

22nd LIVER SINUSOID MEETING



ISHSR
International Society for
HEPATIC SINUSOIDAL RESEARCH

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UNIVERSITY OF ILLINOIS AT CHICAGO
APRIL 24-26

SCIENTIFIC PROGRAM

WEDNESDAY April 24 2024

13:00-13:15	Conference opening Prof. Natalia Nieto, University of Illinois-Chicago, USA (ISHSR President)
13:15-14:00	Keynote address Liver disease at the single-cell resolution level Sonya MacParland, Toronto General Hospital Research Institute, Toronto, Canada
14:00-17:00	SYMPOSIUM 1: The immune microenvironment in liver disease progression and resolution Chairs: Natalia Nieto & Frank Tacke
14:00-14:15	Role of osteoponin-high macrophages in MASH Natalia Nieto, University of Illinois at Chicago, Chicago, IL, USA
14:15-14:30	Liver macrophage changes induced by cessation of alcohol drinking in a mouse model of alcohol-associated liver disease Steven Weinman, University of Kansas Medical Center, Kansas City, KS, USA
14:30-14:45	Resolvin D1 mitigates inflammation and apoptosis in MASH and leads to hepatic fibrosis resolution. Amaia Navarro-Corcuera, Division of Liver Diseases, Icahn School of Medicine at Mount Sinai, New York, NY, USA
14:45-15:00	Macrophage heterogeneity and reduced inflammatory potential in human hepatocellular carcinoma revealed by single cell and spatial transcriptomics Jawairia Atif, University of Toronto, Ontario, Canada
15:00-15:15	DISCUSSION
15:15-15:30	COFFEE BREAK
15:30-15:45	Understanding the immune microenvironment in chronic liver diseases Frank Tacke, Department of Hepatology and Gastroenterology, Charité University Medical Center, Berlin, Germany
15:45-16:00	STING-mediated neutrophil infiltration promotes inflammation in primary sclerosing cholangitis Abid Anwar, University of Illinois Chicago, Chicago, IL, USA
16:00-16:15	Exercise therapy drives metabolic benefits on MASH via modulating hepatic regulatory T-cells Xiaorong Guo, Feinstein Institute of Medical Research, Manhasset, NY, USA
16:15-16:30	Dissecting the mechanisms shaping liver macrophages in metabolic liver disease Ziyi Meng, University of Michigan, Ann Arbor, MI, USA
16:30-16:45	DISCUSSION
16:45-17:00	BREAK
17:00-18:45	SYMPOSIUM 2: Endothelial cell signaling in liver disease Chairs: Samar Ibrahim & Jordi Gracia-Sancho
17:00-17:15	Endothelial cell signaling in liver disease

	Samar Ibrahim, Division of Pediatric Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN, USA.
17:15-17:30	Mechanosensitive self-fueling vascular Wnt controls liver function Ki Hong Lee, European Center for Angioscience, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany
17:30-17:45	Hepatic LSECtin reduction contributes to proinflammatory T helper 17 cell expansion in patients with decompensated cirrhosis. Esther Caparrós, Hepatic and Intestinal Immunobiology Group, Clinical Medicine Department, Miguel Hernández University, San Juan de Alicante, Alicante, Spain
17:45-18:00	Sinusoidal cells in the pathophysiology of CLD and aging Jordi Gracia-Sancho, Liver Vascular Biology Research Group, IDIBAPS, Barcelona, Spain
18:00-18:15	A preliminary investigation of the liver's role in the elimination of Aβ40 Glen Lockwood, The ANZAC Research Institute, Concord Repatriation General Hospital, Concord, Australia
18:15-18:30	Vascular endothelial PGC1α suppresses metabolic dysfunction-associated steatotic liver disease Shaluah Vijeth, University of Illinois at Chicago, Chicago, IL, USA
18:30-18:45	DISCUSSION
18:45-20:00	POSTER VIEWING/RECEPTION

THURSDAY April 25 2024

08:15-09:15	SYMPOSIUM 3: Cell-fate tracing in liver disease Chair: David A Brenner
08:15-08:30	Cell fate tracing in liver disease Tatiana Kisseleva, University of California at San Diego, CA, USA.
08:30-08:45	HCC heterogeneity: the hepatocyte of origin affects liver cancer phenotype Alan McLachlan, University of Illinois at Chicago, Chicago, IL, USA
08:45-09:00	Determining the role of plasticity factors in human liver regeneration Marta Cagna, Berlin Institute of Health at Charité, BIH Centre for Regenerative Therapies, Berlin, Germany
09:00-09:15	DISCUSSION
09:15-09:30	BREAK
09:30-10:45	SYMPOSIUM 4: Intercellular communication in liver disease Chairs: Salman Khetani & Nissim Hay
09:30-09:45	Engineering approaches for modeling cell-cell interactions in liver physiology and disease Salman Khetani, University of Illinois at Chicago, Chicago, IL, USA.
09:45-10:00	Liver fibrosis is governed by histone lactylation Nissim Hay, University of Illinois at Chicago, Chicago, IL, USA
10:00-10:15	A novel role of exosomal MAT2A in the development of colorectal liver metastases Monica Justo, Cedars Sinai Medical Center, Los Angeles, CA, USA
10:15-10:30	Expression of LSEC markers in patients with different NAS scores and fibrosis stages using multispectral imaging microscopy and AI applications

	Joseph Gosnell, University of Texas Medical Branch at Galveston, TX, USA
10:30-10:45	DISCUSSION
10:45-11:00	COFFEE BREAK
11:00-13:30	SYMPOSIUM 5: Interorgan communication in liver disease Chairs: Cristina Llorente & Waddah Alrefai
11:00-11:15	Interorgan communication in chronic liver disease Cristina Llorente, University of California at San Diego, CA, USA
11:15-11:30	Gut-derived ammonia contributes to the development of alcohol-associated liver disease by inducing ER stress in the liver Zhenyuan Song, University of Illinois at Chicago, Chicago, IL, USA.
11:30-11:45	Intestinal epithelial cell osteopontin protects from MASH by changing the composition of the gut microbiome and bile acids Hui Han, University of Illinois at Chicago, Chicago, IL, USA
11:45-12:00	Gut-liver axis revisited: protective role of lymphangiogenesis in portal hypertension and cirrhosis Savneet Kaur, Institute of Liver and Biliary Sciences, New Delhi, India
12:00-12:15	DISCUSSION
12:15-12:30	BREAK
12:30-12:45	The roles of cholesterol absorption in alcohol-associated liver disease Waddah Alrefai, University of Illinois at Chicago, Chicago, IL, USA
12:45-13:00	Neutrophil extracellular traps induce hepatocyte pyroptotic and necroptotic death in a novel multi-organ damage model of alcohol-induced ACLF Marti Ortega Ribera, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
13:00-13:15	TGFβ2 upregulation on reactive cholangiocytes limits the therapeutic efficacy of TGFβ trap RAP-1332 in mouse models of chronic biliary injury and fibrosis Pinzhu Huang, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
13:15-13:30	DISCUSSION
13:15-15:30	POSTER VIEWING/LUNCH
15:30-15:45	SYMPOSIUM 6: Cellular stress in liver disease Chairs: Richard Green & Bryan Layden
15:30-15:45	Oxidative stress and sumoylation: a new important asset in liver health Maria Lauda Tomasi, Cedars-Sinai Medical Center, Los Angeles, CA, USA.
15:45-16:00	Hepatic X-box binding protein (XBP1) in cholestatic liver disease Richard Green, Northwestern University, Chicago, IL, USA
16:00-16:15	Liver-specific HKDC1 contributes to whole-body glucose homeostasis Bryan Layden, University of Illinois at Chicago, Chicago, IL, USA
16:15-16:30	HKDC1: An emerging player in the progression of MASH Wasim Khan, University of Illinois at Chicago, Chicago, IL, USA
16:30-16:45	DISCUSSION

16:45-17:00	BREAK
17:00-17:15	Pathogenic role of hepatocyte PPARγ in MASLD and MASH Jose Cordoba-Chacon, University of Illinois at Chicago, Chicago, IL, USA
17:15-17:30	ABL kinases in Liver Pathogenesis Wei Qiu, Loyola University, Chicago, IL, USA
17:30-17:45	Expression of glycolytic genes in NAFLD correlates with the risk of hepatocyte dysfunction Samantha Harvat, University of Nebraska at Lincoln, NE, USA
17:45-18:00	Phosphorylation of ubiquitin-conjugating enzyme 9 regulates de-novo lipogenesis in alcohol-associated liver disease Swati Chandla, Cedars-Sinai Medical Center, Los Angeles, CA, USA
18:00-18:15	DISCUSSION
FRIDAY April 26 2024	
08:00-10:00	SYMPOSIUM 7: Metabolic stress in liver disease Chairs: Anna Mae Diehl & Carol A. Casey
08:00-08:15	Morphogens, metabolism, and MASLD Anna Mae Diehl, Duke University, Durham, NC, USA
08:15-08:30	Loss of CDKN1A protects against metabolic stress in MASLD/MetALD Alejandro Hionides, Complutense University, Madrid, Spain
08:30-08:45	A novel role of STARD10 in ERBB2-mediated lipogenesis in alcohol-associated liver disease Manisha Dagar, Cedars-Sinai Medical Center, Los Angeles, CA, USA
08:45-09:00	Loss of hepatocyte growth hormone receptor promotes ductular reaction and fibrosis that is reduced by STAT5b Mercedes del Rio-Moreno, Research and Development Division, Jesse Brown Veterans Affairs Medical Center, Chicago, IL, USA
09:00-09:15	Growth arrest and DNA damage-inducible 45α (GADD45A) differentially regulate fibrogenesis in humans and mice Nipuni Barupala, Indiana University, Indianapolis, IN, USA
09:15-09:30	Effect of fasting and high carbohydrate diet on histone acetylation turnover in mice liver. Andrea Arias-Alvarado, Northeast Ohio Medical University, Rootstown, OH, USA
09:30-09:45	MASH-associated reprogramming of hepatocyte cell state and signaling revealed by single nucleus RNA sequencing Sheryl Qiu, Life Sciences Institute, University of Michigan, Ann Arbor, MI, USA
09:45-10:00	DISCUSSION
10:00-10:15	BREAK
10:15-11:30	SYMPOSIUM 8: The fibrotic ECM environment in liver disease Chairs: Robert Schwartz & Sri Kidambi
10:15-10:30	High-fidelity organoid culture models recapitulating the fibrotic ECM microenvironment in liver disease.

	Robert Schwartz, Weill Medical College of Cornell University, New York, NY.
10:30-10:45	Multicellular diseased tissue ensembles (MEDIATE) to investigate cell-cell communication in chronic liver disease Sri Kidambi, University of Nebraska at Lincoln, NE, USA
10:45-11:00	Exploration of the matrisome composition of hepatocellular carcinoma and cirrhosis unravels a cancer-specific extracellular matrix Romain Desert, University of Illinois at Chicago & Inserm, Strasbourg, France
11:00-11:15	Matrisome gene-based subclassification of patients with liver fibrosis identifies clinical and molecular heterogeneities Wei Chen, University of Illinois at Chicago & Experimental and Translational Research Center, Beijing Friendship Hospital, Capital Medical University, Beijing, China
11:15-11:30	DISCUSSION
11:30-11:45	BREAK
11:45-13:30	SYMPOSIUM 9: Mechanisms driving liver repair Chairs: Valerie Gouon-Evans & Jordi Gracia-Sancho
11:45-12:00	Liver repair using lipid nanoparticle-complexed nucleoside-modified mRNA Valerie Gouon-Evans, Boston University, Boston, USA
12:00-12:15	Use of a nanocarrier for effective siRNA delivery to liver sinusoid endothelial cells Lara Westwood, University of Sydney, Australia
12:15-12:30	Transplantation of human iPSC-derived liver sinusoidal endothelial cells in an acute liver injury mouse model as a cell therapy for improving liver regeneration Dilnar Mahmut, Boston University, Boston, MA, USA
12:30-12:45	DISCUSSION
12:45-13:30	AWARDS AND ANNOUNCEMENT OF THE 2026 MEETING Prof. Natalia Nieto, University of Illinois-Chicago, USA (Outgoing ISHSR President) Prof. Jordi Gracia-Sancho, Liver Vascular Biology Research Group, IDIBAPS, Barcelona, Spain (Incoming ISHSR President)