

2017 대한생리학회 정기학술대회 프로그램

일시: 2017 년 11 월 2 일 ~ 4 일

장소: 서울대학교 의과대학 융합관 (융합의생명교육연구원) 1 층

Plenary lecture

Memory, circuits, and cognitive failure in Alzheimer's disease

Paul Worley (Department of Neuroscience, Johns Hopkins University School of Medicine)

Symposium 1: TRP channel - 서인석 (서울대)

1. Jongyun Myeong (Seoul National University College of Medicine), Dual action of the $G\alpha_q$ -PLC β -PI(4,5)P₂ pathway on TRPC1/4 and TRPC1/5 heterotetramers
2. Kyu Pil Lee (Chungnam National University, College of veterinary medicine), Functional role of coiled-coil domain in the gating of TRPC3/6
3. Seung-Kuy Cha (Yonsei University Wonju College of Medicine), Renoprotection of Klotho through TRPC6 downregulation
4. Jong-Woo Sohn (Department of Biological Sciences, Korea Advanced Institute of Science and Technology), Role of Trp channels in the control of feeding behavior and metabolism
5. Markus Delling (UCSF, USA), Ca²⁺ signaling in primary cilia during development and disease
6. Kido Mizuho (Saga University, Japan), Oral barrier formation via temperature sensitive TRP channels
7. Dong Kun Lee (Gyeongsang National University School of Medicine), The hypothalamic TRPV1 channels in regulation of food intake
8. Joo Hyun Nam (Dongguk University College of Medicine) Acceleration of skin barrier restoration by topical botanical products via transient receptor potential V3
9. Hyun Jin Kim (Sungkyunkwan University School of Medicine), The intracellular Ca²⁺ channel TRPML3 is a PtdIns3P effector that regulates early autophagosome biogenesis.
10. Seok Choi (Chosun University School of Medicine), The ER/PM microdomain, PI(4,5)P₂ and the regulation of STIM1-Orai1 channel function., STIM, ORAI

Symposium 2: Physiology of neuropsychiatric disease - 신찬영 (건국대)/이용석 (서울대)

1. Sungkun Chun (Chonbuk National University Medical School), Reduction of microRNA targeting Drd2 leads to thalamocortical dysfunction in schizophrenia mouse models
2. Jaewon Ko (Department of Brain and Cognitive Sciences, DGIST), Synapse organization by autism-associated synaptic adhesion molecules
3. Pyung-Lim Han (Department of Brain and Cognitive Sciences, Ewha Womans University), Excessive dopamine receptor activation in the dorsal striatum promotes autistic-like behaviors
4. Chan Young Shin (Konkuk University School of Medicine), Critical role of NMDA receptor function on the modulation of behavioral deficits in animal models of autism spectrum

Symposium 3: Inflammation and Pathophysiological Signaling - 이지희 (이화여대)

1. Byung-Hyun Park (Chonbuk National University Medical School), Identification of Sirtuin 6 as a novel target in macrophage switch and inflammation
2. Seung-Soon Im (Keimyung University School of Medicine), SREBP-1 links lipogenesis to macrophage function via mTOR signaling
3. Youn-Hee Choi (Ewha Womans University) Effect of necrotic cell microenvironment on glioma progression
4. Jihee Lee (Ewha Womans University) A new role of efferocytosis in lung fibrosis and cancer metastasis

Symposium 4: Cardiac physiology and arrhythmia- 우선희 (충남대)

1. Eue-Keun Choi (Department of Internal Medicine, Seoul National University Hospital), Modulation of autonomic nerve system and cardiac arrhythmia
2. Boyoung Joung (Department of Internal Medicine, Yonsei University College of Medicine), Sympathetic nerve blocks promote anti-inflammatory response by activating JAK2-STAT3-mediated signaling cascade in rat myocarditis model: a novel mechanism with clinical implications
3. Junko Kurokawa (Department of Bio-Informational Pharmacology, School of Pharmaceutical Sciences, University of Shizuoka, Japan), Localized signaling regulation of cardiac ion channels through progesterone receptor
4. Shi-Qiang Wang (State Key Laboratory of Membrane Biology, College of Life Sciences, Peking University, China), The molecular nature of a calcium spark

Symposium 5: Learning & memory - 장성호 (서울의대)

1. Inah Lee (Department of Brain and Cognitive Science, Seoul National University), Neural firing patterns in the hippocampal formation in visual contextual environment
2. Jin-Hee Han (Department of Biological Sciences, KAIST Institute for the BioCentury), Neuron-specific nucleosome remodeling factor critical for emotional memory consolidation
3. Duck-Joo Rhie (Department of Physiology, College of Medicine, The Catholic University of Korea), Layer-specific neuromodulation of long-term synaptic plasticity in the visual cortex.
4. ChiHye Chung (Department of Biological Sciences, Konkuk University), Meta-plasticity of the lateral habenula of depressed brain

Symposium 6: Vascular Physiology - 최수경 (연세의대), 김성준 (서울의대)

1. Michael Hill (Missouri University, USA) Contribution of AT1R mechanoactivation to the arterial myogenic response and its regulation by rgs5 protein in skeletal muscle arterioles
2. Sewon Lee (Incheon University) Role of Kv7 channel in vasoreactivity of various blood vessels
3. Moo-Yeol Lee (Dongguk University) Crosstalk between reactive oxygen species and calcium in vascular smooth muscle angiotensin II signaling
4. Soo-Kyoung Choi (Yonsei University) Stimulation of autophagy improves vascular function in the mesenteric arteries of type 2 diabetic mice
5. Sung Joon Kim (Seoul National University) Physiological roles of ion channels and eNOS expressed in pulmonary artery smooth muscle

Symposium 7: Mitochondria Physiology - 박규상 (연세원주의대)

1. Seung-Jae V. Lee (Department of Life Sciences, School of Interdisciplinary Bioscience and Bioengineering, and Information Technology Convergence Engineering, Pohang University of Science and Technology) Mitochondrial chaperone HSP-60 enhances anti-bacterial immunity through up-regulating p38 MAP kinase signaling
2. Min-Seon Kim (Division of Endocrinology and Metabolism, Asan Medical Center and University of Ulsan College of Medicine) Impact of mitochondrial stress in POMC neurons on systemic metabolism
3. Claes B. Wolheim (University Medical Center, Geneva), Regulation of insulin secretion by glucose and its blunting in diabetes through glucotoxicity

4. Myungshik Lee (Severance Biomedical Science Institute and the Dept. of internal Medicine Yonsei University College of Medicine) Calcineurin as a Modulator of Mitophagy in Pancreatic Beta Cells
5. Jae-Hong Ko (Department of Physiology, College of Medicine, Chung-Ang University) Improvement of mitochondrial function induced by bio-active fabrics and alternative motor effects
6. Sung-Ryul Lee (Department of Integrated Biomedical Science, Department of Physiology, Cardiovascular and Metabolic disease Center, College of Medicine, Inje University) The critical roles of zinc in the regulation of mitochondrial oxidative stress

Symposium 8: KSEP/IMPACT symposium – 한진 (인제대), 곽효범 (인하대)

1. David A. Hood (York University, Canada), Molecular evidence for "exercise as mitochondrial medicine"
2. P. Darrell Neuffer (East Carolina University, USA), Novel mechanisms of estrogen on mitochondrial and metabolic function
3. Ju-Hee Kang (Department of Pharmacology, Inha University, Korea), Molecular mechanisms contributing to inflammation-induced inhibition of myogenic differentiation; Role of exosomes
4. Ji Seok Kim (Gyongsang National University), Exercise, SIRT1, and mitochondrial biogenesis in vascular homeostasis

Symposium 11-1: KSEP/IMPACT symposium – 김창근 (한체대), 김양하 (이화여대)

5. Jacob M. Haus (University of Illinois at Chicago, USA), Resolution of RAGE-mediated inflammation via aerobic exercise: acute and chronic effects
6. Hee Jeong Jin (Korea Institute of Oriental Medicine), Physical activity differences in different symptoms among Korean population
7. Sang Hun Lee (Korea Institute of Oriental Medicine), Effect of muscle fatigue by neuromuscular electrical stimulation on ankle dorsiflexion, leaning backward, and leaning forward
8. Kyungmo Park (Kyunghee University), Can neuroimaging be a plausible technique for Qigong rehabilitation?

Symposium 11-2: KSEP/IMPACT symposium – 김기진 (계명대), 강현식 (성균관대)

9. Jong Hee Kim (Hanyang University), Functional changes in the skeletal muscle fiber with age and exercise

10. Jae Sung Park (Kongju National University), Evidence for dying back axonal degeneration in age-associated skeletal muscle decline and exercise
11. Hyo Youl Moon (Seoul National University), Muscle over mind
12. Sang Hyun Kim (Chonbuk National University), Is Ursolic acid an exercise pill?

Symposium 9: Chemical senses - 문석준 (연세치대)

1. Yong Taek Jeong (Yonsei University College of Dentistry), Molecular mechanism of *Drosophila* taste receptors
2. Kyuhyung Kim (DGIST), Chemosensory GPCR SRI-14 is required for concentration dependent odor preference in *C. elegans*
3. Jeong Won Jahng (Seoul National University School of Dentistry), Mood, memory and oral sensory input
4. Myunghwan Choi (Department of Biomedical Engineering, Sungkyunkwan University), Microfluidics-on-a-tongue window for functional screening of taste cells in vivo

Symposium 10: Recent Biomedical Approaches in The Outside - 이은희 (가톨릭의대)

1. Hye Jin You (Department of Cancer Biomedical Science, NCC-GCSP, National Cancer Center, Korea) A Regulatory Mechanism for Tumor malignancy through a Zinc-finger protein 143
2. Soon-Jae Kwon (R&D Center MEDIPOST Co., Ltd.) Development of stem cell therapy
3. Sang Hyun Moh (BIO-FD&C Co., Ltd) Protein shelled nanoparticle (PSNP) synthesis and its applications
4. Shin Dong Wook (Basic Innovation Research Institute, Amorepacific Corporation R&D Center) New Effects of Extrinsic Factors on Skin Homeostasis

Symposium 12: Functional Food - 김선희 (전북의대), 진영호(경희의대)

1. Hye Kyung Kim (Kyungsung University), Development of functional food for improving sperm motility
2. Hyun-Ock Pae (Wonkwang University School of Medicine), Nitrate-nitrite-nitric oxide pathway: the missing link in the management of blood pressure

3. Jae Ho Shin (Kwangwoon University) *In vivo* nitric oxide measurements using an electrochemical microelectrode in a rat model
4. Gi-Ja Lee (Kyung Hee University) Potential protective effects of fermented garlic extract against myocardial ischemia-reperfusion injury
5. Young Ho Jin, (Kyung Hee University), Rice bran promotes non-rapid eye movement sleep through histamine type 1 receptors

Symposium 13: Current Status of Research on Novel Tissue, Primo Vascular System - 류판동 (서울수의대)

1. Kwang-Sup Soh (Seoul National University), Historical Review on Primo Vascular System
2. Byoung S. Kwon (Eutilex, Co., Ltd., and Tulane University), HAR-NDS (Hyaluronic Acid-Rich Node and Duct System): Stem Cells and Innate Immunity
3. Kyung Aih Kang (University of Louisville, Louisville, Kentucky), A Review on Primo Vascular System Research in the U.S
4. Pan-Dong Ryu (Seoul National University), Plasticity of Organ Surface Primo Vascular System Tissue in Heart Failure
5. Sang Suk Lee (Sangji University), Gene Expression of Primo Vessels in Rabbit Lymph Vessels by using RT-PCR

Brief Schedule for the Conference

	박희택홀 (Hall A)	양윤선홀 (Hall B)	GDR-1 (Hall C)	GDR3-6
11/2 14:00-18:00	Sym-1 TRP Channel (Invited Speakers, Markus Delling, Kido Mizuho, sponsored by Seoul National University and Prof. So I)			Po-1 (GDR3-4, 오후 1 시부터 게시)
18:00-20:00			Poster presentation and Welcome Reception (Korea Ion Channel Research Group)	
11/3 9:00-9:15 9:15-11:30	Opening ceremony Sym-2 Physiology of neuropsychiatric disease	Sym-3 Inflammation and Pathophysiological Signaling (sponsored by MRC in Ehwa University)	Sym-4 Cardiac physiology and Arrhythmia	
11:30-12:00	Coffee break & Poster presentation (지정번호 발표자 대기)			Po-2 (GDR, 4-5)
12:00-12:45	Nikon Luncheon Seminar (Lunch, 100 boxes, 12:00-12:40)	Steering Committee Meeting (Lunch)	Poster-Oral (2) (12:45-14:00)	
12:45-14:00	Poster-Oral (1) (12:45-14:00)			
14:00-14:30	Coffee break & Poster presentation (지정번호 발표자 대기)			
14:30-15:30 15:30-18:00	Plenary lecture – Prof. Paul Worley Sym-5 Learning & Memory	Sym-6 (from 15:30) Vascular Physiology (Invited speaker - Prof. Michael Hill, sponsored by Ischemic/Hypoxic Disease Institute, Seoul National University)	Sym-7 (from 15:30) Mitochondrial physiology (Invited speaker Prof. Wollheim, sponsored by MRC in Yonsei Wonju University)	
18:00-20:00			Group Photo (사진촬영) Official Buffet-Dinner (간친회)	
11/4 9:00-11:15	Sym-8 (IMPACT-1) (Invited speakers; David A. Hood, P. Darrell Neufer)	Sym-9 Chemical Senses (sponsored by MRC in Yonsei University College of Dentistry)	Sym-10 Recent Biomedical Approaches in The Outside	Po-3 (GDR 5-6)
11:15-12:15	Coffee break & Poster presentation (지정번호 발표자 대기)			

	박희택홀 (Hall A)	양윤선홀 (Hall B)	GDR-1 (Hall C)	GDR3-6
12:15-13:30	IMPACT-Lunch for KSEAP members and speakers	KPS members Annual Ceremoy with Lunch (대한생리학회총회)		
13:30-17:00	Sym-11 (IMPACT-2) (Invited speaker; Jacob M. Haus)	Sym-12 Medical understanding of functional food	Sym-13 : Current Status of Research on Novel Tissue, Primo Vascular System (Invited speakers, B.S. Kwon, K.A. Kang)	