

## CURRICULUM VITAE

AKIRA MINAMI, PhD

Department of Biochemistry  
School of Pharmaceutical Sciences, University of Shizuoka  
52-1 Yada, Shizuoka 422-8526, Japan  
Phone: +81-54-264-5726 Fax: +81-54-264-5723  
E-mail: aminami@u-shizuoka-ken.ac.jp

### ***RESEARCH EXPERIENCE***

2008- Research Assistant Professor, University of Shizuoka, Shizuoka, Japan  
2005-2007 Postdoctoral Fellow, University of California, Berkeley, USA  
2004-2006 Research Fellow of the Japan Society for the Promotion of Science

### ***EDUCATION***

2002-2005 Graduate School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan  
Awarded the degree of **PhD** in Pharmaceutical Science.  
Dissertation: Inhibitory Zinc Function against Excitatory Neurotransmission

2000-2002 Graduate School of Pharmaceutical Sciences, University of Shizuoka, Shizuoka, Japan  
Awarded the degree of **MS** in Pharmaceutical Science.

1996-2000 Faculty of Pharmaceutical Science, University of Shizuoka, Shizuoka, Japan  
Awarded the degree of **BS** in Pharmaceutical Science.

### ***HONORS & AWARDS***

2015 The Scientific Research Grant from the Futaba Electronics Memorial Foundation

2014 The Scientific Research Grant from the Public Foundation of Chubu Science and Technology Center

2013 The Ichiro Kanehara Foundation for the Promotion of Medical Sciences and Medical Care

2012 The Scientific Research Grant from the Amano Foundation of Industrial Technology

2012-2016 Grant-in-Aid for Young Scientists (B), Japan Society for the Promotion of Science

2011 The Japanese Biochemical Society Chubu Branch Award for Encouragement of Research

- 2010 The Naito Foundation Subsidy for Promotion of Specific Research Projects, The Naito Foundation
- 2009-2010 Sasakawa Scientific Research Grant, The Japan Science Society
- 2008-2011 Grant-in-Aid for Young Scientists (B), Japan Society for the Promotion of Science
- 2004-2006 Grant-in-Aid for Scientific Research, Japan Society for the Promotion of Science
- 2003 Chairman Award for Young Scientist, Pharmaceutical Society of Japan,  
at Forum 2004: Pharmaceutical Health Science and Environmental Toxicology

## ***PUBLICATIONS***

1. Akira Minami, Tadamune Otsubo, Daisuke Ieno, Kiyoshi Ikeda, Hiroaki Kanazawa, Kosuke Shimizu, Ko Ohata, Tsunehiro Yokochi, Yuuki Horii, Hokuto Fukumoto, Risa Taguchi, Tadanobu Takahashi, Naoto Oku and Takashi Suzuki: Visualization of sialidase activity in mammalian tissues and cancer detection with a novel fluorescent sialidase substrate. *PLoS ONE*, 9(1), e81941 (2014).
2. Yuriko Ohyama, Hiroshi Matsushita, Akira Minami, Hiroaki Kanazawa, Takashi Suzuki, Watanabe Kazushi, Akihiko Wakatsuki: Effect of the ethanol extract of *Pleurotus eryngii* on bone metabolism in ovariectomized rats. *Climacteric*, 17, 492-499 (2014).
3. Keijo Fukushima, Tadanobu Takahashi, Seigo Ito, Masahiro Takaguchi, Maiko Takano, Yuuki Kurebayashi, Kenta Oishi, Akira Minami, Tatsuya Kato, Enoch Y Park, Hidekazu Nishimura, Toru Takimoto, Takashi Suzuki: Terminal Sialic Acid Linkages Determine Different Cell Infectivities of Human Parainfluenza Virus Type 1 and Type 3. *Virology*, 464-465, 424-431 (2014)
4. Tadanobu Takahashi, Tadamune Otsubo, Kiyoshi Ikeda, Akira Minami, Takashi Suzuki: Histochemical imaging of alkaline phosphatase using a novel fluorescent substrate. *Biol. Pharm. Bull.*, 37, 1668-1673 (2014)
5. Yuuki Kurebayashi, Tadanobu Takahashi, Tadamune Otsubo, Kiyoshi Ikeda, Shunsaku Takahashi, Maiko Takano, Takashi Agarikuchi, Tsubasa Sato, Yukino Matsuda, Akira Minami, Hiroaki Kanazawa, Yuko Uchida, Takehiko Saito, Yoshihiro Kawaoka, Toshihiro Yamada, Fumihiko Kawamori, Robin Thomson, Mark von Itzstein, Takashi Suzuki: Imaging of influenza virus sialidase activity in living cells. *Sci. Rep.*, 4, 4877 (2014)
6. Tadanobu Takahashi, Maiko Takano, Yuuki Kurebayashi, Midori Masuda, Sawako Kawagishi, Masahiro Takaguchi, Takashi Yamanaka, Akira Minami, Tadamune Otsubo, Kiyoshi Ikeda, Takashi Suzuki: N-glycolylneuraminic Acid on Human Epithelial Cells Prevents Entry of Influenza A Virus with N-glycolylneuraminic Acid Binding Ability. *J. Virol.*, 88, 8445-8456 (2014)

7. Maiko Takano, Tadanobu Takahashi, Takashi Agarikuchi, Yuuki Kurebayashi, Akira Minami, Tadamune Otsubo, Kiyoshi Ikeda, Hiroaki Kanazawa, Takashi Suzuki: Histochemical fluorescent staining of Sendai virus-infected cells with a novel sialidase substrate. *Virology*, 464-465, 206-212 (2014).
8. Tadanobu Takahashi, Maiko Takano, Takashi Agarikuchi, Yuuki Kurebayashi, Akira Minami, Tadamune Otsubo, Kiyoshi Ikeda, Takashi Suzuki: A novel method for detection of Newcastle disease virus with a fluorescent sialidase substrate. *J. Virol. Methods*, 209, 136-142 (2014).
9. Akira Minami, Hiroshi Matsushita, Yuuki Horii, Daisuke Ieno, Yukino Matsuda, Masakazu Saito, Hiroaki Kanazawa, Yuriko Ohyama, Akihiko Wakatsuki, Atsushi Takeda, Kazuya I.P.J. Hidari, Vikineswary Sabaratnam, and Takashi Suzuki: Improvement of depression-like behavior and memory impairment with the ethanol extract of *Pleurotus eryngii* in ovariectomized rats. *Biol. Pharm. Bull.*, 36, 1990-1995 (2013).
10. Tadanobu Takahashi, Tatsuya Kawakami, Takashi Mizuno, Akira Minami, Yuko Uchida, Takehiko Saito, Shigeyuki Matsui, Makoto Ogata, Taichi Usui, Nongluk Sriwilaijaroen, Hiroaki Hiramatsu, Yasuo Suzuki, and Takashi Suzuki: Sensitive and direct detection of receptor binding specificity of highly pathogenic avian influenza A virus in clinical samples. *PLoS ONE*, 8, e78125 (2013).
11. Akira Minami, Sayaka Ishibashi, Kiyoshi Ikeda, Erika Ishitsubo, Takanori Hori, Hiroaki Tokiwa, Risa Taguchi, Daisuke Ieno, Tadamune Otsubo, Yukino Matsuda, Saki Sai, Mari Inada and Takashi Suzuki: Catalytic preference of *Salmonella typhimurium* LT2 sialidase for N-acetylneuraminic acid residue over N-glycolylneuraminic acid residue. *FEBS Open Bio*, 3, 231-236 (2013).
12. Tadamune Otsubo, Akira Minami, Haruna Fujii, Risa Taguchi, Tadanobu Takahashi, Takashi Suzuki, Fumiteru Teraoka, Kiyoshi Ikeda. 2-(Benzothiazol-2-yl)-phenyl- $\beta$ -d-galactopyranoside derivatives as fluorescent pigment dyeing substrates and their application for the assay of  $\beta$ -d-galactosidase activities. *Bioorganic & Medicinal Chemistry Letters*, *Bioorg. Med. Chem. Lett.*, 23, 2245-2249 (2013).
13. Akira Minami, Takashi Suzuki. Distribution of sialidase activity and the role of sialidase in the brain. *Trends in Glycoscience and Glycotechnology*, 24(137), 112–121 (2012).
14. Akira Minami, Hirotaka Shimizu, Yuko Meguro, Naoki Shibata, Hiroaki Kanazawa, Kiyoshi Ikeda, Takashi Suzuki. Imaging of sialidase activity in rat brain sections by a highly sensitive fluorescent histochemical method. *Neuroimage*, 58(1), 34-40 (2011).

15. Keijo Fukushima, Tadanobu Takahashi, Masahiro Takaguchi, Hiroo Ueyama, Seigo Ito, Yuuki Kurebayashi, Tomohiro Kawanishi, Jennifer Lois Mckimm-breschkin, Toru Takimoto, Akira Minami, Takashi Suzuki. Plaque formation assay for human parainfluenza virus type 1. *Biological and Pharmaceutical Bulletin*, 34 (7), 996-1000 (2011).
16. Repon Kumer Saha, Tadanobu Takahashi, Yuuki Kurebayashi, Keijo Fukushima, Akira Minamia, Noriaki Kinbara, Masaki Ichitani, Yuko M. Sagesaka, Takashi Suzuki. Antiviral effect of strictinin on influenza virus replication. *Antiviral Research*, 88(1), 10-18 (2010).
17. Akira Minami, Robert S. Zucker. Increased  $Ca^{2+}$  influx through  $Na^{+}/Ca^{2+}$  exchanger during long-term facilitation at crayfish neuromuscular junctions. *Journal of Physiology*, 585 (2), 413-427 (2007).
18. Atsushi Takeda, Sayuri Fuke, Akira Minami, Naoto Oku. Role of zinc influx via AMPA/kainate receptor activation in metabotropic glutamate receptor-mediated calcium release. *Journal of Neuroscience Reserch*, 85, 1310-1317 (2007).
19. Atsushi Takeda, Akira Minami, Naomi Sakurada, Satoko Nakajima, Naoto Oku, Response of hippocampal mossy fiber zinc to excessive glutamate release. *Neurochemistry International*, 50, 322-327 (2007).
20. Atsushi Takeda, Naomi Sakurada, Shingo Kanno, Akira Minami, Naoto Oku. Response of extracellular zinc in the ventral hippocampus against novelty stress. *Journal of Neurochemistry*, 99, 670-676, (2006).
21. Akira Minami, Naomi Sakurada, Sayuri Fuke, Kazuya Kikuchi, Tetsuo Nagano, Naoto Oku, Atsushi Takeda, Inhibition of presynaptic activity by zinc released from mossy fiber terminals during tetanic stimulation. *Journal of Neuroscience Reserch*, 83, 167-176 (2006).
22. Atsushi Takeda, Satoko Nakajima, Sayuri Fuke, Naomi Sakurada, Akira Minami, Naoto Oku, Zinc release from Schaffer collaterals and its significance. *Brain Research Bulletin*, 68, 442-447 (2006).
23. Atsushi Takeda, Kohei Yamada, Akira Minami, Tetsuo Nagano, Naoto Oku, Enhanced excitability of hippocampal mossy fibers and CA3 neurons under dietary zinc deficiency. *Epilepsy Research*, 63(2-3), 77-84 (2005).
24. 南 彰、シナプス小胞の開口放出と回収の形式を決めるシナプトタグミン、ファルマシア、

40(8), 765-766 (2004).

25. Atsushi Takeda, Akira Minami, Yumiko Seki, Satoko Nakajima, Naoto Oku, Release of amino acids by zinc in the hippocampus. *Brain Research Bulletin*, 63(3), 253-257 (2004).
26. Atsushi Takeda, Akira Minami, Rie Yamaide, Naoto Oku, Involvement of amygdalar extracellular zinc in rat behavior for passive avoidance. *Neuroscience Letter*, 358(2), 119-122 (2004).
27. Atsushi Takeda, Akira Minami, Yumiko Seki, Naoto Oku, Differential effects of zinc on glutamatergic and GABAergic neurotransmitter systems in the hippocampus. *Journal of Neuroscience Research*, 75(2), 225-229 (2004).
28. Atsushi Takeda, Akira Minami, Yumiko Seki, Naoto Oku, Inhibitory function of zinc against excitation of hippocampal glutamatergic neurons. *Epilepsy Research*, 57(2-3), 169-174 (2003).
29. Atsushi Takeda, Akira Minami, Naoto Oku, Neuromodulatory action of zinc in the release of neurotransmitters, *Biomedical Research on Trace Elements*, 14(4), 287-289 (2003).
30. Akira Minami, Atsushi Takeda, Yamaide Rie, Naoto Oku, Relationship between zinc and neurotransmitters released into the amygdalar extracellular space. *Brain Research*, 936(1-2), 91-94 (2002).
31. Atsushi Takeda, Akira Minami, Sachiyo Takefuta, Minoru Tochigi, Naoto Oku, Zinc homeostasis in the brain of adult rats fed zinc-deficient diet. *Journal of Neuroscience Research*, 63(5), 447-452 (2001).
32. Akira Minami, Atsushi Takeda, Daisuke Nishibaba, Sachiyo Takefuta, Naoto Oku, Cadmium toxicity in synaptic neurotransmission in the brain. *Brain Research*, 894(2), 336-339 (2001).
33. Atsushi Takeda, Maki Hirate, Akira Minami, Naoto Oku, Enhanced susceptibility to epileptic seizures under zinc deficiency. *Neuroscience Research*, supplement 25, S174 (2001).
34. Akira Minami, Atsushi Takeda, Naoto Oku, Zinc functions in synapses in the brain, *Biomedical Research on Trace Elements*, 12(4), 263-264 (2001)
35. Atsushi Takeda, Akira Minami, Tomonori Hanajima, Sachiyo Takefuta, Naoto Oku,

Learning and behavior under zinc deficiency. *Biomedical Research on Trace Elements*, 11, 397-398 (2000).