

**Acute Kidney Injury: Bench to Bedside (and back again)**

**FASEB Science Research Conference, July 21-25<sup>th</sup> 2019**

**Asilomar Conference Grounds, Pacific Grove, Ca**

**Sunday**

**Welcome reception, dinner and keynote speaker: 5-8pm**

**Keynote Speaker:** Claudio Ronco M.D.

Title: TBD

Affiliation: Professor and Director, Department of Nephrology, Dialysis and Transplantation, International Renal Research Institute, St. Bortolo Hospital, Vicenza, Italy

**Monday**

**Session 1: 8:30-10:30am**

**Title: Mechanisms Injury**

**Session Chair:** Mark de Caestecker M.B., B.S., Ph.D.

Affiliation: Associate Professor, Division of Nephrology, Vanderbilt University Medical Center

**Speaker 1:** Anupam Agarwal M.D.

Title: Autophagy

Affiliation: Professor and Division Chief, Division of Nephrology, University of Alabama at Birmingham

**Speaker 2:** Hulya Bayir M.D.

Title: Ferroptosis

Affiliation: Professor, Department of Critical Care Medicine, University of Pittsburgh

**Speaker 3:** Zeng Dong Ph.D.

Title: Diabetes and AKI

Affiliation: Professor Senior Research Career Scientist, Charlie Norwood VA Medical Center, Augusta

**Speaker 4:** Samir Parikh M.D.

Title: Metabolism and injury

Affiliation: Assistant Professor, Department of Medicine, Beth Israel Deaconess Medical Center, Harvard

**Break: 10:30-10:45am**

**Session 2: 10:45-1pm**

**Title: Organ interactions in AKI**

**Session Chair:** Claudio Ronco M.D.

Affiliation: Professor and Director, Department of Nephrology, Dialysis and Transplantation, International Renal Research Institute, St. Bortolo Hospital, Vicenza, Italy

**Speaker 1:** Claudio Ronco M.D.

Title: Organ interactions in AKI-an overview

Affiliation: Professor and Director, Department of Nephrology, Dialysis and Transplantation, International Renal Research Institute, St. Bortolo Hospital, Vicenza, Italy

**Speaker 2:** Jeffery Testani M.D., M.T.R.,

Title: Cardiorenal syndrome

Affiliation: Assistant Professor of Medicine (Cardiology), Yale School of Medicine

**Invited talks by junior faculty/trainees (3)**

**Speaker 1:** Loren Smith M.D., Ph.D.,

Title: AKI, statins and cardiac surgery

Affiliation: Assistant Professor, Department of Anesthesiology, Vanderbilt University Medical Center

**Speaker 2:** Ina Schiessl Ph.D.

Title: Use of intravital imaging in study tubular regeneration in mice after AKI

Affiliation: Postdoctoral Fellow, Institute of Physiology and Biophysics, University of Southern California, Los Angeles

**Speaker 3:** Sherry George Mansur D.O,

Title: The prevalence and impact of AKI on long term renal function in marathon runners

Affiliation: Instructor, Division of nephrology, Yale School of Medicine

**1:00-4:00pm-free time**

**Session 3: 4:00-6:00pm**

***Title: Clinical studies in Human AKI***

**Session Chair:** Steve Weisbord M.D.

Affiliation: Associate Professor, Renal and Electrolyte Division, University of Pittsburgh School of Medicine

**Speaker 1:** Steve Weisbord M.D.

Title: Contrast Studies

Affiliation: Associate Professor, Renal and Electrolyte Division, University of Pittsburgh School of Medicine

**Speaker 2:** Frederick (Josh) Billings M.D., M.S.C.I.

Title: Perioperative clinical trials in AKI

Affiliation: Associate Professor of Anesthesiology and Medicine, Vanderbilt University Medical Center

**Speaker 3:** Matt Semler M.D., M.S.C.I.

Title: Pragmatic trials in AKI: crystalloids in AKI

Affiliation: Assistant Professor, Division of Allergy, Pulmonary and Critical Care Medicine, Vanderbilt

**Speaker 4:** Lorraine Ware M.D.

Title: Acetaminophen and sepsis

Affiliation: Professor, Division of Allergy, Pulmonary and Critical Care Medicine, Vanderbilt University

**Dinner: 6:30-8:00pm**

**Poster session 1: 8-10pm**

***Tuesday***

**Session 1: 8:30-10:30am**

***Title: Mechanisms of Repair***

**Session Chair:** Jeremy Duffield M.D., Ph.D.

Affiliation: Global Head of Human Biology, Vertex Pharmaceuticals, Boston

**Speaker 1:** Bruce Mollitoris M.D.

Title: Endothelium in sepsis associated AKI

Affiliation: Professor, Department of Medicine, Indiana University School of Medicine

**Speaker 2:** Jeremy Duffield M.D., Ph.D.

Title: Microvascular Repair

Affiliation: Global Head of Human Biology, Vertex Pharmaceuticals, Boston

**Speaker 3:** Lloyd Cantley M.D.

Title: Cellular Cross Talk

Affiliation: Professor and Vice Chair for Research, Department of Medicine, Yale School of Medicine

Speaker 4:

**Break: 10:30-10:45am**

**Session 2: 10:45-12:45pm**

***Title: Mechanisms of maladaptive repair and fibrosis***

**Session Chair:** Motoko Yanagita M.D., Ph.D.

Affiliation: Professor, Division of Nephrology, Kyoto University, Japan

**Speaker 1:** Joe Bonventre M.D. Ph.D.

Title: Epithelial cell cycle arrest

Affiliation: Professor and Chief, Division of Nephrology, Brigham and Women's Hospital, Harvard

**Speaker 2:** Leslie Gewin M.D.

Title: Mechanisms of Fibrosis

Affiliation: Assistant Professor, Department of Medicine, Vanderbilt University Medical Center

**Speaker 3:** Alan Davidson Ph.D.

Title: Human kidney organoids and fibrosis

Affiliation: Associate Professor, Head of Department of Molecular Medicine & Pathology, The University of Auckland, New Zealand

**Speaker 4:** Motoko Yanagita M.D., Ph.D.

Title: Inflammation and aging

Affiliation: Professor, Division of Nephrology, Kyoto University, Japan

**1:00-4:00pm-free time**

2:00-3:30 (optional) Workforce development (1): Career Discussion Panel

**Session 3: 4:00-6pm**

***Title: Human tissue interrogation of AKI-Part 1, tissue acquisition and data integration***

**Session Chair:** Jonathan Himmelfarb M.D.

Affiliation: Professor and Director, Kidney Research Institute, Department of Medicine, University of Washington, Seattle

**Speaker 1:** Chirag Parikh M.D., Ph.D.

Title: KPMP Tissue Acquisition

Affiliation: Professor and Director, Program of Applied Translational Research, Department of Medicine, Yale School of Medicine

**Speaker 2:** Jonathan Himmelfarb M.D.

Title: KPMP Coordinating Center

Affiliation: Professor and Director, Kidney Research Institute, Department of Medicine, University of Washington, Seattle

**Speaker 3:** Kim Rathmell M.D., Ph.D.

Title: Lessons and discussion based on experiences with The Cancer Genome Atlas (TCGA)

Affiliation: Professor and Director, Division of Hematology and Oncology, Vanderbilt University Medical Center

**Short talks selected from abstracts (2)**

**Dinner: 6:30-8:00pm**

**Poster session 2: 8-10pm**

**Wednesday**

**Session 1: 8:30-10:30am**

**Title: Human tissue interrogation of AKI-Part 2, tissue analysis**

**Session Chair:** Katalin Sustak M.D., Ph.D.

Affiliation: Professor, Department of Medicine, Perlman School of Medicine, University of Pennsylvania

**Speaker 1:** Ben Humphreys M.D., Ph.D.

Title: A single cell RNA seq database for human AKI

Affiliation: Professor and Chief, Division of Nephrology, Washington University School of Medicine, St Louis

**Speaker 2:** Andy McMahon Ph.D.

Title: Multiplexed expression analyses

Affiliation: Professor and Chair, Department of Stem Cell Biology and Regenerative Medicine, Keck School of Medicine, University of Southern California

**Speaker 3:** Jeff Spraggins Ph.D.

Title: Towards Single Cell Imaging Mass Spectrometry

Affiliation: Research Assistant Professor, Department of Biochemistry, Vanderbilt University

**Speaker 4:** Katalin Susztak M.D., Ph.D.

Title: TRIDENT

Affiliation: Professor, Department of Medicine, Perlman School of Medicine, University of Pennsylvania

**Break: 10:30-10:45am**

**Session 2: 10:45am-1pm**

**Title: Immunological Mechanisms of Injury and Repair in AKI**

**Session Chair:** Ray Harris M.D.

Affiliation: Professor and Division Chief, Division of Nephrology, Vanderbilt University Medical Center

**Speaker 1:** Hamid Rabb M.D.

Title: T cells and AKI

Affiliation: Professor and Vice Chairman, Department of Medicine, Johns Hopkins School of Medicine

**Speaker 2:** Mark Okusa M.D.

Title: Neuro-immunology and AKI

Affiliation: Professor and Division Chief, Division of Nephrology, University of Virginia School of Medicine

**Speaker 3:** Jeff Rathmell Ph.D.

Title: Immune cell metabolism

Affiliation: Professor and Director of the Center for Immunobiology, Department of Pathology, Microbiology and Immunology, Vanderbilt University

**Short talks selected from abstracts (2)**

**1:00-4:00pm-free time (box lunch to go)**

2:00-3:30 (optional) Workforce development (2): Career Discussion Groups

**Session 3: 4:00-6:00pm**

**Title: Drug Development for AKI-Part 1, Clinical phenotyping**

**Session Chair:** Eddie Siew M.D., M.S.C.I.

Affiliation: Associate Professor, Division of Nephrology, Vanderbilt University Medical Center

**Speaker 2:** John Kellum M.D.

Title: Biomarkers

Affiliation: Professor and Director, Center for Critical Care Nephrology, Department of Critical Care Medicine, University of Pittsburgh

**Speaker 3:** Stuart (Stu) Goldstein M.D.

Title: Real time GFR

Affiliation: Professor, Department of Pediatrics, University of Cincinnati

**Speaker 1:** Neesh Pannu M.D.

Title: Using computer algorithms to predict outcomes in patients with AKI

Affiliation: Professor, Division of Nephrology, University of Alberta, Canada

**Speaker 4:** Mink Chawla M.D.

Title: Defining AKI endophenotypes in clinical trial design

Affiliation: Chief Medical Officer, La Jolla Pharmaceuticals, San Diego

**Dinner and Reception: 6:30-9:00pm**

## **Thursday**

**Session 1: 8:30-10:30am**

***Title: Drug Development for AKI-Part 2, Preclinical screening and efficacy testing***

**Session Chair:** Melissa Little Ph.D.

Affiliation: Professor, Department of Medicine, University of Melbourne, Australia

**Speaker 1:** Jeremy Duffield M.D., Ph.D.

Title: Selection of Targets

Affiliation: Global Head of Human Biology, Vertex Pharmaceuticals, Boston

**Speaker 2:** Neil Hukriede Ph.D.

Title: Selecting a phenotype using zebrafish as a screening tool

Affiliation: Associate Professor and Vice Chair, Department of Developmental Biology, University of Pittsburgh

**Speaker 3:** Melissa Little Ph.D.

Title: IPSC organoids

Affiliation: Professor, Department of Medicine, University of Melbourne, Australia

**Speaker 4:** Jonathan Himmelfarb M.D.

Title: Kidney on a Chip

Affiliation: Professor and Director, Kidney Research Institute, Department of Medicine, University of Washington, Seattle

**Break: 10:30-11am**

**Session 2: 11-1pm**

***Title: Drug Development for AKI-Part 3, Clinical trial design and outcomes***

**Session Chair:** Kathleen Liu M.D.

Affiliation: Associate Professor, Department of Anesthesia, University of California, San Francisco

**Speaker 1:** Kathleen Liu M.D.

Title: Clinical trial design-lessons from ARDS Net

Affiliation: Associate Professor, Department of Anesthesia, University of California, San Francisco

Speaker 2: Mink Chawla M.D.

Title: An Industry perspective (1)

Affiliation: Chief Medical Officer, La Jolla Pharmaceuticals, San Diego

Speaker 3: Elizabeth Squiers M.D., F.A.C.S.

Title: Clinical trial design for a Phase 3 Program-lessons learned from an industry perspective (2)

Affiliation: Chief Medical Officer, Quark Pharmaceuticals

Speaker 4: Aliza Thompson M.D.

Title: Regulatory perspectives

Affiliation: Medical officer, Division of Cardiovascular and Renal Products, Food and Drug Administration, Center for Drug Evaluation and Research

**1:30pm-Departure**