

한국생체분자 과학연합학회 학술대회

Time Jan. 09~11, 2020 **Venue** GIST 오룡관

Day 1 : Jan. 09, Thursday

	10:00~13:00	Registration	
	13:00~13:10	Opening Remarks	박철승 (GIST) 한국생물물리학회 회장
Plenary Lecture 1 Speaker : 오병하(KAIST) Chair :김명희(한국생명공학연구원) Location : 303호			
Plenary Lecture 1	13:10~13:55	오병하(KAIST)	Computational protein design and its application
GIST-Created New Horizon / Computational Approaches for New Molecular Findings(Parallel, 14:00-15:40)			
GIST-Created New Horizon		Organizer : 이광록(GIST) Chair : 이광록(GIST) Location : 303호	
Symposium I (Parallel) 14:00-15:40	14:00~14:25	김정욱(GIST)	Structural basis for the activation and the activity of phosphatidylserine decarboxylase in the biosynthesis of phospholipids
	14:25~14:50	남호정(GIST)	AI-powered drug discovery and development
	14:50~15:15	진미선(GIST)	The structural basis of the low catalytic activities of the two minor β -carbonic anhydrases of the filamentous fungus <i>Aspergillus fumigatus</i>
	15:15~15:40	이광록(GIST)	Chemical friction along the minor groove of DNA facilitates enzymatic translocation of λ exonuclease via electrostatic ratchet
Computational Approaches for New Molecular Findings		Organizer : 유우경(DGIST) Chair : 유우경(DGIST) Location : 101호	
Symposium II (Parallel) 14:00-15:40	14:00~14:25	김윤학(부산대)	ESurv: a user-friendly web server for integrative survival analysis
	14:25~14:50	최정모(KAIST)	The stickers and spacers framework for describing phase behavior of multivalent intrinsically disordered proteins
	14:50~15:15	천무경(KBRI)	A practical application of generative adversarial networks for RNA-seq analysis to predict the molecular progress of Alzheimer's disease
	15:15~15:40	최 선(이화여대)	Comprehensive mechanistic studies for the structural and functional elucidation of a tetraspanin arginine sensor
한국생물물리학회, 구조생물학회 총회(15:40-16:40)		Coffee Break and Poster Session (15:40-16:50) Location : Lobby Location : 한국생물물리학회(101호), 구조생물학회(201호)	
New Horizons in Membrane Signaling and Trafficking / Ionic Transport Mechanism(Parallel, 16:50-18:30)			
New Horizons in Membrane Signaling and Trafficking		Organizer : 이형호(서울대) Chair : 엄수현(GIST) Location : 303호	
Symposium III (Parallel) 16:50-18:30	16:50~17:15	최희정(서울대)	Biophysical and functional characterization of Frizzled4-mediated Norrin signaling
	17:15~17:40	임영준(전남대)	Structural Mechanism of Intracellular Sterol Distribution by Lipid Transfer Proteins
	17:40~18:05	김한성(부경대)	A Catalytic Trisulfide in Human Sulfide Quinone Oxidoreductase Catalyzes Coenzyme A Persulfide Synthesis and Inhibits Butyrate Oxidation
	18:05~18:30	정가영(성균관대)	Time-resolved Conformational Analysis during GPCR-Gs Coupling
Ionic Transport Mechanisms		Organizer : 강동묵(성균관대) Chair : 강동묵(성균관대) Location : 101호	
Symposium IV (Parallel) 16:50-18:30	16:50~17:15	임현호(KBRI)	Coupled ion-transport mechanism in a CLC-type Cl ⁻ /H ⁺ antiporter
	17:15~17:40	이병철(KBRI)	Ion and lipid transport via TMEM16 scramblases
	17:40~18:05	강경진(성균관대)	Analysis of Phototoxin Taste Closely Correlates Nucleophilicity to Type-I Phototoxicity
	18:05~18:30	홍규생(KIST)	Cytoskeleton dependent activation of Tentonin 3/TMEM150C, a novel mechanosensitive channel
Reception & Poster Session(18:30-20:00) Location : Lobby			

주최 대한화학회 생명화학분과, 한국결정학회, 한국구조생물학회, 한국단백질학회, 한국생물물리학회

주관 한국생물물리학회

Federation of the Korean Societies for Biomolecular Sciences(FKSBS)

Day 2: Jan. 10, Friday

New Approaches in Structural Biology / Biomolecular Engineering(Parallel, 09:00-10:40)

New Approaches in Structural Biology

Organizer : 최희정(서울대) **Chair :** 이원태(연세대) **Location :** 303호

Symposium V (Parallel) 9:00-10:40	09:00~09:25	우재성(고려대)	Cryo-EM Structure of Human Cx31.3/GJC3 Hemichannel
	09:25~09:50	류제경(TU Delft)	AFM imaging of open and collapsed states of yeast condensin suggest a scrunching model for DNA loop extrusion
	09:50~10:15	박석열(포항공과대)	BL11C: a High-flux Micro-MX beamline for micron-sized protein crystals at PAL
	10:15~10:40	김경현(고려대)	Time-resolved pH-induced protein dynamics using serial femtosecond crystallography

Biomolecular Engineering

Organizer : 이현수(서강대) **Chair :** 이현수(서강대) **Location :** 101호

Symposium VI (Parallel) 9:00-10:40	09:00~09:25	정용원(KAIST)	Supramolecular Biochemistry: engineering artificial protein assemblies
	09:25~09:50	조규봉(서강대)	Visualization of A/T Specific Sequence on a Large DNA Molecule
	09:50~10:15	강세병(UNIST)	Development of Recombinant Secondary Antibody Mimics as Signal Amplifiers in Immunoassays
	10:15~10:40	안대로(KIST)	A library-based approach to develop tumor-targeted drug carriers

Coffee Break(10:40-11:00)

Location : Lobby

Plenary Lecture 2

Speaker : Dr. Genji Kurisu(PDBj, Osaka Univ) **Chair :** 김경규(성균관대) **Location :** 다산홀

Plenary Lecture 2	11:00~11:50	Dr. Genji Kurisu (PDBj head; Osaka Univ)	Structural Basis for the Ferredoxin-dependent Photosynthetic Electron Transfer
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Luncheon Seminar 1 : PDBj (12:00-12:50)

Chair : Dr. Genji Kurisu(PDBj, Osaka Univ) **Location :** 303호

Luncheon 1-1	12:00~12:25	Dr. Atsushi Nakagawa (PDBj, Osaka Univ)	OneDep: Unified System for Deposition, Biocuration, and Validation of Macromolecular Structures
Luncheon 1-2	12:25~12:50	Dr. Nobutoshi Ito (PDBj, Tokyo Medical and Dental Univ)	Mandatory submission of PDBx/mmCIF format files for crystallographic depositions to the Protein Data Bank (PDB)

Luncheon Seminar 2 : (주)토모큐브 (12:00-12:50)

Location : 101호

Luncheon 2	12:00~12:50	이수민(토모큐브)	Holotomography techniques for non-invasive label-free 3D imaging of live cells and materials
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Cutting-Edge Technologies for Next-Generation Biomedicine / Young Scientist Session(Parallel, 13:00-15:00)

Cutting-Edge Technologies for Next-Generation Biomedicine

Organizer : 정상택(고려대) **Chair :** 정상택(고려대) **Location :** 303호

Symposium VII (Parallel) 13:00-15:05	13:00~13:25	유동원(서울대)	Nanomaterials for Bioimaging and Therapeutics
	13:25~13:50	서지원(GIST)	Engineering natural peptides for discovery of novel anti-infectives
	13:50~14:15	예경무(DGIST)	Translational application of infectious libraries of human antibodies
	14:15~14:40	정우재(성균관대)	Multivalent Sialyl Ligands and Their Use in Influenza A Virus Entry Inhibitors
	14:40~15:05	김찬혁(KAIST)	Towards next-generation T cell therapy for Cancer

Young Scientist Session

Organizer : 학술위원회 **Chair :** 최명환(성균관대), 강진영(KAIST) **Location :** 101호

Symposium VIII (Parallel) 13:00-15:05	13:00~13:20	박성준(KAIST)	Special Talk: Multifunctional Neural Interfaces Technologies
	13:20~13:33	유다슬이(KAIST)	Optogenetic activation of intracellular antibodies for direct modulation of endogenous proteins
	13:33~13:46	김지원(Postech)	Application of anti-helix antibodies in protein structure determination
	13:46~13:59	이수빈(Postech)	A Small-Molecule Identified via Forward Chemical Genetics Selectively Kills Cancer Cells
	13:59~14:12	허수경(이화여대)	The Effects of Tumor Suppressor INPP4B Oxidation on Actin Polymerization in Glioma Cells.
	14:12~14:25	김희령(성균관대)	Conformational Analysis of Gi/o α Subunits in GPCR Coupling
	14:25~14:38	강민희(고려대)	Solution Structure of the Nucleotide hydrolase BlsM: Importance of its Substrate Specificity
	14:38~14:51	민경진(서울대)	Structural and functional characterization of a peptidoglycan reshaping peptidase in intestinal pathogens
14:51~15:05	홍승곤(KBIO)	Structural investigation of Micromonospora echinospora GenB1; relationship between productivity and substrate preference	

Coffee Break(15:05-15:25)

Location : Lobby

Plenary Lecture 3

Speaker : 장영태(Postech) **Chair :** 정상전 분과장(성균관대) **Location :** 다산홀

Plenary Lecture 3	15:25~16:10	장영태(Postech)	Strategy for Cell Discrimination using Fluorescent Probe
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Emerging Technologies on Protein Science

Organizer : 김승중(KAIST) **Chair :** 김승중(KAIST) **Location :** 303호

Symposium IX (Parallel) 16:15-17:55	16:15~16:40	박지용(IBM)	Advanced MD Simulations that Quantify Target-Inhibitor Interactions: Case Studies of EGFR Kinase Inhibitors and Androgen Receptor Antagonists
	16:40~17:05	김진혜(DGIST)	The structural features of transthyretin in its aged aggregation-prone state
	17:05~17:30	송은주(이화여대)	Phosphorylation of USP15 and USP4 Regulates Localization and Spliceosomal Deubiquitination
	17:30~17:55	김민규(KAERI)	Inhibitory Activity of Nucleotide-based Metabolites Against Class C β -Lactamases

Neuroscience and Imaging

Organizer : 김성현(경희대) **Chair :** 김성현(경희대) **Location :** 101호

Symposium X (Parallel) 16:15-17:55	16:15~16:40	장재범(KAIST)	Expansion microscopy techniques and their applications to reveal fine molecular details
	16:40~17:05	최명환(성균관대)	Comprehensive functional screening of taste sensation in vivo
	17:05~17:30	김진섭(성균관대)	Anatomy and connectivity of the cerebellum revealed by electron microscope images
	17:30~17:55	김성현(경희대)	Distinct property of presynaptic physiology between excitatory and inhibitory neurons
	18:00~18:30	Closing Remarks	박철승(GIST) 한국생물물리학회 회장 + 나명수(UNIST) 한국결정학회 회장

Banquet (Speakers and Pls)

Location : 꽃담(062-974-0001)

주최 대한화학회 생명화학분과, 한국결정학회, 한국구조생물학회, 한국단백질학회, 한국생물물리학회

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