

# New Perspectives in the Neuroscience of Psychiatric and Neurological Disorders

日時 2012. 2/13-17

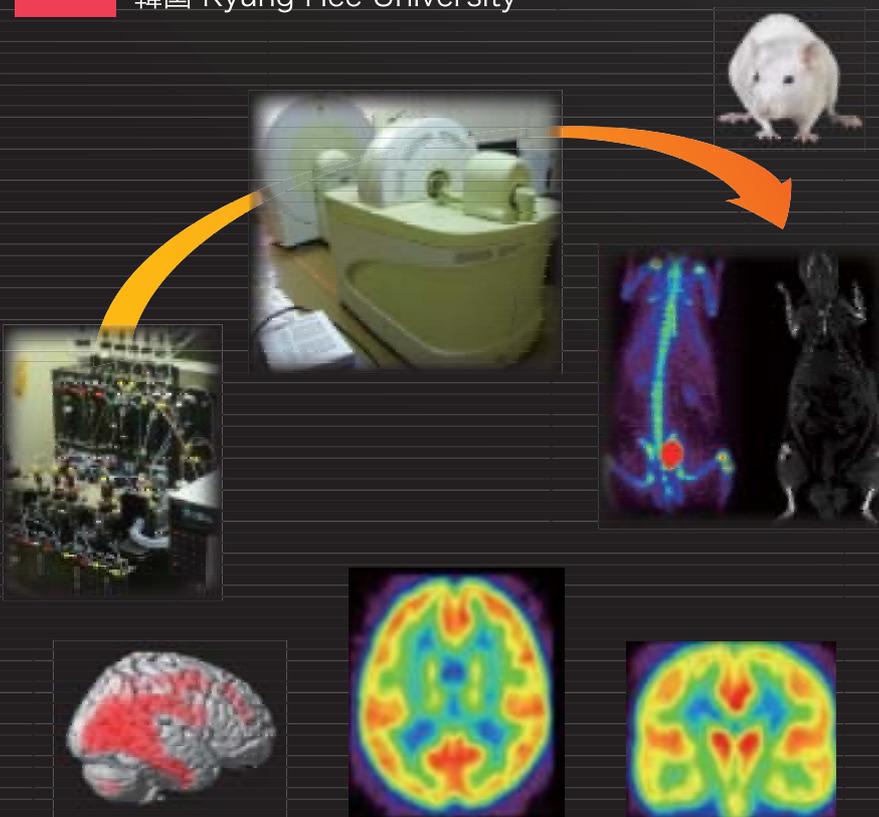
場所 韓国ソウル国立大学  
HOAM FACULTY HOUSE  
<http://www.hoam.ac.kr/english/>

会長 Jong Hoon Ryu 教授  
韓国 Kyung Hee University

参加費  
**無料**

## 講演者 (敬称略)

大隅 典子 / 東北大学  
曾良 一郎 / 東北大学  
福永 浩司 / 東北大学  
和田 圭司 / NCNP  
Villemagne VL / メルボルン大学  
Chen Z / 浙江大学  
岡村 信行 / 東北大学  
武田 篤 / 東北大学  
Kim KJ / SNU  
Kim EJ / KAIST  
Kim BY / SNU  
Shin CY / KKU  
Chung JH / KKU  
Kwon JS / SNU  
Mook-Jung I / SNU  
Kim MH / SNU  
Lee SJ / KKU



参加希望の場合には事前に御連絡下さい。

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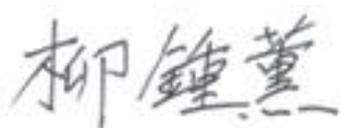
元気・前向き  
Powerful Positive Tohoku University  
東北大学

## NRF-JSPS Asian Science Seminar 2012

### New Perspectives in the Neuroscience of Psychiatric and Neurological Disorders

#### Preface

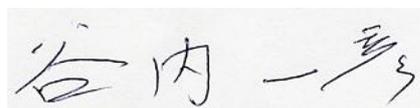
Integrated neuroscience researches on psychiatric and neurological disorders become recently popular and active not only in USA and Europe, but also in Asian countries. The objectives to develop therapeutic and diagnostic new approaches for psychiatric and neurological disorders are common interest in Asian countries. People all over the world ask neuroscientists to study more with the aim of elucidating the pathogenesis and etiology of psychiatric and neurological disorders such as developmental disorders, depression, dementia and Parkinson disease, and for developing therapeutic means for these disorders. Several pioneering scientific studies from Asian countries have received increased recognition and prestige from worldwide scientific community. It is urgent and important to establish international collaboration and Asian Roundtable among young and active neuroscientists. This seminar is planned to provide excellent opportunities to discuss among Asian neuroscientists for clinically oriented neuroscience research, and to foster active Asian neuroscientists responsible for international collaboration in the future. This seminar is sponsored by National Research Foundation of Korea (NRF) and Japan Society for the Promotion of Science (JSPS). The organizing committee appreciates their great contribution for giving us this opportunity for organizing the wonderful Asian seminar on new perspectives in the neuroscience of psychiatric and neurological disorders.



**Jong Hoon Ryu, Ph.D**

Professor

Department of Oriental Pharmaceutical Science  
College of Pharmacy, Kyung Hee University  
Seoul, Korea



**Kazuhiko Yanai, M.D., Ph.D**

Professor

Department of Pharmacology  
Tohoku University School of Medicine  
Sendai, Japan

## NRF-JSPS Asian Science Seminar 2012

# New Perspectives in the Neuroscience of Psychiatric and Neurological Disorders

Venue: Convention Center, Hoam Faculty House, Seoul National University  
Seoul, Korea

Date: Feb. 13<sup>th</sup>-17<sup>th</sup>, 2012

### Program

#### Day 1 – February 13, 2012 (Mon)

Time	Room	Detailed
15:00 - 16:00	Magnolia	Registration/ Poster displays
16:00 - 16:30		<b>Opening remarks &amp; Congratulatory addresses</b> by <b>Jong Hoon Ryu (Kyung Hee University)</b> <b>Kazuhiko Yanai (Tohoku University)</b> By representative of NRF (Un-Kyun YUN) By representative of JSPS (A. Hoshino)
16:30 - 17:30		<b>Special Lecture 1 chaired by Jong Hoon Ryu (Kyung Hee University)</b> <b>Speaker: Kyungjin Kim (Seoul National University)</b> Present and Future of Neuroscience Research in Korea
17:30 - 18:30		<b>Lecture 1 chaired by Myung-Chul Lee and Kyungjin Kim (Seoul National University)</b> <b>Speaker : Victor Villemagne (Melbourne University)</b> A $\beta$ and tau imaging in ageing, Alzheimer's disease and other dementias
18:30 -		Welcome party (Buffet at 2 <sup>nd</sup> floor of main building)

#### Day 2 - February 14, 2012 (Tue) / Theme: ADHD

Time	Room	Detailed
9:00 - 9:30	Magnolia	Poster Visit and Free Discussion
9:30 - 10:30		<b>Special Lecture 2 chaired by Ichro Sora (Tohoku University)</b> <b>Speaker : Noriko Osumi (Tohoku University)</b> Decrease of neurogenesis as a risk for the onset of mental diseases
10:30 - 11:00		Coffee break
11:00 - 12:00		<b>Lecture 2 chaired by Chan Young Shin (Konkuk University)</b> <b>Speaker : Bung-Nyun Kim (Seoul National University)</b> Brain Imaging, Genetic and Pharmacological Studies of ADHD

12:00 - 13:30	Lunch and Poster Visit
13:30 - 14:30	<b>Lecture 3 chaired by Bung-Nyun Kim (Seoul National University)</b> <b>Speaker : Eunjoon Kim (KAIST)</b> Synaptic proteins and attention deficit/hyperactivity disorder (ADHD)
14:30 - 15:00	Coffee break
15:00 - 16:00	<b>Lecture 4 chaired by Noriko Osumi</b> <b>Speaker : Ichiro Sora (Tohoku University)</b> Animal models of attention-deficit/hyperactivity disorder (AD/HD)
16:00 - 17:00	<b>Lecture 5 chaired by Eunjoon Kim (KAIST)</b> <b>Speaker : Chan Young Shin (Konkuk University)</b> Animal models of ADHD: How close we are for the perfect one?
17:00 - 18:30	Poster Visit and Discussion chaired by JH Ryu and K Yanai Poster presentation / open slide discussion (10 min each)

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**Day 3 - February 15, 2012 (Wed) / Theme: Depression, Schizophrenia and others**

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<b>Time</b>	<b>Room</b>	<b>Detailed</b>
9:00 - 9:30	Magnolia	Poster Visit and Free Discussion
09:30 - 10:30	Magnolia	<b>Lecture 6 chaired by Kwon Jun Soo (Seoul National University)</b> <b>Speaker : Chihye Chung (Konkuk University)</b> Probing synaptic basis of depressive disorder
10:30 - 11:00		Coffee break
11:00 - 12:00		<b>Lecture 7 chaired by Jong Hoon Ryu (Kyung Hee University)</b> <b>Victoria B. Risbrough (UCSD)</b> Translational models of Neuropsychiatric Disorders: From Mice to Men
12:00 - 13:30		Lunch and Poster Visit
13:30 - 14:30		<b>Lecture 8 chaired by Chihye Chung (Konkuk University)</b> <b>Speaker: Kwon Jun Soo (Seoul National University)</b> Progress in Schizophrenia Researches
14:30 - 15:00		Coffee break
15:00 - 16:00		<b>Lecture 9 chaired by Izadi J. Mobarakeh</b> <b>Speaker: Zhong Chen (Zhejiang University, China)</b> Protective Effect of Histamine on Brain Ischemia
16:00 - 17:00		<b>Lecture 10 chaired by Kazuhiko Yanai</b> <b>Speaker : Keiji Wada (National Institute of Neurology and Psychiatry)</b> A Good mind creates good research. Good research raises a good mind - Suggestion from a senior neuroscientist -
17:00 - 18:30		Poster Visit and Discussion chaired by JH Ryu and K Yanai Poster presentation / open slide discussion (10 min each)

**Day 4 - February 16, 2012 (Thu) / Theme: AD**

<b>Time</b>	<b>Room</b>	<b>Detailed</b>
9:00 - 9:30	Magnolia	Poster Visit and Discussion
09:30 - 10:30	Magnolia	<b>Lecture 11 chaired by Jong Hoon Ryu (Sahmyook University)</b> <b>Speaker : Min Jae Lee (Kyung Hee University)</b> Controlling the Ubiquitin-Proteasome System and its Pharmacological Application to Neurodegenerative Diseases
10:30 - 11:00		Coffee break
11:00 - 12:00		<b>Lecture 12 chaired by Kazuhiko Yanai</b> <b>Speaker : Koji Fukunaga (Tohoku University)</b> Drug Development of Novel Cognitive Enhancer for Alzheimer Disease Therapy
12:00 - 13:30		Lunch and Poster visits
13:30 - 14:30		<b>Lecture 13 chaired by Sun Ha Paek (Seoul National University)</b> <b>Speaker : Seol-Heui Han (Konkuk University)</b> Treatment of Alzheimer's disease: Past, Present and Future
14:30 - 15:00		Coffee break
15:00 - 16:00		<b>Lecture 14 chaired by Seol-Heui Han (Konkuk University)</b> <b>Speaker: Sun Ha Paek (Seoul National University)</b> Subthalamic Nucleus Deep Brain Stimulation in Parkinson's Disease
16:00 - 18:00		Poster presentation / open slide discussion (10 min each) Poster award
18:00 - 20:00		<b>Farewell party</b>

**Day 5 - February 17, 2012 (Fri) / Theme: PD**

<b>Time</b>	<b>Room</b>	<b>Detailed</b>
09:00 - 10:00	Magnolia	<b>Lecture 15 chaired by Jong Hoon Ryu</b> <b>Speaker : Seung-Jae Lee (Konkuk University)</b> Mechanism of disease progression in Parkinson's disease (Final)
10:00 - 11:00		<b>Lecture 16 chaired by Kazuhiko Yanai</b> <b>Speaker: Atsushi Takeda (Tohoku University)</b> The development of biomarkers to detect clinical and pathological progressions of Parkinson disease
11:00 - 11:20		Coffee break
11:20 - 12:20		<b>Lecture 17 chaired by Seung-Jae Lee (Konkuk University)</b> <b>Speaker : Nobuyuki Okamura (Tohoku University)</b> Imaging Amyloid and Tau Pathology in Alzheimer's Disease Brain
12:20 - 12:30		<b>Closing remarks by Jong Hoon Ryu and Kazuhiko Yanai</b>
12:30 - 13:00		Lunch
13:00 - 17:00		<b>Sightseeing bus tour: visit traditional places or Myung Dong</b> Including Campus Tour: Seoul National University/Kyung Hee University

## Poster and short presentation

Poster presentation: Participants who are interested in open slide discussion with audience can be allocated for 10 min slide presentation including discussion. Open slide discussion will be chaired by K. Yanai and J. H. Ryu.

The odd numbers will be posted on **Monday and Tuesday**, and even numbers of poster will be posted on **Wednesday and Tuesday**.

No.	Name	Affiliation	Poster
1	Hideaki Tagashira	Tohoku University	Feb. 13 (Mon) and 14 (Tue)
2	Takafumi Hasegawa	Tohoku University Graduate School of Medicine	Feb. 15 (Wed) and 16 (Thur)
3	Jalal Izadi Mobarakeh	Pasteur Institute of Iran	Feb. 13 (Mon) and 14 (Tue)
4	Toru Baba	Tohoku University Graduate School of Medicine	Feb. 15 (Wed) and 16 (Thur)
5	Yosuke Nakatani	National Institute of Radiological Sciences	Feb. 13 (Mon) and 14 (Tue)
6	Osamu Nakagawasai	Tohoku Pharmaceutical University	Feb. 15 (Wed) and 16 (Thur)
7	Kotaro Hiraoka	Tohoku University	Feb. 13 (Mon) and 14 (Tue)
8	Eiko Sakurai	Iwaki Meisei University	Feb. 15 (Wed) and 16 (Thur)
9	Hyun-mi Choi	Tohoku Fukushi University	Feb. 13 (Mon) and 14 (Tue)
10	Attayeb Mohsen	Tohoku University Graduate School of Medicine	Feb. 15 (Wed) and 16 (Thur)
11	Tadaho Nakamura	Tohoku University Graduate School of Medicine	Feb. 13 (Mon) and 14 (Tue)
12	Satoru Mitazaki	Takasaki University of Health and Welfare	Feb. 15 (Wed) and 16 (Thur)
13	Yasufumi Sakakibara	Tohoku University Graduate School of Medicine	Feb. 13 (Mon) and 14 (Tue)
14	Ryuichi Harada	Tohoku University Graduate School of Medicine	Feb. 15 (Wed) and 16 (Thur)
15	Makoto Uchiyama	Tohoku University Graduate School of Medicine	Feb. 13 (Mon) and 14 (Tue)
16	Xiangnan Zhang	Zhejiang University	Feb. 15 (Wed) and 16 (Thur)
17	Bo Feng	Zhejiang University	Feb. 13 (Mon) and 14 (Tue)
18	Masahiro Maruyama	National Institute of Radiological Sciences	Feb. 15 (Wed) and 16 (Thur)
19	LiZhi Sun	Capital Medical University, Beijing Electric Power Hospital	Feb. 13 (Mon) and 14 (Tue)
20	Michiko Kano	Tohoku University Graduate School of Medicine	Feb. 15 (Wed) and 16 (Thur)
21	Aqeel Javeed	University of Veterinary and Animal Sciences, Pakistan	Feb. 13 (Mon) and 14 (Tue)
22	Tadashi Endo	National Institute of Radiological Sciences	Feb. 15 (Wed) and 16 (Thur)
23	Hirotooshi Sato	Tohoku University Graduate School of Medicine	Feb. 13 (Mon) and 14 (Tue)
24	Kyung Ja Kwon	Konkuk University	Feb. 15 (Wed) and 16 (Thur)
25	Dong Kyu Kim	Konkuk University	Feb. 13 (Mon) and 14 (Tue)
26	Jong Min Kim	Kyung Hee University	Feb. 15 (Wed) and 16 (Thur)
27	Kyuhee Park	Gyeonggi Institute of Science and Technology Promotion	Feb. 13 (Mon) and 14 (Tue)
28	Noheon Park	Seoul National University	Feb. 15 (Wed) and 16 (Thur)

29	Se Jin Park	Kyung Hee University	Feb. 13 (Mon) and 14 (Tue)
29	Jee Youn Lee	Kyung Hee University	Feb. 15 (Wed) and 16 (Thur)
30	Yoon Sil Yang	Jeju National University	Feb. 13 (Mon) and 14 (Tue)
31	Hyein Oh	Kyung Hee University	Feb. 15 (Wed) and 16 (Thur)
32	Yeonju Lee	Ehwa Womens University	Feb. 13 (Mon) and 14 (Tue)
34	Jee Hyun Yi	Kyung Hee University	Feb. 15 (Wed) and 16 (Thur)
35	Jihye Lee	Konkuk University	Feb. 13 (Mon) and 14 (Tue)
36	Hae Chang Lee	Sahmyook University	Feb. 15 (Wed) and 16 (Thur)
37	Hyung Eun Lee	Kyung Hee University	Feb. 13 (Mon) and 14 (Tue)
38	Se Jin Jeon	Konkuk University	Feb. 15 (Wed) and 16 (Thur)
39	Solmi Cheon	Seoul National University	Feb. 13 (Mon) and 14 (Tue)
40	Chang Soon Choi	Konkuk University	Feb. 15 (Wed) and 16 (Thur)
41	Soo-Wang Hyun	Ajou University	Feb. 13 (Mon) and 14 (Tue)
41	TaeHo Kim	Ajou University	Feb. 15 (Wed) and 16 (Thur)
42	Sa-Ik Hong	Sungkyunkwan University	Feb. 13 (Mon) and 14 (Tue)
43	Ike C. dela Pena	Sahmyook University	Feb. 15 (Wed) and 16 (Thur)
44	June Bryan dela Pena	Sahmyook University	Feb. 13 (Mon) and 14 (Tue)

**1. Hideaki Tagashira (Department of Pharmacology, Graduate school of Pharmaceutical Sciences, Tohoku University)**

The crucial role of sigma-1 receptor for mitochondrial ATP production in cardiomyocytes

**2. Takafumi Hasegawa (Division of Neurology, Department of Neuroscience & Sensory Organs, Tohoku University Graduate School of Medicine)**

The AAA-ATPase VPS4 Regulates Extracellular Secretion and Lysosomal Targeting of Alpha-synuclein

**3. Jalal Izadi Mobarakeh (Department of Physiology and Pharmacology, Pasteur Institute of Iran)**

Interaction of histamine and calcitonin gene-related peptide in the formalin-induced pain perception in rats

**4. Toru Baba (Department of Neurology, Tohoku University Graduate School of Medicine)**

Severe olfactory dysfunction is predictive of dementia associated with Parkinson's disease: a 3-year longitudinal study

**5. Yosuke Nakatani (Drug Metabolism and Pharmacokinetics Japan, Eisai Co., Ltd.)**

Preclinical PK/PD analysis of a novel serotonin 1A receptor antagonist, E2110, using positron emission tomography

- 6. Osamu Nakagawasai (Department of Pharmacology, Tohoku Pharmaceutical University)**  
Maternal Behavior and Dopaminergic Function in a Model of Depression
- 7. Kotaro Hiraoka (Division of Cyclotron Nuclear Medicine, Cyclotron and Radioisotope Center, Tohoku University)**  
Cholinergic deficit and response to donepezil therapy in Parkinson's disease with dementia
- 8. Eiko Sakurai (Faculty of Pharmacy, Iwaki Meisei University, Iwaki, Fukushima)**  
The Distribution Change of Trace Metal in Methamphetamine Treated Mice Brain Slices by In - Air Micro-PIXE
- 9. Hyun-mi Choi (Division of Psychosomatic and Oral Medicine, Tohoku Fukushi University)**  
Morphology and biochemical differences of mast cells (NCL-2 cells, RBL-2H3 cells) on honeycomb-patterned polymer film
- 10. Attayeb Mohsen (Department of Pharmacology, Tohoku University Graduate School of Medicine)**  
H3 receptor blockade increases locomotor activity in mice
- 11. Tadaho Nakamura (Department of Pharmacology, Tohoku University Graduate School of Medicine)**  
Histamine H3 Receptor Regulates the Functions of Pancreatic  $\beta$ -cell.
- 12. Satoru Mitazaki (Laboratory of Forensic Toxicology, Faculty of Pharmacy, Takasaki University of Health and Welfare)**  
Roles of serotonergic neurons and their effects on prepulse inhibition deficits in a neurodevelopmental model of schizophrenia
- 13. Yasufumi Sakakibara (Department of Biological Psychiatry, Tohoku University Graduate School of Medicine)**  
Different Behavioral Profiles at Developmental Stages in Serotonin Transporter Knockout Mice
- 14. Ryuichi Harada (Department of Pharmacology, Tohoku University Graduate School of Medicine)**  
Wavelength-dependent detection of senile plaques and neurofibrillary tangles with novel fluorescent probes
- 15. Makoto Uchiyama (Department of Behavioral Neurology and Cognitive Neuroscience, Tohoku University Graduate School of Medicine)**

Complex visual illusions in patients with dementia with Lewy bodies

- 16. Xiangnan Zhang (Department of Pharmacology, Key Laboratory of Medical Neurobiology of Ministry of Health of China, Zhejiang Province Key Laboratory of Neurobiology, College of Pharmaceutical Sciences, School of Medicine, Zhejiang University)**

Acid postconditioning protected against brain ischemia

- 17. Bo Feng (Department of Pharmacology, Key Laboratory of Medical Neurobiology of Ministry of Health of China, Zhejiang Province Key Laboratory of Neurobiology, College of Pharmaceutical Sciences, School of Medicine, Zhejiang University)**

Inflammation modulates the endocannabinoid signaling in a rat model of febrile seizures

- 18. Masahiro Maruyama (Molecular Imaging Center, National Institute of Radiological Sciences)**

In vivo optical and PET imaging of tau inclusions in mice modeling Alzheimer's and related Diseases

- 19. LiZhi Sun (Department of Anesthesiology and Pain Management Capital Medical University Beijing Electric Power Hospital)**

Progress of Pain treatment in China

- 20. Michiko Kano (Behavioral Medicine, Tohoku University Graduate School of Medicine)**

Sex Differences in Brain Activity Evoked by Visceral Pain in Healthy Subjects: an fMRI study

- 21. Aqeel Javeed (Department of Pharmacology & Toxicology University of Veterinary and Animal Sciences, Pakistan)**

Evaluation of the Interaction between TGF- $\beta$  and bFGF on Airway Smooth Muscle Phenotype in Vitro

- 22. Tadashi Endo (Molecular Imaging Center, National Institute of Radiological Sciences)**

Development and evaluation of new PET ligands, [11C]SB218795 and [11C]N3-01, for imaging of neurokinin B receptor imaging

- 23. Hirotooshi Sato (Department of Psychiatry, Tohoku University Graduate School of Medicine)**

Histamine H1 receptor occupancy of new generation antidepressant: in vivo positron emission tomography study

- 24. Kyung Ja Kwon (Center for Neuroscience Research, IBST and School of Medicine, Konkuk**

**University)**

A simple behavioral paradigm to measure impulsive behavior in an animal model of attention deficit hyperactivity disorder (ADHD) of the spontaneously hypertensive rats

**25. Kim Dong Kyu (Department of Biomedical Science and Technology, Konkuk University)**

Generation of  $\alpha$ -synuclein transgenic *C. elegans*

**26. Jong Min Kim (Department of Life and Nanopharmaceutical Sciences, Kyung Hee Univ.)**

Distinct role of hippocampus for context and object memory in the novel object recognition task

**27. Kyuhee Park (Gyeonggi Institute of Science and Technology Promotion)**

High content screening for small molecules that enhance neurite outgrowth: An approach to axon regeneration in central nervous system

**28. Noheon Park (Department of Biological Sciences, Seoul National University)**

Chronic circadian disturbance by a shortened light-dark cycle increases mortality

**29. Se Jin Park (Department of Life and Nanopharmaceutical Science, Kyung Hee University)**

Neuroprotective and cognitive ameliorating effects of INM-176 on the neuroinflammation models

**30. Yoon-Sil Yang (Department of Physiology, School of Medicine, Jeju National University)**

KV4.2 channels participate in regulations of excitotoxicity accompanied by excessive  $Ca^{2+}$  influx in hippocampal neurons of rats

**31. Hyein Oh (Department of Life and Nanopharmaceutical Science, Kyung Hee University)**

K3 protects against neuronal damage in Alzheimer's disease model

**32. Yeonju Lee (Department of Neuroscience, School of Medicine, Ewha Womans University)**

Synthesis of 3,4,5-trimethoxycinnamic acid derivatives and evaluation of their anti-narcotic effect

**33. Jee Y. Lee (Age-Related and Brain Diseases Research Center, Kyung Hee University)**

Valproic acid attenuates blood-spinal cord barrier disruption by inhibiting matrix metalloproteinase-9 activity and improves functional recovery after spinal cord injury

**34. Jee Hyun Yi (Department of Life and Nanopharmaceutical Science Graduate School, Kyung Hee University)**

Poly(ADP-ribose)polymerase 1 regulation of adult hippocampal neurogenesis is involved in

anxiety-like behaviors in mice

**35. Jihye Lee (Department of Biological Sciences, Konkuk University)**

Behavioral Effects of Hippocampus Lesion on C57BL/6 mice in learning strategy switching

**36. Hae Chang Lee (Uimyung Research Institute for Neuroscience, Sahmyook University)**

Comparison of the rewarding effects of ketamine and zoletil in the conditioned place preference test

**37. Hyung Eun Lee (Department of Life and Nanopharmaceutical Science, Kyung Hee University)**

Neuroprotective effect of sinapic acid on hippocampal neuronal damage in mice

**38. Se Jin Jeon (School of Medicine and Center for Neuroscience Research, SMART Institute of Advanced Biomedical Sciences, Konkuk University)**

Gender differences in social interaction but not crooked tail phenotype in prenatally valproic acid exposed rats

**39. Solmi Cheon (Department of Biological Sciences, Seoul National University)**

Non-canonical GRE regulates *Per2* gene expression in a BMAL1-dependent manner

**40. Chang Soon Choi (Center for Neuroscience Research, SMART IBST and Department of Pharmacology, School of Medicine, Konkuk University)**

Maternal ethanol consumption in the preconceptional phase induces ADHD-like symptoms in the rat offspring

**41. Soo-Wang Hyun (College of Pharmacy, Ajou University)**

The effects of onion extract on blood-brain barrier (BBB) dysfunction during ischemia/hypoxia

**42. Sa-Ik Hong (Department of Pharmacology, School of Pharmacy, Sungkyunkwan University)**

Sulfuretin inhibits LPS-induced pro-inflammatory response through MAPKs and NF- $\kappa$ B Pathways in BV-2 microglial cells

**43. Ike dela Peña (Uimyung Research Institute for Neuroscience, Sahmyook University)**

Drug reinforcement and microarray studies to determine transcriptional signatures in psychostimulant dependence

**44. June Bryan I. de la Peña (Uimyung Research Institute for Neuroscience, Sahmyook University)**

Conditioned place preference of tiletamine and zolazepam