Date	March	31	2012
Date	wiaten	91.	2012

1. Title of Seminar JSPS-NRF Asian Science Seminar: New Perspectives in the Neuroscience of Psychiatric and Neurological Disorders

2. Purpose of Seminar

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. The purpose of this seminar is 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.

_	-		
	פע	ric	M
J.	10	\mathbf{r}	u

From February 13, 2012 through February 17, 2012 (5 days)

4. Venue

Convention center, Hoam Faculty House, Seoul National University, Seoul, Korea HP: http://www.hoam.ac.kr/english/

5. Organization

(1) Cosponsors

Ionan Cida	Japan Society for the Promotion of Science (JSPS)
Japan Side	Tohoku University Graduate School of Medicine
Y C' 1	National Research Foundation of Korea (NRF)
Korea Side	Kyung Hee University

	ganizer

1) Japan side

Name in full Kazuhiko Yanai, MD., Ph.D.

Affiliation and position Department of Pharmacology, Tohoku University Graduate School of Medicine

Name in full Jong Hoon Ryu, Ph.D

Affiliation and position College of Pharmacy, Kyung Hee University

6. Program: Agenda, topics, related activities (e.g., reception, excursion)

Lectures

<u>Day 1 – February</u> 13, 2012 (Mon)

Time	Room	Detailed
15:00 - 16:00	Magnolia	Registration/ Poster displays
16:00 - 16:30		Opening remarks & Congratulatory addresses
		by Jong Hoon Ryu (Kyung Hee University)
		Kazuhiko Yanai (Tohoku University)
		By representative of NRF (Un-Kyun YUN)
		By representative of JSPS (A. Hoshino)
16:30 - 17:30		Special Lecture 1 chaired by Jong Hoon Ryu (Kyung Hee University)
		Speaker: Kyungjin Kim (Seoul National University)
		Present and Future of Neuroscience Research in Korea
17:30 - 18:30		Lecture 1 chaired by Myung-Chul Lee and Kyungjin Kim (Seoul
		National University)
		Speaker : Victor Villemagne (Melbourne University)
		Aβ and tau imaging in ageing, Alzheimer's disease and other dementias
18:30 -		Welcome party (Buffet at 2 nd 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		Special Lecture 2 chaired by Ichro Sora (Tohoku University)
		Speaker: Noriko Osumi (Tohoku University)
		Decrease of neurogenesis as a risk for the onset of mental diseases
10:30 - 11:00		Coffee break
11:00 - 12:00		Lecture 2 chaired by Chan Young Shin (Konkuk University)
		Speaker: Bung-Nyun Kim (Seoul National University)
		Brain Imaging, Genetic and Pharmacological Studies of ADHD
12:00 - 13:30		Lunch and Poster Visit
13:30 - 14:30		Lecture 3 chaired by Bung-Nyun Kim (Seoul National University)
		Speaker: Eunjoon Kim (KAIST)
		Synaptic proteins and attention deficit/hyperactivity disorder (ADHD)
14:30 - 15:00		Coffee break
15:00 - 16:00		Lecture 4 chaired by Noriko Osumi
		Speaker : Ichiro Sora (Tohoku University)
		Animal models of attention-deficit/hyperactivity disorder (AD/HD)
16:00 - 17:00		Lecture 5 chaired by Eunjoon Kim (KAIST)
		Speaker: Chan Young Shin (Konkuk University)
		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)

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

Time	Room	Detailed
9:00 – 9:30	Magnolia	Poster Visit and Free Discussion
09:30 - 10:30	Magnolia	Lecture 6 chaired by Kwon Jun Soo (Seoul National University)
		Speaker: Chihye Chung (Konkuk University)
		Probing synaptic basis of depressive disorder
10:30 - 11:00		Coffee break
11:00 - 12:00		Lecture 7 chaired by Jong Hoon Ryu (Kyung Hee University)
		Victoria B. Risbrough (UCSD)
		Translational models of Neuropsychiatric Disorders: From Mice to Men
12:00 - 13:30		Lunch and Poster Visit

13:30 - 14:30	Lecture 8 chaired by Chihye Chung (Konkuk University)
	Speaker: Kwon Jun Soo (Seoul National University)
	Progress in Schizophrenia Researches
14:30 - 15:00	Coffee break
15:00 - 16:00	Lecture 9 chaired by Izadi J. Mobarakeh
	Speaker: Zhong Chen (Zhejiang University, China)
	Protective Effect of Histamine on Brain Ischemia
16:00 - 17:00	Lecture 10 chaired by Kazuhiko Yanai
	Speaker: Keiji Wada (National Institute of Neurology and Psychiatry)
	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

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

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

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

Poster and short presentation

- 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 β-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- β 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. Hirotoshi 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 α-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 Techology Promotion)

High contests 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 Ca²⁺ 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 metalloprotease-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-κB 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

7. Lecturers and Participants

1) Number of Persons

	Lecturers	Participants	Total
Japan side	17	20	37
(Number who participated under program funding)	(16)	(14)	(30)
Korea side	12	23	35
(Number who participated under program funding)	(12)	(23)	(35)
Other persons	6	3	9
(Number who participated under program funding)	(6)	(2)	(8)
Total	35	46	81
(Number who participated under program funding)	(22)	(16)	(38)

2) List

A: Lecturers

Name in full	Position / Affiliation / Institution (Country of affiliated institution)	Remarks
-Japan side		
Noriko Osumi	Professor, Tohoku University Graduate School of Medicine (Japan)	*
Ichiro Sora	Professor, Tohoku University Graduate School of Medicine (Japan)	*
Atsushi Takeda	Associate Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Kohji Fukunaga	Professor, Tohoku University Graduate School of Pharmaceutical	*
	Sciences (Japan)	
Kazuhiko Yanai	Professor, Tohoku University Graduate School of Medicine (Japan)	*
Nobuyuki Okamura	Associate Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Shozo Furumoto	Associate Professor, Tohoku University Graduate School of Medicine	*

		1
	(Japan)	
Takeo Yoshikawa	Assistant Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Michiko Kano	Assistant Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Takafumi Hasegawa	Assistant Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Kotaro Hiraoka	Assistant Professor, Tohoku University Graduate School of Medicine	*
	(Japan)	
Shigetaka Asano	Director, Consolidated Research Institute for Advanced Sciences and	Observer
	Medical Care, Waseda University (Japan)	JSPS
Keiji Wada	Department Director, National Institute of Neuroscience, National	*
	Center for Neurology and Psychiatry (Japan)	
Eiko Sakurai	Professor, Faculty of Pharmacy, Iwaki Meisei University (Japan)	*
Masahiro Maruyama	Chief Scientist, National Institute of Radiological Sciences (Japan)	*
Osamu Nakagawasai	Assistant Professor, Tohoku Pharmaceutical University (Japan)	*
Satoru Mitazaki	Assistant Professor, Takasaki University of Health and Welfare (Japan)	*
-Korea side		
Jong Hoon Ryu	Professor, Kyung Hee University (Korea)	
Kyungjin Kim	Professor, Seoul National University (Korea)	
Myung Chul Lee	Professor, Seoul National University (Korea)	
Eunjoon Kim	Professor, Korea Advanced Institute of Science and Technology	
	(Korea)	
Bung Nyun Kim	Professor, Seoul National University (Korea)	
Chan Young Shin	Professor, Konkuk University (Korea)	
Chihye Chung	Professor, Konkuk University (Korea)	
Jun Soo Kwon	Professor, Seoul National University (Korea)	
Min Jae Lee	Professor, Kyung Hee University (Korea)	
Seol Heui Han	Professor, Konkuk University (Korea)	
Sun Ha Paek	Professor, Seoul National University (Korea)	
Seung Jae Lee	Professor, Konkuk University (Korea)	
Sculig Jac Lec	Trolessor, Konkuk Oniversity (Korea)	
-Other persons		
Chen Zhong	Professor, Department of Pharmacology, Vice Dean of School of	*
Chen Zhong	Medicine, Zhejiang University (China)	
Lighi Cun	Professor and Chairman, Department of Anesthesiology and Pain	*
Lizhi Sun	Management, Capital Medical University (China)	
Izadi Jalal Mobarakeh		*
izadi Jaiai Mobarakeli	Associate Professor, Pharmacology and Physiology, Pasteur Institute	
Laviana A anal	of Iran (Iran)	*
Javees Aqeel	Assistant Professor Department of Pharmacology and Toxicology,	
XIII ama a ma XII atau	University of Veterinary and Animal Sciences (Pakistan)	*
Villemagne Victor	Associate Professor Center for PET, Department of Nuclear	
Disharah Vistoria	Medicine, Austin Health, Melbourne University (Australia)	*
Risbrough Victoria	Assistant Professor, Department of Psychiatry, University of	-6
	California, San Diego (USA)	

B: Participants

Remarks

-Other Persons		
Zhang Xiangnan	Postdoctoral fellow, Zhejiang University (China)	*
Feng Bo	Postdoctoral fellow, Zhejiang University (China)	*
Akifumi Maeda	Scientist, Cerebos Pacific Limited (Singapore)	

Place a check [*] in the Remark Column for those who participated using JSPS's seminar funding.

8. Please describe the achievements of the seminar.

All lectures were extremely high levels of neuroscience, which covered all fields from basic to clinical aspects. Invited speakers from Japan side were distinguished scientists from Japan, China, USA, Australia, Iran, and Pakistan. During seminar, there were constructive and enthusiastic discussions among Korean scientists and invited speakers form Japan side. In particular, all attendants were highly inspired by a lot of the most advanced and aggressive strategies by Korean governments. Several Korean scientists have dual research positions in Korea and USA. Several pharmaceutical and industrial scientists attended the seminar, and there were preliminary talks on collaborative researches among the seminar attendants. In near future, the seminar attendants may start international collaboration among Asian countries. As both Japanese and Korean neuroscientists trend toward the collaboration with USA, it is of importance to continue organizing the Asian science seminar every year in the different fields. From the points of view of training young active scientists, talks and exchanges among young scientists and distinguished speakers were in operation till all hours. This seminar could make a great impact on young Ph.D. students and scientists because of excellent featured lectures by top-level neuroscientists and active discussion. Furthermore the organizing committee asked young scientists to present their works in the poster session. Forty four poster presentations and discussion were performed by young active scientists. We had an enough time to talk among the attendants because of seminar formats, and the organizing committee believes that this seminar can influence greatly the future attitude of young scientists from the points of view of international scientific exchanges.



2012 NRF-JSPS Asian Science Seminar, Feb 13-17, 2012 / Seoul Korea

Group photograph



Poster presentation



Round table talks among Professor Myung-Chul Lee, Seoul National University and attendants