

## Alcohol-Induced End Organ Diseases

### *Gordon Research Conference*

#### Metabolic Reprogramming and Molecular Mechanisms of Tissue Injury by Alcohol

##### Dates

March 26-31, 2017

##### Organizers

Chairs:

**Bin Gao & Andras Orosz**

##### Location

Four Points Sheraton / Holiday Inn Express  
Ventura, CA

Vice Chair:

**Laura E. Nagy**

#### Application Deadline

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Applications for this meeting must be submitted by **February 26, 2017**. Please apply early, as some meetings become oversubscribed (full) before this deadline. If the meeting is oversubscribed, it will be stated here. *Note:* Applications for oversubscribed meetings will only be considered by the Conference Chair if more seats become available due to cancellations.

#### Meeting Description

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The 2017 Gordon Research Conference (GRC) on Alcohol-Induced End Organ Diseases "Metabolic Reprogramming and Molecular Mechanisms of Tissue Injury by Alcohol" will provide a unique forum to bring together a diverse range of young and established scientists who are studying alcohol-related organ damage. This newly approved Gordon Research Conference exclusively addresses alcohol-induced end organ disorders and will cover a broad range of studies at the molecular, cellular, systems, and organismal level, with particular emphasis on multidisciplinary work and innovative approaches. This GRC conference will 1) provide an international forum that promotes open discussion of cutting edge research at the forefront of alcohol-induced tissue injury, 2) foster the development of the next generation of investigators to study alcohol-induced organ damage, 3) promote interaction between young and senior investigators, 4) facilitate the exchange of ideas that will shape the future directions of the alcohol and tissue injury community, and 5) introduce breakthrough techniques that facilitate the understanding of mechanisms driving alcohol-induced tissue injury. This GRC conference will significantly advance current understanding of the underlying mechanisms of end organ injury and stimulate development of effective therapeutic strategies for the diagnosis, prevention and treatment of alcohol-related disorder. Talks will address questions centered on the basic mechanisms that contribute to alcohol-induced organ damage across the entire lifespan and will include wide ranging experimental systems from microbiome to humans. The format will provide ample time for formal and informal discussions and emphasize the presentation of unpublished data, thus ensuring that the newest and most exciting developments in the field are discussed. Poster sessions will take place on each day of the meeting, allowing for widespread participation of conference attendees at all career stages. Speakers will also be selected from submitted abstracts for "late-breaking topic" talks by young investigators. Participation by young investigators will be strongly encouraged.

#### Contributors

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## Meeting Program

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### Sunday

4:00 pm - 8:00 pm Arrival and Check-in

6:00 pm Dinner

7:30 pm - 7:40 pm Welcome / Introductory Comments by GRC Site Staff

7:40 pm - 9:30 pm **Keynote Session: Novel Mechanisms of Multiple-Organ and Tissue Injury**

Discussion Leader: **Jan Hoek** (Thomas Jefferson University, USA)

7:40 pm - 7:50 pm Opening Remarks

7:50 pm - 8:25 pm **Bernd Schnabl** (University of California, San Diego, USA)  
"Host-Microbiome Interactions in Alcohol-Associated Diseases"

8:25 pm - 8:40 pm Discussion

8:40 pm - 9:15 pm **Gyongyi Szabo** (University of Massachusetts Medical School, USA)  
"Triggers, Pathways and Mediators of Alcohol-Induced Tissue Inflammation"

9:15 pm - 9:30 pm Discussion

### Monday

7:30 am - 8:30 am Breakfast

8:30 am Group Photo

9:00 am - 12:30 pm **Proteostasis (Protein Homeostasis) in Alcohol-Induced Organ Injury**

Discussion Leader: **Neil Kaplowitz** (University of Southern California, USA)

9:00 am - 9:20 am **Wen-Xing Ding** (University of Kansas Medical Center, USA)  
"Autophagy, a Common Mechanism for Alcohol-Induced Liver and Pancreatic Injury"

9:20 am - 9:30 am Discussion

9:30 am - 9:50 am **Stephen Pandol** (VA Greater Los Angeles Healthcare System, USA)  
"Regulation of Endoplasmic Reticulum Protein Processing with Alcohol"

9:50 am - 10:00 am Discussion

10:00 am - 10:10 am Short Talk Selected from Poster Abstracts

10:10 am - 10:15 am Discussion

- 10:15 am - 10:25 am Short Talk Selected from Poster Abstracts
- 10:25 am - 10:30 am Discussion
- 10:30 am - 11:00 am Coffee Break
- 11:00 am - 11:20 am **Pranoti Mandrekar** (University of Massachusetts Medical School, USA)  
"Targeting Proteostasis Pathways: New Therapeutic Paradigm in Alcoholic Liver Disease"
- 11:20 am - 11:30 am Discussion
- 11:30 am - 11:50 am **Srinivasan Dasarathy** (Cleveland Clinic, USA)  
"Mechanism of Skeletal Muscle Proteostasis and Sarcopenia in Alcoholic Liver Disease"
- 11:50 am - 12:00 pm Discussion
- 12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts
- 12:10 pm - 12:15 pm Discussion
- 12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts
- 12:25 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 4:00 pm Free Time
- 4:00 pm - 6:00 pm Poster Session
- 6:00 pm Dinner

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7:30 pm - 9:30 pm **Alcohol, Stem Cells, and Cancer**

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Discussion Leader: **Helmut Seitz** (University of Heidelberg, Germany)

- 7:30 pm - 7:50 pm **Lorraine Gudas** (Weill Cornell Medicine, USA)  
"The Effects of Alcohol on Epithelial Stem Cells of the Oral Cavity and Esophagus During Carcinogenesis"
- 7:50 pm - 8:00 pm Discussion
- 8:00 pm - 8:20 pm **Vasilis Vasilou** (Yale School of Public Health, USA)  
"Aldehyde Dehydrogenases in Cancer Stem Cells"
- 8:20 pm - 8:30 pm Discussion
- 8:30 pm - 8:50 pm **Keigo Machida** (Keck School of Medicine, University of Southern California, USA)  
"Cell Fate Decision and Metabolic Reprograming of Tumor-Initiating Stem-Like Cells in Alcohol-Associated Injury and Cancer"
- 8:50 pm - 9:00 pm Discussion
- 9:00 pm - 9:10 pm Short Talk Selected from Poster Abstracts
- 9:10 pm - 9:15 pm Discussion
- 9:15 pm - 9:25 pm Short Talk Selected from Poster Abstracts
- 9:25 pm - 9:30 pm Discussion

Tuesday

- 7:30 am - 8:30 am Breakfast
- 9:00 am - 12:30 pm **Immunologic Mechanisms**
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Discussion Leader: **Gavin Arteel** (University of Louisville, USA)

- 9:00 am - 9:20 am **Cynthia Ju** (University of Colorado Health Science Center, USA)  
"IL-1 Receptor Like 1 (ST2) Protects Against Alcoholic Liver Injury and Inflammation"
- 9:20 am - 9:30 am Discussion

- 9:30 am - 9:50 am **Hidekazu Tsukamoto** (University of Southern California, USA)  
"Caspase 11-Gasdermin-D Pathway in Alcoholic Hepatitis"
- 9:50 am - 10:00 am Discussion
- 10:00 am - 10:10 am Short Talk Selected from Poster Abstracts
- 10:10 am - 10:15 am Discussion
- 10:15 am - 10:25 am Short Talk Selected from Poster Abstracts
- 10:25 am - 10:30 am Discussion
- 10:30 am - 11:00 am Coffee Break
- 11:00 am - 11:20 am **Flavia Souza-Smith** (LSU Health Sciences Center New Orleans, USA)  
"Mesenteric Lymphatic/Perilymphatic Adipose Tissue Crosstalk: Mechanism of Alcohol Immunomodulation"
- 11:20 am - 11:30 am Discussion
- 11:30 am - 11:50 am **Elizabeth Kovacs** (University of Colorado Denver, USA)  
"Alcohol Intoxication and the Pulmonary Inflammatory Response After Injury"
- 11:50 am - 12:00 pm Discussion
- 12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts
- 12:10 pm - 12:15 pm Discussion
- 12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts
- 12:25 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 4:00 pm Free Time
- 4:00 pm - 6:00 pm Poster Session
- 6:00 pm Dinner
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- 7:30 pm - 9:30 pm **Non-Coding RNA and Extracellular Vesicles**
- Discussion Leader: **David Brigstock** (Nationwide Children's Hospital, USA)
- 7:30 pm - 7:50 pm **Vijay Shah** (Mayo Clinic, USA)  
"Extracellular Vesicles and Alcoholic Liver Disease"
- 7:50 pm - 8:00 pm Discussion
- 8:00 pm - 8:20 pm **Li Wang** (University of Connecticut, USA)  
"Non-Coding RNA as Novel Regulator of Alcoholic Fatty Liver"
- 8:20 pm - 8:30 pm Discussion
- 8:30 pm - 8:50 pm **Won-IL Jeong** (KAIST, South Korea)  
"Exosomes and TLR3 in Liver Fibrosis"
- 8:50 pm - 9:00 pm Discussion
- 9:00 pm - 9:10 pm Short Talk Selected from Poster Abstracts
- 9:10 pm - 9:15 pm Discussion
- 9:15 pm - 9:25 pm Short Talk Selected from Poster Abstracts
- 9:25 pm - 9:30 pm Discussion

### Wednesday

- 7:30 am - 8:30 am Breakfast
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- 9:00 am - 12:30 pm

## Alcohol, Gut Microbiota, Intestinal Barrier Function, and Fat Metabolism

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Discussion Leader: **Carol Casey** (University of Nebraska, USA)

9:00 am - 9:20 am **Craig McClain** (University of Louisville, USA)  
"Alcohol:Fat Interactions in the Development/Treatment of Alcoholic Liver Disease"

9:20 am - 9:30 am Discussion

9:30 am - 9:50 am **Min You** (Northeast Ohio Medical University, USA)  
"Adiponectin-FGF15/19 Signaling, a Pivotal Adipose-Gut-Liver Axis in Alcoholic Steatohepatitis"

9:50 am - 10:00 am Discussion

10:00 am - 10:10 am Short Talk Selected from Poster Abstracts

10:10 am - 10:15 am Discussion

10:15 am - 10:25 am Short Talk Selected from Poster Abstracts

10:25 am - 10:30 am Discussion

10:30 am - 11:00 am Coffee Break

11:00 am - 11:20 am **Ali Keshavarzian** (Rush University Medical Center, USA)  
"Microbiota, Gut Leakiness to Endotoxins and Circadian Disruption in Alcohol Use Disorders"

11:20 am - 11:30 am Discussion

11:30 am - 11:50 am **Patricia Molina** (Louisiana State University, USA)  
"Alcohol-SIV/HIV-ART Interactions Promote Metabolic Dysregulation"

11:50 am - 12:00 pm Discussion

12:00 pm - 12:10 pm Short Talk Selected from Poster Abstracts

12:10 pm - 12:15 pm Discussion

12:15 pm - 12:25 pm Short Talk Selected from Poster Abstracts

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:00 pm - 7:30 pm Business Meeting

*Nominations for the Next Vice Chair; Fill in Conference Evaluation Forms; Discuss Future Site and Scheduling Preferences; Election of the Next Vice Chair*

7:30 pm - 9:30 pm **Mitochondria in Alcohol-Induced Organ Damage**

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Discussion Leader: **John Lemasters** (Medical University of South Carolina, USA)

7:30 pm - 7:50 pm **Gyorgy Hajnoczky** (Thomas Jefferson University, USA)  
"Targeting of Mitochondrial Dynamics and Survival Mechanisms by Alcohol in Heart and Liver"

7:50 pm - 8:00 pm Discussion

8:00 pm - 8:20 pm **Shannon Bailey** (University of Alabama at Birmingham, USA)  
"Role of the Circadian Clock in Alcohol-Induced Alterations in Hepatic Mitochondrial Energy Metabolism"

8:20 pm - 8:30 pm Discussion

- 8:30 pm - 8:50 pm **Narayan Avadhani** (University of Pennsylvania, USA)  
"Mitochondria-Targeted Cyp2E1 Modulates Alcohol Liver Toxicity"
- 8:50 pm - 9:00 pm Discussion
- 9:00 pm - 9:10 pm Short Talk Selected from Poster Abstracts
- 9:10 pm - 9:15 pm Discussion
- 9:15 pm - 9:25 pm Short Talk Selected from Poster Abstracts
- 9:25 pm - 9:30 pm Discussion

## Thursday

- 7:30 am - 8:30 am Breakfast
- 9:00 am - 12:30 pm **Preclinical/Translational Approaches and Treatment in Alcohol-Associated Diseases**
- Discussion Leader: **Mack Mitchell** (University of Texas Southwestern Medical Center, USA)
- 9:00 am - 9:20 am **Philippe Mathurin** (Centre Hospitalier Universitaire de Lille, France)  
"Therapeutic Strategy in Severe Alcoholic Hepatitis: From Present to Future Development of New Molecules"
- 9:20 am - 9:30 am Discussion
- 9:30 am - 9:50 am **Ramon Bataller** (University of North Carolina at Chapel Hill, USA)  
"Novel Therapeutic Targets for Alcoholic Hepatitis"
- 9:50 am - 10:00 am Discussion
- 10:00 am - 10:10 am Short Talk Selected from Poster Abstracts
- 10:10 am - 10:15 am Discussion
- 10:15 am - 10:25 am Short Talk Selected from Poster Abstracts
- 10:25 am - 10:30 am Discussion
- 10:30 am - 11:00 am Coffee Break
- 11:00 am - 11:20 am **George Kunos** (National Institutes of Health, USA)  
"Multitarget Approach for The Pharmacotherapy of Liver Fibrosis"
- 11:20 am - 11:30 am Discussion
- 11:30 am - 11:50 am **Shelly Lu** (Cedars-Sinai Medical Center, USA)  
"Role of SAME in Liver Injury and Cancer"
- 11:50 am - 12:00 pm Discussion
- 12:00 pm - 12:20 pm **Urszula Iwaniec** (Center for Healthy Aging Research, Oregon State University, USA)  
"Alcohol: A Simple Nutrient with Complex Actions on Bone in the Adult Skeleton"
- 12:20 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 4:00 pm Free Time
- 4:00 pm - 6:00 pm Poster Session
- 6:00 pm Dinner
- 7:30 pm - 9:30 pm **Post-Metabolic Signaling and Stress Pathways**
- Discussion Leader: **Charles Lang** (Penn State College of Medicine, USA)
- 7:30 pm - 7:50 pm **Pal Pacher** (National Institute on Alcohol Abuse and Alcoholism, NIH, USA)  
"Deleterious Effects of Binge Drinking on Chronic Ethanol Feeding-Induced Metabolic

## Dysregulation and Cardiovascular Dysfunction in Mice"

- 7:50 pm - 8:00 pm Discussion
- 8:00 pm - 8:20 pm **Jason Gardner** (LSU Health Sciences Center New Orleans, USA)  
"Alcohol and The Heart: Interference of Compensatory Remodeling"
- 8:20 pm - 8:30 pm Discussion
- 8:30 pm - 8:50 pm **Daria Mochly-Rosen** (Stanford University School of Medicine, USA)  
"Ethanol and Precision Medicine: New Considerations for an Old Problem"
- 8:50 pm - 9:00 pm Discussion
- 9:00 pm - 9:10 pm Short Talk Selected from Poster Abstracts
- 9:10 pm - 9:15 pm Discussion
- 9:15 pm - 9:25 pm Short Talk Selected from Poster Abstracts
- 9:25 pm - 9:30 pm Discussion

## Friday

- 7:30 am - 8:30 am Breakfast
- 9:00 am Departure