

► KSBMB International Conference 2023 Program

Floor		1F				2F			1-3F Lobby & 3F Grand Ballroom	1-3F Lobby & 3F Grand Ballroom		
Date	Time/Room	101-103	104-105	106-108	109-110	201-202	203-204	205				
May 10 (Wed)	16:00-17:00	Registration										
	17:00-18:00									Council Meeting & General Assembly		
May 11 (Thu)	08:00-	Registration										
	09:00-10:40	ST1 KRIIB 국기바이오 인프라사업부	ST2 4DNGRC 4D Nucleome Genome Research Center	ST3 SSRC STOCHASTIC STRESS RESEARCH CENTER	ST4 kobic K-BDS (Korea BioData Station)	ST5 kobic Bio-Resources Bank	S1 Cancer Cell Atlas					
	10:40-11:00	Break								Spotlight Session <b>BMS</b>		
	11:00-13:00	ST6 연세대학교 연세대학교 생명의료 기술개발사업단 (11:00-12:40)	Workshop (Video) (12:00-12:25) ThermoFisher SCIENTIFIC	Visit the Exhibition and Poster Viewing		바이오연구과제 사업실 명회 (11:00-11:30) 한국연구재단 윤리 연구 프로그램 (12:00-13:00)	Visit the Exhibition and Poster Viewing			Spotlight Session (11:30-11:50) PhileKorea		
	12:50-13:00	Break										
	13:00-13:50								PL1 Fred H. Gage (Salk Institute for Biological Studies)	**Exhibition**	**Poster**	
	13:50-14:00	Break										
	14:00-15:40	S2 Epigenetic gene regulation	S3 ECM microenvironment in human diseases	S4 Advances in Precision Medicine	S5 Host-microbiota interaction	S6 Biosensors, and Trends in Neuromodulation	S7 Autophagy Mechanism, Regulation, and Functions	S8 Cellular plasticity in the tumor microenvironment			Exhibition Opening Ceremony 10:40-11:00	Posting & Poster Viewing Time 9:00-16:00 Presentation Time 11:00-12:00
	15:40-16:00	Break									Spotlight Session <b>ThermoFisher</b> SCIENTIFIC	
	16:00-16:50								PL2 Roel Verhaak (Yale University)			
	16:50-17:10	Break										
	17:10-18:00								PL3 Andrea Ballabio (Telethon Institute of Genetics and Medicine)			
18:30-20:00	Presidential Dinner (Invited Only)											
May 12 (Fri)	08:00-	Registration										
	09:00-10:40	S9 Nuclear Envelope Instability in Cancer and Aging	S10 NASH and ASH in the Liver	S11 FAOBMB session	S12 New drug developments from KSBMB Drug Development Consortium Chapter	S13 Translational Research Targeting to Mitochondria for Homo Hundred	S14 New horizons in structural biology: Cryo-EM, AI & supercomputing (KSMCB Joint Symposium)	S15 Immune responses in the barrier and metabolic tissues			**Exhibition**	
	10:40-11:00	Break								Spotlight Session <b>Aspens</b>		
	11:00-11:50								PL4 Soman N. Abraham (Duke University Medical Center)			
	11:50-12:00	Break										
	12:00-12:25	Workshop <b>BMS</b>	Workshop <b>ThermoFisher</b> SCIENTIFIC			Workshop <b>SHIMADZU</b> Excellence in Science	Workshop <b>geninus</b>	Workshop <b>Polyplus</b>				
	12:25-12:50	Workshop <b>MDxK</b>					Workshop <b>MDxK</b>	Workshop <b>Polyplus</b>			**Poster**	
	12:50-13:00	Break										
	13:00-14:00	Visit the Exhibition and Poster Viewing							Award Lecture	Spotlight Session (13:30-13:50) <b>DAON</b> BIOSCIENCES	Presentation Time 13:00-14:00	
	14:00-14:50								ILchun PL5 Dennis Lo (The Chinese University of Hong Kong)			
	14:50-15:00	Break										
	15:00-16:40	S16 Mechanisms of brain dysfunctions	S17 Exploring Therapeutic Targets for Metabolic Diseases	S18 Stem cells in tissue regeneration and disease	S19 Viral infection and immune responses	S20 Academy-Driven Drug Discovery & Development	S21 Non-coding RNA and diseases	S22 Computational design of functional proteins				
16:40-16:50	Break											
16:50-17:40								PL6 Kaspar Locher (ETH Zurich)				
May 13 (Sat)	09:30-10:20	Registration										
	10:20-12:00	YSP1 Cancer Biology	ST7 Institut Pasteur Korea	YSP2 Immunology & Microbiology		YSP3 Metabolic Disease	YSP4 Biotechnology					
	12:00-13:00	Award Ceremony & Closing Remarks										

# Plenary Lecture

## Plenary Lecture 1

May 11th(Thu) 13:00-13:50, Room 205

Chair: Jinju Han (KAIST)

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**Fred H. Gage (Salk Institute for Biological Studies, USA)**

Insights into human age-related neurodegenerative disease

## Plenary Lecture 2

May 11th(Thu) 16:00-16:50, Room 205

Chair: Hoon Kim (Sungkyunkwan University)

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**Roel Verhaak (Yale University, USA)**

Extrachromosomal DNA amplifications in cancer

## Plenary Lecture 3

May 11th(Thu) 17:10-18:00, Room 205

Chair: Chanhee Kang (Seoul National University)

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**Andrea Ballabio (Telethon Institute of Genetics and Medicine, Italy)**

Lysosomal signaling in metabolic adaptation and tumorigenesis

## Plenary Lecture 4

May 12th(Fri) 11:00-11:50, Room 205

Chair: Hae Woong Choi (Korea University)

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**Soman N. Abraham (Duke University Medical Center, USA)**

The Mast Cell as an Effector of Cell Death

## Ilchun Plenary Lecture 5

May 12th(Fri) 14:00-14:50, Room 205

Chair: Jong-il Kim (Seoul National University)

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**Dennis Lo (The Chinese University of Hong Kong, China)**

Marching towards the next generation of cfDNA diagnostics

## Plenary Lecture 6

May 12th(Fri) 16:50-17:40, Room 205

Chair: Jae-Sung Woo (Korea University)

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**Kaspar Locher (ETH Zurich, Switzerland)**

Structural basis of protein glycosylation in the endoplasmic reticulum

# Symposium

## S1 - Cancer Cell Atlas

May 11th(Thu) 09:00-10:40, Room 205

Organizer & Chair Woong-Yang Park (Samsung Medical Center)

Speaker1	25'	Ankur Sharma (Harry Perkins Institute)	Oncofetal Ecosystem in HCC: Towards Spatial Precision Oncology
Speaker2	25'	Daehee Hwang (Seoul National University)	Characterization of the immune microenvironment in severe asthma.
Speaker3	25'	Yutaka Suzuki (The University of Tokyo)	Spatial analysis of lung cancers reveals heterogeneity in tumor micro-environments
Speaker4	25'	Jongyeun Park (KAIST)	Single-cell analysis reveals recurring programs in cancer microenvironment

## S2 - Epigenetic gene regulation

May 11th(Thu) 14:00-15:40, Room 101-103

Organizer & Chair Jong Hoon Park (Sookmyung Women's University)

Speaker1	20'	Dongsung Lee (University of Seoul)	Structural variants drive context-dependent oncogene activation in cancer
Speaker2	20'	Inkyung Jung (KAIST)	Spatial and clonality-resolved enhancer-hijacking in colorectal cancer
Speaker3	30'	Bing Zhu (Chinese Academy of Science)	Epigenetics: remember the past & prepare for the future
Speaker4	20'	Jae-Seok Roe (Yonsei University)	An TEAD2-driven endothelial-like program shapes basal-like differentiation and metastasis of pancreatic cancer
Short talk	10'	Yungyeong Heo (Ajou University)	Remodeling and spacing factor 1 is a dual regulator of PARP1 and 53BP1-mediated liquid droplets under DNA damage.

## S3 - ECM microenvironment in human diseases

May 11th(Thu) 14:00-15:40, Room 104-105

Organizer & Chair Seung-Hyo Lee (KAIST), Eok Soo Oh (Ewha Womans University)

Speaker1	20'	Seung Taek Lee (Yonsei University)	The role of a catalytically defective receptor tyrosine kinase, PTK7, in tumorigenesis and its targeting for anti-cancer therapy
Speaker2	20'	Toshitaka Oohashi (Okayama University)	The role of link protein HAPLN4, an organizer of perineuronal net, in the synapse formation and the synaptic transmission.
Speaker3	20'	Juwon Park (University of Hawaii at Manoa)	Targeted PDGFR $\alpha$ fibroblast ablation exacerbates pathologic features of asthma in house dust mite-induced asthma mouse model.
Speaker4	20'	Hiroimi Yanagisawa (University of Tsukuba)	Cell-Matrix Interactions in the maintenance of vascular wall
Speaker5	20'	Mingyo Kim (Kyeongsang National University)	Therapeutic Strategies Repositioning in Cancer to Rheumatoid Arthritis: The Importance of Regulating Synovial fibroblasts and Immune Cells

## S4 - Advances in Precision Medicine

May 11th(Thu) 14:00-15:40, Room 106-108

Organizer & Chair Inhee Mook (Seoul National University), Jong-Il Kim (Seoul National University)

Speaker1	25'	Jinsoo Seo (DGIST)	Protective effect of the APOE Christchurch variant (R136S) against ApoE4-mediated Alzheimer's disease pathology
Speaker2	25'	Daehee Hwang (Seoul National University)	Precision medicine for dementia: Dementia Big Data Station
Speaker3	25'	Duhee Bang (Yonsei University)	Cancer detection and monitoring using circulating tumor DNA
Speaker4	25'	Jeeyun Lee (Samsung Medical Center)	Cancer Precision Medicine: what is next from an Oncologist's perspectives

## S5 - Host-microbiota interaction

May 11th(Thu) 14:00-15:40, Room 109-110

Organizer & Chair Kwang Soon Kim (POSTECH)

Chair Joo-Hong Park (Seoul National University)

Speaker1	25'	Tae-Hee Kim (The Hospital for Sick Children)	Defining and designing the gut stem cell microenvironment
Speaker2	25'	Jeong-Soo Lee (KRIBB)	The role of host tp53 mutation in gut dysbiosis and inflammation via sialometabolism and a therapeutic approach based on drug repurposing
Speaker3	25'	Munhyung Bae (Gachon University)	Crosstalk Between Bacterial Lipid Immunogens and Human Immune System
Speaker4	25'	Woongjae Yoo (POSTECH)	Gut pathogen's last breath and diseases: High-fat diet-mediated colonocyte dysfunction promotes gut dysbiosis and cardiovascular disease

## S6 - Biosensors, and Trends in Neuromodulation

May 11th(Thu) 14:00-15:40, Room 201-202

Organizer & Chair Jung Ho Hyun (DGIST)

Speaker1	25'	Alison G. Tebo (HHMI's Janelia Research Campus)	Imaging cellular biochemistry using chemigenetic tools
Speaker2	25'	Sangkyu Lee (IBS)	Sculpting the neural circuits by engineered neuro-glia interactions
Speaker3	25'	Ain Chung (KAIST)	How do inhibitory interneuron circuit function changes lead enhanced cognitive function?
Speaker4	25'	Jeehyun Kwag (Seoul National University)	Roles of cortical GABAergic interneurons in somatosensory processing

## S7 - Autophagy Mechanism, Regulation, and Functions

May 11th(Thu) 14:00-15:40, Room 203-204

Organizer & Chair Eun-Kyeong Jo (Chungnam National University)

Chair Hyun kyu Song (Korea University)

Speaker1	25'	Masaaki Komatsu (Juntendo University)	Phase-separated p62 body: formation, biological role and degradation
Speaker2	25'	Min Jae Lee (Seoul National University)	Homeostatic regulation of mammalian proteasomes through the ubiquitin-proteasome system and autophagy
Speaker3	25'	Jin-A Lee (Hannam University)	A novel tool to study mammalian ATG8s
Speaker4	25'	Dong-Hyung Cho (Kyungpook National University)	Selective autophagy for cellular organelles

**S8 - Cellular plasticity in the tumor microenvironment**

May 11th(Thu) 14:00-15:45, Room 205

Organizer &amp; Chair Byungheon Lee (Kyungpook National University)

Speaker1	30'	Kazuki N. Sugahara (Columbia University)	Recent advances in tumor-penetrating peptides
Speaker2	25'	Young-Ho Ahn (Ewha Womans University)	ZEB1 reconstructs the hyaluronan network to establish a pro-metastatic microenvironment in lung adenocarcinoma
Speaker3	25'	Keehoon Jung (Seoul National University)	Tumor-associated monocytes and neutrophils in solid cancers
Speaker4	25'	Sung-ho Park (UNIST)	The hypoxia-lactate axis tunes the late phase TNF responses to modulate interferon-stimulated gene expression in macrophages

**S9 - Nuclear Envelope Instability in Cancer and Aging**

May 12th(Fri) 09:00-10:40, Room 101-103

Organizer &amp; Chair Joon Kim (KAIST), Mijung Kwon (Ewha Womans University)

Speaker1	25'	Youngjo Kim (Soonchunhyang University)	Lamin B1 is required for glomerulus integrity and function in aging kidney
Speaker2	25'	Mijung Kwon (Ewha Womans University)	Mechanisms and Consequences of Micronucleus Rupture in Cancer
Speaker3	25'	Alexander Spektor (Harvard Medical School)	Global Genome Restructuring Determines Efficacy of Antimitotic Cancer Drugs
Speaker4	25'	Joon Kim (KAIST)	Mechanical stress impairs nuclear envelope and genome integrity in melanoma

**S10 - NASH and ASH in the Liver**

May 12th(Fri) 09:00-10:40, Room 104-105

Organizer &amp; Chair Won-Il Jeong (KAIST), Won Kim (Seoul National University)

Speaker1	25'	Won Kim (Seoul National University)	Disease-specific eQTL screening reveals an anti-fibrotic effect of AGXT2 in non-alcoholic fatty liver disease
Speaker2	25'	Ja Hyun Koo (Seoul National University)	Stress-driven suppression of the Hippo pathway accelerates liver injury
Speaker3	25'	Bin Gao (National Institutes of Health)	Inflammation in fatty liver disease
Speaker4	25'	Laura Nagy (Cleveland Clinic Lerner Research Institute)	Host-derived 5S rRNA pseudogene transcripts are associated with inflammatory responses in alcohol-associated hepatitis

**S11 - FAOBMB Session**

May 12th(Fri) 09:00-10:40, Room 106-108

Organizer &amp; Chair Joon KIM (Korea University)

Speaker1	25'	Leann Tilley (University of Melbourne)	Hijacking tRNA charging: a new strategy for development of anti-infectives
Speaker2	25'	Yong-Tae Kwon (Seoul National University)	Targeted protein degradation via the autophagy-lysosome system: AUTOTAC (AUTOPhagy-TArgeting Chimera)
Speaker3	25'	Younghoon Kee (DGIST)	A network of replication fork-metabolizing proteins promote genomic stability and cancer cell survival
Speaker4	25'	Tuangporn Suthiphongchai (Mahidol University)	Oncogenic property of a truncated p53 identified in a cholangiocarcinoma cell line

**S12 - New drug developments from KSBMB Drug Development Consortium Chapter**

May 12th(Fri) 09:00-10:40, Room 109-110

Organizer &amp; Chair Soo-Youl Kim (National Cancer Center)

Speaker1	25'	Minsoo Noh (Seoul National University)	Machine learning-based prediction of phenotypic biological activities with chembio-big data
Speaker2	25'	Jong In Yook (Yonsei University)	Pro-drug BMP-7 suppresses inflammatory response of alveolar macrophage in bleomycin and PHMG-induced pulmonary fibrosis models
Speaker3	25'	Jaewhan Song (Yonsei University)	Roles of E3 ligases involved in NASH development
Speaker4	25'	Hyonchol Jang (National Cancer Center)	GATA6 enhances drug sensitivity through subtype switching in pancreatic cancer

**S13 - Translational Research Targeting to Mitochondria for Homo Hundred**

May 12th(Fri) 09:00-10:40, Room 201-202

Organizer &amp; Chair Kim, Jeong Hun (Seoul National University)

Speaker1	25'	Kyu-Sang Park (Yonsei University)	Therapeutic strategies against age-related and fibrotic diseases
Speaker2	25'	Hongchan An (K-MEDI hub)	Mitochondria as a therapeutic target from a chemical perspective
Speaker3	25'	Yusuke Hirabayashi (The University of Tokyo)	Molecular mechanisms for tethering the ER and mitochondria in mammalian cells
Speaker4	25'	Rhee Hyun-Woo (Seoul National University)	MitoAtlas, a super-resolution mitochondrial proteome map in live cells

**S14 - New horizons in structural biology: Cryo-EM, AI & supercomputing (KSMCB Joint Symposium)**

May 12th(Fri) 09:00-10:40, Room 203-204

Organizer &amp; Chair Mi Sun Jin (GIST)

Speaker1	25'	Wonpil Im (Lehigh University)	Is Molecular Dynamics Simulation Useful to Your Study?
Speaker2	25'	Jae-Sung Woo (Korea University)	Conformational changes in the human Cx43/GJA1 gap junction channel visualized using cryo-EM
Speaker3	25'	Jin Young Kang (KAIST)	Structural basis of transcriptional regulation by a nascent RNA element, HK022 putRNA
Speaker4	25'	Minkyung Baek (Seoul National University)	A new era in structural biology with AI-based protein structure modeling

**S15 - Immune responses in the barrier and metabolic tissues**

May 12th(Fri) 09:00-10:40, Room 205

Organizer &amp; Chair YunJae Jung (Gachon University)

Chair Sung-ho Park (UNIST)

Speaker1	25'	YunJae Jung (Gachon University)	Impaired small intestine immune homeostasis promotes the pathogenesis of psoriatic skin inflammation
Speaker2	25'	Seung Hyeok Seok (Seoul National University)	Immunometabolism of macrophages in IBDs and sepsis
Speaker3	25'	Eicke Latz (University of Bonn)	Unbiased analysis of metaflammation identifies inducible endogenous lipids that activate innate immunity
Speaker4	25'	Yong-ho Lee (Yonsei University)	Targeting the intestinal barrier function and microbiome to treat non-alcoholic steatohepatitis

### S16 - Mechanisms of brain dysfunctions

May 12th(Fri) 15:00-16:40, Room 101-103

Organizer & Chair Eunjung Kim (IBS/KAIST)

Speaker1	25'	Jaewon Ko (DGIST)	Biallelic mutations in MDGA1 cause distinct autism-like behaviors in mice
Speaker2	25'	Won-Suk Chung (KAIST)	Stress evokes mental disorder-like behaviors via astrocytic MERTK-dependent synapse phagocytosis
Speaker3	25'	Jae-Ick Kim (UNIST)	Distinct modes of dopaminergic modulation on striatopallidal transmission in health and Parkinsonism
Speaker4	25'	Mihyun Bae (IBS)	ASO-mediated rescues in mouse models of ASD.

### S17 - Exploring Therapeutic Targets for Metabolic Diseases

May 12th(Fri) 15:00-16:40, Room 104-105

Organizer & Chair Je Kyung Seong (Seoul National University & KMPC), Yun-Hee Lee (Seoul National University)

Speaker1	25'	Hail Kim (KAIST)	Serotonergic regulation of hepatic insulin regulation
Speaker2	25'	Sunghyook Park (Seoul National University)	GPD2-driven ether lipid biosynthesis for mitochondria's roles in cancer
Speaker3	25'	Jae Hoon Shin (University of Michigan)	Bariatric surgery reveals a novel gut hormone, Reg3g to produce metabolic improvements
Speaker4	25'	Seonghwan Hwang (Pusan National University)	Attenuation of neutrophil-driven NASH by inhibiting p38 MAPK

### S18 - Stem cells in tissue regeneration and disease

May 12th(Fri) 15:00-16:40, Room 106-108

Organizer & Chair Dae-Sik Lim (KAIST), Joo-Hyeon Lee (University of Cambridge)

Speaker1	25'	Jette Lengefeld (University of Helsinki)	Cellular enlargement - A new hallmark of aging?
Speaker2	25'	Joo-Hyeon Lee (University of Cambridge)	Tracking stem cell fate dynamics in lung regeneration and tumorigenesis
Speaker3	25'	Min-Kyu Yum (KAIST)	Tracing cellular dynamics during intestinal tumorigenesis and tissue repair
Speaker4	25'	Ji-Hyun Lee (IBS)	p57 <sup>Kip2</sup> imposes the reserve stem cell state of gastric chief cells

### S19 - Viral infection and immune responses

May 12th(Fri) 15:00-16:40, Room 109-110

Organizer & Chair Eui-Cheol Shin (KAIST)

Speaker1	25'	Min Kyung Jung (Korea Virus Research Institute)	Characterization of SARS-CoV-2-specific memory T cell responses elicited by vaccination or infection
Speaker2	25'	Jennifer Juno (University of Melbourne)	Recall of SARS-CoV-2-specific T cells during breakthrough infection
Speaker3	25'	Young Ki Choi (Korea Virus Research Institute)	Comparison of the growth, virulence, and transmissibility of SARS-CoV-2 variants in vitro and in animal models
Speaker4	25'	Akira Nishio (Osaka University)	Cure of chronic hepatitis B by Pegylated Interferon and Insight toward anti-PEG antibodies induced by mRNA vaccines

### S20 - Academy-Driven Drug Discovery & Development

May 12th(Fri) 15:00-16:40, Room 201-202

Organizer & Chair Hyun-Suk Lim (POSTECH), Kyung-Hee Chun (Yonsei University)

Speaker1	25'	Bum-Joon Park (Pusan National University)	Mutation-Directed Neo-Protein-Protein Interactions as Drugable Target Sites in Various Diseases
Speaker2	25'	Sang Jeon Chung (Sungkyunkwan University)	AbClicks: Site-selective conjugation linkers to native antibody
Speaker3	25'	Hyun-Suk Lim (POSTECH)	Encoded Display of Chemical Libraries on Nanoparticles as a Versatile Selection Tool for Discovering Protein Ligands
Speaker4	25'	Kyung-Hee Chun (Yonsei University)	Development of deubiquitinase inhibitor for metabolic diseases

### S21 - Non-coding RNA and diseases

May 12th(Fri) 15:00-16:40, Room 203-204

Organizer & Chair Yoosik Kim (KAIST), Jin-Hong Kim (Seoul National University)

Speaker1	25'	Shinichi Nakagawa (Hokkaido University)	4.5SH RNA functions as an antidote for toxic exonization of SINE B1
Speaker2	25'	Junho Hur (Hanyang University)	Allele-specific CRISPR genome editing with single-base precision
Speaker3	25'	Jiwon Jang (POSTECH)	A dedifferentiation barrier reinforces pluripotency exit by suppressing HERVH-overlapping lncRNAs
Speaker4	25'	Ki-Jun Yoon (KAIST)	Unraveling the roles of RNA modification for mRNA localization in the developing brain

### S22 - Computational design of functional proteins

May 12th(Fri) 15:00-16:40, Room 205

Organizer & Chair Byung-Ha Oh (KAIST)

Speaker1	25'	Bo-Seong Jeong (Therazyme Co. Ltd.)	Computational design of a broadly and potently neutralizing antibody against SARS-CoV-2
Speaker2	25'	Danny D. Sahtoe (Netherlands Cancer Institute)	Design of de novo protein-protein interactions through beta sheet extension
Speaker3	25'	Minkyung Baek (Seoul National University)	A new revolution in protein design with AI
Speaker4	25'	Chaok Seok (Seoul National University)	From GALAXY protein structure prediction to protein design

## Satellite Session

### ST1 - 바이오인프라의 현재와 미래(영장류 및 전임상 시험지원 중심)

Organized by



May 11th(Thu), 09:00-10:40, Room 104-105

국가바이오인프라사업부

Speaker1	10' Kweon Yu (KRIBB)	한국생명공학연구원 국가바이오인프라사업부 소개
Speaker2	17' Young-Hyun Kim (KRIBB)	국가영장류센터의 현재와 미래
Speaker3	17' Ji-Su Kim (KRIBB)	영장류지원센터 국가 인프라 지원 체계 확립 및 모델 동물 개발
Speaker4	17' Youngjeon Lee (KRIBB)	영장류 신경과학 연구 인프라
Speaker5	17' Jung Joo Hong (KRIBB)	인간감염병 연구를 위한 비인간 영장류 활용
Speaker6	22' Kyong-Cheol Ko (KRIBB)	신.변종 감염병 대응 국가 전임상 지원체계 현황 및 전략

### ST2 - 4D Nucleome

Organized by



May 11th(Thu), 09:00-10:40, Room 106-108

4D Nucleome Genome Research Center

Organizer & Chair	Hyoung-Pyo Kim (Yonsei University)	
Speaker1	25' Tae-Young Roh (Ewha Womans University)	Identification of a novel chromatin tuning factor by analyzing chromatin interactions
Speaker2	25' Murim Choi (Seoul National University)	Monitoring cardiomyocyte differentiation through large transcriptome data
Speaker3	25' Sangwoo Kim (Yonsei University)	Elucidating genomic elements that cause epigenetic aberrations in cardiomyopathy
Speaker4	25' Won-Ki Cho (KAIST)	Capturing dynamic transcriptional condensates relative to chromatin architecture in living nuclei using super-resolution microscopy

### ST3 - Histone and Chromatin Dynamics

Organized by



May 11th(Thu), 09:00-10:40, Room 109-110

스토카스틱 줄기성 연구센터

Organizer & Chair	Hong-Duk Youn (Seoul National University)	
Speaker1	25' Minhee Park (KAIST)	Molecular building blocks of epigenetic memory
Speaker2	25' Chulhwan Lee (Seoul National University)	Aberrant heterochromatin regulation by EZH1 mutation in thyroid cancer
Speaker3	25' Hong-Yeoul Ryu (Kyungpook National University)	Histone sumoylation and chromatin dynamics: histone sumoylation promotes Set3 histone-deacetylase complex-mediated transcriptional regulation
Speaker4	25' Hyunsung Park (University of Seoul)	Hypoxic attenuation of Raf-induced senescence by increasing the methylated histones.

### ST4 - K-BDS (Korea BioData Station)

Organized by



May 11th(Thu), 09:00-10:40, Room 201-202

K-BDS (Korea BioData Station)

Organizer & Chair	Seon-Young Kim (KRIBB, KOBIC)	
Speaker1	20' Seungwoo Hwang (KRIBB, KOBIC)	Introduction to Korea BioData Station (K-BDS) and Genomics Data Curation Center
Speaker2	20' Eunok Paek (Hanyang University)	Sharing data to revitalize the Korean proteomics community
Speaker3	20' Joo-Youn Cho (Seoul National University)	Toward high-quality metabolomics data: Introduction to metabolomics data curation center
Speaker4	20' Nam-Chul Cho (KRICT)	Role of Chemical Data Curation Center for Korea BioData Station
Speaker5	20' Dongmin Kang (Ewha Womans University)	Role of bioimaging data curation center for FAIR (Findability, Accessibility, Interoperability, and Reuse)

### ST5 - The role of Bio-Resources Bank providing bio-resources to industry and research field

Organized by



May 11th(Thu), 09:00-10:40, Room 203-204

Bio-Resources Bank

Organizer & Chair	Tae-Eun Jin (KOBIC)	
Speaker1	20' Ja-Lok Ku (Seoul National University)	Cell Culture Cluster, Korean Cell Line Bank : Establishment and Application of Patient-Derived New Cell Lines and Organoids
Speaker2	20' Je Kyung Seong (Seoul National University)	Role of Mouse Model Coordinated with Data Collection
Speaker3	15' Se Hoon Kim (KBRl)	Korea Brain Bank, Brain Cluster
Speaker4	15' Seung-Beom Hong (Rural Development Administration)	Introduction of management on microbial resources in Korea
Speaker5	15' Sei-Ryang Oh (KRIBB)	The role and contents of Natural Product Cluster in Korea
Speaker6	15' Sunkyoung Lee (KRICT)	How to make good use of Korea Chemical Bank (KCB)

### ST6 - Introduction of multi-omics data distribution and utilization service of CoPM(Center for Integrative Omics and Precision Medical)

Organized by



May 11th(Thu), 11:00-12:40, Room 101-103

Organizer & Chair	Young-Joon Kim (Yonsei University)	
Speaker1	15' Hong Seok Lee (Yonsei University)	Introduction and Current Status of CoPM(Center for Integrative Omics and Precision Medicine)
Speaker2	20' Jin-Young Lee (Yonsei University)	Multi-Omics Data Resources of Korean Colorectal Cancer Patients
Speaker3	20' Ji Hwan Park (Yonsei University)	Public access to the large-scale multi-genomics data from colon cancer patients
Speaker4	20' Won Park (The Moagen, Inc)	Multi-Omic Analysis Sandbox Toolkit for Swift Derivations of Clinically Relevant Genesets and Biomarkers

### ST7 - Advanced Technologies to Fight Viruses and Cancer

Organized by



May 13th(Sat), 10:00-12:00, Room 104-105

Organizer & Chair	Dimitri Lavillette (Institut Pasteur Korea)	
Speaker1	25' Gary Wong (Institut Pasteur of Shanghai Chinese Academy of Sciences)	Diagnostics development and pathogen discovery in the Greater Mekong Subregion
Speaker2	25' Jinwon Jung (ABL Bio, Inc)	Preclinical study of a novel anti-CLEC12A antibody-drug conjugate with a glucuronide-protected pyrrolbenzodiazepine payload
Speaker3	25' Sunjong Kwon (EYEGENE Inc)	Novel freeze-dried and thermostable COVID-19 mRNA vaccines
Speaker4	25' Hyunsun Jo (Pin Therapeutics)	Discovery of potent and selective CK1α molecular degrader showing strong synergistic effect with FLT3 inhibitor for acute myeloid leukemia
Speaker5	20' Haengran Seo (Institut Pasteur Korea)	Identification of novel therapeutic targets and hits from multicellular tumor spheroids for HCC therapy

## Young Scientist Program

### YSP 1 - Cancer Biology

May 13th(Sat), 10:20-11:45, Room 101-103

Organizer & Chair Sunwoo Min (KAIST)

Chair Jiyeon Leem (Sungkyunkwan University)

Speaker1	15' Jiyeon Leem (Sungkyunkwan University)	Oocytes can repair DNA damage during meiosis via a microtubule-dependent recruitment of CIP2A-MDC1-TOPBP1 complex from spindle pole to chromosomes
Speaker2	15' Sunwoo Min (KAIST)	The aberrant expression of ISWI regulatory subunit RSF1 induces genomic instability by reorganizing topologically associating domains
Speaker3	15' Sieun Lee (Ewha Womans University)	The hyaluronan network restructured by ZEB1 establishes a pro-metastatic microenvironment in lung adenocarcinoma
Speaker4	15' Bokyoung Yoon (Yonsei University)	Metabolic Plasticity of Stemness-High Gastric Cancer via Activation of Mitochondrial Folate Cycle upon Metabolic Stress
Speaker5	15' Wonyoung Park (Pusan National University)	Targeting Pyruvate Dehydrogenase Kinase to Overcome Osimertinib Resistance in EGFR-mutant Non-Small Cell Lung Cancer

### YSP 2 - Immunology & Microbiology

May 13th(Sat), 10:20-11:45, Room 104-105

Organizer & Chair Myoung Kyu Lee (KRICT)

Chair Chan Seok Lim (POSTECH)

Speaker1	15' Myoung Kyu Lee (KRICT)	Generation of 3D Culture Platforms as an Alternative System to Animal Models for SARS-CoV-2 Infection
Speaker2	15' Youngwook Ham (KRIBB)	The SpACE-CCM: A Facile and Versatile Cell Culture Medium-Based Biosensor for Detection of SARS-CoV-2 Spike-ACE2 Interaction
Speaker3	15' Chan Seok Lim (POSTECH)	TLR3 forms a highly organized cluster when bound to a poly(I:C) RNA ligand
Speaker4	15' Hyeri Nam (DGIST)	Presenilin 2 N141I mutation induces hyperactive immune response through the epigenetic repression of REV-ERB $\alpha$
Speaker5	15' Se Jin Oh (Korea University)	NANOG drives resistance to PD-1 blockade by restraining anti-tumor immunity cycle

### YSP 3 - Metabolic Disease

May 13th(Sat), 10:20-12:00, Room 201-202

Organizer & Chair Kyung-Mi Choi (Seoul National University)

Chair Kyeonghwan Roh (Seoul National University)

Speaker1	15' Kyung-Mi Choi (Seoul National University)	Regulation of beige adipocyte thermogenesis by the cold-repressed ER protein NNAT
Speaker2	15' Jun Seok Kim (Korea University)	Involvement of a novel cAMP signaling mediator for beige adipogenesis
Speaker3	15' Hyun-Jun Jang (Korea Institute of Oriental Medicine)	T factor promotes non-alcoholic fatty liver disease by suppressing AMPK-mediated autophagy
Speaker4	15' Kyeonghwan Roh (Seoul National University)	Lysosomal control of senescence and inflammation through cholesterol partitioning
Speaker5	15' Myeongwoo Jung (Catholic University)	RNA binding protein HuD mediates the crosstalk between $\beta$ cells and islet endothelial cells by the regulation of Endostatin and Serpin E1 expression
Speaker6	15' Young Suk Yu (Seoul National University)	BHLH functions as a novel transcriptional repressor of lysosomal and autophagy genes

### YSP 4 - Biotechnology

May 13th(Sat), 10:20-11:45, Room 203-204

Organizer & Chair Wang Hee Lee (Ajou university)

Chair Jiwoong Kim (Kookmin University)

Speaker1	15' Gue-Ho Hwang (Seoul National University)	PE-Designer and PE-Analyzer: web-based design and analysis tools for CRISPR prime editing
Speaker2	15' HIEN THI MY ONG (KIST)	Comprehensive proteomic profiling and identification of 14-3-3 protein zeta as a potential diagnostic biomarker for Acute Myocardial Infarction
Speaker3	15' Jiwoong Kim (Kookmin University)	Novel Bispecific Human Antibody Platform Specifically Targeting a Fully Open Spike Conformation Potently Neutralizes Multiple SARS-CoV-2 Variants
Speaker4	15' SeoK-Yong Lee (Seoul National University Hospital)	Evaluation of Cerenkov luminescence imaging of interscapular brown adipose tissue using a TSPO-targeting PET probe in the UCP1 reporter mouse
Speaker5	15' Wang Hee Lee (Ajou university)	Self-assembled hyaluronic acid nanomedicine: implication as a topical therapeutic agent for the treatment of psoriasis

## Workshop

### BMS

May 12th(Fri), 12:00-12:25, Room 101-103



Miltenyi Biotec

May 12th(Fri), 12:25-12:50, Room 101-103

**ThermoFisher**  
SCIENTIFIC

May 12th(Fri), 12:00-12:25, Room 104-105

 **SHIMADZU**  
Excellence in Science

May 12th(Fri), 12:00-12:25, Room 201-202

 **MDxK**

May 12th(Fri), 12:25-12:50, Room 201-202

**geninus**

May 12th(Fri), 12:00-12:25, Room 203-204

**Polyplus**  **POLYGENE**  
SCIENCE 

May 12th(Fri), 12:00-12:50, Room 205

## Spotlight Session

### BMS

May 11th(Thu), 10:40-11:00, Convention Hall 3F (Lecture room in front of the Lounge)

 **PhileKorea**  
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May 11th(Thu), 11:30-11:50 Convention Hall 3F (Lecture room in front of the Lounge)

**ThermoFisher**  
SCIENTIFIC

May 11th(Thu), 15:40-16:00, Convention Hall 3F (Lecture room in front of the Lounge)

**Aspens**

May 12th(Fri), 10:40-11:00, Convention Hall 3F (Lecture room in front of the Lounge)

 **DAON**  
BIOSCIENCES

May 12th(Fri), 13:30-13:50, Convention Hall 3F (Lecture room in front of the Lounge)