### Sunday, September 22, 2019

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<th>Time</th>
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<td>18:00-20:00</td>
<td>Opening Ceremony and Reception</td>
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### 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 Widyantoro  
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

**10:50-11:50 Room 1**

**O-1**

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

Man Ting Au1, Mark Naven2, Qing-Jun Meng3, Chunyi Wen1  
1Department of Biomedical Engineering, Faculty of Engineering, The Hong Kong Polytechnic University, Hong Kong, China, 2Wellcome Centre for Cell-Matrix Research, Faculty of Biology, Medicine and Health, University of Manchester, Oxford Road, Manchester M13 9PT, UK

**12:00-13:00 Room 2**

**Lunch Session 1**

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

**13:30-14:30 Poster Room**

**Posters 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

**13:30-14:30 Poster Room**

**P-1**

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

Chisae Nagiri1, Wataru Shihoya1, Asuka Inoue2, François Marie Ngako Kadji1, Junken Aoki1, Osamu Nureki1  
1Department of Biological Sciences, Graduate School of Science, The University of Tokyo, Japan, 2Graduate School of Pharmaceutical Sciences, Tohoku University

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**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. Douma1,2, Sarah Masten1, Kristen Solocinski1,2, Dominique H. Barral1, Charles S. Wingo1,3, Kevin Brown1, Brian D. Cain1, Michelle L. Gumz1,2,3  
1Department of Medicine, University of Florida, Gainesville, FL, USA, 2Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, FL, USA, 3North 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 Jain1, Vidhi Mehrotra1, Ira Jha2,3, Ashok Jain1  
1University of Cambridge, Cambridge, 2National University of Singapore, Singapore, 3Indian Institute of Management, Ahmedabad, India

**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.
Crystal structures of human ETB receptor provide mechanistic insight into receptor activation and partial activation
Tamaki Izume¹, Wataru Shihoya¹, Asuka Inoue¹, Keitaro Yamashita¹,², François Marie Ngako Kadji², Kunio Hirata³, Junken Aoki¹,⁴, Tomohiro Nishizawa², Osamu Nureki¹
¹Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo, ²Dept. of Molecular and Cellular Bio., Grad. Sch. of Pha Sci., Tohoku Univ., ³RIKEN SPRing-8 Center, ⁴AMED-CREST

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 Prayitnaningsih¹, Virna Oktarini², Synthia Nusanti², Erlin Listyaningsih³, Budi Siswanto Bambang⁴, Anwar Santoso⁴
¹Ophthalmology Department, Universitas Brawijaya, Malang, Indonesia, ²Department of Ophthalmology, Faculty of Medicine, University of Indonesia, Jakarta 10430, Indonesia, ³Harapan Kita National Cardiovascular Center, Jakarta 11420, Indonesia, ⁴Department of Cardiology, Faculty of Medicine, University of Indonesia, Jakarta 10430, Indonesia

Atrasentan for patients with diabetic nephropathy: A meta-analysis
Yusuf Azmi, Bambang Widiantoro
Department of Cardiology and Vascular Medicine, Universitas Indonesia, Jakarta, Indonesia

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

Vitamin C deficiency impairs endothelin type B receptor-mediated vasoconstriction in uterine arteries undergoing remodelling
Gry F. Skovsted, Jens Lykkefeldt
Department of Veterinary and Animal Sciences, University of Copenhagen, Denmark

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

Serum Elastin Peptide, Matrix Degrading Metalloproteinase-9, and Cystatin-C as prediction factors for Rupture Incidence in Abdominal Aortic Aneurysm
Radietya Alvarabie¹,², Isabella Kurnia Liem¹, Rasjdi Soeparwata¹,³, Dedy Pratama¹, Ayla Putri Zahari¹
¹Department of Anatomy, Faculty of Medicine. Universitas Indonesia, ²Department of Surgery, Division of Vascular and Endovascular Surgery, Faculty of Medicine, Universitas Indonesia. Dr. Tjipto Mangunkusumo National Central Hospital, ³Wilhelm Westfachlichen Universitaet Muenster, German, ³Master Program of Biomedical Sciences, Patobiology Division, Faculty of Medicine, Universitas Indonesia

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

Current status of pulmonary artery hypertension in Vietnam: Preliminary data of the National Heart Institute Pulmonary Hypertension Registry
Thanh Ngoc Kim¹,², Yen Hai Tran¹, Thuy Thu Pham¹, Tung Thanh Le¹, Ngoc Mai Thi Nguyen¹,², Huong Thanh Truong¹,²
¹Vietnam National Heart Institute, Bach Mai Hospital, Hanoi, Vietnam, ²Department of Cardiology, Hanoi Medical University, Hanoi, Vietnam

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

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

Anthony P. Davenport¹, Thomas J. Ford², Rhoda E. Kuc³, Paul Rocchiccioli³, Rhian M. Touy⁴, Janet J. Maguire⁴, Colin Berry⁵

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

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

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

Bambang Widiantoro

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

CNP and ET system in vasculature

Kazuwa Nakao¹, Kazuhiro Nakao², Daisuke Taura³, Yasuaki Nakagawa⁴, Hideyuki Kinoshita⁵, Koichiro Kuwahara⁶, Masakatsu Sone⁷

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

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

Muflihatul B. Rochmat¹, Anggoro B. Hartopo¹, Ahmad Musthafa², Indah Sukmasari², Ira Puspitawati², Budi Y. Setianto¹

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

Identifying the protective effects of Endothelin-1 on vascular disease

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

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

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 Liliesari, Lies D Liatutti, 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 Lapointe¹, Louisane Desbiens¹, Louis Gendron¹, Marjan Gharagozloo¹, Laurence Vincent¹, Gunnar Peijler¹, Denis Gris¹, Pedro D’Orleans-Juste¹

¹Department of Pharmacology and Physiology, Medical School, Universite de Sherbrooke, ²Department 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. Inngriani¹, Anggoro Budi Hartopo¹, Rio Alessandro², Indah Sukmasari³, Ira Puspitawati³, Budi Y. Setianto¹

¹Department of Cardiology and Vascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia, ²Department of Biochemistry and Molecular Biology, Faculty of Medicine, Universitas Tarumanagara, Jakarta, Indonesia, ³Department of Clinical Pathology, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada - Dr. Sardjito Hospital, Yogyakarta, Indonesia
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 at 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 Vaneckova¹, Vera Certikova Chabova², Ludek Cervenka³
¹Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic, ²Department of Nephrology, 1st Faculty of Medicine, Charles University, Prague, Czech Republic, ³Institute 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. Douma¹,², G. Ryan Crislip¹, Kit-Yan Cheng¹,³, Sarah H. Masten¹, Dominique H. Barral¹, Emilio M. Roig¹, Kevin J. Beguiristain¹, I. Jeanette Lynch¹,², Brian D. Cain¹,², Charles S. Wingo¹,², Michelle L. Gumz³
¹Department of Medicine, University of Florida, Gainesville, FL, USA, ²Department of Biochemistry and Molecular Biology, University of Florida, Gainesville, FL, USA, ³North 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-β1 and Endothelin-1/ETAR signaling
Toni Febriyanto¹, Nur Arfian¹, Wiwit A.W. Setyaningsih¹, Junaeda Yunus¹, Dwi C.R. Sari¹, Luthfia_K Dewi¹, Aldo_M Geraldino², Ivan Cornelius², Yohanes_L Suharso², Nadya_S Andhika², Yeshua_P Krisnugraha³
¹Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, ²Undergraduate Student Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, ³Institute of Physiology, Czech Academy of Sciences, Prague, Czech Republic
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 Rofiah1, Santosa Budiharjo1, Husnari Afiah2, Dendray Jasmine3, Oriatsa Ioskisah4, Leila Rakhma Budianti1, Dwi C.R. Sari1, Nur Arfian1
1Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2Undergraduate 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-P30 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/ETB/ETAR signaling associates with amelioration of fibrosis and myofibroblast expansion after calcitriol administration in rats with 5/6 subtotal nephrectomy
Muhammad H. H. Kusuma1, Nur Arfian1, Anak A. N. N. Baskara1, 2, Dwi C. R. Sari1
1Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, 2Masters 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 Putri1, Muhammad M. Romi1, Dwi C.R. Sari1, Emy Huriyati2, Mohammad Jaffrie4, Nur Arfian1
1Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, 2Department of Nutrition, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 3Department 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 Munawaroh1, Setyo Purwono2, Abdur RFA Jundi3, I_M Kawiyasa3, Alfina MR Cahyatika4, Andika P Cipta5, Galih A Andrianto6, Rendy Candra7, Nur Arfian1
1Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2Department of Pharmacology and Therapy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 3Undergraduate 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 Debrah, Nur Arfan, Anak A.N.N. Baskara, Dwi C.R. Sari
1Department of Anatomy, Faculty of Medicine, Public Health and Nursing Universitas Gadjah Mada, Daerah Istimewa Yogyakarta, Indonesia, 2Postgraduate 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, Nur Arfan, Muhammad M. Romi, Dwi C.R. Sari
1Department of Anatomy, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2Postgraduate Programs of Biomedical Science, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 3Faculty 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
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 Arfan, Keiko Yagi, Kazuhiyo Nakayama, Anggoro Budi Hartopo, Nungki Anggorowati, Noriaki Emoto
1Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 2Department of Clinical Pharmaceutical Science, Kobe Pharmaceutical University, Kobe, Japan, 3Division of Cardiovascular, Department of Internal Medicine, Graduate School of Medicine, Kobe University, Kobe, Japan, 4Department of Cardiovascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 5Department 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, Maily Mustafa, Kurnia Sari, Agian Barinda, Anggi Gayatri
1Department of Pharmacology, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia, 2Biomedical 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, Dwi C.R. Sari, Wiwit A.W. Setyaningsih, Nur Arfan
1Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, 2Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, 3Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, 4Department of Anatomy, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, 5Department 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 Batakense
Jelita Siregar, Ratna Akbari, Dharmo Lindarto, Erna Mutiara
1Department of clinical pathology, University of Sumatera Utara, Medan, Indonesia, 2Department of Endocrine, University of Sumatera Utara, Medan, Indonesia, 3University 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, Masahiro Yoshida, Shigetake Shimokata, Yoshihisa Nakano, Shiro Adachi, Naoki Okumura, Takahisa Kondo, Toyoaki Murohara
1Nagoya University Graduate School of Medicine, Department of Cardiology, Nagoya, Japan, 2Nagoya University Hospital, Nagoya, Japan, 3Nagoya 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, Anggoro Budi Hartopo, Dyah Wulan Anggraini, Ahmad Hamim Sadewa, Budi Y. Setianto, Abdus Samik Wahab
1Department of Cardiology and Vascular Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada Dr. Sardjito Hospital, Yogyakarta, Indonesia, 2Department of Biochemistry, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia, 3Department of Child Health, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada Dr. Sardjito Hospital, Yogyakarta, Indonesia

P.32
Active selexipag metabolite MRE-269 increases endothelin receptors in pulmonary artery smooth muscle cells
Hidekazu Maruyama, Satoshi Sakai, Masaki Ieda
1Department of Cardiology, National Hospital Organization Kasumigaoka Medical Center, Tsuichira, Japan, 2Division of Cardiovascular Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, Japan
Switching from bosentan to macitentan in Japanese patients with pulmonary hypertension
Shigetake Shimokata1, Ryo Imai1, Masahiro Yoshida1, Yoshihisa Nakano2, Shiro Adachi2, Takahisa Kondo2, Toyoaki Murohara1
1Department of Cardiology, Nagoya University Graduate School of Medicine, 2Department of Advanced in Cardiopulmonary Disease, Nagoya University Graduate School of Medicine

Successful 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

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

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

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

Dysregulated adipokine secretory profile is linked with increased endothelin-1-dependent vasoconstrictor tone in human obesity
Francesca Schinzari1, Manfredi Tesauro2, Umberto Campia3, Carmine Cardillo1,4
1Department of Internal Medicine, Policlinico A. Gemelli IRCCS, Roma, Italy, 2Systems Medicine, Tor Vergata University, Roma, Italy, 3Vascular Medicine, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA, USA, 4Internal Medicine, Catholic University Medical School, Roma, Italy
Wednesday, September 25, 2019

9:00-9:40 Room 1
Special Session: Visiting Old and Learning New

Noriaki Emoto  
Kobe Pharmaceutical University and Kobe University

Bambang Widiantoro  
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 Gulati1,2  
1Pharmazz, Inc. Willowbrook, IL, USA, 2Midwestern University Downers Grove, IL, USA

Keynote Lecture 6
Most recent news on clinical stage ERAS
Marc Iglarz  
Idorsia Pharmaceuticals Ltd.

O-24
The immunosuppressive role of Edn3/Ednrb signaling in the melanoma microenvironment
Juliano Freitas1, Jesus Lopez2, Claudia Llorian3, Mariana Boroni4, Lidia Kos1  
1Department of Biological Sciences, Florida International University, Miami, Florida, USA, 2National 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 Gulati1, Nilesh Agrawal1, Deepthi Vibha3, U.K. Misra4, Birinder Paul5, Jeyaraj Pandian6, Manish Lavhale1  
1Pharmazz, Inc., 2Christian Medical College, Ludhiana, India, 3New Era Hospital, Nagpur, India, 4All India Institute of Medical Sciences, New Delhi, India, 5Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India, 6Dayanand Medical College, Ludhiana, India

O-26
PHASE I STUDY OF ETA RECEPTOR ANTAGONIST AMBRISENTAN IN SICKLE CELL DISEASE
Abdullah Kutlar1, Jennifer S. Pollock2, Steffen E. Meier3, Ryan A. Harris4, Hongyan Xu5, Leigh Wells6, Latanya Bowman1, David M Pollock2  
1Center for Blood Disorders, Medical College of Georgia, Augusta University, Augusta, GA, USA, 2Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama, USA, 3Department of Anesthesiology and Perioperative Medicine, Medical College of Georgia, Augusta University, Augusta, Georgia, USA, 4Georgia Prevention Institute, Medical College of Georgia, Augusta University, Augusta, Georgia, USA, 5Department 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-Takihara  
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: Anthony P. Davenport  
University of Cambridge, Cambridge, UK
Anil Gulati  
Midwestern University, Glendale, USA
Nur Arfian  
Gadjah Mada University, Yogyakarta, Indonesia

O-22
Neurorestorative potential of sovateltide (IRL-1620) by promoting neurogenesis and synaptogenesis in APP/PS1 transgenic mouse model of Alzheimer’s disease
Seema Briyal1, Ralf Voshtina1, Anil Gulati1,2  
1Midwestern University, 2Pharmazz, Inc. Willowbrook, IL 60527

O-23
Endothelin B Receptors and Sympathetic Nerve Activity in Salt-Sensitive Hypertension
Bryan K Becker1, Ulla C Kopp2, David M Pollock1  
1Cardio-Renal Physiology and Medicine, Division of Nephrology, Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, 2Department of Internal Medicine, University of Iowa Carver College of Medicine, Iowa City, IA
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
Department of Pharmacology, Ribeirao Preto Medical School, University of Sao Paulo, Ribeirao Preto, Brazil

P-36
Sovateltide (IRL-1620) enhances mitochondrial biogenesis and neural regeneration in ischemic brain
Amaresh Ranjan¹, Seema Briyal¹, Anil Gulati¹,²
¹Midwestern University Chicago College of Pharmacy; ²Pharmazz, Inc. Willowbrook, IL 60527

P-37
Administration of Sovateltide (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 Fornaro¹, Harsh Sharthiya¹, Seema Briyal¹, Anil Gulati¹,²
¹Department of Anatomy, College of Graduate Studies and Chicago College of Osteopathic Medicine, Midwestern University, Downers Grove, IL, USA; ²Department of Pharmaceutical Sciences, Chicago College of Pharmacy, Midwestern University, Downers Grove, IL, USA;

P-38
Endothelin-1 (ET-1) Promotes a Proinflammatory Microglia Phenotype in Diabetic Conditions
Yasir Abdul, Jamil Sarah, He Liaying, Li Weiguo, 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, Sachiyu Igata, Yoshiiro 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
Weiguo Li¹, Liaying He¹, Sarah Jamil¹, Yasir Abdul¹, David Vargasc, Guangkou Dong¹, Advije Ergul¹
¹Department of Pathology and Laboratory Medicine, Medical University of South Carolina, Charleston, SC, USA; ²Department 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 Barinda¹,², Wawaimuli Arozal³, Melva Louisa⁴, Vivian Soetikno⁴, Ni Made Dw Sandhiutami⁴,⁵, Deni Rahmat⁶, Puspita Eka Wuyung⁷, Nur Arfian⁸
¹Department of Pharmacology and Therapeutic, Universitas Indonesia, Jakarta, INDONESIA; ²Metabolic disorder, Cardiovascular, and Ageing Cluster, Indonesia Medical Education and Research Institute (IMERI), Universitas Indonesia, Jakarta, INDONESIA; ³Doctoral Program in Biomedical Sciences, Universitas Indonesia, Jakarta, INDONESIA; ⁴Faculty of Pharmacy, University of Pancasila, Jakarta, INDONESIA; ⁵Department of Anatomical Pathology, Universitas Indonesia, Jakarta, INDONESIA; ⁶Department 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 Herbet¹, Marie Hautiere¹, Narciso Costa¹, Aphi Nguyen¹, Aloise Mabondzo2, Jean Philippe Hugnot², Didier Boquet¹
¹Institut Joliot, Service de Pharmacie et d’Immunanalyse, CEA, Universite Paris-Saclay, Gil-sur-Yvette, France., ²INSERM U1051, Institut des Neurosciences de Montpellier, Hopital St Eloi, Universite Montpellier 2, Montpellier, France., ³Skymab Biotherapeutics, 8 rue de Balzac, Tours, France.

P-43
The interplay between endothelin receptor and integrin β1 regulates invadopodia activity and metastatic behavior of ovarian cancer cells.
Laura Rosano¹,²,³, Valentina Caprara¹, Lidia Chellini¹, Francesca Spadaro¹, Rosanna Sestito¹, Piera Tocci¹, Anna Bagnato¹
¹Preclinical Models and New Therapeutic Agents Unit, Regina Elena National Cancer Institute, ²Institute of Molecular Biology and Pathology, CNR, Rome, Italy; ³Confocal 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 Tocci¹,², Roberta Cianfrocca¹, Laura Rosano¹,², Rosanna Sestito¹, Valeriana Di Castro¹, Anna Bagnato¹
¹Preclinical Models and New Therapeutic Agents Unit, Regina Elena National Cancer Institute, Rome Italy; ²Institute 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 Yorifuji1, Yuko Uemura2, Shinji Horibata2,3, Goh Tsuji1,4, Yoko Suzuki1,4, Kazuhiro Nakayama1, Takashi Hatae1, Shunichi Kumagai2,4, Noriaki Emoto1,5

1Laboratory of Clinical Pharmaceutical Science, Kobe Pharmaceutical University, Kobe, Japan, 2The Shinko Institute for Medical Research, Shinko Hospital, Kobe, Japan, 3Department of Pharmacy, Shinko Hospital, Kobe, Japan, 4Center for Rheumatic Diseases, Shinko Hospital, Kobe, Japan, 5Division of Cardiovascular Medicine, Department of Internal Medicine, Kobe Graduate School of Medicine, 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 Adachi1, Ryo Imai1, Masahiro Yoshida1, Shigetake Shimokata1, Yoshihisa Nakano1, Toyoaki Murohara1, Takahisa Kondo1

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

14:30-15:30 Room 1

Session 11: Immunity, Inflammation and Rheumatology

Chairs: Keiko Yamauchi-Takihara 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 Hickey2,3, James Iremonger1, Josephine Pickworth1, Patricia Del Rosario4, Andrew Hsi5, Helen Casbolt1, Nadine Arnold1, Roger Thompson2, Anna R Hemnes2, Roham Zamanian1, Robin Cordliffe2, Allan Lawrie1

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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