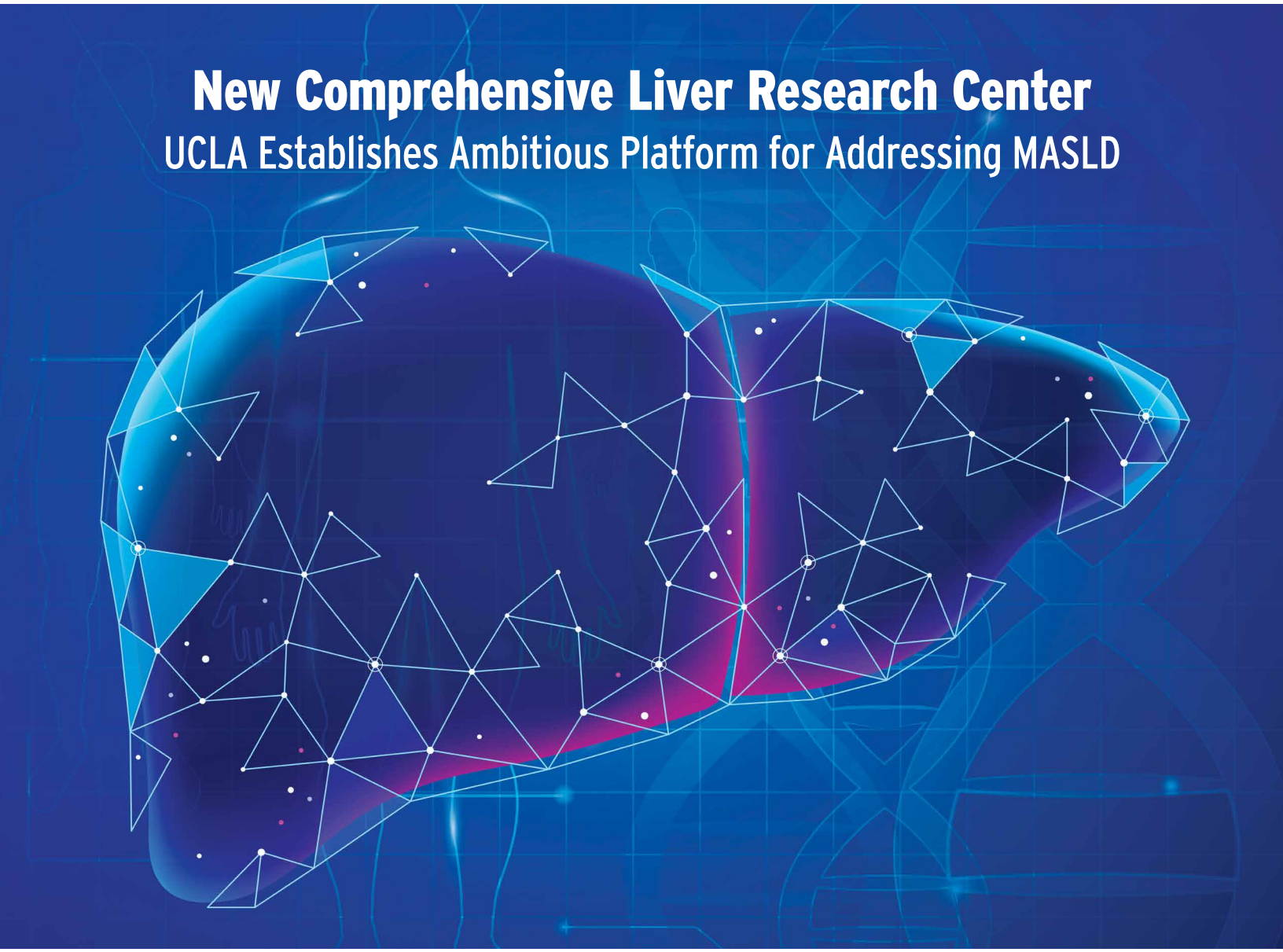
UCLA Health

Beyond the Scope

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

New Comprehensive Liver Research Center

UCLA Establishes Ambitious Platform for Addressing MASLD



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Going ***Beyond*** *the Scope*

We are truly fortunate to have an outstanding group of basic, clinical, and translational scientists within our UCLA Vatche and Tamar Manoukian Division of Digestive Diseases — all of them committed to advancing knowledge in ways that can lead to improving the prevention, diagnosis, and treatment of digestive diseases for patients at UCLA … and for individuals around the world. As the articles in this issue of *Beyond the Scope* illustrate, this research doesn't occur in isolated silos. Leveraging the breadth of expertise throughout the division, our department, our school of medicine, our renowned health system, and one of the top universities in the world, we continue to build on an infrastructure that ensures our outstanding investigators can flourish.

The most recent major development on this front is the new UCLA Comprehensive Liver Research Center, based in our division. This center brings to bear the expertise from throughout our division and the UCLA campus in a coordinated effort to tackle one of the major public health issues we face in Southern California and as a nation: the growing prevalence of metabolic dysfunction-associated steatotic liver disease (MASLD). As the series of articles starting on page 1 describe, the new center supports multidisciplinary research initiatives to better understand all aspects of this epidemic, with the support of core services and an enrichment program that recruits, mentors, and provides funding for early-career investigators pursuing critical research questions.

This example is just one of the many opportunities available to our trainees and junior faculty. The article beginning on page 6 highlights the unparalleled environment that allows our GI Research Scholar Track fellows to thrive as they embark on the journey to becoming successful faculty. The exceptional infrastructure of funding, training, and mentorship we have cultivated has buoyed the careers of a cadre of outstanding faculty in our division — eight of whom recount, beginning on page 10, the ways in which this support helped them make the transition from fellow to faculty. This outstanding environment for researchers is also a boon for recruiting. On page 5, we introduce one of our new faculty members, Dr. Gregory P. Donaldson, who was drawn to UCLA by the opportunity to continue his pivotal work on the gut microbiome in our Goodman-Luskin Microbiome Center, where basic scientists and gastroenterologists regularly interface.

On page 13 of this issue we detail the continuing ramp-up of the new California Institute for Immunology and Immunotherapy (CIII) at UCLA, which leverages UCLA's strengths in one of the most exciting, and necessary, scientific frontiers. Bringing together leading scientists from across the campus, new recruits from around the world, and industry experts, CIII will create a nexus for discovery and innovation intended to pursue breakthrough advances in the prevention and cure of diseases — with our division playing an integral role. I am honored to be among a group of visionary founding donors who have jump-started this unprecedented public-private partnership that includes UCLA and the State of California.

Amidst these and other exciting research initiatives, our division continues to bring in outstanding clinical faculty. Dr. Otis Stephen recently joined UCLA as a professor of medicine to establish and direct a Small Bowel Endoscopy Program within our division. A leader in the field of small bowel endoscopy/balloon-assisted enteroscopy, Dr. Stephen brings both clinical and research strengths to our division, including enhancing the patient care for our Center for Inflammatory Bowel Diseases. This issue also highlights other outstanding new clinical faculty in our division beginning on page 15. Thank you for your interest in learning more about our incredible faculty, trainees, programs, and our entire institution!

New Comprehensive Liver Research Center at UCLA Establishes Ambitious Platform for Addressing MASLD

Vatche G. Agopian, MD; Rajat Singh, MD, MBBS

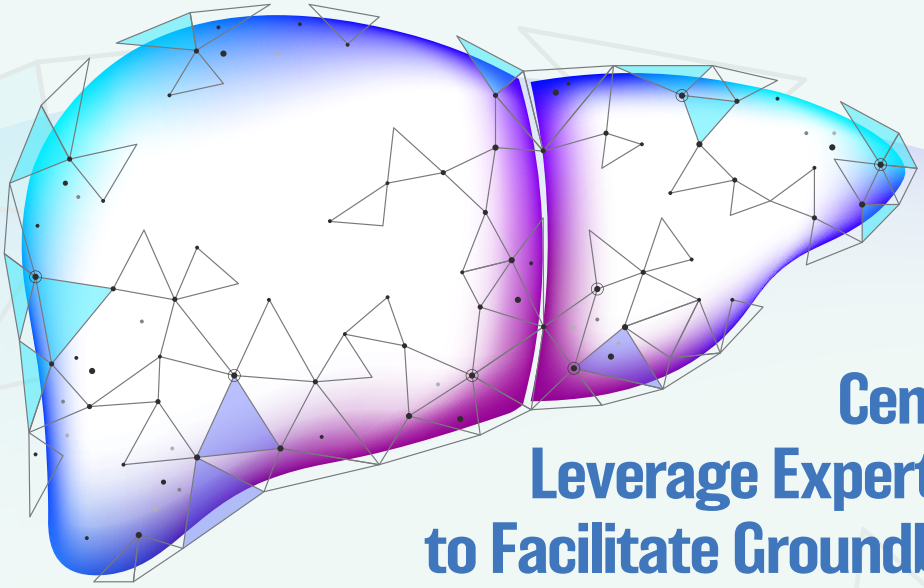
Metabolic dysfunction-associated steatotic liver disease (MASLD, previously known as nonalcoholic fatty liver disease) is one of the biggest public health challenges facing the U.S., affecting more than 100 million adults. It is among the most common forms of both chronic liver disease and the eventual need for a liver transplant. Moreover, given the rising prevalence in the U.S. and other Western nations of metabolic syndrome, which is closely linked to MASLD, the affected population is almost certain to increase. "If you look at the numbers, it's staggering," says Vatche G. Agopian, MD, director of the Dumont-UCLA Liver Cancer Center. "And it tends to be a silent killer, because it often produces few or no early symptoms."

The new Comprehensive Liver Research Center at UCLA, based in the Vatche and Tamar Manoukian Division of Digestive Diseases, represents an ambitious response to a major and complex concern. Leveraging a critical mass of liver researchers, the breadth of expertise on the UCLA campus, the institution's legacy of leadership in treating liver diseases, and unparalleled resources and institutional support, the center has embarked on an effort to understand every aspect of MASLD as it relates to the diverse population of Los Angeles County, seeking to mitigate the negative effects of the epidemic on communities.

"This is an exciting opportunity to build something from scratch," says Rajat Singh, MD, MBBS, professor in the division and a clinically trained basic scientist who serves as director of the UCLA Comprehensive Liver Research Center. "We are a large group of liver clinicians and researchers who have come together to build a community with shared resources and expertise; collaborative opportunities; funding for pilot awards; and an enrichment program where young investigators, postdocs, clinical fellows, and students are exposed to cutting-edge liver research, training and mentoring through our ULTRA invited speakers program, and our annual symposium."

"Although UCLA is a world-renowned liver care and research center, we have tended to operate in our own silos, without knowing a lot about what other people on campus are doing," says Dr. Agopian, a translational scientist and liver transplant surgeon who serves as the center's co-director. "This represents a cross-pollination of all of those silos, where we have core services and expertise as well as a forum for sharing ideas. That produces a level of synergy in which the whole is greater than the sum of the parts."

The new center is establishing a comprehensive platform for addressing MASLD. Dr. Singh explains that it will increase awareness of MASLD's impact on the diverse communities of Los Angeles County by bridging the gaps between basic, clinical, and community-engaged researchers; providing cutting-edge tools to study new MASLD mechanisms; and recruiting, supporting, and mentoring the next generation of MASLD researchers. More than 65 National Institutes of Health-funded researchers and clinicians are currently part of the center — including basic, clinical, and community-based investigators at UCLA as well as their counterparts at the City of Hope in Duarte, CA, and sister institutions UC Irvine and UC Davis. As is detailed in the pages that follow, an administrative core and three cutting-edge biomedical research cores will support the center's efforts, as will outreach, enrichment, and seed-funding programs.



Center's Core Services Leverage Expertise and Resources to Facilitate Groundbreaking Discovery

Four core services form the backbone of the new Comprehensive Liver Research Center at UCLA, leveraging expertise and resources to enable the groundbreaking work of the center's basic, translational, and clinical research efforts. These include the Administrative Core and three biomedical research cores developed to support the needs of the center's investigators: the Human MASLD Core, the Mouse Integrative Genetics and Phenotyping Core, and the Liver Spatial Omics Core.

"Our research cores create efficiencies and economies of scale," explains Rajat Singh, MD, MBBS, the center's director. "Not every lab can have its own spatial imager or access to unique resources and human samples, so with support from the division we are able to provide what's needed and make it available, along with the specialized expertise, as part of the cores. All of these cores are interconnected — the goal is to facilitate a seamless provision of expertise, methodology, and state-of-the-art techniques relevant to studies into liver diseases."

The Administrative Core, led by Dr. Singh and Vatche G. Agopian, MD, the center's co-director, provides leadership and governance of the center's activities, working closely with an executive committee. Among other things, it supports the activities of the biomedical research cores; oversees the allocation of funds for the center's Pilot and Feasibility awards as well as disbursement of human biospecimens to center members; coordinates the invited speaker seminar series; and engages on the center's progress and overall direction with faculty members and external stakeholders.

Among the Administrative Core's key charges is to oversee an outreach program directed by Anne M. Walling, MD, PhD, and Arpan A. Patel, MD, PhD, that partners with key patient, community, and clinician stakeholders to ensure that the center's research is aligned with community goals — including targeting research efforts in the screening, diagnosis, and treatment of MASLD in diverse populations with unmet needs, as well as ensuring a patient-centered approach in the studies the center supports. "We are in one of the most diverse areas in the country, which makes it especially important that we address the unmet needs in understanding why certain racial/ethnic groups are more susceptible to liver diseases of metabolic origin and the role played by environmental interactions, as well as supporting investigators interested in underrepresented communities and community-engaged research," Dr. Singh explains.

The Human MASLD Core is co-directed by Steven-Huy B. Han, MD, and Jihane N. Benhammou, MD, PhD, and is working closely with UCLA clinicians to establish a biorepository

Steven-Huy B. Han, MD; Jihane N. Benhammou, MD, PhD

of MASLD patient samples, linked to a clinical database, to facilitate promising translational studies by investigators at UCLA and collaborating institutions interested in MASLD. The core provides streamlined access to human MASLD biospecimens, as well as consultations on study design and the samples and clinical datasets best suited for the center member's project. Also key to the effort are Tien S. Dong, MD, PhD, who directs the Biospecimen Biorepository; and Samuel W. French, MD, PhD, Human MASLD Core pathologist.

Drs. Han and Benhammou, both of whom are translational liver researchers, expect this to become an invaluable resource. "With fatty liver disease, the underlying question is always which patients will go on to develop cirrhosis and liver cancer, and which ones will never have any issues," Dr. Han says. "With our current tools, all we can do is follow the patient and monitor blood tests and images in real time. But the future of medicine lies in biomarkers that can tell us, through blood tests, which patients are likely to progress. With a biorepository and clinical database, we will have a longitudinal group of samples that can help to identify specific signals that occur years before we can see changes clinically." Such information, Drs. Han and Benhammou note, would provide critical guidance to clinicians as to how aggressively patients should be monitored or treated, particularly important with the introduction of new FDA-approved drugs designed to slow disease progression.

"Our goal, in addition to developing this resource, is to serve as a bridge between basic scientists and clinical researchers," Dr. Benhammou says. "This establishes an infrastructure that will last beyond us, so that when questions are raised years from now that we wouldn't anticipate today, our investigators will have a wealth of information from which to draw. We are uniquely positioned to develop this resource, both because of UCLA's long legacy as one of the first liver transplant centers, and given the diversity of our patient population in Southern California."

The center's Mouse Integrative Genetics and Phenotyping Core provides access to a unique database of more than 100 genetically diverse, inbred strains of mice; bioinformatical analysis and consultation; and the expertise to perform in vivo validation studies using various MASLD models. The core also provides phenotyping services in "humanized" MASLD mouse models. The core is directed by Aldons J. "Jake" Lusis, PhD, a UCLA professor of medicine; microbiology, immunology and molecular genetics; and human genetics.

Similarly, the Liver Spatial Omics Core enables the center's researchers to address critical new questions through the use of state-of-the-art spatial technology. Spatial omics provides for the analysis of liver tissues on a slide in a cell-specific, zone-specific manner to learn which genes are expressed in the liver, where, and how, as the disease progresses. "Among other things, for people from different backgrounds, we can break down the mechanisms to learn more about the susceptibility of certain genetic makeups," Dr. Singh notes. Along with providing access to resources, technical expertise, and comprehensive bioinformatic tools to generate spatial data in the liver, the Liver Spatial Omics Core facilitates investigator-initiated spatial omics research in human liver specimens and in livers from the "humanized" hybrid mouse diversity panel through interactions with the MASLD and Mouse Integrative Genetics and Phenotyping cores. The Liver Spatial Omics Core is directed by Matteo Pellegrini, PhD, a UCLA computational biologist and biophysicist; and Raju K. Pillai, MD, of City of Hope.

Center's Enrichment Program Supports Early-Career Investigators, Brings Researchers Together

Through recruitment, mentoring, and career development of trainees and early-career investigators interested in research across the spectrum of metabolic dysfunction-associated steatotic liver disease, the Enrichment Program within the UCLA Comprehensive Liver Research Center helps to promote the professional growth of the next generation of MASLD researchers while increasing awareness of MASLD and its impact on the health of Los Angeles County's diverse population.

To support early-career investigators interested in pursuing innovative projects that adopt interdisciplinary approaches, each year the center will grant three one-year Pilot and Feasibility awards for a maximum amount of $25,000 each. These studies are expected to generate preliminary data that can be used to secure larger grants in subsequent years.

"The basic-translational projects will help to fill in gaps in our knowledge about the progression of the disease as well as a better understanding of the basic biology, which could

Last October, the center held the first of what will be an annual symposium, bringing together members across disciplines and institutions, as well as inviting top investigators from across the country to give talks.

Claudio J. Villanueva, PhD; Carrie R. Wong, MD, PhD

eventually lead to finding new pathways or therapeutics," says Claudio Villanueva, PhD, an integrative biologist and physiologist who is co-director of the Enrichment Program. "And in addition to receiving funds to support the science, pilot awardees will get mentoring and career development from more established faculty, which can help them progress in their academic careers and is a key to maintaining a thriving community."

Carrie R. Wong, MD, PhD, a transplant hepatologist who serves as the Enrichment Program's other co-director, points out that chronic liver disease in general and MASLD in particular tends to disproportionately affect socially and economically vulnerable individuals. With that in mind, the Pilot and Feasibility awards will support not only basic-translational research but also proposals that aim to understand the impact of social and racial/ethnic factors on MASLD susceptibility. "We are seeing evidence indicating that Hispanic ancestry and social drivers of health, such as food insecurity, lead to greater susceptibility and worse outcomes in the MASLD population, so it's important to understand how sociodemographic factors interact with the biological mechanisms," Dr. Wong explains.

The Enrichment Program also includes a monthly seminar series, ULTRA (UCLA Liver Translational Research), which brings in an invited expert speaker from UCLA or an outside institution for a day-long itinerary that includes a noon lecture as well as one-on-one meetings with trainees and faculty. In addition, work-in-progress meetings are held where MASLD investigators can share their current research and receive input from other center members. "It's a great environment to learn about other MASLD researchers' work and have informal conversations that in some cases can lead to new collaborations," Dr. Wong says.

Last October, the center held the first of what will be an annual symposium, bringing together members across disciplines and institutions, as well as inviting top investigators from across the country to give talks. The day-long symposium included ample opportunities for networking, along with a poster competition where graduate students, postdoctoral fellows, and junior faculty showcased their work.

Dr. Villanueva explains that interactions among researchers who address MASLD from disparate vantage points is critical to moving the field forward. "For basic scientists to have an impact, we need to understand what the clinicians who are treating these patients are dealing with," he says. "On the basic biology side, we are trying to get at the crux of how we make and break down lipids in the liver. Some of the same pathways we're studying are changing during the progression of the disease, and through this knowledge, we might be able to develop new therapeutics that will ultimately either prevent or treat the disease. To get there, it's important to understand what happens in the clinic — to learn about the pathophysiology from clinicians who see associated comorbidities and other disease processes associated with MASLD."

From the clinical side, Dr. Wong concurs. "This is a field in which big scientific changes can stem from basic research — that's how we got a cure for hepatitis C," she says. "But we have to understand each other. As clinicians we can help clarify whether a research question is clinically meaningful and provide context to basic findings and whether something discovered at the bench could be translated to the clinical setting. At UCLA we have many groups looking at different aspects of MASLD from the basic, translational, clinical, and public health perspectives, but we never previously had a common space and platform. That's what this center does, and the Enrichment Program aims to bring everyone together so we can all learn from each other and make more constructive progressive changes in this field."

Dr. Gregory P. Donaldson Studies How Interactions in the Gut Maintain Health

Gregory P. Donaldson, PhD

The critical interface between the absorptive epithelial lining of the gut and the microorganisms that colonize and exchange nutrients with their host is typically studied in the context of disease. But in the laboratory of Gregory P. Donaldson, PhD, who recently joined the Vatche and Tamar Manoukian Division of Digestive Diseases as an assistant professor, the focus is on understanding interactions that promote health.

"Immunology has traditionally looked at how our cells respond to pathogenic microorganisms, like viruses or bacteria, in order to prevent their colonization," explains Dr. Donaldson, who is also an assistant professor in the Department of Microbiology, Immunology & Molecular Genetics and a member of UCLA's Goodman-Luskin Microbiome Center and California NanoSystems Institute. "But most of the interactions our cells have with microorganisms are with non-pathogenic microorganisms that pose no threat."

Studying homeostatic processes that maintain health is challenging, Dr. Donaldson notes, because health is by nature more subtle than disease, making effects on health challenging to measure. But identifying the molecular interactions that help to perpetuate a healthy state could bring significant rewards.

"We know, for example, that nutrition impacts susceptibility to almost every disease in ways we don't fully understand," Dr. Donaldson says. "Rather than looking at what goes wrong in these diseases, our goal is to understand the processes that maintain beneficial interactions in how the food we eat interacts with the microbiome, which interacts with our cells and genetics. That knowledge could lead to evidence-based strategies for using probiotics or prebiotics to keep ourselves healthy."

It's not just random bacteria that end up in the intestine. For many species of bacteria, the mammalian gut is the only place they can be found, Dr. Donaldson explains. "These bacteria are a lot more a part of us than we used to realize," he says. "They have co-evolved with mammals, and we are finding that they are in constant molecular communication with their animal host. Our lab aims to decode the molecular language exchanged between these bacteria and animal cells, and see how this impacts both the composition of the gut microbiome and gastrointestinal health."

Dr. Donaldson earned his PhD from Caltech, where he focused on the bacterial genetics of mucosal colonization by gut microbiota. As a postdoctoral fellow at Rockefeller University, he studied how adaptive immune responses to gut microbiota can also impact mammalian host cell biology. Among the past work that he is continuing at UCLA is a study of how interactions between Immunoglobulin A (IgA), microbiota, and epithelial cells can influence the initial stages of colorectal cancer. Dr. Donaldson has previously found that IgA — the most abundantly produced antibody in humans, which is mostly secreted in the intestine — produces a beneficial effect by helping certain commensal bacteria stick to the epithelial surface, contrary to the typical function of antibodies.

Dr. Donaldson was drawn to UCLA in part by the opportunity to interact with clinicians through his work at the Goodman-Luskin Microbiome Center. "Although my training is in basic microbiological science, I have learned so much in the last few years from gastroenterologists," he says. "The types of questions they ask have inspired new directions of research for my lab and made me excited about synergy with the clinical research capabilities at UCLA ."

From Research Fellow to Faculty

Resource-Rich Environment and Support Fosters Success

The fellowship program within the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases is among the largest of its kind in the nation. Nearly two dozen individuals receive training at any given time along one of two paths — while the majority are on the Clinical Scholar Track, some follow the Research Scholar Track with an eye toward becoming physician-scientists. In addition to clinical training, the Research Scholar Track fellows receive protected research time as they embark on the challenging and rewarding road toward becoming independent investigators.

Within both the division and the Department of Medicine at the UCLA David Geffen School of Medicine (DGSOM), a concerted effort has been made to build an infrastructure that improves the likelihood these individuals will thrive in the increasingly competitive environment. These efforts have paid off in a big way: In recent years, eight GI Research Scholar Track fellows have made the transition to become junior faculty members within the division — obtaining grant funding, publishing in peer-reviewed journals, forging important collaborations, and becoming mentors to the next generation of research fellows. (For first-person accounts of what these junior faculty members view as keys to their success, see the article that follows.)

"I'm very proud that so many recent research fellows have become key members of our faculty and have been awarded research grants," says Lin Chang, MD, vice chief of the division and director of the UCLA GI Fellowship Program. "They have done well because they are intelligent and work hard, but their success is also a testament to the resources and support within our division, our department, and at DGSOM and UCLA more broadly. This is a great strength and advantage to training at UCLA."

Fostering an environment in which research fellows can thrive is a critical part of UCLA's mission as an academic

Lin Chang, MD

medical center, notes E. Dale Abel, MD, PhD, the William S. Adams Distinguished Professor and chair for the Department of Medicine at DGSOM, and executive medical director at UCLA Health. "Innovation and discovery require putting in place infrastructure and mentorship support that is continually replenished so that scientists pass along their knowledge to the people behind them, who then build on it," Dr. Abel explains. "And so, it is essential to ensure that individuals with talent, potential, and a passion for discovery receive the tools and support they need to get off to a good start. That means being able to identify the problem you want to do your research on; having mentors to help you frame how you can develop approaches to solving the problem; obtaining the tools to be competitive in the funding landscape, and learning how to navigate a network within your field in order to make connections that enhance your work."

Dr. Abel believes UCLA's explicit commitment to nurturing the career development of research trainees goes

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E. Dale Abel, MD, PhD

beyond that of most of its peer institutions. "The research environment has become a lot more competitive, and the science has become much more complex," he says. "There are skills these trainees need that are not taught in medical school or clinical residency, and that is why our department needs to harness resources to give these individuals the best chance to succeed."

One particularly unique asset for UCLA in that regard is the Specialty Training and Advanced Research (STAR) program at DGSOM, which since 1993 has provided aspiring physician-scientists — some of whom are now on the division's faculty — with opportunities to obtain a PhD or otherwise engage in rigorous scientific training through advanced postdoctoral research in a supportive environment. STAR offers physician-scientists the required clinical training along with research training on one of four tracks: Basic Science; Health Services/Outcomes; Postdoctoral Research Training (for subspecialty residents or fellows who already have a PhD); or STAR-PSTP (Physician-Scientist Training Program), which allows internal medicine residents with research experience to actively participate in research and STAR activities in preparation for STAR fellowship application.

What sets STAR apart from nearly every physician-scientist training program in the U.S. is its timing, explains Linda Demer, MD, PhD, the STAR program's executive co-director and vice chair of the Department of Medicine, who initiated the program with Dr. Alan Fogelman, then-chair of the department. While programs typically have aspiring physician-scientists work toward their PhD in the middle of medical school, STAR begins PhD training in the latter half of the trainee's fellowship, just before they become faculty. "That's about an eight-year difference that brings important advantages," Dr. Demer explains. "It allows for more diversity, because people who are socioeconomically disadvantaged can't afford to add 4-6 years to their medical school education before they start making a living. The conventional approach also puts trainees in a situation where they start writing grants at a time when their PhD is eight years old, and research is a 'fashion business' in which state-of-the-art science is crucial. Getting a PhD right at the time that you're applying for grants is ideal, because you're at the top of scientific expertise."

Fellows are recruited to the STAR program with the intention of having them remain at UCLA as faculty members, Dr. Demer says. During their training, they benefit from being surrounded by a critical mass of physician-scientists. Monthly seminars provide interactive feedback on important skills such as grant- and manuscript writing, networking, and publicizing discoveries to the scientific community. STAR fellows learn not only from senior faculty leaders, but also from the 50-60 other STAR fellows. More than 250 physician-scientists have now completed the program, and many have become prominent leaders within and outside of academic medicine.

Both in the division and outside of it, GI research fellows can take advantage of wide-ranging funding opportunities.

Linda Demer, MD, PhD

The division's NIH T32 training grant supports predoctoral and postdoctoral researchers in gastroenterology: Fellows receive funding to support their research training on a project under the tutelage of a faculty member. They also receive support from faculty mentors who provide guidance and feedback designed to prepare them for their independent research career.

Beyond the opportunity to become part of the prestigious T32 grant, GI research fellows are able to access a growing number of seed grants and fellowships to support their work. The Goodman-Luskin Microbiome Center, established in 2022, helps to support the next generation of microbiome researchers through pilot and feasibility study awards, seed fellowship funding, and postdoctoral fellowships. The UCLA Specialized Center of Research Excellence (SCORE), part of the G. Oppenheimer Center for Neurobiology Stress and Resilience, awards seed grants for studies seeking to gain a better understanding of the role of sex differences in the modulation of brain-gut microbiome interactions in irritable bowel syndrome and chronic constipation. And the new UCLA Comprehensive Liver Research Center has expanded these opportunities through its own pilot and feasibility awards.

Funding sources are also available outside the division for the GI research fellows. For example, the division's Research Scholar Track fellows have benefited from mentored research training through the NIH KL2 Independent Scientist Award grant from the UCLA Clinical and Translational Science Institute (CTSI); KO8 awards from the NIH; and the Career Development Awards provided by the Department of Veterans Affairs.

In addition to the funding opportunities, centers and programs within and outside the division contribute to an enhanced research environment that includes core services and a wide variety of research projects and mentorship possibilities. Depending on the fellow's research interest, the breadth of expertise throughout the UCLA health sciences and across the UCLA campus affords opportunities for primary or co-mentors outside the division. Programs and workshops through the CTSI, the DGSOM Office of Physician Scientist Career Development, and the division help trainees and junior faculty bolster their skills in grant writing, providing feedback designed to maximize their chances of success in obtaining research funding. The Office of Physician-Scientist Career Development also supports the career growth of physician-scientists by providing mentorship, resources, and programs that bridge clinical practice and research.

After each Research Scholar Track fellow completes their training, the Department of Medicine offers a faculty appointment in the division and startup support that may include support of a technician and a postdoc, as well as startup funds to establish their independent program as they apply for grant funding. "For these trainees to have so many avenues of support as they start their career is really unusual," Dr. Chang says. "We believe that providing a longer runway to ensure success, benefits both their careers and the future of our division."

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'A Truly Unparalleled Environment'

In recent years, eight Research Scholar Track fellows in the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases have become junior faculty members within the division. Here are their thoughts on some of the keys to their success.

Jihane N. Benhammou, MD, PhD

Assistant Clinical Professor of Medicine

"One of UCLA's strengths is the large pool of scientific talent that spans very basic to clinical and health services research. While as trainees we are expected and trained to focus in our area, I learned early on that leveraging the expertise on campus and collaborating here and beyond is what builds the strength of a successful research program. My training at UCLA taught me that and allowed me to use what I learned from others to build my program on hepatocellular carcinoma, which remains very small at UCLA as a whole. The division and department supported my vision, and that has had a huge impact on my research program."

Tien S. Dong, MD, PhD

Assistant Clinical Professor of Medicine
Director, Goodman-Luskin Microbiome Center Biorepository Core

"My transition from a GI fellow to a faculty researcher at UCLA has been a rewarding journey, thanks to the exceptional support and resources available here. The mentorship from senior faculty, combined with the opportunities provided by the STAR program, NIH T32 grants, and interdisciplinary collaborations laid a strong foundation for my research endeavors. Support from the Goodman-Luskin Microbiome Center, the UCLA Specialized Center of Research Excellence, and the Comprehensive Liver Research Center have enabled me to explore innovative ideas, especially in studying the gut-liver axis and the microbiome's role in metabolic health. These resources empowered me to secure external funding and deepen my research focus. Moreover, the collaborative spirit at UCLA has fostered partnerships that have significantly shaped my career path, allowing me to translate research findings into meaningful clinical applications. I am grateful for the environment that encourages innovation and growth, making UCLA an ideal place to develop as a researcher and physician."

Jonathan P. Jacobs, MD, PhD

Assistant Professor-in-Residence
Co-Director, Goodman-Luskin Microbiome Center
Director, Microbiome Core, Goodman-Luskin Microbiome Center

"The combination of excellent mentorship, protected research time through the STAR program, and financial support from UCLA's T32 grant created the perfect environment for me to pursue research training in the emerging gut microbiome field. After completing my PhD through STAR in 2015, I received financial support and laboratory space from the division and a joint appointment at UCLA and the Greater Los Angeles

VA Healthcare System, enabling me to seamlessly transition to faculty. Soon after starting my lab, I launched the Microbiome Core with the resources provided by the division. This allowed me to forge extensive collaborations with scientists at UCLA and other institutions to investigate the critical role of the microbiome in human health and disease. Later, this core became integrated into the new Goodman-Luskin Microbiome Center that was launched in 2022, providing further leadership opportunities for me as co-director. The support and resources at UCLA contribute to a truly unparalleled environment to nurture physician-scientists, and have been essential for me to establish my scientific career."

Folasade P. May, MD, PhD, MPhil

Associate Professor of Medicine
Director, Melvin and Bren Simon Gastroenterology Quality Improvement Program
Associate Director, UCLA Kaiser Permanente Center for Health Equity in the UCLA Jonsson Comprehensive Cancer Center
Associate Director, UCLA Specialty Training and Advanced Research (STAR) Program

"I came to UCLA in 2011 as a clinical fellow with a strong interest in clinical research, but felt it was too late in my career to become a physician-scientist. I was amazed to learn about an opportunity to gain further research training during fellowship by participating in the STAR program. As a STAR fellow, I completed a PhD in health policy at the UCLA Fielding School of Public Health and was able to develop expertise in health outcomes research, health disparities, and implementation science. This education, and the incredible mentorship from many individuals at UCLA, became the foundation for my career — a career in which I have received multiple NIH grants; make an impact on access to colorectal cancer screening tests; inform policy about cancer prevention and control for diverse populations; lead a thriving quality improvement program for the division; mentor students and trainees of all levels; and even visited the White House to present our work."

Alexander H. Nguyen, MD, PhD

Assistant Professor of Medicine

"I was a GI research fellow with the support of the T32 training grant and STAR program, which gave me the time and resources to obtain in-depth training to become a physician-scientist. I performed my postdoctoral research training with Dr. Peter Tontonoz, an expert in cholesterol metabolism and physiology. Guided by my clinical fellowship training with an emphasis on hepatology, I developed my broader interest in the role of cholesterol metabolism in MASLD progression. I was able to obtain the AGA Research Scholar Award, ASCI Emerging Generation Award and, more recently, an NIDDK K08 award to support my continued development. This progress would not have been possible without the strong infrastructure to support GI physician-scientist trainees at the levels of the division, department, and medical school. I have received excellent clinical training, furthered my development as a scientist, and learned from many mentors from across the David Geffen School of Medicine. Our division's leadership, Drs. Eric Esrailian and Lin Chang, recognize the importance of research as well as clinical and career training, and have supported my efforts throughout this phase of my career."

Arpan A. Patel, MD, PhD

Assistant Clinical Professor of Medicine

"Halfway through my first year as a clinical gastroenterology fellow at UCLA, I knew that academic transplant hepatology was the right path for me. But the idea of focusing my career on palliative care

didn't seem feasible at the time — there just wasn't enough evidence for it. I wholeheartedly credit those in our division — especially Drs. Joseph Pisegna, Lin Chang, and Fola May — who gave me the confidence to switch to the research track, and have helped me tremendously in carving this path. With their guidance and the division's support, I was able to pursue a research fellowship in the National Research Service Award program at UCLA and get connected to mentors in palliative care research (Drs. Anne M. Walling and Neil S. Wenger), who were on my PhD dissertation committee and have continued to provide guidance over the past 10 years. I even had the opportunity to integrate a transplant hepatology fellowship at the Icahn School of Medicine at Mount Sinai during my training, which gave me dedicated exposure to leaders in palliative care and ethics at Mount Sinai and The Hastings Center. Following training, the division was able to provide abundant resources, including protected time to do research, a startup package, and time from a dedicated senior statistician, which gave me the ability to receive a career development award and apply for my own independent grants. What sets UCLA and our division apart from others is their unending support for innovation and success of their trainees. I feel uniquely privileged to have the career that I have because of this vision."

Elizabeth Videlock, MD, PhD

Health Sciences Assistant Clinical Professor of Medicine

"I am deeply grateful for the invaluable support I received from the division, the Department of Medicine, and the STAR program — their commitment to nurturing early-career researchers has been pivotal to my success. My career path has evolved significantly over time, resulting in a longer journey than initially anticipated. This extended process allowed me to grow both personally and professionally. The resources, protected time, and mentorship I received during this time were essential for me to successfully compete for funding. The dedication to nurturing early-career researchers is further exemplified by the division's support of the Goodman-Luskin Microbiome Center, which provides an ecosystem conducive to the growth of young investigators interested in clinical, translational, and basic research focused on the gut-brain axis. UCLA has long been a leader in both the field of the brain-gut axis and in neuroscience research, which has made it an ideal setting to establish a research career focusing on the GI tract in Parkinson's disease."

Carrie R. Wong, MD, PhD

Health Sciences Assistant Clinical Professor of Medicine

"As a former UCLA gastroenterology, transplant hepatology, and STAR fellow, I had the privilege to train in one of the most diverse and robust clinical settings in the country as I pursued advanced training in health services research. I credit the research skills and experiences gained during my doctoral training to the opportunities fostered by the UCLA GI Fellowship Program and division. I had the opportunity to work closely with and learn from esteemed public health and health services researchers from across campus. Through my education, I have learned to translate my clinical experiences into conceptually sound and methodologically robust research to improve health outcomes for individuals with chronic liver disease. Under the leadership of Drs. Eric Esrailian and Lin Chang, the level of support from this division is truly unique, and I feel very fortunate to have stayed at UCLA as an early-career clinician-investigator."

New California Institute for Immunology and Immunotherapy at UCLA Ramps Up with Major Gift, Affiliation Agreement, and CEO Search

L-R (Founding Donors): Dr. Gary Michelson, Meyer Luskin, Dr. Eric Esrailian, Dr. Arie S. Belldegrun, Michael Milken

The new California Institute for Immunology and Immunotherapy (CIII) at UCLA, a historic undertaking in which the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases will play an integral role, continues to ramp up.

By bringing together top scientific scholars from across the UCLA campus, new recruitments of leading researchers from around the world, and industry experts, CIII will create a nexus for discovery and innovation toward the goal of spurring breakthrough discoveries that prevent and cure diseases — while catalyzing economic growth in the region and the State of California. The institute will be housed at the new UCLA Research Park, a state-of-the-art, 700,000-square-foot property located two miles south of UCLA's Westwood campus at the site of the former Westside Pavilion.

The innovative public-private partnership includes UCLA, the State of California — which has committed to investing $500 million in the institute — and a group of visionary founding donors from the biotechnology, academic, entrepreneurship, and philanthropic communities led by Meyer Luskin, Dr. Gary Michelson, Dr. Arie Belldegrun, Sean Parker, Michael Milken, and Dr. Eric Esrailian, chief of the Vatche and Tamar Manoukian Division of Digestive Diseases. Given immunology's central role in the GI tract in both health and disease, the division has been active in CIII's development and will remain at the forefront of its scientific efforts, with Dr. Esrailian serving as the founding president of the CIII's board of directors.

Last August, UCLA announced a commitment of $120 million from Dr. Michelson, a surgeon, inventor and philanthropist; and his wife, Alya, to kick-start CIII. The gift designates $100 million to establish two research entities within the institute, each funded by $50 million — one focusing on rapid vaccine development and the other on harnessing the microbiome to advance human health. The latter will be conducted in collaboration with the UCLA Goodman-Luskin

"With the support of both the State of California one of the world's top public universities, the CIII has the potential to be transformational and have its impact felt around the world for generations to come," says Dr. Esrailian.

Microbiome Center (GLMC), based in the division, making it among the world's largest microbiome research enterprises. An additional $20 million will establish an endowment to provide research grants to young scientists using novel processes to advance immunotherapy research, human immunology, and vaccine discovery.

"The extraordinary gift from my dear friends and partners Gary and Alya Michelson will make a tremendous difference in our continued growth in the exciting and promising area of microbiome research," Dr. Esrailian says. "There will be close coordination and collaboration between the scientific research and discovery within the GLMC and the CIII's potential commercial and entrepreneurial activities. This expands the reach of our microbiome research beyond the confines of the Goodman-Luskin Microbiome Center into UCLA Research Park, enabling us to recruit more scientists into the ecosystem given the additional space."

Dr. Michelson, a spine surgeon and prolific inventor who holds nearly 1,000 individual patents and is both a co-founder and chair of the CIII board, has said he envisions CIII becoming an "invention factory" through the synergy created by top investigators working in tandem with entrepreneurial and industry leaders on especially fertile scientific ground. "Immunology is the mediator of nearly all human diseases," Dr. Michelson says. "The vision for this institute is to become a 'field of dreams' — the world's leading center for the study of the immune system to develop advanced immunotherapies to prevent, treat, and cure all of the diseases that afflict people today and to end these diseases in our lifetime."

Another major recent development was the signing of a formal affiliation agreement between UCLA and the CIII founders, allowing the institute to take possession of the UCLA Research Park space, where it will serve as an anchor tenant. This milestone codified the governance structure and intellectual property agreement between the institute and the university. "Although this is a California institute, we are now in UCLA space," Dr. Esrailian says. "The affiliation agreement establishes a mutually beneficial relationship between the institute and the university, which is important given that our state is making this critical commitment. We believe that this landmark investment will be returned many times over by the development of new therapies and companies."

The UCLA Research Park acquisition followed two other major land expansions designed to extend UCLA's capacity to make an impact on the Southern California community. Facing space constraints as the smallest of the University of California's nine undergraduate campuses, UCLA purchased the 24.5 acres of the former Marymount California University in Rancho Palos Verdes and an 11-acre residential site in San Pedro in 2022, establishing the UCLA South Bay Campus. In 2023, UCLA purchased the historic Trust Building in Downtown Los Angeles to establish UCLA Downtown, which will be used for UCLA Extension and other purposes.

But beyond alleviating the problem of space shortage, UCLA Research Park is expected to become a hotbed of discovery and innovation through the proximity of researchers across wide-ranging disciplines working alongside each other and industry partners. In addition to CIII, the research park will house the multidisciplinary UCLA Center for Quantum Science and Engineering, among other programs. This quantum innovation hub, which will bring in engineers and physical scientists as well as many other disciplines, represents an additional attraction for potential public-private partnerships.

"We envision that companies will develop from within CIII, but existing companies will also want to partner and take space within the institute to work with the scientists who are there — and we already have prospective tenants who have expressed interest," Dr. Esrailian says. "It's the perfect environment to facilitate and accelerate innovation." He notes that conversations are ongoing regarding the location of CIII within the research park, as well as other specifics of space planning, in order to optimize these potential synergies.

CIII's leadership has launched a search for a founding CEO/director, with many of the top scientists and entrepreneurs from around the world expressing interest. "This will be an incredible opportunity to set the stage for the future," Dr. Esrailian says. "With the support of both the State of California and one of the world's top public universities, the CIII has the potential to be transformational and have its impact felt around the world for generations to come."

New Clinical Faculty Members

The Vatche and Tamar Manoukian Division of Digestive Diseases at UCLA is a national leader in gastrointestinal care and research with nearly 100 faculty clinicians and scientists in and across UCLA Health locations throughout the greater Los Angeles area.

Kasturi Banerjee, PhD | Clinical Health Psychologist
Health Sciences Clinical Instructor of Medicine

Dr. Banerjee is a licensed clinical health psychologist with a specialization in digestive diseases. She earned her PhD in clinical psychology with an emphasis on health from the University of Kansas. She completed her clinical internship with a focus on gastroenterology/hepatology, pain management, oncology and complex medical conditions at the University of Chicago Medicine. She continued her advanced training in gastroenterology and oncology during her clinical health psychology fellowship at California Pacific Medical Center in San Francisco, where she also worked with medical trainees for communication skills training.

Dr. Banerjee uses an integrated approach to address issues with coping and management of a variety of gastrointestinal issues. She works within a social-determinants-of-health framework and has a special interest in culturally-informed, brief behavioral health interventions. She is also interested in medical student education and promoting integrated, trauma-informed, multi-disciplinary care practices.

Kevork Khadarian, MD | Health Sciences Clinical Instructor of Medicine

Dr. Khadarian graduated with distinction from UCLA with a bachelor of science degree in microbiology, immunology and molecular genetics. He attended medical school at Albany Medical College in Upstate New York. He returned to Los Angeles to complete his internal medicine residency at LAC+USC Medical Center/Keck Hospital of USC, and then further specialized in gastroenterology and hepatology at Mayo Clinic in Arizona. While completing his fellowship, he also earned a certificate in health equity from ASU, and served as a clinical instructor at the Mayo Clinic Alix School of Medicine.

Dr. Khadarian practices general gastroenterology and hepatology. His clinical interests include the prevention, diagnosis and treatment of gastrointestinal malignancies, esophageal disorders, inflammatory bowel disease and obesity and nutrition, among others. His research focus is in hereditary and non-hereditary polyposis syndromes, as well as genetic testing approaches for hereditary cancer syndromes. He is an active member of the American Gastroenterological Association, American College of Gastroenterology and American Society of Gastrointestinal Endoscopy. Dr. Khadarian is board certified in internal medicine and gastroenterology.

Anthony Myint, MD | Health Sciences Clinical Instructor of Medicine

Dr. Myint received his undergraduate degree with honors in biochemistry from Brown University. He earned his medical degree from the Keck School of Medicine of USC and is a member of the Alpha Omega Alpha Honor Society. He completed his internal medicine residency, quality improvement fellowship and digestive diseases fellowship at UCLA. During his fellowship, he completed additional training in gastrointestinal motility and neurogastroenterology through the American Neurogastroenterology and Motility Society clinical training program.

Dr. Myint practices general gastroenterology, with particular interest in disorders of gastrointestinal motility and disorders of gut-brain interaction (including irritable bowel syndrome and functional dyspepsia). He is a member of the American Gastroenterological Association, the American College of Gastroenterology and the American Neurogastroenterology and Motility Society. Dr. Myint is board certified in internal medicine and gastroenterology.

B. Sean Nguyen, MD | Health Sciences Clinical Instructor of Medicine

Dr. Nguyen earned his undergraduate degree in integrated biology and physiology with a minor in global studies at UCLA. He earned his medical degree at USC, where he was elected a member of the Alpha Omega Alpha and Gold Humanism Honor Societies. He completed his internal medicine residency at UCLA and his gastroenterology and hepatology fellowship at UC Davis, where he was elected chief fellow.

Dr. Nguyen specializes in general gastroenterology and has clinical expertise in colorectal cancer screening and polypectomy, gastroesophageal reflux disease, motility disorders, functional bowel disorders/disorders of gut-brain interaction (functional dyspepsia, irritable bowel syndrome, chronic constipation), inflammatory bowel disease (Crohn's disease and ulcerative colitis), celiac disease, general hepatology and unsedated endoscopy. His clinical and research interests are in colorectal cancer prevention and global gastroenterology health.

He is a member of the American College of Gastroenterology, American Gastroenterological Association and American Society for Gastrointestinal Endoscopy. Dr. Nguyen is board certified in internal medicine and gastroenterology.

Devin B. Patel, MD | Health Sciences Clinical Instructor of Medicine

Dr. Patel graduated magna cum laude from the University of Scranton with a bachelor of science degree in biochemistry, cell and molecular biology. He earned his medical degree from the Sidney Kimmel Medical College at Thomas Jefferson University in Philadelphia. He completed his internal medicine residency at Cedars-Sinai Medical Center, where he served as a chief resident, followed by gastroenterology fellowship training at UCLA.

Dr. Patel practices general gastroenterology, with special interest in esophageal disorders, gastrointestinal motility and disorders of gut-brain interaction (including irritable bowel syndrome and functional dyspepsia). He also has clinical expertise in gastroesophageal reflux disease (GERD), inflammatory bowel disease, gastrointestinal bleeding and colon cancer screening. During his fellowship, Dr. Patel completed the American Neurogastroenterology and Motility Society clinical training program to learn the latest technologies and treatment options for gastrointestinal motility disorders under the mentorship of nationally recognized expert faculty.

Dr. Patel is board certified in internal medicine and gastroenterology. He is a member of the American College of Gastroenterology, American Gastroenterological Association, American Society for Gastrointestinal Endoscopy and American Neurogastroenterology and Motility Society.

Camille Soroudi, MD | Health Sciences Clinical Instructor of Medicine

Dr. Soroudi earned her bachelor of science degree in molecular and cellular biology with distinction from Johns Hopkins University and was inducted into the Phi Beta Kappa honor society. She then attended UCLA where she completed her medical degree, internal medicine residency, and digestive diseases fellowship. She was appointed the Melvin & Bren Simon Gastroenterology Quality Improvement scholar, leading research initiatives aimed at enhancing patient care. Her research focuses on colorectal cancer screening and delivering high-value care to patients.

Dr. Soroudi specializes in general gastroenterology, with expertise in managing a broad range of conditions including gastroesophageal reflux disease (GERD), peptic ulcer disease, other esophageal and gastric disorders, functional gastrointestinal disorders/disorders of the gut-brain axis (including IBS, chronic constipation and functional dyspepsia), inflammatory bowel disease (including ulcerative colitis and Crohn's disease), and colorectal cancer screening. She is skilled in performing endoscopy and colonoscopy. Dr. Soroudi has a particular interest in the clinical care of women with chronic gastrointestinal conditions.

Board certified in gastroenterology, Dr. Soroudi is committed to providing compassionate, comprehensive care tailored to each patient's needs. She is dedicated to building strong, trusting relationships with her patients to ensure optimal health outcomes.

Otis Stephen, MD, AGAF, FACG, FASGE | Director, Small Bowel Endoscopy Program Health Sciences Clinical Professor of Medicine

Dr. Stephen's clinical focus includes endoscopic therapy and imaging of the small bowel, treatment of overt and obscure GI bleeding, endoscopic management of small bowel Crohn's disease, management of non-IBD ulcerative small bowel diseases and capsule endoscopy. He has extensive experience and expertise in all methods of device-assisted enteroscopy, especially double-balloon enteroscopy, and in completion of previously failed colonoscopies. His research interests involve optimization of small bowel imaging and endoscopic access of the small intestine, medical therapies for non-IBD ulcerative small bowel diseases and the physiologic and enteric mucosal changes in surgically altered bowels.

Dr. Stephen earned a bachelor of science degree in physiological sciences at the University of California Los Angeles and a medical degree at The Ohio State University College of Medicine and Public Health. He completed his internal medicine residency training at Johns Hopkins University/Sinai Hospital and completed his gastroenterology and hepatology fellowship training at St. Louis University. He has trained numerous physicians in device-assisted enteroscopy and has helped multiple hospitals establish small bowel endoscopy programs. He has been an invited speaker for small bowel related topics at numerous conferences and medical institutions throughout the United States and internationally. He is a Fellow of the American Gastroenterological Association (AGAF), the American College of Gastroenterology (FACG), and the American Society for Gastrointestinal Endoscopy (FASGE).

Gaurav Syal, MD, MSHS | Health Sciences Associate Clinical Professor of Medicine

Dr. Syal received his medical degree from Jawaharlal Institute of Postgraduate Medical Education Research (JIPMER), Pondicherry, India. He completed an internal medicine residency and gastroenterology fellowship at University of Arkansas for Medical Sciences, Little Rock, AR, and advanced fellowship training in inflammatory bowel diseases at Cedars-Sinai Medical Center, Los Angeles. Following completion of his training, he served for five years on the clinical faculty at Cedars-Sinai Medical Center, where he spearheaded the multidisciplinary IBD J-pouch program. During this time, he also earned a master's degree in health systems science (MSHS) from Cedars-Sinai Medical Center. Prior to joining UCLA, he served as a health sciences associate clinical professor in the Division of Gastroenterology and Hepatology at UC San Diego.

Dr. Syal's clinical interest lies in the management of patients with complex IBD and inflammatory pouch disorders. As a member of the UCLA Center of Inflammatory Bowel Diseases, Dr. Syal will evaluate and treat patients with IBD and develop an integrated IBD surgery program in collaboration with colorectal surgery. His research interests are studying treatment outcomes in IBD with special focus on identifying predictors of disease behavior and evaluating novel therapies in inflammatory pouch disorders.

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UCLA Gastroenterology and GI Surgery placed #4 in the nation for the 2024-25 annual *U.S.News & World Report* rankings.

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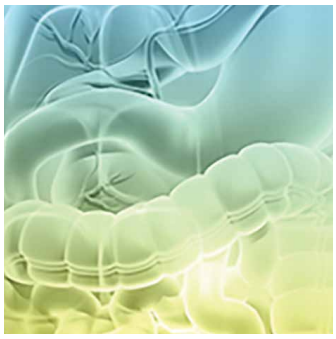

Live, virtual and in-person

13th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium

March 21–22

UCLA Meyer and Renee Luskin Conference Center

Registration: www.uclamellinkoffgisymposium.org

The 13th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium is an annual event designed for healthcare professionals to explore evidence-based and integrative approaches for treating common gastrointestinal disorders. Engage with leading experts through interactive discussions and panel sessions designed to enrich your clinical knowledge and skills. The 2025 program promises interactive, case-based presentations; latest literature updates; live endoscopy and video forum demonstrations; and hands-on training session.

Accreditation

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