

WHAT THE FUTURE HOLDS FOR NASH:

An Augmented Reality Look into Disease Staging and Targeted Therapies



**Marriott
Copley Place
Salon A-E**

#futureofNASH

www.cmeoutfitters.com/futureofNASH

Sunday, November 10, 2019

Dinner: 6:30 PM – Symposium: 7:00 PM – 8:30 PM

Provided by: **CME
Outfitters** 

Presented for attendees of the 70th AASLD Annual Meeting. This event/function is sponsored by CME Outfitters, LLC and supported by Intercept Pharmaceuticals, Inc. This is not an official function/event of the American Association for the Study of Liver Diseases.

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FACULTY



Zobair M. Younossi, MD, MPH, FACP, FACG, AGAF, FAASLD (Chair)

Chairman, Department of Medicine
Professor of Medicine, Inova Fairfax Hospital
Fairfax, VA



Rohit Loomba, MD, MHSc

Director, NAFLD Research Center
Director of Hepatology
Professor of Medicine, Vice Chief, Division of Gastroenterology
University of California, San Diego
San Diego, CA



Mazen Nouredin, MD, MHSc

Director, Fatty Liver Program
Division of Digestive & Liver Diseases
Comprehensive Transplant Center
Cedars Sinai Medical Center
Los Angeles, CA

LEARNING OBJECTIVES

At the end of this CME/CE activity, learners should be able to:

- Describe the role of immune, inflammatory, and metabolic pathways in the pathogenesis of NASH.
- Select appropriate non-invasive and invasive modalities for the identification of advanced fibrosis in patients with NAFLD.
- Evaluate the efficacy of emerging therapies for improving fibrosis in patients with NASH.

The following learning objectives pertain only to those requesting CNE/CPE credit:

- Describe the role of immune, inflammatory, and metabolic pathways in the pathogenesis of NASH.
- Determine appropriate non-invasive and invasive modalities for the identification of advanced fibrosis in patients with NAFLD.
- Evaluate the efficacy of emerging therapies for improving fibrosis in patients with NASH.

TARGET AUDIENCE

Hepatologists, gastroenterologists, endocrinologists, diabetologists, primary care physicians, physician assistants, nurse practitioners, nurses, and pharmacists.

FINANCIAL SUPPORT

Supported by an educational grant from Intercept Pharmaceuticals, Inc.

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This CME Outfitters symposium will feature expert faculty integrating augmented reality to discuss pathways, therapeutic targets, and disease progression, providing learners with an engaging visual experience to enable them to integrate the latest tools for diagnosis and management of patients with NASH.

MORE INFORMATION



For more detailed information on this symposium visit

www.cmeoutfitters.com/futureofNASH

ACCREDITATION STATEMENTS

CME Credit (Physicians): CME Outfitters, LLC, is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. CME Outfitters, LLC, designates this live activity for a maximum of 1.5 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Note to Physician Assistants: AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit*[™] from organizations accredited by the Accreditation Council for Continuing Medical Education.

CNE Credit (Nurses): Provider approved by the California Board of Registered Nursing, Provider Number CEP 15510, for 1.5 contact hours.

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CPE Credit (Pharmacists): CME Outfitters, LLC, is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. 1.5 contact hours (0.15 CEUs)

Universal Activity #: 0376-0000-19-038-L01-P
Type: Knowledge-based

ABIM MOC: Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 1.5 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

MIPS Improvement Activity: This activity counts towards MIPS Improvement Activity requirements under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Clinicians should submit their improvement activities by attestation via the CMS Quality Payment Program website.



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Zobair M. Younossi, MD, MPH, FACP, FACG, AGAF, FAASLD (Chairman)

Chairman, Department of Medicine
Professor Medicine, Inova Fairfax Hospital
Fairfax, VA

BIOGRAPHY

Dr. Younossi earned his medical degree from the University of Rochester School of Medicine and Dentistry (Alpha Omega Alpha 1989) in Rochester, NY, USA. He completed his residency in internal medicine with a fellowship in gastroenterology and hepatology at Scripps Clinic and Research Foundation in La Jolla, California, USA, while earning his Master of Public Health degree from San Diego State University School of Public Health, San Diego, California, USA. He served as Staff Hepatologist and Senior Researcher at the Cleveland Clinic Foundation, Cleveland, Ohio, USA, before establishing the Center for Liver Diseases at Inova Fairfax Hospital, which is now renowned for research related to non-alcoholic fatty liver disease (NAFLD) and outcomes research in liver disease. He has served as Vice President of Research for Inova Health System and currently serves as the President and Chairman of the Board of Trustees of the Chronic Liver Disease Foundation (2018-Present) and the Board of Inova Health System Foundation (2011-Present). He was appointed by Governors T. Kaine and B. McDonnell of Virginia to the Board of Directors of Virginia Biotechnology Research Partnership Authority (2008-2014). He also served Virginia Tobacco & Health Research Repository (VTHRR), Board of Directors, American Heart Association, Mid-Atlantic Affiliate (2010-2012) and Board of the American College of Gastroenterology Institute for Clinical Research & Education (2013-Present). Finally, he has served on multiple committees for American Association for the Study of Liver Diseases, American College of Gastroenterology, American Gastroenterological Association and George Mason University. Finally, he has served on numerous committees at Inova Fairfax Hospital and Inova Health System.

Dr. Younossi pioneered research in NAFLD and has been a leader in the field of patient-reported outcomes (PROs), economic assessment and other areas of outcomes research in liver disease. He leads a number of international efforts related to NAFLD and PROs in liver disease through global collaborations, including the Chair of Global NASH Council and the Global Liver and NASH Registries. In addition to research and administrative duties, Dr. Younossi has been actively involved in teaching students, residents and fellows. He has also served as Chair, Director or faculty of a number international scientific and CME related courses.

Dr. Younossi specializes in hepatology and gastroenterology and has authored over 510 articles, 3 books, 6 journal supplements, over 25 book chapters and over 800 abstracts at the international scientific meetings. He is highly sought-after speaker providing over 420 faculty lectures in national and international meetings. His academic productivity has led to an H-index of 82. Dr. Younossi also serves as the co-editor of *Liver International*, associate editor of *Journal of Hepatology* and on the editorial board of a number of important medical journals. He has represented the American Association of Liver Disease and American Gastroenterological Association at different congressional meetings.

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Rohit Loomba, MD, MHS

Director, NAFLD Research Center
Director of Hepatology
Professor of Medicine, Vice Chief, Division of Gastroenterology
University of California, San Diego
San Diego, CA

BIOGRAPHY

Dr. Loomba is a Professor of Medicine (with tenure) and Director of Hepatology at the University of California at San Diego. He is an internationally recognized thought leader in translational research and innovative clinical trial design in nonalcoholic steatohepatitis (NASH), and non-invasive assessment of NAFLD using advanced imaging modalities.

Dr. Loomba is the founding director of the UCSD NAFLD Research Center where his team is conducting cutting edge research in all aspects of NAFLD including non-invasive biomarkers, genetics, epidemiology, clinical trial design, imaging end-points, and integrated OMICs using microbiome, metabolome and lipidome. This integrated approach has led to several innovative applications such as establishment of MRI-PDFF as a non-invasive biomarker of treatment response in early phase trials in NASH, which has now been adopted in 25 clinical trials conducted worldwide. He has conducted seminal trials such as the MOZART Trial being the first trial in NASH with comprehensive MRI as well as 2D and 3D MRE assessment paired with liver biopsies in NASH. This has led to the incorporation of MRE in more than 10 clinical trials worldwide.

His research is funded by the National Institutes of Health including R01 and U01 grant mechanisms, American Gastroenterological Association, National Science Foundation, as well as several investigator initiated research projects funded by the industry. He is the Principal Investigator for adult hepatology for the NIDDK-sponsored NASH Clinical Research Network and serves as the elected Chair of the NAFLD, Special Interest Group of the American Association for the Study of Liver Diseases.

UCSD NAFLD Center follows one of the largest cohort of patients with biopsy-proven and imaging-quantified NAFLD in the world and is a hub for novel biomarker development in NASH and liver fibrosis.

Dr. Loomba has published more than 200 manuscripts and has an H-index of 63. He serves on the editorial board of *Gastroenterology*, *Journal of Hepatology*, *GUT* and *Nature Reviews in Gastroenterology and Hepatology*. He is the deputy editor of *HEPATOLOGY*, the official journal of the AASLD.

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Mazen Nouredin, MD, MHSc

Director, Fatty Liver Program
Division of Digestive & Liver Diseases
Comprehensive Transplant Center
Cedars Sinai Medical Center
Los Angeles, CA

BIOGRAPHY

Dr. Nouredin is the founding director of Cedars-Sinai's Fatty Liver Program in Los Angeles, California. The research of Dr. Nouredin focuses on the underlying mechanisms of non-alcoholic fatty liver disease (NAFLD) and non-alcoholic steatohepatitis (NASH), new imaging modalities, non-invasive biomarkers, and exploring new treatments. He has conducted several original studies that have been featured in publications in *Gastroenterology*, *Journal of Hepatology*, *Gut*, *Hepatology*, *The American Journal of Gastroenterology*, and many others. The Fatty Liver Program at Cedars-Sinai is conducting a number of breakthrough studies and clinical trials targeting new therapies in patients NAFLD and NASH, including those with advanced fibrosis and cirrhosis.

OBTAINING CREDIT

Learners must complete the posttest and evaluation on the iPads. CME Outfitters will email their certificates within 30 days to the email provided upon login to the iPad audience response system.

DOWNLOADABLE RESOURCES

Downloadable resources are available at
www.cmeoutfitters.com/NASHresources



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Dr. Younossi reports that he receives research support from Bristol-Myers Squibb Company; Gilead Sciences, Inc. and Intercept Pharmaceuticals, Inc. He serves as a consultant for Gilead Sciences, Inc.; Intercept Pharmaceuticals, Inc.; Novo Nordisk; Siemens; Terns Pharmaceuticals, Inc. and Viking Therapeutics.

Dr. Looma reports his institution has received grant support from Allergan, Boehringer-Ingelheim, Bristol-Myers Squibb Company; Cirus Therapeutics; Eli Lilly and Company; Galectin Therapeutics Inc.; Galmed Pharmaceuticals Ltd.; GE Healthcare Life Sciences; Genfit; Gilead Sciences, Inc.; Intercept Pharmaceuticals, Inc.; GRAIL, Inc.; Janssen Pharmaceuticals, Inc.; Madrigal Pharmaceuticals, Inc.; Merck & Co., Inc.; NGM Biopharmaceuticals; NuSirt Biopharma; Pfizer Inc.; pH Pharma Co., Ltd.; Prometheus Laboratories Inc. and Siemens. He is a consultant or advisory board member for Arrowhead Pharmaceuticals, Inc.; AstraZeneca; Bird Rock Bio; Boehringer Ingelheim; Bristol-Myer Squibb Company; Celgene Corporation; Cirus Therapeutics; CohBar, Inc.; Conatus Pharmaceuticals Inc.; Eli Lilly and Company; Galmed Pharmaceuticals Ltd.; Gemphire Therapeutics Inc.; Gilead Sciences, Inc.; Glympse Bio; GNI Group Ltd.; GRI Bio; Intercept Pharmaceuticals, Inc.; Ionis Pharmaceuticals, Inc.; Janssen Pharmaceuticals, Inc.; Merck & Co., Inc.; Metacrine, Inc.; NGM Biopharmaceuticals; Novartis Pharmaceuticals Corporation; Novo Nordisk; Pfizer Inc.; Prometheus Laboratories Inc.; sanofi-aventis U.S. LLC; Siemens; and Viking Therapeutics, Inc. He is co-founder of Liponex, Inc.

Dr. Nouredin reports that he receives research support from Allergan; Bristol-Myers Squibb Company; Conatus Pharmaceuticals Inc.; Enanta Pharmaceuticals, Inc.; Galectin Therapeutics Inc.; Galmed Pharmaceuticals; GENFIT; Gilead Sciences, Inc.; Novartis; Shire and Zydus Pharmaceuticals, Inc. He is on the advisory board or speakers bureau for Abbott; Allergan; Blade Therapeutics; Echosens North America; Gilead Sciences, Inc.; Intercept Pharmaceuticals, Inc.; Novartis; OWL; Pfizer Inc.; and Simply Speaking, Inc. He is a stock shareholder (directly purchased) of Viking Therapeutics and Ananetos.

Tony Graham, MD (peer reviewer) has no disclosures to report.

Mae Ochoa, Rph (peer reviewer) has no disclosures to report.

Kavitha Ramachandran, PhD (planning committee) has no disclosures to report.

Jan Perez (planning committee) has no disclosures to report.

Sharon Tordoff (planning committee) has no disclosures to report.

Disclosures were obtained from the CME Outfitters, LLC staff: No disclosures to report.

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1. Get Connected

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** Please note that this network is a local network and does NOT mean you're connected to the internet.*
- Once you have joined the network, go to arraylearn.com.
- You are now connected to the symposium. All content and polling questions can be viewed on your device as long as you are connected to the network listed above.

2. Ask a Question to the Faculty

- Please click on “Ask a Question” and type your question. Please include the faculty member’s name if the question is specifically for him or her. Your question will be sent to the faculty for the question and answer portion of the session.

3. View and Take Notes on Presentation Slides

- Please click on the “**Take a Slide Note**” button. If you did not enter your email address when you joined the meeting, you will be required to do so for note-taking. When the meeting is complete, all your notes will be emailed to you within five business days.

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