

# Hepatobiliary Cancers: Pathobiology and Translational Advances

## Early Career Investigator Poster Session

### Poster No.

### Abstract

- 1** Budhu A<sup>1</sup>, Chaisaingmongkol, J<sup>1,2</sup>, Dang H<sup>1</sup>, Kwon SM<sup>1</sup>, Rabibhadana S<sup>2</sup>, Pupacdi B<sup>2</sup>, Forgues M<sup>1</sup>, Pomyen Y<sup>1</sup>, Bhudhisawasdi V<sup>3</sup>, Lertprasertsuke N<sup>4</sup>, Chotirosniramit A<sup>4</sup>, Pairojkul C<sup>3</sup>, Auewarakul CU<sup>5</sup>, Sricharunrat T<sup>5</sup>, Phornphutkul K<sup>6</sup>, Sangrajrang S<sup>7</sup>, Cam M<sup>1</sup>, He P<sup>8</sup>, Hewitt SM<sup>1</sup>, Wu X<sup>1</sup>, Thorgeirsson SS<sup>1</sup>, Meltzer PS<sup>1</sup>, Loffredo CA<sup>9</sup>, Wiltout RH<sup>1</sup>, Harris CC<sup>1</sup>, Mahidol C<sup>2</sup>, Ruchirawat M<sup>2</sup> and Wang XW<sup>1</sup>. **Identification of Common Molecular Subtypes of Asian Hepatocellular Carcinoma and Cholangiocarcinoma.**  
<sup>1</sup>National Cancer Institute, Bethesda, United States; <sup>2</sup>Chulabhorn Research Institute, Bangkok, Thailand; <sup>3</sup>Khon Kaen University, Khon Kaen, Thailand; <sup>4</sup>Chiang Mai University, Chiang Mai, Thailand; <sup>5</sup>Chulabhorn Hospital, Bangkok, Thailand; <sup>6</sup>Rajavej Hospital and Lampang Cancer Center, Chiang Mai, Thailand; <sup>7</sup>National Cancer Institute, Bangkok, Thailand; <sup>8</sup>FDA, Bethesda, United States; <sup>9</sup>Georgetown University Medical Center, Washington, DC, United States
- 2** Rao, S<sup>1</sup>, Chen J<sup>2</sup>, Ohshiro K<sup>1</sup>, Gu S<sup>1</sup>, Zaidi S<sup>1</sup>, Jogunoori WS<sup>3</sup>, White J<sup>3</sup>, Pattabiraman N<sup>4</sup>, Mazumder R<sup>4</sup>, Horvath A<sup>4</sup>, Wu R-C<sup>5</sup>, Li S<sup>6</sup>, Deng C-X<sup>1,7</sup>, Mishra B<sup>1</sup>, Akbani R<sup>8</sup>, The TCGA Cancer Network and Mishra L<sup>1,3</sup>. **Hepatocellular Cancer Genome and Transcriptome Analysis Validates Clinically Significant Mutational Signatures with the TGF- $\beta$  Pathway.**  
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- 3 Zaidi S<sup>1</sup>, Korkut A<sup>2</sup>, Chen J<sup>3</sup>, Rao S<sup>1</sup>, Gu S<sup>1</sup>, Ohshiro K<sup>1</sup>, Jogunoori WS<sup>3</sup>, Mishra B<sup>1</sup>, The Cancer Genome Atlas Research Network, Akbani R<sup>2</sup> and Mishra L<sup>1,3</sup>. **A Comprehensive TCGA Based Analysis of Disruptions in TGF- $\beta$  Pathway Across 33 Human Cancers.**  
<sup>1</sup>Center for Translational Research, Department of Surgery, George Washington University, Washington, DC, USA; <sup>2</sup>Departments of Bioinformatics and Computational Biology, The University of Texas MD Anderson Cancer Center, Houston, Texas, USA; <sup>3</sup>Department of Gastroenterology, Hepatology, and Nutrition, The University of Texas MDCC, Houston, TX, USA
- 4 Ono A<sup>1,2,\*\*</sup>, Eng FJ<sup>1</sup>, Juehling F<sup>3</sup>, Hamdane N<sup>3</sup>, Fujiwara N<sup>1</sup>, Higashi T<sup>1</sup>, Bian CB<sup>1</sup>, Hirschfield H<sup>1</sup>, Kim V<sup>1</sup>, Baumert TF<sup>3</sup>, Branch AD<sup>1</sup> and Hoshida Y<sup>1</sup>. **Transcriptional Reprogramming That Persists After Clearance of Oncogenic Hepatitis C Virus.**  
<sup>1</sup>Division of Liver Diseases, Department of Medicine, Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, NY, USA; <sup>2</sup>Department of Gastroenterology and Metabolism, Applied Life Science, Institute of Biomedical and Health Science, Hiroshima University, Hiroshima, Japan; <sup>3</sup>Inserm U1110, University of Strasbourg, Strasbourg, France
- 5 Patial S<sup>\*\*</sup>. **Hepatocyte-specific Deletion of Tristetraprolin Family of RNA Binding Proteins Result in the Development of Hepatocellular Carcinomas.**  
Department of Comparative Biomedical Sciences, Louisiana State University, Baton Rouge, LA 70810
- 6 Dang H<sup>1,\*\*</sup>, Takai A<sup>1</sup>, Forgues M<sup>1</sup>, Pomyen Y<sup>1</sup>, Mou H<sup>2</sup>, Xue W<sup>2,3</sup>, Ray D<sup>4</sup>, Ha K<sup>4</sup>, Morris QD<sup>4</sup>, Hughes TR<sup>4</sup> and Wang XW<sup>1</sup>. **Oncogenic NELFE Enhances MYC-induced Hepatocellular Carcinogenesis.**  
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- 7 Xue Y, Mars WM, Bowen W, Singhi AD, Ranganathan S and Michalopoulos GK. **Glypican-3 and CD81 Promote Development of Hepatocellular Carcinoma and Hepatoblastoma Through Negative Selection.**  
Department of Pathology, University of Pittsburgh, PA 15261

- 8 Kersten CA<sup>1</sup>, Shui B<sup>1</sup>, Plummer RJ<sup>1</sup>, Guo L<sup>2</sup>, Gregor A<sup>1</sup>, Uy KC<sup>1</sup>, Yang Y<sup>1,2</sup>, Torbenson MS<sup>3</sup>, Peng Y<sup>1</sup> and Guo Y<sup>1,4,\*\*</sup>. **The Role of Kinase Fusion DNAJB1-PRKACA in Fibrolamellar Hepatocellular Carcinoma.**  
<sup>1</sup>Department of Biochemistry and Molecular Biology, <sup>2</sup>Division of Pulmonary and Critical Care Medicine, <sup>3</sup>Division of Laboratory Medicine and Pathology, <sup>4</sup>Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN 55905, USA
- 9 Wu D<sup>1</sup>, Song T<sup>1,2</sup>, Ahn K<sup>1</sup>, Wongjarupong N<sup>1</sup> and Roberts, LR<sup>1</sup>. **The Role of Uridine-Cytidine Kinase 2 in the Development of Hepatocellular Carcinoma.**  
<sup>1</sup>Division of Gastroenterology and Hepatology, Mayo Clinic College of Medicine and Science, Rochester, MN United States; <sup>2</sup>Department of Hepatobiliary Surgery, the First Affiliated Hospital of Xi'an Jiaotong University, Xi'an, Shanxi, China
- 10 Peixoto E<sup>1</sup>, Holtorf S<sup>1</sup>, Thelen KTM<sup>1</sup>, Pisarello MJL<sup>2</sup>, LaRusso NF<sup>2</sup>, Jin S<sup>1</sup> and Gradilone SA<sup>1</sup>. **Autophagy is Involved in HDAC6 Mediated Ciliary Loss, and Increases Malignancy in Cholangiocarcinoma Models.**  
<sup>1</sup>The Hormel Institute, University of Minnesota; <sup>2</sup>Mayo Clinic
- 11 Gu S<sup>1</sup>, Rao S<sup>1</sup>, Zaidi S<sup>1</sup>, Ohshiro K<sup>1</sup>, Chen J<sup>2</sup>, Jogunoori WS<sup>3</sup>, White J<sup>3</sup>, Pattabiraman N<sup>4</sup>, Mazumder R<sup>4</sup>, Horvath A<sup>4</sup>, Wu R-C<sup>5</sup>, Li S<sup>6</sup>, Deng C-X<sup>7</sup>, Akbani R<sup>8</sup>, Mishra B<sup>1</sup> and Mishra L<sup>1,3</sup>. **Alcoholic Liver Diseases, Stem Cell Disorder and Hepatocellular Carcinoma.**  
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<sup>1</sup>Department of Internal Medicine, Section of Digestive Diseases, Yale University; <sup>2</sup>Department of Molecular Medicine, University of Padua
- 13 Ehrlich L<sup>1</sup>, Hall C<sup>2</sup>, Sheppard T<sup>1</sup>, Venter J<sup>3</sup>, O'Brien A<sup>1</sup>, Lairmore TC<sup>2</sup>, Alpini G<sup>1</sup> and Glaser S<sup>1</sup>. **The Role of Menin-MLL Interaction in Dissociation Between Cholestatic Liver Disease and Cholangiocarcinoma.**  
<sup>1</sup>The Texas A&M Health Science Center; <sup>2</sup>Baylor Scott & White; <sup>3</sup>CTXVHS
- 14 Liu P<sup>1,2</sup>, Tao J<sup>3,4,5</sup>, Zhang J<sup>1,2</sup>, Singh S<sup>3,4,5</sup>, Zhan N<sup>3,4,6</sup>, Monga SPS<sup>3,4,5</sup> and Chen X<sup>1,2</sup>. **Yap Functions Via TEAD Mediated Transcriptional Activation in Hepatoblastoma Pathogenesis.**  
<sup>1</sup>Department of Bioengineering and Therapeutic Sciences and <sup>2</sup>Liver Center, University of California, San Francisco, CA; <sup>3</sup>Department of Pathology, <sup>4</sup>Pittsburgh Liver Research Center, and <sup>5</sup>University of Pittsburgh, School of Medicine and University of Pittsburgh Medical Center, Pittsburgh, PA, USA; <sup>6</sup>Department of Pathology, Renmin Hospital of Wuhan University, Wuhan, China
- 15 Patton ME<sup>1</sup>, Kelekar SH<sup>1</sup>, Thakare R<sup>2</sup>, Alnouti Y<sup>2</sup> and Anakk S<sup>1</sup>. **Bile Acids Contribute to the Gender-Biased Incidence of HCC.**  
<sup>1</sup>University of Illinois at Urbana-Champaign; <sup>2</sup>University of Nebraska Medical Center
- 16 Erickson H and Anakk S. **The Scaffolding Protein IQGAP1 Promotes Hepatic Proliferation and Protects the Liver from Injury.**  
University of Illinois at Urbana-Champaign
- 17 Heinrich B and Greten TF. **Innate Lymphoid Cells in Mouse Models of HCC and NASH.**  
Gastrointestinal Malignancy Section, Thoracic and Gastrointestinal Oncology Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892, USA
- 18 Affo S<sup>1</sup>, Yu L-X<sup>1</sup>, Chen X<sup>2</sup> and Schwabe RF<sup>1</sup>. **Hepatic Stellate Cell-Derived Cancer Associated Fibroblasts Sustain Tumor Growth in Intrahepatic Cholangiocarcinoma.**  
<sup>1</sup>Department of Medicine, Columbia University, New York, NY 10032, USA; <sup>2</sup>Department of Bioengineering and Therapeutic Sciences and Liver Center, University of California, San Francisco, CA, USA

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<sup>1</sup>Department of Bioengineering and Therapeutic Sciences, University of California, San Francisco, United States; <sup>2</sup>Beijing University of Chinese Medicine, Beijing, China; <sup>3</sup>307 Hospital of Academy of Military Medical Science, Beijing, China
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<sup>1</sup>Department of Pathology, <sup>2</sup>Pittsburgh Liver Research Center, and <sup>3</sup>Department of Medicine, University of Pittsburgh, School of Medicine and University of Pittsburgh Medical Center, Pittsburgh, PA; <sup>4</sup>Department of Bioengineering and Therapeutic Sciences and <sup>5</sup>Liver Center, University of California, San Francisco, CA
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<sup>1</sup>Department of Pathology, University of Pittsburgh, Pittsburgh, PA; <sup>2</sup>Department of Pathology, Renmin Hospital of Wuhan University, Wuhan, China; <sup>3</sup>Department of Bioengineering and Therapeutic Sciences, University of California, San Francisco, CA; <sup>4</sup>School of Pharmacy, Hubei University of Chinese Medicine, Wuhan, Hubei, P.R. China; <sup>5</sup>Liver Center, University of California, San Francisco, CA
- 22 Michael AOA, Tao J and Monga SP. **Convergence of Wnt/ $\beta$ -catenin and mTOR Signaling in Liver Physiology and Hepatocellular Carcinoma.**  
Division of Experimental Pathology, University of Pittsburgh, School of Medicine, Pittsburgh, PA
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Division of Gastroenterology, University of Michigan, Ann Arbor, MI
- 24 Phillippi MA<sup>1</sup>, Xie Y<sup>2</sup>, Mohr A<sup>1</sup>, Wehrkamp CJ<sup>1</sup>, Stringham B<sup>1</sup>, Oupicky D<sup>2</sup> and Mott JL<sup>1</sup>. **Survival Model of Intrahepatic Cholangiocarcinoma; Sex as a Biological Variable.**  
<sup>1</sup>Department of Biochemistry and Molecular Biology, <sup>2</sup>Department of Pharmaceutical Sciences, University of Nebraska Medical Center, Omaha, NE
- 25 Wehrkamp CJ and Mott JL. **Kruppel-Like Factor 2 in Cholangiocarcinoma.**  
Department of Biochemistry and Molecular Biology, University of Nebraska Medical Center, Omaha, NE

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<sup>1</sup>Gastrointestinal Malignancy Section, Thoracic and Gastrointestinal Oncology Branch, Center for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892, USA; <sup>2</sup>Department of Internal Medicine and Liver Research Institute, Seoul National University College of Medicine, Seoul, Korea
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<sup>1</sup>Center for Translational Research, Department of Surgery, George Washington University, Washington, DC, USA; <sup>2</sup>Department of Gastroenterology, Hepatology, and Nutrition, The University of Texas MD Anderson Cancer Center, Houston, TX, USA; <sup>3</sup>Departments of Pediatrics, The University of Texas MD Anderson Cancer Center, Houston, Texas, USA; <sup>4</sup>Surgical Service, Veterans Affairs Medical Center, Washington, DC, USA; <sup>5</sup>Department of Pathology, The University of Texas MDACC, Houston, TX, USA
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<sup>1</sup>The Texas A&M University System Health Science Center; <sup>2</sup>Central Texas Veterans Research Foundation; <sup>3</sup>Baylor Scott & White Health
- 30 Bender J<sup>1</sup>, Pishvaian M<sup>1,2</sup>, Blais E<sup>1</sup>, Halverson D<sup>1</sup>, Madhavan S<sup>1,2</sup> and Petricoin E<sup>1,3</sup>. **Multi-Omic Profiling of Cholangiocarcinoma: Matching Patients with Therapy Options Using the Perthera Report.**  
<sup>1</sup>Perthera, Inc.; <sup>2</sup>Georgetown University Lombardi Comprehensive Cancer Center; <sup>3</sup>George Mason University