

Beyond the Scope

A REPORT OF THE UCLA VATCHE AND TAMAR MANOUKIAN DIVISION OF DIGESTIVE DISEASES

Transformational Gift Accelerates Division's Mission

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FROM THE DIVISION CHIEFS



Gary Gitnick, MD, FACG Fran and Ray Stark Foundation Chair Professor of Medicine



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Going Beyond the Scope

Our division has a new name...along with unprecedented philanthropic support for our comprehensive approach to finding the clues that can help us solve digestive diseases, providing state-of-the-art care for patients with conditions affecting the GI tract, and educating the next generation of scientific and clinical leaders in our specialty.

As you will see in the article on page 2, we received an historic multimillion-dollar pledge from Vatche and Tamar Manoukian that, along with gifts inspired by their generosity, will bring \$30 million in unrestricted funding that will primarily benefit our division, as well as supporting other priorities in the medical school. In recognition, we are now the Vatche and Tamar Manoukian Division of Digestive Diseases — the first division to be named at the David Geffen School of Medicine at UCLA.

The other articles in this issue of *Beyond the Scope* illustrate why our division is so worthy of support. On page 4 you can read about the groundbreaking work of our Center for Systems Biomedicine, which is bringing a systems-biology approach to the study of inflammatory bowel disease (IBD) and other complex diseases, and was just awarded two major National Institutes of Health research grants. Such groundbreaking work is also a staple of the UCLA G. Oppenheimer Center for Neurobiology of Stress and Resilience, led by Dr. Emeran A. Mayer. On page 6 we feature an interview with Dr. Mayer about his new book, *The Mind-Gut Connection: How the Hidden Conversation Within Our Bodies Impacts Our Mood, Our Choices, and Our Overall Health.* And on page 7 we deliver news of yet another prestigious honor for the center's co-director, Dr. Yvette Taché, who received the Chevalier of the Legion of Honor at the French Consulate for her pioneering research in brain-gut interactions.

This issue also includes news of our newly approved transplant hepatology fellowship (page 8). We introduce Dr. David Padua (page 9), a new member of our full-time faculty who is conducting important translational research in IBD, as well as four new members of our clinical faculty (page 10). We list our upcoming annual education programs, including the 5th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium (page 12) and the 2017 CURE Annual Research Meeting and Poster Session (page 11). And we sadly say goodbye to a great man, Dr. Sherman Mellinkoff, who recently passed away at the age of 96 (page 1). Dr. Mellinkoff established our division before becoming the second dean of the medical school.

Today we are poised to take the division that Dr. Mellinkoff founded to new heights. With two tremendous lead gifts — the Manoukians' generosity was preceded by another multimillion-dollar donation, from the Melvin and Bren Simon Charitable Foundation, in support of our clinical programs — we have the beginnings of a powerful movement as we head into UCLA's Centennial Campaign. We believe the endorsement of these forward-thinking philanthropists will inspire other benefactors to join the movement and ensure that in this exciting time for biomedical science and patient care, we are in the best position to seize the moment.



Dr. Sherman Mellinkoff 1920-2016: Division Founder, "Dean of Deans"

He was known as an extraordinary leader, a passionate advocate for medical education, and a highly respected clinician/teacher – but also for his warmth, integrity and humor.

Dr. Sherman Mellinkoff was the first gastroenterologist recruited to UCLA, establishing what is now the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases before becoming dean of the UCLA School of Medicine and building the fledgling school into one of the world's elite institutions. Dr. Mellinkoff, an iconic figure in UCLA history, died July 17 at the age of 96.

"Sherm's nearly two-and-a-half decades of deanship after establishing our division were filled with remarkable successes," says Gary Gitnick, MD, co-chair of the division, who was hired by Dr. Mellinkoff nearly 50 years ago. "He repeatedly provided support for recruitment and retention of a growing and leading faculty throughout the medical sciences. His fascination with medicine and his remarkable ability to understand humanity, to engage patients, to understand the nature of their symptoms, and to reach correct diagnoses with apparent ease and accuracy were exceptional."

Dr. Mellinkoff was born in McKeesport, Pennsylvania in 1920, but his parents moved the family to Los Angeles shortly after his birth. Recalling his time at Beverly Hills High School, he once quipped, "I was interested in literature, history and debating – everything except medicine." That changed in his senior year, when he took a biology class taught by a local physician. Dr. Mellinkoff graduated Phi Beta Kappa from Stanford and enrolled in the university's medical school. During his training, a nurse named June O'Connell captured his attention. They married in 1944 and had three children.

Dr. Mellinkoff was recruited to UCLA for his first faculty post in 1953, just two years after the medical school opened its doors. As chief of the gastroenterology division, he hired Dr. Martin Grossman, who built one of the world's leading scientific programs at the VA Greater Los Angeles Healthcare System.

In 1962, then-UCLA Chancellor Franklin Murphy asked the young professor to take the helm as the school's second dean. Over the next 24 years, the school grew from 28 students to 650 and its faculty quadrupled as it became a world leader in research, teaching and patient care. By the time he stepped down in 1986, Dr. Mellinkoff had held his position longer than any active medical school dean in the country, earning him the nickname "Dean of Deans."

Throughout his career, Dr. Mellinkoff was hailed for his commitment to medical education. In both 1961 and 1962, UCLA's medical students presented him with the Golden Apple Award as the faculty member most respected as a clinical teacher. The Sherman M. Mellinkoff Faculty Award, established in 1979 to honor doctorpatient relationships and medical education, is considered by faculty to be the medical school's highest honor. The annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium was established in his name in 2013.

"I learned to admire Sherm's remarkable love of life and his skills at evaluating people, assessing problems, finding solutions, managing feelings and foretelling the future," says Dr. Gitnick. Noting that his longtime friend was also a man of great culture – commonly quoting philosophers and authors in everyday conversation – Dr. Gitnick adds: "Sherm showed us how to live."



"Transformational" Gift Made in Support of Division's Priorities

Vatche and Tamar Manoukian have made a multimillion-dollar pledge to the Division of Digestive Diseases at the David Geffen School of Medicine at UCLA – a gift described as "transformational" by Dr. Eric Esrailian, the division's co-chief and a longtime personal friend of the philanthropic couple. The landmark gift, which inspired additional philanthropy to bring the total to \$30 million, will provide unrestricted support that will benefit the division as well as crucial initiatives in the medical school.

In recognition of the Manoukians' generosity and their previous philanthropy to UCLA, the university will name the division in their honor the first division naming in the David Geffen School of Medicine. In addition to the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases, the university will name
 UCLA Medical Plaza – where the majority of the division's clinical care is provided – the Vatche and Tamar Manoukian Medical Building.

"Visionary philanthropy can alter the course of science," Dr. John Mazziotta, vice chancellor for UCLA Health Sciences and CEO of UCLA Health, said of the gift. "The remarkable generosity of Vatche and Tamar Manoukian will be instrumental in positioning the division for the future." The unrestricted endowment fund will enable the division to greatly accelerate its research, innovative clinical care, and educational priorities — providing vital support for pioneering investigations that can lead to novel therapies as well as more comprehensive patient care. The funding will greatly bolster the division's ability to attract and retain top scientists and clinicians, and support the education and training of some of the nation's most promising young doctors and researchers.

"Innovation requires both leadership and investment," says Dr. Esrailian, the Lincy Foundation Chair in Clinical Gastroenterology, who will oversee the fund at UCLA, directing support to the areas of greatest need. "Vatche and Tamar's exceptional philanthropy will help to ensure that UCLA can continue unraveling the mysteries of digestive diseases, make transformative scientific discoveries, and develop the physician leaders of the future."

The division was already in a strong position. Ranked fifth in the nation by the U.S. News & World Report 2016-2017 survey, it is renowned for its comprehensive research and training, and it has become a model for coordinated care that empowers patients and improves their lives. Through an interdisciplinary and collaborative clinical approach bolstered by pioneering laboratory science, division physicians provide patients with the tools to manage chronic disease, the technologies to save lives, and the therapies to treat some of the most challenging conditions.

Dr. Esrailian notes that the unrestricted gift builds endowment support and will provide invaluable flexibility and stability in the future. Planning for the future is particularly important given the division's built-in research, clinical, and training costs and the increasingly constrained and unpredictable public funding and clinical reimbursement from third-party payers.

"Despite our tremendous legacy as one of the leading centers of digestive disease research and patient care, we have never had a history of building endowment support," Dr. Esrailian says. That began to change in 2013, he notes, with a pioneering multimillion-dollar gift from the Melvin and Bren Simon Charitable Foundation to establish the Melvin and Bren Simon Digestive Diseases Center at UCLA, which serves as an umbrella for all of the division's clinical operations and centers of excellence. "Now, thanks to the support of Mr. and Mrs. Manoukian and Mrs. Simon, we have two tremendous lead

gifts as we move into our fundraising campaign and are closer to making the dream of a fully endowed division a reality," Dr. Esrailian says.

The gift will have a revolutionary impact on all facets of the division's mission, Dr. Esrailian explains. It will help the division recruit and retain top clinical faculty, particularly in highneed areas. "The cutting-edge changes in digestive disease care move faster than budget cycles," he says. "This philanthropic support allows us to be innovative and move guickly with changes in the direction of scientific research." Recent gifts have enabled the division to rapidly build renowned programs in interventional endoscopy, systems biomedicine, inflammatory bowel diseases, functional GI disorders, nutrition and motility.

Philanthropy is also increasingly important to support the division's research in an era of reduced funding from the National Institutes of Health (NIH); moreover, Dr. Esrailian notes, philanthropic support continues to provide the fuel for the high-risk/highreward research that NIH is unlikely to fund, but that can lead to significant breakthroughs. Dr. Esrailian also points out that when a principal investigator within the division is well funded, it tends to produce a ripple effect drawing fellows from other parts of the country to work with the faculty member, as well as other research faculty who come to collaborate. Similarly, Dr. Esrailian expects that top fellows and faculty will be drawn to start or continue their careers by the division's growing endowment stability and dynamic clinical and research environment.

A leader in the Armenian community, Vatche Manoukian has been involved in a wide range of businesses, including property investment, retail, pharmaceuticals, biotechnology, entertainment and renewable energy. He and his wife, who have four



Vatche and Tamar Manoukian

children, have continued his family's tradition of charitable work throughout the world, with a particular emphasis on education, medicine, culture, the environment and Armenian causes. The Manoukians' scholarship funds have enabled several thousand students who lack financial resources to further their education, and postgraduate programs established by the Manoukians at universities in the United States, the United Kingdom, and Lebanon have helped provide essential skills for tomorrow's community leaders.

"Tamar and I believe that philanthropy can shape the future," Mr. Manoukian says. "It is our hope that our gift will not only change medical science, but also be a model for others. We hope that young people will be inspired to give and will become engaged with causes that matter."

Although the Manoukians have no educational ties to UCLA and have their primary residence in London, they responded to the passion communicated by their friend Dr. Esrailian regarding where the institution and division are headed in the future — and the difference their support would make to an already internationally renowned institution. "For them to give us this kind of endorsement, to our public university, is both inspirational and humbling," Dr. Esrailian says. "We are extremely grateful."











Two Major NIH Grants Validate Center's Systems Biomedicine Approach to Complex Diseases

Two major National Institutes of Health (NIH) research grants recently awarded to UCLA's Center for Systems Biomedicine, based in the Vatche and Tamar Division of Digestive Diseases, represent the latest validation of a new approach to tackling complex diseases.

The center, under the leadership of Dimitrios Iliopoulos, PhD, MBA, associate professor in the division, employs innovative robotic and computational tools in an effort to identify key pathogenic processes and expedite the drug discovery process for inflammatory bowel disease (IBD), as well as other multifactorial diseases. The center's multidisciplinary team of experts uses the latest automated technologies, including high-tech robotics, as well as advanced computer algorithms to extract data from large numbers of patient tissue samples - what Dr. Iliopoulos describes as an "unbiased strategy" for better understanding the most important factors in the disease process, as opposed to the traditional hypothesis-driven method. This systems-biomedicine approach can reduce the drug-discovery process from what is typically six years to just two to three years, Dr. Iliopoulos says.

In the last few years, Dr. Iliopoulos and colleagues have identified novel molecular mechanisms and developed new drugs for IBD targeting the human epigenome, which consists of acquired alterations that do not affect the DNA sequence and are triggered by environmental factors such as diet and lifestyle. One such discovery led to a fiveyear, \$1.7 million grant from the NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to characterize a new molecular mechanism involved in IBD pathogenesis, and to evaluate the therapeutic potential of a new drug for IBD patients targeting this process. An estimated 1.5 million people in the United States have IBD (ulcerative colitis or Crohn's disease). "These diseases are thought to result from very aggressive inflammation, and the current therapies aim to block that inflammation," Dr. Iliopoulos notes. The most effective class of IBD drugs are tumor necrosis factor (TNF)-alpha inhibitors, which block a molecule found in high levels in IBD patients. "However, 30-40 percent of patients will, after a certain period of time, no longer respond to the therapy, so there is a great need for new drugs," Dr. Iliopoulos says.

In work they started at UCLA nearly three years ago, Dr. Iliopoulos and colleagues used the systems-biomedicine approach to identify an epigenetic factor in the form of a microRNA (miR) – a small RNA molecule capable of simultaneously regulating the function of multiple genes – that appears to play a central role in the initiation and progression of ulcerative colitis. With the NIDDK grant, Dr. Iliopoulos' team will further examine how miR-24 regulates these mechanisms in cellular and animal models of ulcerative colitis, and will explore the therapeutic potential of blocking miR-24 levels.

Dr. Iliopoulos' team has developed an miR-24 inhibitor, UCDI-1, and as part of the NIDDK study will test its effects in mouse models of ulcerative colitis. "Early experimental evidence has shown us that this drug is very effective in suppressing colitis in animal models, without any toxicity,"



Dr. Iliopoulos says. "Because miR-24 is found in high levels in patients with inflammatory bowel diseases and in very low levels in healthy patients, we are hopeful that blocking this molecule will have great therapeutic value. If our data are positive, we expect to be able to begin a Phase I clinical trial in ulcerative colitis patients within two years."

With the team headed by Charalabos "Harry" Pothoulakis, MD, professor in the division and director of basic research for the UCLA Center for Inflammatory Bowel Diseases, Dr. Iliopoulos has developed a method for culturing biopsies from ulcerative colitis patients and using them as a testing system to evaluate the efficacy of novel drugs. As part of the study, this system will be used to predict which patients will respond to UCDI-1 drug treatment. "There is not going to be a 'magic bullet' drug that will effectively treat all IBD patients – we will need multiple drugs and combinations of drugs," Dr. Iliopoulos explains. "Using this system will enable more focused clinical trials. We will be able to recruit patients who have the best chance of benefiting from the drug."

The systems-biology approach is also being used by Dr. Iliopoulos and colleagues on a second recently awarded grant, from the NIH's National Institute of Allergy and Infectious Diseases (NIAID), to identify key factors promoting antibiotic resistance to *clostridium difficile* (*c. difficile*). The five-year, \$7.4 million project, a collaborative effort involving the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases, Baylor College of Medicine, University of Houston and Texas A&M University Health Science Center, aims to develop new therapies to address a major public health problem.

The overuse of antibiotics has contributed to the development of "superbugs" that are resistant to treatment. The most troublesome of these is *c. difficile*, the leading cause of hospital-acquired bacterial infection and the most deadly enteric pathogen in the U.S. population. Since 2000, there has been a four-fold increase in reported cases of *c. difficile* infection and related deaths in the United States. The standard therapy for the infection is the antibiotic vancomycin, but as many as 40 percent of patients treated for *c. difficile* experience a recurrence after vancomycin therapy. "Our aim is to perform high-throughput genomic, transcriptomic and microbiome

analysis in blood and stool samples from infected patients and integrate these data by using computational biology algorithms to identify the key molecules, bacteria and metabolites that mediate *c. difficile* infection and recurrence," Dr. Iliopoulos says. His center will focus on evaluating the role of microRNAs as mediators of hostbacterial interactions in *c. difficile* infection and recurrence. Dr. Pothoulakis, a co-investigator on the grant, is an internationally known expert in the *c. difficile* field.

The overlapping methods in the studies of two very different disease processes illustrate the fundamental value of the Center for Systems Biomedicine's approach. "Traditionally, researchers have studied a single gene or pathway that is believed to be important," Dr. Iliopoulos says. "But we now have the tools to determine the 'hubs' that regulate the enormous molecular network involved in the development of complex diseases. Using these tools, we can move much more quickly to identify targets and develop new drugs."



Director, Center for Systems Biomedicine Associate Professor of Medicine Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at UCLA

Harry Pothoulakis, MD

Professor of Medicine, Pathology and Laboratory Medicine Eli and Edythe Broad Chair in Medicine Director of Research, Center for Inflammatory Bowel Diseases Chief for Research Integration, Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at UCLA

Dr. Emeran Mayer Describes Mind-Gut Link in New Book

How the Hidden Conversation Within Our Bodies Impacts Our Mood, Our Choices, and Our Overall Health Emeran Mayer, MD



Emeran A. Mayer, MD, PhD Director, G. Oppenheimer Center for Neurobiology of Stress and Resilience Co-Director, CURE: Digestive Diseases Research Center Professor of Medicine, Physiology and Psychiatry Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at IICI A In the course of writing his book The Mind-Gut Connection: How the Hidden Conversation Within Our Bodies Impacts Our Mood, Our Choices, and Our Overall Health, published in July by HarperCollins, Dr. Emeran A. Mayer noted how many decision-makers cite feelings in their gut as tipping the balance on a difficult call. To many, these "gut reactions" represent instincts with no basis in reasoned thought. But Dr. Mayer, professor of medicine, physiology and psychiatry and director of the UCLA G. Oppenheimer Center for Neurobiology of Stress and Resilience, has spent the last 40 years building a scientific case for the inextricable link between the brain and the gut, often calling into guestion the conventional medical wisdom.

In his book, Dr. Mayer argues that the brain-gut axis isn't a linear relationship, as it is often viewed, but a circular feedback loop operating through multiple communication channels. When the communication channels go awry for one of a variety of reasons — including poor diet, stress or illness — the result can be physical health problems such as digestive disorders and obesity, or mental health issues such as anxiety or depression.

A leader in the use of brain imaging to delineate the interactions between the mind and the gut in IBS and other so-called functional gastrointestinal (GI) disorders, Dr. Mayer — who has split his time between research and a clinical practice in which he has seen thousands of patients with functional GI disorders — has never lost sight of the big picture. He notes that the new frontier of research on the gut microbiome — the approximately 100 trillion bacteria and other microbes residing in the intestines — has fundamentally reset the research equation, introducing a new dimension to scientists' understanding of the mind-gut link.

"It's fascinating now to understand how the brain, the gut and the microbes are part of this integrated system, and that when people have certain symptoms you have to take all elements into account," Dr. Mayer says. "If you're depressed, it will affect your gut and the microbes in it. If you eat something that affects the microbes and the gut, it can affect what goes on in your brain." This has implications for intervention strategies, Dr. Mayer notes, suggesting the value of integrative approaches, including a diet that is optimal for gut-microbiome health, mindfulness types of interventions ranging from simple relaxation to mindfulness-based stress reduction and cognitive therapy, and medications that act on the brain or the gut.

Dr. Mayer says he now has a greater appreciation for the importance of diet in the brain-gutmicrobiome axis, and overall health. He is also intrigued by the potential role of microbes in precipitating a state of low-grade immune activation that starts in the gut and is thought to play a role in a wide variety of conditions, including obesity, coronary vascular disease, degenerative brain disease and certain cancers.

While the gut certainly has its essential roles to play in digestion and metabolism, Dr. Mayer notes, "The system is way too complicated to have evolved only for these digestive functions."

Dr. Yvette Taché Receives France's Prestigious Legion of Honor Award for Pioneering Research

Yvette Taché, MD Director, Animal Core, CURE: Digestive Diseases Research Center Co-Drector, G. Oppenheimer Center for Neurobiology of Stress and Resilience Professor-In-Residence of Medicine Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at UCLA VA Greater Los Angeles Healthcare System



Dr. Yvette Taché, a leader in digestive disease basic research at UCLA since joining the division faculty in 1982, was honored by her country of origin in September when she received the highly prestigious Chevalier of the Legion of Honor at the French Consulate. The Legion of Honor, established in 1802 by Napoléon Bonaparte, is the highest French order for military and civil merit. The award cited Dr. Taché's pioneering research contributing to the understanding of the mechanisms involved in brain-gut interactions and neuro-gastroenterology, which has been integral to the development of therapies for numerous disorders linked to gastrointestinal stress.

A professor in the division and codirector of the UCLA G. Oppenheimer Center for Neurobiology of Stress and Resilience, Dr. Taché was among the first to demonstrate the role of peptides in brain-gut interactions. Her laboratory, which has been funded continuously by grants from the National Institutes of Health since 1982, was the first to establish the importance of corticotropin-releasing factor (CRF) receptors in stress-related gut-function alterations, which may have implications in functional bowel diseases such as IBS.

"I am humbled to receive this honor," Dr. Taché said in accepting the award. before adding: "Success is never the work of a single person, but reflects the impact of a group of people." Dr. Taché went on to thank family and colleagues at UCLA and VA, starting with her PhD advisor at the University of Montreal, Dr. Hans Selve, who is credited with coining the term stress and conducted pioneering research showing its consequences on the body, including the stomach. "Dr. Selve oriented my career with his pioneering concept of stress and his charisma and dedication to research." Dr. Taché said. Reflecting the value that she places on her own teaching and the impact it has had, she added: "My deep appreciation goes also to the over 60 international dedicated postdoctoral fellows who worked in



my lab throughout the years, including several from France. It is gratifying to witness that they continue successfully in their independent careers — back in their home countries and at UCLA."

The award is the latest in a series of prestigious honors bestowed on Dr. Taché in recent years. Others include the NIH MERIT Award, the Outstanding American Gastroenterology Association Women in Sciences Award, the Research Mentor Award from the AGA Institute Council Neurogastroenterology & Motility Section, the Senior VA Research Career Scientist Award, and the William S. Middleton Award – the highest honor for scientific achievement given to a researcher or clinician by the U.S. Department of Veterans Affairs. In being honored with the latter award in 2014, Dr. Taché became the first female recipient since 1960.

Transplant Hepatology Fellowship Program Approved

One of the world's leading liver-transplantation programs will soon begin preparing fellows to be future leaders in the field. The Residency Review Committee for Internal Medicine has approved the UCLA David Geffen School of Medicine's Transplant Hepatology Fellowship

Applicants are currently being interviewed for the new position, which will be filled by an individual who has completed an internal medicine residency and has achieved board certification in gastroenterology, says Steven-Huy Han, MD, UCLA professor of medicine and surgery in the Vatche and Tamar Manoukian Division of Digestive Diseases and the Division of Liver and Pancreas Transplantation, and director of the Transplant Hepatology Fellowship Program. One fellow will receive comprehensive advanced education in transplant hepatology each academic year and will gualify to sit for the American Board of Internal Medicine Transplant Hepatology Certification Examination. The subspecialty has been in existence for only about a decade, Dr. Han notes.

"We believe this has the potential to be the best training program for a transplant hepatologist," says Dr. Han. "We have the largest liver transplant program in the world, and the fellow will be exposed to a tremendous diversity of medical conditions and complications, with opportunities to be mentored by four board-certified transplant hepatologists."

The new fellowship will provide in-depth training in the care of

patients before, during and after liver transplantation. Dr. Han explains that this includes education in how to manage patients with end-stage liver disease in both the inpatient and outpatient settings to keep them alive as they await liver transplantation, experience in the operating room during the actual surgery and perioperatively while the patient is in the hospital after the transplant, and, perhaps most importantly, training in the long-term care of these patients post-transplant - including adjustments in immunosuppressive medications and management of potential complications from the surgery. The fellow will also receive research mentoring and will be expected to conduct an original research project during the year.

"The transplant hepatology fellow will be like another instructor for our internal medicine residents and gastroenterology fellows," Dr. Han says. "Our fellows will bring a new perspective to our program, as well as adding to its prestige, particularly as they rise in their career and become leaders at other institutions."

UCLA's Pfleger Liver Institute is one of the oldest and most active programs in the United States. Since the program's

inception in 1984, it has performed more than 6,000 liver transplants the most in the world. There continues to be a major need for the life-saving operation. Although the number of patients needing a liver transplant due to complications from hepatitis C is declining now that the virus is curable, there is an epidemic of cirrhosis due to fatty liver, which is associated with obesity. "Liver transplants aren't going away, and it is projected that we will need more liver specialists in the future," Dr. Han says. "We are excited to be able to contribute to the training of these future leaders."



Steven-Huy Han, MD Director, Hepatology Clinical Research Center Program Director, Transplant Hepatology Fellowship Assistant Director, UCLA Asian Liver Center Pfleger Liver Institute Health Sciences Clinical Professor of Medicine and Surgery Vatche and Tamar Manoukian Division of Digestive Diseases Division of Liver and Pancreas Transplantation David Geffen School of Medicine at UCLA

IBD RESEARCH

Dr. David Padua Seeks Answers in the Lab That Can Improve Lives of His IBD Patients

More than 1 million people in the United States suffer from inflammatory bowel disease (IBD), and the reason some IBD patients respond better than others to available therapies remains, in many cases, a mystery. David Padua, MD, PhD, who started as an assistant professor in the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases June 30, is taking what he learns from IBD patients as a clinician and applying it to the laboratory in an effort to find answers.

"When we see a subgroup of patients who are no longer responding to the treatment over time while others continue to benefit, we can take tissue samples from both subgroups and try to determine what it is that's responsible for the difference," Dr. Padua says. "There is a great deal of diversity in IBD patients. Being able to see them in the clinic as well as studying these processes in the lab provides opportunities to ask important questions that can lead to new ways of approaching this disease."

After completing his fellowship at UCLA, Dr. Padua joined the division faculty and will be pursuing both basic research and clinical gastroenterology. His laboratory, based at the VA West Los Angeles Healthcare Center, is using high-throughput technologies such as microarray chips to learn more about the cell-signaling mechanisms that regulate IBD. Along with other clinicians and researchers, Dr. Padua plans to establish an IBD clinic and a tissue biobank that will facilitate translational IBD research.

Dr. Padua is particularly interested in the role of long, non-coding RNAs in causing signaling pathways to go awry in IBD, leading to inflammation. Much of the focus of IBD research has been on RNAs transcribed as protein-coding genes, but Dr. Padua notes that these represent only about two percent of what the genome transcribes. "Most of the DNA gets transcribed as non-coding RNA," Dr. Padua says, "and while this type of RNA has been studied for the last decade or so in cancer biology, it has barely been investigated in inflammatory bowel disease. Our goal is to see whether these long, non-coding RNAs are regulating important inflammatory cytokines, and to develop new biomarkers and therapeutic targets for these processes."

The research in Dr. Padua's lab represents a continuation of work he began as a fellow in the laboratory of Dr. Charalabos "Harry" Pothoulakis, a professor in the division, after Dr. Padua completed an MD/PhD program at Cornell. The research in Dr. Pothoulakis' lab culminated in a published paper showing that a specific long, non-coding RNA regulates a key inflammatory cytokine in IBD. If that RNA is found to play an important role in the development of inflammation in a mouse model of ulcerative colitis, the next step would be to identify ways to target the molecule to inhibit its expression.

"As a clinician, you develop relationships with your IBD patients, and it can be frustrating to see them not doing well on the treatment," Dr. Padua says. "But by being able to better understand why certain therapy is or isn't working, I can move the science forward in a way that directly impacts my patients" lives. I'm excited to be able to put my training toward advances that can help patients."



David Padua, MD, PhD Health Sciences Clinical Instructor of Medicine Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at UCLA VA Greater Los Angeles Healthcare System

Introducing Four New Clinical Faculty Members



Carl Nordstrom, MD | Clinical Instructor of Medicine

Dr. Nordstrom received his BA in biology and religious studies from Hamline University and his MD from the University of Illinois at Chicago. He then came to Los Angeles, where he completed his internal medicine residency at the Cedars-Sinai/West Los Angeles VA program and served an additional year as chief resident. Dr. Nordstrom did his gastroenterology fellowship at UCLA, where he also served as chief fellow and received the Housestaff Teaching Award.



Kareem Sassi, MD | Health Sciences Clinical Instructor of Medicine

Dr. Sassi specializes in general gastroenterology, with clinical interests in esophageal disease, GERD, inflammatory bowel disease, functional bowel disorders, celiac disease and general endoscopic procedures. He completed medical school at UC San Francisco, his internal medicine training at UCLA, and a fellowship in gastroenterology at UC Irvine. In addition to his clinical interests in gastroenterology, Dr. Sassi is committed to providing excellent healthcare to underserved communities and is dedicated to medical training, education, and mentorship. He is a member of the American Gastroenterological Association, American College of Gastroenterology and American Society for Gastrointestinal Endoscopy.



Jenny Sauk, MD | Health Sciences Assistant Clinical Professor of Medicine

Dr. Sauk received her undergraduate degree from Yale University and earned her medical degree from University of Chicago Pritzker School of Medicine. She completed her internal medicine residency at New York Presbyterian Hospital Weill-Cornell Medical Center and her gastroenterology fellowship at Mount Sinai School of Medicine in New York. After completing her gastroenterology fellowship, she was invited to join the faculty there, where she was appointed as the Gerald and Ruth Crohn Dickler Faculty Scholar in Inflammatory Bowel Disease (IBD). Dr. Sauk subsequently accepted a faculty position at the Massachusetts General Hospital (MGH) and developed a specialized practice in IBD at the MGH Crohn's and Colitis Center. Her clinical interest remains in IBD. She also focuses on treating patients with microscopic colitis and celiac disease. Dr. Sauk's research interests have centered around clinical outcomes in IBD and the intestinal microbiome. As the translational interface for multiple microbiome projects, she has partnered with investigators from the Infectious Diseases Division at MGH, Massachusetts Institute of Technology (MIT) and the Broad Institute of MIT and Harvard to further understand the significance of intestinal microbiome alterations in inflammatory and infectious gastrointestinal diseases. Dr. Sauk is board-certified in internal medicine and gastroenterology.



Guy A. Weiss, MD | Program Leader, Celiac Disease Program | Health Sciences Clinical Instructor of Medicine

Dr. Weiss practices general gastroenterology, with particular interests in gluten-associated disorders (including celiac disease and non-celiac gluten sensitivity), food allergies, and inflammatory bowel disease. His research focuses on adherence to medical therapy and diet, gluten-associated disorders, IBD and outcomes research. Dr. Weiss studied in the combined BMedSc/MD program at the Sackler School of Medicine at Tel Aviv University in Israel. He completed his internal medicine training at SUNY Buffalo, NY, and served as a chief resident during his third year. He subsequently completed his gastroenterology fellowship at UCLA. During his training, Dr. Weiss developed the UCLA Celiac Collective and was awarded the Fellowship2Leadership grant and Barbara and Joel Marcus Seed Grant.

CURE MEETING



CURE Annual Research Meeting and Poster Session March 17, 2017

UCLA Sunset Village on the Campus of UCLA, Covel Commons **Non-CME Program**



Course Chair

Enrique Rozengurt, DVM, PhD, AGAF **Distinguished Professor of Medicine** Hirshberg Memorial Chair in Pancreatic Cancer Research Director, CURE: Digestive Diseases Research Center David Geffen School of Medicine at UCLA



Invited John H. Walsh Memorial Lecturer Ramnik Joseph Xavier, MD, PhD Chief, Gastrointestinal Unit Director, Center for the Study of Inflammatory Bowel Disease Kurt Isselbacher Professor of Medicine Harvard Medical School Institute Member. Broad Institute of Harvard and MIT

Meeting Information

| Meeting Location |
|---|
| UCLA Sunset Village on the Campus of UCLA |
| Northwest Auditorium and the Carnesale Palisades Room |
| 330 DeNeve Drive, Los Angeles, CA 90024 |

Conference Parking

Complimentary parking will be provided in Lot PSV. There will be an attendant at the gate to provide parking permits.

Registration Fee

| \$100 – Non-UCLA physicians |
|--|
| Complimentary – UCLA physicians, fellows and residents |
| |

Fee includes registration, breakfast, breaks and lunch. This is a non-CME program.

Refunds

Cancellations must be received in writing by Friday, March 2, 2017 and will be subject to \$50 processing fee. No refunds will be granted after that date. If, for any reason, the course must be cancelled or rescheduled by CURE, a full refund will be provided.

Meeting Inquiries and Enrollment

Contact Jacqueline Ismen at jismen@mednet.ucla.edu or call (310) 312-9284 for more information or to receive an enrollment form.

Agenda

| 7:30 am | Registration and Breakfast |
|----------|--|
| 8:10 am | Welcoming Remarks Joseph Pisegna, MD, UCLA, and Catia Sternini, MD, UCLA Co-Chairs, Organizing Committee |
| 8:15 am | Blood-flow Monitoring as a Guide to Risk Assessment and Successful Endoscopic Hemostasis in Non-variceal GI Hemorrhag Dennis M. Jensen, MD, UCLA |
| 8:45 am | Identification of Biomarkers for Irritable Bowel Syndrome Lin Chang, MD, UCLA |
| 9:15 am | Consortium for the Study of Chronic Pancreatitis, Diabetes and Pancreatic Cancer – Moving Toward Early Diagnosis and Treatment of Pancreatic Diseases Stephen J. Pandol, MD, UCLA |
| 9:45 am | Break |
| 10:00 am | Characterization and Targeting of Epigenetic-inflammatory Networks in IBD |
| | Dimitrios Iliopoulos, PhD, MBA, UCLA |
| 10:30 am | New Concepts in Cytoprotection in Liver Transplantation Jerzy W. Kupiec-Weglinsky, PhD, UCLA |
| 11:00 am | Break |
| 11:10 am | State of CURE Enrique Rozengurt, DVM, PhD, AGAF, UCLA |
| 11:30 am | John H. Walsh Memorial Lecture New Perspectives on the Gut Microbiome Ramnik Joseph Xavier, MD, PhD, Harvard Medical School |
| 12:30 pm | Lunch |
| 1:30 pm | Defining a Pre-disease Microbial Risk State for Inflammatory Bowel Disease <i>Jonathan P. Jacobs, MD, PhD, UCLA</i> |
| 1:45 pm | The <mark>Brain/Gut/A</mark> dipocyte Axis in Obesity and Weight Loss <i>Claudia Sanmiguel, MD, UCLA</i> |
| 2:00 pm | Equity and Efficiency in Colorectal Cancer Folasade P. May, MD, PhD, MPhil, UCLA |
| 2:15 pm | Break |
| 2:30 pm | Poster Session – Even-numbered Posters |
| 3:30 pm | Poster Session – Odd-numbered Posters |
| 4:30 pm | Adjourn |

Accreditation

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this live activity for a maximum of 17 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Course Director



V. Raman Muthusamy, MD, FACG, FASGE Director, Interventional and General Endoscopy Clinical Professor of Medicine Vatche and Tamar Manoukian Division of Digestive Diseases David Geffen School of Medicine at UCLA

Course Co-Director



Eric Esrailian, MD, MPH Co-Chief, Vatche and Tamar Manoukian Division of Digestive Diseases Lincy Foundation Chair in Clinical Gastroenterology Associate Clinical Professor of Medicine David Geffen School of Medicine at UCLA

5th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium

IMPROVING DIGESTIVE HEALTH VIA A CASE-BASED APPROACH

March 10-12, 2017 | The Beverly Hilton, Beverly Hills, CA

UCLA CME Course # M167-25 / 17 AMA PRA Category 1 Credits ™ \$375 / \$300 / \$75 Registration — Complimentary Hands-on Session* (Non-CME)



The 5th Annual UCLA-Mellinkoff Gastroenterology and Hepatology

Symposium has been designed as an interactive, case-based learning activity to educate healthcare professionals on the evaluation and management of patients with gastrointestinal disorders. Audience participation is encouraged through panel discussions and audience response system. The hands-on session provides a valuable learning opportunity, though no CME credit will be issued for participation in this session.

Registration and Course Information

For course brochure and registration, go to www.cme.ucla.edu/courses, click on 5th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium.

Overnight Accommodations

A limited block of rooms, at a special rate of \$279 + tax (deluxe) and \$314 + tax (studio suite), has been reserved at The Beverly Hilton. To receive the special rate, you must make your reservation before the room block is filled and by the expiration date of February 7, 2017. To reserve a room, call 1-800-HILTONS and ask for the "UCLA Digestive Diseases" block. Or make a reservation online at https://resweb.passkey.com/go/ucla17

For more information about the hotel, visit www.beverlyhilton.com



www.gastro.ucla.edu

Agenda

Friday, March 10

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| 7:00 am | Registration and Breakfast | | | |
| 7:50 am | Welcoming Remarks Gary Gitnick, MD, FACG, UCLA and Eric Esrailian, MD, MPH, UCLA | | | |
| 7:55 am | Course Overview <i>V. Raman Muthusamy, MD, UCLA</i> | | | |
| Colon Cancer Screening and Prevention Moderator: Rajinder Kaushal, MD, UCLA | | | | |
| 8:00 am | Colon Cancer Screening in High-risk Individuals <i>Wendy Ho, MD, MPH, UCLA</i> | | | |
| 8:20 am | Assessing and Removing the Large Colon Polyp <i>Stephen Kim, MD, UCLA</i> | | | |
| 8:40 am | Improving Quality and Access in Colorectal Cancer Screening <i>Folasade P. May, MD, PhD, MPhil, UCLA</i> | | | |
| 9:00 am | Cases and Q & A <i>Panel</i> | | | |
| 9:30 am | Break | | | |
| Liver Diso | rders | | | |

Moderator: Mohamed El Kabany, MD, UCLA

| 9:50 am | Treatment of Hepatitis C in 2017 Sammy Saab, MD, MPH, UCLA |
|----------|---|
| 10:10 am | Update in the Treatment of Hepatitis B <i>Steven-Huy Han, MD, UCLA</i> |
| | |

- 10:30 am The Epidemic of Fatty Liver Simon W. Beaven, MD, PhD, UCLA
 10:50 am Autoimmune Liver Disease
- 10:50 am Autoimmune Liver Disease Gina Choi, MD, UCLA 11:10 am Cases and Q & A
- Panel Including Francisco Durazo, MD, UCLA

11:40 am Lunch

Live Cases & Videos

Moderator: Bennett E. Roth, MD, UCLA

12:40 pm Panel: Stephen Kim, MD, UCLA, Jason B. Klapman, MD, Moffitt Cancer Center, V. Raman Muthusamy, MD, UCLA, Alireza Sedarat, MD, UCLA, Rabindra R. Watson, MD, UCLA

2:30 pm Break

Functional Bowel Disease

Moderator: Lynn Shapiro Connolly, MD, MSCR, UCLA

2:50 pm Brain Gut Microbiome Axis: And What It Means for the Clinician *Emeran A. Mayer, MD, PhD, UCLA*3:30 pm What's New with Rome IV for Functional GI Disorders *Lin Chang. MD, UCLA*

| | 3:50 pm | Functional Heartburn: Current Management Ronnie Fass, MD, Case Western Reserve University |
|--|------------------------|---|
| | 4:20 pm | Challenging Patient Cases Panel |
| | 4:45 pm | Q & A Panel |
| | 5:00 pm | Adjourn |
| | Saturda | y, March 11 |
| | 7:00 am | Registration and Breakfast |
| | 7:55 am | Welcoming Remarks V. Raman Muthusamy, MD, UCLA |
| Inflammatory Bowel Diseases – Session 1 Moderator: Christina Ha. MD. UCLA | | |
| | 8:00 am | Ulcerative Colitis: An Interactive Case-based Discussion |
| | | Management of Ulcerative Proctitis Clinical and Endoscopic Assessments of Disease Activity |
| | | Panel: Daniel Hommes, MD, PhD, UCLA, Uma Mahadevan, MD, UCSF, Jenny Sauk, MD, UCLA, Fernando Velavos MD, MPH, UCSF |
| | 10:00 am | Break |
| | Inflammat Moderator | ory Bowel Diseases – Session 2 r: Christina Ha, MD, UCLA |
| | 10:20 am | Crohn's Disease: An Interactive Case-based Discussion |
| | | Preconception Counseling and Family Planning |
| | | Management of Perianal Crohn's Disease Adverse Effects of Immunosuppressive Medications |
| | | Panel: Daniel Hommes, MD, PhD, UCLA, Uma Mahadevan, MD, UCSF, Jenny Sauk, MD, UCLA. |
| | | Fernando Velayos, MD, MPH, UCSF |
| | 12:20 pm | Lunch |
| | Pancreas Moderator | Disease r: V. Raman Muthusamy, MD, UCLA |
| | 1:20 pm | Who and How to Screen for |
| | | Pancreas Cancer Jason B. Klapman, MD, Moffitt Cancer Center |
| | 1:40 pm | Tips and Tricks for Removing Bile Duct Stones |

Alireza Sedarat, MD, UCLA

2:00 pm Pancreatic Cysts in 2017: More **Questions Than Answers** Rabindra R. Watson, MD, UCLA FRCP and Acute Pancreatitis: How to be 2:20 pm Part of the Solution and Not the Problem V. Raman Muthusamy, MD, UCLA Cases and Q & A 2:40 pm Panel 3:10 pm **Adjourn Didactic Session** 3:15 pm Hands-On Session - No CME Credit* 5:15 pm **Adjourn Hands-On Session** Sunday, March 12 7:00 am Registration and Breakfast 7:55 am Welcoming Remarks V. Raman Muthusamy, MD, UCLA **Esophageal and Gastric Disorders** Moderator: Claudia Sanmiguel, MD, UCLA Endoscopic Management of Benign 8:00 am and Malignant Esophageal Strictures Jason B. Klapman, MD, Moffitt Cancer Center 8:20 am How to Appropriately Use Esophageal pH and Manometry Studies Jeffrey L. Conklin, MD, UCLA Proton Pump Inhibitors: Friend or Foe? 8:40 am Kevin Ghassemi, MD, UCLA 9:00 am Common Mistakes in the Management of Upper GI Hemorrhage Dennis M. Jensen, MD, UCLA 9:20 am Cases and Q & A Panel 9:50 am Break Enteral Disease and GI Nutrition Moderator: Terri Getzug, MD, UCLA 10:10 am Update on Celiac Disease Guy A. Weiss, MD, UCLA Evaluating the Small Bowel With 10:35 am Capsule Endoscopy Rabindra R. Watson. MD. UCLA 11:00 am Nutrition-based Labs Every GI Should Be Considering Nancee Jaffe, MS, RD, UCLA 11:30 am Cases and Q & A Panel

12:00 pm Adjourn

*Saturday, March 11, 3:15 – 5:15 pm Complimentary Hands-on Session — Physicians Only

The hands-on session will provide a valuable learning opportunity, though no CME credit will be issued for this portion of the program. The hands-on session is complimentary. Please indicate on your registration form if you will be

participating. Faculty Include: Kevin Ghassemi, MD, Stephen Kim, MD, Jason B. Klapman, MD, Saurabh Mukewar, MD, V. Raman Muthusamy, MD, Bennett Roth, MD, Alireza Sedarat, MD, Rabindra R. Watson, MD, UCLA



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Go to gastro.ucla.edu to learn more about the UCLA Vatche and Tamar Manoukian

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UCLA Health – Westlake Village 1250 La Venta Drive #211 Westlake Village, CA 91361 805-494-6920



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