# Program

# DAY1: Nov1 (Sat.)

### **Room 1 (1F)**

### 8:50-10:30 JVBMO - SESSION 1 Young Investigator Award (YIA)

Norihiko Takeda, M.D., Ph.D. (Department of Cardiovascular Medicine, Graduate School of Medicine, The University of Tokyo, Japan)

Fumiko Itoh, Ph.D. (Graduate School of Medicine and Pharmaceutical Sciences / Institute of Liberal Arts and Sciences, University of Toyama, Japan)

YIA-1 DNase II Plays a Protective Role in Atherogenesis by Suppressing TLR9-Mediated Inflammatory Signaling in Macrophages

Wataru Saitoh (Osaka Metropolitan University Graduate School of Medicine)

YIA-2 Ninjurin1 in NG2+ cells promotes nerve regeneration and plays a crucial role in the recovery of injured bone marrow.

Yukari Sakurai (Department of Biochemistry, Asahikawa Medical University, Japan / Department of Pediatrics, Asahikawa Medical University, Japan)

YIA-3 Immune Sensitization-Based Senolytic Strategy: A Novel Therapeutic Approach for Senolysis

Chieh-Lun Hsiao (Juntendo University Graduate School of Medicine)

YIA-4 A mechanistic study to clarify the aging control mechanism of angiotensin-converting enzyme 2

Hikari Takeshita (Morinomiya University of Medical Sciences, Japan / Geriatric and General Medicine, Osaka University Graduate School of Medicine, Japan)

YIA-5 PAH-former: Transfer Learning for Efficient Discovery of Pulmonary Arterial Hypertension-Associated Genes

Toshinaru Kawakami (Department of Cardiovascular Medicine, Graduate School of Medicine, The University of Tokyo)

YIA-6 Extracellular vesicles secreted from cancer cells undergoing TGF-  $\beta$  -induced EMT impair vascular stability and promote metastasis by inducing EndoMT

Kazuki Takahashi (Department of Biochemistry, Graduate School of Medical and Dental Science, Institute of Science Tokyo, Japan)

YIA-7 Identification of a distal enhancer of prostaglandin E2 receptor EP4 essential for closure of the ductus arteriosus

Sayuki Oka (Tokyo Medical University, Japan)

### 10:35-11:55 JVBMO - SESSION 3 Oral 2 - Cell biology

Yuichiro Arima, M.D., Ph.D. (Department of Anatomy, Faculty of Life Sciences, Kumamoto University, Japan)

Yohko Yoshida, M.D., Ph. D. (Department of Advanced Senotherapeutics, Juntendo University Graduate School of Medicine, Japan)

O2-1 VE-PTP controls a fluid shear stress set point that governs cell morphological responses through Tie-2

Keisuke Shirakura (Max Planck Institute for Molecular Biomedicine / Graduate School of Pharmaceutical Sciences, The University of Osaka, Japan)

O2-2 Shear stress induced by blood flow maintains endothelial barrier function by enhancing Rap1 small GTPase activity

Hitomi Matsuno-Suzuki (Department of Molecular Pathophysiology, Institute of Advanced Medical Science, Nippon Medical School, Japan)

O2-3 Regulatory mechanism of postnatal development of mouse cardiac lymphatic vessels

Soyoka Fujita (Department of Pathology and Matrix Biology, Mie University Gradulate School of Medicine, Japan)

O2-4 The role of subepidermal capillaries in epidermal formation through the positioning of NG2+ pericytes and their disruption with age

Mika Sawane (Business Core Technology Center, SHISEIDO CO., LTD)

O2-5 Perivascular fibroblasts give rise to pericytes in response to pericyte ablation in adult zebrafish

Tatsuki Uemura (Department of Molecular Pathophysiology, Institute of Advanced Medical Science, Nippon Medical School, Japan)

O2-6 Elucidating the roles of partial endothelial-mesenchymal transition (EndoMT) in the stepwise progression of EndoMT

Haruka Akagi (Department of Biochemistry, Graduate School of Medical and Dental Science, Institute of Science Tokyo, Japan)

O2-7 The role of angiogenesis in pericardial adhesion formation.

Tomohisa Sakaue (Department of Cardiovascular and Thoracic Surgery, Graduate School of Medicine, Ehime University, Japan)

### 13:15-13:55 **JOINT SESSION** Chairman's Special Lecture

#### **Moderator:**

Tetsuro Watabe, Ph.D.

Graduate School of Medical and Dental Sciences, Institute of Science Tokyo, Japan

### CS-1 Immuno-gerotherapeutics targeting senescent cells for age-associated disease

Tohru Minamino, M.D., Ph.D.

Department of Cardiovascular Biology and Medicine, Juntendo University Graduate School of Medicine, Japan

### 13:55-14:25 **AAVBM - SESSION 1 Special talk**

#### **Moderator:**

Yoshiaki Kubota, M.D., Ph.D.

Keio University School of Medicine, Japan

### AS1-1 Heterogeneity and functional specialization of blood vessels in bone

Ralf H. Adams, M.D., Ph.D.

Max Planck Institute for Molecular Biomedicine, Department Tissue Morphogenesis, and University of Muenster, Faculty of Medicine, Muenster, Germany

### 14:30-15:30 AAVBM - SESSION 2 Presidential talks, Keynote lecture

#### **Moderators:**

Nobuyuki Takakura, M.D., Ph. D.

Department of Signal Transduction, RIMD, University of Osaka, Japan Kyoko Hida, DDSc, Ph.D.

Vascular Biology and Molecular Biology, Hokkaido University Faculty of Dental

### AS2-1 Anti-tumour immunity: a co-ordinated approach by the tumour vasculature

Claudine S. Bonder, Ph.D.

Centre for Cancer Biology, University of South Australia and SA Pathology, Adelaide, SA, Australia

# AS2-2 Endothelial Runx3 as a gatekeeper of vascular integrity and organ homeostasis in liver fibrosis

You Mie Lee, Ph.D.

Vessel-Organ Interaction Research Center, VOICE (MRC), Research Institute of Pharmaceutical Sciences, College of Pharmacy, Kyungpook National University, Republic of Korea

### AS2-3 Roles of TGF- $\beta$ family signals during formation and maintenance of vascular systems

Tetsuro Watabe, Ph.D.

Graduate School of Medical and Dental Sciences, Institute of Science Tokyo, Japan

### 15:35-17:05 **AAVBM - SESSION 3**

### **Moderators:**

Takashi Minami, Ph.D. (Div. Mol.Vasc.Biol. Kumamoto University, Japan)

You Mie Lee, Ph.D. (Vessel-Organ Interaction Research Center, VOICE (MRC),
Research Institute of Pharmaceutical Sciences, College
of Pharmacy, Kyungpook National University, Republic of
Korea)

### AS3-1 Defining the genetic and developmental basis of human lymphatic vascular diseases

Natasha Harvey, Ph.D.

Centre for Cancer Biology, University of South Australia and SA Pathology, Adelaide, Australia

### AS3-2 PDGF-C, PDGF-D and VEGF-B in Angiogenesis

Xuri Li, Ph.D.

State Key Laboratory of Ophthalmology Zhongshan Ophthalmic Center, Sun Yat-Sen University, China

### AS3-3 Extracellular Matrix Dynamics in Physiological and Pathological Vascular Remodeling

Utako Yokoyama, M.D., Ph.D.

Department of Physiology, Tokyo Medical University, Japan

### AS3-4 Pathogenic Mechanism of miR10b-5p in Kawasaki Vasculitis

Somy Yoon, Ph.D.

Department of Pharmacology, Chonnam National University Medical School, Republic of Korea

# AS3-5 FoxOs are involved in the age-associated decline of tissue microvessel density through stress tolerance

Miho Kobayashi, Ph.D.

Department of Biochemistry, Graduate School of Medical and Dental Science, Institute of Science Tokyo, Japan

#### Room 2

### 9:00-10:50 **JVBMO - SESSION 2 Oral 1 - Disease**

#### Moderator:

Yuichiro Arima, M.D., Ph.D. (Department of Anatomy, Faculty of Life Sciences, Kumamoto University, Japan)

Yohko Yoshida, M.D., Ph. D. (Department of Advanced Senotherapeutics, Juntendo University Graduate School of Medicine, Japan)

# O1-1 Notch Ligand Dll1 Accelerates Intimal Hyperplasia by Regulating Inflammatory and Proliferative Responses in Injured Arteries

Jun-ichiro Koga (Second Department of Internal Medicine, University of Occupational and Environmental Health, School of Medicine, Japan)

# O1-2 TRPV Channel-Mediated Signaling Contributes to Histamine-Induced Vascular Hyperpermeability in Allergic Inflammation

Kotoha Inoue (Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan)

# O1-3 Drp1-mediated mitochondrial fission protects macrophages from mtDNA/ZBP1-mediated inflammation and inhibits post-infarct cardiac remodeling

Yuki Kondo (Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan)

### O1-4 Vascular endothelial cell senescence as a key mechanism of heart failure pathogenesis

Manami Katoh (Department of Frontier Cardiovascular Science, Graduate School of Medicine, The University of Tokyo)

### O1-5 The Impact of Carbon Nanotube Exposure on Atherosclerosis

Katsuhiro Kato (Department of Cardiology, Nagoya University, Japan)

# O1-6 Identification of a novel kinase regulating endothelial-to-mesenchymal transition in a severe rat model of pulmonary hypertension

Makoto Okazawa (Department of Vascular Physiology, National Cerebral and Cardiovascular Center, Japan)

### O1-7 $\beta$ -III tubulin identifies anti-fibrotic state of pericytes in pulmonary fibrosis

Ryo Sato (Laboratory of Stem Cell and Neurovascular Research, National Institutes of Health)

# O1-8 Deficiency of Regnase-1 in CD4+ helper T cells is associated with the development of pulmonary hypertension

Tadakatsu Inagaki (Department of Vascular Physiology, National Cerebral and Cardiovascular Center, Japan)

### O1-9 Tumorigenic changes of mast cells in mice with Lewis lung carcinoma

Koji Kobayashi (Food and Animal Systemics, The University of Tokyo, Japan)

# O1-10 Human disease modeling of von Hippel-Lindau syndrome from induced pluripotent stem cells

Hidenori Ito (BioResource Research Center, RIKEN)

#### 10:50-11:50 **JVBMO - SESSION 4** Flash talk

#### **Moderator:**

Hiroyasu Kidoya, Ph.D.

Department of Integrative Vascular Biology, Faculty of Medical Sciences, University of Fukui, Japan

 $P-1 \sim P-35$ 

### Poster Room (B1F)

#### $17:00 \sim 18:30$ JOINT SESSION Poster Presentation

# P-1 Esaxerenone improves vascular endothelial dysfunction via SGK1 inhibition and Akt pathway activation in type 2 diabetic mice

Tomoya Furukawa (Department of Pharmacy, Hoshi University, Japan)

### P-2 NG2+ pericytes support homeostasis of capillary-rich skeletal muscles

Hideaki Sato (Department of Oral and Maxillo-Facial Surgery, Asahikawa Medical University, Japan, Japan)

# P-3 Ablation of neuron-glial antigen 2-expressing pericytes induces late-onset intestinal dysfunction

Yugo Watanabe (Department of Biochemistry, Asahikawa Medical University, Japan)

### P-4 GPR176 regulates fibroblast metabolic adaptation and ferroptosis resistance

Yasuo Okamoto (Department of Pharmacology, Kawasaki Medical School, Japan)

# P-5 FOXO1-mediated phosphorylation of myosin light chain 2 promotes endothelial cell elongation and angiogenesis

Kiyomi Tamura (Department of Oral Health Science, Faculty of Dental Medicine and Graduate School of Dental Medicine, Hokkaido University)

# P-6 Identification of Age-associated Pathogenic Factors in the Brain Vascular Endothelium of Down Syndrome

Shintaro Funasaki (Molecular and Vascular Biology, IRDA, Kumamoto University, Japan)

# P-7 Inhibition of Notch Signaling Delta-like Ligand 1 Accelerates Angiotensin II-induced Aortic Aneurysm Formation in Apolipoprotein E-deficient Mice

Orkhonselenge Nasanbadrakh (The Second Department of Internal Medicine, University of Occupational and Environmental Health, Japan)

### P-8 Evaluation of the efficacy of Lysophosphatidic Acid for cerebral infarction

Shintarou Yamada (Department of Neurosurgery Faculty of Medical Sciences University of Fukui)

# P-9 The effect of glycan-related factor secreted specifically from senescent endothelial cells on endothelial function and age-related diseases

Norihiko Sasaki (Tokyo Metropolitan Institute for Geriatrics and Gerontology)

# P-10 Substrate stiffness modulates KLF2 activation involving the pro-inflammatory phenotype of endothelial cells

Takayuki Okamoto (Department of Pharmacology, Shimane University)

#### P-11 CD69 mediates the development of abdominal aortic aneurysm

Kohei Karasak (Department of Cardiovascular Medicine, the University of Tokyo Hospital)

### P-12 Toll-like receptor 4 promotes aortic remodeling associated with chronic kidney disease

Tomohiro Shirouzu (Second Department of Internal Medicine, University of Occupational and Environmental Health, School of Medicine, Japan)

# P-13 Risk factors of arteriovenous shunt failure in diabetic patients: transcriptome analysis of human vein samples

Shiorouzu Tomohiro (Second Department of Internal Medicine, University of Occupational and Environmental Health, School of Medicine, Japan)

# P-14 Role of endothelial cells on chemotherapy resistance of metastatic breast cancer cells in lung

Tsunaki Hongu (Division of Cancer Cell Biology, Cancer Research Institute, Kanazawa University, Japan)

### P-15 Blockade of Notch ligand Jagged2 induces atherosclerotic plaque vulnerability

Keisuke Hidaka (Second Department of Internal Medicine, University of Occupational and Environmental Health, School of Medicine, Japan)

# P-16 Quantitative analysis of fibroblast and pericyte influence on three-dimensional angiogenic morphology features

Hedele Zeng (Institute of Industrial Science, The University of Tokyo, Japan / Department of Bioengineering, School of Engineering, The University of Tokyo, Japan)

# P-17 Endothelial C3G-Rap1-Integrin $\beta$ 1 Signaling Is Essential for Alveolar Vascular Development

Yuki Murakami (Department of Molecular Pathophysiology, Institute of Advanced Medical Science, Nippon Medical School, Japan)

# P-18 Human disease modeling of von Hippel-Lindau syndrome from induced pluripotent stem cells

Hidenori Ito (iPS Cell Advanced Characterization Research Team, BioResource Research Center, RIKEN)

### P-19 Temporal Dynamics and Cellular Responses of Microvessel Model Under Pulsatile Pressure

Kazuya Abe (Institute of Industrial Science, The University of Tokyo, Japan / epartment of Bioengineering, School of Engineering, The University of Tokyo, Japan)

# P-20 A mesenchymal cell subset marked by platelet-derived growth factor receptor $\alpha$ serves as a precursor of mural cells in zebrafish

Masahito Yura (Department of Molecular Pathophysiology, Institute of Advanced Medical Science, Nippon Medical School, Japan)

# P-21 Observation of Microcirculation in the Nailfold and Tongue of a Child with a History of Chronic Rhinitis and Healthy Siblings and Parent: A Case Report

Emi Hirano (Omotesando Dental Clinic LUCENT)

# P-22 Organ-Specific Endothelial Differentiation in the Lung: The Rap1-Integrin $\beta$ 1 Axis Promotes aCap Formation

Haruko Watanabe-Takano (Department of Molecular Pathophysiology, Institute of Advanced Medical Science, Nippon Medical School)

### P-23 Temporal Analysis of Liver Vascular Development at Single-Cell Resolution

Tomohiro Iba (Kanazawa University School of Medicine)

### P-24 Visualization of vasculature in mouse hypothalamus

Kuroda Eimi (Department of Histology and Neuroanatomy, Tokyo Medical University)

# P-25 Study of cell-type specific tubulin carboxypeptidase use under metabolic stress reveals VASH1 as key regulator of detyrosination in endothelial cells

Yui Tsuyama (Department of Biochemistry, Graduate School of Medical and Dental Science, Institute of Science Tokyo, Japan / Department of Oral and Maxillofacial Surgical Oncology, Division of Oral Health Sciences, Graduate School of Medical and Dental Sciences, Institute of Science Tokyo, Japan)

### P-26 Arid5a contributes to PH pathogenesis by inducing IL-6 expression

Xin Ding (Department of Vascular Physiology, National Cerebral and Cardiovascular Center, Japan)

### P-27 A novel variant of ZC3H12A in pulmonary arterial hypertension

Ryotaro Asano (Department of Vascular Physiology, National Cerebral and Cardiovascular Center, Japan)

# P-28 18-hydroxy-5Z,8Z,11Z,14Z,16E-eicosapentaenoic acid attenuates vascular hyperpermeability by inducing vasoconstriction

Ayumi Suzuki (Department of Animal Radiology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Japan)

# P-29 Evaluation of Culture Conditions for a 3D In Vitro Tumor-Microvessel Model to Study Vascular Invasion by Tumor Cell Clusters

Norito Ozeki (Department of Bioengineering School of Engineering, The University of Tokyo, Japan / Institute of Industrial Science, The University of Tokyo, Japan)

# P-30 JAGGED-1 STIMULATED PERICYTE- DERIVED EXOSOMES ENHANCE ANGIOGENESIS AND ENDOTHELIAL CELL PROLIFERATION

Kasi Vishnuvardhinidutt (Laboratory of Vascular and Cellular Dynamics, Faculty of Medicine, University of Miyazaki)

# P-31 Analysis of the tumor metastasis suppression mechanism by the effects of beta-blockers on vascular endothelial cells

Takeshi Munekata (Vascular Biology and Molecular Pathology, Graduate School of Dental Medicine, Hokkaido University, Japan / Oral Diagnosis and Medicine, Graduate School of Dental Medicine, Hokkaido University, Japan)

### P-32 Development of a COVID-19-derived epitope-based vaccine targeting hypertension

Hiroki Hayashi (Department of Health Development and Medicine, The University of Osaka Graduate School of Medicine Faculty of Medicine, Japan)

### P-33 Elucidating the role of the signal transduction molecules in lymphatic endothelial cells

Ayaka Inami (Department of Pathology, Academic Assembly Faculty of Medicine, University of Toyama)

### P-34 Investigation of the transcriptional regulation of the mouse Ninjurin1 gene by SP1

Kei-ichi Nakajima (Department of Biochemistry, Asahikawa Medical University, Japan)

# P-35 CCR4 Deletion Attenuates Abdominal Aortic Aneurysm by Modulating Adaptive Immunity and Aortic Remodeling

Krisnanda Aga (Laboratory of Medical Pharmaceutics, Kobe Pharmaceutical University, Kobe, Japan)

# P-36 FGF12 Induces Aberrant Mechanosignaling in Aortic Smooth Muscle Cells During Thoracic Aortic Aneurysm Formation in Marfan Syndrome Mice

Kim Koung Li (College of Pharmacy, Chung-Ang university, Seoul, Republic of Korea)

# P-37 PTP4A1 alleviates AnglI-induced aortic aneurysmal lesions by regulating immature mural neovascularisation

Seo Young Hoon (Vascular biology, Inflammation, Translational research,
Biotherapeutics Translational Research Center, Korea
Research Institute of Bioscience and Biotechnology (KRIBB))

### P-38 Dll4/Notch Signaling: Key to Blood-CNS Barrier Integrity and Function

Jang Sung Hoon (Blood-brain barrier, Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, Republic of Korea)

# P-39 Stem Cell Factor/c-KIT Signaling Regulates Pulmonary Arterial Smooth Muscle Cell Glycolysis and Promotes Pulmonary Arterial Hypertension in Mice

Kim Minju (cardiovascular disease, College of Pharmacy, Chung-Ang University, Korea)

# P-40 In Vivo Real-Time Analysis of Tumor Angiogenesis and Therapeutic Efficacy Using Advanced Intravital Microscopy Platforms

PARK JUNYOUNG (Intravital microscope, IVIM Technology)

# P-41 A Potential Rejuvenation Factor C Improves Metabolic Dysfunctions and Mitigates Atherosclerosis in LdIr-/- Mice

Park Hye Rang (Biotherapeutics Translational Research Center, Korea Research Institute of Bioscience and Biotechnology)

# P-42 Deciphering Mechanotransduction-Driven Organelle Remodeling in Phenotypic Switching of Vascular Smooth Muscle Cells

KIM JUYEON (Pharmacology, Department of Pharmacology, School of Medicine, Pusan National University)

# P-43 Synergistic Anti-Obesity and Metabolic Effects of Momordica charantia and Fermented Grains: Implications for Vascular Health

Eun Chae Cho (Department of Food and Nutrition, Sahmyook University, Seoul, Republic of Korea)

# P-44 Activation of the PI3K-Akt-E2F Axis by UCB-EVs Enhances Neurovascular Regeneration in Diabetic ED

Fitri Rahma Fridayana (National Research Center for Sexual Medicine and Department of Urology, Inha University Hospital)

# P-45 Electrical Stimulation Promotes Neurovascular Regeneration and Erectile Function Recovery in Diabetic ED

Yan Huang (National Research Center for Sexual Medicine and Department of Urology, Inha University Hosptial)

# P-46 Lutein inhibits Inflammasome Priming in Macrophages through Redox-Associated Mechanisms

woo-seong Hong (Department of Vaccine Biotechnology, Gyeongkuk National University, Andong, Republic of Korea)

## DAY2: Nov2 (Sun.)

#### Room 1

#### 8:50-10:20 **AAVBM - SESSION 4**

#### **Moderators:**

Claudine S. Bonder, Ph.D. (Centre for Cancer Biology, University of South Australia and SA Pathology, Adelaide, SA, Australia) Koichi Nishiyama, M.D., Ph. D. (Laboratory of Vascular and Cellular Dynamics, Department of Medical Sciences, Faculty of

Medicine, University of Miyazaki, Japan)

# AS4-1 Longitudinal Intravital Imaging of Neurovascular Unit and Vascular Integrity Following Cerebral Microinfarction

Pilhan Kim, Ph.D.

Graduate School of Medical Science and Engineering, Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea / IVIM Technology, Inc., Republic of Korea

### AS4-2 CD206 activation suppresses subretinal fibrosis in pericyte-deficient retina

Akiyoshi Uemura, MD, Ph.D.

Department of Ophthalmology and Visual Science, Nagoya City University Graduate School of Medical Sciences / Uemura Eye Clinic, Japan

### AS4-3 Evolutionary and developmental plasticity of lymphatic endothelial cells

Ben Hogan, Ph.D.

Laboratory Research NHMRC Investigator (L2) / NHMRC Centre of Research Excellence in Lymphoedema and Lymphatic Regeneration / Vascular Cell and Developmental Biology / Peter MacCallum Cancer Centre / Department of Anatomy and Physiology, The University of Melbourne, Australia

### AS4-4 Vascular-mediated regulation of skeletal muscle adaptation and aging

Shin Fujimaki, Ph.D.

Department Muscle Development and Regeneration, Institute of Molecular Embryology and Genetics, Kumamoto University, Japan

# AS4-5 Afterlife in the endothelium: efferocytosis by endothelial cells promotes a tissue repair phenotype with therapeutic potential in vascular diseases

Amy Baxter, Ph.D.

Heart Foundation L1 Future Leader Fellow / Vascular Cell Death, Clearance & Inflammation Lab / Dying Cell Communication & Clearance, Centre for Cardiovascular Biology & Disease Research / La Trobe Institute for Molecular Science / Department of Biochemistry & Chemistry, School of Agriculture, Biomedicine and Environment, Australia

#### 10:30-11:40 **AAVBM - SESSION 5**

#### **Moderators:**

Xuri Li, Ph.D. (State Key Laboratory of Ophthalmology Zhongshan Ophthalmic Center, Sun Yat-Sen University, China)

Tetsuya Matoba, M.D., Ph. D. (Department of Cardiovascular Medicine, Faculty of Medical Sciences, Kyushu University, Fukuoka, Japan)

# AS5-1 Promising Therapeutic Strategies for Mesenchymal Stem Cell-Based Cardiovascular Regeneration

Hun-Jun, Park, MD, Ph.D.

Division of Cardiology, Uijeonbu St. Mary's Hospital, The Catholic University of Korea

# AS5-2 The molecular pathogenesis of pulmonary arterial hypertension through activation of aryl hydrocarbon receptor

Yoshikazu Nakaoka, M.D., Ph.D.

General of Research Institute, Director of Department of Vascular Physiology, Research Institute, National Cerebral and Cardiovascular Center (NCVC), Suita, Japan

# AS5-3 Oligonucleotide-Based Modulation of Pulmonary Endothelial Cells: Therapeutic Potential for Vascular Lung Diseases

Minwook Shin, Ph.D.

College of Pharmacy, Sookmyung Women's University, Republic of Korea

# AS5-4 Microglia drive early neuroinflammation post-ischaemic stroke before peripheral leukocyte infiltration

Joshua H. Bourne, Ph.D.

Centre for Inflammatory Diseases, Monash University, Melbourne, Australia

### 13:35-15:00 JVBMO - SESSION 5 Young investigators session

#### **Moderators:**

Miho Kobayashi, Ph.D. (Department of Biochemistry, Graduate School of Medical and Dental Science, Institute of Science Tokyo, Japan)

Shin Fujimaki, Ph.D. (Department Muscle Development and Regeneration, Institute of Molecular Embryology and Genetics, Kumamoto University, Japan)

### JS5-1 Skin wound healing is promoted by LPA through functional angiogenesis

Kazuhiro Takara, Ph. D.

Tenure-Track Program for Innovative Research, University of Fukui / Department of Integrative Vascular Biology, Faculty of Medicine, University of Fukui, Japan

### JS5-2 Cells adapt to extracellular acidic pH through TM9SF3-mediated PI(4,5)P<sub>2</sub> flop

Keisuke Sako, Ph.D.

Department of Anatomy, Keio University School of Medicine, Japan

### JS5-3 Concersion of mitochondrial cristae during heart development

Yuto Ishikawa

Gakushuin University, Tokyo, Japan

# JS5-4 Fusion of a BBB-permeable cyclic peptide to Fab and Fc regions of monoclonal antibodies for improved brain delivery

Koki Sasaki, B.S. in pharmacy

Department of Pharmaceutical Microbiology, Graduate School of Pharmaceutical Sciences, Kumamoto University, Japan

# JS5-5 Elucidating the mechanisms that regulate the transitional stages of TGF- eta -induced EndoMT

Mizuki Tanaka

Department of Biochemistry, Institute of Science Tokyo, Japan

# JS5-6 Development of a Vascular Organoid Model for Moyamoya Disease Using Patient-Derived iPS Cells

Silsu Park

Development of a Vascular Organoid Model for Moyamoya Disease Using Patient-Derived iPS Cells

# JS5-7 Endothelial Potassium Channel Tetramerization Domain-Containing 10 maintains tissue homeostasis by regulating actin fibers

Sota Tate

Department of Cell Growth and Tumor Regulation, Proteo-Science Center (PROS), Ehime University, Toon, Ehime, Japan

### 15:05-16:45 **JVBMO - SESSION 6 Symposium**

#### **Moderators:**

Shigetomo Fukuhara, Ph.D. (Department of Molecular Pathophysiology, Institute of Advanced Medical Sciences, Nippon Medical School)

Seiji Yamamoto, Ph.D. (Department of Pathology, University of Toyama)

### JS6-1 Specialized lipid metabolism of brain endothelium for the blood-brain interface

Keisuke Yanagida, M.D., Ph. D.

The Jikei University School of Medicine, Department of Molecular Biology, Japan

# JS6-2 Global and specific regulation of mRNA remodeling in cardiovascular physiology and pathology

Keiji Kuba, M.D., Ph. D.

Department of Pharmacology, Kyushu University Graduate School of Medical Sciences, Japan

### JS6-3 Cellomics and histological spatial omics: diving into three-dimensional multicellular cloud

Etsuo A. Susaki, M.D., Ph.D.

Department of Biochemistry and Systems Biomedicine, Juntendo University Graduate School of Medicine / Nakatani Biomedical Spatialomics Hub, Juntendo University Graduate School of Medicine / Laboratory of Cell Biology, Biomedical Research Core Facilities, Juntendo University Graduate School of Medicine / Institute for Quantum Life Science, National Institutes for Quantum Science and Technology, Japan

### JS6-4 Frontiers in Intravital Imaging: Innovations in Vascular Biology

Junichi Kikuta, M.D., Ph.D.

Division of Immunology, Department of Future Medical Sciences, Graduate School of Medicine, Kobe University, Japan

### JS6-5 The development of oral IgA antibody as a treatment for dysbiosis-related diseases

Reiko Shinkura, M.D., Ph. D.

Institute for Quantitative Biosciences The University of Tokyo, Japan

# DAY2: Nov2 (Sun.)

#### Room 2

### 13:30-15:00 JVBMO - SESSION 7 Oral 3 - Technology/Drug discovery

#### **Moderators:**

Seitaro Nomura, M.D., Ph. D. (Department of Frontier Cardiovascular Science, The University of Tokyo, Japan)

Yukiko Matsunaga, Ph.D. (Institute of Industrial Science, The University of Tokyo, Japan)

# O3-1 Organ-Specific Stress Response Networks in Vascular Endothelial Cells Under Aging and Metabolic Stress

Masataka Yokoyama (Vascular Research, Department of Molecular Diagnosis, Chiba University Graduate School of Medicine)

# O3-2 Age-related impairment of FoxO-mediated stress tolerance in endothelial cells contributes to microvessel decreases

Miki Yokozawa (Department of Molecular and Cellular Medicine, Institute of Medical Science, Tokyo Medical University, Japan)

### O3-3 Abnormal Vascular Remodeling in a Hypomyelination Mouse Model

Noriko Okuno (Department of diagnostic pathology, Toyama University, Japan)

# O3-4 Modeling Vascular Invasion of Tumor Cell Clusters Using a Tumor-Microvessel-on-a-Chip System

Makoto Kondo (Institute of Industrial Science, The University of Tokyo, Japan)

O3-5 Analysis of Peripheral Lymphatic Function Using Intravital Imaging

Nanami Morooka (Department of Medical Physiology, Hamamatsu University School of Medicine)

O3-6 Three-dimensional analysis of the heart visualizes the angiogenic response mediated by myeloid cells after pressure loading

Takayuki Fujiwara (Department of Cardiovascular Medicine, the University of Tokyo Hospital)

O3-7 Targeting SAAM-1 via Senolytic Vaccination as a Novel Therapeutic Strategy for Cardiovascular Disease

Chieh-Lun Hsiao (Juntendo University Graduate School of Medicine)

O3-8 Claudin-5-binding molecules transiently open the blood-brain barrier and deliver drugs to the brain

Yoshiaki Okada (Graduate School of Pharmaceutical Sciences, The University of Osaka, Japan / Center for Infectious Disease Education and Research, The University of Osaka, Japan)

# 第33回日本血管生物医学会学術集会 共催セミナー

Language, Slide: Japanese only

### ランチョンセミナー

(1) 当日混雑を避けるため、お弁当引き換え整理券を配布いたします。\*なくなり次第終了

整理券配布場所:1階 ホワイエ

整理券配布時間:11月1日(土)8:00~ 11月2日(日)8:20~

※プログラム開始後に無効とし、キャンセル待ちの方にご入場いただきます。 ※お弁当不要で聴講のみのご参加も可能です。その場合整理券は不要です。

(2) 第33回日本血管生物医学会学術集会共催プログラムとして実施されますので、スライドや発表言語は原則日本語です。

#### ランチョンセミナー1

日時:11月1日(土)12:00~13:00

会場:第2会場(1階 カンファレンスルーム)

座長:林 英守(順天堂大学大学院医学研究科循環器内科学 准教授)

LS1 「シングルセル解析で探る心血管研究」

演者:候 聡志(東京大学大学院医学系研究科先端循環器医科学講座 特任助教)

共催:日本ベーリンガーインゲルハイム株式会社

#### ランチョンセミナー2

時間:11月1日(土)12:00~13:00

会場:第3会場(7階カンファレンスルーム)

座長:武田 憲彦(東京大学大学院医学系研究科 循環器内科学 教授)

LS2-1 「吸入 NO の役割 Mechanical Support 下の治療も含めて」

演者:皆月 隼(東京大学医学部附属病院 循環器内科 助教)

LS2-2 「機械的補助循環を用いた心原性ショック治療におけるiNOの役割」

演者:中田 淳(日本医科大学付属病院 心臓血管集中治療科 助教)

共催:マリンクロット ファーマ株式会社

#### ランチョンセミナー3

日時:11月1日(土)12:00~13:00

会場:第4会場(8階カンファレンスルーム)

座長:細田 英明(ジャクソン・ラボラトリー・ジャパン株式会社 コマーシャル部門 ディレクター)

LS3 「疾患モデルマウスの探し方と使い方 From Selection to Application: How to leverage mouse models for your research」

演者:内田 あや(ジャクソン・ラボラトリー・ジャパン株式会社 テクニカルインフォメーション サイエンティスト)

共催:ジャクソン・ラボラトリー・ジャパン株式会社

#### ランチョンセミナー4

日時:11月1日(土)12:00~13:00

会場:第5会場(9階カンファレンスルーム)

座長:横山 直之(帝京大学医学部附属病院 中央検査部 部長) LS4 「糖尿病と心血管イベント~バイオマーカーの有用性~」

演者:末永 祐哉 (順天堂大学医学部 循環器内科学講座 准教授)

共催:ロシュ・ダイアグノスティックス株式会社

#### ランチョンセミナー5

日時:11月2日(日)12:00~13:00

会場:第2会場(1階カンファレンスルーム)

座長:甲斐 渉(ライフテクノロジーズジャパン株式会社 プロテオミクスサイエンス事業部)

LS5 「血液プロテオーム解析による心血管病態の理解とその応用」

演者:野村 征太郎(東京大学大学院医学系研究科 先端循環器医科学講座 特任准教授)

共催:オーリンクプロテオミクス

#### ランチョンセミナー6

日時:11月2日(日)12:00~13:00

会場:第3会場(7階カンファレンスルーム)

座長:藤生 克仁(東京大学大学院医学系研究科 先進循環器病学 特任教授/

東京科学大学 統合生理学 教授)

### LS6 「心血管疾患治療における慢性腎臓病と蛋白尿~予後へのインパクトをどうみるか~」

演者:岩田 洋(順天堂大学大学院医学研究科 循環器内科学講座 先任准教授)

共催:アストラゼネカ株式会社、小野薬品工業株式会社

### ランチョンセミナー7

日時:11月2日(日)12:00~13:00

会場:第4会場(8階カンファレンスルーム)

座長:中尾 新太郎(順天堂大学医学部眼科学講座 主任教授)

### LS7 「網膜血管新生を制御する細胞間クロストーク」

演者:植村 明嘉(うえむら眼科クリニック 院長)

共催:参天製薬株式会社、バイエル薬品株式会社

### ランチョンセミナー8

日時:11月2日(日)12:00~13:00

会場:第5会場(9階 カンファレンスルーム)

座長: 南野 徹 (順天堂大学大学院医学研究科 循環器内科学 教授)

### LS8 「心房細動早期発見と早期治療の新戦略」

演者: 笹野 哲郎 (東京科学大学大学院医歯学総合研究科 循環器制御内科学分野 教授)

共催:ブリストル・マイヤーズスクイブ株式会社/ファイザー株式会社

#### その他共催セミナー

**ミニセミナー** \* 整理券制ではございません。直接会場へお越しください。

日時:11月1日(土)14:40~15:30

会場:第2会場(1階 カンファレンスルーム)

### MS 「シングルセル遺伝子解析と空間トランスクリプトーム解析の最前線」

演者:渡辺 亮(株式会社 CyberomiX 代表取締役)

共催:株式会社CyberomiX

#### **スポンサードセミナー** \*整理券制ではございません。 直接会場へお越しください。

日時:11月1日(土)17:05~18:05

会場:第1会場(1階 小川講堂)

#### SS 「大規模シングルセル解析で深まる心血管疾患の病態解明」

演者:野村 征太郎(東京大学大学院医学系研究科 先端循環器医科学講座 特任准教授)

共催:バイオストリーム株式会社