KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

MEETING CHANGE TO VIRTUAL: Fatty Liver Disease and Multi-System Complications
(X5)

Scientific Organizers: Jay D. Horton, Morris J. Birnbaum and Hannele Yki-Järvinen
Supported by the Directors’ Fund

Hepatobiliary Cancers: Pathobiology and Translational Advances (X6)
Scientific Organizers: Alphonse E. Sirica, Gregory J. Gores and Lopa Mishra
March 21-24, 2021 • Fairmont Hotel Vancouver • Vancouver, BC, Canada
Supported by the Directors’ Fund

Scholarship Deadline: December 9, 2020 / Abstract Deadline: January 5, 2021 / Discounted Registration Deadline: January 20, 2021

MONDAY, MARCH 22
Welcoming Remarks and Keynote Session (Joint) (8am Denver/Mountain Time Start)
*Jay D. Horton, University of Texas Southwestern Medical Center, USA
*Alphonse E. Sirica, Virginia Commonwealth University, USA
Helen H. Hobbs, University of Texas Southwestern Medical Center, USA
[NOT AVAILABLE ON DEMAND] PNPLA3’s Role in NAFLD
Hashem B. El-Serag, Baylor College of Medicine, USA
Changing Epidemiological Trends in Non-Alcoholic Fatty Liver Disease versus Viral-Associated Hepatobiliary Cancers

Non-Alcoholic Fatty Liver Disease, Liver Inflammation and Fibrogenesis in the Pathogenesis of Hepatobiliary Cancers (Joint) (9:10am Denver/Mountain Time Start)
*Jay D. Horton, University of Texas Southwestern Medical Center, USA
*Alphonse E. Sirica, Virginia Commonwealth University, USA
Lopa Mishra, George Washington University, USA
A TGF-ß-ALDH2 Axis in Obesity, Metabolic Syndrome, and HCC
Maria Rescigno, Humanitas University, Italy
The Gut-Liver Axis in Liver Cancer Risk Conditions
Daniel A. Heller, Memorial Sloan Kettering Cancer Center, USA
Lipid Dysregulation in Inflammation, NASHD, and Cancer
Juan R. Sanabria, Marshall University/Case Western Reserve University, USA
Short Talk: The α1-Na/K-ATPase/Src-p/Pi3K Pathway Modulates the Survivin-SMAC Apoptotic “Switch” in NASH Related Hepatocellular Carcinoma: A Translational Study

Career Roundtable (Joint) (12:30pm Denver/Mountain Time Start)
Kendra K. Bence, Pfizer Inc., USA
Augusto Villanueva Rodriguez, Icahn School of Medicine at Mount Sinai, USA
Xin Wei Wang, NCI, National Institutes of Health, USA

Poster Session 1 (Joint) (2pm Denver/Mountain Time Start)
Genetics of NAFLD (3pm Denver/Mountain Time Start) (EK28)
*Jay D. Horton, University of Texas Southwestern Medical Center, USA
*Henry N. Ginsberg, Columbia University Vagelos College of Physicians and Surgeons, USA
Elizabeth K. Speliotes, University of Michigan, USA
Use of GWAS to Identify SNPs Associated with NAFLD

Noura S. Abul-Husn, Icahn School of Medicine at Mount Sinai, USA
Genomics and Liver Disease in Diverse Populations: From Biobanks to Patients
Karthickeyan Chella Krishnan, University of Cincinnati, USA
Short Talk: Mouse and Human Population Studies Revealed Sex-Specific Roles of Liver Pyruvate Kinase in Promoting NAFLD/NASH
Mohammad Kabbani, Rockefeller University, USA
Short Talk: Human Hepatocyte PNPLA3 148M Exacerbates Rapid Non-Alcoholic Fatty Liver Disease Development in Chimeric Mice
Ester Dohnalkova, Mayo Clinic, USA
Short Talk: Hepatocyte-Specific Deletion of ROCK1 Prevents Liver Inflammation and Fibrosis in Murine Nonalcoholic Steatohepatitis
Neil A. Youngson, Institute of Hepatology, UK
Short Talk: Acetyl-CoA Metabolism Drives Epigenome Change in Steatosis Leading to Widespread Abnormal Transcription and DNA Damage

Tumor Microenvironment and Hepatobiliary Cancers (3pm Denver/Mountain Time Start) (EK29)
*Lopa Mishra, George Washington University, USA
Silvia Affo, Columbia University, USA
Role of Cancer Associated Fibroblasts in Cholangiocarcinoma
Amaia Lujambio, Icahn School of Medicine at Mount Sinai, USA
Mechanisms of Immune Escape in Hepatocellular Carcinoma
Alphonse E. Sirica, Virginia Commonwealth University, USA
The Desmoplastic Reaction and Intrahepatic Cholangiocarcinoma Progression: CAFs, Select Molecular Drivers, and Prognostic Implications
*Gregory J. Gores, Mayo Clinic, USA
Targeting the Tumor Microenvironment for Cholangiocarcinoma Therapy

Yuhua Xue, University of Pittsburgh, USA
Short Talk: p-Ezrin (Thr567) Synergizes with Akt Signaling to Accelerate Yap Mediated Cholangiocarcinogenesis but Correlates with a Favorable Prognosis in Human Intrahepatic Cholangiocarcinoma(ICC) Patients

Wen-Xing Ding, University of Kansas Medical Center, USA
Short Talk: SQSTM1/p62 Inhibits whereas Nrf2 Promotes Tumorigenesis by Inducing Cell Population Remodeling and Metabolic Reprograming in Mouse Livers with mTORC1 Activation and Defective Autophagy

Haichuan Wang, University of California, San Francisco, USA
Short Talk: Requirement of Hippo Signaling Cascade during AXIN1 Mutation Driven Hepatocarcinogenesis
Juan Pablo Unfried, University of Navarra, Spain
Short Talk: Long Non-Coding RNA NIRCOLE Promotes the DNA Damage Repair of Hepatocellular Carcinoma Cells

* Session Chair † Invited but not yet accepted     Program current as of August 2, 2021. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.
NAFLD and CVD (5:10pm Denver/Mountain Time Start) (EK28)

*Henry N. Ginsberg*, Columbia University Vagelos College of Physicians and Surgeons, USA
The AAA ATPase Torsin A, a New, Potent Player in VLDL Secretion, NAFL, and NASH

*Jay D. Horton*, University of Texas Southwestern Medical Center, USA
Molecular Mediators of NAFLD and Hyperlipidemia

Tuesday, March 23

Role of Lipids in NAFLD (8am Denver/Mountain Time Start) (EK28)

Mitchell A. Lazar, Perelman School of Medicine, University of Pennsylvania, USA
Circadian Contributions to NAFLD

*Catherine Postic*, INSERM Institut Cochin, France
Altered Insulin Signaling and Glucose Toxicity in NAFLD

*Hannele Yki-Järvinen*, University of Helsinki, Finland
Effects of Genetic Risk Factors for NAFLD on Hepatic Lipid Metabolism

Eran Elinav, Weizmann Institute of Science, Israel
Host Microbiome Interactions in Health and Disease

HongMin Ni, University of Kansas Medical Center, USA
Short Talk: Lack of VMP1 Impairs Hepatic Lipoprotein Secretion and Promotes Nonalcoholic Steatohepatitis in Mice

Joanne Hsieh, Columbia University, USA
Short Talk: Sexually Dimorphic Mechanisms of Action of TFC39B in Hepatic Lipoprotein Lipase Expression

Xiao-Wei Chen, Peking University, China
Short Talk: An ER Lipid Scramblase (ELS) Safeguards Lipoprotein Biogenesis and Lipid Homeostasis

Zhaoyue Zhang, Princeton University, USA
Short Talk: Serine Catabolism Generates NADPH to Support Hepatic Lipogenesis

Hepatobiliary Cancer Biomarkers and Molecular Subtypes (8am Denver/Mountain Time Start) (EK29)

*Gregory J. Gores*, Mayo Clinic, USA

*Alphonse E. Sirica*, Virginia Commonwealth University, USA

Yujin Hoshida, UT Southwestern Medical Center, USA
Liver Cancer Risk-Predictive Molecular Biomarkers Specific to Clinico-Epidemiological Contexts

Augusto Villanueva Rodriguez, Icahn School of Medicine at Mount Sinai, USA
Liquid Biopsy in Hepatobiliary Cancers

Jessica Zucman-Rossi, University Paris Descartes-HEGP, France
Mechanisms of Liver Carcinogenesis Define Specific Molecular and Phenotypic HCC Subgroups

Jesper Boje Andersen, University of Copenhagen, Denmark
Defining Distinct Subtypes of Intrahepatic Cholangiocarcinoma by Molecular Profiling: Diagnostic, Prognostic, and Therapeutic Applications

Robert F. Schwabe, Columbia University, USA
Discovery of Subgroup-Specific HCC Master Regulators by Systems Biology Approaches

Kerstin Seidel, Genentech, USA
Short Talk: Notch Inhibition Regresses Progenitor-Like HCCs by Inducing Hepatocyte Differentiation through Controlling C/EBPα Expression and HNF4α Activity

Sungjin Ko, University of Pittsburgh, USA
Short Talk: NOTCH-YAP1/TEAD-DNMT1 Axis Drives Hepatocyte Reprogramming into Intrahepatic Cholangiocarcinoma

Meet the Editors (Joint) (12:30pm Denver/Mountain Time Start)

Elena Bellafante, Med - Cell Press, UK
Francesco Giovinazzo, Frontiers Journals, Italy
Xin (Cindy) Sun, Journal of Experimental Medicine at Rockefeller University Press, USA

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Pathways to NASH (3pm Denver/Mountain Time Start) (EK28)

*Morris J. Birnbaum*, Pfizer Inc., USA
Mark A. McNiven, Mayo Clinic, USA
Lipid Droplet Formation and Lipophagy in Fatty Liver Disease

*Tobias Walther*, Harvard/HHMI, USA
Lipid Droplet Biology in NAFLD

Annelise Poss, University of Utah, USA
Short Talk: Ceramides as Mediators of Endoplasmic Reticulum Stress in NASH

Kahealani Uehara, University of California, Irvine, USA
Short Talk: Activation of Hepatic mTORC1 Protects Against NASH via Dual Regulation of VLDL- TAG Secretion and De Novo Lipogenesis

Sabine Daemen, Washington University in St. Louis, USA
Short Talk: The Hepatic Crown-like Structure in NASH: A Nexus between Monocyte-Derived Macrophages, Hepatic Stellate Cells, and Tissue Fibrosis

* Session Chair † Invited but not yet accepted

For the most up-to-date details, visit [https://www.keystonesymposia.org](https://www.keystonesymposia.org).
Emerging Therapies for NASH (8am Denver/Mountain Time Start) (EK28)

*Hannele Yki-Järvinen*, University of Helsinki, Finland
*Morris J. Birnbaum*, Pfizer Inc., USA

**Greg Steinberg**, McMaster University, Canada
**Kendra K. Bence**, Pfizer Inc., USA
**Lei Ling**, NGM Biopharmaceuticals, USA

Therapeutic FGF19 in Non-Alcoholic Steatohepatitis

Inhibition of Fructose Metabolism for the Treatment of NAFLD

Role of ATP Citrate Lyase (ACLY) in NASH and HCC

Combination Therapies for NASH Cirrhosis

DGAT2 Inhibition for NASH

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Closing Remarks (10:50am Denver/Mountain Time Start) (EK28)

Networking Lounge (Joint) (11am Denver/Mountain Time Start) (EK29)