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**Education:**

Years	Degree	Institute and Location
2008	Ph.D.	Graduate School of Pharmaceutical Sciences, Kyoto Pharmaceutical University, Kyoto, Japan
2005	M.S.	Graduate School of Pharmaceutical Sciences, Kyoto Pharmaceutical University, Kyoto, Japan
2003	B.S.	Pharmaceutical Sciences, Kyoto Pharmaceutical University, Kyoto, Japan

**Position:**

2013-	present	Postdoctoral researcher; Department of Clinical Application, Center for iPS Cell Research and Application (CiRA), Kyoto University
2010-2013		Postdoctoral researcher; Department of Biological Repair, Institute for Frontier Medical Sciences, Kyoto University
2008-2010		Postdoctoral researcher; Department of Biophysics, Graduate School of Science, Kyoto University

**License:**

2003 Japanese Pharmacist License

**Membership in Professional Societies:**

Japan Neuroscience Society  
The Japanese Pharmacological Society  
The Japan Society for Regenerative Medicine  
The Zoological Society of Japan  
The Society for Neuroscience

**Research skills:**

**Cell culture:** ES cells and iPS cells (mouse and human), Fibroblasts

**In vivo skills:** Generation of parkinsonian animal models (mouse and rat),  
Cell transplantation, Behavioral assessment

**Staining:** Immunohistochemistry, *in situ* hybridization

**Others:** Vector construction, Western blot, ELISA, HPLC, microarray, qPCR,  
DNA sequencing, FACS

## Review:

- [1] **Kaneyasu Nishimura** and Jun Takahashi. Therapeutic application of stem cell technology towards the treatment of Parkinson's disease. *Biol. Pharm. Bull.*, **36** (2), 171-175 (2013)
- [2] Yoshihiko Umesono, Junichi Tasaki, **Kaneyasu Nishimura**, Takeshi Inoue and Kiyokazu Agata. Regeneration in an evolutionarily primitive brain: the planarian *Dugesia japonica* model. *Eur. J. Neurosci.*, **24** (6), 863-869 (2011)

## Original Article:

- [1] Jun Tsushima\*, **Kaneyasu Nishimura**\*, Natsuka Tashiro, Kazuyuki Takata, Eishi Ashihara, Kanji Yoshimoto, Hiroyoshi Ariga, Kiyokazu Agata and Yoshihisa Kitamura. Protective effect of planarian DJ-1 against 6-OHDA-induced neurotoxicity. *Neurosci. Res.*, **74** (3-4), 277-283 (2012) \* Equal contribution.
- [2] **Kaneyasu Nishimura**, Takeshi Inoue, Kanji Yoshimoto, Takashi Taniguchi, Yoshihisa Kitamura and Kiyokazu Agata. Regeneration of dopaminergic neurons after 6-hydroxydopamine-induced lesion in planarian brain. *J. Neurochem.*, **119** (6), 1217-1231 (2011)
- [3] Asuka Morizane, Daisuke Doi, Tetsuhiro Kikuchi, **Kaneyasu Nishimura** and Jun Takahashi. Small molecule inhibitors of BMP and Activin/Nodal signals promote highly efficient neural induction from human pluripotent stem cells. *J. Neurosci. Res.*, **89** (2), 117-126 (2011)
- [4] Kazuyuki Takata, Tetsuya Takada, Hironori Tatsuta, **Kaneyasu Nishimura**, Shun Shimohama and Yoshihisa Kitamura. Preparation and characterization of microglia-like cells derived from rat, mouse and human bone marrow cells for therapeutic strategy of Alzheimer's disease. *J. Addict. Res. Ther.*, **S5:001** (2011)
- [5] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Takashi Taniguchi and Kiyokazu Agata. Analysis of motor function modulated by cholinergic neurons in planarian *Dugesia japonica*. *Neuroscience*, **168** (1), 18-30 (2010)
- [6] **Kaneyasu Nishimura**, Kazuhiro Unemura, Jun Tsushima, Yosuke Yamauchi, Jun Otomo, Takashi Taniguchi, Shuji Kaneko, Kiyokazu Agata and Yoshihisa Kitamura. Identification of a novel planarian G-protein-coupled receptor that responds to serotonin in *Xenopus laevis* oocytes. *Biol. Pharm. Bull.*, **32** (10), 1672-1677 (2009)
- [7] Hiroyuki Takeda, **Kaneyasu Nishimura** and Kiyokazu Agata. Planarians change their body size by maintaining a constant ratio of different cell types using stem cell system. *Zoolog. Sci.*, **26** (12), 805-813 (2009)
- [8] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Takeshi Inoue, Yoshihiko Umesono, Kanji Yoshimoto, Takashi Taniguchi and Kiyokazu Agata. Characterization of tyramine  $\beta$ -hydroxylase in planarian *Dugesia japonica*: Cloning and expression. *Neurochem. Int.*, **53** (6-8), 184-192 (2008)

- [9] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Yoshihiko Umesono, Kosei Takeuchi, Kazuyuki Takata, Takashi Taniguchi and Kiyokazu Agata. Identification of glutamic acid decarboxylase gene and distribution of GABAergic nervous system in the planarian *Dugesia japonica*. *Neuroscience*, **153** (4), 1103-1114 (2008)
- [10] Sayaka Higuchi, Tetsutaro Hayashi, Hiroshi Tarui, Osamu Nishimura, **Kaneyasu Nishimura**, Norito Shibata, Hiroshi Sakamoto and Kiyokazu Agata. Expression and functional analysis of musashi-like genes in planarian CNS regeneration. *Mech. Dev.*, **125** (7), 631-645 (2008)
- [11] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Takeshi Inoue, Yoshihiko Umesono, Kanji Yoshimoto, Kosei Takeuchi, Takashi Taniguchi and Kiyokazu Agata. Identification and distribution of tryptophan hydroxylase (TPH)-positive neurons in the planarian *Dugesia japonica*. *Neurosci. Res.*, **59** (1), 101-106 (2007)
- [12] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Takeshi Inoue, Yoshihiko Umesono, Shozo Sano, Kanji Yoshimoto, Masatoshi Inden, Kazuyuki Takata, Takashi Taniguchi, Shun Shimohama and Kiyokazu Agata. Reconstruction of dopaminergic neural network and recovery of behavioral function in planarian regenerates. *Dev. Neurobiol.*, **67** (8), 1059-1078 (2007)
- [13] Masatoshi Inden, Takahiro Taira, Yoshihisa Kitamura, Takashi Yanagida, Daiju Tsuchiya, Kazuyuki Takata, Daijiro Yanagisawa, **Kaneyasu Nishimura**, Takashi Taniguchi, Yoshiaki Kiso, Kanji Yoshimoto, Tomohiro Agatsuma, Shizuyo Koide-Yoshida Sanae M.M. Iguchi-Arigo, Shun Shimohama and Hiroyoshi Ariga. PARK7 DJ-1 protects against degeneration of nigral dopaminergic neurons in Parkinson's disease rat model. *Neurobiol. Dis.*, **24** (1), 144-158 (2006)
- [14] Masatoshi Inden, Yoshihisa Kitamura, Jun-ichi Kondo, Kosuke Hayashi, Kazuyuki Takata, Daiju Tsuchiya, Daijiro Yanagisawa, **Kaneyasu Nishimura**, Takashi Taniguchi, Shun Shimohama, Hachiro Sugimoto and Akinori Akaike. Serofendic acid prevents 6-hydroxydopamine-induced nigra neurodegeneration and drug-induced rotational asymmetry in hemiparkinsonian rats. *J. Neurochem.*, **95** (4), 950-961 (2005)
- [15] Masatoshi Inden, Do-hoo Kim, Meirigeng Qi, Yoshihisa Kitamura, Daijiro Yanagisawa, **Kaneyasu Nishimura**, Daiju Tsuchiya, Kazuyuki Takata, Kosuke Hayashi, Takashi Taniguchi, Kanji Yoshimoto, Shun Shimohama, Shoichiro Sumi and Kazutomo Inoue. Transplantation of mouse embryonic stem cell-derived neurons into the striatum, subthalamic nucleus and substantia nigra, and behavioral recovery in hemiparkinsonian rats. *Neurosci. Lett.*, **387** (3), 151-156 (2005)
- [16] Masatoshi Inden, Jun-ichi Kondo, Yoshihisa Kitamura, Kazuyuki Takata, **Kaneyasu Nishimura**, Takashi Taniguchi, Hideyuki Sawada and Shun Shimohama. Proteasome inhibitors protect against degeneration of nigral dopaminergic neurons in hemiparkinsonian rats. *J. Pharmacol. Sci.*, **97** (7), 203-211 (2005)

- [17] Masatoshi Inden, Jun-ichi Kondo, Yoshihisa Kitamura, Kazuyuki Takata, Daijyu Tuchiya, **Kaneyasu Nishimura**, Takashi Taniguchi, Hideyuki Sawada and Shun Shimohama. Differences in rotational asymmetry in rats caused by single intranigral injections of 6-hydroxydopamine, 1-methyl-4-phenylpyridinium ion and rotenone. *Biogenic Amines*, **17** (4-6), 281-291 (2003)

#### **Book:**

- [1] **Kaneyasu Nishimura**, Yoshihisa Kitamura, Kiyokazu Agata and Jun Takahashi. A Survey of the molecular basis for the generation of functional dopaminergic neurons from pluripotent stem cells: Insights from regenerative biology and regenerative medicine. **In: Neural Stem Cells - New Perspectives**. Edited by Luca Bonfanti, Rijeka, Croatia: InTech. pp 271-286 (2013) [Go to INTECH](#)
- [2] **Kaneyasu Nishimura**, Yoshihisa Kitamura and Kiyokazu Agata. Regeneration of brain and dopaminergic neurons utilizing pluripotent stem cells: Lessons from planarians. **In: Neural stem cells and Therapy**. Edited by Tao Sun. Rijeka, Croatia: InTech. pp 141-158 (2012) [Go to INTECH](#)
- [3] **Kaneyasu Nishimura**, Hiroshi Yamamoto, Yoshihisa Kitamura and Kiyokazu Agata. Brain and Neural Network. **In: Planaria: A Model for Drug Action and Abuse**. Edited by Robert Raffa. Texas: Landes Bioscience, pp 4-12 (2008) [Go to LANDES](#)
- [4] **Kaneyasu Nishimura**, Yoshihisa Kitamura and Kiyokazu Agata. [Molecular mechanism of brain regeneration and reconstruction of dopaminergic neural network in planarians]. *Brain Nerve.*, **60** (4), 307-317 (2008) [Article in Japanese]

#### **Database & Website**

- [1] Kiyokazu Agata, **Kaneyasu Nishimura**, Osamu Nishimura, Tetsutaro Hayashi and Hiroshi Tarui. **Plabrain DB**. "Life Science Database Archive" Created on 2010.12.16.
- [2] Hiroyuki Takeda, **Kaneyasu Nishimura** and Kiyokazu Agata. Planaria nervous system. *Scholarpedia* **3** (6), 5558 (2008)