. Michael C. Cantor
Dr. Bradley A. Connor
Dr. Robert B. Cooper
Dr. Gulchin A. Ergun (Houston Methodist)
Dr. Sonal Kumar
Dr. Arnon Lambroza
Dr. Susan L. Lucak
Dr. Franklin Marsh, Jr.
Dr. Paul F. Miskovitz
Dr. Jerry Nagler
Dr. Michel E. Nussbaum (NYP/Queens)
Dr. James A. Rand (NYP/Queens)
Dr. Moshe Rubin (NYP/Queens)
Dr. Ellen Scherl
Dr. Michael J. Schmerin
Dr. Felice Schnoll-Sussman
Dr. Won Sohn (NYP/Brooklyn Methodist)
Dr. Meyer N. Solny
Dr. Donald N. Tsynman (NYP/Lower Manhattan)

Dr. Wallace J. Wang
Dr. Arnold L. Weg
Dr. Gil Weitzman

Geriatric Medicine

Dr. Ronald D. Adelman
Dr. Mark S. Lachs
Dr. Sonal S. Mehta
Dr. Barrie Lynn Raik
Dr. Eugenia L. Siegler
Dr. George E. Taffet (Houston Methodist)

Hematology

Dr. Perry C. Cook (NYP/Brooklyn Methodist)
Dr. Maria De Sancho
Dr. John P. Leonard
Dr. Ruben Niesvizky
Dr. Raymond David Pastore
Dr. Gail J. Roboz
Dr. Andrew Schafer
Dr. Koen W. Van Besien
Dr. David J. Wolf

Hospice & Palliative Medicine

Dr. Cynthia X. Pan (NYP/Queens)

Infectious Disease

Dr. Barry Brause
Dr. Ashley L. Drews (Houston Methodist)
Dr. Marshall J. Glesby
Dr. David C. Helfgott
Dr. Harold W. Horowitz (NYP/Brooklyn Methodist)
Dr. Jonathan L. Jacobs
Dr. Jason S. Kendler
Dr. Chester W. Lerner (NYP/Lower Manhattan)
Dr. Henry W. Murray
Dr. Sorana Segal-Maurer (NYP/Queens)
Dr. Paul T. Smith
Dr. Rosemary Soave
Dr. Ole Vilemeyer

Internal Medicine

Dr. Monica Altman
Dr. Louis J. Aronne
Dr. Christopher L. Barley
Dr. Baquar M. Bashey (NYP/Brooklyn Methodist)
Dr. Allan E. Beyda (NYP/Queens)
Dr. Jedidiah Burack

Castle Connolly Top Doctors (continued)

Dr. Richard P. Cohen
Dr. Symra A. Cohn
Dr. Trenton R. Collier
Dr. Arturo Constantiner (NYP/Lower Manhattan)
Dr. Chad Michael Craig (HSS)
Dr. Ward Cunningham-Rundles
Dr. Howard Eison
Dr. Orli Etingin
Dr. Laura Lani Fisher
Dr. Marina Gafanovich
Dr. Flavia A. Golden
Dr. Daniel Goldin
Dr. Catherine C. Hart
Dr. Len H. Horovitz
Dr. Matteethra C. Jacob (Houston Methodist)
Dr. Alan Bruce Kadet
Dr. Keith LaScalea
Dr. Meredith Lash-Dardia
Dr. Michael R. Leonard
Dr. Amy Lichtenfeld
Dr. George Liu
Dr. Bruce D. Logan
Dr. Samuel J. Mann
Dr. Jacqueline M. Mayo
Dr. Parag H. Mehta (NYP/Brooklyn Methodist)
Dr. Jennifer Meller
Dr. Mark L. Meyer
Dr. Shari Rochelle Midoneck
Dr. Serena A. Mulhern
Dr. Thomas Nash
Dr. Deena J. Nelson
Dr. Sonal Parr
Dr. Mark S. Pecker
Dr. Arthur I. Radin
Dr. Jill M. Rieger
Dr. Todd L. Simon (NYP/Brooklyn Methodist)
Dr. Rachel M. Smerd
Dr. Adam R. Stracher
Dr. Judy Tung
Dr. Jessica Weiser-McCarthy
Dr. Wendy S. Ziecheck

Interventional Cardiology

Dr. Douglas Ray Bree (Houston Methodist)
Dr. Sorin Brener (NYP/Brooklyn Methodist)
Dr. Neal S. Kleiman (Houston Methodist)
Dr. Shing-Chiu Wong

Medical Oncology

Dr. Alan B. Astrow (NYP/Brooklyn Methodist)
Dr. Jenny C. Chang (Houston Methodist)
Dr. Morton Coleman
Dr. Julian A. Decter
Dr. David C. Dosik (NYP/Brooklyn Methodist)
Dr. Lauren Elreda
Dr. Howard A. Fine
Dr. Robert M. Gelfand
Dr. Manuel Hidalgo
Dr. Nancy E. Kemeny (MSKCC)
Dr. Ana Molina
Dr. David M. Nanus
Dr. Allyson J. Ocean
Dr. Mark W. Pasmantier
Dr. Bonnie S. Reichman
Dr. Joseph T. Ruggiero
Dr. Scott T. Tagawa
Dr. Andrew D. Zelenetz (MSKCC)

Nephrology

Dr. Phyllis August
Dr. Jon D. Blumenfeld
Dr. Stuart Saal
Dr. David Serur
Dr. Bruce S. Spinowitz (NYP/Queens)
Dr. Lawrence E. Stam (NYP/Brooklyn Methodist)
Dr. John C. Wang
Dr. Ruth L. Wintz (Houston Methodist)

Pulmonary Disease

Dr. David Berlin
Dr. Lester W. Blair (NYP/Lower Manhattan)
Dr. Clinton H. Doerr (Houston Methodist)
Dr. Brian D. Gelbman
Dr. Liziamma George (NYP/Brooklyn Methodist)
Dr. Fabio Giron
Dr. Daniel M. Libby

Dr. Rameen M. Miarrostami (NYP Brooklyn Methodist)
Dr. Michael S. Niederman
Dr. Anthony Saleh (NYP/Brooklyn Methodist)
Dr. Abraham Sanders
Dr. Eugene Shostak
Dr. Sidney K. Stein
Dr. Jeremy A. Weingarten (NYP/Brooklyn Methodist)
Dr. Dana Zappetti

Rheumatology

(Hospital for Special Surgery)

Dr. Juliet B. Aizer
Dr. Dalit Ashany
Dr. Anne R. Bass
Dr. Doruk Erkan
Dr. Theodore R. Fields
Dr. Allan Gibofsky
Dr. Susan M. Goodman
Dr. Jessica K. Gordon
Dr. Alana B. Levine
Dr. C. Ronald MacKenzie
Dr. Steven K. Magid
Dr. Joseph A. Markenson
Dr. Stephen Paget
Dr. Edward Parrish
Dr. Linda Russell
Dr. Lisa R. Sammaritano
Dr. Sergio Schwartzman
Dr. Robert Spiera
Dr. Richard Stern
Dr. Hendricks H. Whitman III
Dr. Arthur M. F. Yee

Sleep Medicine

Dr. Dianne M. Augelli
Dr. Ana C. Krieger
Dr. Gerard T. Lombardo (NYP/Brooklyn Methodist)

Sports Medicine

Dr. Lisa R. Callahan (HSS)
Dr. Scott E. Rand (Houston Methodist)
Dr. Christian M. Schupp (Houston Methodist)

Division Profiles

Weill Department of Medicine

Weill Cornell
Medicine

Care.
Discover.
Team.

Cardiology



Bruce B. Lerman, M.D.
Chief, Maurice R. and Corinne
P. Greenberg Division of
Cardiology

Hilda Altschul Master
Professor of Medicine

Professor of Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian
Hospital

The Maurice R. and Corinne P. Greenberg Division of Cardiology is a leader in cardiovascular research, education, and clinical care. The division's mission is to remain at the forefront of scientific and technological developments that are revolutionizing cardiology and to translate these findings to the clinical bedside. Our internationally renowned programs investigate the basic mechanisms of cardiovascular disease, including the genetics of heart disease, the cellular signals and transcription factors responsible for cardiac development, the transformation and homing of stem cells for myocardial regeneration, and the delineation of the molecular bases for cardiac arrhythmias. Strategies are continually implemented to enhance physical space, expand comprehensive clinical programs, and continue our history of cutting-edge research. The division continues to develop and deliver cutting-edge therapies for heart disease and to advance clinical investigation. Expert faculty provide mentoring, training, and supervision to medical students, internal medicine residents, and fellows in cardiology, preparing them as tomorrow's leaders. The faculty also provide a host of weekly conferences for internal and external colleagues.

From basic science, investigating the mechanisms of arrhythmias and large population-based studies of new diagnostic and therapeutic approaches, to a vast array of cardiovascular conditions and diseases, the focus is on improving patient care. This involves our faculty and all cardiology fellows-in-training, as well as postdoctoral trainees and graduate and medical students, thus creating a rich intellectual milieu in which trainees develop into experienced investigators.

Clinical services achieve superior outcomes in all areas, from interventional and imaging laboratories, to outpatient consultative and ongoing care. Patient

care covers the full spectrum of heart and vascular diseases, including, but not limited to, arrhythmias, coronary and peripheral arterial disease, valve disease, inherited heart diseases, as well as heart failure and transplantation cardiology. To facilitate immediate treatment of patients presenting in the early stages of a heart attack, there exists 24-hour, in-hospital coverage of the Cardiac Intensive Care Unit, Telemetry and Step-Down Unit, and the interventional laboratory.

The division is particularly proud of its Cardiac Catheterization Laboratory and performance under the leadership of Dr. Shing-Chiu Wong. In the latest data published by the New York State Department of Health (year 2016), the Cornell Catheterization Laboratory had the lowest risk-adjusted mortality for percutaneous angioplasty for any laboratory in the state. Dr. Wong has been named Guest Editor for the American Heart Association's journal, *Circulation: Cardiovascular Interventions*.

After more than four decades of outstanding service on the faculty of the Division of Cardiology, Dr. Paul Kligfield has retired. The division congratulates Dr. Kligfield on his distinguished career in cardiology as a physician, investigator, and educator, and for his years of service at the division's Coleman Center for Electrocardiography. Coinciding with Dr. Kligfield's retirement, Dr. S. Andrew McCullough, Assistant Professor of Clinical Medicine, has been named Associate Director of the Coleman Center for Electrocardiography. Dr. McCullough earned his M.D. from the Mount Sinai School of Medicine, where he received the Harold Elster Memorial Prize for Highest Academic Standing, served his residency in internal medicine at Massachusetts General Hospital and Harvard Medical School, and completed fellowship training in cardiovascular diseases and echocardiography at Mount Sinai Hospital.



Dr. Lerman (center) with faculty from the division.

Dr. McCullough will work with the center's director, Dr. Peter M. Okin, who also serves as Director of Clinical Affairs for the division and as Director of the Cardiac Graphics Laboratory. One of the busiest centers of its kind in the nation, the Coleman Center for Electrocardiography provides state-of-the-art services and professional interpretation of a range of inpatient and outpatient electrocardiographic procedures, including routine 12-lead electrocardiograms (ECGs), ambulatory and event monitor recordings, exercise ECGs, signal-averaged ECGs, and transtelephonic pacemaker monitoring.

The division's faculty remain on the forefront of breakthrough advances in research producing many publications in peer-reviewed journals. Demonstrating the reach of the division's investigations, in 2019, Dr. James Lo, Assistant Professor of Medicine, and colleagues published a paper in *Nature Medicine* on diabetes – a major risk factor in heart disease. Showing how healthy fat can avert diabetes, the research focused on adiponectin (a protein produced by fat cells) and followed several lines of study that yielded significant advances

towards improved treatment for type 2 diabetes. The investigation also included a collaboration on human studies that involved 5,570 people from the Framingham Heart Study. Ultimately, Dr. Lo and colleagues hope that by using adiponectin, or ADPN therapies, patients with type 2 diabetes will be prevented from developing beta cell failure and thus spared from insulin injections.

Cardiology Fellowships

- Cardiology: 3-year program that prepares highly qualified candidates for careers in investigative and clinical cardiology. Harsimran Singh, M.D., Program Director
- Clinical Cardiac Electrophysiology (CCEP): 2-year training fellowship for intensive clinical training in mapping and ablation of complex arrhythmias. Jim W. Cheung, M.D., Program Director
- Interventional Cardiology: one-year advanced training fellowship in all areas of interventional cardiology, including drug eluting stents, rotational atherectomy, thrombectomy devices, distal protection devices and intravascular ultrasound. Robert Minutello, M.D., Program Director
- Advanced Heart Failure and Transplant Cardiology: 1-year training program in the management of the advanced congestive heart failure patient population. Irina Sobol, M.D., Program Director

Clinical Epidemiology and Evaluative Sciences Research



Mary E. Charlson, M.D.
Chief, Division of Clinical Epidemiology
and Evaluative Sciences Research
Executive Director, Center for
Integrative Medicine
William T. Foley
Distinguished Professor of Medicine
Professor of Medicine
Weill Cornell Medical College
Attending Physician
NewYork-Presbyterian Hospital

The Division of Clinical Epidemiology and Evaluative Sciences Research draws upon the talents and experience of a multidisciplinary group of faculty based at Weill Cornell Medicine, Cornell University-Ithaca, Cornell Tech, and other institutions. Faculty members are experts in qualitative and quantitative research methodology, health

new generation of investigators via training grants and other opportunities. As leaders in population health research, the division plays a unique role at Weill Cornell Medicine through its contributions to behavioral science, health disparities, and population health, and it has enrolled more than 3,000 patients in clinical research studies. The



Dr. Charlson with trainees.

services research, clinical epidemiology, medical informatics, decision sciences, health disparities research, community-based participatory research, clinimetrics, outcomes research, and behavioral science. They work together in a series of activities designed to encourage, and systematically support, the development of new research initiatives within, and outside, the division.

Research efforts in the division include a strong track record with the NIH and PCORI and an ongoing commitment to fostering a

division provides national leadership in bending the cost curve by implementing innovative and evaluative strategies for population management focused on interventions in high comorbidity patients.

Related areas of investigation include studies to improve clinical outcomes, behavioral science research, research on complex patients with a significant burden of comorbidity, and comparative effectiveness. The division seeks to stimulate and support new clinical, health services, and outcomes research within and outside of Weill Department of Medicine. Divisional faculty lead graduate training programs in clinical epidemiology and research methodology. Graduates of the Master's program in Clinical Epidemiology and Health Services Research have received more than \$200 million in peer-reviewed funding. Faculty in the division continue to publish top-tier research papers focused on improving outcomes of patients with chronic illness.

Hunter-Cornell NHLBI Health Disparities Fellowship

Carla Boutin Foster M.D., M.S.
Rodrigo Valles, Ph.D.
Mary E. Charlson, M.D.

A two-year training program (T32 NHLBI Fellowship Program) that trains pre- and post-doctoral students and residency physicians to conduct methodologically rigorous research focused on cardiovascular health disparities in a multidisciplinary environment.

Endocrinology, Diabetes and Metabolism



Dr. Laura Alonso
Chief, Division of Endocrinology,
Diabetes and Metabolism
Director, Weill Center for
Metabolic Health
Professor of Medicine
Weill Cornell Medical College
Attending Physician
NewYork-Presbyterian Hospital

In the fall of 2019, Dr. Laura Alonso was appointed to Chief of the Division of Endocrinology, Diabetes and Metabolism in the Weill Department of Medicine. She is also the newly appointed Director of the Weill Center for Metabolic Health. An elected member of the American Society for Clinical Investigation, Dr. Alonso is a leading physician-scientist in the field of endocrinology and an authority on the basic biology of pancreatic beta cell regeneration.

As part of a world-class academic medical center, the Division of Endocrinology, Diabetes and Metabolism is dedicated to excellence in providing quality care to patients with endocrine and metabolic disorders; conducting ground-breaking research to advance the frontiers of endocrinology and diabetes; and training of highly motivated and dedicated physicians to become successful clinicians and physician-scientist leaders in academic medicine.

monitoring systems, and state-of-the-art hybrid closed-loop systems. The division receives federal funding to support ongoing clinical research in diabetes.

The division's areas of expertise in clinical care also include: general endocrinology; reproductive endocrinology, including the treatment of menstrual irregularities, hirsutism, and menopause; all forms of thyroid disease including thyroid nodules and cancer; disorders of calcium metabolism, osteoporosis, and metabolic bone disease; and disorders of the pituitary and adrenal glands. Should surgery be necessary for the treatment of an endocrine disorder, physicians routinely collaborate with a team of experienced endocrine surgeons.

The subspecialty fellowship training program in Endocrinology, Diabetes and Metabolism is designed to provide the education and experience necessary to acquire not only the clinical competencies critical to becoming an expert in this field, but also mentoring towards a basic or clinical endocrine research career in academia.

The division conducts promising state-of-the-art research to generate new knowledge and improve understanding with the ultimate goal of applying the latest scientific and medical advances for the prevention, detection, and treatment of patients with endocrine diseases. In 2019, Dr. Alonso brought her state-of-the-art laboratory research to the division, which is focused on the goal of identifying approaches to increase the insulin-producing capacity of the pancreas to prevent or treat diabetes. Her work is funded by the NIH and the American Diabetes Association.

Drs. Anthony Hollenberg, Marcus Goncalves, Megan Ritter, and Kristen Vella also direct endocrine research in the Belfer Research Building. Dr. Hollenberg, a physician-scientist, serves as Chair of the Weill Department of Medicine and is the recipient of the Sidney H. Ingar



Dr. Felicia Mendelsohn Curanaj (L)
and **Dr. Aaron Schulman (R)**.

Endocrinology provides the highest standard of care for patients with type 1, type 2, and gestational diabetes mellitus, offering a multidisciplinary team approach for diabetes care with comprehensive case management and the development of an individualized treatment plan. Expert teams are composed of diabetologists, certified diabetes educators, and registered nutritionists who are experienced in intensive diabetes management, including insulin pump therapy, continuous glucose

Endocrinology, Diabetes and Metabolism

Distinguished Lectureship Award and multiple NIDDK R01s. Dr. Goncalves is a physician-scientist with grants from the NCI (K08) and the Lung Cancer Research Foundation. Dr. Ritter is a physician-scientist and the recipient of a Fund for the Future Award.

The division's clinical studies in diabetes include The Epidemiology of Diabetes Intervention and Complications Trial (EDIC), a continuation of the multicenter Diabetes Control and Complications Trial (DCCT) showcasing the lasting effects of intensive glucose control on long-term complications of diabetes. The division participated in the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial, an important multicenter study that outlined the limits of benefit of tight control in patients with type 2 diabetes, as well as the multicenter PERL study (Prevention of Early Renal Loss) that

determined that lowering uric acid did not prevent kidney disease in type 1 diabetes. Ongoing Quality Improvement projects include standardizing and streamlining the Diabetic Ketoacidosis (DKA) Guidelines in the Weill Cornell Medical ICU and in the Lower Manhattan Hospital's ICU, including a nurse-directed DKA protocol and an effective subcutaneous-delivery DKA protocol that was widely adopted during the COVID-19 pandemic; a new, simpler inpatient diabetes regimen using the oral medication sitagliptin; expanding ways to integrate each patient's blood glucose data into their outpatient visit for all of the latest diabetes technologies; and a new program helping young adults with type 1 diabetes transition seamlessly from pediatric to adult endocrine care.

Other major areas of research include the Clinical and Translational Science Center (CTSC), for which Dr. Imperato-McGinley serves as the Principal Investigator and Program Director of Weill Cornell Medical College's \$46 million NIH-funded Clinical and Translational Science Award (CTSA). The CTSC supports a wide range of clinical research training and advances that extend far beyond endocrinology.

The Comprehensive Weight Control Center, located at 1165 York Avenue in Manhattan, is directed by Dr. Louis J. Aronne, Professor of Clinical Medicine and the Sanford I. Weill Professor of Metabolic Research. Dr. Aronne and a staff of endocrinologists, nutrition, and obesity medicine specialists have developed and provide a uniquely effective form of "weight-centric" patient care to achieve weight loss in complex cases, which has provided the clinical foundation for the field of Obesity Medicine. The research staff runs clinical trials on the management of obesity and metabolic disease with diet, medication, and novel devices, and has fostered collaborations with multiple divisions and departments at WCM to develop cross-discipline treatment and research programs. The center trains students at all levels and mentors Master's students from the Institute for Human Nutrition, Columbia University, and Weill Cornell Medical College.

The division expresses its sincerest thanks to Dr. Julianne Imperato-McGinley who led the Division of Endocrinology, Diabetes and Metabolism with remarkable skill and tireless leadership for 25 years.

Endocrinology, Diabetes and Metabolism Fellowship

The Endocrinology, Diabetes and Metabolism fellowship is a joint program with NewYork-Presbyterian/Weill Cornell Medicine, Memorial Sloan-Kettering Cancer Center (MSKCC), and the Hospital for Special Surgery (HSS). It is a two-year training program accredited by the Accreditation Council for Graduate Medical Education (ACGME).

Aaron Schulman, M.D.
Program Director

Associate Program Directors:
Felicia Mendelsohn Curanaj, M.D.
Stephanie Fish, M.D.
Richard S. Bockman, M.D., Ph.D.

Obesity Medicine Fellowship

Leon I. Igel, M.D.
Program Director

Associate Program Directors:
Rekha B. Kumar, M.D., M.S.
Katherine H. Saunders, M.D.
Louis J. Aronne, M.D.

Alpana Shukla, M.D.
Research Director

Gastroenterology and Hepatology



David E. Cohen, M.D., Ph.D.
Chief, Division of
Gastroenterology and
Hepatology

Vincent Astor Distinguished
Professor of Medicine

Professor of Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Division of Gastroenterology and Hepatology provides outstanding patient care in a wide range of subspecialty areas, including hepatology, inflammatory bowel disease (IBD), gastrointestinal reflux disease, advanced endoscopic diagnostic and therapeutic procedures, functional bowel disorders, gastrointestinal infections and gastrointestinal cancer prevention and treatment. The division houses the Jay Monahan Center for Gastrointestinal Health, the Center for Liver Disease and Transplantation, and The Jill Roberts Center for Inflammatory Bowel Disease. There is also a pancreas program. Patient care addresses the prevention and treatment of viral and alcoholic hepatitis, fatty liver, obesity, gastrointestinal cancers, Barrett's esophagus, IBD, disorders of gastrointestinal motility, pancreatic lesions, gastrointestinal diseases, and more.

Numerous research projects and clinical trials are underway. Dr. David E. Cohen, Division Chief, is world-renowned for leading the frontiers of molecular regulation of nutrient metabolism and energy homeostasis

by membrane lipids. His seminal advances in research are directly benefiting the clinical setting with a focus on obesity-related liver disease. Dr. Robert S. Brown, Jr., the division's Clinical Chief and Vice Chair for Mentorship and Academic Development in the Weill Department of Medicine, continues to direct a robust liver transplant program. The Center for Liver Disease and Transplantation combines the Liver Transplantation program and the general hepatology program within the division, as well as the Liver Transplant Surgery Division of the Department of Surgery. This interdepartmental program has laid the foundation for a comprehensive hepatology program at Weill Cornell Medicine with clinical trials in hepatitis B and C, fatty liver disease, and alcoholic hepatitis.

Dr. Brown (in collaboration with Dr. Benjamin Samstein, Chief of liver transplantation and hepatobiliary surgery in the Department of Surgery at NewYork-Presbyterian/Weill Cornell Medical Center) received United Network for Organ Sharing certification in support of a "living donor"



Gastroenterology and Hepatology

liver transplant program, thus expanding access to life-saving liver transplants for those in need.

Dr. Felice Schnoll-Sussman serves as Director of Endoscopy, including the 11 new high-tech endoscopy suites at the David H. Koch Center on York Avenue. Dr. Schnoll-Sussman is also Director of the Jay Monahan Center for Gastrointestinal Health, which offers a wide breadth of expertise including endoscopic ultrasound, capsule endoscopy, colorectal genetics, colon cancer prevention, endoscopic treatment of Barrett's esophagus, and esophageal motility. Dr. Reem Sharaiha, Director of Interventional Endoscopy, also oversees the Endoscopic Bariatric Program, which provides the full spectrum of novel technologies related to endoscopic treatment of obesity. This advanced endoscopy group offers endoscopic suturing, confocal endomicroscopy for early detection of GI cancers, photodynamic therapy and radiofrequency ablation for pancreatico-biliary cancers, endoscopic drainage of pseudocysts, endoscopic necrosectomy and EUS-guided ERCP, and POEM (treatment of esophageal achalasia). Dr. Randy Longman is Director of the Jill Roberts Center for Inflammatory

Bowel Disease (IBD), which provides state-of-the-art patient care for IBD patients at the David H. Koch Center. This center has enabled the division to recruit multiple new faculty members who are providing expert care. Dr. Sonal Kumar is Director of a multidisciplinary fatty liver disease and weight management clinic named the Innovative Center for Health and Nutrition in Gastroenterology (ICHANGE).

Dr. Robert Burakoff has been serving as the Vice Chair for Ambulatory Services for the Weill Department of Medicine, and he is the Site Chief for the Division of Gastroenterology and Hepatology at NYP/Lower Manhattan Hospital and Weill Cornell Medicine, where Dr. Tibor Krisko serves as Associate Site Chief.

The Jill Roberts Institute for Research in Inflammatory Bowel Disease employs a multidisciplinary approach in translating scientific discoveries into new preventative and treatment strategies for IBD. The close collaboration between researchers at the Roberts Institute (Director, Dr. David Artis) and clinicians at the Jill Roberts Center at Weill Cornell Medicine and NewYork-Presbyterian Hospital is enabling a trend towards more personalized treatment for IBD. The Jill Roberts Center is active in research studies focused on moderate to severely active Crohn's Disease and ulcerative colitis, eating patterns and disease activity in patients with IBD, and health care maintenance in patients with IBD.

2019 was a banner year for research publications. Dr. Chun-Jun Cho and colleagues published a paper in *Science*, entitled, "Depletion of microbiome-derived molecules in the host using *Clostridium* genetics." Dr. Gregory Sonnenberg published in multiple journals, including a paper in *Nature* entitled, "Innate lymphoid cells support regulatory T cells in the intestine through interleukin-2." Dr. David Artis published a paper in *Nature* entitled, "The microbiota regulate neuronal function and fear extinction learning," and Dr. Iliyan Ilije published the paper, "Endocytosis of commensal antigens by intestinal epithelial cells regulates mucosal T cell homeostasis," in *Science*. These are a few highlights of the many top-tier peer-reviewed papers published by the division's faculty.

Gastroenterology and Hepatology Fellowship

Carl Crawford, M.D.
Program Director

A 3-year program that focuses on specialized rotations and research, including opportunities to participate in clinical research (e.g., hepatology, inflammatory bowel disease, cancer screening, endoscopic ultrasound, the microbiota of the GI tract, endoscopic imaging techniques). We continue to recruit top candidates nationally and our fellows are pursuing academic careers in hepatology, advanced endoscopy, IBD, motility, as well as other disciplines within gastroenterology.

General Internal Medicine



Monika Safford, M.D.
Chief, Division of Internal Medicine
John J. Kuiper Professor
of Medicine
Professor of Medicine
Weill Cornell Medical College
Attending Physician
NewYork-Presbyterian Hospital

The Division of General Internal Medicine is home to the sections of Adult Internal Medicine, Hospital Medicine, Integrative Health, and the Research Group, and includes more than 300 employed and voluntary faculty. The division's tripartite mission is focused on providing compassionate, comprehensive, coordinated, and state-of-the-art patient-centered care for every patient through evidence-based practice; educating the next generation of Internal Medicine physicians; and generating new evidence on how to optimize the overall health and well-being of patients and communities via collaborative research. The division's multidisciplinary faculty is deeply committed to excellence and advancement in patient care via its Hospital Medicine, Adult Internal Medicine, and Integrative Health programs; resident and medical student education; and cutting-edge research.

Division Chief, Dr. Monika Safford, is an expert in diabetes, cardiovascular epidemiology and prevention, patient-centered care, and health disparities. She is the author of more than 450 peer-reviewed publications, receives ongoing funding from the National Institutes of Health and other sources, and has chaired several national meetings. She is the Founding Co-Director of the university-wide Cornell Center for Health Equity, which she leads along with Avery August, Ph.D., Vice Provost for Academic Affairs for Cornell University. She is the founder of the Patient Activated Learning System, a novel patient education platform being developed in collaboration with division and other college faculty members.



Dr. Judy Tung

Dr. Judy Tung is the Division's Section Chief of Adult Internal Medicine (AIM) and served as Chair of the Department of Medicine at NewYork-Presbyterian/Lower Manhattan Hospital until 2020. The AIM program includes

over 40 academic full-time members who provide high-quality and comprehensive primary care for a diverse group of patients representing a cross section of the ethnic, cultural, and economic diversity that is New York City. The program integrates faculty and trainee practices at locations on the Upper East Side (Weill Cornell Internal Medicine Associates [WCIMA]), in lower Manhattan, and in Long Island City, Queens. Services include preventive healthcare, treatment of acute and chronic illness, and coordination of care for those with medical complexity. Regardless of insurance plan type, patients seen in the AIM practices are cared for by a cadre of outstanding healthcare providers. This Section is the primary hub for general medicine ambulatory education for the Internal Medicine Residency Training Program.



Dr. Art Evans

Dr. Arthur Evans is the Division's Section Chief of Hospital Medicine. The Hospital Medicine program includes 83 faculty members from around the country. All faculty are board certified in Internal Medicine and many have additional training and subspecialty expertise (e.g., infectious disease, emergency medicine, nephrology, critical care, medical informatics, pain management, quality improvement, and clinical research). On any given day, the faculty provides care for over 200 inpatients at both the Upper East Side and NewYork-Presbyterian/Lower Manhattan and Weill Cornell campuses. Physicians are responsible for the general medicine house staff service, medicine consult service, and medicine-orthopedics trauma service, and they oversee the medicine Physician Assistants Service.

The Integrative Health and Wellbeing program, led by Executive Director Dr. Chiti Parikh, provides clinical services at the David H. Koch Center on the Upper East Side. Patients receive a whole person approach to medical care, offering comprehensive

General Internal Medicine

evaluation (e.g., laboratory testing and services such as acupuncture, massage therapy, nutrition counseling, yoga instruction, mindfulness coaching, and meditation instruction).

Dr. Fred Pelzman, Associate Professor of Clinical Medicine, continues to serve as Medical Director of Weill Cornell Internal Medicine Associates (WCIMA), as well as directs the Primary Care Innovations Program, a philanthropically funded initiative to increase innovation in primary care.

The division's Research Group is led by Dr. Safford, assisted by Associate Director for Research, Dr. Lisa Kern. The focus is on generating new evidence to optimize the health and functioning of people living with chronic diseases. There are studies on chronic disease prevention with attention to the elimination of health disparities and the care of vulnerable populations in the U.S. and abroad. Funded programs include cardiovascular and cancer clinical epidemiology and population health, implementation science, behavioral interventions, and whole person care for patients with advanced chronic illness. Research Group faculty are funded by the NIH, Patient Centered Outcomes Research Institute, Commonwealth Fund, Robert Wood Johnson Foundation, American Heart Association, and private sponsors. New projects include: an epidemiology cohort being constituted in Haiti to study antecedents to a hypertension epidemic in young adults led by Dr. Margaret McNairy; the creation of a community-based infrastructure for community-engaged research to eliminate health disparities in Brooklyn led by Dr. Erica Phillips; a study of deprescribing in older adults led by Dr. Parag Goyal; studies of home health aides and health outcomes led by Dr. Madeline Sterling; fragmented ambulatory care associations with worse cardiovascular disease risk factor control overall and by race among cancer survivors led by Drs. Lisa Kern and Laura Pinheiro; and studies seeking to understand why African-Americans delay total knee replacement surgery led by Dr. Iris Navarro-Millan. Dr. Justin Choi will study procalcitonin and Dr. Arnab Ghosh will study disparities in hospital care funded by KL2 awards from the Clinical and Translational Research Center. Ongoing studies are supported by the "REasons for Geographic And Racial Differences in Stroke (REGARDS)" study and the "Southeastern Collaboration to Improve Blood Pressure" Control implementation trial, both led by Dr. Safford. The division hosts students and trainees to provide immersive mentored research experiences.

Building upon the Hospital Scholars Program and the Global Health Fellowship, the division founded the General Internal Medicine and Hospital Scholars Research Fellowship, which trains general internists for academic careers in primary care, hospital medicine, and health services research. This innovative mentored research fellowship focuses on physicians who aim to become extramurally funded independent scientists. It is uniquely designed to deepen trainees' understanding of healthcare, local and international healthcare delivery systems, epidemiology of disease, and interventions to improve health outcomes, especially for disadvantaged populations. The two- to three-year fellowship, co-directed by Dr. Margaret L. McNairy and Dr. Monika M. Safford, provides trainees with the skills to design and conduct patient-centered and health systems research and prepare for NIH K-award submissions by the end of the program. Tailored one-on-one faculty mentorship and multidisciplinary collaborations with faculty at Weill Cornell Medicine, the Cornell Center for Health Equity, the Weill Cornell Center for Global Health, the Sandra and Edward Meyer Cancer Center, Cornell Tech, and other affiliated programs.

The new 1-year Hospital Medicine Point of Care Ultrasound (POCUS) Clinical Fellowship launched in July 2019. The fellowship's objectives are to achieve proficiency in basic and advanced point of care ultrasound; learn how to organize, manage, and promote an academic ultrasound-guided procedure service; obtain national certification; achieve proficiency in teaching point of care ultrasound to students, residents, and faculty; design and lead point of care ultrasound quality improvement projects; and participate in POCUS research with the goal to present results at national meetings.

The Integrative Medicine Clinical Fellowship led by Alka Gupta, MD, is a two-year fellowship designed to offer comprehensive education and hands-on experience in the field of Integrative Medicine. This program accepted its first fellow in July 2019.

The division founded the Hospital Medicine POCUS Training program led by Drs. Tanping Wong and Gregory Mints (offered 2-3 times annually). The week-long training session geared to practicing hospitalists and residents aims to achieve competency in POCUS. The teaching faculty span two hospitals and have taught ultrasound at the national level at the American College of Physicians and the Society of Hospital Medicine and are involved in developing policy around

HM-POCUS sponsored by the Society of Hospital Medicine. All core POCUS faculty have completed certification pathways by the American College of Chest Physicians and/or the Society of Hospital Medicine.

The division includes the leadership of the College-wide year-long faculty development program, Leadership in Academic Medicine Program (LAMP), directed by Dr. Judy Tung. It also includes leadership of the now College-wide Quality Improvement Academy, led by Dr. Jennifer Inhae Lee. This program competitively selects fellows who learn principles of quality improvement and rigorous evaluation over a year-long program designed to expand expertise in quality improvement among Weill Cornell's clinical faculty.

The division's faculty continue to lead The Cornell Center for Health Equity (CCHEq), a university wide center whose mission is to advance health equity by generating and sharing new knowledge; training outstanding investigators, with an emphasis on people from underrepresented groups; educating students, trainees, faculty, and communities; engaging with diverse communities in this work; and applying knowledge to maximize its impact on practice and policy. The CCHEq's Weill Medical College's co-Director is founder Dr. Safford, joined on the Ithaca campus by Avery August, Ph.D. On the Weill campus, the Community Engagement Core is led by GIM faculty member Dr. Erica Phillips and the Investigator Development Core is led by Dr. Joseph Osborne (Radiology). The Education Core is led by division member Dr. Susana Morales. The activities of the Education Core are funded by HRSA in the form of the Diversity Center of Excellence led by Dr. Morales, Vice Chair for Diversity, WDOM, and Dr. Safford. The Center is dedicated to increasing the number of underrepresented minority (URM) physicians in academic medicine and is expanding pipeline programs from middle school through undergraduates; enhancing support for URM medical students and trainees; expanding faculty development for hiring and retention of URM faculty; and generating new knowledge on how to achieve health equity.

The CCHEq is home to the Patient Activated Learning System (PALS), a patient education web-based platform specifically targeted at populations with low health literacy. The development team includes Drs. Safford, Fred Pelzman, Sanjai Sinha, Laura Gingras, and Keith Roach. The PALS provides highly engaging,

easily understood, conflict-free medical information for the lay public free of charge -- palsforhealth.com. The PALS is being integrated into several research projects and curriculum development to optimize physician-patient communication for diverse patients.

The 2019 Cornell Health Equity Symposium held in Ithaca, NY attracted more than 70 guests from the medical and public health sectors (co-directed by Dr. Safford, along with Dr. Avery August, Vice Provost for Academic Affairs, Cornell University); guest speaker, Wilma Alvarado-Little, Director of Minority Health and Health Disparities Prevention of NYS Department of Health presented on "Addressing Health Disparities and Achieving Health Equity." The symposium explored health equity, from clinical research and basic sciences, to building academic community partnerships in support of scholarly projects. It included remarks from Provost Michael Kotlikoff, Ph.D. and was attended by Weill Cornell Medicine and Cornell University faculty members and students.

Weill Cornell Medicine was competitively selected as a #ProudtobeGIM institution for the second year in a row in 2019 by the Society for General Internal Medicine. Our successful application was spearheaded by Dr. Judy Tung. On February 28, 2019, the division hosted the second annual Primary Care Innovation Symposium in conjunction with the national #ProudtobeGIM campaign in the Belfer Research Building with over 100 attendees from Weill Cornell Medicine, NYP Brooklyn Methodist, and NYP Queens. The daylong event covered the full spectrum of General Internal Medicine programs with poster sessions, networking opportunities, and various workshops. The month of February hit 1.3M Twitter impressions with hashtag #PTBGIM.

2019 Honors: Dr. Ernie Esquivel was appointed Associate Vice Chair for Education in the Weill Department of Medicine; Dr. Arthur Evans received the first Dean's Award for Excellence in Mentorship; Stasi Lubansky, DNP, was selected by the American Holistic Nurses Association of New York to serve on their Board of Directors; Dr. Margaret McNairy was promoted to Associate Professor of Medicine on the Pathway of Academic Achievement and Scholarship; Dr. Susana Morales co-hosted the National Hispanic Medical Association New York City Chapter Policy Forum at Weill Cornell; Dr. Erica Phillips received an award from the Family and Friends Christian Worship Center along with Alvin V. Freeland at the Crystal Awards 2019 Ceremonial Gala; Dr. Madeline Sterling presented the abstract "Social Determinants of Health and 90 Day Mortality after Hospitalization for Heart Failure in the REGARDS Study" that received the Paul Dudley White International Scholar Award from the American Heart Association (co-authors include division members Drs. Parag Goyal, Laura Pinheiro, Joanna Ringel, Erica Phillips, Monika Safford).

Geriatrics and Palliative Medicine



Ronald D. Adelman, M.D.
Co-Chief, Division of Geriatrics and Palliative Care

Medical Director, Irving Sherwood Wright Center on Aging

The Emilie Roy Corey Professor in Geriatrics and Gerontology

Professor of Clinical Medicine Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital



Mark S. Lachs, M.D., M.P.H.
Co-Chief, Division of Geriatrics and Palliative Care

Director, Geriatrics for the NewYork-Presbyterian Health System

The Irene F. and I. Roy Psaty Distinguished Professor of Clinical Medicine

Professor of Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Division of Geriatrics and Palliative Medicine is guided by a patient-centered culture of care. By integrating high-quality clinical care, the teaching of geriatric and palliative medicine, and scientific research, the division seeks to improve the quality of life for older adults and for patients of all ages facing chronic illness and end-of-life. The division also supports the networks of patient families and caregivers.

Over the course of 2019, the Division coordinated the renaming and relocation of the Irving Sherwood Wright Center on Aging from its original location on 1st Avenue and 78th street to the NYP/Weill Cornell Medical Center campus on Payson 2. Under the leadership of Executive Director, Dr. Ronald D. Adelman, Emilie Roy Corey Professor of Geriatrics and Gerontology, the new Center on Aging will open in 2020. In 2019, while faculty and staff continued to provide superb care to our geriatric patients, they focused additionally on the many details that would ensure a seamless move to a brand new, state-of-the-art and highly patient-focused

setting. The practice is structured to meet the complex needs of older adults, together with the needs of their families and other caregivers. Mental health professionals, geriatrics nurses, nurse practitioners, social workers, and nutrition specialists complement the work of the geriatricians. The practice excels in patient satisfaction scores within the Ambulatory Care Network of NewYork-Presbyterian Hospital. For elderly patients too frail to come in, comprehensive services are provided in the home through the EGL House Call Program.

Board-certified physicians in palliative medicine, along with an interdisciplinary team of nurse practitioners, social workers, and chaplains see adults of all ages in the inpatient and outpatient settings. Dr. Milagros Silva is Medical Director of the outpatient palliative care team, working closely with WCM oncologists and other divisions to address pain and other symptom management and wellness needs for a wide range of patients. In 2019, Dr. Silva has expanded her outpatient reach to include a focus on patients who require the use of interpreters to make medical decisions. The Palliative Care Champions Program continues to train nurses, social workers, and other professionals throughout NewYork-Presbyterian/Weill Cornell Medicine.

Dr. Sara J. Czaja, Professor of Gerontology in Medicine, leads the Weill Cornell Center on Aging and Behavioral Research. Internationally renowned for her research on behavioral interventions for older adults, aging and technology, older adults in the workplace, and family caregiving, Dr. Czaja has received ongoing NIH funding since 1995. A co-author of the award-winning book, *Designing for Older Adults: Principles and Creative Human Factors Approach*, Dr. Czaja hosted an international workshop on the Weill Cornell campus in 2019 based upon the concepts in her book. She also recently published *Current and Emerging Trends in Aging and Work*.

The Cornell Center for Research on End-of-Life Care, co-directed by Dr. Holly Prigerson, Irving Sherwood Wright Professor in Geriatrics, is home to numerous NIH-funded research projects focused on factors that promote informed decision-making and the receipt of value-consistent, more humane care of patients confronting death. Evidence derived from these studies informs the development of interventions to reduce suffering in seriously ill patients.

The NIA-funded Roybal Center, directed by Dr. M. Cary Reid, Irving Sherwood Wright Associate Professor in Geriatrics, investigates pain in later life and the role of palliative care in pain and symptom relief (funded by the National Institute of Aging). Drs. Prigerson and Reid also serve as co-PIs on a five-year T32 grant from the NIH; this grant prepares highly qualified M.D. and Ph.D. doctors for successful careers in aging and palliative medicine research.

Dr. Veerawat Phongtankuel is an Assistant Professor whose research focuses on improving the quality of life for older adults and their caregivers at the end of life. He received an NIA career development award (K76) in 2019 to implement a technology-based intervention to improve care delivered to hospice patients and their caregivers.

Dr. Eugenia Siegler, Mason Adams Professor of Geriatric Medicine, continues developing and refining the HIV and Aging Program, together with Assistant Professor, Dr. Tessa del Carmen, Roland Balay Clinical Scholar, and Heather Derry, Ph.D. In partnership with the WCM's Center for Special Studies, the program offers multisite clinical care and patient support and has expanded research in the field.

The division's NYC Elder Abuse Center is a leader in developing innovative and effective responses to elder abuse, neglect and exploitation through an unprecedented level of collaboration and coordination between government, non-profit agencies, and financial institutions. Risa Breckman, LCSW, Assistant Professor of Gerontological Social Work in Medicine, is NYCEAC's Executive Director, and Dr. Mark Lachs, Irene F. and I. Roy Psaty



Distinguished Professor of Medicine, is NYCEAC's Chief Medical Officer.

NYCEAC provides a streamlined and rapid response to elder abuse cases through its enhanced multidisciplinary teams (EMDTs), case consultations, and technical assistance. With a total of over \$3.2M in annual funding from city and state government and the DOJ, NYCEAC has successfully launched EMDT case

Geriatrics and Palliative Medicine

consultation services and training for professionals in all five boroughs and has partnered with Lifespan of Greater Rochester to bring EMDTs to every New York State county by the end of 2020. NYCEAC will also spearhead the provision of training and technical assistance to EMDTs nationwide. The Elder Abuse Helpline provides confidential and immediate help to those assisting NYC-residing elder abuse victims, and the Interview of Decisional Abilities (IDA) tool assists Adult Protective Services (APS) caseworkers in gathering information to assess their clients' decision-making abilities related to elder abuse risks.

The division's faculty trains medical residents in geriatrics and palliative medicine. During their geriatrics rotations, medical residents make hospice and geriatrics house calls; accompany geriatric care managers on client visits; visit a nursing home, an independent living site, and other levels of senior housing; see an elder abuse shelter; present cases at weekly divisional meetings; and assist with the division's transitional care clinic, HIV/Aging program and geriatric clinic walk-in patients. Lenox Hill Neighborhood House, a community partner, offers an opportunity for medical residents to talk with older adults in a non-clinical setting. Medical students participate in a Primary Care Clerkship, working alongside faculty members at the outpatient clinic, shadowing doctors and fellows in inpatient settings on the Acute Care for Elders (ACE) Unit and on Geriatric Consultation Rounds, and accompanying the EGL House Call team. The division hosts the Geriatrics and Palliative Scholarship (GPS) summer program through which selected medical students are immersed in clinical and didactic activities to deepen their understanding of the aging population. The student scholars also conduct research with a universal focus on aging, culminating their research with presentations to the WCM community and at the American Geriatrics Society Annual Scientific Meeting.

The division houses a Geriatrics Fellowship, and jointly with Columbia University Medical College, a Hospice and Palliative Medicine Fellowship. Dr. Barton Sanders, who joined the Division in 2019, is the Weill Cornell site director for the Hospice and Palliative Medicine Fellowship. Based in internal medicine and family medicine, the Geriatric fellowship program includes numerous rotations, teaching opportunities, and a variety of quality improvement and clinical research initiatives. The Geriatrics Fellowship is directed by Dr. Karin Ouchida, Assistant Professor of Medicine and Joachim Silbermann Clinical Scholar in Geriatrics and associate director Dr. Sonal Mehta, Associate Professor of Geriatrics and Joachim Silbermann Clinical Scholar in Geriatric Palliative Care. In 2019, Dr. Mehta was awarded a Fulbright-Nehru Fellowship focusing on geriatric and palliative care education within the Indian medical education system.

Geriatrics Fellowship

Karin Ouchida, M.D.
Program Director

Sonal Mehta, M.D.
Associate Program Director

Hospice and Palliative Medicine Fellowship

Barton Sanders, M.D.
Weill Cornell Site Director

Hematology and Medical Oncology



Manuel Hidalgo, M.D.
Chief, Division of Hematology and
Medical Oncology

The E. Hugh Luckey Distinguished
Professor of Medicine

Professor of Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Division of Hematology and Medical Oncology has 86 full-time faculty members who are dedicated to world-class patient care, scientific research, and teaching. Within the division, the clinical services are comprised of Solid Tumor Oncology, Leukemia, Lymphoma, Myeloma, Stem Cell Transplant, and Non-Malignant Hematology. The primary sites of operation are NewYork-Presbyterian Hospital (NYP) Main Campus (third floor), Weill Greenberg Ambulatory Care Building, Oxford Building, David H. Koch Center (fourth floor), the Myeloma Center at 425 East 61st Street, and New York-Presbyterian/Lower Manhattan Hospital. Faculty practices continue to grow at two additional network sites: New York-Presbyterian Brooklyn Methodist Hospital and New York-Presbyterian Queens. The division works closely with these sites in Brooklyn and Queens to advance the integration of cancer programs; programs include breast, prostate, and lung cancers. In addition, the division is creating and will formalize a telemedicine referral program for patients seen at the Brooklyn and Queens hospitals so that patients from underserved populations can access the same cancer care specialties provided on the Weill Cornell campus. This would enable those patients to receive a second opinion on treatment regarding a particular tumor type.

The Cancer Program at NYP/Weill Cornell Medical Center and NYP/Columbia Medical Center ranked number 29 in the country for clinical cancer care in *U.S. News and World Report* (2019). Each service contains disease-specific programs for research and clinical care. The Solid Tumor Service has active clinical and research programs in Breast Oncology, Gastrointestinal Oncology, Genitourinary Oncology, and Thoracic Oncology, with growing programs in Head and Neck Oncology and Endocrine Oncology. The Hematological Malignancies Program includes Leukemia,

Lymphoma, Multiple Myeloma, and Stem Cell Transplant Services, and the Richard T. Silver Myeloproliferative Neoplasm (MPN) Center. Within the Hematological Malignancies Program, there are several additional specialty programs, including the Chronic Lymphocytic Leukemia (CLL) Research Center, the Waldenstrom's Macroglobulinemia Program, and the Myelodysplastic Syndromes (MDS) Clinical Research Consortium.

Over \$28 million in new funding for cancer and blood disease research was received in 2019. This contributed to 128 active research projects in the division. Clinical research programs enrolled 430 people in approximately 111 interventional clinical trials, including expanding our clinical research footprint to NewYork-Presbyterian Brooklyn Methodist Hospital (NYP-BMH).

Under Dr. Evi Giannakakou's leadership, the division has a major emphasis on translational research, which originates in the Belfer Institute of Hematology and Oncology (Meyer Building) and the Belfer Research Building. The National Cancer Institute (NCI)-funded T32 Postdoctoral Training Program on Molecular and Translational Oncology Research (MTOR), co-led by Dr. Giannakakou, offers a unique training opportunity for early career scientists interested in translational cancer research. Additionally, laboratory-based faculty are involved in the translational components of numerous clinical trials, working hand-in-hand with clinical researchers and using cutting-edge technology to address oncologic questions that impact patient care and outcomes. The division maintains a central role in the growth of the Meyer Cancer Center, working with its director, Lewis Cantley, Ph.D., to recruit basic science and translational researchers, and to work towards designation as an official NCI-designated matrix cancer center.

Hematology and Medical Oncology

The Richard T. Silver, M.D. Center for Myeloproliferative Neoplasms (MPN), led by Scientific Director, Dr. Joseph Scandura, has novel research underway on neoplastic myeloid biology. The center has a clinical informatics platform, biorepository and web presence, and provides coordinated care for patients with MPNs and related non-hematologic complications. The Weill Cornell Clinical and Translational Leukemia Program, led by Dr. Gail Roboz, offers a variety of novel investigator-initiated, cooperative group, and industry-sponsored clinical trials on acute leukemia and myelodysplastic syndrome (MDS). The clinical care team runs one of the largest inpatient leukemia services in the country. The Myeloma Center leads in drug development, clinical trials, biology scholarship, and translational research under the leadership of Dr. Ruben Niesvizky. In 2019, the Bone Marrow and Stem Cell Transplant (BMT) Program, led by Dr. Koen van Besien,



Dr. Koen van Besien

performed 178 autologous and allogeneic transplants, and 31 infusions, including immunotherapies such as CAR-T cell treatments. The cellular therapy CAR-T cell program witnessed exponential growth with an increase in the number of patients treated and the number of novel research protocols available. The National Marrow Donor Program (NMDP), which oversees the largest public dataset related

to bone marrow and stem cell transplantation, determined that out of the 50 largest centers in the U.S., the WCM/NYP BMT Program continues to take on the most complex and challenging patients in the country with outcomes improving each year for the past four years in a row.



Dr. Peter Martin

Dr. Peter Martin leads the Lymphoma Program, which continues to grow strategically; researchers are advancing high-impact clinical trials that provide therapy for various disease subtypes. The Non-Malignant Hematology Service and Center for Blood Disorders, led by Drs. Maria De Sancho and Raymond Pastore, unifies all non-malignant hematology practitioners under one roof and delivers state-of-the-art treatments for people with all types of blood disorders, including diagnostic testing and drug therapies.

The Breast Center's breast oncology program, led by Dr. Tessa Cigler, Clinical Director, and Dr. Eleni Andreopoulou, Research Director, delivers advanced treatment and comprehensive care for patients with all stages of breast cancer and those at increased risk for developing breast cancer. The center is accredited by the National Accreditation Program for Breast Centers (NAPBC). The triple negative breast cancer (TNBC) and survivorship programs continue to grow, along with the triple negative breast cancer registry and biobank. A research collaboration for patient-derived xenografts (PDX) to evaluate tumor behavior has been established. The

Gastrointestinal (GI) Oncology Program, led by Dr. Manish A. Shah, continues to offer innovative clinical trials and multidisciplinary therapeutic options advance care across the spectrum of gastric, esophageal, pancreatic, colorectal, liver, and other rare gastrointestinal cancers. The Genitourinary Oncology Program, led by Dr. Scott Tagawa, continues to expand its clinical research portfolio and build on niche expertise in prostate specific membrane antigen (PSMA) targeted therapies. The Thoracic Oncology Program continues to employ immunotherapies, targeted therapies, and other biological agents to treat lung cancer and is bringing better outcomes to patients. The Head, Neck and Endocrine Oncology Program unites diverse specialty medical cancer care and research expertise in partnership with the Department of Otolaryngology (ENT), Head and Neck Surgery and Oral and Maxillofacial Surgery and Dentistry.

It was a banner year for honors and awards. Dr. Andrew Schafer was Elected Chair of the Electorate Nominating Committee of the American Association for the Advancement of Science (AAAS). Drs. Evi Giannakakou and Scott Tagawa were awarded the Prostate Cancer Research Program Idea Development Award by the Department of Defense (DOD), which will provide a total of \$975,705 over the next three years. Dr. John Leonard received the Lymphoma Research Foundation (LRF) Distinguished Service Award. Dr. Richard T. Silver received the Celgene Career Achievement Award for Clinical Research in Hematology. Dr. Peter Martin was named Scientific Advisory Board Member for the Lymphoma Research Foundation (LRF); the board is comprised of 45 world-renowned lymphoma experts with outstanding experience and accomplishments in research and patient care. Dr. Rossella Marullo was awarded the American Society of Hematology (ASH) Fellow to Faculty Scholar Award in Translational Research. The award provides \$125,000 in financial support and is designed to support hematologists who have chosen a career in research.

2019 recruits to the division included: Ghaith Abu-Zeinah, M.D., myeloproliferative neoplasms; Gagandeep Brar, M.D., gastrointestinal oncology; Giuseppe Giaccone, Ph.D., M.D., lung and thoracic oncology; Arvind Kamthan, hematology and oncology (Lower Manhattan Hospital); Eshan Patel, M.D., hematology and oncology (NYP-Brooklyn Methodist); Evelyn Toyin Taiwo, M.D., hematology and oncology (NYP-Brooklyn Methodist); and Panagiotis Vlachostergios, M.D., Ph.D., Genitourinary Oncology (NYP-Brooklyn Methodist).



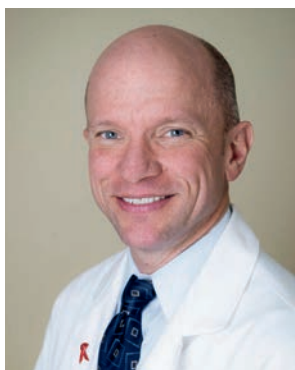
Hematology and Medical Oncology Fellowship

Ronald J. Scheff, M.D.
Program Director

Adrienne Phillips, M.D.
Associate Program Director

A three-year fellowship comprised of rotations through the inpatient and outpatient clinical subspecialty services at NYP/Weill Cornell Medical Center, as well as supervised basic, translational, and clinical research. The fellowship program matches and enrolls 5-6 new ACGME fellows annually.

Infectious Diseases



Roy M. Gulick, M.D., M.P.H.
Chief, Division of Infectious Diseases

Rochelle Belfer Professorship

Professor of Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Division of Infectious Diseases provides expertise in research, clinical care, and education and training. Internationally recognized physician-scientists conduct cutting-edge basic laboratory, translational, clinical, and epidemiologic research in infectious diseases in New York City and abroad. Research in the division investigates bacterial infections (including multidrug-resistant organisms), fungal infections, hepatitis B and C, HIV/AIDS, hospital-acquired infections, human papillomavirus (HPV), parasitic infections (Babesia, malaria), transplant/oncology infectious diseases, tuberculosis, and other viral infections (adenovirus, influenza, parainfluenza, rhinovirus). Additionally, the division provides both inpatient and outpatient infectious diseases clinical consultations, including at the Weill Cornell Travel Medicine service. Dr. Ole Vielemeyer, along with a roster of highly experienced physicians, provide care and advice for a broad range of infectious diseases and international travel issues.

The division's programs in laboratory, translational, and clinical research, remain robust. The Golightly Lab (Director: Dr. Linnie Golightly) is working on the pathogenesis of cerebral malaria, as well as a novel noninvasive, cell phone-based device to diagnose and determine the severity of malaria. The Jones Lab (Director: Dr. Brad Jones) and the Nixon Lab (PI: Dr. Douglas Nixon) work side-by-side conducting breakthrough laboratory

research on HIV/AIDS. Drs. Jones and Nixon serve as co-Principal Investigators of an NIH-funded \$28 million grant in support of the "BELIEVE in a Cure" Martin Delaney Collaboratory along with more than a dozen other scientists from Brazil, Canada, and Mexico to translate breakthrough lab findings into life-saving therapies for HIV/AIDS – and ultimately a cure. The Kirkman Lab (Director: Dr. Laura Kirkman) studies drug-resistance mechanisms in malaria and, more recently, Babesia, a parasite transmitted by ticks in the northeast U.S. The Rhee Lab (Director: Dr. Kyu Rhee) continues its highly innovative work on Mycobacterium tuberculosis (MTb) using novel mass spectrometry-based metabolomic approaches. The Walsh Lab (Director: Dr. Tom Walsh) investigates fungal pathogens and develops and tests newer antifungal strategies and treatments in laboratory experiments and animal models. The HIV Clinical Trials Unit (Director: Dr. Marshall Glesby, with co-investigators Drs. Grant Ellsworth, Roy Gulick, Kristen Marks, Mary Vogler, and Timothy Wilkin) conducts clinical research in the treatment and prevention of HIV infection, the treatment of hepatitis, and the assessment and treatment of human papillomavirus (HPV) infection. Dr. Catherine Small, Associate Director, Transplant/Oncology Infectious Diseases Program, along with co-investigators Drs. Alex Drelick, Priya Kodiyanplakkal, Markus Plate, Michael Satlin, Rosemary Soave, and Tom Walsh conduct cutting-edge clinical research in patients who have undergone organ transplantation or have cancer and develop infections.

Infectious Diseases Fellowship

Kristen Marks, M.D.
Program Director

A 2- to 3-year training program that includes individualized training through clinical rotations, didactic course work, mentored research, and faculty guidance to develop the next generation of infectious diseases physician-scientists and academic clinicians.



Drs. David Calfee and Matthew Simon serve as the Hospital Epidemiologists for NewYork-Presbyterian Hospital. They are noted for their efforts in response to the recent COVID-19 pandemic, as well as day-to-day strategies to decrease hospital-acquired infections at NewYork-Presbyterian Hospital/Weill Cornell. The Center for Special Studies (CSS), the HIV primary care service, continues to provide care for over 2,500 HIV-infected patients and HIV prevention strategies for at-risk HIV-negative individuals. At NYP/Lower Manhattan Hospital, the inpatient and outpatient infectious diseases service and hospital epidemiology are led by Dr. Harjot Singh; and at NYP/Brooklyn Methodist Hospital, the Division of Infectious Diseases is led by Dr. Harold Horowitz.

An NIH-sponsored T32 research training grant, "Research Training in Infectious Diseases" (Principal Investigator: Dr. Roy Gulick), continues to support training of developing infectious diseases physician-scientists through 2025. This grant supports fellows to conduct basic, translational, clinical, and epidemiologic research projects. Fellows study a wide variety of infectious diseases, currently including aging in HIV-infected patients, drug-resistant bacterial infections, biomarkers of infection, and tuberculosis.

2019 was a banner year for new recruits and honors. Recruited from the University of Hawaii, Dr. Lish Ndhlovu brings cutting-edge laboratory research in HIV and the central nervous system, supported by multiple NIH grants. Dr. Rob Peck was awarded the 2019 Dr. Nathan Davis International Award in Medicine by the American Medical Association Foundation, which recognizes physicians whose work goes beyond the United States border and making an impact on international patient populations.



Dr. Rob Peck

Center for Global Health

The Center for Global Health's mission is to improve the health of people in resource-poor countries through healthcare, research, and training. Directed by Dr. Dan Fitzgerald, the center has 14 core faculty members, 3 post-doctoral fellows, and more than 50 collaborating faculty members from multiple WDOM divisions. The center has long-standing programs in Brazil, Haiti, India, Tanzania, and Uganda. Research and training programs in cardiovascular disease, women's and maternal child health, and infectious diseases are supported by the United States' National Institutes of Health (NIH), foundations, and individual donors.

In 2019 Dr. Justin Kingery and Dr. Katey Walsh were the first to complete the center's three-year fellowship in global health research. This training program is a collaboration with the WDOM Division of General Internal Medicine and is directed by Dr. Margaret McNairy, Associate Professor of Medicine. The fellowship includes field-based research, didactic courses in research methods, and teaching and clinical service at NewYork-Presbyterian Hospital/Weill Cornell Medical Center. The majority of the time over the three years is spent conducting mentored research at one of the center's international sites.

has been affiliated with Weill Cornell Medicine since its inception. During his global health fellowship, Dr. Kingery conducted research on diastolic heart failure in Tanzania. Cardiovascular disease (CVD) is now the leading cause of death in the world, and, in Africa, diastolic heart failure is one of the most common manifestations of CVD. In 2019, Dr. Kingery successfully competed for an NIH K23 career development award and has been promoted to Assistant Professor in the WDOM's Division of General Internal Medicine. His ultimate goal is to develop prevention and treatments for diastolic heart failure and to decrease CVD-related mortality in Tanzania and the world.

Dr. Katey Walsh conducted her global health fellowship research at the GHESKIO Centers in Port au Prince Haiti. GHESKIO has been a partner with Weill Cornell Medicine since its founding in 1982. GHESKIO's mission is to address HIV/AIDS, tuberculosis, and related conditions in Haiti through service, research, and training. It is directed by the WDOM Holtzman Professor of Medicine, Dr Jean Pape. During her research training in Haiti, Dr. Walsh conducted research on drug resistant tuberculosis (TB) with over ten publications in top journals such as *Clinical Infectious Diseases* and *The Lancet*. Tuberculosis is the leading infectious disease killer in the world and disproportionately affects low-income countries. Dr. Walsh recently competed for a prestigious Burroughs Wellcome physician-scientist career development program and will continue her research in Haiti on drug resistant TB. She was promoted to Assistant Professor of Medicine with the career goal of developing new preventions and treatments for drug resistant TB.

Current global health fellows include Dr. Puja Chebrolu, who is conducting research on gestational diabetes and TB with Dr. Jyoti Mathad in India, and Dr. Lily Yan, who is conducting research on cardiovascular disease in Haiti, with Dr. McNairy.



Dr. Jean Pape (far left) and colleagues.

Dr. Kingery received his fellowship research training at Weill Cornell Medicine's partner in Tanzania, the Weill Bugando School of Medicine. Weill Bugando opened in 2003 to train physicians to provide healthcare in the underserved western part of the country near Lake Victoria. The medical school

In January of 2019, the Chair of the Weill Department of Medicine, Dr. Anthony Hollenberg, visited Haiti. "It was a wonderful experience to meet with our faculty in Haiti, where I visited GHESKIO's two clinical sites, reviewed NIH research and training programs, and met with our outstanding Haitian and U.S. trainees." Dr. Hollenberg

Medical Ethics



Joseph J. Fins, M.D., FACP
Chief, Division of Medical Ethics

E. William Davis, Jr., M.D.
Professor of Medical Ethics

Professor of Medicine
Professor of Public Health
Professor of Medicine in
Psychiatry
Weill Cornell Medical College

Director of Medical Ethics
and Chair, Ethics Committee

Attending Physician
NewYork-Presbyterian Hospital

The Division of Medical Ethics pursues a tripartite mission of medical education, ethics consultation, scholarship and research. The division teaches medical students, house staff, and attending staff and provides ethics education throughout the pre-clinical years including professionalism, the history of medical ethics, methods of ethics consultation, and ethical issues across the life span. The division also considers ethical and regulatory issues in clinical research, so that students appreciate their responsibilities as clinicians and investigators.

Collaboration was a major theme in the life of the Division of Medical Ethics in 2019. The division's collaborations with many colleagues and programs served to enrich the experiences of patients and the education of students and trainees. Each year we offer a longitudinal curriculum in medical ethics at Weill Cornell Medical College and sponsor students pursuing Areas of Concentration. With NewYork-Presbyterian Hospital partners in Patient Services Administration, the Ethics Consultation Service was active on both the NYPH-WCMC campus and the Lower Manhattan Hospital offering wise counsel to patients, families, and staff regarding the ethical challenges confronted in patient care.

The division's case consult volume makes it one of the most active ethics consultation services in the U.S. The Ethics Committee of NewYork-Presbyterian/Weill Cornell Medicine is chaired by Dr. Joseph J. Fins, Division Chief, who provides oversight to the consultative process and guidance to the hospital on policies and procedures related to medical ethics and patient rights. Barrie Huberman, Ph.D., a clinical psychologist, serves as Director of Clinical Ethics and provides consultative services, along with Joan Walker, M.S., Dr. Samantha Knowlton and Dr. Ezra Gabbay, who also serves as Chair of the Lower Manhattan Hospital's Ethics Committee. The consult service is also enriched by the presence of our two Clinical Ethics Fellows, Dr. Nicole Meredyth, Department of Surgery, and Dr. Nekee Pandya, a Hospitalist in the Weill Department of Medicine.

A key collaboration in the division is with the New York-Houston Ethics Consortium, which sponsors a medical ethics fellowship supported by the WDOM, the Dean's Office and the NewYork-Presbyterian Hospital, as well as The Houston Methodist Hospital and Baylor Medical College in Houston. A unique offering in American bioethics, this collaboration spans two great medical centers and distinct regions of our country, providing a singular experience for trainees. In 2019, we were welcomed by our colleagues at Methodist for our annual retreat in Houston.

The division has also collaborated with colleagues in the WDOM from Hospital Medicine, notably Drs. Matthew McCarthy, Ezra Gabbay, Nekee Pandya, and Kimberly Bloom-Feshbach on the ethics of hospitalist medicine. This collaboration has resulted in a number of publications. In 2019, Dr. Gabbay joined the division for a six-month sabbatical.

Dr. Inmaculada de Melo-Martin, Professor of Medical Ethics, has continued her fruitful collaboration with the Center for Reproductive Medicine at Weill Cornell Medicine (led by Dr. Zev Rosenwaks). Dr. de Melo-Martin continues to pursue questions regarding genetic identity and assisted reproduction themes addressed in her highly regarded volume, *Rethinking Reprogenetics: Enhancing Ethical Analyses of Reproductive Technologies* (Oxford University Press). She has also continued to work with Dr. C. Ronald MacKenzie, the C. Ronald MacKenzie Chair in Ethics and Medicine at the Hospital for Special Surgery.

The division continued to play a key role in advancing the educational mission of Weill Cornell Medical College. Dr. de Melo-Martin led the ethics curriculum on professionalism. Dr. Huberman assumed the leadership of the ethics component for the course, Health, Illness and Disease and led Advanced Clinical Ethics. Additionally, ethics content has recently been added to the transition for the residency course given to medical students.

On the international front, the division has continued a synergistic collaboration with colleagues and students in Doha, via Dr. Pablo Rodriguez del Pozo, Associate Professor of

Medical Ethics

Medical Ethics in Medicine, who leads the ethics curriculum at that campus. Dr. del Pozo explores cross-cultural issues and medical education. He has completed a project funded by the Qatar National Research Foundation exploring the rights of persons with disabilities, which is aimed to inform the Qatari legal system. This multinational project involves the Weill Cornell Medical College in Qatar, Qatar University, the Institute of Human Rights at Carlos III University in Madrid, and the Division of Medical

Ethics, WDOM, with Dr. Fins collaborating. The project will culminate with an important monograph that will have practical and theoretical impact on disability studies.

In September 2019, Dr. Fins presented at the Faculty of Medicine of the University of Zaragoza in Spain. This was the first joint effort between Weill Cornell Medicine and the

Faculty of Medicine in Zaragoza since Dean Javier Lanuza (University of Zaragoza) and Dean Augustine M.K. Choi (Weill Cornell Medical College) signed a Memorandum of Understanding between the two schools to foster scholarly collaboration and student exchange.

Dr. Fins continues his collaboration with Dr. Nicholas D. Schiff, Jerold B. Katz Professor of Neurology and Neuroscience, as they co-direct the Consortium for the Advanced Study of Brain Injury (C.A.S.B.I.) at Weill Cornell Medicine and Rockefeller University. Dr. Schiff is Principal Investigator on an NIH Brain Initiative grant on the use of Deep Brain Stimulation in severe brain injury. Dr. Fins is a Co-investigator on the project. CASBI's goal is to elucidate mechanisms of recovery and develop public policy to meet the needs of these patients and families.

Dr. Fins has expanded the reach of CASBI through his appointment at Yale Law School as the Solomon Center Distinguished Scholar in Medicine, Bioethics and the Law. Following upon his book, *Rights Come*

to Mind: Brain Injury, Ethics and the Struggle for Consciousness (Cambridge University Press), Dr. Fins has pioneered ethical and legal scholarship advancing the civil and disability rights of patients with severe brain injury. In 2019, Dr. Fins received an RO-1 from the NIH, entitled, "Cognitive Restoration: Neuroethics and Disability Rights" to further pursue these issues in the context of the DBS trial in moderate to severe brain injury. His work at the interface of neuroethics and the law has resulted in collaborative scholarship with Yale Law School students and faculty and numerous law review and policy papers (e.g., *The Harvard Journal of Law and Technology*, *The Yale Journal of Health Policy, Law, and Ethics*, *Florida State University Law Review*, *Stanford Technology Law Review*, and *North Carolina Law Review*). Zachary Shapiro, M.A., J.D. continues as a postdoctoral associate to assist with the Weill Cornell-Yale Law School CASBI collaboration. The work of CASBI has been supported by the Greenwall Foundation, Dana Foundation, John and Eva Usdan, Joseph Lester, Jerold B. Katz Foundation, as well as the NIH.

Professor de Melo Martin was elected President-Elect of the Society for Philosophy and Technology. Dr. Huberman won a teaching award from the Medical College in her first year as a faculty member.

Dr. Fins was honored to receive an Invitation from Pope Francis to speak at the Pontifical Academy of Sciences at a conference entitled "Revolution of Personalized Medicine" in Vatican City. His lecture, "Personalized Medicine and Disorders of Consciousness: An Alternate Convergence of Knowledge Towards a New Clinical Nosology" will be forthcoming in a volume to be published by Oxford University Press. Dr. Fins served as the James Madison Scholar at James Madison University and gave named lectures at the University of Massachusetts Medical School, University of Toronto, Ohio State University and ICM-Hôpital Pitié Salpêtrière, Paris. He was honored to receive The Nicholas E. Davies Memorial Scholar Award for Scholarly Activities in the Humanities and History of Medicine from The American College of Physicians and to be named as The Jeremiah Metzger Lecturer by the American Clinical and Climatological Association. He also was named as a member of the National Academies of Sciences, Engineering and Medicine Standing Committee to Advise the Department of State on Unexplained Health Effects on U.S. Government Employees and their Families at Overseas Embassies.



Dr. Fins with a Swiss Guard inside Vatican City.

Nephrology and Hypertension



Manikkam Suthanthiran, M.D.
Chief, Division of Nephrology and Hypertension

Chief, Department of Transplantation Medicine and Extracorporeal Therapy
Stanton Griffis Distinguished Professor of Medicine

Professor of Medicine
Professor of Biochemistry
Professor of Medicine in Surgery
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Division of Nephrology and Hypertension is committed to a tripartite mission of patient care, research, and education. A combination of resources has ensured the division's success, including continuous NIH funding over three decades, a clinical immunogenetics laboratory, a self-supported hypertension clinical practice, and support from Weill Cornell Medicine, NewYork-Presbyterian Hospital, and philanthropy. The division's clinical excellence is the product of making patient care the highest priority, while effectively translating bench discoveries to the bedside and applying evidence from clinical trials into compassionate clinical practice.

We provide compassionate, comprehensive, state-of-the-art care to each patient afflicted with kidney disease and/or high blood pressure. We have self-organizing teams for each critical area of nephrology: transplantation medicine, dialysis, apheresis, hypertension, clinical nephrology (e.g., diabetes and metabolic renal disease), cancer nephrology, critical care nephrology, acute kidney injury and cardio-renal syndromes, nephropathology and obstetrics nephrology. Services include renal consultations, inpatient renal medicine, dialysis therapy, and kidney and pancreas transplantation and kidney care for liver-kidney recipients and kidney dysfunction in stem cell transplant recipients.

Our nephrologists work collaboratively with nephrologists with primary appointments at The Rogosin Institute, nephrologists with primary appointments at Memorial Sloan-Kettering Center, and with the kidney transplant surgeons in the Division of Transplantation Surgery to manage our transplant recipients with highly personalized therapies to protect the transplanted organ while helping to reduce the toxic side effects of anti-rejection drugs. Our transplant physician-scientists have made pioneering discoveries on mechanisms of action of anti-rejection drugs, as well as noninvasive molecular tests to personalize immunosuppressive drug therapy of transplant patients.

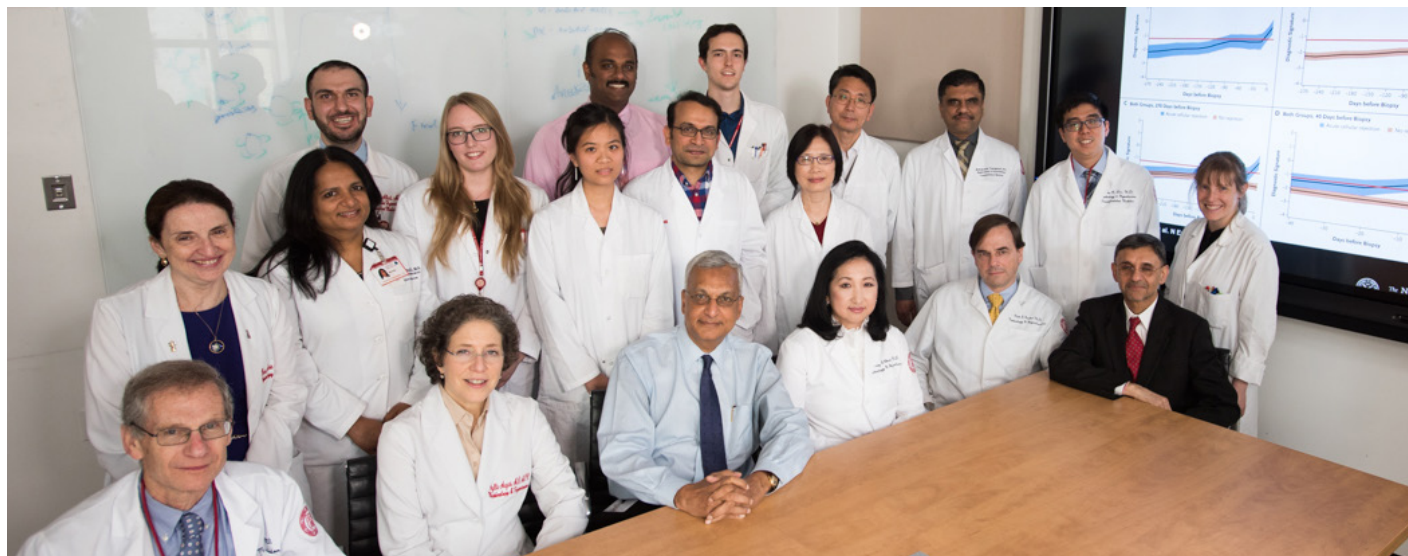
The kidney disease program has been consistently rated in the top 10 by *US News & World Report* (Ranked 5th in the country

and 1st in New York in 2019). It is one of the highest ranked programs among the medical subspecialties at NewYork-Presbyterian Hospital. The kidney transplantation program at Weill Cornell Medicine is a significant contributor to NYP's transplantation program (ranked #1 in the U.S. for the last 10 years), and its translational research has been transforming care for transplant recipients. More than 200 kidney transplants are performed annually at our center with excellent patient and graft survival rates. The most recent adult (18+) one-year patient and graft survival rates, following living donor kidney transplantation, were 99.02% and 98.05%, respectively. The one-year patient and graft survival rates following deceased donor kidney transplantation were 95.68% and 92.92%, respectively. These exemplary outcomes are all the more impressive in light of the center transplanting high-risk patients. (Data Source: *Scientific Registry of Transplant Recipients, Health Resources and Service Administration*).

The first kidney transplant in the New York tri-state region was performed at our center in October 1963; more than 5,000 kidney transplants have been performed since the center's inception. Several innovations in transplantation have been introduced by our transplant physicians, including: blood type (ABO) incompatible kidney transplants; kidney transplantation across a positive cross-match; minimizing the amount of drugs patients need for successful transplantation; treatment protocols to reduce serious post-transplant complications (e.g., infection and malignancy); and noninvasive molecular assays for assessing transplant status and reducing the need for an invasive biopsy procedure.

The division's Hypertension Center is one-of-a-kind in the U.S. and has discovered and implemented clinical therapies that are personalized for the individual patient. The hypertension faculty pursue innovative research (e.g., studies of pregnancy-induced

Nephrology and Hypertension



Dr. Suthanthiran (Chief) with division faculty.

hypertension, mind-body link in hypertension, personalized drug therapy for hypertension control). Internationally acclaimed, the Hypertension Consultative practice continues to thrive under the direction of Dr. Phyllis August, Ralph A. Baer Professor of Medical Research, and with complementary expertise provided by Dr. Mark S. Pecker, Professor of Clinical Medicine, Dr. Samuel J. Mann, Professor of Clinical Medicine, Dr. Line Malha, Assistant Professor of Medicine, and Rosemerie Marion, ANP, Nurse Practitioner.

The division continues to drive breakthrough research. Division Chief, Dr. Manikkam Suthanthiran, directs a highly productive, NIH-funded world-renowned research Laboratory of Immunogenetics and Transplantation. The division has pioneered the development of gene expression profiling for the noninvasive diagnosis and prognostication of acute rejection in renal allografts, and has contributed to several landmark studies in organ transplantation on elucidation of the genetic signature of rejection and tolerance. Dr. Suthanthiran's translational research has been NIH-funded continuously for 30-plus years, and he is a recipient of the prestigious NIH MERRIT award.

Dr. Phyllis August serves as the Site PI on a cooperative grant from the NHLBI/NIH/DHHS to evaluate the benefits and harms of pharmacologic treatment of mild chronic hypertension in pregnancy. Dr. Mary Choi is the recipient of multiple awards from NIH to study novel mechanisms of organ fibrosis and

autophagy. Dr. Darshana Dadhania is a PI on an NIDDK cooperative grant to study the impact of the APOL1 gene on long-term outcomes in renal transplant recipients of a kidney from an African-American donor and the impact on kidney function in African-Americans donating a kidney, and an R01 to establish the utility of urinary cell-free DNA to detect a wide range of pathogens as well as gain insights in to antibiotic resistance and host-pathogen interactions. Dr. John Lee is a recipient of an NIAID grant to invent and apply shotgun sequencing of urinary cell-free DNA to define the microbial, bacterial growth dynamics, tissue injury in the transplanted kidney, and the host's response to urinary tract infection (UTI). In another NIAID-funded grant, he is investigating many lines related to the gut microbiome. Dr. Suthanthiran recently executed a research collaboration agreement with CareDx, a leader in transplantation molecular diagnosis, to further develop biomolecular markers of kidney allograft status.

Dr. Mary Choi, Professor of Medicine and a world-renowned physician-scientist, is conducting research addressing the mechanisms of kidney injury and failure. Dr. Choi's fundamental studies should not only yield key insights into mechanisms underpinning kidney injury, but will also help to identify novel therapeutic targets for the prevention of progression of kidney injury manifested by fibrosis. The multifunctional cytokine transforming growth factor beta (TGF- β) is

considered a major player in kidney disease and health, and Dr. Choi's seminal studies have led to the cloning and characterization of the cell surface receptors for TGF- β 1; delineation of key intracellular mediators of TGF- β signals; and resolution of glomerular endothelial cell proliferation and differentiation. Her original contributions have resulted in an improved understanding of the molecular mechanism of tissue injury, inflammation, and fibrosis as they pertain to the pathogenesis of chronic kidney disease. Her laboratory has successfully resolved mechanisms by which TGF- β 1 elicits key cytoprotectants, such as heme oxygenase-1, and carbon monoxide and protection from oxidative stress and kidney injury via activation of autophagy. Dr. Choi and colleagues recently identified a new therapeutic target by their discovery that a receptor-interacting protein kinase-3 independently promotes kidney fibrosis. Dr. Choi's research has been supported continuously by highly competitive NIH awards, and she is a PI, co-PI, and co-Investigator on multiple NIH grants.

It was a banner year for honors, speakerships, and publications. Dr. Phyllis August served as a Moderator at the American Society of Nephrology Kidney Week 2019 session, "Successful Pregnancy Outcomes Across the Spectrum of Kidney Diseases." Dr. Mary Choi served as the President, Korean American Medical Association, and was an invited speaker at the Weill Cornell – NHLI Imperial College Joint Meeting, American Society of Nephrology Kidney Week 2019, and Korean Society of Nephrology and a Visiting Professor at the Medical College of Georgia. In recognition of her substantive research contributions, Dr. Choi has been invited to be a member of the Pathobiology of Kidney Disease Study Section, Center for Scientific Review, NIH. Dr. Darshana Dadhania was the co-Chair of the American Society of Transplantation Consensus Conference on Heart-Kidney Transplantation. She also organized the AST sponsored Consensus Conference on "Improving Cardiovascular Disease Care in Solid Organ Transplant Recipients." Dr. Thangamani Muthukumar was an Invited Speaker at the American Society of Nephrology Kidney Week 2019. Dr. Manikkam Suthanthiran delivered the Dr. Vidya Acharya Oration at the 16th Congress of the Asian Society

of Transplantation 2019 held in Delhi, India, an international meeting of world leaders in transplantation. Dr. John R. Lee published a breakthrough paper in *Nature Communications* on UTI and another paper – "Avoiding infections in transplant recipients: does the gut microbiota have a key role?" – in Expert Review of Clinical Immunology with colleagues Dr. Michael J. Satlin (Infectious Diseases) and Dr. Lars F. Westblade (Pathology & Laboratory Medicine).

Nephrology faculty teach the Health, Illness, and Disease (HID) Course for Weill Cornell medical students at both the New York and Qatar campuses. The highly challenging HID course in Nephrology, under the inspired leadership of Dr. Muthukumar, has become one of the top-rated HID courses at WCM. The division is committed to scholarship; a daily educational conference ensures faculty and fellows practice evidence-based medicine, as well as receive CME credits. There has been a 100% pass rate for the ABIM Nephrology subspecialty, and the scholarship of our trainees and faculty is demonstrated by their presentations of original research at every national and international meeting related to nephrology and transplantation. Our full-time faculty lecture nationally and internationally and have published 54 peer-reviewed articles since July 2018.

Nephrology Fellowship Program

Phyllis August, M.D., M.P.H.
Program Director

Our highly competitive two-year nephrology fellowship program is designed to provide comprehensive training in all aspects of kidney disease including acute and chronic kidney failure; end stage kidney disease; hemodialysis including home hemodialysis; peritoneal dialysis; apheresis; kidney and kidney and pancreas transplantation; hypertension; glomerulopathy; onconeurology, obstetric nephrology, kidney stones, polycystic kidney disease, and metabolic disorders including acid base and fluid and electrolyte disorders. A third and fourth year are available for additional research training. Despite almost 50% of nephrology fellowship slots not being filled across U.S. nephrology fellowship programs, our program has been highly successful in fulfilling 100% of the fellowship slots through the Nephrology Fellowship Matching Program.

Public Health Programs



Ann B. Beeder, M.D.

Chief, Division of Public Health Programs

Jeanette and Jeffrey Lasdon
Associate Professor of Clinical
Public Health and Psychiatry

Associate Professor of Clinical
Medicine
Associate Professor of Clinical
Psychiatry at the Weill Medical
College

Associate Attending Physician
NewYork-Presbyterian Hospital

The Division of Public Health Programs delivers integrated multidisciplinary patient care for patients with trauma and addiction through a variety of outpatient programs. The programs provide medical, psychiatric, and substance abuse treatment to patients with substance use problems, including alcohol, marijuana, nicotine, cocaine, heroin, and prescription medication. On-site and virtual medical, psychiatric, trauma treatment, and social services promote and accelerate patients' progress toward recovery. Consultation services are available for expert evaluation, diagnosis, treatment, and referral for patients with substance use disorders being treated at the NewYork-Presbyterian Hospital. Outpatient treatment locations include The Midtown Center for Treatment and Research, The Headstrong Project, and the Vincent P. Dole Institute for Treatment and Research.

The Midtown Center for Treatment and Research is located at 56 West 45 Street, Floor 9, NYC, NY 10031. It is an outpatient drug treatment program providing multidisciplinary alcohol and drug treatment with integrated psychiatric and social services both onsite and through telehealth. Services include outpatient suboxone detoxification and maintenance for opiate dependency (prescription pain medication and heroin), trauma treatment (EMDR and CBT), psychiatric care, DUI program, anger management, and other services. Patients are carefully evaluated involving an individualized treatment plan, including groups, individual treatment, urine and other toxicology, as well as psychiatric evaluation and care when needed. Patients needing primary and specialty medical care have access to CIMA at Weill Cornell Medicine and comprehensive subspecialty

care (e.g., HCV, HIV, cardiology, pulmonary, nutritional, and other services).

The Headstrong Project is located at 641 Lexington Avenue, Floor 25, NYC, NY 10022. It is a PTSD (Post-Traumatic Stress Disorder) and trauma treatment program for combat veterans. It has attracted national recognition for its highly effective evidence-based treatment, which is free and confidential for returning Iraq and Afghanistan combat veterans living in the NYC and Tri-State Area. The treatment is individually tailored and designed for each veteran in support of The Headstrong Project's motto: "Healing the Hidden Wounds of War." In partnership with Weill Cornell Medicine, the Headstrong Project is an award-winning program that continues to grow new locations in multiple cities across the country. There are locations in California, Colorado, Illinois, Maryland, New Jersey, New York, Pennsylvania, Texas, Virginia, Georgia, and Washington D.C.

The Vincent P. Dole Institute for Treatment and Research is located at 503 East 70th Street, NYC, NY 10021. It is part of the NewYork-Presbyterian Hospital's Ambulatory Care Network. Both the Midtown Center and the Vincent P. Dole Institute serve as sites for the study of the prevention and treatment of dependency diseases, as well as outreach, evaluation, and treatment of patients with hepatitis C. Research studies are underway on the integrated care model, epidemiology and treatment of hepatitis C infection in drug users, and understanding immunity in opioid users.

The Employee Assistance Program Consortium (EAPC) is located at 641 Lexington Avenue, Floor 25, NYC, NY 10022. It serves the approximately 12,000



Dr. Beeder (far right back row) with the public health programs team.

employees of Weill Cornell Medical College, Rogosin Institute, and Hospital for Special Surgery. The program provides free and confidential evaluation, crisis intervention, and referrals for a wide range of problems affecting employees. Services are available on-site as well as virtually through telehealth.

In addition to providing a host of valuable services for a wide variety of patients, the division's faculty is distinguished for education and research on topics related to substance use and trauma. These topics include the use of telehealth in providing trauma treatment, the integrated care model, epidemiology and treatment

of hepatitis C infection in drug users, understanding immunity in opioid users, and more. A study is underway with Division Chief, Dr. Beeder, serving as a co-Principal Investigator, and Dr. Ronald Crystal, Chairman, Genetic Medicine at Weill Cornell Medicine, on a Phase I clinical trial that is exploring a vaccine model in patients with cocaine dependency disorder. Dr. Mirella Salvatore, an Assistant Professor of Medicine in the division, is also working on the project and has been publishing related research papers in the peer-reviewed journals.

Pulmonary and Critical Care Medicine



Fernando J. Martinez, M.D.
Chief, Division of Pulmonary
and Critical Care Medicine

Bruce Webster Professor
of Internal Medicine

Professor of Clinical Medicine
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian
Hospital

The Division of Pulmonary and Critical Care Medicine employs advanced expertise in the diagnosis and treatment of all types of respiratory disorders, including those related to sleep. Physicians of Weill Cornell Pulmonary Associates provide diagnostic and therapeutic services in a state-of-the-art medical facility. The division provides 24-hour, in-hospital coverage of the Medical Intensive Care Unit (MICU) at Weill Cornell Medicine and at NYP/Lower Manhattan Hospital. The Bronchoscopy Suite offers state-of-the-art patient care, including Endobronchial Ultrasound (EBUS), Navigational Bronchoscopy, and chest tube and pleurx catheter placement. MICU clinical care offers daytime and expanded overnight services.

The Pulmonary Inpatient Consult Service provides rapid, expert clinical care seven days a week, including the provision of an Outreach Service for patients who are critically ill outside of the ICU. It upgrades continuity of care for patients who are transitioning from inpatient to outpatient management and has led to successful interdisciplinary collaborations with specialists throughout the institution. The division, jointly with the Columbia campus, has been designated by the Pulmonary Fibrosis Foundation (PFF) as a Center of Excellence and is active in an ALA-ACRC series of joint projects.

The Pulmonary Procedure Service, directed by Dr. Ben-Gary Harvey, provides innovative diagnostic and therapeutic services for the diagnosis and management of lung cancer, pulmonary fibrosis, and lung infection. Dr. Harvey, who has received advanced training in the bronchoscopic management of advanced emphysema, also directs an Endoscopic Valve Lung Volume Reduction. The procedure utilizes the insertion of small valves through a bronchoscope; once the valves reach the most diseased areas of the lung, Dr. Harvey occludes (or closes) the non-functional portions of the lung. This creates room for the healthier parts of the lung to improve breathing function and quality of life.

Led by Dr. Lindsey Lief, Director of the Medical Intensive Care Unit, the division has established a new clinic for post-ICU recovery (CPR) (housed within Weill Cornell Medicine Pulmonary Associates located at

425 East 61 Street). Experts in intensive care will see patients in follow-up after an ICU admission, either from NYP/Weill Cornell or other institutions. ICU survivors are at risk for post-intensive care syndrome (PICS) which can have effects on mental and physical health, cognitive function, and the ability to care for oneself and go back to work. This practice provides ICU survivors with everything they need to allow the fullest recovery.

For NYPH/Lower Manhattan campus, Dr. David Weir, Assistant Professor of Medicine, serves as Director of Pulmonary and Critical Care Medicine. Dr. Weir's expertise includes treatment and symptom management for advanced lung disease and compassionate care for the critically ill. Dr. Seth Manoach, Assistant Professor of Medicine, serves as Director of the MICU. An expert in the pathophysiology of critical illness, including cardiopulmonary interface and advanced airway management, Dr. Manoach is known for his unwavering dedication to improving patient care in the MICU and to alleviating human suffering.

The Pulmonary Function Laboratory, led by Dr. Abraham Sanders, remains a vital component of the division's continuum of care via expert and timely diagnostic services. Led by Medical Director, Dr. Ana Krieger, and other experts, the Weill Cornell Center for Sleep Medicine (run jointly by the Weill Department of Medicine's Division of Pulmonary and Critical Care Medicine and the Department of Neurology) provides evaluation and treatment for the full range of pulmonary and non-pulmonary sleep problems, employing multidisciplinary specialists and carrying out cutting-edge federally-funded research projects.

The division's research portfolio ranges from interstitial and obstructive lung diseases, pneumonia, and lung cancer, to sleep medicine and genetic medicine. Its physician-scientists are participating in clinical and basic mechanistic investigations, both independently and with collaborators.

As a key participant in numerous NHLBI-sponsored COPD studies, Dr. Martinez, Division Chief, defined the role of lung volume reduction surgery, chronic macrolide therapy, statin therapy, and long-term oxygen therapy in COPD. He has also been involved in defining the immunological basis of acute

exacerbations, the role of innovative small airways imaging methods, and the role of COPD endotypes. He serves as the Principal Investigator on a nearly \$11 million R01 grant (The Capture Study) from the National Heart, Lung, and Blood Institute. The Capture Study seeks to identify COPD patients who are under-recognized and undertreated in 100 primary care centers across five PBRNs in the U.S. Similarly, with NHLBI support, Dr. Martinez has defined optimal approaches to diagnosing idiopathic interstitial pneumonias, imaging and biochemical approaches to prognostication, and he has investigated the role of various therapeutic approaches for Idiopathic Pulmonary Fibrosis (IPF). He has also studied the interaction between dysbiosis in the lung microbial community and disease progression, which led to an ongoing NHLBI-funded study of an innovative therapeutic approach targeting IPF progression.

Dr. Martinez serves as the overall Principal Investigator of PRECISIONS, a study that aims to transform the diagnosis and treatment of idiopathic pulmonary fibrosis (IPF) by moving into a new era of precision medicine. The study is supported by a \$22 million grant from the National Institutes of Health and Three Lakes Partners, a philanthropic organization. Dr. Martinez's oversight includes the understanding that PRECISIONS benefits from its partnership of a broad range of investigators who are all working toward providing patients who have interstitial lung disease (ILD) with access to the right medication for the right patient.

Dr. Augustine M.K. Choi, Dean of the Weill Cornell Medicine College, continues to lead an extremely active laboratory that, in part, leads the global investigative carbon monoxide (CO) community in understanding this complex biological pathway. His laboratory has successfully translated these findings as they lead the design and successful completion of Phase I and Phase II trials targeting the use of inhaled CO in human disease. Dr. Renat Shaykhiev is focused on airway epithelial stem cells, epithelial-mesenchymal interactions, epithelial-immune interactions and innate immunity in the lung, and pathogenesis of airway remodeling in human lung disease. Dr. Heather Stout-Delgado is focused on the

implications of an aging immune system and its impact on infections and respiratory inflammatory disorders. Dr. Soo Jung Cho has made key observations characterizing the role of impaired glucose metabolism and progressive lung fibroproliferation. Dr. Suzanne Cloonan leads a research program that is centered on the role of iron metabolism in normal and diseased lung.

In 2019, new recruit Dr. Hasina Outtz Reed, Assistant Professor of Medicine, joined the division. Dr. Outtz Reed's research focuses on the role of the lymphatic and blood vasculature in lung biology and the response to lung injury. She has developed novel mouse models for studying the effect of lymphatic dysfunction on the lungs and is using these approaches, along with models of lung injury, to investigate how the pulmonary lymphatics may be therapeutic targets in lung disease. Dr. Outtz Reed's research is funded through an NHLBI K01 grant, a Robert Wood Johnson Foundation Career Development Award, and the Manning Research Scholar Award.

Dr. Robert Kaner remains actively involved in basic and clinical research programs in Interstitial Lung Disease (ILD). He is the principal investigator of numerous industry- and federally-funded therapeutic trials exploring innovative therapeutic approaches to patients with ILD. Dr. Ben-Gary Harvey continues his study on a new therapy for COPD. Dr. Michael Niederman continues clinical investigation protocols related to pneumonia in the ICU and in the community. There is a growing interest in palliative care among critically ill patients, and Dr. Lindsay Lief has partnered with Dr. Holly Prigerson on the study of patient and provider attitudes at the end-of-life in the ICU. Dr. Bradley Hayward is developing a collaboration with Geriatrics and other divisions on the clinical aspects of palliative care. Translational clinical research in the ICU is being led by Dr. Edward Schenck, who is expanding a clinical database that links detailed clinical data with biological patient samples to study inflammation and lung injury in critically ill patients with sepsis.



Dr. Hasina Outtz Reed

Pulmonary and Critical Care Medicine



Mrs. Thomas KC King (center front row) with (L to R): Drs. Fernando Martinez, Augustine M.K. Choi (Dean, Weill Cornell Medicine), Daniel Libby, James P. Smith, and Anthony Szema, a guest from North Shore-LIJ School of Medicine at Hofstra University.

Pulmonary and Critical Care Fellowship

Meredith Turetz, M.D.
Program Director

Robert Kaner, M.D.
Associate Program Director

Brad Hayward, M.D.
Associate Program Director

A three-year comprehensive program with 12 fellows. Curriculum includes rotations on the consultative pulmonary service, doing advanced pulmonary procedures, and participating in rotations in the medical, neurologic, and surgical intensive care units, and to care for inpatients and outpatients under supervision of the division's clinical faculty. All fellows conduct at least 18 months of research, spanning a broad range of expertise (e.g., bench laboratory research, health service and/or patient centered investigation). Key investigative areas include cellular biology and molecular immunology, lung and vascular injury, human pathophysiology, and epidemiology and bioinformatics. Faculty mentoring across the tri-institutional setting provides an ideal training environment.

The division's educational mission involves a multifaceted program for the training of students and residents, as well as a Pulmonary and Critical Care Fellowship. Simulation programs for providing ACLS (Advanced Cardiovascular Life Support) and the insertion of Central Venous Catheters continue. In 2019, the division renamed the William Briscoe Lung Club to the Briscoe King Lung Club in memory of Dr. Thomas KC King. The Club hosts fellows from training programs throughout the area so that they may present their scientific work. There is a monthly multidisciplinary conference on diagnosis and management of ILD.

The division has an NHLBI T32 training grant under the leadership of Drs. Martinez, Kaner, and Augustine M.K. Choi. Entitled "Multidisciplinary Approach to Training in Respiratory Research," the program includes multiple faculty across the tri-institutional consortium who are training respiratory focused physician-scientists. The division's many trainees have received career development awards as well as private foundation funding. The main objective of the training program is to provide an intensive research experience that fosters the skills needed to pursue a successful career in investigative pulmonary sciences. Dr. Alex Racanelli, the first appointed trainee to the program, has been joined by Drs. Lisa Torres and John Harrington.

Regenerative Medicine



Shahin Rafii, M.D.
Chief, Division of Regenerative

Arthur B. Belfer Professor in
Genetic Medicine

Director, Ansary Stem Cell
Institute

Professor of Medicine
Professor of Genetics
Professor of Reproductive
Medicine

The Division of Regenerative Medicine is dedicated to furthering discoveries and knowledge on organ regeneration and repair, and to translating their potential into life-saving therapeutics. Led by renowned physician-scientist Dr. Shahin Rafii, who has been at the forefront of vascular biology and stem cell research for nearly two decades, the division is an interactive community of researchers and clinicians who work at Weill Cornell Medicine in stem cell research and regenerative medicine. Research in this division is not only of great value in terms of patient care, it is serving to educate the next generation of scientists and clinicians, as well as the general public, about the realities and potential benefit of stem cell research. A role model in creating synergistic partnerships with other institutions and foundations, the division also advocates for public policy that promotes stem cell based research and therapies.

Known for its state-of-the-art approach to investigation, the division's laboratory has been carrying out cutting-edge studies on stem cells and organ regeneration since 2003. Dr. Rafii, who also serves as the Director of the Ansary Stem Cell Institute at Weill Cornell Medicine, provides a core laboratory that is utilized by junior faculty members, principle investigators, postdoctoral fellows, graduate resident students, and support staff. The laboratory also trains visiting scientists from around the world. Additionally, the division deploys staff to the Starr Foundation Tri-Institutional Stem Cell Derivation Laboratory at Weill Cornell Medicine to offer on-site human embryonic stem cells and a GLP facility that serves researchers working with pluripotent stem cells.

The Ansary Stem Cell Institute is home to landmark advances in regenerative medicine. Dr. Rafii, its Director, is nationally and internationally recognized for having pioneered the transformative paradigm demonstrating that tissue-specific adult endothelial cells (ECs) are unique instructive vascular niche cells that produce paracrine

“angiocrine factors” to directly induce organ regeneration. This concept has revealed the remarkable heterogeneity of the adult vasculature that is underscored by production of tissue-specific angiocrine factors necessary for orchestrating organ regeneration. Dr. Rafii's laboratory has ushered in a new era in state-of-the-art models for the study of tissue-specific induction of angiocrine factors in ECs. His laboratory's many advances include the identification of physiologically relevant tissue-specific stimulatory and anti-fibrotic angiocrine factors. The team utilizes *in vivo* genetic models to determine the role of angiocrine factors in organ regeneration and has played a major role in illuminating the intrinsic and microenvironmental determinants of vascular heterogeneity.

The division also focuses on stem cell biology and their niches using mouse and human genetic models, tissue culture approaches, and molecular biology to model the complex interactions between stem cells and their micro-environment. Multiomics, molecular and cell biological techniques are combined to achieve a systems-level understanding of these complex processes.

Currently, Dr. Rafii is focused on identifying the molecular and cellular pathways involved in organ regeneration and tumor growth. He has established the concept that vascular endothelial cells are not just inert plumbing to deliver oxygen and nutrients, but also by production of tissue-specific growth factors, defined as angiocrine factors, support organ regeneration and tumor proliferation. He has shown that bone marrow endothelial cells by elaboration of angiocrine factors, such as Notch ligands, support stem cell self-renewal and differentiation into lymphoid and myeloid progenitors. He has recently shown that liver and lung endothelial cells are endowed with unique phenotypic and functional attributes,

Regenerative Medicine

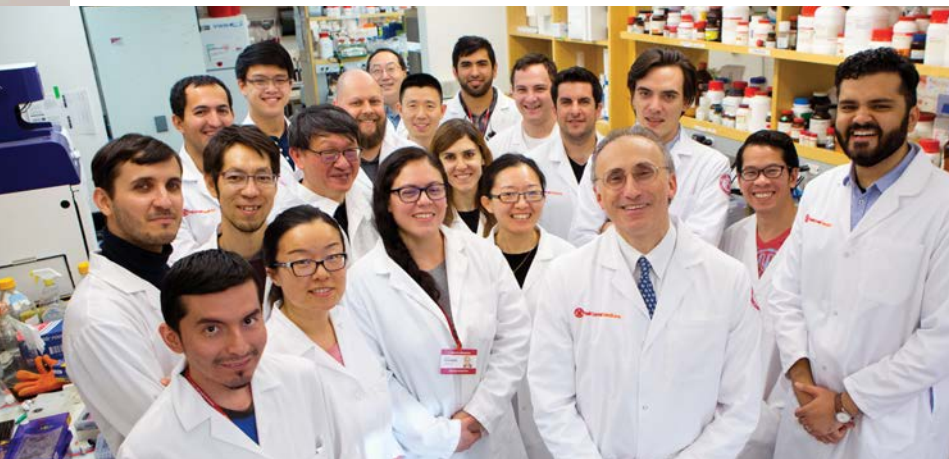
and by production of unique instructive growth factors, contribute to the hepatic and alveolar regeneration. Dr. Rafii has also induced differentiation of the murine and human pluripotent embryonic stem cells into functional and engraftable vascular and hematopoietic derivatives. He developed screening approaches to exploit endothelial cells, as a vascular niche platform, to identify, as yet, unrecognized novel angiocrine factors that instruct organ morphogenesis and also orchestrate stem cell self-renewal and differentiation.

The laboratory of Dr. Joe Qiao Zhou has made seminal contributions to regenerative biology. His laboratory pioneered a new approach of regenerating pancreatic insulin-

lab has identified critical factors, without which, colon mucosa is transformed into small intestine mucosa with implications in diseases such as short-bowel disease, inflammatory bowel diseases, and colorectal cancer. The Zhou lab uses state-of-the-art tools and approaches, including human embryonic stem cells, human organoids, CRISPR screening, single-cell sequencing, functional genomics, and many more for mechanistic understanding and therapeutic development.

Dr. Raphael Lis is focused on how the development and maintenance of the haematopoietic system relies on a scant number of self-renewing haematopoietic stem cells (HSCs) residing in the adult bone marrow and representing the top of a complex cellular hierarchy. Transplantation of HSCs, harvested from either bone marrow, mobilized peripheral blood or umbilical cord blood (UCB), has become the standard of care for numerous hereditary and malignant blood diseases. However, the limited availability of optimally human leukocyte antigen (HLA)-matched donor HSCs remains a challenge, especially for individuals of non-Caucasian background or mixed ethnicity. This research has converted endothelial cells to engraftable HSC-like cells. Dr. Lis is advancing his research towards engineered autologous bone marrow transplant and hematological disease modeling.

Dr. David Redmond is a computational biologist specializing in high-throughput sequencing platforms, including bulk and single-cell transcriptomics, epigenetics, and spatial technologies. With the recent development of these single-cell and spatial sequencing technologies that have allowed for a deeper understanding of the cell as a functional unit, Dr. Redmond has been developing methods for deconvoluting important functional data including one of the first algorithms for recapitulating full TCR identity in single cell data.



Dr. Rafii (front row center) in the laboratory.

secreting beta cells in mature pancreas by directly reprogramming pancreatic acinar cells with defined genetic factors. This study is the first proof-of-concept that cells in adult organs can be reprogrammed *in vivo*, which led to numerous subsequent studies of adult tissue plasticity. His laboratory discovered that gastric antral cells are also highly amenable for conversion into insulin-secreting cells. The Zhou lab continues to make significant progress in advancing mechanistic studies, as well as in developing technologies to produce insulin⁺ cells from human gastric stem cells as a potential cell therapy for type 1 diabetes. Also in process is the study of stem cells in large intestine mucosal regeneration. The Zhou

Rheumatology



Mary K. Crow, M.D.
Chief, Division of Rheumatology

Joseph P. Routh Professor of
Rheumatic Diseases in Medicine

Professor of Medicine
Weill Cornell Medical College

Benjamin M. Rosen Chair in
Immunology and Inflammation
Research

Attending Physician
NewYork-Presbyterian Hospital

Based at Hospital for Special Surgery (HSS), the Division of Rheumatology is a national and international leader in clinical care of patients with autoimmune, inflammatory and musculoskeletal conditions; research that has contributed to identification of novel therapeutic targets and new understanding of disease mechanisms; and innovative approaches to medical education and education research. In addition to more than 40,000 outpatient rheumatology visits per year, the division has responsibility for all of the pre- and post-surgical medical care of more than 30,000 patients per year who undergo orthopaedic surgery procedures at HSS. The large volume of patients treated at HSS has enabled HSS clinicians and researchers to develop patient registries with detailed clinical information that provides an important resource for clinical and translational research studies. Longitudinal data collection, patient reported outcomes and availability of biologic samples are features of some of the registries that provide valuable research resources shared with collaborators nationally and internationally.

Achieving optimal outcomes for patients is the goal of our 25 active consultative rheumatology practitioners, treating disorders ranging from osteoarthritis and rheumatoid arthritis (RA) to the most complex patients with lupus, vasculitis, systemic sclerosis or diagnostic dilemmas. Our Hospital-Based Physicians Group, co-chaired by Drs. Theodore Fields and Jessica Gordon, is implementing the transformation of the division's clinical practice operations with the goal of establishing efficient and value-focused care across all practices. Dr. Steven Magid serves as Chief Medical Information Officer for HSS, overseeing implementation of our medical information technology system in the hospital and office practices. Optimal preparation and postoperative management of patients undergoing orthopedic surgery at HSS is under the leadership of Dr. Linda Russell, Director of Perioperative Medicine. Dr. Karen Onel leads our Pediatric Rheumatology Service, with many clinical and academic programs shared with the adult Rheumatology Division.

Rheumatology clinics at HSS represent an essential training component of our rheumatology fellowship programs. The adult rheumatology training program is directed by Drs. Anne Bass and Jessica Berman, and the pediatric rheumatology training program is directed by Dr. Alexa Adams. Fifteen adult and pediatric rheumatology fellows provide continuity of care for the patients seen in the clinics, with involvement of all rheumatology faculty members as supervisors and teachers. A weekly clinic for evaluation of new patients, and specialty clinics focused on inflammatory arthritis, lupus and antiphospholipid syndrome, vasculitis and systemic sclerosis, provide rheumatology fellows and rotating internal medicine residents with a rich experience in evaluation and management of a full spectrum of rheumatic diseases. A rich learning environment is also provided in the multidisciplinary clinic conferences, following Monday Inflammatory Arthritis Clinic and Friday Lupus Clinic, which involve discussion of patient management guided by recent literature, and enriched by attendance of representatives from other Weill Cornell specialties. Training of fellows in musculoskeletal ultrasound is provided through a specialized curriculum as well as hands-on experience. Each rheumatology trainee completes a basic, clinical, or education research project under the supervision of one or more faculty members and with oversight by a mentoring committee. Trainees pursuing a research career are encouraged to apply for peer-reviewed research grant support, and those headed for careers in academic medicine often gain additional training through several available master's programs. This strong academic environment attracts the future leaders in academic rheumatology to its fellowship program.

The division has a long history of leading basic and translational research studies that have elucidated important mechanisms of autoimmune and inflammatory disease and have identified important therapeutic

Rheumatology



targets. It is also recognized for its productive collaborations among bench scientists and clinicians. Clinical rheumatologists, clinical and laboratory investigators, nurses, social workers, and students advance disease-focused research, patient education, and professional education through the division's centers of excellence as well as its Barbara Volcker Center for Women and Rheumatic Diseases. Dr. Lionel B. Ivashkiv, Chief Scientific Officer, is supported by NIH research grants addressing epigenetic mechanisms relevant to regulation of inflammation and bone resorption in rheumatoid arthritis. His lab is making seminal observations on the epigenetic control of cytokine gene expression and osteoclast maturation, and his studies of chromatin modifications are leading to new understanding of how the immune system becomes primed to react efficiently to future microbial or inflammatory stimuli. Dr. Jane Salmon, who serves as the Associate Dean for Faculty Affairs at Weill Cornell Medicine, has identified biomarkers that predict adverse pregnancy outcomes in patients with lupus or

antiphospholipid syndrome (APS). She is leading an interventional trial of a tumor necrosis factor inhibitor to prevent adverse pregnancy outcomes in patients with antiphospholipid syndrome. Dr. Bella Mehta has documented the change over time in pregnancy outcomes of patients with lupus and is also studying health disparities in patients with osteoarthritis. Dr. Doruk Erkan is studying therapies that might improve outcomes of APS patients. Dr. Mary Crow's lab, in collaboration with Dr. Kyriakos A. Kirou, has demonstrated that type I interferon is a central mediator of immune dysregulation and autoimmunity in SLE and has provided insight into the role of additional molecular pathways involved in lupus nephritis.

Members of the Rheumatology Division are leading collaborative clinical research studies focused on risk factors and outcomes of total joint replacement surgery. Together with members of the orthopedic surgery, pathology and research faculty, Drs. Susan Goodman, Vivian Bykerk, Laura Donlin and others are documenting the biologic characteristics of joint tissue that are associated with rheumatoid arthritis disease flare after total joint replacement. Their work, in collaboration with the NIH-funded Accelerating Medicines Partnership, has established in vitro mechanisms to identify therapeutic agents effective in reducing synovitis. Dr. Goodman is also investigating the socioeconomic factors that impact surgical management of osteoarthritis and is directing a Center of Excellence that is organizing outcome research in rheumatic disease patients undergoing orthopedic surgical procedures. Dr. Anne Bass is leading studies of the rheumatologic complications of checkpoint inhibitor therapy in collaboration with oncologists.

Rheumatology Fellowship

Anne R. Bass, M.D.
Program Director

Jessica R. Berman, M.D.
Program Co-Director

The Hospital for Special Surgery (HSS) rheumatology fellowship 3-year program combines a broad-based, in-depth clinical and research experience in order to deliver the highest quality academic training to rheumatology professionals.

Iris Cantor Women's Health Center (ICWHC)



Orli R. Etingin, M.D.
Medical Director, ICWHC

Vice Chair for Faculty

Lisa and Sanford B. Ehrenkranz
Professor in Women's Health

Professor of Clinical Medicine

Professor of Clinical Obstetrics
and Gynecology
Weill Cornell Medical College

Attending Physician
NewYork-Presbyterian Hospital

The Iris Cantor Health Center (IHC) at 425 East 61st Street in Manhattan offers the most comprehensive array of healthcare services, designed specifically for women, in a single location in New York City. With more than 40,000 square feet of clinical space occupying four floors under one roof, women can access the finest prevention, screening, and treatment services in one convenient location. All of the Center's physicians are full-time faculty members of Weill Cornell Medicine and attending physicians at NewYork-Presbyterian/

research collaborations between men's and women's Health continue.

The 2019 Women's Health Symposium was presented on October 28, 2019 and covered management of overall wellbeing using mobile systems and applications. Entitled "Live Well: Integrative Care and Tech Based Health," speakers included Dr. Alka Gupta, Assistant Professor of Medicine, Co-founder and Co-director of the Integrative Health and Wellbeing Program at NewYork-Presbyterian, and Deborah Estrin, Ph.D., The Robert V.



Dr. Etingin with Joan Weill (center). Dr. Alka Gupta (far L) and Dr. Deborah Estrin (far R).

Weill Cornell Medical Center. A team of internists, gynecologists, radiologists, among many others, facilitate superb coordination.

The Iris Cantor Men's Health Center, for which Dr. Etingin had provided expertise and assistance during the development phase, has grown to encompass both men's health and executive health testing. The contiguity of the Women's Health Center, Men's Health Center, and the new Executive Physical Center, has enabled streamlined care for every type of patient. Located at 425 East 61st Street, the men's health practice enhances the primary care network of Weill Cornell Medicine delivering patient care that covers internal medicine, cardiology, endocrinology, hematology, and urology. It also houses the Department of Urology's Institute for Bladder and Prostate Health. Clinical

Tishman '37 Professor at Cornell Tech and in the Computer Science Department at Cornell University.

Due to COVID-19, the 2019 symposium is tentatively scheduled for October 27, 2020 as a virtual event. The topic of the symposium is to be brain health and mood with a focus on the use of technology to optimize female brain health. The invited speakers for the event are Drs. Francis Lee and Lisa Mosconi. Dr. Mosconi, an Associate Professor of both Neuroscience in Neurology and Neuroscience in Radiology, has written extensively about the female brain and the use of PET scans. She is the Director of the Weill Cornell Women's Brain Initiative. Dr. Lee is the Chair of Psychiatry and the Mortimer D. Sackler, MD Professor of Molecular Biology in Psychiatry at Weill Cornell Medicine.



Residents & Fellows

Weill Department of Medicine

Residents & Fellows



2019 Chief Residents (L-R): Maria Pabon, Masha Slavin, Zachary Sherman, Brittany Katz, Daniel Choi.

Dr. Kirana Gudi serves as Director of the Internal Medicine Residency Program and also as the Vice Chair for Education in the Weill Department of Medicine. The Internal Medicine Residency Program is distinguished by a unique combination of activities and opportunities. One of the program's core principles is that house staff learn best through authentic responsibility. House staff serve as the primary provider across all aspects of patient care. Intellectual curiosity is fostered throughout the curriculum, whether exploring basic science, translational medicine, clinical expertise, or the healthcare delivery system. Residents can customize their focus, or try more than one area. Mentorship is one-on-one to help each resident thrive.

Senior Residents (PGY3)

Frank Aguilar, University of Illinois College of Medicine

Eva Alba, Columbia University College of Physicians and Surgeons

Tarek Barbar, Weill Cornell Medical College-Qatar

John Bui, University of Pittsburgh School of Medicine

Samuel Chung, State University of New York Downstate Medical Center College of Medicine

Lauren Comisar, Perelman School of Medicine, University of Pennsylvania

Kristina Fernandez, Virginia Commonwealth University School of Medicine

Brittney Frankel, Weill Cornell Medical College

Samuel Freedman, Lewis Katz School of Medicine, Temple University

Viktor Gamarnik, Columbia University College of Physicians and Surgeons

Ruslan Garcia, University of Miami, Leonard M. Miller School of Medicine

Anne Grauer, Hofstra Northwell School of Medicine at Hofstra University

Jin Guo, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo

Daniel Helbig, Albert Einstein College of Medicine

Sarah Kanbour, Weill Cornell Medical College-Qatar

Lauren Kelly, Perelman School of Medicine, University of Pennsylvania

Anamili Khyami, King Abdulaziz University College of Medicine and Allied Sciences

Alexandra King, Hofstra Northwell School of Medicine at Hofstra University

Ariel Love, Albert Einstein College of Medicine

Steven Mathews, Stony Brook University School of Medicine

Residents & Fellows

Gregory McWilliams, Georgetown University School of Medicine

Erik Nielsen, Stony Brook University School of Medicine

Alexander O'Connell, Hofstra Northwell School of Medicine, Hofstra University

Alexander Pronko, Robert Wood Johnson Medical School, Rutgers

Randy Ramsaywak, Albert Einstein College of Medicine of Yeshiva University

Raquel Rozner, New York Medical College

Ariel Schaap, New Jersey Medical School, Rutgers

Russell Simon, New York University School of Medicine

Mark Sonnick, Weill Cornell Medical College

Diala Steitieh, Weill Cornell Medical College-Qatar

Sarah Stoots, Icahn School of Medicine, Mount Sinai

Michael Sun, New Jersey Medical School, Rutgers

Montreh Tavakkoli, University of California, Los Angeles, David Geffen School of Medicine

Shanna Tucker, Harvard Medical School

Ozan Unlu, Hacettepe University, Turkey

Maya Viavant, University of California, Davis, School of Medicine

Dario Villamar, Weill Cornell Medical College

Julian Waksal, Tufts University School of Medicine

Linda Wu, Weill Cornell Medical College

Brian Yu, New York Medical College

Junior Residents (PGY2)

Yumna Abdelghany, Weill Cornell Medical College-Qatar

Ankita Agarwal, New Jersey Medical School, Rutgers

Preston Atteberry, Icahn School of Medicine, Mount Sinai

Alexander Bain, Perelman School of Medicine, University of Pennsylvania

Lauren Balkan, State University of New York Downstate Medical Center College of Medicine

Dan Benenson, Weill Cornell Medical College

Matthew Brandorff, Stony Brook University School of Medicine

Allen Chen, Harvard Medical School

Brian Chernak, State University of New York Downstate Medical Center College of Medicine

Philip Choi, Columbia University College of Physicians and Surgeons

Chou Chou, Weill Cornell Medical College

Emily Coskun, University of Kansas School of Medicine

Rachel Engelberg, University at Buffalo

Asia Gobourne, Weill Cornell Medical College

Jordan Goldstein, Emory University School of Medicine

Benjamin Gordon, Weill Cornell Medical College

Marvah Hill Pierre-Louis Geisel, Dartmouth

Angela Hu, Temple University

Ramsey Kalil, Stony Brook University School of Medicine

Kyle Koster, University of Rochester

Kristine Lacuna, State University of New York, University at Buffalo Jacobs School of Medicine and Biomedical Sciences

Justin Lebenthal, Robert Wood Johnson Medical School, Rutgers

Neil Lim, Northwestern University Feinberg School of Medicine

Anna Mertelsmann, University of Hamburg

Xiaoli Mi, Harvard Medical School

Pedram Navid-Azarbaijani, Weill Cornell Medical College

Cecilia Nicol, Weill Cornell Medical College

Stephanie Pagliuca, Duke University School of Medicine

Akash Patel, New Jersey Medical School, Rutgers

Kharisa Rachmasari, Weill Cornell Medical College-Qatar

Rayhan Saiani, Weill Cornell Medical College

Claire Sathe, New Jersey Medical School, Rutgers

Hector Sepulveda Alemany, University of Puerto Rico School of Medicine

Anupriya Singhal, Weill Cornell Medical College

Leland Soiefer, New York University School of Medicine

Robert Stanley, Albert Einstein College of Medicine of Yeshiva University

Catherine Stoeckle, Harvard Medical School
Shyam Sundaresh, Case Western Reserve University
Gaurav Varma, Drexel University College of Medicine
Antonio Velez, University of Puerto Rico School of Medicine
Kenneth Vera, Yale University
Nabeel Wahid, University of California, Irvine
Xiaohui Wang, University of Kentucky
Xiaodi Wu, Washington University-St. Louis

Intern Residents (PGY1)

Ugochukwu Akpara, CUNY School of Medicine
Brinda Alagesan, Stony Brook University School of Medicine
Ariel Bar-Mashiah, Icahn School of Medicine, Mount Sinai
Kevin Chan, Weill Cornell Medical College
Alexander Choi, University of Michigan Medical School
Mikiyas Teshome Desta, University of Kentucky College of Medicine
Bianca Di Cocco, Geisel, Dartmouth
Ashley Dixon, New Jersey Medical School, Rutgers
Nechama Dreyfus, Albert Einstein College of Medicine of Yeshiva University
Olivia Fankuchen, Tulane University School of Medicine
Emily Frey, University of Chicago, Division of the Biological Sciences, The Pritzker School of Medicine
Theodore Getz, Case Western Reserve University
Nicolas Gomez Banoy, Universidad Nacional de Colombia Facultad de Medicina
Justin Grenet, Perelman School of Medicine, University of Pennsylvania
Jeanie Gribben, Icahn School of Medicine at Mount Sinai
Namrata Gumaste, Robert Wood Johnson Medical School, Rutgers
Zachary Hostetler, Perelman School of Medicine, University of Pennsylvania
Devora Isseroff, Icahn School of Medicine at Mount Sinai

Ruth Kagan, Harvard Medical School
Ashwin Kelkar, Case Western Reserve University
Madelyn Klugman, Albert Einstein College of Medicine of Yeshiva University
Rebecca Krakora, Robert Wood Johnson Medical School, Rutgers
Dennis Lee, Weill Cornell Medical College
Michelle Lee, Baylor College of Medicine
Kimberly Loo, Temple University
Lawrence Lucas, University of South Carolina School of Medicine, Greenville
Malika Madhava, Sidney Kimmel Medical College at Thomas Jefferson University
Melina Manolas, Tulane University School of Medicine
Lauren Mitchell, Harvard Medical School
Paul Paik, Weill Cornell Medical College
Jin Park, University of California, Los Angeles, David Geffen School of Medicine
Tamasha Persaud, State University of New York Downstate Medical Center College of Medicine
Kara Ryan, Tufts University School of Medicine
Choumika Simonis, Loyola University, Chicago, Stritch School of Medicine
Hank Swerdloff, Tulane University School of Medicine
Jacqueline Tao, Stanford University School of Medicine
David Thomas, Columbia University College of Physicians and Surgeons
Brittany Toffey, New Jersey Medical School, Rutgers
Charlton Tsai, Duke University School of Medicine
Manik Uppal, Weill Cornell Medical College
Krista Vadaketh, Drexel University College of Medicine
Megan Winkelman, University of California, San Francisco, School of Medicine
Sharan Yadav, Weill Cornell Medical College-Qatar
David Zhang, Weill Cornell Medical College
Raymond Zou, CUNY School of Medicine

Professional Pursuits

Subspecialty Fellowship Appointments

Cardiology

Kemal Akat, *Vanderbilt University*
Javid Alakbarli, *Baylor College of Medicine - Texas Heart Institute*
Daniel Choi, *New York University*
Yasin Hussain, *Yale University*
Peter Kennel, *New York-Presbyterian Hospital/Columbia University*
Filipe Moura, *Mass General Brigham*
Gabriel Shaya, *Johns Hopkins Medical Center*
Russell Simon, *New York University*
Diala Steitieh, *New York-Presbyterian Hospital/Columbia University*

Endocrinology

Eva Alba, *Mount Sinai Hospital*
John Falcone, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Sarah Kanbour, *Johns Hopkins Medical Center*
Anamil Khiyami, *University of Pittsburgh Medical Center*

Gastroenterology

Adam Buckholz, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Karen Chiu, *University of Pittsburgh Medical Center*
Anthony Choi, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Gaurav Ghosh, *New York-Presbyterian Hospital/Weill Cornell Medical Center*

Stephanie Gold, *Mount Sinai Hospital*
Steven Mathews, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Raquel Rozner, *Yale University*
Amin Soltani, *Mass General Brigham*

Geriatric/Palliative

Lauren Kelly, *Mount Sinai Hospital*

Hematology and Medical Oncology

Philip Choi, *Memorial Sloan Kettering Cancer Center*
Dan Feng, *Memorial Sloan Kettering Cancer Center*
Gloria Gerber, *Johns Hopkins Medical Center*
Jin Guo, *Anderson Cancer Center*
Daniel Helbig, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Katherine Knorr, *Memorial Sloan Kettering Cancer Center*
Rohan Maniar, *New York-Presbyterian Hospital/Columbia University*
Ryan Notti, *Memorial Sloan Kettering Cancer Center*
Bobak Parang, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Madhav Seshadri, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Anupriya Singhal, *Memorial Sloan Kettering Cancer Center*
Robert Stanley, *Memorial Sloan Kettering Cancer Center*
Montreh Tavakkoli, *University of Pennsylvania*

Dario Villamar, *University of Chicago*
Linda Wu, *Mount Sinai Hospital*
Xiaodi Wu, *Memorial Sloan Kettering Cancer Center*
Samuel Yamshon, *New York-Presbyterian Hospital/Weill Cornell Medical Center*

Infectious Disease

Amit Achhra, *Mass General Brigham*
John Bui, *University of Washington*
Khanh Pham, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Grace Maldarelli, *New York-Presbyterian Hospital/Weill Cornell Medical Center*

Nephrology

Perola Lamba, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Tarek Barbar, *New York-Presbyterian Hospital/Weill Cornell Medical Center*

Obesity

Sarah Barenbaum, *Weill Cornell Medicine*
Ilana Prior, *Weill Cornell Medicine*
Shanna Tucker, *New York University*

Pulmonary and Critical Care Medicine

Jorge Munoz Pineda, *Stanford University*
Erik Nielsen, *New York-Presbyterian Hospital/Weill Cornell Medical Center*
Alexander Pronko, *New York-Presbyterian Hospital/Weill Cornell Medical Center*

Rheumatology

Rebecca Blank, *New York University*

Yuyin Chen, *Hospital for Special Surgery*

Amit Lakhanpal, *Hospital for Special Surgery*

Sarah Stoots, *University of Pennsylvania*

Diane Zisa, *Hospital for Special Surgery*

Other Professional Pursuits

Brittney Frankel, Primary Care Physician, *Medical Associates*

Ruslan Garcia, General Internist, *Appalachian Mountain Community Health Centers – Rural Medicine Fellow, University of North Carolina*

Anne Grauer, Post-Doctoral Clinical Fellow/Assistant in Clinical Medicine, *NewYork-Presbyterian Hospital/Columbia University*

Michael Sun, Nocturnist, *AtlantiCare Health System*

Zachary Strasser, NLM Biomedical Informatics and Data Science, *Harvard Medical School*

Brian Yum, Nocturnist/Hospitalist, *Memorial Sloan Kettering Cancer Center*

Chief Residencies

Daniel Choi, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Kristina Fernandez, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Brittany Katz, Quality Improvement Chief Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Alexandra King, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Maria Pabon, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Samuel Rotter, Chief Medical Resident, *Memorial Sloan Kettering Cancer Center*

Ariel Schaap, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Zachary Sherman, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Mark Sonnick, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Masha Slavin, Ambulatory Chief Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Ozan Unlu, Chief Medical Resident, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Maya Viavant, Chief Medical Resident, *Memorial Sloan Kettering Cancer Center*

Julian Waksal, Chief Medical Resident, *Memorial Sloan Kettering Cancer Center*

Hospitalists

Jesse Bertrand, *Hackensack University Medical Center*

Lauren Comisar, *Manhattan VA*

Josephine Cool, *Beth Israel Deaconess Medical Center*

Samuel Freedman, *Memorial Sloan Kettering Cancer Center*

Viktor Gamarnik, *NewYork-Presbyterian Hospital/Columbia University*

Ariel Love, *NYU, Bellevue Hospital*

Mariella Ntamatungiro, *NewYork-Presbyterian Hospital/Columbia University*

Alexander O'Connell, *North Shore University Hospital/Northwell Health*

Randy Ramsaywak, *Montefiore Hospital*

Academic Appointments

Frank Aguilar, Assistant Professor in Medicine, *Northwestern Memorial Hospital*

Deep Bhatt, Instructor in Medicine, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Ryan Bober, Instructor in Medicine, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Samuel Chung, Instructor in Medicine, *Mount Sinai Hospital*

Deborah Fung, Instructor in Medicine, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Sumaiya Iqbal, Faculty, *Unity Faculty Partners Rochester*

Brittany Katz, Primary Care Physician, *Westmed Medical Group*

Amy Kwon, Assistant Professor in Medicine, *Oregon Health and Science University*

Gregory McWilliams, Instructor in Medicine, *NewYork-Presbyterian Hospital/Weill Cornell Medical Center*

Dwindally Rosado-Rivera, Instructor in Medicine, *Weill Cornell Medicine-Tribeca*

Colleen Tenan, Primary Care Physician, *Westmed Medical Group*

Timothy Tiutan, Assistant Attending, *Memorial Sloan Kettering Cancer Center*

Contacts

Chair Office

Sanford I. Weill Chair Joan and Sanford I. Weill Department of Medicine

Anthony Hollenberg, M.D.
Tel: (212) 746-4720

Executive Vice Chair

John P. Leonard, M.D.
Tel: (212) 746-6420

Chief Administrative Officer

Thomas A. McGrath, M.B.A.
Tel: (212) 746-4271

Residency Office

Vice Chair for Education Director, Internal Medicine Residency Program

Kirana Gudi, M.D.
Tel: (212) 746-4749

Residency Program Manager

Margie Daly, M.P.A.
Tel: (212) 746-4749

Administration

Associate Director, Faculty & Staff Support

Nancy Bennett
Tel: (212) 746-4358

Associate Director, Budget & Accounting

Peter Kam, M.B.A.
Tel: (212) 746-9398

Associate Director, Clinical Operations

Sophia Gibbs, M.B.A.
Tel: (212) 746-6753

Associate Director, Revenue and Compliance

Sean Butler, M.B.A., C.P.C.
Tel: (212) 746-4943

Associate Director, Research Administration

Kristen Brady Losquadro
Tel: (212) 746-9168

Associate Director, Communications

Suzanne Ross
Tel: (212) 746-4781

Divisional Offices

Cardiology

Bruce B. Lerman, M.D., Chief
Ann Matier, M.B.A., Administrator
Tel: (212) 746-2176

Clinical Epidemiology and Evaluative Sciences Research

Mary E. Charlson, M.D., Chief
Tel: (646) 962-5060

Endocrinology, Diabetes & Metabolism

Laura Alonso, M.D., Chief
Andrew Crawford, Administrator
Tel: (212) 746-4113

Gastroenterology & Hepatology

David E. Cohen, M.D., Ph.D., Chief
Debbie Dimanche, M.B.A., Administrator
Tel: (646) 962-4778

General Internal Medicine

Monika Safford, M.D., Chief
Anita Mesi, M.B.A., Administrator
Tel: (646) 962-5900

Geriatrics and Palliative Medicine

Ronald D. Adelman, M.D., Co-Chief
Mark S. Lachs, M.D., M.P.H., Co-Chief
Cory Henkel, M.H.A., Administrator
Tel: (212) 746-1733

Hematology and Medical Oncology

Manuel Hidalgo, M.D., Chief
Paula Goldstein, M.P.A., Administrator
Tel: (212) 746-4550

Infectious Diseases

Roy M. Gulick, M.D., M.P.H., Chief
Avi Bueno, Administrator
Tel: (212) 746-4914

Iris Cantor Women's Health Center

Orli R. Etingin, M.D., Director
Ellen Connelly, Administrator
Tel: (212) 821-0558

Medical Ethics

Joseph J. Fins, M.D., Chief
Andrew Crawford, Administrator
Tel: (212) 746-4113

Nephrology and Hypertension

Manikkam Suthanthiran, M.D., Chief
ThuTrang Du, Administrator
Tel: (212) 746-4430

Public Health Programs

Ann B. Beeder, M.D., Chief
Gerard Ilaria, M.S.W., Administrator
Tel: (212) 746-5917

Pulmonary & Critical Care Medicine

Fernando J. Martinez, M.D., Chief
Kathy Rosenberg, M.B.A., Administrator
Tel: (646) 962-2730

Regenerative Medicine

Shahin Rafii, M.D., Chief
Andrew Crawford, Administrator
Tel: (212) 746-4113

Rheumatology

Mary K. Crow, M.D., Chief
Jessica Kovac, Senior Administrative Director
Tel: (646) 714-6273

Credits

Managing Editor-Writer/Project Manager:

Suzanne Ross

Design:

Sundberg & Associates, Inc.

Photography:

Roger Tully

Additional Photography:

Patricia Kuharic
Studio Brooke

Dr. Charles L. Christian, a premier leader in the field of rheumatology, passed away on Sunday, August 11, 2019. He served as Physician-in-Chief of the Hospital for Special Surgery (HSS) for 25 years, and, on two occasions, as the Acting Physician-in-Chief of NewYork-Presbyterian Hospital and as Chair of Medicine at Weill Cornell Medicine. Dr. Christian began his career at the Hospital for Special Surgery (HSS) where he served as Physician-in-Chief, Director of Rheumatic Diseases, and Associate Director of the Department of Research. From 1970 to 1995, he served as Chief of the Division of Rheumatology at Weill Cornell. Dr. Christian developed the Combined Arthritis Program at HSS. Under his leadership, HSS received its first Multipurpose Arthritis Center grant from the National Institutes of Health, and, by 1988, received its second grant. Dr. Christian was an emeritus member of the American Society for Clinical Investigation, a past President of the American College of Rheumatology, and a recipient of the Presidential Gold Medal.

Dr. Christian, who achieved major advances in the pathogenesis of rheumatoid arthritis and in systemic lupus erythematosus (SLE), was beloved by colleagues, trainees, and friends throughout the U.S. and around the world. He was born and grew up in Wichita, Kansas. After a tour in the navy, he attended Case Western Reserve School of Medicine. He trained in internal medicine at Columbia-Presbyterian Hospital where he developed his interest in the rheumatic diseases under the tutelage of Dr. Charles Ragan, a founder of the Arthritis Foundation. In one of his first publications, a single author study published in the *Journal of Experimental Medicine* (1958), Dr. Christian described aggregated gamma globulin as the serum target of rheumatoid factor. He went on to characterize immune complexes, anti-DNA antibodies and the essential contribution of complement to the immune system alterations in patients with SLE.

Dr. Christian forged many fruitful collaborations in biomedical research: with Dr. Paul Phillips, he introduced the possibility that viruses might play a contributing role in connective tissue diseases, a concept that continues to be of great interest today; with Drs. David Gocke, John Sergent, Michael Lockshin and others, he led the discovery that hepatitis B (then called “Australia antigen”) can drive polyarteritis nodosa, the first example of a chronic rheumatic disease caused by a virus; with Dr. Robert Inman and others, he characterized the microbial and host components of immune complexes in patients with infective endocarditis; with Drs. Robert Kimberly, Michael Lockshin, Robert Inman and others, he introduced high-dose pulse methylprednisolone therapy for patients with lupus nephritis; and with Dr. Dorothy Estes, he published in 1971 the definitive description of the natural history of SLE. Also, Dr. Christian perfected the Farr assay with Graham Hughes and Selwyn Cohen demonstrating the association of anti-DNA antibodies with disease activity in SLE, thus extending and applying the observations of Drs. Holman and Kunkel that lupus sera bound DNA and nuclear components. His work in this area established measurement of anti-DNA antibodies as the most informative biomarker for management of lupus patients.

Dr. Harvey Klein, one of the Weill Department of Medicine’s most beloved and respected physicians, was The William S. Paley Professor of Clinical Medicine and a premier physician and educator at NewYork-Presbyterian/Weill Cornell Medical Center for 55 years. Throughout his remarkably distinguished career, Dr. Klein provided patient care to numerous patients, including dignitaries from around the world, taught hundreds of trainees, and exemplified the highest level of integrity and devotion to our medical center.

Dr. Klein served on the Weill Cornell Medicine’s Board of Overseers, as well as on numerous clinical and administrative committees at both the hospital and the medical college. In 2016, he was honored with The Maurice R. Greenberg Distinguished Service Award and recognized for his tireless dedication to every facet of his medical career, his thoughtful and skilled leadership, and his extraordinary dedication to patient care.

Dr. Klein earned his M.D. from Harvard Medical School in 1963 and served as a Chief Resident with our internal medicine residency

training program during the 1960s. Following his residency training, he completed a fellowship in Gastroenterology at Weill Cornell. During his training Dr. Klein took a two-year hiatus to serve as a captain in the U.S. Air Force. He valued his time in the Air Force as a great learning experience in which he treated patients including military personnel, elderly veterans, and nearby Native Americans.

A Professor of Clinical Medicine in the WDOM, Dr. Klein had been a full-time physician at NewYork-Presbyterian Hospital since 1970. He was a dedicated member of the Board of Overseer’s Committee on Student Affairs, in addition to serving on the Board of Directors of the medical center’s Music and Medicine Initiative, the New York Weill Cornell Medical Center Alumni Council, and the NewYork-Presbyterian’s Environment and Service Excellence Committee. In his honor, The Dr. Harvey Klein Professorship of Biomedical Sciences was created at Weill Cornell Medicine in the 1980s. In 2010, Dr. Klein and his wife Phyllis (Patti) endowed the Phyllis and Harvey Klein, MD Scholarship at Weill Cornell Medicine, which provides financial assistance for students pursuing careers in general internal medicine and primary care.

Dr. Marcus M. Reidenberg, one of the Weill Department of Medicine’s most esteemed faculty members, passed away on February 29, 2020. A member of the department for more than 40 years, Dr. Reidenberg exemplified unwavering dedication in all of his roles as a physician, investigator, educator, and academic leader. Born in Philadelphia, Dr. Reidenberg received his M.D. from Temple University Medical School where he completed a postdoctoral fellowship in pharmacology. Dr. Reidenberg was a Professor Emeritus of Medicine and held the titles of Professor in Pharmacology and Professor in Healthcare Policy and Research. He served as the department’s Chief of Clinical Pharmacology until 2015 and was a constant presence at the Chiefs’ meetings, always bringing his vast breadth of medical knowledge, astute guidance, and genuine kindness to the table. A trail blazer in research, he was an early advocate for individualization of drug therapy, or, what is known today as personalized medicine. In 1981, he presented one of the earliest symposiums on this topic, which helped to usher in a new era in medicine. Dr. Reidenberg was the inventor of a drug for hormone-refractory prostate cancer, a leader in developing a better understanding of adverse drug reactions in human disease, and an expert in drug-induced lupus. He also led a study on a drug to reduce fatal arrhythmias in patients with heart attacks and furthered advances on the relationship between age and altered drug response. In collaboration with Dr. Henry Erle, Dr. Reidenberg helped to create the first “Supportive Care” initiative at Weill Cornell that played a key role in paving the way for palliative care and geriatrics services at NewYork-Presbyterian/Weill Cornell Medicine.

For the World Health Organization (WHO), Dr. Reidenberg worked on the Essential Medicines Program for many years, updating a list of 300 medicines to address the world’s major medical problems. Dr. Reidenberg was the editor of the *Journal of Clinical Pharmacology and Therapeutics* for more than 20 years, establishing it as the leading journal in the field of clinical pharmacology. In 2010, Dr. Reidenberg received the prestigious Torald Sollman Award in Pharmacology from the American Society of Pharmacology and Experimental Therapeutics.

Dr. Reidenberg trained many generations of medical students, residents, fellows, and graduates in pharmacology at Weill Cornell. He was known for his unique ability to help trainees discover exactly the right path in medicine to pursue, as well as for his generosity in sharing his laboratory’s valuable resources. His trainees, who went on to enjoy highly successful careers, recall Dr. Reidenberg’s “rare and valuable mentorship style” distinguished for its “selflessness.” Dr. Reidenberg was the recipient of Temple’s Golden Apple Teaching Award, and, at Weill Cornell Medicine, the Hochstein Teaching Award, Senior List Award, Second Year Teaching Award, and the Weill Medical College’s Teaching Excellence Award. He also had a science program named in his honor at Weill Cornell involving community service by medical students – the Marcus M. Reidenberg Gateways to Science Program. Dr. Reidenberg will be remembered not only for his professional accomplishments, which were many, but as a great humanitarian.

New York-Presbyterian/Weill Cornell Medical Center
Joan and Sanford I. Weill Department of Medicine
525 East 68th Street, Box 130, New York, New York 10065

<https://medicine.weill.cornell.edu/>

