

## GENERAL INFORMATION

2021 KALAS  
International Symposium

### 2021 KALAS International Symposium

- Date** July 14 (Wed) - 17 (Sat), 2021
- Venue** Online (Zoom) &  
Offline (ICC JEJU, Jeju Island, Korea)
- Organizer** Korean Association for Laboratory Animal Science (KALAS)  
The Food Industry Promotional Agency of Korea
- Sponsor** Korean Federation of Science & Technology Societies (KOFST)  
National Institute of Food and Drug Safety Evaluation (NIFDS)  
Korean Association of Societies for Agriculture, Food, and Life Sciences (KAAFLS)  
Jeju Convention & Visitors Bureau (JCVB)  
KRIBB National Research Safety Headquarters (NRSH)  
Korea Mouse Phenotyping Center (KMPC)

#### Event

Date	Event	Time	Room
JULY 14 [WED]	Council Meeting	15:00-17:00	Meeting Room
	Board Meeting	17:00-18:00	Meeting Room
JULY 15 [THU]	Opening Ceremony	9:00-9:10	Halla Hall A
	General Meeting & Award	9:10-10:00	Halla Hall A
	Plenary Lecture 1	10:00-11:00	Halla Hall A
JULY 16 [FRI]	Luncheon 1-3	13:00-14:00	Halla Hall A, B Samda Hall
	Plenary Lecture 2	11:00-12:00	Halla Hall A
	Luncheon 4-6	12:00-13:00	Halla Hall A, B Samda Hall
JULY 17 [SAT]	Giveaway & Closing Ceremony	15:50-16:20	Halla Hall A
	Workshop	9:30-11:00	Halla Hall A

#### Important Dates

- Early Bird Registration Due : June 16 (Wed), 2021
- Abstract Submission Due : June 16 (Wed), 2021

#### Registration Fees

Classification		Early Bird (~2021.6.16.)		On-site (2021.7.14. ~16)	
Member	Student	Registration fee ₩ 100,000	+ 2021 Annual fee ₩ 120,000	Registration fee ₩ 150,000	+ 2021 Annual fee ₩ 170,000
	General	Registration fee ₩ 200,000	+ 2021 Annual fee ₩ 230,000	Registration fee ₩ 250,000	+ 2021 Annual fee ₩ 280,000
Non-member	Council	Registration fee ₩ 200,000	+ 2021 Annual fee ₩ 250,000	Registration fee ₩ 250,000	+ 2021 Annual fee ₩ 300,000
	Student	₩ 120,000		₩ 170,000	
	General	₩ 300,000		₩ 350,000	
International Member		₩ 200,000		₩ 200,000	
Exhibitor		₩ 80,000		₩ 100,000	

#### Hotel Reservation

Please refer to our website ([www.kalas.or.kr](http://www.kalas.or.kr))

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# 2021 KALAS International Symposium

**RESTORE**  
(Sharing Bio-resources to Improve the Quality of Medicine)

JULY 14 [WED] ~ 17 [SAT]  
ICC JEJU, Jeju Island, KOREA  
사회적 거리두기를 위하여 온라인 중계도 제공됩니다.

[ Abstract Submission & Registration ] APRIL 26 [MON] ~ JUNE 9 [WED]

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On behalf of the members of the Korean Association for Laboratory Animal Sciences (KALAS), I sincerely welcome you to the 2021 KALAS International Symposium, entitled 'Sharing Bio-resources to Improve the Quality of Medicine', which will be held at Jeju International Convention Center (Jeju ICC) in Jeju island from July 14 (Wed) to 17 (Sat) in 2021.

Since the KALAS was founded in 1985, we have relentlessly endeavored to distribute our scientific professionalism into the development of Korean laboratory animal research. Such effort has gradually raised the opportunities for dynamic conferences and symposiums that lead to development of more competitive international biomedical sciences. The 2021 KALAS International Symposium is composed of two plenary lectures by Prof. David Kirsch, Duke Univ. and Prof. Min-Seon Kim, Asan Medical Center and 16 other program sessions including humanized animal models, virology, IACUC, new era of imaging, mitochondrial targeting, antibody therapeutics, development & diseases, gut microbiota, liver diseases, brain diseases, KLAT educational sessions, etc.

I give thanks to several institution agencies, organizations, and companies who willingly support our symposium. They are the Korea National Food Cluster (FOODPOLIS), the Korean Federation of Science & Technology Societies (KOFST), the National Institute of Food and Drug Safety Evaluation (NIFDS), the Korean Association of Societies for Agriculture, Food, and Life Sciences (KAAFLS), the Jeju Convention & Visitors Bureau (JCVB), the KRIBB National Research Safety Headquarters (NRSH), and the Korea Mouse Phenotyping Center (KMPC).

As we are all aware of the devastating situation due to COVID-19 pandemic, we have prepared each session both on-line and off-line. I ensure that our conference will serve as an unmissable opportunity to venture the research quality of current life sciences, and I wish all of you participants to enjoy this KALAS international symposium. Please take this opportunity to broaden your academic knowledge, and collect the most precious scientific souvenirs and memories of beautiful people from the Jeju island.

Once again, I sincerely appreciate for those who support and contribute to this international symposium.

**Han-Woong Lee**  
President, KALAS

JULY 14 [WED]

Symposium 1

14:00-15:40 / Halla Hall A

Viral Infection and Immunometabolism Jun-Young Seo (Yonsei Univ.)

The Role of Sphingosine-metabolizing Enzymes in Viral Immunopathogenesis
Young-Jin Seo (Chung-Ang Univ.)
Autophagic Protein ATG5 Controls Antiviral Immunity via Glycolytic Reprogramming of Dendritic Cells against Mucosal RSV Infection
Heung Kyu Lee (KAIST)
Role of SREBP-2 as an Inflammatory Mediator in response to Viral Infection
Young-Kyo Seo (KRIBB)
Host and Immune Cell Metabolic Alterations following SARS-CoV-2 Infection
Glenn Bantug (Univ. of Basel, Switzerland)

Symposium 2 [KLAT Education 1]

14:00-15:40 / Halla Hall B

Recent Update on Techniques and Practical Considerations of Small Animal Experiment Seung-Ho Heo (Asan Medical Center)

Considerations for Small Animal Necropsy in Contract Research Organization
Woo Jin Kim (Korea Institute of Toxicology)
Introduction of the Disease Animal Models
Jong-Hwan Park (Chonnam National Univ.)
Practical Considerations for Small Animal Infectious Experiments\_BSL2 Grade
Seung Yeon Kim (International Vaccine Institute)
Ethics in Laboratory Animal Experiments Using Mice and Rats
Yoon Ju Cho (Seojeong Univ.)

Symposium 3

[The Food Industry Promotional Agency of Korea] 16:00-17:40 / Halla Hall A

Animal Testing Guideline of New Healthy Claims for Functional Foods

Preclinical Animal Study for Periodontal Regeneration
Sung Tae Kim (Seoul Natl. Univ.)
Strategies for Developing Functional Food Materials to Improve Respiratory Diseases
Hee Soon Shin (KFRI)
R&D Process for Effective Health Functional Food on Human Skeletal Muscles from Schisandrae fructus
Cheol-Min Kim (Pusan Natl. Univ.)

Symposium 4 [IACUC]

16:00-17:40 / Halla Hall B

The Role of IACUC for Animal Welfare Young Sok Choi (Konkuk Univ.)

The Role of the IACUC Veterinarian
Dong Jae Kim (DGIST)
The Role of IACUC in Adoption a Laboratory Dog (Focused on case)
Young-Shin Zoo (Catholic Univ.)
Desirable Animal Study Protocols and Review Process
Jae-Bum Ahn (Gachon Univ.)

JULY 15 [THU]

Plenary Lecture 1

10:00-11:00 / Halla Hall A

Genetically Engineered Mouse Models to Study Cancer and Radiation Biology
AHN G ONE (Seoul Natl. Univ.)
David Kirsch (Duke Univ., USA)

Symposium 5

11:00-12:40 / Halla Hall A

Noninvasive Theranostic Imaging in Mouse and Human

Molecular Imaging for Theranostics
Euishin Edmund Kim (UC Irvine, USA)
Theranostics and Animal Molecular Imaging: Agile Drug Development Platform
Hong Yoon Choi (Seoul Natl. Univ. Hospital)
Radiopharmaceuticals for Noninvasive Theranostics Imaging
Yun-Sang Lee (Seoul Natl. Univ. Hospital)
Noninvasive Imaging of Tumor associated Macrophages for Tumor Diagnosis
Seung Hyeok Seok (Seoul Natl. Univ.)

Symposium 6

11:00-12:40 / Halla Hall B

Translational Research for Mitochondrial Targeting in Aging Medicine

Mitochondrial Biology in Aging Medicine
Kyu Sang Park (Yonsei Univ.)
Metabolic Changes Associated with Macular Telangiectasia of Retinal Neurodegeneration
Marcus Fruttiger (UCL, UK)
Mitochondrial Dynamics in Aging Medicine
Jean Ho Yun (Dong-A Univ.)
Fight against Blindness Targeting Mitochondria
Jeong Hun Kim (Seoul Natl. Univ.)

Symposium 7 [NIFDS 1]

11:00-12:40 / Samda Hall

Recent Advances of Antibody Therapeutics in Cancer

Antibody-drug Conjugate Development for the Cancer Therapy: The Magic Bullet Targeting Cancer
Keunwook Lee (Hallym Univ.)
Jinwon Jung (Ablbio)
Next Generation Therapeutic Antibody - ADC expands Beyond Cytotoxic Payloads for Cancer Therapy
Kihwan Chang (Orum Therapeutics)
Bispecific Antibody Platform Technology and its Application for Cancer Therapy
Won-Seok Choi (K-Bio Health)

Academy Award Presentation

14:00-14:40 / Halla Hall A

Colloquium (VOD로 진행)

14:00-14:40 / Halla Hall B

Symposium 8

14:50-16:30 / Halla Hall A

Mammalian Development & Disease Kwonho Hong (Konkuk Univ.)

Animal Models for Brain Arteriovenous Malformation
S Paul Oh (Barrow Neurological Institute, USA)
The Regulation of CNS Vascular Barrier Homeostasis
In June Kim (KAIST)
Maternal Epigenetic Inheritance by Polycomb Repressive Complexes
Azusa Inoue (RIKEN, Japan)
Underlying Mechanisms of MSC-based Therapies on Functional Restoration of Injured Endometrium in a Mouse Model of Asherman's Syndrome
Haeng Seok Song (CHA University)

Symposium 9

14:50-16:30 / Halla Hall B

Gut Microbiota Woo Jin Kim (EONE Laboratories)

A Diet-sensitive Commensal Lactobacillus Strain Mediates TLR7-dependent Systemic Autoimmunity
Martin A Kriegel (University of Münster, Germany)
Longitudinal Evaluation of Fecal Microbiota Transplantation for Ameliorating Calf Diarrhea and Improving Growth Performance
Jin-Woo Bae (Kyunghee Univ.)
Gut Commensal-derived Extracellular Vesicles and Cancer Prevention in Animal Model
You-Me Kim (KAIST)
Maternal Gut Bacteria Promote Neurodevelopmental Abnormalities in Mouse Offspring
Hyun-Ju Kim (Dong-A Univ.)

Symposium 10 [NIFDS 2]

14:50-16:30 / Samda Hall

Research and Development Trends of Laboratory Animals

Evaluation of the p53+/- Mice for 26-weeks Carcinogenicity Study
Jae Hoon Lee (Yonsei Univ.)
Development of Disease Models for Non-clinical Evaluation of Arteriosclerosis Therapeutic Agents
Se Chan Kang (Kyunghee Univ.)
Current Status for Microbial Quality Control of Laboratory Animals in Korea
Byeong-Cheol Kang (Seoul Natl. Univ.)
Improvement of the Registration System of Animal Research Facility
Yang-Kyu Choi (Konkuk Univ.)

JULY 16 [FRI]

Symposium 11

09:00-10:40 / Halla Hall A

New Challenges to the Liver Disease beyond the Viral Infection

Accumulation of Fetal NF2 mRNA Variant Promotes Liver Cancer Progression
Won-Il Jeong (GSMSE, KAIST)
Jeong Eun Hyun (Dankook Univ.)
The Effects of Ethanol Metabolites in Liver and Adipose Tissue in Acute Alcohol-associated Liver Injury
Won-Hyo Seo (Ewha womans Univ.)
Mitochondrial dsRNA and TLR3 in Hepatic Inflammation
Won-Il Jeong (GSMSE, KAIST)
TLY012 Ameliorates NASH-related Fibrosis/cirrhosis in Diet-induced Rat Model
Og Yi Park (Theraly Fibrosis, Inc. MD, USA)

Symposium 12 [KMPC]

09:00-10:40 / Halla Hall B

Studying Brain Functions and Disorders Using Genetically Engineered Mouse (GEM) Models

TMEM16A Conditional Knockout Mice as a Useful Tool for Studying the Medial Gabenula Functions in the Brain
Jae-Yong Park (Korea Univ.)
RIPK-mediated Cell Death and Inflammation in Alzheimer's Disease Mice Model
Seung-Hoon Yang (Dongguk Univ.)
Thalamic Gliosis Responses to Cortical Stroke and Aging
Gab Seok Kim (University of Texas McGovern Medical School, USA)

Symposium 13 [Special Subcommittee]

09:00-10:40 / Samda Hall

Development of Stem Cell Organoid Based Safety Efficacy Alternative Method

In vitro Organoid Models of Human Lung from Pluripotent Stem Cells
Mi-Ok Lee (KRIBB)
Organoids: A New Platform in Basic and Translational Research
Ji Hun Yang (NEXT&BIO)
Evaluation of Cardiac Safety Using Human Pluripotent Stem Cell-derived Cardiomyocytes
Dong-Hun Woo (NEXEL)

Plenary Lecture 2

11:00-12:00 / Halla Hall A

Study of Primary Cilia-Related Obesity Using Animal Models
Jinwoong Bok (Yonsei Univ.)
Min-Seon Kim (Asan Medical Center)

Symposium 14

14:00-15:50 / Halla Hall A

Translational Research in Cancer AHN G ONE (Seoul Natl. Univ.)

Angiotensin II Receptor Blockers Modify the Solid Tumour Microenvironment, Reduce Transient Tumour Hypoxia, and Improve Radiation Therapy Response
Kevin Bennewith (University of British Columbia, Canada)
Role of Notch Signaling in Tumor Associated Macrophages
Kyung-Hee Chun (Yonsei Univ.)
Role of the Mitochondrial Stress Response in Human Cancer Progression
Young Chan Chae (UNIST)
In vivo Modeling of Glioma Using Genome Editing of Neural Stem Cells: From Clinical Insight to Translational Research
Joo Ho Lee (Seoul Natl. Univ. Hospital)

Symposium 15 [KLAT Education 2]

14:00-15:50 / Halla Hall B

Understanding and Application of In Vivo Imaging Techniques in Animal Experiments

Principles of MRI Image Analysis and Application of Animal Experiments
Dong-Cheol Woo (Asan Medical Center)
Application of Optical Small Animal Imaging in Preclinical Research
Joon-Suk Park (DGMIF)
Biological Application of Micro-architecture by X-ray Computed Micro- and Nano-tomography
Jae-II Park (KBSI)

Symposium 16 [NRSH]

14:00-15:50 / Samda Hall

Safety Management of Living Modified Organisms for R&D

The Improvement of Biosafety Management Regulations for R&D LMO
Hyun Suk Cho (KRIBB National Research Safety Headquarters)
Safety Management of LMO Animal Research
Kyung-Hwa Choi (KRIBB National Research Safety Headquarters)

JULY 17 [SAT]

Workshop

09:30-11:10 / Halla Hall A