ISN satellite symposium

on

“Key molecules for neuronal maturation”

-Application for validating the maturation of human iPSC-derived neurons-

23 September, 2014, 13:00~17:20

Yayoi Auditorium, The University of Tokyo.

(URL: http://www.a.u-tokyo.ac.jp/yayoi/map.html)

This symposium is supported by Health and Labour Sciences Research Grants, Research on Regulatory Science of Pharmaceuticals and Medical Devices. And the symposium is also assisted by ISN, NPO Bioforum, and Pharmacological Evaluation Institute of Japan.

Program

ISN satellite symposium

on

"Key molecules for neuronal maturation"

-Application for validating the maturation of human iPSC-derived neurons-

23 September, 2014 in Yayoi Auditorium, The University of Tokyo.
President of the Conference: Dr. Yuko Sekino

Opening Remarks (13:00~13:10) Yuko Sekino (NIHS, Japan)
Requirement for surrogate markers of neuronal maturation.

Session 1: Maturation of protein signaling in neurons and glial cells

Chair: Yuta Ishizuka (Gunma University, Japan)

13:10~13:30 Christian Gonzalez (University of Chile, Chile)
MAP1B regulates pre- and post-synaptic events during neurotransmission.

13:30~13:50 Peter Penzes (Northwestern University, USA)
Nanoscale regulation of synapse structure and function by psychiatric risk molecules

13:50~14:10 Irina Majoul (Ruebeck University, Germany)
Molecules controlling the rearrangement of cell-cell contact interface.

14:10~14:25 Nobuyuki Takei (Niigata University, Japan)
mTOR mediates neuronal maturation and cell size control.

Coffee break (14:25~14:40)

Session 2: Maturation of cytoskeletal molecules in neurons

Chair: Noriko Koganezawa (Gunma University, Japan)

14:40~14:55 Hideto Takahashi (IRCM, Canada)
Drebrin governs spine morphogenesis.

14:55~15:10 Toshiyuki Mizui (AIST, Japan)
LTP-induced translocation of drebrin in mature synapse.

15:10~15:25 Nobuhiko Kojima (Toyo University, Japan)
Drebrin is a key molecule for LTP formation.

15:25~15:40 Hiroyuki Yamazaki (Gunma University, Japan)
A novel drebrin-binding protein spikar-mediates spine formation.

Coffee break (15:40~15:55)

Session 3: Maturation of human iPSC-derived neurons
Chair: Yuko Sekino (NIHS, Japan)
15:55~16:15 Reiko T Roppongi (Gunma University, Japan)
Early development of iPSC-derived neurons.

16:15~16:30 Kaoru Sato (NIHS, Japan)
Sequential expression of various receptors along with the differentiation of human iPSC-drived neurons

16:30~16:45 Norimasa Miyamoto (Eisai Co., Japan)
Application of iPSC-derived differentiated cells to safety assessment.

Plenary lecture (16:45~17:15)
Chair: Kazuyuki Imamura (Maebashi Institute of Technoloogy, Japan)
Tomoaki Shirao (Gunma University, Japan)
Drebrin as a surrogate marker of synaptic maturation.

General Discussion (17:15~18:10)

Closing Remarks (18:10~18:15) Nobuhiko Kojima (Toyo University, Japan)

(Opening Remarks, Session 3: Chair)

Yuko Sekino, Ph.D.

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EDUCATIONAL BACKGROUNGS

1980 B.S. Faculty of Pharmaceutical Sciences, The University of Tokyo

1991 Ph.D. for Physiology, Tokyo Women's Medical University

CAREER HISTORY

1980~1992	Tokyo Women's Medical University, Assistant Professor
1991~1992	National Institute for Physiological Sciences, Research Associate
1991~1993	Tokyo Metropolitan Institute for Neuroscience, Researcher
1993~1998	PRESTO Sakigake21 “Cell and Information”, Researcher
1996~1999	Gunma University, School of Medicine, Assistant Professor
1999~2002	Gunma University, School of Medicine, Lecturer
2002~2005	Gunma University, Graduate School of Medicine, Associate Professor
2005~2009	The University of Tokyo, The Institute of Medical Science, Associate Professor
2010~	Present Post

PUBLICATIONS

1. Irie,T., Matsuzaki,Y., Sekino,Y., Hirai,H. “Kv3.3 channels harbouring a mutation of spinocerebellar ataxia type 13 alter excitability and induce cell death in cultured cerebellar Purkinje cells.” J Physiol. 2014 Jan 1;592 (Pt 1):229-47
2. Mizui, T., Sekino, Y., Yamazaki, H., Ishizuka, Y., Takahashi, H., Kojima, N., Kojima, M., Shirao, T. ” Myosin II ATPase activity mediates the long-term potentiation-induced exodus of stable F-actin bound by drebrin A from dendritic spine” PLoS ONE in press (2013)
3. Yamazaki, H,. Kojima, N,. Kato, K,. Hirose, H,. Iwasaki, T,. Mizui, T,. Takahashi, H,. Hanamura, K,. Roppongi, RT,. Koibuchi, N,. Sekino, Y,. Mori, N,. Shirao, T. “Spikar, a novel drebrin-binding protein, regulates the formation and stabilization of dendritic spines.” J Neurochem in press (2013)

(Session 1: Chair)

Yuta Ishizuka, Ph.D.

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EDUCATIONAL BACKGROUNGS

Ph.D. in Medicine, Department of Molecular Neurobiology, Brain Research Institute, Niigata University, 2011.

M.S. in Biology, Graduate School of Science and Technology, Niigata University, 2007.

B.S. in Biology, Faculty of Science, Niigata University, 2005

CAREER HISTORY

Department of Neurobiology and Behavior, Gunma University Graduate School of Medicine, Assistant Professor, April 2011 – present.

PUBLICATIONS

1. Ishizuka Y, Shimizu H, Takagi E, Kato M, Yamagata H, Mikuni M, Shirao T. (2014) “Histone deacetylase mediates the decrease in drebrin cluster density induced by amyloid beta oligomers.” Neucochem Int. 76C: 114-121.
2. Mizui T, Sekino Y, Yamazaki H, Ishizuka Y, Takahashi H, Kojima N, Kojima M and Shirao T. (2014) “Myosin II ATPase activity mediates the long-term potentiation-induced exodus of stable F-actin bound by drebrin A from dendritic spines.” PLOS ONE. 9: e92291
3. Ishizuka Y, Kakiya M, Witters LA, Oshiro N, Shirao T, Nawa H and Takei N. (2013) “AMP-activated protein kinase (AMPK) counteracts brain-derived neurotrophic factor (BDNF)-induced mammalian target of rapamycine complex 1 (mTORC1) signaling in neurons.” J Neurochem. 127: 66-77.

(Session 2: Chair)

Noriko Koganezawa, Ph.D.

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EDUCATIONAL BACKGROUNGS

March 2008 Ph.D. LifeSciences
Tohoku University Graduate School of Life Sciences, Japan

CAREER HISTORY

Assistant Professor: June 2012 – present
Department of neurobiology and Behavior, Gunma University Graduate School of medicine, Japan
Postdoctoral Fellow: July 2008 – June 2012
Kavli Institute for Systems Neuroscience and Centre for the Biology of Memory, NTNU, Norway
GCOE Fellow: April 2008 – June 2008
Systems Neuroscience, Tohoku University Graduate School of Life Sciences, Japan

PUBLICATIONS

1. Witter,M.P., Canto, C.B., Couey, J.J., Koganezawa, N., O'Reilly, K.C. 2013 "Architecture of spatial circuits in the hippocampal region."Phil. Trans. R. Soc. B - Grid-cell Issue,369:20120515
2. Canto, C.B., Koganezawa, N., Beed, P., Moser, E., Witter, M.P. 2012 All layers of medial entorhinal cortex receive pre- and parasubicular inputs. The Journal of Neuroscience, 32:17620-31
3. Koganezawa, N., Taguchi, A., Tominaga, T., Ohara, S., Tsutsui, K., Witter, M.P., Iijima, T. 2008 "Significance of the deep layers of entorhinal cortex for transfer of both perirhinal and amygdala."inputs to the hippocampus.Neuroscience Research, 61:172-81.

(Plenary lecture: Chair)

Kazuyuki Imamura, Ph.D.

Professor, Vice-president

Department of Systems Life Engineering

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EDUCATIONAL BACKGROUNGS

1984 PhD. Gunma Univ., Graduate School of Medicine, (Physiology, #310)

1980 MA Gunma Univ., Graduate School of Engineering, (Electronics, #700)

1978 BA Gunma Univ., School of Engineering, (Electronics)

CAREER HISTORY

Apr 2008 – Current

Maebashi Institute of Technology, Vice-president (Research Affairs, Apr 2013 -),Dean, Graduate School of Engineering (Apr 2012-),Prof., Dept. Systems Life Engineering (Apr 2008 -)

Gunma Univ, Visiting Professor, Univ.-Industry Center for Innovation (Apr 2014-)

Osaka City Univ. Visiting Professor, Dept. Physiology, Graduate School of Medicine (Apr 2009 -)

Nov 2001 - Mar 2008

Brain Research Inst., RIKEN, Vice-Head, Lab. Visual Neurocomputing,

Research Scientist, Lab. Visual Neurocomputing (Nov 2001 - Aug 2002)

Oct 1988 - Oct 2001

Osaka Bioscience Institute,Vice-Head, Dept. Neuroscience,

Research Scientist, Dept. Neuroscience (Oct 1988 - Sep 1995)

Oct 1984 - Mar 1988

The Smith-Kettlewell Eye Research Institute, Post-doctoral fellow (Prof. Kasamatsu Lab.)

PUBLICATIONS

1. Tanaka S., Tani T., Ribot J., O'hashi K., and Imamura K. (2009) A postnatal critical period for orientation plasticity in the cat visual cortex. PLoS one, 4(4): e5380(10 pages).

(Session 1: 13:10~13:30)

Christian Gonzales-Billault, Ph.D.

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EDUCATIONAL BACKGROUNGS

1994 BSc. Biochemistry, Universidad de Chile, Santiago, Chile

1995 Biochemistry, Universidad de Chile, Santiago, Chile.

2000 Ph.D. in Cell and Molecular Biology, Universidad Autonoma de Madrid, Madrid, Spain

CAREER HISTORY

2000-2001 Postdoctoral Fellow, Universidad Autonoma de Madrid under the Programa Excellence Groups in Neuroscience from the Authonomic Community of Madrid, Spain

2001-2003 Postdoctoral Fellow, Universidad de Chile, under the FONDECYT Postdoctoral Program, CONICYT, Chile.

2003-2007 Assistant Professor, University of Chile

2007-2012 Associate Professor, University of Chile

2012- Professor, University of Chile

PUBLICATIONS

1. Bórquez DA, Olmos C, Álvarez S, Di Genova A, Maass A, González-Billault C. Bioinformatic survey for new physiological substrates of Cyclin-dependent kinase 5. Genomics. 2013 Apr;101(4):221-8. doi: 10.1016/j.ygeno.2013.01.003. PMID: 23384938
2. Utreras E, Henriquez D, Contreras-Vallejos E, Olmos C, Di Genova A, Maass A, Kulkarni AB, Gonzalez-Billault C. Cdk5 regulates Rap1 activity. Neurochem Int. 2013 May;62(6):848-53. doi: 10.1016/j.neuint.2013.02.011. PMID: 23416045
3. Urrutia P, Aguirre P, Esparza A, Tapia V, Mena NP, Arredondo M, González-Billault C, Núñez MT. Inflammation alters the expression of DMT1, FPN1 and hepcidin, and it causes iron accumulation in central nervous system cells. J Neurochem. 2013 Aug; 126 (4):541-9. doi: 10.1111/jnc.12244. PMID: 23506423

Notes

(Session 1: 13:30~13:50)

Peter Penzes, Ph.D.

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EDUCATIONAL BACKGROUNGS

1987-1991 University of Bucharest, Romania. B.Sc. Biochemistry

1991-1997 State University of New York at Buffalo. Ph.D. Biochemistry
Advisor: Joseph L. Napoli

CAREER HISTORY

1997-2003 Postdoctoral Research, Johns Hopkins University School of Medicine
Howard Hughes Medical Institute, Baltimore, MD. Department of Neuroscience

2003-2009 Assistant Professor (Tenure-track), Northwestern University Feinberg School of Medicine, Chicago, IL. Department of Physiology

2009- Associate Professor (Tenure-track), Northwestern University Feinberg School of Medicine, Department of Physiology

2010- Associate Professor, Department of Psychiatry and Behavioral Sciences, Northwestern University Feinberg School of Medicine

2011- Associate Professor (with Tenure), Northwestern University Feinberg School of Medicine

2014- Professor, Department of Physiology

2014- Professor, Department of Psychiatry and Behavioral Sciences, Northwestern University Feinberg School of Medicine

PUBLICATIONS

1. X. Wang, **P. Penzes**, and J. L. Napoli (1996) Cloning of a cDNA Encoding an Aldehyde Dehydrogenase and its Expression in Escherichia Coli: Recognition of Retinal as Substrate. Journal of Biological Chemistry 271, 16288-93.
2. **P. Penzes**, X. Wang, Z. Sperkova, and J. L. Napoli (1997) Cloning of a rat cDNA encoding retinal dehydrogenase isozyme type I and its expression in E.coli. Gene 191, 167-72.
3. **P. Penzes**, X. Wang, and J. L. Napoli (1997) Enzymatic characteristics of retinal dehydrogenase type I expressed in Escherichia coli. Biochimica & Biophysica Acta 1342, 175-81

Notes

(Session 1: 13:50~14:10)

Irina V. Majoul, Ph.D.

Principal investigator
Institute for Biology,
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EDUCATIONAL BACKGROUNGS

1998 Official recognition of both Ph.D degrees (in Biophysics and Biochemistry) acquired in Russia by the Biological Faculty of the Georg-August-University, Göttingen, Germany

1997 Second Ph.D. degree in Biophysics (Candidate of Biological Sciences), Russia

1991 Ph.D. degree in Biochemistry. State Institute of Medicine, Minsk, Belarus

1982 Diploma, Biological Faculty of the State University Minsk, Belarus.

CAREER HISTORY

2009 Privatdozent (Dr. habil.) in Biophysics, University of Lübeck, Germany

2004-08 Honorary Lecturer of Cell Biology & Biophysics, School of Biological Sciences, Royal Holloway University of London, UK

2003 Professorship degree (doctor of biological sciences) 03.00.02 - in Biophysics; VAC - Russian Academy of Sciences, Russia

2002 Thesis defended at the Institute of Theoretical and Experimental Biophysics (ITEB, Puschino, Moscow region), Russia

PUBLICATIONS

1. Majoul, I.*****, Butkevich, E., Onichtchouk, D., Wenzel, D., Chailakhyan, L.M., Duden, R. (2009). Limiting transport steps and novel interactions of Connexin-43 along the secretory pathway. *Histochem. Cell Biol.* **132**, 263-280 DOI 10.1007/s00418-009-0617-x **(Cover – Sept. 2009 issue)**

2. Frigerio, G., Grimsey, N., Dale, M., Majoul, I., Duden, R.. (2007). Two human ARFGAPs associated with COP I – coated vesicles. *Traffic* **8**, 1644-1655

3. Garstka, M., Borchert, B., Al-Balushi, M., Praveen, P., Kühl, N., Majoul, I., Duden, R., Springer, S. (2007). Peptide-receptive MHC I molecules cycle between ER and cis-Golgi in wild-type lymphocytes. *J. Biol. Chem.* **282**, 30680-30690

Notes

(Session 1: 14:10~14:25)

Nobuyuki Takei, Ph.D.

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EDUCATIONAL BACKGROUNGS

B.A. 1983 Psychology

Department of Psychology, Sophia University, Tokyo, Japan

PhD 1989 Neurochemistry

Life Science Institute, Sophia University, Tokyo, Japan

CAREER HISTORY

1988-1989 Postdoctral fellow, Mitsubishi-Kasei Institute of Life sciences, Tokyo Japan

1989-1992 Research Associate, National Institute of Neuroscience, NCNP, Tokyo Japan

1992-1997 Research Associate, Kyoto Institute of Technology, Kyoto, Japan

1997-1998 Research Fellow, Biomedical Center, Uppsala University, Uppsala, Sweden

1998-1999 Assistant Professor, Brain Research Institute, Niigata University, Niigata, Japan

1999- Associate Professor, Brain Research Institute, Niigata University, Niigata, Japan

PUBLICATIONS

1. Takei N and Nawa H. (2014) mTOR signaling and its roles in normal and abnormal brain development. Front in Mol Neurosci. 7:28. doi: 10.3389/fnmol.2014.00028
2. Ishizuka, Y., Kakiya, N., Witters,LA, Oshiro N, Shirao, T, Nawa, H. and Takei, N. (2013) AMP-activated protein kinase (AMPK) counteracts brain-derived neurotrophic factor (BDNF)-induced mammalian target of rapamycin complex 1 (mTORC1) signaling in neurons. J. Neurochem. 127:66-77
3. Takei, N., Kawamura, M., Ishizuka, Y., Kakiya, N., Inamura, N., Namba, H. and Nawa, H. (2009) Brain-derived neurotrophic factor enhances the basal protein synthesis by increasing active eukaryotic elongation factor 2 levels and promoting translation elongation in cortical neurons J. Biol. Chem. 284:26340-8.

Notes

(Session 2: 14:40~14:55)

Hideto Takahashi, MD, Ph.D.

Assistant Research Professor, Director
Synapse Development and Plasticity Research Unit
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EDUCATIONAL BACKGROUNGS

1991-1997	M.D.Gunma University School of Medicine, Maebashi, Japan Degree obtained: April 24, 1997
1999 – 2003	Ph.D. (Neuroscience),Gunma University Graduate School of Medicine, Maebashi, Japan, Degree obtained: March 24, 2003

CAREER HISTORY

2013 - present	Assistant Research Professor IRCM, Director, Synapse Development and Plasticity Research Unit
2007 - 2013	Postdoctoral Fellow,Department of Psychiatry, University of British Columbia
2006-2007	Assistant Professor, Education and Research Center and Department of Neurobiology and Behavior, Gunma University Graduate School of Medicine
2004 – 2006	Postdoctoral Fellow, Department of Neurobiology and Behavior, Gunma University Graduate School of Medicine

PUBLICATIONS

1. Mizui T, Sekino Y, Yamazaki H, Ishizuka Y, **Takahashi H**, Kojima N, Kojima M, Shirao T. (2014) Myosin II ATPase activity mediates the long-term potentiation-induced exodus of stable F-actin bound by drebrin A from dendritic spines. *PLoS One*, 9(1): e85367. PMID: 2446554
2. Yamazaki H, Kojima N, Kato K, Hirose E, Iwasaki T, Mizui T, **Takahashi H**, Hanamura K, Roppongi RT, Koibuchi N, Sekino Y, Mori N, Shirao T. (2013) Spikar, a novel drebrin-binding protein, regulates the formation and stabilization of dendritic spines. ***J. Neurochem.*** 128(4): 507-522. PMID:24117785
3. **Takahashi H,** and Craig A M. (2013) Protein tyrosine phosphatases PTPδ, PTPσ and LAR: presynaptic hubs for synapse organization. ***Trends Neurosci.,*** 36(9) : 522-534 (review)

Notes

(Session 2: 14:55~15:10)

Toshiyuki Mizui, Ph.D.

Postdoctoral Fellow
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EDUCATIONAL BACKGROUNGS

2004-2007 PhD, Medical Science, Gunma University Graduate School of Medicine.

CAREER HISTORY

1999-2002 Technical assistant,
Department of Physiology, Jichi Medical University, Japan

2005-2007 Research Fellow (DC1) of the Japan Society for the Promotion of Science, Japan

2008-2009 Postdoctoral Fellow, Department of Neurobiology and Behavior, Gunma University Graduate School of Medicine, Japan

2009-present
Postdoctoral Fellow, National Institute of Advanced Industrial Science and Technology (AIST), Ikeda, Japan
Core Research for Evolutional Science and Technology (CREST), Japan Science and Technology Agency (JST), Kawaguchi, Japan

PUBLICATIONS

1. **Mizui T,** Tanima Y, Komatsu H, Kumanogoh H, KojimaM “Emerging new insights into the actions and molecular mechanisms of brain-derived neurotrophic factor” *Neuroscience & Medicine* (2014), **Review**, **in press**.
2. Kudo S, Suzuki Y, Noda S **Mizui T**, Shirai K, Okamoto M, Kaminuma T, Yoshida Y, Shirao T, Nakano T. “Comparison of the radiosensitivities of neurons and glial cells derived from the same rat brain” *Experimental and Therapeutic Medicine* 8: 754-758 (2014)
3. **Mizui T**, Sekino Y, Yamazaki H, Ishizuka Y, Takahashi H, Kojima N, Kojima M, Shirao T. “Myosin II ATPase activity mediates the long-term potentiation-induced exodus of stable F-actin bound by Drebrin A from dendritic spines.” *PLoS One* 9 (1) :e85367 (2014)

Notes

(Session 2: 15:10~15:25, Closing Remarks)

Nobuhiko Kojima, Ph.D.

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EDUCATIONAL BACKGROUNGS

04/79 - 03/83	Faculty of Biological Sciences, University of Tsukuba
04/83 - 03/85	Graduate School of Medical Sciences, University of Tsukuba
04/85 - 03/89	Graduate School of Medicine, Gunma University

CAREER HISTORY

04/89 - 08/98	Research Associate of Lab for Neurochemistry, National Institute for Physiological Sciences
12/92 - 09/94	Postdoctoral Fellow at Center for Neurobiology and Behavior, Columbia University, USA
09/98- 03/05	Research Scientist of Neuronal Circuit Mechanisms Research RIKEN Brain Science Institute
04/05- 05/05	Researcher of Initial Research Project Okinawa Institute of Science and Technology
06/05- 03/13	Associate Professor of Department of Neurobiology and Behavior, Gunma University
04/13- Present	Professor of Faculty of Life Sciences, Toyo University

PUBLICATIONS

1. Kojima N, Hanamura K, Yamazaki H, Ikeda T, Itohara S, Shirao T: Genetic disruption of the alternative splicing of drebrin gene impairs context-dependent fear learning in adulthood. Neuroscience 165:138-150 (2010)
2. Kojima N, Borlikova G, Sakamoto T, Yamada K, Ikeda T, Itohara S, Niki H, Endo S: Inducible cAMP early repressor acts as a negative regulator for kindling epileptogenesis and long-term fear memory. Journal of Neuroscience 28:6459-6472 (2008)
3. Kojima N, Shirao T: Synaptic dysfunction and disruption of the postsynaptic drebrin-actin complex: the study of neurological disorders accompanied by cognitive deficits. Neuroscience Research 58:1-5 (2007)

Notes

(Session 2: 15:25~15:40)

Hiroyuki Yamazaki, Ph.D.

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EDUCATIONAL BACKGROUNGS

Apr1997 -Mar 2001	Ph. D.(Neurobiology) Gunma University Graduate School of Medicine (Maebashi, Japan)
Apr1995 -Mar 1997	M.S. (Chemical Engineering) Department of Biological and Chemical Engineering Gunma University Faculty of Engineering (Kiryu, Japan)
Apr1991 -Mar 1995	B.S.(Chemical Engineering) Department of Biological and Chemical Engineering Gunma University Faculty of Engineering (Kiryu, Japan)

CAREER HISTORY

Dept Neurobiol and Behav, Gunma Univ, Grad Sch Med

Apr2008-Present	Assistant professor/ Education and Science Instructor
Sep2001 -Mar 2008	Assistant professor
Apr2001 -Aug2001	Postdoctoral fellow

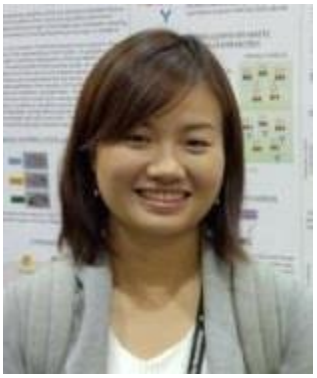
PUBLICATIONS

1. TanabeK, YamazakiH, InagumaY, AsadaA, KimuraT, TakahashiJ, TaokaM, OhshimaT, FuruichiT, IsobeT, NagataK,ShiraoT, Shin-ichi Hisanaga. “Phosphorylation of Drebrin by Cyclin-dependent kinase 5 and Its Role in Neuronal Migration”*PLoS One*. 9:e92291.(2014)
2. Yamazaki H, Kojima N, Kato K, Hirose E, Iwasaki T, Mizui T, Takahashi H, Hanamura K, Roppongi RT, Koibuchi N, SekinoY, Mori N, Shirao T.“Spikar, a novel drebrinbinding protein, regulates the formation and stabilization of dendritic spines.”*J Neurochem.*128: 507-22. (2014)
3. Mizui T, Sekino Y, Yamazaki H, Ishizuka Y, Takahashi H, Kojima N, Kojima M, Shirao T.“Myosin II ATPase Activity Mediates the Long-Term Potentiation-Induced Exodus of Stable F-Actin Bound by Drebrin A from Dendritic Spines.”*PLoS One*. 9:e85367.(2014)

Notes

(Session 3: 15:55~16:15)

Reiko Roppongi, Ph.D.



Assistant professor
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EDUCATIONAL BACKGROUNGS

2003-2007	Information of Technology, Maebashi Institute of Technology, B.Sc (IT)
2007-2009	Graduate School of Medicine, Course of Biomedical Sciences, Gunma University, M.Sc
2009-2013	Graduate School of Medicine, Course of Medical Sciences, Gunma University, Ph.D.

CAREER HISTORY

2013- Assistant Professor, Gunma University, Graduate School of Medicine, Department of Neurobiology & Behavior

PUBLICATIONS

1. Yamazaki H, Kojima N, Kato K, Hirose E, Iwasaki T, Mizui T, Takahashi H, Hanamura K, Roppongi RT, Koibuchi N, Sekino Y, Mori N, Shirao T. “Spikar, a novel drebrin-binding protein, regulates the formation and stabilization of dendritic spines.” J Neurochem 128(4): 507-22 (2013)
2. Roppongi RT, Kojima N, Hanamura K, Yamazaki H, Shirao T. “Selective reduction of drebrin and actin in dendritic spines of hippocampal neurons by activation of 5-HT(2A) receptors.” Neuroscience Letters 547: 76-81 (2013)
3. Hanamura, K, Mizui T, Kakizaki T, Roppongi RT, Yamazaki H, Yanagawa Y, Shirao T. “Low accumulation of drebrin at glutamatergic postsynaptic sites on GABAergic neurons” Neuroscience 169: 1489-1500 (2010)

Notes

(Session 3: 16:15~16:30)

Kaoru Sato, Ph.D.

Head
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Division of Pharmacology
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EDUCATIONAL BACKGROUNGS

1989-1993	Faculty of Pharmaceutical Science, the University of Tokyo received a BSc in pharmacology
1994-1999	Graduate school of Pharmaceutical Sciences, the University of Tokyo received an MSc in pharmacology (1996) received a Ph.D. in pharmacology

CAREER HISTORY

1999-2003	Researcher (Research officer) Division of Pharmacology, National Institute of Health Sciences
2004-2009	Senior Researcher
2004-2005	Invited Researcher Neuropathology, Columbia University Medical Center P&S
2009-present	Head of Neuropharmacological Laboratory Division of Pharmacology, National Institute of Health Sciences

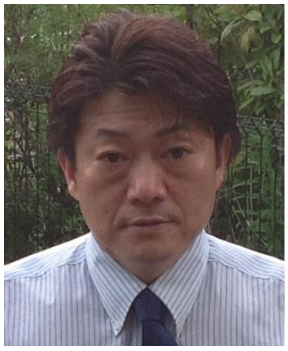
PUBLICATIONS

1. Shigemoto-Mogami Y, Hoshikawa K, Goldman JE, Sekino Y, Sato K. Microglia enhance neurogenesis and oligodendrogenesis in the early postnatal subventricular zone. J Neurosci, 34(5), 2231-2243 (2014)
2. Takaki J, Fujimori K, Miura M, Suzuki T, Sekino Y, Sato K. L-glutamate released from activated microglia downregulates astrocytic L-glutamate transporter expression in neuroinflammation: the ‘collusion’ hypothesis for increased extracellular L-glutamate concentration in neuroinflammation. J Neuroinflammation, 9, 275 (2012)
3. Sato K, Matsuk, N, Nakazawa K, Ohno Y, Estrogens inhibit L-glutamate uptake activity of astrocytes via membrane estrogen receptor α. J. Neurochem, 86, 1498-1505 (2003)

Notes

(Session 3: 16:30~16:45)

Norimasa Miyamoto, Ph.D.



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EDUCATIONAL BACKGROUNGS

1991, Ph.D. from Medical Department in University of Tsukuba

CAREER HISTORY

1991. 4 - Eisai Co. Ltd.

1994. 12 - 1997. 3 Research Fellow: Inst of Mol Embryol & Genet, Kumamoto Univ

2000.6 – 2003.1 Research Fellow: Howard Hughes Medical Institute, Department of Molecular Genetics, University of Texas, Southwestern Medical Center at Dallas

2010.4 – 2012.3: Instructor: Grad Sch of Biomed Sci, Tokyo Med and Dent Univ

2010.1 – Associate Prof: Faculty of Med, Univ of Tsukuba

2012.12 – Leader: Task Force 2 (TF2), Non-clinical Evaluation Expert Committee, Drug Evaluation Committee, Japan Pharmaceutical Manufacturers Association (JPMA)

2013.7 – Leader: Consortium for Safety Assessment using Human iPS-derived Cells

2014.8 – .Technical Board: New Energy and Industrial Technology Development Organization (NEDO)

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1. Nakamura Y, Matsuo J, Miyamoto N, Ojima A, Ando K, Kanda Y, Sawada K, Sugiyama A, Sekino Y. Assessment of testing methods for drug-induced repolarization delay and arrhythmias in an iPS cell-derived cardiomyocyte sheet: multi-site validation study. J. Pharmacol. Sci., 124 (4), 494-501 (2014)
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Notes

(Plenary lecture)

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CAREER HISTORY

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1986-1988 Postdoctoral Fellow with Professor D.J. Reis
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1988-1991 Research Associate at the Laboratory of Neurochemistry,
National Institute for Physiological Sciences

1991-1993 Associate Professor at the Department of Physiology,
Keio University School of Medicine

1993--present Professor, Dept of Neurobio & Behavior,
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2009-2013 Council of International Society for Neurochemistry

2011-present President of the International Society of Radiation Neurobiology

2013-present Vice President of Japanese Society for Neurochemistry

2006-2009, 2011-present Council Member of Physiological Society of Japan

PUBLICATIONS

1. Shirao T. and Gonzalez-Billault C. "Actin filaments and microtubules in dendritic spines." J Neurochem. 126: 155-164 (2013)
2. Mizui T. et al. “Myosin II ATPase activity mediates the long-term potentiation-induced exodus of stable F-actin bound by drebrin A from dendritic spines” PLoS ONE. 9(1):e85367 (2014)
3. Yamazaki H et al. “Spikar, a novel drebrin-binding protein, regulates the formation and stabilization of dendritic spines.” J Neurochem. 128:507-522 (2014)

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