

40th
Anniversary

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2025 KALAS

40th Anniversary International Symposium

JULY 23 (WED) – 26 (SAT)

📍 ICC JEJU · Jeju Island · KOREA

GIANTS

Global Insights in Advancing Translational Sciences

Plenary Lecture

JULY 24
(THU)



Dae-Sik Lim **ENG**
KAIST

Hippo-YAP/TAZ Signaling:
A Crucial Pathway in Cell Fate Dynamics

JULY 25
(FRI)



Christian Wolfrum **ENG**
NTU Singapore

Adipocyte Heterogeneity and
the Regulation of Energy Metabolism

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JULY 23 (WED)

Symposium 1 [K-MEDI hub, KBIO HEALTH]

14:00 / Halla Hall A / KOR

Current Trends in Nonclinical Testing With Non-Rodent Animal Models: Focus on Common Marmosets and Pigs

The Minipig in Medical Device Development	Ryounghoon Jeon (K-MEDI hub)
Research on Tissue-Engineered Scaffolds Combined with Stem Cell Therapies Utilizing Animal Models	Sang Jin Lee (Univ. of Hong Kong)
Research Methodology Developments for Common Marmoset (Callithrix Jacchus)	Dohyun Lee (OSONG Medical Innovation Foundation)
Bridging the Rodent to Human Translational Gap: Marmoset as a Model System for Biomedical Research	Jung Eun Park (Univ. of Pittsburgh)

Symposium 2

14:00 / Halla Hall B / ENG

MPS and Organoid Research and Laboratory Animal Science

Advanced Human Microphysiological Systems for Disease Modeling and Drug Development	Deok-Ho Kim (Johns Hopkins Univ.)
MPS and Organoids as New Alternative Methods (NAMs): Current & Upcoming Trend	Nakwon Choi (Korea Univ.)
Microfluidics-Embedded 3D Perfusion Cell Culture System	Jeung Sang Go (Pusan Natl. Univ.)
Therapeutic Organoid Platform, "Tissue Reforming Technology Platform" and Animal Model	Jaemin Cho (Seoul Natl. Univ.)

Symposium 3 [IACUC]

14:00 / Samda Hall / KOR

Strengthening Biosafety Risk Assessment and Management in Laboratory Animal Research

Risk Assessment Strategies for Research Involving Biological Agents	Won-Jong Jang (KonKuk Univ.)
Biosafety Management for Animal Experiments in ABL-3 Laboratories	Kyung Min Lee (International Vaccine Institute)
Current Status and Future Development of Biosafety Education Programs	Tae Jong Son (Korea Disease Control and Prevention Agency)
Predicting Hazards in Laboratory Work by Deep Learning towards Risk Assessment and Safety Management	Takaaki Harada (Nagoya Univ.)

Symposium 4 [KFRi]

16:00 / Halla Hall A / KOR

Animal Models in Nutrition Research and Functional Food Development

Integrating Chrono-Nutrition and Probiotics in Organoids for Functional Food Development	Miri Park (KFRi)
Alterations in Mitochondria-Associated Molecular Patterns and the Role of Dietary Components in Improving Inflammation and Metabolic Disease	Yu Geon Lee (KFRi)
Development of New Concept Efficacy Evaluation Analysis Technology Utilizing Mouse Resources for Modeling Human Disease	Hea-Jong Chung (KBSI)
Effects of the Complex of Panicum Miliaceum Extract and Triticum Aestivum Extract on Hair Condition	Pan-Young Jeong (Novarex Co., Ltd.)

Symposium 5 [KIT]

16:00 / Halla Hall B / KOR

The Use of Non-Human Primates in Non-Clinical Studies Ranges From Management to Research

Considerations for Research with NHPs	Eun Ju Song (Emory Univ.)
Approaches to Microbiological Quality Control in Laboratory Non-Human Primates	Kyoung-Sun Lee (OSONG Medical Innovation Foundation)
Application of Non-Human Primates in Advanced Biopharmaceuticals Development	Han Na Suh (KIT)

Symposium 6 [KLAT Education 1]

16:00 / Samda Hall / KOR

Microbiological Quality Control for Laboratory Rodents

Major Rodent Diseases in Korean Laboratory Animal Facilities	Joon-Suk Park (K-MEDI hub)
Disease Control Strategies for Laboratory Rodents: Quarantine, Disinfection, and Sterilization	Jungmin Lee (Samsung Medical Center)
Health Monitoring Techniques for Laboratory Rodent	Hwan Kim (IBS)
Cleaning Methods for Infected Rodents and Applicable Cases	Yonghun Sung (Korea Polytechnic)

JULY 24 (THU)

Symposium 7

09:40 / Halla Hall A / ENG

Stem Cells and Tissue Regeneration

Rare Begets Common: Skin Diseases Reveal Basic Human Biology	Ting Chen (NIBS, Beijing)
Aging and Rejuvenation of Skin Stem Cells and Their Niches	Sekyu Choi (POSTECH)
Organoid Modelling of Human Lung Development and Cell Fate Alteration in Human Congenital Pulmonary Diseases	Kyungtae Lim (Korea Univ.)
The Specification and Diversification of Endocrine Cells from Intestinal Stem Cells	Rongwen Xi (NIBS, Beijing)

Symposium 8 [KIRAMS]

09:40 / Halla Hall B / KOR

Molecular Imaging Techniques for Evaluation of Drug Development and Disease Animal Models

Radiopharmaceuticals for Noninvasive Theranostics Imaging	Yun-Sang Lee (Seoul Natl. Univ.)
MR Molecular Imaging for Drug Development and Disease Diagnostics Using Animal Models	Yongmin Chang (Kyungpook Natl. Univ.)
Preclinical Evaluation and Imaging of Radiopharmaceuticals Using PET	Se Jong Oh (KIRAMS)
Pharmacokinetic Study Using C-14 in New Drug Development	Mihye Kwon (KIRAMS)

Symposium 9 [KCLAM]

09:40 / Samda Hall / KOR

Optimizing Post-Approval Monitoring: Navigating the Roles of IACUC, AV, LAT, and Researchers

Enhanced PAM: Experience and Implementation at HKUMED's AAALAC International Accredited Program	Connie Leung (The Univ. of Hong Kong)
AV and LAT Roles in Post-Approval Monitoring (PAM)	Ji-Yeon Hwang (Seoul Natl. Univ. Bundang Hospital)
Program Review and PAM: Similar Goals, Different Approaches	Young-Shin Joo (The Catholic Univ. of Korea)

Plenary Lecture 1

11:40 / Halla Hall A, B / ENG

Hippo-YAP/TAZ Signaling: A Crucial Pathway in Cell Fate Dynamics

Dae-Sik Lim (KAIST)

Academy Award Presentation

14:00 / Halla Hall A

Symposium 10

14:50 / Halla Hall A / ENG

In Vivo Explorations of Vascular Function and Dysfunction

Mechanism and Potential Therapies for Brain Arteriovenous Malformation	Suk P. Oh (Barrow Neurological Institute)
Dissecting Cellular Dynamics through Genetic Ablation and Labeling of Vascular Cells	Junyeop Lee (Asan Medical Center)
Animal Model and Its Application in Vascular Biology: Endothelial Migration and Differentiation	Heon-Woo Lee (Kyung Hee Univ.)
Immune-Vascular Crosstalk within the Tumor Microenvironment	Keehoon Jung (Seoul Natl. Univ.)

Symposium 11 [KMPC]

14:50 / Halla Hall B / KOR

The Next Waves in Signaling Crosstalk From Cellular to Systemic Metabolism

Glutamatergic Metabolic Synapse: Hepatocyte-Kupffer Cell Interactions in Liver Disease	Won-Il Jeong (KAIST)
Enhanced Adipose Tissue Reservoir Capacity after Lactation Improves Insulin Sensitivity and Protects against Type 2 Diabetes	Joon Ho Moon (Seoul Natl. Univ. Bundang Hospital)
Selenium's Paradoxical Role in Ferroptosis Modulation	Namgyu lee (Dankook Univ.)
Modulating Chronic Inflammation to Lower Cancer Risk: Mechanisms and Therapeutic Approaches	Jongho Park (Keimyung Univ.)

Symposium 12 [KALAS-CALAS]

14:50 / Samda Hall / ENG

Preclinical Studies of Xenografts and Tissue Transplantation

Homologous Editing of Multiple Genes for Accelerated Generation of Xenotransplantation Pigs	Sen Wu (China Agricultural Univ.)
Major Progress in Xenotransplantation Preclinical and Clinical Research in China	Dengke Pan (Clonorgan Biotechnology Co., Ltd.)
Current Progress in Corneal Xenotransplantation in South Korea	Mee Kum Kim (Seoul Natl. Univ.)
The Clinical Usefulness of Xenogeneic Skin Substitutes	Jun Hur (Hallym Univ. Hangeang Sacred Heart hospital)

JULY 25 (FRI)

Symposium 13

09:00 / Halla Hall A / ENG

Metabolic Mechanisms in Health and Diseases

Phosphatidylethanolamine Content in the Endoplasmic Reticulum Regulates SREBP-1 Activation and Lipogenesis	Shunxing Rong (UT Southwestern)
Urolithin A: A Gut Metabolite as a Novel Therapeutic for Cardiac Dysfunction in Heart Failure	Chang-Myung Oh (GIST)
Exercise-Driven Musculoskeletal Alteration and Health	Hyeonwoo Kim (KAIST)
Dynamic Regulation of Anaplerotic Flux in Metabolic Disease	Haerin Yoon (UNIST)

Symposium 14 [KRIBB]

09:00 / Halla Hall B / ENG

Translational Research Platform Using Animal Models for Inherited Retinal Disease (IRD)

Potential Role of Retinal Astrocytes in Retinopathy of Prematurity	Marcus Fruttiger (UCL)
Autonomous Tissue-Sensing Needle Injection System for Ocular Diseases	Wonhyoung Ryu (Yonsei Univ.)
Novel Bio-Imaging Technologies for Gene and Cell Therapy	Tae Geol Lee (KRIS)
Translational Research Platform for IRD in SNUH GEC-GCT	Jeong Hun Kim (Seoul Natl. Univ.)

Symposium 15 [NIFDS]

09:00 / Samda Hall / ENG

Humanize Mouse Models for Preclinical Research

Generation of a NOG-W41-Based Humanized Mouse Model for In Vivo Human Hematopoiesis	Ryoyi Ito (CIEM)
4-1BB Co-Stimulation, a Promising Strategy for Treating Cancers	Su-Hyung Park (KAIST)
Enhanced Human Leukocyte Engraftment and Reduced GVHD Symptoms in CD47;Rag2;IL2ry Triple Knockout Mice	Seung-Ho Heo (Asan Medical Center)
Target Discovery for Cancer Immunotherapy Using Humanized Mouse Models	Sung-Yup Cho (Seoul Natl. Univ.)

Plenary Lecture 2

11:00 / Halla Hall A, B / ENG

Adipocyte Heterogeneity and the Regulation of Energy Metabolism

Christian Wolfrum (NTU Singapore)

Symposium 16

14:00 / Halla Hall A / ENG

Development of 3D Composite Constructs with Immune Modulatory Functions and Tissue Regeneration Technologies

Current Status of Human Tissue Substitutes Developed Using Transgenic Animals	Hyunil Kim (Optipharm Inc.)
Humanized Mouse Models in Hematopoietic Research: From Disease Mechanisms to Therapeutics	Kyung-Rok Yu (Seoul Natl. Univ.)
Expanding the Frontiers of Spatial Cellular Analysis: Applications of SLACS in Animal Models and Organoid Systems	Chungwon Lee (Meteor Biotech)
Advancing Liver Tissue Engineering: Improving Endothelial Cell Attachment in Decellularized Liver Scaffolds	Kyung-Mee Park (Chungbuk Natl. Univ.)
Bioengineered Liver Crosslinked with Nano-Graphene Oxide Enables Efficient Liver Regeneration via MMP Suppression and Immunomodulation	Da-Hyun Kim (Sungshin Women's Univ.)

Symposium 17

14:00 / Halla Hall B / ENG

Latest Research Trends in Development of Experimental Animal Models and Biomarkers, and AI-Based Behavioral Analysis Technologies for Substance Use Disorder

TRPA1 as a Therapeutic Target for Cocaine Addictive Disorders	Choon-Gon Jang (Sungkyunkwan Univ.)
Impaired Decision-Making in Methamphetamine-Dependent Rats: Neural Mechanism and Novel Treatment	Kiyofumi Yamada (Fujita Health Univ.)
Inhaled Synthetic Cannabinoid Self-Administration Model and Its Application in Vaccine Development for Drug Abuse	Jaesuk Yun (Chungbuk Natl. Univ.)
Non-human Primate Models for Addiction Research: Behavior and Imaging	Dohyun Lee (OSONG Medical Innovation Foundation)

Symposium 18 [KLAT Education 2]

14:00 / Samda Hall / KOR

Application and Management of Genetically Modified Animals

Health Risks and Optimized Management in Genetically Engineered Lab Animals	Taehoon Shin (Jeju Natl. Univ.)
Generation and Use of Genetically-Engineered Mouse Models using CRISPR-Cas9	Young Hoon Sung (Asan Medical Center)
Generation of Mouse Models and Experimental Applications	Kyoungmi Kim (Seoul Natl. Univ.)

JULY 26 (SAT)

Satellite Meeting

09:30 / Halla Hall A