APDO Special Lecture

Nov 15（Sat）11：40～12：40　Room 1　3F（Cosmos I）

Molecular Basis for Fuel Switching During Adaptation

Chair：　Kohjiro Ueki（Director, Diabetes Research Center, Research Institute, National Center for Global Health and Medicine, Japan）

ASL　Molecular Basis for Fuel Switching During Adaptation

Shingo Kajimura（Harvard Medical School, Beth Israel Deaconess Medical Center, Howard Hughes Medical Institute, USA）

APDO Symposium 1

Nov 14（Fri）16：00～17：40　Room 7　7F（706）

Novel mechanisms underlying the development of obesity-related diseases

Chair：　Tadahiro Kitamura（Institute for Molecular and Cellular Regulation, Gunma University, Japan）

AS1-1　The role of white adipose tissue-derived small molecules in control of metabolic and intestinal balance

Kenneth King Yip Cheng（The Hong Kong Polytechnic University, China-Hong Kong）

AS1-2　Integrated analysis for human visceral adipose tissue by single nucleus seq and bulk RNA seq according to the metabolic status

SungHee Choi（Seoul National University College of Medicine, Korea）

AS1-3　YAP/TAZ coordinate adipose plasticity and leptin dynamics to maintain metabolic homeostasis

Jae Myoung Suh（Graduate School of Medical Science and Engineering, KAIST, Korea）

AS1-4　FSTL1-mediated endothelial cell-macrophage interactions manipulate adipose tissue dysfunction-associated obesity

Jia Li（Shanghai Institute of Materia Medica, Chinese Academy of Sciences, China）

APDO Symposium 2

Nov 15（Sat）8：45～10：00　Room 7　7F（706）

Treatment targets for obesity and its related diseases

Chair：　Jae Bum Kim（Seoul National University, South Korea）

AS2-1　Targeting metabolic regulators in the treatment of obesity-associated complications

Weiping Han（Institute of Molecular and Cell Biology, A*STAR, Singapore）

AS2-2　Synergism between FGF21 and leptin in amelioration of obesity-related metabolic comorbidities

Aimin Xu（The University of Hong Kong, Hong Kong SAR, China）

AS2-3　Liver-Derived SerpinA1 Regulates Metabolic Energy Expenditure by Maintaining and Activating Brown Adipose Tissue and Skeletal Muscle

Masaji Sakaguchi（Department of Metabolic Medicine, Faculty of Life Sciences, Kumamoto University, Japan）

APDO Symposium 3

Nov 15（Sat）10：05～11：20　Room 7　7F（706）

Precision medicine based on the molecular pathogenesis

Chair：　Weiping Han（Institute of Molecular and Cell Biology, A*STAR, Singapore）

AS3-1　Genetically informed precision medicine for Māori and Pacific peoples

Peter Shepherd（University of Auckland, New Zealand）

AS3-2　Application of glucagon to pathological diagnosis and treatment for personalized medicine of diabetes

Tadahiro Kitamura（Institute for Molecular and Cellular Regulation, Gunma University, Japan）

AS3-3　The signal bias mediated by splice variants of class B1 G protein-coupled receptors

Dehua Yang（Shanghai Institute of Materia Medica, Chinese Academy of Sciences, China）

APDO Symposium 4

Nov 15（Sat）14：10～15：25　Room 7　7F（706）

New Era in adiposcience

Chair：　Aimin Xu（The University of Hong Kong, Hong Kong SAR, China）

AS4-1　Lamin as a Master Regulator: Linking Chromatin Dynamics to Diabetes and Inflammatory Pathways

Kae Won Cho（Soonchunhyang University, Republic of Korea）

AS4-2　Adipose Tissue Plasticity and Energy Metabolism

Jae Bum Kim（Seoul National University, South Korea）

AS4-3　Action-Machinary of adiponectin for organ protection after T-cadherin binding

Iichiro Shimomura（Department of Metabolic Medicine, Osaka University Medical School, Japan）

APDO Symposium 5

Nov 15（Sat）15：30～16：45　Room 7　7F（706）

Toward healthy longevity

Chair：　SungHee Choi（Seoul National University College of Medicine, Korea）

AS5-1　Molecular Mechanisms Linking Obesity to Elevated Cancer Risk

Jiyoung Park（UNIST（Ulsan National Institute of Science and Technology）, South Korea）

AS5-2　A skeletal muscle–sympathetic nerve–intestine network underlies muscle inflammation and atrophy induced by immobilization

Wataru Ogawa（Kobe University Graduate School of Medicine, Japan）

AS5-3　Renal Energy Metabolism as a Determinant of Healthspan

Shinji Kume（Department of Medicine, Shiga University of Medical Science, Japan）

APDO Symposium 6

Nov 15（Sat）16：50～18：05　Room 7　7F（706）

Smash the MASH

Chair：　Peter Shepherd（The University of Auckland, New Zealand）

AS6-1　Roles of Mitochondrial Amino Acid Sensing in the Pathologies of Fatty Liver

Motoharu Awazawa（National Institute of Global Health and Medicine, Japan）

AS6-2　Rewiring Membrane Sphingolipid: A Tuning Point in MASL-MASH Transition

Cen Xie（Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, P.R. China）

AS6-3　The enedioic acid analogue 326E alleviates MASH in preclinical studies and its signatures in patients via dual targeting at ACLY and PPAR α

Jingya Li（Shanghai Institute of Materia Medica, Chinese Academy of Sciences, University of Chinese Academy of Sciences, China）

APDO Poster Session

November 15（Sat）13：40～14：10　6F Lobby

AP-1　Spatial Transcriptomic Analysis of Adipose Tissue: Methodological Validation and Application

Jisu Jung（Division of Endocrinology and Metabolism, Department of Internal Medicine, Seoul National University Bundang Hospital, Seongnam, Korea）

AP-2　Modular Co-expression Analysis Uncovers Regulatory Long Non-coding RNAs in Obesity and Type 2 Diabetes

Qingzhi Huang（Department of Internal Medicine, Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, Republic of Korea）

AP-3　Prolactin Improves Insulin Sensitivity by Expanding Adipose Tissue Reservoir Capacity During and After Lactation

Na Keum Lee（Seoul National University）

AP-4　Single-Cell RNAseq-Based Profiling of Postprandial Intestinal Responses and the Regulatory Impact of Insulin Signaling

Hiroaki Tsuruta（Department of Molecular Diabetic Medicine, Japan Institute for Health Security）

AP-5　Functional Profiling and Cryo-EM Structures Reveal Ligand-Specific Signaling Diversity of GLP-1 Receptor Variants

Fenghui Zhao（Shanghai Institute of Materia Medica, Chinese Academy of Sciences）

AP-6　Structural and Functional Insights into HCAR1 as a Versatile Sensor for Lactate and Lipids

Jia Duan（Zhongshan Institute for Drug Discovery, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Zhongshan, China ／ Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China）

AP-7　Glycodeoxycholic Acid Deficiency Accelerated Diabetic Kidney Disease Progression via Gut Microbiota-Dependent Disruption of the FGF19-FGFR1 Axis

Yameng Liu（State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, PR China）

AP-8　*Smpd3*$^{\text{obesity-high}}$ ASC drive obesity inflammation *via* EVs-FN1-CD44 axis

Ying Hong（State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, China）

AP-9　Elucidation of the role of Akt in diabetic cardiomyopathy

Kotaro Soeda（Department of Molecular Diabetic Medicine, Diabetes Research Center, National Institute of Global Health and Medicine）

November 15（Sat）13：40～14：10　6F Lobby

AP-10　miR-494 Deletion Improves Glucose Metabolism via Enhanced Adipose Mitochondrial Oxidation in Mice

Lucia Sugawara（Department of Medicine, Shiga University of Medical Science）

AP-11　Reduced O-GlcNAcylation in Hepatocytes Increases Hepatic Glycogen Accumulation and Triggers Hepatitis and Liver Fibrosis

Shogo Ida（Division of Diabetes, Endocrinology, and Nephrology, Department of Medicine, Shiga University of Medical Science）

AP-12　Sex Differences in the Development of Diet-Induced MASH

Alina Khusnullina（Department of Endocrinology and Metabolism, Kanazawa University Graduate School of Medical Sciences）