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The 2019 Liver Sinusoid Meeting:

20TH INTERNATIONAL SYMPOSIUM ON CELLS OF THE HEPATIC SINUSOID

The role of sinusoidal cells in disease and ageing

ISHSR

International **Society** for

HEPATIC SINUSOIDAL RESEARCH

4-7 SEPTEMBER 2019

THE UNIVERSITY OF SYDNEY, AUSTRALIA

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SCIENTIFIC PROGRAM

refers to abstract number

Wednesday 4 September 2019

Venue: Charles Perkins Centre, Level 6 seminar room

16:30 - 20:00	**Registration desk open**
17:00 - 17:15	**Conference opening** Prof Victoria Cogger, The University of Sydney, Australia (ISHSR President and Meeting Chair)
17:15 - 18:00	**Keynote address** **Liver cell plasticity – #100** Prof Anna Mae Diehl, Duke Liver Center, Duke University, Durham, USA
18:00 - 19:30	**Welcome reception**

Thursday 5 September 2019

Venue: TAG Foundation Family Grandstand

08:30 - 17:30	**Registration desk open**
08:30 - 09:30	**Keynote address** **Chair:** Prof Antony Wheatley, National University of Ireland Galway, Ireland **Cirrhosis of the liver: A vascular disease – #101** Prof Jaime Bosch, Hepatology, Department for Biomedical Research, Inselspital, University of Bern, Switzerland
09:30 - 09:55	**Morning tea**
10:00 - 11:00	**Symposium 1: Sinusoids as a therapeutic target** **Chairs:** Prof Bård Smedsrød, University of Tromsø, Norway Dr Le Thi Thanh Thuy, Osaka City University, Japan
10:00 - 10:30	**Reinvigorating old holes in the ageing liver, and how to watch this happen – #102** Assoc Prof Peter McCourt, Department of Medical Biology, University of Tromso, Norway
10:30 - 11:00	**Macrophages in liver diseases – #103** Prof Frank Tacke, Charité University, Berlin, Germany
11:00 - 12:30	**Oral presentations 1** **Chairs:** Prof Anna Mae Diehl, Duke University, USA Dr Nicholas Hunt, The University of Sydney, Australia
11:00 - 11:15	**TGF-β1 transcriptionally repressed cytoglobin expression and enhanced H2O2-induced oxidative DNA damage in activated HSCs – #104** Dr Misako Sato-matsubara, Osaka City University Graduate School of Medicine, Japan
11:15 - 11:30	**Liver sinusoidal endothelial cell-specific knockdown of RUNX1 reduces hepatic inflammation and immune cell infiltration in mice models of non-alcoholic steatohepatitis – #105** Asst Prof Savneet Kaur, Institute of Liver and Biliary Sciences, India
11:30 - 11:45	**Liver sinusoidal endothelial cells significantly cooperate in the phagocytic and adaptive T cell responses in an experimental model of cirrhosis– #106** Prof Rubén Francés, Universidad Miguel Hernández, Spain
11:45 - 12:00	**Matrix stiffness, a key modulator of liver cells' phenotype– #107** Dr Sergi Guixé-Muntet, University of Bern, Switzerland
12:00 - 12:15	**Opioid growth factor receptor-like 1; a common mediator of regeneration of fibrotic liver and fetal development of hepatic progenitor cells– #108** Asst Prof Takayo Yanagawa, Tokai University School of Medicine, Japan
12:15 - 12:30	**Orphan Nuclear Receptor NR4A1: A novel key regulator of Hepatic stellate cell activation – #109** Dr Dinesh Mani Tripathi, Institute of Liver and Biliary Sciences, India
12:30 - 13:25	**Lunch and poster discussions**
13:30 - 15:30	**Symposium 2: Sinusoids in ageing and disease** **Chairs:** Prof Frank Tacke, Charité University, Germany Dr Sergi Guixé-Muntet, University of Bern, Switzerland
13:30 - 14:00	**Old age and the liver sinusoid– #110** Prof David Le Couteur, Medicine, Concord Clinical School, ANZAC, The University of Sydney, Australia
14:00 - 14:30	**Sinusoidal cells in ALD– #111** Dr Adam Kim, Liver Center, Cleveland Clinic, USA
14:30 - 15:00	**Sinusoidal cells in HCC and NASH– #112** Prof Jean François Dufour, University Clinic for Visceral Surgery and Medicine, Inselspital, Switzerland
15:00 - 15:30	**Post-translational modifications drive the effects of high-mobility group box-1 during liver fibrosis progression and resolution– #113** Prof Natalia Nieto, Department of Pathology, University of Chicago, USA
15:30 - 15:55	**Afternoon tea**

16:00 - 17:30	**Oral presentations 2** **Chairs:** Dr Adam Kim, Liver Center, Cleveland Clinic, USA Ms Nur Fatin Aqilah Raman, Universiti Sains Islam Malaysia, Malaysia
16:00 - 16:15	**Treatment of chronic liver diseases using a rationally designed protein that induces apoptosis by targeting integrin avb3 – #114** Prof Zhi-Ren Liu, Georgia State University, USA
16:15 - 16:30	**5-Hydroxytryptamine receptor 1A, a novel therapeutic target for portal hypertension – #115** Dr Chang-Peng Zhu, Changzheng Hospital, Second Military Medical University, China
16:30 - 16:45	**Effect of Candesatran cilexetil on the regulation of hepatic NOSTRIN-eNOS pathway in cirrhosis – #116** Dr Balasubramaniyan Vairappan, Jawaharlal Institute of Postgraduate Medical Education and Research, India
16:45 - 17:00	**LSEC phenotype restoration by statins reduces portal pressure in a rat NASH model – #117** Ms Miren Bravo, Vall d'Hebron Institut de Recerca (VHIR), Spain
17:00 - 17:15	**Angiotensin and cyclooxygenase-mediated mechanisms attenuate the increased transhepatic pressure gradient in rats with severe steatosis – #118** Ms Denise Van Der Graaff, University of Antwerp, Belgium
17:15 - 17:30	**NOX2 activation by the aging protein p52Shc leads to accelerated fibrosis in older mice – #119** Prof Natalie Torok, Stanford University, USA

Friday 6 September 2019

Venue: TAG Foundation Family Grandstand

08:15 - 09:00	**Business Meeting (members only)**
08:30 - 13:00	**Registration desk open**
09:00 - 10:00	**Keynote address** **Chair:** Dr Jordi Gracia-Sancho, IDIBAPS, Spain **Mediators of inflammation and fibrogenesis associated with hepatic stellate cell biolog – #120** Prof Grant Ramm, QIMR Berghofer Medical Research Institute, Brisbane, Australia
10:00 - 10:25	**Morning tea**
10:30 - 11:00	**Symposium 3: Methods & Technology** **Chairs:** Prof Natalia Nieto, University of Chicago, USA Prof Soichi Kojima, RIKEN Center for Integrative Medical Sciences, Japan
10:30 - 11:00	**Animal models to study liver diseases – #121** Assoc Prof Javier Cubero, University Complutense Madrid, Spain
11:00 - 12:30	**Oral presentations 3** **Chairs:** Prof Natalia Nieto, University of Chicago, USA Prof Soichi Kojima, RIKEN Center for Integrative Medical Sciences, Japan
11:00 - 11:15	**Targeted delivery to the liver sinusoidal endothelium using silver sulfide quantum dots – #122** Dr Nicholas Hunt, ANZAC Research Institute, The University of Sydney, Australia
11:15 - 11:30	**Scavenger function of liver sinusoidal endothelial cells in a transgenic mouse model of liver fibrosis is reduced – #123** Prof Karen Kristine Sørensen, UIT, The Arctic University of Norway, Norway
11:30 - 11:45	**Liver stiffness as a target factor for advanced chronic liver disease: Unstretching the nucleus – #124** Mr Martí Ortega-Ribera, IDIBAPS, Spain
11:45 - 12:00	**Matrix stiffness regulate Liver Sinusoidal Endothelial Cells (LSECs) function: Importance for Liver Fibrosis Progression – #125** Assoc Prof Srivatsan Kidambi, University Of Nebraska-Lincoln, USA
12:00 - 12:15	**Polymeric micelles as a drug delivery system targeting liver sinusoidal endothelial cells in chronic liver disease: Validation with simvastatin encapsulation – #126** Dr Diana Hide, Vall D'hebrón Research Institute, Spain
12:15 - 12:30	**The stabilins are the primary scavenger receptors for Phosphorothioate Antisense Oligonucleotides in Liver Sinusoidal Endothelial Cells – #127** Assoc Prof Edward Harris, University of Nebraska, USA
12:30 - 12:55	**Lunch**
13:00 - 17:00	**Off-site excursions**
	Coaches will depart from the The University of Sydney, Clock Tower, Main Quad *Coaches will return delegates to The Rendezvous Hotel and Rydges Camperdown at the conclusion of the excursions*
19:00 - 22:00	**Symposium dinner**
	Sydney Harbour Cruise, boarding from King St Wharf at 18:45. Departing at 19:00. *At **18:00** coaches will depart The Rendezvous Hotel and proceed to Rydges Camperdown to transfer guests to the wharf for the dinner cruise. Coaches will return guests to these hotels at the end of the evening.*

Saturday 7 September 2019

Venue: Charles Perkins Centre, Level 6 seminar room

08:45 - 12:30	**Registration desk open**
09:15 - 10:00	**Tutorial talk** **Chair:** Dr Changpeng Zhu, Changzheng Hospital, Second Military Medical University, China **The liver in health and disease: What the intravital microscope reveals – #128** Prof Antony M Wheatley, National University of Ireland Galway, Ireland
10:00 - 10:25	**Morning tea**
10:30 - 12:00	**Oral presentations 4** **Chairs:** Prof Norifumi Kawada, Osaka City University, Japan Prof Natalie Torok, Stanford University, USA
10:30 - 10:45	**Exacerbation of alcoholic liver injury in obese KK-Ay mice involves alteration in small intestinal microbiota signature – #129** Prof Kenichi Ikejima, Juntendo University Graduate School of Medicine, Japan
10:45 - 11:00	**Early hepatic genes expression and signalling pathways in liver regeneration after partial hepatectomy in germ-free mice – #130** Ms Nur Fatin Aqilah Raman, Universiti Sains Islam Malaysia, Malaysia
11:00 - 11:15	**Implication for transition from proteolytic to integrin-associated TGF-β activation during liver fibrosis – #131** Prof Soichi Kojima, RIKEN Center for Integrative Medical Sciences, Japan
11:15 - 11:30	**Dietary imbalance of branched amino acids impact fenestrations in liver sinusoidal endothelial cells – #132** Miss Sun Woo Sophie Kang, Anzac Research Institute, Australia
11:30 - 11:45	**Cytoglobin suppresses liver fibrosis and cancer in mice by regulating oxidative stress – #133** Dr Le Thi Thanh Thuy, Osaka City University, Japan
11:45 - 12:00	**Transcriptomic signature of LSECs during the progression of cirrhosis: From inflammation to cancer development – #134** Dr Anabel Fernández Iglesias, IDIBAPS, Spain
12:00 - 12:30	**Awards and close** Prof Victoria Cogger, The University of Sydney, Australia (ISHSR President and Meeting Chair) **Announcement of the 2021 meeting** Dr Chang-Peng Zhu, Changzheng Hospital, Second Military Medical University, China
12:30	**Lunch**

Poster program Thursday 5 September 2019, 12:45 - 13:25

#01 **Effect of glucocorticoids on liver sinusoidal endothelial cells in vitro**
Mr Sabin Bhandari, The Arctic University of Norway, Norway

#02 **Evaluation of surrogate serum biomarker of Sox9-expressing HCC**
Dr Kristy Chan, The University of Hong Kong, Hong Kong

#03 **Genetic deletion of Keap1 in hepatocytes triggers hepatitis in an Nrf2 dependant-manner in experimental toxic liver injury model**
Dr Francisco Javier Cubero Palero, Complutense University, Spain

#04 **Immune transcriptional profile of LSECs in response to bacterial challenge in an experimental model of cirrhosis**
Prof Rubén Francés, Universidad Miguel Hernández, Spain

#05 **Is the "Liver Sieve Concept" in atherosclerosis also implicated in NASH, Metabolic Syndrome, Diabetes and Cancer?**
Prof Robin Fraser, University of Otago, New Zealand

#06 **Differential toxicity of oleate and palmitate in liver sinusoidal endothelial and vascular endothelial cells in vitro**
Miss Yana Geng, University Medical Center Groningen, Netherlands

#07 **Could an anti-fibrotic adenosine derivative regulate Wnt/beta-catenin pathway in liver cells in vitro?**
Miss Nuria Guerrero-Celis, Instituto De Fisiología Celular, UNAM, Mexico

#08 **A protocol for in vitro toxicity studies in liver sinusoidal endothelial cell**
Mrs Ingelin Kyrrestad, The Arctic University of Tromsø, Norway

#09 **Autofluorescence in freshly isolated adult human liver sinusoidal cells**
Anett Kristin Larsen, The Arctic University of Norway, Norway

#10 **Alteration of liver ultrastructure and metabolic homeostasis in rat model of insulin resistance**
Ms Mashani Mohamad, Universiti Teknologi MARA, Malaysia

#11 **Optimisation of the isolation and culture of human liver sinusoidal endothelium from normal and cirrhotic livers**
Miss Pantelitsa Papakyriacou, University of Birmingham, UK

#12 **Controling uptake of nanocrystals in liver cells**
Prof Bård Smedsrød, University of Tromsø, Norway

#13 **How do fenestrations work?**
Ms Karolina Szafranska, University of Tromsø, Norway

#14 **Stellate cells initiate the activation by the loss of adherens junction with hepatocytes**
Dr Hayato Urushima, Osaka City University, Japan

#15 **Utility of STRIATIN as a novel prognostic marker in decompensated cirrhosis**
Dr Balasubramaniyan Vairappan, Jipmer, India

#16 **Cathepsin L inhibitor accelerates liver regeneration in pro-fibrotic liver**
Assoc Prof Shunhei Yamashina, Juntendo University School of Medicine, Japan

#17 **3D reconstruction of liver micro-architecture shows distinct patterns of sinusoid and bile canaliculi network modelling post partial hepatectomy**
Prof Rajanikanth Vadigepalli, Thomas Jefferson University, USA