

Scientific Program Agenda

THURSDAY, MARCH 21, 2019

1:00 - 1:10PM Welcome: Morag Young, Conference Chair, Hudson Institute of Medical Research, Australia and Frédéric Jaisser, Conference Co-chair, INSERM U1138, Paris, France

1:10 - 1:50PM Senior Investigator Presentation:
The Role of Endothelial Cell MR Activation in Development of Vascular Stiffness
James Sowers, MD, PhD
Vice Chair, Professor of Medicine, Dept. of Endocrinology, School of Medicine
Dalton Cardiovascular Research Center, University of Missouri, USA

SESSION I: ALDOSTERONE AND MR, CARDIOVASCULAR AND METABOLIC OUTCOMES

Session Chairs: Frédéric Jaisser, INSERM U1138, Paris, France

Toshiro Fujita, The University of Tokyo, Japan

1:50 - 2:05PM Susan Stienen, Centre d'Investigation Clinique et Plurithématique Nancy, France
Determinants of Anti-fibrotic Response to Mineralocorticoid Receptor Antagonists Therapy

2:05 - 2:20PM Thitinan Treesaranuwa, Brigham & Women's Hospital, Harvard Medical School, USA
Lysine-Specific Demethylase-1 (LSD1) Deficiency Increases Aldosterone Signaling via Mineralocorticoid Receptor Activation

2:20 - 2:35PM Andrea Vecchiola, Pontificia Universidad Católica de Chile, Chile
Eplerenone Ameliorates Renin-Angiotensin-Aldosterone System Activation and Obesity in High-fat Mice Model

2:35 - 2:50PM Michael Hill, University of Missouri, USA
A Role for Mineralocorticoid Receptors in Vascular Smooth Muscle Cell Stiffness and Adhesion during Aging

2:50 - 3:05PM Christopher Heier, The George Washington University SOM and Health Sciences, USA
The $\Delta 9,11$ Drug Vamorolone Targets Both the MR and GR to Safely Treat Inflammation and Dystrophic Cardiomyopathy

3:05 - 3:20PM Sai Prasad Iyer, Relypsa, Inc., a Vifor Pharma Group Company
A Novel Rodent Model of Hyperkalemia: Effect of Patiromer on Serum Potassium and Aldosterone

3:20 - 3:45PM COFFEE BREAK

SESSION II: YOUNG INVESTIGATOR COMPETITION PRESENTATIONS

Session Chairs: Matt Luther, Vanderbilt University, USA

Elise Gomez-Sanchez, University of Mississippi Medical Center, USA

3:45 - 4:05PM Charlotte van der Heijden, Radboud University Medical Center, The Netherlands
Aldosterone Induces Trained Immunity via Fatty Acid Synthesis

4:05 - 4:25PM Elizabeth Moss, Molecular Cardiology Research Institute, Tufts Medical Center, USA
Sex-Specific Role for Endothelial Mineralocorticoid Receptors in Vascular Inflammation in Atherosclerosis

- 4:25 - 4:45PM Moe Thuzar, University of Queensland, Australia
Effect of Mineralocorticoid Receptor Antagonism on the Function of Human Brown Adipose Tissue
- 4:45 - 5:05PM Rami El Zein, INSERM U970, France
Sex-Specific Role of Retinoic Acid Receptor Alpha Signaling in Adrenal Cortex Development and Functional Zonation
- 5:05 - 5:15PM Tribute to Professor John Coghlan
John Funder, Hudson Institute of Medical Research, Australia
- 5:15 - 5:20PM Conference Announcements
- 5:30 - 7:30PM Moderated Poster Session and Reception
CLINICAL:
Moderators: Gordon Williams, MD, Harvard Medical School, USA
Maria-Christina Zennaro, MD, PhD, INSERM, U970, PARCC, France
BASIC AND TRANSLATIONAL:
Moderators: Frédéric Jaisser, INSERM U1138, Paris, France
Morag Young, Hudson Institute of Medical Research, Australia

FRIDAY, MARCH 22, 2019

- 8:00 - 8:55AM *State of the Art Lecture*
Natural Genetic Variation and the Personalized Actions of Nuclear Receptors
Mitchell Lazar, MD, PhD
Willard and Rhoda Ware Professor, Diabetes and Metabolic Diseases
Perelman School of Medicine, University of Pennsylvania, USA
- 8:55 - 9:35AM *Senior Investigator Lecture*
Corticosteroid Receptor Action: When Dynamics Matter
Marc Lombès, MD
Head, Endocrinology, INSERM U693
Fac Med Paris Sud, Paris, France
- 9:35 - 9:40AM Conference Announcements
- 9:40 - 10:00AM COFFEE BREAK
- SESSION III: NEW MECHANISMS REGULATING MR SIGNALING**
Session Chairs: Tim Cole, Monash University, Australia
Gail Adler, Brigham & Women's Hospital, USA
- 10:00- 10:15AM Diego Alvarez de la Rosa, University of La Laguna, Spain
The Long Non-coding RNA Gas5 Selectively Regulates Corticosteroid Receptor Activity
- 10:15 - 10:30AM Nobuhiro Ayuzawa, The University of Tokyo, Japan
Two Distinct Regulations of Pendrin by Mineralocorticoid Receptor in Distal Nephron
- 10:30 - 10:45AM Christoph Korbmacher, Friedrich-Alexander University Erlangen-Nürnberg, Germany
The Stimulatory Effect of Aldosterone on ENaC is Site-specific in Mouse Distal Nephron and Requires Endogenous Protease Activity of Tubular Cells

10:45 - 11:00AM Cristian Carvajal, Pontificia Universidad Catolica de Chile, Chile
A Novel Compound Heterozygous Pathogenic Variant (R213C/R337C) in the HSD11B2 Gene as Cause of Apparent Mineralocorticoids Excess

11:00 - 11:15AM Ross Feldman, University of Manitoba, Canada
Aldosterone is More Potent than Estradiol as a GPER Agonist: Functional and Radioligand Binding Studies

SESSION IV: CLINICAL UPDATES FOR PA

Session Chairs: Franco Mantero, University of Padua, Italy
Robert Carey, University of Virginia, USA

11:15 - 11:30AM Adina Turcu, University of Michigan, USA
The Dichotomy of Primary Aldosteronism Subtypes: Fact or Fantasy?

11:30 - 11:45AM Yuta Nanao, Hiroshima University, Japan
ATP1A1 Mutation Stimulates Adrenal Cell Proliferation via Vitamin D Receptor Signal Induced by DNA Demethylation

11:45 - 12:00PM Jun Yang, Hudson Institute of Medical Research, Australia
Primary Aldosteronism is Common in Australian Primary Care: A Pilot Study

12:00 - 12:15PM Motoko Nomura, Keio University School of Medicine, Japan
Comparison of the Efficacy of Laparoscopic Partial Adrenalectomy and Total Adrenalectomy in the Surgical Treatment of Primary Aldosteronism -Emerging Usefulness of Segmental Adrenal Venous Sampling

12:15 - 12:30PM Matt Luther, Vanderbilt University, USA
Primary Aldosteronism Decreases Insulin Secretion and Increases Insulin Clearance in Humans

12:30 - 1:30PM Luncheon and Presentation of Young Investigator Competition Awards

1:30 - 2:10PM Senior Investigator Lecture
MicroRNAs as Tools for Diagnosis and Treatment of Primary Aldosteronism
Eleanor Davies, PhD
Professor of Molecular Endocrinology, BHF Glasgow Cardiovascular Research Institute
University of Glasgow, UK

SESSION V: ALDOSTERONE SYNTHESIS – NEW MECHANISMS

Session Chairs: Sheerazed Boulkroun, Inserm U970 – PARCC, France
Celso Gomez-Sanchez, University of Mississippi Medical Center, USA

2:10 - 2:25PM Paula Barrett, University of Virginia School of Medicine, USA
Form and Function: The Role of the Rosette Structure in zG Calcium Signaling

2:25 - 2:40PM Steven Maris, Brigham & Women's Hospital, Harvard Medical School, USA
Differential Effects of Lipophilic and Hydrophilic Statins on Aldosterone Biosynthesis

2:40 - 2:55PM Gian Paolo Rossi, University of Padua, Italy
A Novel GPER Mediated Feed-forward Loop Enhancing Aldosterone Biosynthesis

- 2:55 - 3:10PM Annabel Berthon, National Institutes of Health, USA
Role of Kisspeptin and Kisspeptin Receptor in the Regulation of Adrenocortical Development and Steroid Hormone Secretion
- 3:10 - 3:25PM Steven Sparks, Selenity Therapeutics, Durham, NC, USA
Durable Suppression of Aldosterone Production in Non-human Primates by SE-6440, a Potent and Highly-Selective Inhibitor of Aldosterone Synthase (CYP11B2)
- 3:25 - 3:40PM William Rainey, University of Michigan, USA
Defining Somatic Mutations that Cause Aldosterone-producing Adenomas: Are We Done Yet?
- 3:40 - 4:00PM COFFEE BREAK
- 4:00 - 4:15PM J. Howard Pratt, Indiana University School of Medicine, USA
Central Role of Aldosterone in Regulating Blood Pressure in Blacks

SESSION VI: SHORT TALKS

Session Chairs: William Rainey, University of Michigan, USA
Gordon Williams, Harvard Medical School, USA

- 4:15 - 4:29PM Annayya Aroor, University of Missouri, USA
Role of Oxidative Stress in Angiotensin II-Mediated Endothelial Sodium Channel Activation Leading to Arterial Stiffness
- 4:20 - 4:25PM Simon Travers, Inserm U 1185, France
Alteration of Mineralocorticoid Signaling Pathway by Accumulating Steroid Metabolites in Salt Wasting 21-Hydroxylase Deficient Patients
- 4:25 - 4:30PM Taweesak Wannachalee, University of Michigan, USA
In Search of Predictors of Concordance between Imaging and Adrenal Venous Sampling in Unilateral Primary Aldosteronism
- 4:30 - 4:40PM Closing Remarks
Morag Young, Hudson Institute of Medical Research, Australia
Frédéric Jaisser, INSERM U1138, Paris, France
Gordon Williams, Harvard Medical School, USA