

An AACR Special Conference in Cancer Research  
**Advances in the Pathogenesis and Molecular Therapies of Liver Cancer**

May 5-8, 2022 | Westin Copley Place | Boston, MA

**Conference Cochairs:**

Richard S. Finn, Geffen School of Medicine at UCLA, Santa Monica, CA  
Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY  
Jessica Zucman-Rossi, Cordeliers Research Center at INSERM, Paris, France

**THURSDAY, MAY 5, 2022**

**Registration**

3:30 pm-7:30 pm

**Welcome and Opening Remarks**

6:30 pm-6:45 pm

Richard S. Finn, Geffen School of Medicine at UCLA, Santa Monica, CA  
Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY  
Jessica Zucman-Rossi, Cordeliers Research Center at INSERM, Paris, France

**Opening Keynote Lecture**

6:45 pm-7:30 pm

*Session Chair: Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY*

6:45-6:50 Introduction  
Josep M. Llovet

6:50-7:30 **Molecular drivers in hepatocellular carcinoma: The story of what we know and what are we missing**  
Jessica Zucman-Rossi, Cordeliers Research Center at INSERM, Paris, France

**Opening Reception**

7:30 pm-9:00 pm

**FRIDAY, MAY 6, 2022**

**Continental Breakfast**

7:00 am-8:00 am

**Plenary Session 1: Molecular Pathogenesis of Hepatocellular Carcinoma**

8:00 am-10:00 am

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*Session Chair: Jessica Zucman-Rossi, Cordeliers Research Center at INSERM, Paris, France*

- 8:00-8:30 **The good and the bad sides of tertiary lymphoid structures in liver cancer**  
Eli Pikarsky, The Hebrew University of Jerusalem, Jerusalem, Israel
- 8:30-9:00 **Polyploidy, DNA damage response driver or gatekeeper of chronic liver diseases**  
Chantal Desdouets, Cordeliers Research Center at INSERM, Paris, France
- 9:00-9:30 **Computational identification of targetable dependencies in hepatocellular carcinoma (HCC) associated with hepatitis B virus (HBV) replication\***  
Huat Chye Lim, University of California San Francisco, San Francisco, CA
- 9:30-10:00 **PMEPA1 has an oncogenic role in the context of TGF- $\beta$  signaling in hepatocellular carcinoma\***  
Marta Pique-Gili, Icahn School of Medicine at Mount Sinai, New York, NY

**Break** 10:00 am-10:30 am

**Plenary Session 2: Inflammation and Liver Cancer**

10:30 am-12:30 pm

*Session Chair: Michael Karin, University of California at San Diego, La Jolla, CA*

- 10:30-11:00 **Metabolic control of HCC development**  
Michael Karin
- 11:00-11:30 **Immune mechanisms driving carcinogenesis in NASH**  
Matthias Heikenwälder, German Cancer Research Center, Heidelberg, Germany
- 11:30-12:00 **Mechanisms of immune escape in hepatocellular carcinoma**  
Amaia Lujambio, Icahn School of Medicine at Mount Sinai, New York, NY
- 12:00-12:15 **Pretreatment immune cell composition and checkpoint ligand expression define the response to immunotherapy in advanced HCC: a study using single-cell sequencing\***  
Sarah Cappuyns, University Hospitals Leuven, Leuven, Belgium
- 12:15-12:30 **CRISPR lipid nanoparticle modulates the tumor immune microenvironment of liver metastases by genetically eliminating M2 polarization pathway in macrophages\***  
Tyler Galbraith, Houston Methodist Research Institute, Houston, TX

**Lunch on Own** 12:30 pm-2:45 pm

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**Plenary Session 3: Risk Factors, Surveillance, and Molecular Detection**

2:45 pm-4:45pm

*Session Chair: Hashem B. El-Serag, Baylor College of Medicine, Houston, TX*

- 2:45-3:15 **Epidemiology and emerging risk factors in liver cancer**  
Hashem B. El-Serag
- 3:15-3:45 **Surveillance for HCC in at-risk populations: Current perspectives and future directions**  
Amit Singal, UT Southwestern Medical Center, Dallas, TX
- 3:45-4:15 **Role of liquid biopsy in early detection and assessment of response in HCC**  
Augusto Villanueva, Icahn School of Medicine at Mount Sinai, New York, NY
- 4:15-4:45 **Molecularly-derived prognosis in HCC: truncal mutations vs acquired aberrations defining outcome**  
Jean-Charles Nault, INSERM, Paris, France

**Poster Session / Reception**

5:30 pm-7:30 pm

**SATURDAY, MAY 7, 2022**

**Continental Breakfast**

7:00 am-8:00 am

**Plenary Session 4: Molecular Targeted Therapies in HCC**

8:00 am-9:45 am

*Session Chair: Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY*

- 8:00-8:30 **Molecular targeted therapies for advanced HCC**  
Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY
- 8:30-9:00 **Prognostic and predictive biomarkers for cabozantinib in HCC**  
Lorenza Rimassa, Humanitas University, Rozzano, Italy
- 9:00-9:30 **FDA perspective on accelerated and regular approvals in HCC and cholangiocarcinoma**  
Steven Lemery, U.S. Food and Drug Administration, Silver Spring, MD
- 9:30-9:45 **A novel kinase inhibitor for B-catenin mutant hepatocellular carcinoma\***  
Alexander Rialdi, Icahn School of Medicine at Mount Sinai, New York, NY

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**Break** 9:45 am-10:15 am

**Plenary Session 5: Trial Design and Endpoints in HCC**

10:15 am-12:15 pm

*Session Chair: Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY*

- 10:15-10:45 **Lessons learnt from phase III trials in HCC: OS, PFS and ORR**  
Andrew X. Zhu, Massachusetts General Hospital, Boston, MA
- 10:45-11:15 **Trial design and endpoint definition in intermediate stage HCC: A challenge**  
Peter R. Galle, University Medical Center Mainz, Mainz, Germany
- 11:15-11:45 **Trial enrichment and proof of concept studies**  
Augusto Villanueva, Icahn School of Medicine at Mount Sinai, New York
- 11:45-12:15pm **Assessing response and time-to-event end-points: RECIST and mRECIST**  
Riccardo Lencioni, University of Pisa, Pisa, Italy

**Lunch on Own** 12:15 pm-2:15 pm

**Plenary Session 6: Immunotherapies in HCC: Molecular Mechanisms and Combination Regimens**

2:15 pm-3:45 pm

*Session Chair: Richard S. Finn, Geffen School of Medicine at UCLA, Santa Monica, CA*

- 2:15-2:45 **Immune checkpoint inhibitors and NAFLD**  
Mark Yarchoan, Johns Hopkins University, Baltimore, MD
- 2:45-3:15 **Impact of single checkpoint inhibitors and biomarkers of response**  
Anthony El-Khoueiry, USC Norris Comprehensive Cancer Center, Los Angeles, CA
- 3:15-3:45 **Combination therapies including checkpoint inhibitors in HCC: The dawn of a new era**  
Richard S. Finn, Geffen School of Medicine at UCLA, Santa Monica, CA

**Break** 3:45 pm-4:15 pm

**Plenary Session 7: Molecular Pathogenesis and Drivers of Cholangiocarcinoma**

4:15 pm-6:00 pm

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*Session Chair: Ghassan K. Abou-Alfa, Memorial Sloan Kettering Cancer Center, New York, NY*

- 4:15-4:45 **Molecular pathogenesis and cell of origin of intrahepatic cholangiocarcinoma (iCCA)**  
Sumera Ilyas, Mayo Clinic, Rochester, MN
- 4:45-5:15 **Molecular classes and landscape of drivers of iCCA and eCCA**  
Daniela Sia, Icahn School of Medicine at Mount Sinai, New York, NY
- 5:15-5:45 **Dissecting molecular differences between iCCA and eCCA**  
Xin Wei Wang, National Cancer Institute, Bethesda, MD
- 5:45-6:00 **Identifying regulatory transcription factors in primary liver cancer cell lineage commitment using single cell ATAC sequencing\***  
Amanda J. Craig, National Cancer Institute, Bethesda, MD

**Evening on own**

**SUNDAY, MAY 8, 2022**

**Continental Breakfast**

7:00 am-8:00 am

**Plenary Session 8: Molecular Targeted Therapies and Precision Oncology in iCCA**

8:00 am-10:00 am

*Session Chair: Juan Valle, University of Manchester, Manchester, England*

- 8:00-8:30 **IDH Inhibitors: Rationale, molecular mechanisms and benefit**  
Andrew X. Zhu, Massachusetts General Hospital, Boston, MA
- 8:30-9:00 **Clinical trials and molecular therapies in iCCA**  
Juan Valle
- 9:00-9:30 **FGFR2 fusion inhibitors: Clinical benefit and mechanisms of resistance**  
Mitesh Borad, Mayo Clinic, Scottsdale, Arizona
- 9:30-10:00 **Trial Design in the era of precision oncology and combination therapies**  
John Bridgewater, University College London, London, England

**Break** 10:00 am-10:30 am

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**Plenary Session 9: Molecular Pathogenesis and Treatment of Hepatoblastoma**

10:30 am-11:30 am

*Session Chair: Dolores H. Lopez-Terrada, Texas Children's Hospital, Houston, TX*

10:30-11:00 **Advances in the pathogenesis and classification of pediatric hepatocellular neoplasms**

Dolores H. Lopez-Terrada

11:00-11:30 **Present and future of precision oncology in hepatoblastoma**

Carolina Armengol, Germans Trias i Pujol Research Institute-Barcelona

**Closing Keynote Lecture**

11:30 am-12:30 pm

*Session Chair: Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY*

11:30-11:40 Introduction

Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY

11:40-12:30 **Present and future of pathogenesis and molecular treatment of iCCA**

Ghassan K. Abou-Alfa, Memorial Sloan Kettering Cancer Center, New York, NY

**Closing Remarks**

12:30 pm

Richard S. Finn, Geffen School of Medicine at UCLA, Santa Monica, CA

Josep M. Llovet, Icahn School of Medicine at Mount Sinai, New York, NY

Jessica Zucman-Rossi, Cordeliers Research Center at INSERM, Paris, France

\*Short talk from proffered abstract