CURRICULUM VITAE

Takashi Saito, Ph.D

Personal Information

Date of Birth: Dec. 1st, 1973

Place of Birth: Fukuoka

Citizenship: JAPAN

Professional address: Laboratory for Proteolytic Neuroscience
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CURRENT POSITION

2011.Nov.-present Deputy Team Leader: Laboratory for Proteolytic Neuroscience, RIKEN BSI

2012.Oct.-present PRESTO researcher, Japanese Science and Technology Agency

EDUCATION/POST GRADUATE TRAINING

Post graduate training

2009-2011 Staff Scientist: Laboratory for Proteolytic Neuroscience, RIKEN BSI

2002-2009 Research Scientist: Laboratory for Proteolytic Neuroscience, RIKEN BSI

College/University

1998-2002 Ph.D of Medical Science from Osaka University Medical School

1996-1998 Master of Pharmaceutical Science from Kumamoto University Graduate School of Pharmaceutical Science

1992-1996 Kumamoto University School of Pharmacy

LICENSE

1996 Pharmaceutical License (JAPAN)

GRANTS/AWARD

Grants

2012-2016 **JST PRESTO**

Elucidation of the role of chronic inflammation underlying pathogenesis of Alzheimer's disease

2011-2013 Grant-in-aid-for **Young Scientist (A)**

Establishment and application of novel type of Alzheimer's disease model mouse (19,400,000 JPY)

2011-2012 Grant-in-aid-for **Challenging Exploratory Research**

Development of the diagnostics of Alzheimer's disease using Aβ43 (2,800,000 JPY)

2009-2010 Grant-in-aid-for **Challenging Exploratory Research**

Drug discovery for Alzheimer's disease utilizing neprilysin (3,000,000 JPY)

2007-2009 Grant-in-aid-for **Young Scientist (A)**

Generation of the novel type of model mouse for Alzheimer's disease (16,100,000 JPY)

2006-2007 Grant-in-aid-for **Young Scientist (B)**

A search for the activation mechanisms of neprilysin by somatostatin (3,500,000 JPY)

2004-2005 Grant-in-aid-for **Young Scientist (B)**

A search for the activation mechanisms of Aβ-degrading enzyme (3,500,000 JPY)

Award

2012 Young Investigator Award of the Japanese Biochemical Society: October, Tokyo

2012 RIKEN Research Incentive Award: March, RIKEN Wako

2008 Excellent Poster Award of the 15th Takeda Science Foundation Symposium on Bioscience (Grant: 500,000 JPY): December, Tokyo

2006 Encouraging Prize of the 1st Symposium of Public Health Research Center: June, Tokyo

BIBLIOGRAPHY

Publication Journals

1. N. Kakiya, **T. Saito**, P. Nilsson, Y. Matsuba, S. Tsubuki, N. Takei, H. Nawa, T.C. Saido: Cell-surface expression of the major Aβ degrading enzyme, neprilysin, depends on phosphorylation by MEK and dephosphorylation by protein phosphatase 1a. ***J. Biol. Chem.*** 287, 29362-29372 (2012).

2. **T. Saito**, T. Suemoto, N. Brouwers, K. Sleegers, S. Funamoto, N. Mihira, Y. Matsuba, K. Yamada, P. Nilsson, J. Takano, M. Nishimura, N. Iwata, C.V. Broeckhoven Y. Ihara, T.C. Saido: Potent amyloidogenicity and pathogenicity of Aβ43. ***Nature Neurosci.*** 14, 1023-1032 (2011).

3. S. Kitazume, Y. Tachida, M. Kato, Y. Yamaguchi, T. Honda, Y. Hashimoto, Y. Wada, **T. Saito**, N. Iwata, T.C. Saido, N. Taniguchi: Brain endothelial cells produce amyloid β from amyloid precursor protein 770 and preferentially secrete the O-glycosylation form. ***J. Biol. Chem.*** 285, 40097-40103 (2010).

4. Y. Tachida, K. Nakagawa, **T. Saito**, T.C. Saido, T. Honda, Y. Sato, S. Murayama, T. Endo, G. Sakaguchi, A. Kato, S. Kitazume, Y. Hashimoto: Interleukin-1β up-regulates TACE to enhance α-cleavage of APP in neurons: resulting in Aβ production. ***J. Neurochem***. 104, 1387-1393 (2008).

5. S. Nakahara, **T. Saito**, N. Kondo, K. Moriwaki, K. Noda, S. Ihara, M. Takahashi, Y. Ide, J. Gu, H. Inohara, T. Katayama, M. Tohyama, T. Kubo, N. Taniguchi, E. Miyoshi: A secreted type of β1,6*N*-acetylglucosaminyltransferase-V (GnT-V), a novel angiogenesis inducer is regulated by γ-secretase. ***FASEB J***. 20, 2451-2459 (2006).

6. **T. Saito**, N. Iwata, S. Tsubuki, Y. Takaki, J. Takano, S-M Huang, T. Suemoto, M. Higuchi, T.C. Saido: Somatostatin regulates brain amyloid-β peptide Aβ42 through modulation of proteolytic degradation. ***Nature Medicine*** 11, 434-439 (2005).

7. **T. Saito**, Y. Takaki, N. Iwata, J. Trojanowski, T.C. Saido: Alzheimer's disease, neuropeptide, neuropeptidase, and amyloid β peptide metabolism. ***Science (SAGE-KE)*** 3, PE1, (2003).

8. **T. Saito**, E. Miyoshi, K. Sasai, N. Nakano, H. Eguchi, K. Honke, N. Taniguchi: A secreted type of β1,6*N*-acetylglucosaminyltransferase-V (GnT-V) induces tumor angiogenesis without mediation of glycosylation. ***J. Biol. Chem.*** 277, 17002-17008 (2002).

9. **T. Saito**, A. Kinoshita, K. Yoshiura, Y. Makita, K. Wakui, K. Honke, N. Niikawa, N. Taniguchi: Domain-specific mutations of a transforming growth factor (TGF)-β1 latency-associated peptide cause Camurati-Engelmann disease because of the formation of a constitutively active form of TGF-β1. ***J. Biol. Chem.*** 276, 11469-11472 (2001)

10. N. Taniguchi, S. Ihara, **T. Saito**, E. Miyoshi, Y. Ikeda, K. Honke: Implication of GnT-V in cancer metastasis: a glycomic approach for identification of a target protein and its unique function as an angiogenic factor. ***Glycoconj. J***. 18, 859-865 (2001)

11. A. Kinoshita, **T. Saito**, H. Tomita, Y. Makita, K. Yoshida, M. Ghadami, K. Yamada, S. Kondo,

S. Ikegawa, G. Nishimura, Y. Fukushima, T. Nakagomi, H. Saito, T. Sugimoto, M. Kamegaya, K. Hisa, JC Murray, N. Taniguchi, N. Niikawa, K. Yoshiura: Domain-specific mutations in TGFβ1 result in Camurati-Engelmann disease. ***Nature Genetics*** 26, 19-20 (2000).

PRESENTATION

Invited Seminar

1. Young Investigator Award Lecture in the Annual meeting of the Japanese Biochemical Society (December 14, 2012: Fukuoka): Investigation of pathogenic mechanism of Alzheimer's disease involving in Aβ43

2. Special Lecture in Kumamoto University (November 9, 2012: Kumamoto University School of Pharmaceutical Science): Strategy for the prevention and therapy of Alzheimer's disease.

3. Symposium in the Annual meeting of the Japanese Pharmacological Society (March 22, 2011: Yokohama): Novel type of "knock-in" mouse model for Alzheimer's disease.

4. Young Scientist Symposium in Kumamoto (Oct. 16, 2009: Kumamoto University Graduate School of Pharmaceutical Science): A novel insight from Presenilin1-R278I familial Alzheimer'disease associated mutation.

5. The Global COE Liaison Laboratory Seminar (July 9, 2008: Kumamoto University Medical School): A new aspect for the prevention and therapeutic strategy for Alzheimer's disease.

6. The 1st Drug Discovery Symposium in Kumamoto (Feb. 14, 2008: Kumamoto University School of Pharmaceutical Science): Drug discovery for Alzheimer's disease utilizing activation of Aβ-degrading enzyme.

PATENT

1. Model mouse of Alzheimer's disease expressing FAD APP716 and use thereof
T.C. Saido, **T. Saito**, N. Iwata, T. Suemoto, J. Takano
United States Patent: US 7,745,688 B2, Jun/29/2010

2. Method of measuring neprilysin activity
T.C. Saido, **T. Saito**, N. Iwata, T. Nakaya, Y. Takaki, S. Tsubuki
United Stetes Patent: US 7,572,574, Apr/24/2003

3. Glycosyltransferase GnT-V having neovascularization action

N. Taniguchi, **T. Saito**, E. Miyoshi

United States Patent: US 7,662,769, Dec/27/2002

SOCIETY MEMBERSHIP

The Japanese Biochemical Society

The Japanese Society of Dementia

Society for Neuroscience