

Curriculum Vitae – Hisashi Tanigawa

November 3, 2017

PERSONAL

Name Hisashi Tanigawa
Title PhD
Address: Zhejiang University Interdisciplinary Institute of Neuroscience and
Technology
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EDUCATION

2001 **Ph.D.** Osaka University Medical School, Osaka, Japan
(Physiology, supervisor: Ichiro Fujita)
1996 **M.M.S.** Osaka University Medical School, Osaka, Japan
(Physiology, supervisor: Ichiro Fujita)
1994 **B.S.** Tohoku University, Faculty of Science, Sendai, Japan
(Biology, supervisor: Hiroyuki Ide)

PROFESSIONAL HISTORY

2017-present **Associate professor**
Zhejiang University Interdisciplinary Institute of Neuroscience and
Technology, Hangzhou, China
2013-2017 **Associate professor**
Center for Transdisciplinary Research, Niigata University, Niigata,
Japan
2011-2013 **Assistant Professor** (laboratory of Dr. Isao Hasegawa)
Department of Physiology, Niigata University Graduate School of
Medical and Dental Sciences, Niigata University, Niigata, Japan
2006-2011 **Research associate** (laboratory of Dr. Anna W. Roe)

- 2002-2006 Department of Psychology, Vanderbilt University, Nashville, TN
Postdoctoral associate (laboratory of Dr. Manabu Tanifuji)
RIKEN Brain Science Institute, Wako, Japan
- 2001-2002 **Postdoctoral fellow** (laboratory of Dr. Ichiro Fujita)
Graduate School of Engineering Science, Osaka, Japan
Supported by Japan Society for the Promotion of Science

HONORS AND AWARDS

- 2010 Travel Award for the Annual Meeting of Japan Neuroscience Society (Kobe, Japan)
- 2001-2002 Japan Society for the Promotion of Science, Postdoctoral Fellowship
- 1995-2000 Japan Scholarship Foundation: Scholarship for Graduate Student
- 1989-1994 Japan Scholarship Foundation: Scholarship for Undergraduate Student

MEMBERSHIPS

- Society for Neuroscience
Japan Neuroscience Society

PEER-REVIEWED JOURNAL ARTICLES

Wang QX, **Tanigawa H** (co-first author), Fujita I (2017) Postnatal Development of Intrinsic Horizontal Axons in Macaque Inferior Temporal and Primary Visual Cortices. *Cerebral Cortex* 27: 2708-2726 (Impact Factor: 8.285; Times cited: 1)

Tanigawa H, Chen G, Roe AW (2016) Spatial Distribution of Attentional Modulation at Columnar Resolution in Macaque Area V4. *Frontiers in Neural Circuits*, in press (Impact Factor: 3.879; Not cited yet)

Nakahara K, Adachi K, Kawasaki K, Matsuo T, Sawahata H, Majima K, Takeda M, Sugiyama S, Nakata R, Iijima A, **Tanigawa H**, Suzuki T, Kamitani Y, Hasegawa I

(2016) Associative-Memory Engrams Emerge as Shared Spatial Patterns of Theta Activity Spanning the Primate Temporal Cortex. *Nature Communications* 7 (Impact Factor: 11.329; Times cited: 0)

Tanigawa H, Lu HD, Roe AW (2010) Functional Organization for Color and Orientation in Macaque V4. *Nature Neuroscience* 13: 1542-1548 (Impact Factor: 16.724; Times cited: 61)

Lu HD, Chen G, **Tanigawa H**, Roe AW (2010) A direction Map in Macaque V2. *Neuron* 68: 1002-1013 (Impact Factor: 13.974; Times cited: 47)

Tanigawa H, Wang QX, Fujita I (2005) Organization of Horizontal Axons in the Inferior Temporal Cortex and Primary Visual Cortex of the Macaque Monkey. *Cerebral Cortex* 15: 1887-1899 (Impact Factor: 8.285; Times cited: 42)

Xu LH, **Tanigawa H**, Fujita I (2001) Distribution of Alpha-Amino-3-Hydroxy-5-Methyl-4-Isoxazolepropionate-Type Glutamate Receptor Subunits (GluR2/3) along the Ventral Visual Pathway in the Monkey. *Journal of Comparative Neurology* 456: 396-407 (Impact Factor: 3.331; Times cited: 17)

Tanigawa H, Fujita I, Ojima H, Kato M (1998) Distribution, Morphology, and Gamma-Aminobutyric Acid (GABA) Immunoreactivity of Horizontally Projecting Neurons in the Macaque Inferior Temporal Cortex. *Journal of Comparative Neurology* 401: 129-143 (Impact Factor: 3.331; Times cited: 23)

BOOK CHAPTER

Fujita I, **Tanigawa H** (2001) The cortical processing of binocular disparity, shape, and surface in the temporal cortex. In: Tanji J and Yoshizawa S, editors. Higher functions of the brain. Tokyo: Asakura Publishing Co., Ltd. (in Japanese)

INVITED REVIEW ARTICLES

Tanigawa H, Takei R, Hasegawa I (2016) Functional organization of macaque V4 revealed by intrinsic signal optical imaging. *Clinical Neuroscience* 34: 193-196 (in Japanese)

Tanigawa H (2012) Decoding recalled visual memory using electrocorticographic (ECoG) signals. *Journal of Japanese Neural Network Society* 19: 1542-1548 (in Japanese)

Tanigawa H (2010) Functional organization for color and orientation processing in macaque V4. First Authors' Review <http://first.lifesciencedb.jp/archives/1603> (in Japanese)

Fujita I, Tanaka H, **Tanigawa H**, (2001) Cortical processing of binocular disparity and surface in the ventral visual pathway. *Vision* 13: 87-91 (in Japanese)

INVITED LECTURES

Tanigawa H (2015) Decoding from ECoG signals reveals the contents of color imagery in macaque inferior temporal and prefrontal cortices. The 11th Biennial Conference of Chinese Neuroscience Society (Wuzhen, China)

Tanigawa H (2012) Functional architecture for color and shape processing in macaque V4. NIPS workshop "Understanding Visual Perception: Physiological, Psychophysical, and Computational Approaches" (Okazaki, Japan)

RECENT CONFERENCE ABSTRACTS

Tanigawa H, Takei R, Majima K, Kawasaki, Sawahata H, Nakahara H, Iijima A, Suzuki T, Kamitani Y, Hasegawa I (2016) Decoding recalled color imagery using ECoG signals in macaque inferior temporal and prefrontal cortices. Annual meeting of Society for Neuroscience (San Diego, CA, USA; **Poster**)

Sasaki H, **Tanigawa H**, Kawasaki, Iijima A, Suzuki T, Hasegawa I (2016) Directional influences through theta band activity between macaque inferior temporal and

prefrontal cortices during memory retrieval. Annual meeting of the Japan Neuroscience Society (Yokohama, Japan; **Poster**)

Tanigawa H, Takei R, Majima K, Kawasaki, Sawahata H, Nakahara H, Suzuki T, Kamitani Y, Hasegawa I (2015) Decoding from ECoG signals reveals the contents of color imagery in macaque inferior temporal and prefrontal cortices. Annual meeting of the Japan Neural Network Society (Tokyo, Japan; **Poster**)

Tanigawa H, Majima K, Kawasaki, Sawahata H, Nakahara H, Iijima A, Suzuki T, Kamitani Y, Hasegawa I (2014) Decoding from ECoG signals reveals the contents of color imagery in macaque inferior temporal and prefrontal cortices. Annual meeting of the Japan Neuroscience Society (Yokohama, Japan; **Poster**)

Tanigawa H, Majima K, Kawasaki, Sawahata H, Nakahara H, Suzuki T, Kamitani Y, Hasegawa I (2013) Decoding recalled visual memory using electrocorticographic (ECoG) signals in macaque inferior temporal and prefrontal cortices. Annual meeting of the Japan Neuroscience Society (Kyoto, Japan; **Poster**)

Tanigawa H, Roe AW (2010) Distribution of attentional modulation in macaque V4 revealed by intrinsic signal optical imaging at two illuminant wavelengths. Annual meeting of the Society for Neuroscience (San Diego, CA; **Poster**)

Tanigawa H, Roe AW (2010) Distribution of attentional modulation in macaque V4 revealed by intrinsic signal optical imaging. Annual meeting of the Japan Neuroscience Society (Kobe, Japan; **Oral presentation**)

Tanigawa H, Roe AW (2008) Attentional modulation in macaque area V4 revealed by optical imaging. Annual meeting of the Society for Neuroscience (Washington, D.C.; **Oral presentation**)

Tanigawa H, Lu H, Chen G, Roe AW (2008) Functional subdivisions in macaque V4 revealed by optical imaging in the behaving Macaque monkey. Annual meeting of the Visual Sciences Society (Naples, FL; **Oral presentation**)

GRANTS

- “Separation and integration of color- and shape-processing in primate cortical pathway for object vision” (2015-2017) Grant-in-Aid for Scientific Research (C), 15K01851, from Japan Society for Promotion of Science (**project coordinator**, 3,900,000 Japanese Yen)
- “From vision to communication: information flow in cerebral circuitry revealed by electrocorticography (ECoG)” (2014-2016) Grant-in-Aid for Scientific Research (A), 26242088, from Japan Society for Promotion of Science (**project partner**, 1,400,000 Japanese Yen; Project total, 34,500,000 Japanese Yen)
- “Approach for face area in rodent using high-density electrocorticography (ECoG) and optogenetics” (2013-2015) Grant-in-Aid for Scientific Research (C), 25350996, from Japan Society for Promotion of Science (**project partner**, 200,000 Japanese Yen; Project total, 3,100,000 Japanese Yen)
- “Analysis of brain mechanisms for memory retrieval of color and face using electrocorticography (ECoG)” (2011-2012) Grant-in-Aid for Young Scientists (Start-up), 23800026, from Japan Society for Promotion of Science (**project coordinator**, 3,250,000 Japanese Yen)
- “Analysis of brain mechanisms for perception and memory retrieval of color, face, and letter using electrocorticography (ECoG)” (2011-2012) Grant for Promotion of Niigata University Research Projects, 23B008, from Niigata University (**project coordinator**, 2,000,000 Japanese Yen)
- “Functional role of horizontal connections for object-feature-selective columns in monkey higher visual association cortex” (2001-2002) Grant-in-Aid for JSPS Fellows, 01J00636, from Japan Society for Promotion of Science (**project coordinator**, 1,200,000 Japanese Yen)