

**UCLA** David Geffen School of Medicine

UCLA VATCHE AND TAMAR MANOUKIAN  
DIVISION OF DIGESTIVE DISEASES

**INAUGURAL**

# UCLA Comprehensive Liver Research Center Symposium

**GEFFEN HALL AT UCLA | IN-PERSON**



Friday, October 11, 2024 - 7:30 am - 5:30 pm

David Geffen Hall at UCLA, 885 Tiverton Drive, Los Angeles, CA 90024

(Lectures in Iris Cantor Auditorium 130; Posters, Reception, and Networking in B36)

*Posters are available for viewing throughout the symposium*

# Agenda

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## **7:30 - 8:10 am Breakfast / Networking**

- 8:10 - 8:20 am Welcoming Remarks  
Rajat Singh, MD, MBBS, UCLA; Vatche G. Agopian, MD, UCLA
- 8:20 - 9:00 am Keynote Lecture  
Hedgehogs to Humans  
Anna Mae Diehl, MD, FAASLD, Duke University
- 9:00 - 9:15 am Statin-Mediated Regulation of YAP/TAZ Activity in Hepatocellular Carcinoma  
Jihane N. Benhammou, MD, PhD, UCLA
- 9:15 - 9:30 am Impact of PPARA V227A Variant on Physiology and Lipid Metabolism  
Alexander H. Nguyen, MD, PhD, UCLA
- 9:30 - 10:00 am Hepatic Stellate Cells, MASH-Fibrosis, and Liver-On-A-Chip  
Ekihiro Seki, MD, PhD, Cedars-Sinai Medical Center

## **10:00 - 10:20 am Break**

- 10:20 - 10:50 am Liver Zonation and Sexual Dimorphism in Physiology and Disease  
Bruce Wang, MD, UCSF
- 10:50 - 11:05 am Identifying the Selective Autophagy Receptor for Lipid Droplet Turnover in Liver  
Debajyoti Das, PhD, UCLA
- 11:05 - 11:20 am Harnessing Bile Acids to Combat Fatty Liver Disease  
Alvin Chan, MD, MPH, UCLA
- 11:20 - 11:50 am Exploring New Mechanisms of Liver Disease: Is Magnesium the New Hepatic Player?  
Maria-Luz Chantar Martinez, PhD, CIC bioGUNE

## **11:50 am - 1:00 pm Lunch / Networking**

- 1:00 - 1:30 pm Matric Remodeling and HCC  
Natalie J. Török, MD, MSc, Stanford University
- 1:30 - 1:45 pm Crucial Role of Hepatic Nonvesicular Cholesterol Transport in Systemic Lipid  
Xu Xiao, PhD, UCLA
- 1:45 - 2:00 pm Organ-On-A-Chip: A System Emulating True-to-Life Human Biology  
Emeli Chatterjee, PhD, Harvard Medical School
- 2:00 - 2:15 pm Engaging Patients and Health Systems into Liver Disease Research  
Arpan A. Patel, MD, PhD, UCLA

## **2:15 - 2:35 pm Break**

- 2:35 - 3:05 pm The Interaction Between the Intestinal Microbiome and MASLD  
Bernd G. Schnabl, MD, UC San Diego
- 3:05 - 3:45 pm Novel Pathways to Fatty Liver Disease  
E. Dale Abel, MD, PhD, UCLA
- 3:45 - 3:50 pm Closing Remarks

## **3:50 - 5:30 pm Poster Session and Reception**

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## Center Director

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### **Rajat Singh, MD, MBBS**

Director, Comprehensive Liver Research Center at UCLA

Professor of Medicine

Vatche and Tamar Manoukian Division of Digestive Diseases

David Geffen School of Medicine at UCLA

Dr. Singh earned his MBBS degree at the Medical College of the University of Calcutta in 2000, and his MD at PGIMER, Chandigarh, India in 2004. He joined the lab of Dr. Mark Czaja at the Marion Bessin Liver Research Center of the Albert Einstein College of Medicine to pursue postdoctoral training in basic liver research. In the course of his postdoctoral research (in collaboration with Dr. Ana Maria Cuervo), Dr. Singh discovered the process of lipophagy, a previously unknown way cells degrade fat stores. After successful postdoctoral training with first-author papers in high-impact journals such as *Nature*, *Journal of Clinical Investigation*, *Hepatology*, and the *Journal of Biological Chemistry*, and supported by a K award, Dr. Singh started his own lab at Albert Einstein in 2010. Since then, his lab has demonstrated novel roles of autophagy in the regulation of food intake (*Cell Metabolism* 2011 and *EMBO reports* 2012), energy metabolism (*Cell Metabolism* 2016), cell signaling (*Nature Communications* 2013), and the circadian clock (*Cell Metabolism* 2018). The Singh Lab has also developed a novel feeding intervention that protects against fatty liver and type II diabetes in various mouse models of obesity and aging without the need to cut caloric intake (*Cell Metabolism* 2017). The Singh Lab intends to initiate a human study at UCLA testing the impact of two meals a day on liver and systemic metabolism. The Singh Lab is funded by three R01 grants, a P01, and an R56, as well as training grants to his students, including an F31 fellowship. Current projects in the Singh Lab investigate novel integrative mechanisms regulating liver and systemic metabolism in models of aging and obesity. Dr. Singh is a standing member of the CMAD study section at the NIH. His research interests include autophagy, liver lipid metabolism, mTOR signaling and aging.

## Center Co-Director

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### **Vatche G. Agopian, MD**

Co-Director, Comprehensive Liver Research Center at UCLA

Professor of Surgery and Pharmacology

Director, Dumont-UCLA Liver Cancer Center

Liver Transplantation and Hepatobiliary Surgery

Department of Surgery

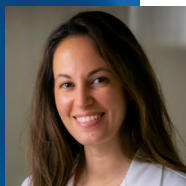
David Geffen School of Medicine at UCLA

Dr. Agopian is professor of surgery and pharmacology at the David Geffen School of Medicine at UCLA, and serves as the director of the Dumont-UCLA Liver Cancer Center, which includes a multidisciplinary team of hepatologists, medical oncologists, interventional radiologists, radiation oncologists, and interventional gastroenterologists in delivering evidence-based, state-of-the-art care to patients with primary and secondary liver malignancies. His clinical expertise is focused on liver transplantation and the surgical management of both benign and malignant conditions of the liver and bile ducts. Dr. Agopian is the principal investigator of a National Institutes of Health funded translational laboratory focused on the development of blood based biomarkers (“liquid biopsy”) for the early detection and prognostication of hepatocellular carcinoma- the most common primary liver malignancy. In this capacity, he has developed an extensive biorepository of blood and tissue samples from patients with liver cancer, cirrhosis, and healthy controls. He also serves as the Deputy Editor of Liver Transplantation, a leading journal in the field.

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# Course Co-Directors

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## **Jihane N. Benhammou, MD, PhD**

Assistant Clinical Professor of Medicine

Vatche and Tamar Manoukian Division of Digestive Diseases

David Geffen School of Medicine at UCLA

Dr. Benhammou completed her undergraduate studies at the University of Texas at Austin, with a major in human biology. She then completed medical school at University of California, San Francisco with a thesis in molecular medicine. Before starting her internship at the University of California, Los Angeles in internal medicine, Dr. Benhammou participated in a two-year intramural program at the National Cancer Institutes studying functional genomics and hereditary forms of kidney cancer. Dr. Benhammou went on to complete her internal medicine and gastroenterology training at UCLA. There, she received advanced research training in the UCLA Specialty Training and Advanced Research (STAR) program and NIH T32, which supported her graduate studies in the Department of Molecular, Cellular, and Integrative Physiology. Her doctoral dissertation addressed the clinical risk factors of NAFLD hepatocellular carcinoma and the molecular mechanisms at play in NAFLD pathogenesis. Following her PhD, Dr. Benhammou completed additional clinical training in transplant hepatology at UCLA. Dr. Benhammou joined the digestive diseases and hepatology faculty at UCLA and Greater Los Angeles VA where she will care for patients with chronic liver disease before and after liver transplantation. She will continue to pursue her research on NAFLD-associated hepatocellular carcinoma using clinical and translational research tools. She is board certified in internal medicine, gastroenterology and transplant hepatology.

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## **Claudio J. Villanueva, PhD**

Associate Professor, Integrative Biology and Physiology

Member of the Metabolism Theme at UCLA

College of Life Sciences

Dr. Villanueva studies transcriptional pathways involved in nutrient sensing, gene expression, and lipid metabolism. His research aims to understand the role of the adipose tissue in the physiological and pathophysiological adaptation to nutrient overload. The adipose tissue can undergo dramatic restructuring in obesity, where there is cellular infiltration of various immune cell types and depletion of progenitor cells that give rise to new adipocytes. The recruitment of new adipocytes to the adipose tissue is essential to maintain metabolic homeostasis. His lab aims to understand how metabolic programs are transcriptionally regulated to identify new strategies to treat metabolic diseases like diabetes. Dr. Villanueva's lab is in the metabolism theme space, a collaborative group of investigators that bring together clinical faculty with basic scientists studying the links between metabolism and health. The Metabolism Research Theme was recently launched at UCLA as a strategic research initiative to position investigators in a collaborative environment to confront the diabetes epidemic with new treatments and knowledge for prevention.

Dr. Villanueva is involved in several efforts that support institutional transformation to have a long-lasting impact on equity, diversity and inclusion. As an assistant professor at the University of Utah, he helped to start a SACNAS chapter that began with a few graduate students, and now has 50+ trainees that participate regularly. He received the Inclusive Excellence Award at the University of Utah for developing and implementing innovative recruitment practices for the Bioscience Graduate Program, which led to an increase in recruitment and enrollment of underrepresented students, from an average of 6% to 30%. Dr. Villanueva was recruited to UCLA as a mentor professor, a recruitment strategy to identify candidates with both an excellent research record and experience in supporting initiatives that support a diverse student body. Dr. Villanueva is co-director of the NIH funded IRACDA program that is designed to train postdocs to acquire faculty positions in biomedical research. This program trains postdoctoral fellows to use innovative pedagogical practices that can be implemented in college courses to increase retention of underrepresented groups in the sciences. He also leads the research mentor core for basic science for junior scientists at UCLA through LIFT-UP (Leveraging Institutional Support for Talented, Underrepresented Physicians and/or Scientists). He is also the faculty advisor for the MBI program and has been involved in several faculty hiring initiatives at UCLA. Dr. Villanueva has

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# Course Co-Directors

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made every effort to advocate for groups historically underrepresented in science and to develop an innovative research program.

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## **Carrie R. Wong, MD, PhD**

Assistant Clinical Professor of Medicine

Vatche and Tamar Manoukian Division of Digestive Diseases

Pfleger Liver Institute

Dumont-UCLA Liver Transplant Center

David Geffen School of Medicine at UCLA

Dr. Wong received her bachelor's degree in public health from the University of California, Berkeley and medical degree from Stony Brook University School of Medicine. She completed her clinical training in the Yale Traditional Internal Medicine Residency Program and gastroenterology and advanced transplant hepatology fellowships at UCLA. With the support from the UCLA Specialty Training and Advanced Research (STAR) Program and Ruth L. Kirshstein National Research Service Award T32 fellowship program, she completed her doctoral training in the Department of Health Policy and Management (Epidemiology Cognate) at the UCLA Fielding School of Public Health. Her dissertation focused on barriers to care among U.S. adults with chronic liver disease using national survey data. She is a clinician-investigator in the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases and UCLA Kaiser Permanente Center for Health Equity. Her work combines electronic health and survey data to identify and test potentially mutable multi-level barriers to improve earlier detection of steatotic liver disease particularly for groups with socioeconomic vulnerabilities.

# Keynote Speaker

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## **Anna Mae Diehl, MD, FAASLD**

Florence McAlister Professor of Medicine

Duke University

Dr. Diehl received her bachelor of science and MD degrees at Georgetown University in 1974 and 1978, respectively. She then moved to Johns Hopkins for her internship and residency in internal medicine from 1978-1981, followed by gastroenterology fellowship training from 1981-1984. She was a member of the US Army and had her first faculty appointment at the United State Health Services University from 1984-1987. After completing her military service, she joined the faculty at Georgetown University/Washington Veterans Administration Medical Center as an assistant professor of medicine/gastroenterologist in 1987. In 1990, she was recruited back to Johns Hopkins and rose through the ranks to become a tenured professor of medicine in 1997. She was recruited to Duke to chair the GI Division there in 2004, a position she held for the next decade.

Currently, Dr. Diehl is the Florence McAlister Professor of Medicine at Duke University. She is a physician scientist and clinical hepatologist. Her lab-based research activities focus on basic mechanisms of liver repair and complement her translational/clinical research programs in alcoholic- and nonalcoholic fatty liver disease. Dr Diehl's basic research program has enjoyed uninterrupted NIH RO1 support since 1990. She has been the principal investigator for the NASH CRN UO1 clinical research program at Duke since its inception almost 20 years ago. She is also the Duke PI for the Liver Cirrhosis UO1 Network that began in 2021.

Dr. Diehl is viewed internationally as an authority on liver regeneration and fatty liver disease. Her research contributions to the fields of regenerative medicine, alcohol-related liver disease and NAFLD have been acknowledged by election to membership in the American Society for Clinical Investigation and Association of Academic Professors, as well as awards such as an NIH/NIAAA Merit Award, the NIAAA Mendelson Award, the Duke Distinguished Faculty Award, and the AASLD Distinguished Scientific Achievement Award. She has also been the primary research mentor for over 70 individuals and received mentoring awards from Johns Hopkins, Duke and the AGA.

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# Invited Speakers

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## **Emeli Chatterjee, PhD**

AHA-SFRN Clinical Research Fellow

Cardiovascular Research Center, Massachusetts General Hospital

Harvard Medical School

Dr. Chatterjee completed her PhD in molecular and cell biology, specializing in the molecular mechanisms of cardiac hypertrophy and metabolism during detraining, from the University of Calcutta, India in 2020.

After that, she joined Dr. Saumya Das's lab at the Cardiovascular Research Center of Massachusetts General Hospital/Harvard Medical School to pursue postdoctoral training. In the course of her postdoctoral research, Dr. Chatterjee has been serving as an American Heart Association (AHA) – SFRN Clinical Research Fellow. Her research focuses on identifying and characterizing plasma and tissue-specific extracellular vesicles as potential biomarkers for cardiovascular diseases. Dr. Chatterjee's work spans from studying molecular biology of cardiac hypertrophy to exploring cardiometabolic and cardiorenal diseases. She leverages Organ-On-Chip platforms and mice models in her research. Dr. Chatterjee has contributed to multiple scholarly publications which include *JCI Insights*, *Circulation*, *BBA Molecular Basis of Disease*, *Journal of Biological Chemistry*, *Antioxidants* and *Redox Signaling*, etc.

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## **Maria-Luz Martinez Chantar, PhD**

Group Leader Liver Disease

Professor of Medicine

Center for Cooperative Research in Biosciences (CIC bioGUNE)

Professor Martinez-Chantar has an extensive experience in the study of liver biology and disease with a high-level track of productivity in the 1st decile journals like *Nature Communications*, *Cell Metabolism*, *Hepatology*, *Journal of Hepatology*, and *Gastroenterology*. She has been continuously supported by competitive public and private funding, both national and international, including NIH. She coordinates the translational area of the National Institute for the study of liver and gastrointestinal diseases and is in the SAB of the Molecular Medicine Center Nice, IDIVAL and IDIBAPS. She shows extensive participation in different networks (CibereHD, Women in Hepatology: International Consortium, Hepamet Registry, MetaboCancer Excellence Network and diverse EU COST actions). Her contracts with pharmas, as AGIOS, Mitotherapeutix, Takeda or Silence Therapeutics, led to five patent applications and four licensed products. Her collaboration with OWL Metabolomics led to the development of OWLiver® Care and OWLiver®, non-invasive assays for NASH diagnosis.

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## **Bernd G. Schnabl, MD**

Director, San Diego Digestive Diseases Research Center

Professor of Medicine

Division of Gastroenterology

University of California, San Diego

Staff Physician, VA San Diego Medical Center

Dr. Schnabl is a trained gastroenterologist and physician-scientist. He is professor of medicine in the Department of Medicine at the University of California San Diego and the founding director of the NIH-supported San Diego Digestive Diseases Research Center (SDDRC). He earned his MD degree from the University of Freiburg in Germany. After finishing his residency in internal medicine, he completed a gastroenterology fellowship

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# Invited Speakers

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at Columbia University in New York City. His research focus is to understand the complex multi-directional interactions that occur between the gut microbiota and the liver. Dr. Schnabl has published over 240 papers and was listed by Thomson Reuters/Clarivate as one of the most Highly Cited Researchers (top 1%) in 2019, 2021-22. He received the Biocodex Microbiota Foundation Award in 2018, a MERIT Award from the NIH in 2021, a Senior Clinician Scientist Investigator Award from the Department of Veterans Affairs in 2021, and the Harrington Scholar-Innovator Award in 2022. He is an elected member of the American Society for Clinical Investigation (ASCI) and the Association of American Physicians (AAP). Dr. Schnabl is the principal investigator of a VA Merit Award, several NIH, foundation and industry-sponsored grants. He serves as associate editor for *Journal of Hepatology*.

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## **Ekihiro Seki, MD, PhD**

Director of Basic Liver Research, Cedars-Sinai Medical Center

Professor of Medicine, Karsh Division of Gastroenterology and Hepatology, Department of Medicine

Professor of Medicine-in-Residence

David Geffen School of Medicine at UCLA

Professor, Department of Biomedical Science Education

Charles Drew University College of Medicine

Dr. Seki received his medical degree at Hyogo College of Medicine followed by the residency and clinical training as a gastroenterological-hepatobiliary surgeon in Japan. After finishing his graduate studies, he started his postdoctoral training and conducted basic research on liver fibrosis at Columbia University under the mentorship of Dr. David A. Brenner. Dr. Seki's early and subsequent independent studies identified Toll-like receptors and gut microbial products LPS and bacterial DNA as playing major roles in fatty liver and liver fibrosis development. He is one of the pioneer researchers to demonstrate the concept of the gut-liver axis in liver diseases. After he started his own laboratory and promoted to associate professor at University of California San Diego, in 2014 he moved his laboratory to Cedars-Sinai Medical Center, Los Angeles. At Cedars-Sinai, he identified a fibrosis biomarker hyaluronan produced from hepatic stellate cells is the trigger and can be a therapeutic target for liver fibrosis. His seminal works studying TLR4 and extracellular matrix hyaluronan produced by HAS2 in liver fibrosis have been published in *Nature Medicine* in 2007 and *Science Translational Medicine* in 2019. His research work determined fatty liver-derived extracellular vesicles promote liver metastasis. This new study has been published in *Cell Metabolism*. He published over 150 peer-reviewed articles that are highly cited over 22,000 times. Based on this recognition, he received several awards, including American Liver Foundation (ALF) postdoctoral fellowship, American Association for Study of Liver Disease (AASLD)/ALF Fellow Research Prize, AASLD/ALF Liver Scholar Award, and Winnick Research Award from Cedars-Sinai.

Dr. Seki is a former associate editor of *Hepatology Communications*, and currently an editorial board member of *Hepatology*, and *Cellular and Molecular Gastroenterology and Hepatology*. He is currently a standing member of NIH HBPP study section. Dr. Seki is also a member of the American Society for Clinical Investigation, the Association of American Physicians, and a Fellow Member for AGA and AASLD.

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# Invited Speakers

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**Natalie J. Török, MD, MSc**

Vice Chair, Research  
Director, T32 Program  
Professor of Medicine  
Division of Gastroenterology and Hepatology  
Stanford University

Dr. Török has graduated with an MD degree from the Semmelweis School of Medicine in Budapest, Hungary. Subsequently she obtained an MSc degree in cellular and molecular biology at the Laval University, in Quebec, Canada. She pursued post-doctoral training with Dr. Mark McNiven at the Mayo Clinic, Rochester, then completed her residency training and fellowship at Mayo, mentored by Dr. Greg Gores. She moved to UC Davis and rose to the ranks of professor. In 2018 she moved to Stanford/VA Palo Alto. She is currently the vice chief for Research in the Division of Gastroenterology and Hepatology at Stanford University, and the VA Palo Alto, and the director of the T32 Program.

Her laboratory has been focusing on the mechanism of liver fibrogenesis and matrix remodeling in metabolic dysfunction steatohepatitis (MASH)-related hepatocellular carcinoma and on primary sclerosing cholangitis. Her goal is to uncover how biomechanical characteristics of the extracellular matrix affect mechano-sensation, and how these pathways could ultimately be targeted. Her lab is also interested in aging, stellate cell biology, matrix and its effects on metabolic pathways in MASH and HCC. Her lab has published papers in *Hepatology*, *Gastroenterology*, *JCI*, and most recently in *Nature*.

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**Bruce Wang, MD**

Associate Professor of Medicine, Division of Gastroenterology  
Liver Center  
University of California, San Francisco

Dr. Wang received his MD and completed his clinical training in internal medicine and gastroenterology at UCSF. He completed a postdoctoral fellow at Stanford with Roel Nusse on Wnt signaling. His laboratory focuses on characterizing and understanding the mechanisms that establish and maintain cellular heterogeneity in the liver, with the goal of improving our understanding of liver disease pathophysiology. His lab has generated single cell resolution tissue atlases of the mouse and human liver using a combination of single cell RNA sequencing and multiplexed single molecule fluorescence in situ hybridization. This has revealed novel insights into functional heterogeneity of liver cells based on spatial location, sex, and age. They are now extending these findings into mouse models of liver injury and human liver diseases. Dr. Wang also has a clinical research program focused on the porphyrias, a group of inherited disorders in the heme biosynthesis pathway. He is the director of the UCSF Porphyria Center, the main referral center for porphyria patients on the west coast and is a principal investigator in the Porphyrias Consortium, a NIH-funded rare disease consortium.

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# UCLA Speakers

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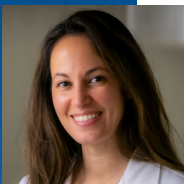


## **E. Dale Abel, MD, PhD**

William S. Adams Distinguished Professor of Medicine  
Chair and Executive Medical Director  
Department of Medicine  
David Geffen School of Medicine and UCLA Health

Dr. Abel graduated with Distinction from the University of the West Indies School of Medicine, obtained a DPhil from Oxford University as a Rhodes Scholar, trained in internal medicine at Northwestern University, where he was chief resident and in endocrinology at the Beth Israel Deaconess Medical Center, Harvard Medical school. Dr. Abel has had a distinguished career in endocrine, metabolism and cardiovascular research. His pioneering work on glucose transport and mitochondrial metabolism launched his current research interests: molecular mechanisms responsible for cardiovascular complications of diabetes. Dr. Abel has published more than 250 peer reviewed publications in competitive journals, his work has been highly cited and has shaped much of current understanding of the metabolic mechanisms underlying heart failure, particularly in obesity and diabetes. Dr. Abel is the recipient of numerous awards for scholarship and mentorship, including awards and endowed lectureships such as the Fred Conrad Koch Lifetime Achievement Award of the Endocrine Society, the 2018 African American Museum of Iowa History Makers Award. He is an elected member of the American Association of Physicians (AAP), the American Society for Clinical Investigation (ASCI), the American Clinical and Climatological Association (ACCA), the National Academy of Medicine (NAM) and the National Academy of Sciences (NAS). He is past president of the Endocrine Society and the Association of Professors of Medicine.

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## **Jihane N. Benhammou, MD, PhD**

Assistant Clinical Professor of Medicine  
Vatche and Tamar Manoukian Division of Digestive Diseases  
David Geffen School of Medicine at UCLA

Dr. Benhammou completed her undergraduate studies at the University of Texas at Austin, with a major in human biology. She then completed medical school at University of California, San Francisco with a thesis in molecular medicine. Before starting her internship at the University of California, Los Angeles in internal medicine, Dr. Benhammou participated in a two-year intramural program at the National Cancer Institutes studying functional genomics and hereditary forms of kidney cancer. Dr. Benhammou went on to complete her internal medicine and gastroenterology training at UCLA. There, she received advanced research training in the UCLA Specialty Training and Advanced Research (STAR) program and NIH T32, which supported her graduate studies in the Department of Molecular, Cellular, and Integrative Physiology. Her doctoral dissertation addressed the clinical risk factors of NAFLD hepatocellular carcinoma and the molecular mechanisms at play in NAFLD pathogenesis. Following her PhD, Dr. Benhammou completed additional clinical training in transplant hepatology at UCLA. Dr. Benhammou joined the digestive diseases and hepatology faculty at UCLA and Greater Los Angeles VA where she will care for patients with chronic liver disease before and after liver transplantation. She will continue to pursue her research on NAFLD-associated hepatocellular carcinoma using clinical and translational research tools. She is board certified in internal medicine, gastroenterology and transplant hepatology.

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# UCLA Speakers

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## **Alvin Chan, MD, MPH**

Clinical Instructor, Pediatric Gastroenterology  
STAR Fellow, Tarling-Vallim Laboratory  
David Geffen School of Medicine at UCLA

Dr. Chan is an assistant professor in the Division of Pediatric Gastroenterology at UCLA. He earned his medical degree from the University of California, Irvine, and later obtained a Master of Public Health from the Harvard Chan School of Public Health. He completed both his pediatric residency and pediatric gastroenterology fellowship at UCLA. Currently, he is a PhD candidate in the laboratory of Drs. Elizabeth Tarling and Thomas Vallim, where he is studying the role of bile acids in metabolic disease. His research focuses on how modulations in bile acid homeostasis contribute to fatty liver disease.

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## **Debajyoti Das, PhD**

Postdoctoral Scholar, Singh Laboratory  
Vatche & Tamar Manoukian Division of Digestive Diseases  
David Geffen School of Medicine at UCLA

Dr. Das earned his PhD in biophysics, molecular biology, and bioinformatics from the University of Calcutta at the CSIR-Indian Institute of Chemical Biology in 2022. He subsequently joined the lab of Dr. Rajat Singh at the David Geffen School of Medicine at UCLA for postdoctoral training.

Dr. Das has made significant contributions to understanding proteasome dysfunction, redox metabolism, and liver injury in nonalcoholic steatohepatitis (NASH), with his research published in high-impact journals such as *Redox Biology*, *Diabetes*, the *FASEB Journal*, and *iScience*, as the first author.

His robust research foundation has been further enriched by prestigious fellowships, including a research fellowship at the Center for Cardiovascular and Metabolic Disease Research (CARDIOMED) at the Institute of Genomics and Integrative Biology in New Delhi, India, the Narasingha Das Dey Scholarship from the vice-chancellor of the University of Calcutta, and a PhD Fellowship from the University Grant Commission of India. Dr. Das also received the highly coveted National Award from the Endocrinology Society of India for his thesis entitled, “Unravelling the role of hepatokines in nonalcoholic fatty liver disease NAFLD.”

In addition to his research, Dr. Das actively contributes to the scientific community as a peer reviewer for journals such as *Cell Death & Disease* and *Technology in Cancer Research & Treatment*. He has shared his insights at numerous international seminars and symposiums, including the Liver Meeting (AASLD) and the Kern Lipid Conference.

Dr. Das's current projects at UCLA aim to elucidate novel mechanisms regulating liver and systemic metabolism in models of aging and obesity, with a focus on metabolic-associated steatotic liver disease (MASLD). His recent work on “Identifying the selective lipophagy receptor for lipid droplet turnover in liver” is of crucial importance for the unique recognition and degradation of lipid droplets in lysosomes. His expertise in post-translational modifications and liver lipid metabolism continues to pave the way for innovative therapeutic strategies. Dr. Das is also actively involved in setting up the spatial multi-omics core for the Comprehensive Liver Research Centre at UCLA.

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# UCLA Speakers

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## **Alexander H. Nguyen, MD, PhD**

Assistant Professor of Medicine

Vatche and Tamar Manoukian Division of Digestive Diseases

David Geffen School of Medicine at UCLA

Dr. Nguyen received his bachelor's degree in molecular and cell biology from the University of California, Berkeley. Through the Tri-Institutional MD-PhD Program, he earned his medical degree from Weill Cornell Medical College and doctoral degree from The Rockefeller University where he studied metabolic mechanisms that drive colorectal cancer metastasis. Dr. Nguyen completed his internal medicine residency and gastroenterology fellowship at UCLA followed by post-doctoral research studying the regulation of lipid metabolism. His fellowship research was supported by the UCLA Specialty Training and Advanced Research (STAR) program and a NIH T32 UCLA GI training grant. In 2023, Dr. Nguyen joined the faculty at the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases. He was awarded an Emerging Generation Award from the American Society for Clinical Investigation, the Research Scholar Award from the American Gastroenterological Association, and a K08 Clinical Investigator Award from NIDDK. His goal is to understand lipid regulation in the liver to better diagnose and treat steatotic liver disease.

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## **Arpan A. Patel, MD, PhD**

Assistant Clinical Professor of Medicine

Vatche and Tamar Manoukian Division of Digestive Diseases

David Geffen School of Medicine at UCLA

Dr. Patel earned his bachelor of science at Pennsylvania State University and received his medical degree from Jefferson Medical College, where he graduated summa cum laude and was awarded membership in Alpha Omega Alpha (AOA) and the Gold Humanism Honor Society (GHHS). He completed his internship and residency at the Hospital of the University of Pennsylvania before beginning his fellowship training at the Vatche and Tamar Manoukian Division of Digestive Diseases at UCLA in 2014. During fellowship, Dr. Patel joined the UCLA Specialty Training and Advanced Research (STAR) and the NRSA (National Research Service Award) T32 Primary Care Research Fellowship programs through the Department of Medicine. This support allowed him to complete a PhD in health policy and management through the Fielding School of Public Health at UCLA in 2020. His thesis focused on describing advance care planning in patients with decompensated cirrhosis at liver transplant centers. Dr. Patel also completed additional clinical training in transplant hepatology at the Icahn School of Medicine at Mount Sinai from 2018 to 2019. During this year, he was awarded the opportunity to serve as a visiting scholar at the Hastings Center. In 2020, Dr. Patel joined the faculty at the UCLA Vatche and Tamar Manoukian Division of Digestive Diseases as an assistant clinical professor of medicine. Dr. Patel's research focuses on describing, measuring and improving the quality of palliative care delivered to patients with serious liver-related illnesses, as well as its effect on their caregivers. He has particular interests in improving communication regarding goals of care, caregiver burden, symptom management and end of life care. In 2018, he was the recipient of the Advanced/Transplant Hepatology Fellowship Award, which provided funding for his project, "Improving Advance Care Planning in End Stage Liver Disease." Dr. Patel's research has been published in a number of journals, including *JAMA Internal Medicine*, *Annals of Internal Medicine*, *Hepatology*, *Clinical Gastroenterology and Hepatology*, *Journal of Pain and Symptom Management*, *Liver Transplantation*, *Clinical Liver Diseases*, and *Digestive Diseases and Sciences*. He is an active member of the American Association for the Study of Liver Diseases (AASLD) and the American Academy of Hospice and Palliative Medicine (AAHPM).

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# UCLA Speakers

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## **Xu Xiao, PhD**

Assistant Project Scientist, Tontonoz Laboratory  
Department of Pathology and Laboratory Medicine  
David Geffen School of Medicine at UCLA

Dr. Xu Xiao earned his PhD in biochemistry and molecular biology from the Shanghai Institute of Biochemistry and Cell Biology (SIBCB), Chinese Academy of Sciences (CAS), under the mentorship of Professor Bao-Liang Song. Dr. Xiao joined the lab of Professor Peter Tontonoz at UCLA for his postdoctoral training, where he investigated intracellular cholesterol metabolism using unique mouse models. His research focused on the physiological and pathological roles of cholesterol transport, contributing to several high-impact publications in journals such as *Nature Metabolism*, *Journal of Clinical Investigation*, and *Molecular Cell*.

In 2023, Dr. Xiao continued his research at UCLA as an assistant project scientist. His research aims to elucidate the molecular mechanisms of cellular lipid metabolism and their contributions to diseases such as fatty liver disease, cardiovascular disease, obesity, and diabetes. Notably, Dr. Xiao has explored the critical role of hepatic nonvesicular cholesterol transport in systemic lipid homeostasis and the critical role of nonvesicular cholesterol transport in estradiol synthesis and female obesity. Additionally, Dr. Xiao has developed inhibitors that can distinguish between vesicular and nonvesicular sterol transport mechanisms in mammalian cells, further advancing our understanding of lipid metabolism.

Dr. Xiao's work has earned him several prestigious awards, including the George J. Popjak Fellowship in Research Related to Atherosclerosis from UCLA in 2023 and Postdoctoral Researcher Award from the American Society for Biochemistry and Molecular Biology (ASBMB) in 2024. Dr. Xiao's research is supported by several grants, AHA Postdoctoral Fellowship in 2018 and UCDS-UCLA Diabetes Research Center, Pilot and Feasibility Projects in Endocrinology & Diabetes. He is an active member of professional societies such as the ASBMB, the American Association for the Study of Liver Diseases (AASLD), and the American Heart Association (AHA). Dr. Xiao also serves as a reviewer for prominent journals, including *Cell Metabolism*, *Nature Metabolism*, and *PNAS*.

Currently, Dr. Xiao is investigating novel integrative mechanisms regulating lipid metabolism in various models of metabolic diseases. His dedication to advancing the understanding of intracellular lipid transport pathways and their therapeutic potential combines extensive training in lipid research with a passion for uncovering the intricate mechanisms of lipid metabolism.

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