

## Sunday, September 22, 2019

18:00-20:00 Room 1

Opening Ceremony and Reception

## Monday, September 23, 2019

O=Oral Presentation, P=Poster

9:00-9:10 Room 1

Welcome

**Noriaki Emoto**

*Kobe Pharmaceutical University and Kobe University*

**Bambang Widiantoro**

*University of Indonesia*

9:10-10:30 Room 1

Session 1: Novel Aspects of the Endothelin System

**Chairs: Anthony P. Davenport** *University of Cambridge, Cambridge, UK*

**Koji Maemura** *Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan*

Invited Lecture 1

**Role of the Circadian Clock in the Regulation of ET-1**

**Michelle L. Gumz**

*The University of Florida, Gainesville, USA*

Invited Lecture 2

**Endothelin receptor antagonism in transplantation of healthy cells to repopulate the liver and treat diseases for regenerative medicine**

**Sanjeev Gupta**

*Professor of Medicine and Pathology, the Eleazar and Feige Reicher Chair in Translational Medicine; Marion Bessin Liver Research Center, Diabetes Center, Irwin S. and Sylvia Chanin Institute for Cancer Research, and Ruth L. and David S. Gottesman Institute for Stem Cell and Regenerative Medicine Research, Albert Einstein College of Medicine, New York, USA*

O-1

**Tissue-specific Circadian Clock Resetting Property of Endothelins**

**Man Ting Au<sup>1</sup>, Mark Naven<sup>2</sup>, Qing-Jun Meng<sup>2</sup>, Chunyi Wen<sup>1</sup>**

*<sup>1</sup>Department of Biomedical Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hong Kong, China, <sup>2</sup>Wellcome Centre for Cell-Matrix Research, Faculty of Biology, Medicine and Health, University of Manchester, Oxford Road, Manchester M13 9PT, UK.*

10:50-11:50 Room 1

Session 2: Molecular and Cellular Biology

**Chairs: Pierre-Louis Tharaux** *INSERM/The Paris Cardiovascular Centre, PARCC, Paris, France*

**Jennifer Pollock** *The University of Alabama Birmingham, Birmingham, USA*

Invited Lecture 3

**Current and emerging drugs for endothelin receptors and strategies for identification of novel therapeutic targets.**

**Anthony P. Davenport**

*Experimental Medicine and Immunotherapeutics, University of Cambridge, U.K.*

O-2

**EDN1-AS is a novel antisense RNA regulator of the Endothelin-1 gene**

**Lauren G. Douma<sup>1,2</sup>, Sarah Masten<sup>1</sup>, Kristen Solocinski<sup>1,2</sup>, Dominique H. Barral<sup>1</sup>, Charles S. Wingo<sup>1,3</sup>, Kevin Brown<sup>1</sup>, Brian D. Cain<sup>1</sup>, Michelle L. Gumz<sup>1,2,3</sup>**

*<sup>1</sup>Department of Medicine, University of Florida, Gainesville, FL, USA, <sup>2</sup>Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, FL, USA, <sup>3</sup>North Florida/South Georgia Veterans Health System, Gainesville, FL, USA*

O-3

**In vivo studies showing endothelin-1 traps as a potential therapy for type I diabetes**

**Arjun Jain<sup>1</sup>, Vidhi Mehrotra<sup>1</sup>, Ira Jha<sup>2,3</sup>, Ashok Jain<sup>1</sup>**

*<sup>1</sup>University of Cambridge, Cambridge, <sup>2</sup>National University of Singapore, Singapore, <sup>3</sup>Indian Institute of Management, Ahmedabad, India*

12:00-13:00

Room 2

Lunch Session 1

**Chair: Keiichi Fukuda** *Keio University School of Medicine, Tokyo, Japan*

LS-1

**Estrogen's non-nuclear signaling and cardiac cGMP signaling pathways**

**Eiki Takimoto**

*Department of Cardiovascular Medicine, The University of Tokyo Hospital*

*Co-sponsored by Bayer Yakuhin, Ltd.*

13:30-14:30

Poster Room

Poster Session 1

**Chairs:** P1-P6 **Matthias Barton** *University of Zurich, Zurich, Switzerland*

P7-P12 **Michelle L. Gumz** *The University of Florida, Gainesville, USA*

P13-P18 **Sunu Budhi Raharjo** *National Cardiovascular Center Harapan Kita/Universitas Indonesia, Jakarta, Indonesia*

P-1

**Crystal structure of human endothelin ETB receptor in complex with peptide inverse agonist IRL2500**

**Chisae Nagiri<sup>1</sup>, Wataru Shihoya<sup>1</sup>, Asuka Inoue<sup>2</sup>, Francois Marie Ngako Kadji<sup>2</sup>, Junken Aoki<sup>2</sup>, Osamu Nureki<sup>1</sup>**

*<sup>1</sup>Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Japan, <sup>2</sup>Graduate School of Pharmaceutical Sciences, Tohoku University*

P-2

### Crystal structures of human ETB receptor provide mechanistic insight into receptor activation and partial activation

Tamaki Izume<sup>1</sup>, Wataru Shihoya<sup>1</sup>, Asuka Inoue<sup>2</sup>, Keitaro Yamashita<sup>1,3</sup>, Francois Marie Ngako Kadji<sup>2</sup>, Kunio Hirata<sup>3</sup>, Junken Aoki<sup>2,4</sup>, Tomohiro Nishizawa<sup>1</sup>, Osamu Nureki<sup>1</sup>

<sup>1</sup>Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo, <sup>2</sup>Dept. of Molecular and Cellular Bio., Grad. Sch. of Pha Sci., Tohoku Univ., <sup>3</sup>RIKEN SPring-8 Center, <sup>4</sup>AMED-CREST

P-3

### The Correlation Between Endothelin-1 and HbA1C Levels With Retinal Nerve Fiber Layer (RNFL) Thickness, Visual Field Defect, and CD Ratio of Optic Nerve Head in Metabolic Syndrome - Obstructive Sleep Apnea Risk Patients

Seskoati Prayitnaningsih<sup>1</sup>, Virna Oktarini<sup>2</sup>, Synthia Nusanti<sup>2</sup>, Erlin Listyaningsih<sup>3</sup>, Budi Siswanto Bambang<sup>4</sup>, Anwar Santoso<sup>4</sup>

<sup>1</sup>Ophthalmology Department, Universitas Brawijaya, Malang, Indonesia, <sup>2</sup>Department of Ophthalmology, Faculty of Medicine, University of Indonesia, Jakarta 10430, Indonesia, <sup>3</sup>Harapan Kita National Cardiovascular Center, Jakarta 11420, Indonesia, <sup>4</sup>Department of Cardiology, Faculty of Medicine, University of Indonesia, Jakarta 10430, Indonesia

P-4

### Atrasentan for patients with diabetic nephropathy: A meta-analysis

Yusuf Azmi, Bambang Widiantoro

Department of Cardiology and Vascular Medicine, Universitas Indonesia, Jakarta, Indonesia

P-5

### Association between serum endothelin-2 level and platelet and endothelial activation in ST-elevation acute myocardial infarction

Chairul Amri, Anggoro Budi Hartopo, M Faizal Dentawan Pritama, Vita Yanti Anggraeni

Universitas Gadjah mada

P-6

### Vitamin C deficiency impairs endothelin type B receptor-mediated vasoconstriction in uterine arteries undergoing remodelling

Gry F. Skovsted, Jens Lykkesfeldt

Department of Veterinary and Animal Sciences, University of Copenhagen, Denmark

P-7

### ET-1, ET receptor antagonists and vein graft occlusion in coronary artery bypass surgery: twenty years on and no journey from bench to bedside

Michael Dashwood

University College London Medical School

P-8

### Serum Elastin Peptide, Matrix Degrading Metalloproteinase-9, and Cystatin-C as prediction factors for Rupture Incidence in Abdominal Aortic Aneurysm

Radietya Alvarabie<sup>1,2</sup>, Isabella Kurnia Liem<sup>1</sup>, Rasjid Soeparwata<sup>2,3</sup>, Dedy Pratama<sup>2</sup>, Ayla Putri Zahari<sup>4</sup>

<sup>1</sup>Department of Anatomy, Faculty of Medicine, Universitas Indonesia, <sup>2</sup>Department of Surgery, Division of Vascular and Endovascular Surgery, Faculty of Medicine, Universitas Indonesia. Dr. Tjipto Mangunkusumo National Central Hospital, <sup>3</sup>Wilhelm Westfachlichen Universitaet Muenster, German, <sup>4</sup>Master Program of Biomedical Sciences, Patobiology Division, Faculty of Medicine, Universitas Indonesia

P-9

### Microarray analysis demonstrates upregulation of the endothelin-1 gene with a compensatory down regulation of the ET<sub>A</sub> receptor gene in human portal vein, the target vessel for the treatment of portal hypertension

Anthony P. Davenport<sup>1</sup>, Nicola E Owen<sup>1</sup>, Rhoda E. Kuc<sup>1</sup>, Graeme J. M. Alexander<sup>2</sup>, Janet J. Maguire<sup>1</sup>, Emma E. Davenport<sup>3</sup>

<sup>1</sup>Experimental Medicine and Immunotherapeutics, Department of Medicine, University of Cambridge, UK, <sup>2</sup>Department of Hepatology, Cambridge University Hospitals, Cambridge, UK, <sup>3</sup>Wellcome Sanger Institute, Wellcome Genome Campus, Cambridge, UK

P-10

### Association between Serum Endothelin-2 and Major Adverse Cardiovascular Events in ST-elevation Acute Myocardial Infarction

Muhammad F. D. Pritama, Anggoro Budi Hartopo, Chairul Amri, Vita Yanti Anggraeni

Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Indonesia

P-11

### Current status of pulmonary artery hypertension in Vietnam: Preliminary data of the National Heart Institute Pulmonary Hypertension Registry

Thanh Ngoc Kim<sup>1,2</sup>, Yen Hai Tran<sup>1</sup>, Thuy Thu Pham<sup>1</sup>, Tung Thanh Le<sup>1</sup>, Ngoc Mai Thi Nguyen<sup>1,2</sup>, Huong Thanh Truong<sup>1,2</sup>

<sup>1</sup>Vietnam National Heart Institute, Bach Mai Hospital, Hanoi, Vietnam, <sup>2</sup>Department of Cardiology, Hanoi Medical University, Hanoi, Vietnam

P-12

### Effects of endothelin antagonists on hydroxyl radical generation from isolated Goto-Kakizaki (GK) Rat aorta

Reiko Ishii-Nozawa, Yumi Kuwana, Mizuki Kowase, Keitaro Marumo, Masao Takamura

Department of Clinical Neuropharmacology, Education and Research Unit for Comprehensive Clinical Pharmacy, Meiji Pharmaceutical University

P-13

### Endothelin-1 Level in Stable Coronary Artery Disease with Varying Degree of Severity

Ahmad Musthafa, Anggoro Budi Hartopo, Aras A Husna

Department of Cardiology and Vascular Medicine, Universitas Gadjah Mada

P-14

### Pharmacological characterization of Zibotentan, to evaluate its potential for repurposing in patients with microvascular angina

Anthony P. Davenport<sup>1</sup>, Thomas J. Ford<sup>2</sup>, Rhoda E. Kuc<sup>1</sup>, Paul Rocchiccioli<sup>2</sup>, Rhian M. Touyz<sup>2</sup>, Janet J. Maguire<sup>1</sup>, Colin Berry<sup>2</sup>

<sup>1</sup>Experimental Medicine and Immunotherapeutics, University of Cambridge, Cambridge, U.K., <sup>2</sup>British Heart Foundation Glasgow Cardiovascular Research Centre, Institute of Cardiovascular and Medical Sciences, University of Glasgow, UK

P-15

### Endothelin-1/endothelin-3 ratio associated with higher risk profiles in ST-elevation acute myocardial infarction but not with short and long term adverse cardiac outcomes

Anggoro Budi Hartopo, Ahmad Musthafa, Hasanah Mumpuni

Department Cardiology and Vascular Medicine, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Yogyakarta, Indonesia

P-16

### Cardiac Remodeling in Diabetic Heart Disease: Learning from translational studies on Endothelin system

Bambang Widyantoro

Department of Cardiology and Vascular Medicine, Universitas Indonesia, Jakarta, Indonesia

P-17

### CNP and ET system in vasculature

Kazuwa Nakao<sup>1</sup>, Kazuhiro Nakao<sup>2</sup>, Daisuke Taura<sup>3</sup>, Yasuaki Nakagawa<sup>4</sup>, Hideyuki Kinoshita<sup>4</sup>, Koichiro Kuwahara<sup>5</sup>, Masakatsu Sone<sup>3</sup>

<sup>1</sup>Medical Innovation Center, <sup>2</sup>National Cardiovascular Research Center, <sup>3</sup>Department of Diabetes Endocrinology and Nutrition, <sup>4</sup>Department of Cardiovascular Medicine, <sup>5</sup>Kyoto University Graduate School of Medicine, Kyoto, Japan and Department of Cardiovascular Medicine, Shinshu University School of Medicine, Nagano, Japan

P-18

### Increased On-admission Endothelin-1 Level Associates with In-hospital Adverse Cardiac Events in Non ST-Elevation Acute Coronary Syndrome

Muflihatul B. Rochmat<sup>1</sup>, Anggoro B. Hartopo<sup>1</sup>, Ahmad Musthafa<sup>2</sup>, Indah Sukmasari<sup>2</sup>, Ira Puspitawati<sup>2</sup>, Budi Y. Setianto<sup>1</sup>

<sup>1</sup>Department of Cardiology and Vascular Medicine, Faculty of Medicine Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia, <sup>2</sup>Department of Clinical Pathology, Faculty of Medicine Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia

14:30-16:30

Room 1

Session 3: Cardiovascular Physiology and Disease

Chairs: **Matthias Barton** University of Zurich, Switzerland  
**Hiroaki Shimokawa** Tohoku University Graduate School of Medicine, Sendai, Japan.

Keynote Lecture 1

### Identifying the protective effects of Endothelin-1 on vascular disease

Rajat Gupta, Martin Zhu, Edyta Malolepsza, Sekar Kathiresan, Kasper Lage

<sup>1</sup>Broad Institute of MIT and Harvard University, Cambridge, MA <sup>2</sup>Division of Cardiovascular Medicine, Department of Medicine, Brigham and Women's Hospital, Boston MA <sup>3</sup>Division of Genetics, Brigham and Women's Hospital, Boston MA

O-4

### Plasma endothelin-1 links to endothelial dysfunction and impaired fibrinolysis: mechanisms for increased cardiovascular disease risk in ANCA-associated vasculitis

Tariq E Farrah, Vanessa Melville, Lorraine Bruce, David J Webb, Neeraj Dhaun

Centre for Cardiovascular Science, Queen's Medical Research Institute, University of Edinburgh, Edinburgh, United Kingdom

O-5

### Contribution of monocytes and macrophages to endothelin-1-dependent hypertension & vascular dysfunction

Alicja Czopek, David Kluth, David Webb, Matthew Bailey, Neeraj Dhaun

Centre for Cardiovascular Sciences, Queen's Medical Research Institute, The University of Edinburgh

O-6

### IMPACT OF BODY WEIGHT IN PLASMA ENDOTHELIN-1 LEVEL AMONG HYPERTENSIVE MEN

Sunu B. Raharjo, Oktavia Lilyasari, Lies D Liastuti, Idris Idham, Ganesja M Harimurti

Department of Cardiology and Vascular Medicine, Faculty of Medicine, Universitas Indonesia/National Cardiovascular Center Harapan Kita

O-7

### The pressor response to centrally or systemically administered big-endothelin-1 is enhanced in a conscious mouse model of multiple sclerosis

Catherine Lapointe<sup>1</sup>, Louisane Desbiens<sup>1</sup>, Louis Gendron<sup>1</sup>, Marjan Gharagozloo<sup>1</sup>, Laurence Vincent<sup>1</sup>, Gunnar Pejler<sup>2</sup>, Denis Gris<sup>1</sup>, Pedro D'Orleans-Juste<sup>1</sup>

<sup>1</sup>Department of Pharmacology and Physiology, Medical School, Universite de Sherbrooke, <sup>2</sup>Department of Medical Biochemistry and Microbiology, Uppsala University BMC, Box 582, 75123 Uppsala, Sweden.

O-8

### Multimarker Analysis using Endothelin-1 and hsCRP for Early Risk Stratification of Major Adverse Cardiovascular Events in Acute ST-segment Elevation Myocardial Infarction

Maria P. Inggriani<sup>1</sup>, Anggoro Budi Hartopo<sup>1</sup>, Rio Aleksandro<sup>2</sup>, Indah Sukmasari<sup>3</sup>, Ira Puspitawati<sup>3</sup>, Budi Y. Setianto<sup>1</sup>

<sup>1</sup>Department of Cardiology and Vascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia, <sup>2</sup>Department of Biochemistry and Molecular Biology, Faculty of Medicine, Universitas Tarumanagara, Jakarta, Indonesia, <sup>3</sup>Department of Clinical Pathology, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia

16:40-17:40

Room 1

**Session 4 Special Seminar: Molecular mechanism of CRISPR and structure-guided development of genome -editing tools**

**Chair:** **Keiichi Fukuda** *Keio University School of Medicine, Tokyo, Japan*

**Speaker:** **Osamu Nureki** *Department of Biological Sciences, Graduate School of Science, The University of Tokyo*

18:00-20:00

Young Investigator Event

Room 2

**Tuesday, September 24, 2019**

O=Oral Presentation, P=Poster

8:30-10:30

Room 1

**Session 5: Renal Physiology and Disease**

**Chairs:** **Kelly Hyndman** *The University of Alabama Birmingham, Birmingham, USA*

**David Pollock** *The University of Alabama at Birmingham, U.S.A.*

**Keynote Lecture 2****Endothelin & the kidney****Neeraj Dhaun***University of Edinburgh*

O-9

**The abolishment of the beneficial effect of combined renin-angiotensin and soluble epoxide hydrolase inhibition by the addition of endothelin A-receptor blockade in Ren-2 transgenic hypertensive rats with established chronic kidney disease****Ivana Vaneckova<sup>1</sup>, Vera Certikova Chabova<sup>2</sup>, Ludek Cervenka<sup>3</sup>**

*<sup>1</sup>Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic, <sup>2</sup>Department of Nephrology, 1st Faculty of Medicine, Charles University, Prague, Czech Republic, <sup>3</sup>Institute for Clinical and Experimental Medicine, Prague, Czech Republic*

O-10

**Distal nephron KO of the circadian clock protein PER1 increases ET-1 expression**

**Lauren G. Douma<sup>1,2</sup>, G. Ryan Crislip<sup>1</sup>, Kit-Yan Cheng<sup>1,3</sup>, Sarah H. Masten<sup>1</sup>, Dominique H. Barral<sup>1</sup>, Emilio M. Roig<sup>1</sup>, Kevin J. Beguiristain<sup>1</sup>, I. Jeanette Lynch<sup>1,3</sup>, Brian D. Cain<sup>1,2</sup>, Charles S. Wingo<sup>1,3</sup>, Michelle L. Gumz<sup>1,2,3</sup>**

*<sup>1</sup>Department of Medicine, University of Florida, Gainesville, FL, USA, <sup>2</sup>Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, FL, USA, <sup>3</sup>North Florida/South Georgia Veterans Health System, Gainesville, FL, USA*

O-11

**Endothelin-1 mediated alterations of renal iron trafficking lead to iron overload-associated tubular injury in sickle cell nephropathy****Malgorzata Kasztan, Kelly A. Hyndman, David M. Pollock**

*Cardio-Renal Physiology and Medicine, Department Medicine, Division Nephrology, University of Alabama at Birmingham, Birmingham, AL, US*

O-12

**Chlorogenic acid attenuates chronic effects of kidney ischemic/reperfusion injury through downregulating TGF- $\beta$ 1 and Endothelin-1/ETAR signaling**

**Toni Febriyanto<sup>1</sup>, Nur Arfan<sup>1</sup>, Wiwit A.W. Setyaningsih<sup>1</sup>, Junaedy Yunus<sup>1</sup>, Dwi C.R. Sari<sup>1</sup>, Luthfia\_K Dewi<sup>1</sup>, Aldo\_M Geraldino<sup>2</sup>, Ivan Cornelius<sup>2</sup>, Yohanes\_L Suharso<sup>2</sup>, Nadya\_S Andhika<sup>2</sup>, Yeshua\_P Krisnugraha<sup>2</sup>**

*<sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, <sup>2</sup>Undergraduate Student Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia*

O-13

### Differential activation of renal cell death pathways in male and female vascular endothelial cell ET-1 knockout mice

Carmen De Miguel, Vianna Martinez, David M Pollock, Jennifer S. Pollock

University of Alabama at Birmingham

O-14

### Amelioration of tubular injury and inflammation by Centella Asiatica supplementation associated with Endothelin-1 and Endothelin A Receptor downregulation in ureteral obstruction model in mice

Edreana Khusnur Rofiah<sup>1</sup>, Santosa Budiharjo<sup>1</sup>, Husnari Affah<sup>2</sup>, Destantry Jasmine<sup>2</sup>, Orisativa Kosasih<sup>2</sup>, Leila Rakhma Budiarti<sup>1</sup>, Dwi C.R. Sari<sup>1</sup>, Nur Arfian<sup>1</sup>

<sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia,

<sup>2</sup>Undergraduate Student, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

10:50-11:50

Room 1

### Session 6: ERAs and SGLT2 Inhibitors in Diabetic Nephropathy

#### Results of SONAR: Atrasentan and Renal Events in Type 2 Diabetes with Chronic Kidney Disease (SONAR): A Double Blind Randomised Placebo-Controlled Trial

Donald Kohan

University of Utah Health Center

#### Debate: CREDENCE vs SONAR – The Case for SGLT2 Inhibitors in Diabetic Nephropathy

David Webb

University of Edinburgh

Panel Discussion: Donald Kohan University of Utah Health Center

David Webb University of Edinburgh

David Pollock The University of Alabama at Birmingham, U.S.A.

Pedro D'Orléans-Juste University of Sherbrooke, Sherbrooke, Canada

12:00-13:00

Room 1

### Lunch Session 2

Chair: Seiichiro Sakao Chiba University, Chiba, Japan

LS-2

### Challenges and opportunities in the early diagnosis and treatment, and prevention of pulmonary arterial hypertension

Yoshihide Mitani

Department of Pediatrics, Mie University Graduate School of Medicine  
Co-sponsored by GlaxoSmithKline K.K.

12:00-13:00

Room 2

### Lunch Session 3

Chair: Yoshikazu Nakaoka National Cerebral and Cardiovascular Center Research Institute, Osaka, Japan

LS-3

### Developing a novel therapeutic antibody targeting osteoprotegerin for the treatment of PAH

Allan Lawrie

The University of Sheffield Medical School, UK

Co-sponsored by Actelion Pharmaceuticals Japan Ltd.

13:30-14:30

Poster Room

### Poster Session 2

Chairs: P19-P24 Neeraj Dhaun (Bean) University of Edinburgh/ Royal Infirmary of Edinburgh, Edinburgh, UK

P25-P29 Rita C Tostes University of Sao Paulo, Sao Paulo, Brazil

P30-P34 David Langleben McGill University Faculty of Medicine, Montreal, Canada

P-19

### Upregulation of ET-1/ET<sub>B</sub>R/eNOS signaling associates with amelioration of fibrosis and myofibroblast expansion after calcitriol administration in rats with 5/6 subtotal nephrectomy

Muhammad H. H. Kusuma<sup>1</sup>, Nur Arfian<sup>1</sup>, Anak A. N. N. Baskara<sup>1,2</sup>, Dwi C. R. Sari<sup>1</sup>

<sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, <sup>2</sup>Masters in Biomedical Science, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia

P-20

### Endothelin -1 gene polymorphisms and the levels of Endothelin -1 in Plasma and urine in children with Henoch-Schonlein purpura

Fang Yang, Li Deng

Department of Pediatrics, First Affiliated Hospital of Jinan University, Guangzhou, China

P-21

### Uric acid induced tubular injury associate with endothelin-1 / ETAR upregulation in kidney

Rachma Greta Perdana Putri<sup>1</sup>, Muhammad M. Romi<sup>1</sup>, Dwi C.R. Sari<sup>1</sup>, Emy Huriyati<sup>2</sup>, Mohammad Juffrie<sup>3</sup>, Nur Arfian<sup>1</sup>

<sup>1</sup>Department of anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia,

<sup>2</sup>Department of Nutrition, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia,

<sup>3</sup>Department of Paediatric, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

P-22

### Yacon Extract attenuated kidney fibrosis through upregulating HGF and BMP-7 and downregulating ppET-1/ETAR mRNA expression in CKD model in mice

Fauziyatul Munawaroh<sup>1</sup>, Setyo Purwono<sup>2</sup>, Abdur\_RFA Jundi<sup>3</sup>, I\_M Kawiya<sup>3</sup>, Alfina\_MR Cahyatika<sup>3</sup>, Andika\_P Cipta<sup>3</sup>, Galih\_A Andrianto<sup>3</sup>, Rendy Candra<sup>3</sup>, Nur Arfian<sup>1</sup>

<sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia,

<sup>2</sup>Department of Pharmacology and Therapy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia,

<sup>3</sup>Undergraduate student, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

P-23

**Calcitriol treatment attenuates glomerulosclerosis by upregulating ET-1 and downregulating ETAR in 5/6 Subtotal Nephrectomy model**Josephine Debora<sup>1</sup>, Nur Arfian<sup>1</sup>, Anak A.N.N. Baskara<sup>2</sup>, Dwi C. R. Sari<sup>1</sup><sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, <sup>2</sup>Postgraduate Student of Master Program in Biomedical Science, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia

P-24

**Upregulation of Endothelin-1 associates with epithelial cells apoptosis and interstitial cells proliferation in kidney ischemic/reperfusion injury episodes in mice**Finsa\_T Sari<sup>1,2,3</sup>, Nur Arfian<sup>1</sup>, Muhammad M. Romi<sup>1</sup>, Dwi C.R. Sari<sup>1</sup><sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>2</sup>Postgraduate Programs of Biomedical Science, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>3</sup>Faculty of Dentistry, Universitas Gadjah Mada, Yogyakarta, Indonesia

P-25

**Upregulation of ET-1/eNOS signalling associates with kidney injury attenuation after calcitriol treatment in kidney ischemic/reperfusion injury in mice**

Ramadhea L. A. A. W. Saputri, Nur Arfian, Santosa Budiharjo, Dian P. Wibisono, Wiwit A. W. Setyaningsih, Muhammad M. Romi, Edreana Khusnur Rofiah, Trita Rahmanti, Maulidina Agustin, Dwi C. R. Sari

Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

P-26

**Endothelin converting enzyme-1 (ECE-1) deletion ameliorates inflammation and fibroblast expansion in kidney fibrosis model in mice**Nur Arfian<sup>1</sup>, Keiko Yagi<sup>2</sup>, Kazuhiko Nakayama<sup>3</sup>, Anggoro Budi Hartopo<sup>4</sup>, Nungki Anggorowati<sup>5</sup>, Noriaki Emoto<sup>2,3</sup><sup>1</sup>Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>2</sup>Department of Clinical Pharmaceutical Science, Kobe Pharmaceutical University, Kobe, Japan, <sup>3</sup>Division of Cardiovascular, Department of Internal Medicine, Graduate School of Medicine, Kobe University, Kobe, Japan, <sup>4</sup>Department of Cardiovascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>5</sup>Department of Pathological Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

P-27

**The pharmacological activity of mangiferin (*Mangifera indica linn*) against metabolic syndrome**Wawaimuli Arozal<sup>1</sup>, Maily Mustafa<sup>2</sup>, Kurnia Sari<sup>2</sup>, Agian Barinda<sup>1</sup>, Anggi Gayatri<sup>1</sup><sup>1</sup>Department of Pharmacology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia, <sup>2</sup>Biomedical Sciences Program Faculty of Medicine, Universitas Indonesia

P-28

**ETBR mRNA expression upregulation in male rats associates with persistent eNOS mRNA expression in early diabetic condition**Anisa Fatwa<sup>1</sup>, Dwi C.R. Sari<sup>1</sup>, Wiwit A.W. Setyaningsih<sup>1</sup>, Nur Arfian<sup>1</sup><sup>1</sup>Departmen of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, <sup>2</sup>Departmen of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, <sup>3</sup>Departmen of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, <sup>4</sup>Departmen of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada

P-29

**Polymorphism of G894T Gene Nitric oxide synthase 3 and nitric oxide levels in type 2 diabetes with hypertension in the Bataknese**Jelita Siregar<sup>1</sup>, Ratna Akbari<sup>1</sup>, Dharma Lindarto<sup>2</sup>, Erna Mutiara<sup>3</sup><sup>1</sup>Departement of clinical pathology, University of Sumatera Utara, Medan, Indonesia, <sup>2</sup>Departement of Endocrine, University of Sumatera Utara, Medan, Indonesia, <sup>3</sup>University of Sumatera Utara, Medan, Indonesia

P-30

**Prognostic impact of the risk stratification by 2015 European pulmonary hypertension guideline in Japanese patients with pulmonary arterial hypertension**Ryo Imai<sup>1</sup>, Masahiro Yoshida<sup>2</sup>, Shigetake Shimokata<sup>1</sup>, Yoshihisa Nakano<sup>3</sup>, Shiro Adachi<sup>2</sup>, Naoki Okumura<sup>1</sup>, Takahisa Kondo<sup>3</sup>, Toyoaki Murohara<sup>1</sup><sup>1</sup>Nagoya University Graduate School of Medicine, Department of Cardiology, Nagoya, Japan, <sup>2</sup>Nagoya University Hospital, Nagoya, Japan, <sup>3</sup>Nagoya University Graduate School of Medicine, Department of Advanced Medicine in Cardiopulmonary Disease, Nagoya, Japan

P-31

**Role of endothelin-1 levels in pulmonary arterial hypertension related to uncorrected atrial septal defect**Lucia Kris Dinarti<sup>1</sup>, Anggoro Budi Hartopo<sup>1</sup>, Dyah Wulan Anggrahini<sup>1</sup>, Ahmad Hamim Sadewa<sup>2</sup>, Budi Y. Setianto<sup>1</sup>, Abdus Samik Wahab<sup>1,3</sup><sup>1</sup>Department of Cardiology and Vascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada Dr. Sardjito Hospital, Yogyakarta, Indonesia, <sup>2</sup>Department of Biochemistry, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, <sup>3</sup>Department of Child Health, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada Dr. Sardjito Hospital, Yogyakarta, Indonesia

P-32

**Active selezipag metabolite MRE-269 increases endothelin receptors in pulmonary artery smooth muscle cells**Hidekazu Maruyama<sup>1</sup>, Satoshi Sakai<sup>2</sup>, Masaki Ieda<sup>2</sup><sup>1</sup>Department of Cardiology, National Hospital Organization Kasumigaura Medical Center, Tsuchiura, Japan, <sup>2</sup>Division of Cardiovascular Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan

P-33

### Swithing from bosentan to macitentan in Japanese patients with pulmonary hypertension

Shigetake Shimokata<sup>1</sup>, Ryo Imai<sup>1</sup>, Masahiro Yoshida<sup>1</sup>, Yoshihisa Nakano<sup>2</sup>, Shiro Adachi<sup>2</sup>, Takahisa Kondo<sup>2</sup>, Toyoaki Murohara<sup>1</sup>

<sup>1</sup>Department of Cardiology, Nagoya University Graduate School of Medicine, <sup>2</sup>Department of Advanced in Cardiopulmonary Disease, Nagoya University Graduate School of Medicine

P-34

### Succesful delivery in Congenital Heart Disease-related Pulmonary Hypertension: the Role of ET-1 receptor Antagonist during Peripartum Period

Dyah Wulan Anggrahini, Anggoro Budi Hartopo, Lucia Kris Dinarti

Department of Cardiology and Vascular Medicine, Universitas Gadjah Mada/Sardjito Hospital

14:30-15:50

Room 1

### Session 7: Endocrinology and Metabolism

Chairs: **Adviye Ergul** Medical University of South Carolina, Charleston, USA

**Ivana Vaněčková** Institute of Physiology, Prague, Czech Republic

### Keynote Lecture 3

### Intricacies of the Endothelin System in Human Obesity: Role in the Development of Complications and Potential as Therapeutic Target

Carmine Cardillo

Catholic University, Rome, Italy

O-15

### Endothelin B Receptor Blockade Lowers Fasting Blood Glucose and Improves Insulin Tolerance in Rats

Joshua S. Speed

Department of Physiology and Biophysics, University of Mississippi Medical Center, Jackson, MS, USA

O-16

### Obesity-induced high-fat diet enhances upregulation of endothelin 1 in the liver of rat

Wiwit\_Ananda\_Wahyu Setyaningsih, Dwi C.R. Sari, Muhammad M. Romi, Nur Arfian

Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Indonesia

O-17

### Dysregulated adipokine secretory profile is linked with increased endothelin-1-dependent vasoconstrictor tone in human obesity

Francesca Schinzari<sup>1</sup>, Manfredi Tesaro<sup>2</sup>, Umberto Campia<sup>3</sup>, Carmine Cardillo<sup>1,4</sup>

<sup>1</sup>Department of Internal Medicine, Policlinico A. Gemelli IRCCS, Roma, Italy, <sup>2</sup>Systems Medicine, Tor Vergata University, Roma, Italy, <sup>3</sup>Vascular Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA, <sup>4</sup>Internal Medicine, Catholic University Medical School, Roma, Italy

16:10-17:30

Room 1

### Session 8: Pulmonary Physiology and Disease

Chairs: **Rita C Tostes** University of Sao Paulo, Sao Paulo, Brazil  
**Koichiro Tatsumi** Chiba University, Chiba, Japan

### Keynote Lecture 4

### ENDOTHELIN-1 IN PULMONARY ARTERIAL HYPERTENSION: BENEFITS AND REMAINING UNKNOWNNS FOR THE PATIENT

David Langleben

Center for Pulmonary Vascular Disease, Division of Cardiology, Jewish General Hospital and McGill University, Montreal, Quebec, Canada

O-18

### Right ventricular function derived from echocardiography is strongly related with a right heart-pulmonary system rather than with right ventricular contractility.

Yoshihiro Dohi, Yasuyuki Tomohiro, Yuko Hirai, Atsushi Kuraishi

Division of Cardiovascular Medicine, Kure Kyosai hospital

O-19

### Macitentan for the treatment of Pulmonary Arterial Hypertnsion Complicated by Lung Disease

Hideyuki Kinoshita<sup>1</sup>, Hiromu Yanagisawa<sup>2</sup>, Kenji Moriuchi<sup>2</sup>, Hideaki Ihazumi<sup>2</sup>, Yasuaki Nakagawa<sup>2</sup>, Koichiro Kuwahara<sup>3</sup>, Takeshi Kimura<sup>2</sup>

<sup>1</sup>Department of Community Medicine Supporting System, Kyoto University Graduate School of Medicine, <sup>2</sup>Department of Cardiovascular Medicine, Kyoto University Graduate School of Medicine, <sup>3</sup>Department of Cardiovascular Medicine, Shinshu University School of Medicine

O-20

### Identification of Emetine as a Therapeutic Agent for Pulmonary Arterial Hypertension- Novel Effects of an Old Drug-

Mohammad Abdul Hai Siddique<sup>1</sup>, Kimio Satoh<sup>1</sup>, Ryo Kurosawa<sup>1</sup>, Nobuhiro Kikuchi<sup>1</sup>, Md. Elias Al-Mamun<sup>1</sup>, Junichi Omura<sup>1</sup>, Taijyu Satoh<sup>1</sup>, Masamichi Nogi<sup>1</sup>, Shinichiro Sunamura<sup>1</sup>, Satoshi Miyata<sup>1</sup>, Hirofumi Ueda<sup>2</sup>, Hidetoshi Tokuyama<sup>2</sup>, Hiroaki Shimokawa<sup>1</sup>

<sup>1</sup>Department of Cardiovascular Medicine, Tohoku University Graduate School of Medicine, Sendai, Japan, <sup>2</sup>Tohoku University Graduate School of Pharmaceutical Sciences, Sendai, Japan

18:30-21:30

Conference Dinner

Rosemary 9F,  
ANA CROWN PLAZA HOTEL KOBE

## Wednesday, September 25, 2019

O=Oral Presentation, P=Poster

9:00-9:40

Room 1

### Special Session: Visiting Old and Learning New

Noriaki Emoto

Kobe Pharmaceutical University and Kobe University

Bambang Widyantoro

University of Indonesia

9:50-11:50

Room 1

### Session 10: Neurophysiology and Neurology, Other Disorders

Chairs: **Anil Gulati** *Midwestern University, Glendale, USA***Pedro D'Orléans-Juste** *University of Sherbrooke, Sherbrooke, Canada*

### Keynote Lecture 5

#### Sovateltide (IRL-1620): A neuronal progenitor cell therapeutics

Anil Gulati<sup>1,2</sup><sup>1</sup>Pharmazz, Inc. Willowbrook, IL, USA, <sup>2</sup>Midwestern University Downers Grove, IL, USA

### Keynote Lecture 6

#### Most recent news on clinical stage ERAS

Marc Iglarz

Idorsia Pharmaceuticals Ltd.

O-21

#### Neurorestorative potential of sovateltide (IRL-1620) by promoting neurogenesis and synaptogenesis in APP/PS1 transgenic mouse model of Alzheimer's disease

Seema Briyal<sup>1</sup>, Ralf Voshtina<sup>1</sup>, Anil Gulati<sup>1,2</sup><sup>1</sup>Midwestern University, <sup>2</sup>Pharmazz, Inc. Willowbrook, IL 60527

O-22

#### Bosentan, an endothelin receptor antagonist ameliorates vasogenic edema after traumatic brain injury in mice

Shotaro Michinaga<sup>1</sup>, Anna Inoue<sup>1</sup>, Hayato Yamamoto<sup>1</sup>, Ryotaro Ryu<sup>1</sup>, Hiroyuki Mizuguchi<sup>1</sup>, Yutaka Koyama<sup>2</sup><sup>1</sup>Laboratory of Pharmacology, Faculty of Pharmacy, Osaka Ohtani University, Osaka, Japan, <sup>2</sup>Laboratory of Pharmacology, Kobe Pharmaceutical University, Hyogo, Japan

O-23

#### Endothelin B Receptors and Sympathetic Nerve Activity in Salt-Sensitive Hypertension

Bryan K Becker<sup>1</sup>, Ulla C Kopp<sup>2</sup>, David M Pollock<sup>1</sup><sup>1</sup>Cardio-Renal Physiology and Medicine, Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, <sup>2</sup>Department of Internal Medicine, University of Iowa Carver College of Medicine, Iowa City, IA

O-24

#### The immunosuppressive role of Edn3/Ednrb signaling in the melanoma microenvironment

Juliano Freitas<sup>1</sup>, Jesus Lopez<sup>1</sup>, Claudia Llorian<sup>1</sup>, Mariana Boroni<sup>2</sup>, Lidia Kos<sup>1</sup><sup>1</sup>Department of Biological Sciences, Florida International University, Miami, Florida, USA, <sup>2</sup>National Cancer Institute (INCA), Rio de Janeiro, Brazil

O-25

#### Randomized, double-blind, saline-controlled, multicenter clinical study to determine efficacy of sovateltide (PMZ-1620) in patients with cerebral ischemic stroke

Anil Gulati<sup>1</sup>, Nilesh Agrawal<sup>3</sup>, Deepti Vibha<sup>4</sup>, U.K. Misra<sup>5</sup>, Birinder Paul<sup>6</sup>, Jeyaraj Pandian<sup>2</sup>, Manish Lavhale<sup>1</sup><sup>1</sup>Pharmazz, Inc., <sup>2</sup>Christian Medical College, Ludhiana, India, <sup>3</sup>New Era Hospital, Nagpur, India, <sup>4</sup>All India Institute of Medical Sciences, New Delhi, India, <sup>5</sup>Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India, <sup>6</sup>Dayanand Medical College, Ludhiana, India

O-26

#### PHASE I STUDY OF ETA RECEPTOR ANTAGONIST AMBRISENTAN IN SICKLE CELL DISEASE

Abdullah Kutlar<sup>1</sup>, Jennifer S. Pollock<sup>2</sup>, Steffen E. Meiler<sup>3</sup>, Ryan A. Harris<sup>4</sup>, Hongyan Xu<sup>5</sup>, Leigh Wells<sup>1</sup>, Latanya Bowman<sup>1</sup>, David M Pollock<sup>2</sup><sup>1</sup>Center for Blood Disorders, Medical College of Georgia, Augusta University, Augusta, GA, USA, <sup>2</sup>Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama, USA, <sup>3</sup>Department of Anesthesiology and Perioperative Medicine, Medical College of Georgia, Augusta University, Augusta, Georgia, USA, <sup>4</sup>Georgia Prevention Institute, Medical College of Georgia, Augusta University, Augusta, Georgia, USA, <sup>5</sup>Department of Population Health Sciences: Biostatistics and Data Science, Medical College of Georgia, Augusta University, Augusta, Georgia, USA

12:00-13:00

Room 2

### Lunch Session 4

Chair: **Keiko Yamauchi-Takahara** *Osaka University Graduate School of Medicine, Osaka, Japan*

LS-4

#### The Pathogenesis of Pulmonary Arterial Hypertension

Kohtaro Abe

Department of Cardiovascular Medicine, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

Co-Sponsored by NIPPON SHINYAKU Co., LTD.

13:30-14:30

Poster Room

### Poster Session 3

Chairs: **P35-P38** **Anthony P. Davenport** *University of Cambridge, Cambridge, UK***P39-P42** **Anil Gulati** *Midwestern University, Glendale, USA***P43-P46** **Nur Arfan** *Gadja Mada University, Yogyakarta, Indonesia*



P-35

**Endothelin-1 (ET-1)-induced NLRP3 activation contributes to lymphocytes recruitment in penile tissue and erectile function impairment in DOCA/salt hypertensive mice.**

Rafael S. Fais, Josiane F. Silva, Carlos W. Wanderley, Rafael F. Gomes, Rita C. Tostes, Fernando S. Carneiro

*Departamento de Pharmacology, Ribeirao Preto Medical School, University of Sao Paulo, Ribeirao Preto, Brazil*

P-36

**Sovateptide (IRL-1620) enhances mitochondrial biogenesis and neural regeneration in ischemic brain**

Amaresh Ranjan<sup>1</sup>, Seema Briyal<sup>1</sup>, Anil Gulati<sup>1,2</sup>

*<sup>1</sup>Midwestern University Chicago College of Pharmacy, <sup>2</sup>Pharmazz, Inc. Willowbrook, IL 60527*

P-37

**Administration of Sovateptide (IRL-1620), the most powerful Endothelin-B receptor agonist, significantly improves motor recovery and activates neurogenic pathways in animal models of spinal cord injury.**

Michele Fornaro<sup>1</sup>, Harsh Sharthiya<sup>1</sup>, Seema Briyal<sup>2</sup>, Anil Gulati<sup>2,3</sup>

*<sup>1</sup>Department of Anatomy, College of Graduate Studies and Chicago College of Osteopathic Medicine, Midwestern University, Downers Grove, IL, USA, <sup>2</sup>Department of Pharmaceutical Sciences, Chicago College of Pharmacy, Midwestern University, Downers Grove, IL, USA, <sup>3</sup>Pharmazz Inc, Willowbrook, Illinois, USA*

P-38

**Endothelin-1 (ET-1) Promotes a Proinflammatory Microglia Phenotype in Diabetic Conditions**

Yasir Abdul, Jamil Sarah, He Lianying, Li Weigu, Ergul Advije  
*Pathology & Laboratory Medicine, Medical University of South Carolina, Charleston, SC, USA*

P-39

**Long-term Survival of Patients with Pre-capillary Pulmonary Hypertension at Japanese Single Center**

Yoichi Sugiyama, Nobuhiro Tahara, Munehisa Bekki, Atsuko Tahara, Akihiro Honda, Shoko Ogata-Maeda, Jiahui Sun, Sachiyo Igata, Yoshihiro Fukumoto

*Division of Cardiovascular Medicine, Department of Medicine, Kurume University School of Medicine.*

P-40

**Sexual Dimorphism in Regulation of the Brain ET System after Stroke in Diabetes**

Weigu Li<sup>1</sup>, Lianying He<sup>1</sup>, Sarah Jamil<sup>1</sup>, Yasir Abdul<sup>1</sup>, David Vargas<sup>1</sup>, Guangkuo Dong<sup>2</sup>, Advije Ergul<sup>1</sup>

*<sup>1</sup>Department of Pathology and Laboratory Medicine, Medical University of South Carolina, Charleston, SC, USA, <sup>2</sup>Department of Physiology, Medical College of Georgia, Augusta University, Augusta, GA, USA*

P-41

**The Dual Effect of Curcumin on the Progression of Ovarian Cancer and Renoprotective Effect in Cisplatin-treated Ovarian Cancer in Rodent: The Role of Endothelin Pathway**

Agian Jeffilano Barinda<sup>1,2</sup>, Wawaimuli Arozal<sup>1</sup>, Melva Louisa<sup>1</sup>, Vivian Soetikno<sup>1</sup>, Ni Made Dwi Sandhiutami<sup>3,4</sup>, Deni Rahmat<sup>4</sup>, Puspita Eka Wuyung<sup>5</sup>, Nur Arfian<sup>6</sup>

*<sup>1</sup>Department of Pharmacology and Therapeutic, Universitas Indonesia, Jakarta, INDONESIA, <sup>2</sup>Metabolic disorder, Cardiovascular, and Ageing Cluster, Indonesia Medical Education and Research Institute (IMERI), Universitas Indonesia, Jakarta, INDONESIA, <sup>3</sup>Doctoral Program in Biomedical Sciences, Universitas Indonesia, Jakarta, INDONESIA, <sup>4</sup>Faculty of Pharmacy, University of Pancasila, Jakarta, INDONESIA, <sup>5</sup>Department of Anatomical Pathology, Universitas Indonesia, Jakarta, INDONESIA, <sup>6</sup>Department of Anatomy, Universitas Gadjah Mada, Yogyakarta, INDONESIA*

P-42

**Rendomab A63, a monoclonal antibody directed against human endothelin A receptor, targets the glioblastoma stem cells. Diagnostic and therapeutic perspectives.**

Amaury Herbet<sup>1</sup>, Marie Hautiere<sup>1</sup>, Narciso Costa<sup>1</sup>, Aiphi Nguyen<sup>3</sup>, Aloise Mabondzo<sup>1</sup>, Jean Philippe Hugnot<sup>2</sup>, Didier Boquet<sup>1</sup>

*<sup>1</sup>Institut Joliot, Service de Pharmacologie et d'Immunoanalyse, CEA, Universite Paris-Saclay, Gif-sur-Yvette, France., <sup>2</sup>INSERM U1051, Institut des Neurosciences de Montpellier, Hopital St Eloi, Universite Montpellier 2, Montpellier, France., <sup>3</sup>Skymab Biotherapeutics, 8 rue de Balzac, Tours, France.*

P-43

**The interplay between endothelin receptor and integrin  $\beta$ 1 regulates invadopodia activity and metastatic behavior of ovarian cancer cells.**

Laura Rosano<sup>1,2,3</sup>, Valentina Caprara<sup>1</sup>, Lidia Chellini<sup>1</sup>, Francesca Spadaro<sup>3</sup>, Rosanna Sestito<sup>1</sup>, Piera Tocci<sup>1</sup>, Anna Bagnato<sup>1</sup>

*<sup>1</sup>Preclinical Models and New Therapeutic Agents Unit, Regina Elena National Cancer Institute, <sup>2</sup>Institute of Molecular Biology and Pathology, CNR, Rome, Italy; <sup>3</sup>Confocal Microscopy Unit, Istituto Superiore di Sanita', Rome, Italy*

P-44

**Identification of endothelin-1 receptor-mediated YAP/TAZ activation as escape pathway from chemotherapy of ovarian cancer cells**

Piera Tocci<sup>1,2</sup>, Roberta Cianfrocca<sup>1</sup>, Laura Rosano<sup>1,2</sup>, Rosanna Sestito<sup>1</sup>, Valeriana Di Castro<sup>1</sup>, Anna Bagnato<sup>1</sup>

*<sup>1</sup>Preclinical Models and New Therapeutic Agents Unit, Regina Elena National Cancer Institute, Rome Italy, <sup>2</sup>Institute of Molecular Biology and Pathology, CNR, Rome, Italy*

P-45

### Predictive model of bosentan-induced liver toxicity in Japanese patients with pulmonary arterial hypertension: A validation study

Kennosuke Yorifuji<sup>1</sup>, Yuko Uemura<sup>2</sup>, Shinji Horibata<sup>2,3</sup>, Goh Tsuji<sup>2,4</sup>, Yoko Suzuki<sup>1,5</sup>, Kazuhiko Nakayama<sup>6</sup>, Takashi Hatae<sup>7</sup>, Shunichi Kumagai<sup>2,4</sup>, Noriaki Emoto<sup>1,5</sup>

<sup>1</sup>Laboratory of Clinical Pharmaceutical Science, Kobe Pharmaceutical University, Kobe, Japan, <sup>2</sup>The Shinko Institute for Medical Research, Shinko Hospital, Kobe, Japan, <sup>3</sup>Department of Pharmacy, Shinko Hospital, Kobe, Japan, <sup>4</sup>Center for Rheumatic Diseases, Shinko Hospital, Kobe, Japan, <sup>5</sup>Division of Cardiovascular Medicine, Department of Internal Medicine, Kobe Graduate School of Medicine, Kobe, Japan, <sup>6</sup>Department of Cardiovascular Medicine Shinko Hospital, Kobe, Japan, <sup>7</sup>Education and Research Center for Clinical Pharmacy, Kobe Pharmaceutical University, Kobe, Japan

P-46

### Title: Effects of combination therapy on exercise tolerance of risk table was modest compared to other risk categories in patients with idiopathic or heritable pulmonary arterial hypertension.

Shiro Adachi<sup>1</sup>, Ryo Imai<sup>2</sup>, Masahiro Yoshida<sup>1</sup>, Shigetake Shimokata<sup>1</sup>, Yoshihisa Nakano<sup>3</sup>, Toyoaki Murohara<sup>2</sup>, Takahisa Kondo<sup>3</sup>

<sup>1</sup>Department of cardiology, Nagoya University Hospital, Nagoya, Japan, <sup>2</sup>Department of Cardiology, Nagoya University Graduate School of Medicine, <sup>3</sup>Department of Advanced Medicine in Cardiopulmonary Disease

14:30-15:30

Room 1

#### Session 11: Immunity, Inflammation and Rheumatology

**Chairs:** Keiko Yamauchi-Takahara *Osaka University Graduate School of Medicine, Osaka, Japan*

Masataka Kuwana *Nippon Medical School, Tokyo, Japan*

Invited Lecture 4

### Circulating proteomic biomarkers to screen for PAH in systemic sclerosis

Allan Lawrie

Peter M Hickey<sup>1,2</sup>, James Iremonger<sup>1</sup>, Josephine Pickworth<sup>1</sup>, Patricia Del Rosario<sup>3</sup>, Andrew Hsi<sup>3</sup>, Helen Casbolt<sup>1</sup>, Nadine Arnold<sup>1</sup>, Roger Thompson<sup>1,2</sup>, Anna R Hemnes<sup>4</sup>, Roham Zamanian<sup>3</sup>, Robin Condliffe<sup>2</sup>, Allan Lawrie<sup>1</sup>

<sup>1</sup>Department of Infection, Immunity and Cardiovascular Disease, University of Sheffield Medical School, Beech Hill Road, Sheffield, S10 2RX, <sup>2</sup>Sheffield Pulmonary Vascular Disease Unit, Royal Hallamshire Hospital, Glossop Road, Sheffield, S10 2JF, <sup>3</sup>Vera Moulton Wall Center for Pulmonary Vascular Disease, Division of Pulmonary & Critical Care Medicine, Stanford University School of Medicine, Stanford, USA, <sup>4</sup>Allergy, Pulmonary, and Critical Care Medicine, Vanderbilt University Medical Center, Nashville, Tennessee, USA

O-27

### Targeting the endothelin system: a novel strategy to reduce cardiovascular risk in ANCA-associated vasculitis

Tariq E Farrah, Vanessa Melville, David J Webb, Neeraj Dhaun  
*Centre for Cardiovascular Science, Queen's Medical Research Institute, University of Edinburgh, Edinburgh, United Kingdom*

O-28

### Distinct roles for ETA and ETB receptors in TH17 Differentiation

Patrick\_A Molina, Carmen De Miguel, Craig\_L Maynard, Jennifer S. Pollock

*University of Alabama at Birmingham School of Medicine, Birmingham*

15:30-16:00

Room 1

#### Awards Ceremony

16:00-16:30

Room 1

#### Summary and Highlights

Donald Kohan

*University of Utah Health Center*

16:30-16:40

Closing Remarks

Room 1

Noriaki Emoto

*Kobe Pharmaceutical University and Kobe University*

Bambang Widyanoro

*University of Indonesia*