

# Symposium Outline & Scientific Program

Symposium Name	8th Asian Pain Symposium in Korea ( <b>APS 2019 Korea</b> )
Period	Dec. 5-7 2019
Venue	Songdo Convensia, Incheon, Korea
Theme	The latest progress of pain research and novel strategies of pain treatments, including disciplines from molecular to functional, and from basic to clinical studies.

Dec. 5 Thur.

Time	Topic	Speaker
13:00 – 15:00	Registration	
<b>Satellite meeting - Young Scientists Session</b> Chairs Fusao Kato (Jikei University, Japan) Dong Kuk Ahn (Kyungpook National University, Korea)		
15:00 – 15:20	A subset of dorsal horn inhibitory interneurons has a critical role in mechanical allodynia after nerve injury	Keisuke Koga (Kyushu University, Japan)
15:20 – 15:40	Cytochrome P450c17 modulates the role of progesterone in the development of neuropathic pain	Sheu-Ran Choi (Seoul National University, Korea)
15:40 – 16:00	Chronic hyperglycemia before spinal cord injury increases inflammatory reaction and astrogliosis after the injury: human and animal studies	Kyoung-Tae Kim (Kyungpook National University, Korea)
16:00 – 16:20	Nanocarrier-mediated Delivery of CORM-2 Enhances functional recovery in a rat model of spinal cord injury	Un Yong Choi (Bundang CHA Medical Center, Korea)
16:20 – 16:30	Coffee Break	
16:30 – 16:50	Functional and molecular dissection of nociceptive amygdala	Yae K. Sugimura (Jikei University, Japan)
16:50 – 17:10	Declined constitutive activity of mGluR5 in the periaqueductal gray perpetuates abnormal pain	Geehoon Chung (Kyung Hee University, Korea)
17:10 – 17:30	Brain mechanisms for cognitive evaluation and modulation of pain in humans	Ming-Tsung Tseng (National Taiwan University, Taiwan)
17:30 – 17:50	Cancer itch: mouse model establishment and neuronal mechanisms investigation	Qingjian Han (Fudan University, China)

Special Lecture: IASP Councilor presentation		
17:50 – 18:10	Current situation of IASP and Brain mechanisms of exercise induced hypoalgesia (EIH)	Emiko Senba (Yukioka College, Japan)
18:10 – 20:00	Welcome Dinner (Speakers, LOC members)	

Dec. 6 Fri.

Time	Topic	Speaker
08:00 – 08:40	Registration	
08:40 – 09:00	Opening Remarks : Wonjae Lee (Commissioner of IFEZ, Korea) Seog Bae Oh (APS president, Korea)	
<b>Session 1 - Peripheral Mechanisms of Pain</b> Chairs Xu Zhang (Shanghai CAS, China) Jang-Hern Lee (Seoul National University, Korea)		
09:00 – 09:20	Modeling of peripheral neuropathy by using cellular stage dependent fate manipulation of neural crest stem cell	Yong Jun Kim (Kyung Hee University, Korea)
09:20 – 09:40	Epigenetic Regulation and Chronic Pain	Guang-Yin Xu (Soochow University, China)
09:40 – 10:00	Gut microbiota regulates morphine tolerance through TLR2 in mice	Tong Liu (Soochow University, China)
10:00 – 10:20	Mechanisms of Cold Pain In Trigeminal System	Jianguo Gu (University of Alabama, USA)
10:20 – 10:30	Coffee Break	
<b>Session 2 - Pain Circuit</b> Chairs Bae Hwan Lee (Yonsei University, Korea) Hidemasa Furue (Hyogo College of Medicine, Japan)		
10:30 – 10:50	Spinal control of parasympathetic neuronal activity by nociceptive afferent fibers	Hidemasa Furue (Hyogo College of Medicine, Japan)
10:50 – 11:10	The amygdala is a hub for pain-induced anxiety, depression and chronic stress-induced exacerbation of neuropathic pain	Guo-Gang Xing (Peking University, China)

11:10 – 11:30	Roles of the Insular Cortex in the Perception and Modulation of Pain	Myeounghoon Cha (Yonsei University, Korea)
11:30 – 11:50	The asymmetric passive and active roles of the central amygdala in the inflammatory pain	Fusao Kato (Jikei University, Japan)
11:50 – 13:30	Poster Session (Lunch)	
	APS Council Meeting (11:50 – 12:30)	
Session 3 - Plenary Lecture I		
Chair Min Zhuo (University of Toronto, Canada)		
13:30 – 14:10	Anoctamins in pain and itch	Uhtaek Oh (KIST, Korea)
Session 4 - Ion channels and trigeminal mechanisms of pain		
Chairs Insuk So (Seoul National University, Korea) Makoto Tominaga (NIPS, Japan)		
14:10 – 14:30	TRPV1, TRPA1 and nociception	Makoto Tominaga (NIPS, Japan)
14:30 – 14:50	Role of TRPV1 phosphorylation in vivo	Man-Kyo Chung (University of Maryland, USA)
14:50 – 15:10	ASIC1b, an orphan ASIC subtype predominately expressed in the somatosensory neurons	Chih-Cheng Chen (Academia Sinica, Taiwan)
15:10 – 15:30	Synaptic connectivity of substance P-, CGRP-, isolectin B4-immunopositive axon terminals in the rat medullary dorsal horn in the normal condition and following inflammation	Yong Chul Bae (Kyungpook National University, Korea)
15:30 – 15:50	Role of non-neuronal cell activation in orofacial neuropathic pain	Koichi Iwata (Nihon University, Japan)
15:50 – 16:00	Coffee Break	
Session 5 - Role of brain glia in chronic pain and the associated brain dysfunction		
Chairs Sung Joong Lee (Seoul National University, Korea) Bai Chuang Shyu (Academia Sinica, Taiwan)		
16:00 – 16:20	A Neural network approach to chronic pain and associated cognitive deficits	Li Ying (City University of Hong Kong, Hong Kong)
16:20 – 16:40	Microglial role in the pathological pain	Hidetoshi Saitoh (Kyushu University, Japan)
16:40 – 17:00	Astrocyte-mediated synapse remodeling and neuropathic pain	Schuichi Koizumi (Yamanashi University, Japan)

17:00 – 17:20	Role of amygdala astrocyte in chronic pain-associated affective disorder	Sung Joong Lee (Seoul National University, Korea)
17:20 – 17:30	Closing Remark: Dong Kuk Ahn (President-elect, Korea Pain Research Consortium)	
17:30 – 20:00	Welcome Banquet	

Dec. 7 Sat.

Time	Topic	Speaker
08:20 – 08:30	Opening Remark : Kwang-Soo Lee (President, The Korean Association for the Study of Pain)	
<b>Session 6 - Pain in the Cortex</b>		
	Chairs Sang Jeong Kim (Seoul National University, Korea) Junichi Nabekura (NIPS, Japan)	
08:30 – 08:50	Nitric oxide (NO) contributes to presynaptic forms of LTP in adult cortex	Min Zhuo (University of Toronto, Canada)
08:50 – 09:10	Astrocyte-induced rewiring of cortical somatosensory circuits removes allodynia	Junichi Nabekura (NIPS, Japan)
09:10 – 09:30	Processing of cutaneous temperature in excitatory and inhibitory neurons of the primary somatosensory cortex	Eto Kei (NIPS, Japan)
09:30 – 09:50	Noradrenergic modulation of cerebellar glial activity during nociception	Sang Jeong Kim (Seoul National University, Korea)
09:50 – 10:10	Decoding of spontaneous pain information from cortical neuronal calcium signals in awake mice with machine learning	Sun Kwang Kim (Kyung Hee University, Korea)
10:10 – 10:20	Coffee Break	
<b>Session 7 - Translational and Clinical Pain Research</b>		
	Chairs - Ryoong Huh (The Catholic Univ of Korea Incheon ST.MARY's Hospital Neurosurgery, Korea) - Keeduk Park (Ewha Womans University Mokdong Medical Center Neurology, Korea)	
10:20 – 10:40	The potential role of gene therapy for neuropathic pain	Jinwoo Chang (Yonsei Medical Center at Sinchon Severance Neurosurgery, Korea)
10:40 – 11:00	The pathomechanism of neuropathic low back pain	Joo Han Kim (Korea University Guro Hospital Neurosurgery, Korea)

11:00 – 11:20	Biological approaches to treating chronic low back pain	Inbo Han (Cha University Cha Bundang Medical Center neurosurgery, Korea)
11:20 – 11:40	Current status of spinal cord stimulation	Byung Chul Son (The Catholic University of Korea Seoul ST.MARY's Hospital Neurosurgery, Korea)
11:40 – 12:00	Significant therapeutic effects of adult human multipotent neural cells on spinal cord injury	Sunho Lee (School of Medicine, Sungkyunkwan University of Samsung Medical Center Neurosurgery, Korea)
12:00 – 13:00	Poster Session (Lunch)	
	Council Meeting: Korea Pain Research Consortium (12:00 – 12:30)	
Session 8 - Plenary Lecture II		
Chairs Myung Ha Yoon (Chonnam National University, Korea) Yong-Chul Kim (GIST, Korea)		
13:00 – 13:40	Nociplastic Pain	Jin Mo Chung (University of Texas, USA)
Session 9 - Neuromodulation for chronic pain		
Chairs Billy K. Huh (University of Texas, M.D. Anderson Cancer Center, USA) Kwang-Soo Lee (The Catholic University of Korea Seoul ST.MARY's Hospital Neurology, Korea)		
13:40 – 14:00	The mechanism of spinal cord stimulation in animal model of neuropathic pain	Chi Wai Cheung (The University of Hong Kong, Hong Kong)
14:00 – 14:20	Spinal cord stimulation for managing chronic neuropathic pain	Billy K. Huh (University of Texas M.D. Anderson Cancer Center, USA)
14:20 – 14:40	Motor cortex stimulation for managing chronic neuropathic pain	Koichi Hosomi (Osaka University, Japan)
14:40 – 15:00	Intrathecal analgesia for managing chronic pain	Yongchul Kim (Seoul National University, Korea)
15:00 – 15:10	Coffee Break	
Session 10 - Analgesic targets and drug developments		
Chairs Heechul Han (Korea University, Korea) Jianguo Gu (University of Alabama, USA)		
15:10 – 15:25	Drug Development Strategies of Nav1.7 blocker for pain therapeutics	Sung-Young Kim (Daewoong Pharm, Korea)
15:25 – 15:40	VM202, a DNA-based Potential Disease-Modifying Treatment for Painful Diabetic Peripheral Neuropathy	Seungshin Yoo (Helixmith, Korea)
15:40 – 15:55	Anti-NDGF strategy against peripheral neuropathy and neuropathic pain	Jaeyoung Seong (Neuracle Science, Korea)

15:55 – 16:10	Therapeutic approach for intractable pain: potential application of transforaminal epidural gene therapy	Heonsik Choi (Kolon Life Science, Korea)
16:10 – 16:20	Coffee Break	
<b>Session 11 - Presidential Lecture</b> Chairs Seog Bae Oh (Seoul National University, Korea) Guang-Yin Xu (Soochow University, China)		
16:20 – 16:40	Neuron types and their changes during the development of neuropathic pain in primary sensory neuron	Xu Zhang (Shanghai CAS, China)
16:40 – 17:00	Spontaneous high-current spikes in thalamocingulate pathways signaling normal and pathological pain states	Bai Chuang Shyu (Academia Sinica, Taiwan)
17:00 – 17:20	Electro and other neurophysiological assessment of chronic intractable neuropathic pain	Takahiro Ushida (Aichi Medical University, Japan)
17:20 – 17:40	Application of botulinum toxin type A in chronic pain in Dentistry	Dong Kuk Ahn (Kyungpook National University, Korea)
17:40 – 17:50	Poster Award	
17:50 – 18:00	Closing Remark : Seog Bae OH (Seoul National University, Korea)	
18:00 – 20:00	Dinner (Buffet, Speakers and Moderators)	