

# Hiromasa Takemura

Professor

Division of Sensory and Cognitive Brain Mapping

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## Education

- 2012 Ph.D. Department of Life Sciences, The University of Tokyo (Advisor: Ikuya Murakami)  
2009 M.A. Multidisciplinary Sciences, The University of Tokyo  
2007 B.A. Liberal Arts, The University of Tokyo

## Professional Experience

- Sep 2021 – present: Professor, National Institute for Physiological Sciences  
Apr 2022 – present: Professor, International Research Collaboration Center, National Institutes of Natural Sciences  
Sep 2021 – present: Professor, The Graduate University for Advances Studies (SOKENDAI)  
Apr 2021 – present: Senior Researcher, Center for Information and Neural Networks (CiNet), Advanced ICT Research Institute, National Institute of Information and Communications Technology (NICT)  
Apr 2018 – Mar 2021: Researcher (Tenure-Track), CiNet, NICT  
Apr 2015 – Mar 2018: Senior Visiting Researcher, CiNet, NICT  
Apr 2012 – Mar 2015: Postdoctoral Fellow, Department of Psychology, Stanford University (Advisor: Brian Wandell)

## Teaching Experience

- 2018-2022 Guest Associate Professor**, Graduate School of Frontier Biosciences, Osaka University  
**2017 Lecturer**, “Special Lectures II”, Graduate School of Frontier Biosciences, Osaka University (graduate)  
**2017 Lecturer**, “Special Lecture on Biophysical Engineering B”, School of Engineering Science, Osaka University (undergraduate, co-instructor with Ichiro Fujita)  
**2016 Guest Lecturer**, “Advanced Brain Informatics A, B, C”, Graduate School of Brain Sciences, Tamagawa University

**2015 Guest Lecturer**, “Neural plasticity”, Graduate School of Science and Engineering, Sophia University (undergraduate and graduate, Instructor: Shinichi Furuya)

**2015 Guest Lecturer**, “K310: Statistics Methods”, Department of Psychological and Brain Sciences, Indiana University (undergraduate, Instructor: Franco Pestilli)

**2014 Course Instructor**, “PSYCH287-01 Connectomics” (graduate, co-instructor with Brian Wandell and Stephen Smith). Department of Psychology, Stanford University

**2013 Guest Lecturer**, “Advanced Brain Informatics A, B, C”, Graduate School of Brain Sciences, Tamagawa University

**2010 Tutor**, Autumn School for Computational Neuroscience, Japanese Neural Network Society

**2009 Tutor**, Autumn School for Computational Neuroscience, Japanese Neural Network Society

**2011 – 2012 Teaching Assistant**, “Cognitive and Behavioral Science Experiment”, The University of Tokyo

**2007 – 2009 Teaching Assistant**, “Information processing”, The University of Tokyo

## **Honors and Fellowships**

**2015 – 2018** JSPS Superlative Postdoctoral (SPD) Fellow

**2013 – 2015** JSPS Postdoctoral Fellow for Research Abroad

**2009 – 2013** Research Fellow, Japan Society for the Promotion of Science

**2022** Early Career Investigator Award, The Organization for Human Brain Mapping (OHBM)

**2018** Outstanding Abstract Award, ISMRM Japanese Chapter

**2017** Magna Cum Laude Merit Award, International Society for Magnetic Resonance in Medicine (ISMRM)

**2011** Young Investigator Award, Japan Young Physiologist Association

**2011** Dean Prize, The Graduate School of Arts & Sciences, The University of Tokyo

**2011** JSPS Ikushi Prize from the Japan Society for the Promotion of Science

**2010** Best Presentation Award from the Japanese Psychonomic Society

**2010** Best Student Poster Award from Asia-Pacific Conference on Vision

**2009** Prize for encouragement, Department of Life Sciences, The University of Tokyo

**2009** Best Presentation Award from Vision Society of Japan

**2008** Best Presentation Award from the Japanese Psychonomic Society

## **Research Grants**

**2022 – 2024** Grant-in-Aid for Scientific Research (C), Japan Society for the Promotion of Science (role: Co-investigator, PI: Yoichiro Masuda)

**2021 – 2024** Collaborative Research in Computational Neuroscience (CRCNS): Innovative Approaches to Science and Engineering Research on Brain Function, National Eye Institute (US)/National Institute of Information and Communications Technology (NICT) (role: Co-PI with Jonathan Winawer and Noah Benson)

- 2021 – 2024** Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science (role: PI, ¥13,300,000 for three years)
- 2019 – 2022** Grant-in-Aid for Scientific Research (C), Japan Society for the Promotion of Science (role: Co-investigator, PI: Yoichiro Masuda)
- 2017 – 2021** Grant-in-Aid for Young Scientists (A), Japan Society for the Promotion of Science (role: PI, ¥19,600,000 for four years)
- 2015 – 2018** Grant-in-Aid for JSPS Fellows, Japan Society for the Promotion of Science (¥9,000,000 for three years)
- 2012 – 2013** JSPS Institutional Program for Young Researcher Overseas Visits
- 2011 – 2013** Grant-in-Aid for JSPS Fellows, Japan Society for the Promotion of Science (¥1,400,000 for two years)
- 2009 – 2011** Grant-in-Aid for JSPS Fellows, Japan Society for the Promotion of Science (¥2,000,000 for two years)

## Publications

*P: Primary Research Articles, R: Review, commentary, or editorial, \*: equal contribution*

- P Miyata, T., Benson, N.C., Winawer, J. & **Takemura, H.** (in press) Structural covariance and heritability of the optic tract and primary visual cortex in living human brains. *The Journal of Neuroscience*, in press.
- R **Takemura, H.** & Rosa, M.P.G. (2022) Understanding structure–function relationships in the mammalian visual system: part one. *Brain Structure and Function*, **227**, 1167–1170.
- P Morita, T., Hirose, S., Kimura, N., **Takemura, H.**, Asada, M. & Naito, E. (2022) Hyperadaptation in the human brain: functional and structural changes in the foot section of the primary motor cortex in a top wheelchair racing Paralympian. *Frontiers in Systems Neuroscience*, **16**, 780652.
- P Ogawa, S.\*, **Takemura, H.\***, Horiguchi, H., Miyazaki, A., Matsumoto, K., Masuda, Y., Yoshikawa, K. & Nakano, T. (2022) Multi-contrast magnetic resonance imaging of visual white matter pathways in patients with glaucoma. *Investigative Ophthalmology & Visual Science*, **63**, 29.
- R **Takemura, H.** & Rosa, M.P.G. (2021) Understanding structure–function relationships in the mammalian visual system: part one. *Brain Structure and Function*, **226**, 2741–2744.
- P Amemiya, K., Naito, E. & **Takemura, H.** (2021) Age dependency and lateralization in the three branches of the human superior longitudinal fasciculus. *Cortex*, **139**, 116–133.
- P Masuda, Y., **Takemura, H.**, Terao, M., Miyazaki, A., Ogawa, S., Horiguchi, H., Nakadomari, S., Matsumoto, K., Nakano, T., Wandell, B.A. & Amano, K. (2021) V1 projection zone signals in human macular degeneration depend on task despite absence of visual stimulus. *Current Biology*, **31**(2), 406–412.
- P **Takemura, H.\***, Palomero-Gallagher, N.\*, Axer, M., Gräbel, D., Jorgensen, M.J., Woods, R. & Zilles, K.\* (2020) Anatomy of nerve fiber bundles at micrometer-resolution in the vervet monkey visual system. *eLife*, **9**, e55444.
- R **Takemura, H.** & Thiebaut de Schotten, M. (2020) Perspectives given by structural connectivity bridge the gap between structure and function. *Brain Structure and Function*, **225**(4), 1189–1192.

- P **Takemura, H.**, Yuasa, K. & Amano, K. (2020) Predicting neural response latency of the human early visual cortex from MRI-based tissue measurements of the optic radiation. *eNeuro*, **7**(4), ENEURO.0545-19.2020. 1–18.
- P Kaneko, T.\*, **Takemura, H.\***, Pestilli, F., Silva, A.C., Ye, F.Q. & Leopold, D.A. (2020) Spatial organization of occipital white matter tracts in the common marmoset. *Brain Structure and Function*, **225**(4), 1313–1326.
- P Minami, S., Oishi, H., **Takemura, H.** & Amano, K. (2020) Inter-individual differences in occipital alpha oscillations correlate with white matter tissue properties of the optic radiation. *eNeuro*, **7**(2), ENEURO.0224-19.2020 1–11.
- P Bullock, D., **Takemura, H.**, Caiafa, C.F., Kitchell, L., McPherson, B., Caron, B. & Pestilli, F. (2019) Associative white matter connecting the dorsal and ventral posterior human cortex. *Brain Structure and Function*, **224**(8), 2631–2660.
- P **Takemura, H.\***, Ogawa, S.\*, Mezer, A.A., Horiguchi, H., Miyazaki, A., Matsumoto, K., Shikishima, K., Nakano, T. & Masuda, Y. (2019) Diffusivity and quantitative T1 profile of human visual white matter tracts after retinal ganglion cell damage. *NeuroImage: Clinical*, **23**, 101826.
- R **Takemura, H.**, Pestilli, F. & Weiner, K.S. (2019) Comparative neuroanatomy: integrating classic and modern methods to understand association fibers connecting dorsal and ventral visual cortex. *Neuroscience Research*, **146**, 1–12.
- P Oishi, H.\*, **Takemura, H.\***, Aoki, S.C., Fujita, I. & Amano, K. (2018) Microstructural properties of the vertical occipital fasciculus explain the variability in human stereoacuity. *Proceedings of the National Academy of Sciences of the United States of America*, **115**(48), 12289–12294.
- P Uesaki, M., **Takemura, H.** & Ashida, H. (2018) Computational neuroanatomy of human stratum proprium of interparietal sulcus. *Brain Structure and Function*, **223**(1), 489–507.
- P **Takemura, H.**, Pestilli, F., Weiner, K.S., Keliris, G.A., Landi, S., Sliwa, J., Ye, F.Q., Barnett, M., Leopold, D.A., Freiwald, W.A., Logothetis, N.K. & Wandell, B.A. (2017) Occipital white matter tracts in human and macaque. *Cerebral Cortex*, **27**(6), 3346–3359.
- R Rokem, A., **Takemura, H.**, Bock, A., Scherf, K. S., Behrmann, M., Wandell, B., Fine, I., Bridge, H. & Pestilli, F. (2017) The visual white matter: The application of diffusion MRI and fiber tractography to vision science. *Journal of Vision*, **17**(2):4, 1–30.
- P **Takemura, H.**, Caiafa, C.F., Wandell, B.A. & Pestilli, F. (2016) Ensemble Tractography. *PLoS Computational Biology*, **12**(2), e1004692.
- P **Takemura, H.**, Rokem, A., Winawer, J., Yeatman, J. D., Wandell, B. A. & Pestilli, F. (2016) A major human white-matter pathway between dorsal and ventral visual cortex. *Cerebral Cortex*, **26**(5), 2205–2214.
- P Ogawa, S., **Takemura, H.**, Horiguchi, H., Terao, M., Haji, T., Pestilli, F., Yeatman, J.D., Tsuneoka, H., Wandell, B.A. & Masuda, Y. (2014) White matter consequences of retinal receptor and ganglion cell damage. *Investigative Ophthalmology & Visual Science*, **55**(10), 6976–6986.
- P **Takemura, H.**, Ashida, H., Amano, K., Kitaoka, A. & Murakami, I. (2012) Neural correlates of induced motion perception in the human brain. *The Journal of Neuroscience*, **32**(41), 14344–14354.
- P **Takemura, H.**, Tajima, S. & Murakami, I. (2011) Whether dots moving in two directions appear coherent or transparent depends on directional biases induced by surrounding motion. *Journal of Vision*, **11**(14):17, 1–17.

- P **Takemura, H.**, Samejima, K., Vogels, R., Sakagami, M. & Okuda, J. (2011) Stimulus-dependent adjustment of reward prediction error in the midbrain. *PLoS ONE*, **6**(12), e28337.
- P **Takemura, H.** & Murakami, I. (2010) Visual motion detection sensitivity is enhanced by an orthogonal motion aftereffect. *Journal of Vision*, **10**(11):7, 1–12.
- P Tajima, S., **Takemura, H.**, Murakami, I. & Okada, M. (2010) Neuronal population decoding explains the change in signal detection sensitivity caused by task-irrelevant perceptual bias. *Neural Computation*, **22**(10), 2586–2614.
- P **Takemura, H.** & Murakami, I. (2010) Visual motion detection sensitivity is enhanced by orthogonal induced motion. *Journal of Vision*, **10**(2):9, 1–13.

## Papers in progress

- P Oishi, H., **Takemura, H.** & Amano, K. (2020) Macromolecular tissue volume mapping of lateral geniculate nucleus subdivisions in living human brains. *bioRxiv*, 2020.12.26.424373.

## Sessions organized at conferences

Palomero-Gallagher, N. & **Takemura, H.** (2022, Jun) Neuroanatomy and its impact on structural and functional imaging (in honor of Karl Zilles). Educational Course on the 2022 Organization for Human Brain Mapping, Glasgow, Scotland.

Weiner, K.S., **Takemura, H.** & Palomero-Gallagher, N. (2021, Jun) Neuroanatomy and its impact on structural and functional imaging (in honor of Karl Zilles). Educational Course on the 2021 Organization for Human Brain Mapping, Virtual meeting.

**Takemura, H.** & Takahata, T. (2019, Jul) Multi-dimensional approach to understand anatomical basis of visual functions. Member-initiated symposium on the 2019 Asia-Pacific Conference on Vision, Osaka, Japan.

**Takemura, H.** & Wagstyl, K. (2019, Jun) Multi-modal imaging approach for human neuroanatomy: integration across scales. Member-initiated symposium on the 2019 Organization for Human Brain Mapping Annual Meeting, Rome, Italy.

**Takemura, H.** & Takiyama, K. (2018, Jul) Cutting edge approach for understanding brain dynamics. Member-initiated symposium on the 41st annual meeting of Japan Neuroscience Society, Kobe, Japan.

**Takemura, H.** & Pestilli, F. (2016, Jul) Advances in computational human neuroanatomy. Member-initiated symposium on the 39th annual meeting of Japan Neuroscience Society, Yokohama, Japan.

Amano, K. & **Takemura, H.** (2014, Jul) Multi-modal measurement of the visual cortex. Member-initiated symposium on Asia-Pacific Conference on Vision, Takamatsu, Japan.

## Conference abstracts (International): Talks

**Takemura.** Why do we need anatomical knowledge for a correct and comprehensive interpretation of neuroimaging data? OHBM 2022 (Educational Course talk).

Benson, Chen, **Takemura** & Winawer. Accurate and automated delineation of V1-V3 boundaries by a CNN. VSS 2022.

**Takemura.** White matter tract analysis using neuroimaging and neuroanatomy datasets. OHBM 2021 (Educational Course talk).

**Takemura.** Understanding major white matter pathways in visual system: from neuroimaging to neuroanatomy. APCV 2019 (Symposium talk).

Uesaki, Furlan, Smith & **Takemura.** White matter connections of the human cingulate sulcus visual area (CSv). APCV 2019.

**Takemura.** Multi-modal imaging approach for visual white matter pathways. OHBM 2019 (Symposium talk).

**Takemura**, Ogawa, Mezer, Horiguchi, Miyazaki, Matsumoto, Shikishima, Nakano & Masuda. Disease in retinal ganglion cells affects diffusivity but not myelin volume along the optic radiation. APCV 2018.

**Takemura**, Pestilli, Weiner, Keliris, Landi, Sliwa, Ye, Barnett, Leopold, Freiwald, Logothetis & Wandell. Comparative neuroanatomy of occipital white matter tracts in human and macaque. VSS 2017.

Oishi, **Takemura**, Aoki, Fujita, & Amano. Human white matter structural properties correlate with individual difference in stereoacuity. VSS 2017.

**Takemura**, Pestilli, Weiner, Keliris, Landi, Sliwa, Ye, Barnett, Leopold, Freiwald, Logothetis & Wandell. Using diffusion MRI and tractography to identify macaque vertical occipital fasciculus. ISMRM 2017 (Magna Cum Laude Merit Award).

**Takemura**. Human visual white matter pathway studied by diffusion MRI. APCV 2014 (Symposium talk).

**Takemura** & Wandell. A major white-matter wiring between the ventral and dorsal stream. VSS 2014 (Symposium talk).

Pestilli, Yeatman, Rokem, Kay, **Takemura** & Wandell. LiFE: Linear Fascicle Evaluation- a new technology to study visual connectomes. VSS 2014.

**Takemura**, Rokem, Winawer, Yeatman, Wandell & Pestilli. Human white matter fascicles between ventral and dorsal visual field maps. SfN 2013.

**Takemura**, Tajima & Murakami. Motion integration and segregation modulated by surrounding motion. VSS 2011.

## Conference abstracts (International): Poster presentations

**Takemura**, Kaneko, Sherwood, Johnson, Axer, Ye & Leopold. Comparative diffusion MRI study on the vertical occipital fasciculus across mammalian species. OHBM 2022.

Miyata, Benson, Winawer & **Takemura**. Correlation between microstructural properties of the optic tract and size of primary visual cortex. OHBM 2022.

Iida, Ogawa, **Takemura**, Horiguchi, Miyazaki, Osawa, Kinjo, Matsumoto, Nakadomari, Masuda, Yoshikawa & Nakano. The effect of binocular blindness in critical period on visual white matter pathways: a single case study. ARVO 2022.

**Takemura**, Kimura, Morita & Naito. Tissue properties along the corticospinal tract of the wheelchair racing athlete: a case study. OHBM 2021.

Miyata, Benson, Winawer & **Takemura**. Structural covariance and heritability of the optic tract and primary visual cortex in living human. OHBM 2021.

Oishi, **Takemura** & Amano. Quantitative structural mapping of the lateral geniculate nucleus subdivisions in living human brain. OHBM 2021.

Amemiya, Naito & **Takemura**. Heterogeneous age dependency in the human superior longitudinal fasciculus. OHBM 2021.

**Takemura**, Liu, Kuribayashi & Kida. Advantage of simultaneous multi-slice readout-segmented echo-planar imaging on diffusion MRI measurements of the human optic nerve. ISMRM 2021.

Miyata, Benson, Winawer & **Takemura**. Investigating structural covariance of the human optic tract and primary visual cortex in a neuroimaging dataset. SfN Global Connectome 2021.

**Takemura**, Liu, Kuribayashi & Kida. Advantage of readout-segmented EPI in simultaneous multi-slice diffusion MRI measurements for identifying uncinata fasciculus. ISMRM 2020.

**Takemura**, Liu, Kuribayashi & Kida. Advantage of diffusion MRI with simultaneous multi-slice readout-segmented EPI in tractography. OHBM 2020.

Ogawa, **Takemura**, Horiguchi, Miyazaki, Matsumoto, Masuda, Yoshikawa & Nakano. Tissue properties of visual white matter pathways in glaucoma. OHBM 2020.

Amemiya, Naito & **Takemura**. Structural properties of human superior longitudinal fasciculus lateralization along the lifespan. OHBM 2020.

**Takemura**, Axer, Palomero-Gallagher, Gräbel, Jorgensen, Woods & Zilles. Visualization and mapping of white matter tracts in non-human primate visual system using polarized light imaging. SfN 2019.

Oishi, **Takemura** & Amano. Using macromolecular tissue volume mapping to parcellate magno and parvo subdivisions in the human lateral geniculate nucleus. SfN 2019.

Oishi, **Takemura** & Amano. Using macromolecular tissue volume mapping to identify subdivisions in human lateral geniculate nucleus. APCV 2019.

**Takemura**, Axer, Palomero-Gallagher, Gräßel, Jorgensen, Woods & Zilles. Ultra high-resolution mapping of occipital white matter tracts disentangles current controversies. OHBM 2019.

**Takemura**, Ogawa, Mezer, Horiguchi, Miyazaki, Matsumoto, Shikishima, Nakano & Masuda. Microstructural properties of optic tract and optic radiation after retinal ganglion cell damage. OHBM 2019.

Amemiya, Naito & **Takemura**. Lifespan change in asymmetry of superior longitudinal fasciculus. OHBM 2019.

Uesaki, **Takemura**, Furlan & Smith. White matter tracts adjacent to the cingulate sulcus visual area (CSv) assessed with diffusion MRI. OHBM 2019.

**Takemura**, Kaneko, Pestilli, Silva, Ye & Leopold. Vertical occipital fiber tract in the common marmoset. SfN 2018.

Bullock, **Takemura**, Caiafa, Kitchell, McPherson, Caron & Pestilli. Clarifying the anatomical organization and cortical projections of multiple major white matter tracts associating the human temporal and parietal lobes. SfN 2018.

Yuasa, **Takemura**, Motoyoshi & Amano. Two streams of feedback signals from parietal cortex to visual areas subserve visual awareness. SfN 2018.

**Takemura**, Palomero-Gallagher, Gräßel, Axer, Jorgensen, Woods & Zilles. Ultra high-resolution mapping of vertical occipital fasciculus in the vervet monkey brain. OHBM 2018.

**Takemura**, Berman, Yuasa, Mezer, & Amano. Predicting response latency of human V1 from microstructural properties along the optic radiation. OHBM 2018.

Yuasa, **Takemura**, Motoyoshi & Amano. Transient oscillatory feedback from ipsilateral IPS in response to a visual target. SfN 2017.

Minami, Oishi, **Takemura** & Amano. Functional roles of alpha oscillations underlying the communication between dorsal and ventral visual areas. VSS 2017.

Cousineau, Descoteaux & **Takemura**. Effect of Different Seeding Strategies on Tractometry Reproducibility. ISMRM 2017.

**Takemura**, Uesaki & Ashida. Human white-matter pathway communicating parietal and posterior-insular cortex. SfN 2016.

Oishi, **Takemura**, Aoki, Fujita & Amano. Diffusion properties of human visual white matter correlate with stereoacuity. SfN 2016.

Bullock, **Takemura**, Caiafa & Pestilli. The posterior associative white matter network between the human temporal and parietal brain lobes. SfN 2016.

Bullock, Moehlen, McPherson, Caiafa, **Takemura** & Pestilli. Evidence for a direct white matter tract between human parietal and inferotemporal cortex. APS 2016.

**Takemura**, Pestilli, Weiner, Keliris, Landi, Sliwa, Ye, Barnett, Leopold, Freiwald, Logothetis & Wandell. Occipital vertical fiber system in human and macaque. SfN 2015.

Uesaki, **Takemura** & Ashida. White-matter pathway connecting sensory cortical regions involved in optic-flow processing. ECVF 2015.

**Takemura**, Wandell & Pestilli. (2015, Jun) Ensemble tractography: reducing the parameter dependency of tracking algorithms. OHBM 2015.

Ogawa, Wandell, **Takemura**, Pestilli, Yeatman, Rokem, Horiguchi, Terao, Haji & Masuda. Trans-synaptic changes in central white matter pathways in retinitis pigmentosa. SfN 2014.

Ogawa, **Takemura**, Horiguchi, Terao, Haji, Pestilli, Yeatman, Shikishima, Tsuneoka, Wandell & Masuda. Disease in the photoreceptors (JMD) or retinal ganglion cells (LHON) affects optic tract and radiation tissue properties. ARVO 2014.

Ogawa, Masuda, Horiguchi, **Takemura**, Terao, Haji, Shikishima, Tsuneoka & Wandell. Loss of retinal ganglion cells, but not photoreceptors, transforms tissue properties of long-range occipital-callosal fibers. SfN 2013.

**Takemura**, Pestilli, Rokem, Winawer, Yeatman & Wandell. The visual dorsal and ventral streams communicate through the vertical occipital fasciculus. OHBM 2013.

**Takemura**, Ashida, Amano, Kitaoka & Murakami. Neural correlates of induced motion revealed by fMRI. VSS 2012.

**Takemura**, Ashida, Amano, Kitaoka & Murakami. Neural correlates of induced motion perception in the human visual cortex. SfN 2011.

Sugiura, **Takemura**, Yamamoto & Tsuchiya. A direct interview with a patient who recovered from the persistent vegetative state. ASSC 2011.

**Takemura**, Tajima & Murakami. Modulation of motion integration and segregation by surrounding motion: psychophysics and model. CoSyNe 2011.

**Takemura** & Murakami. Effects of surrounding motion on motion segregation. APCV 2010 (Best Student Poster Award).

**Takemura** & Murakami. Directional judgment between leftward and rightward motions modulated by angular deviation from the horizontal axis. VSS 2010.

**Takemura** & Murakami. Enhancement of motion detection sensitivity by orthogonal illusory motion. SfN 2009.

Tajima, **Takemura**, Murakami & Okada. Motion detection sensitivity modulated by a task-irrelevant illusory motion in an orthogonal direction: a population decoding model. SfN 2009.

**Takemura** & Murakami. Induced motion influences the detection of motion with aperture problem. SfN 2008.

**Takemura** & Murakami. Motion detection sensitivity enhanced by induced motion. VSS 2008.

## Professional Associations

*Vision Sciences Society (VSS), Society for Neuroscience (SfN), Organization for Human Brain Mapping (OHBM), International Society for Magnetic Resonance in Medicine (ISMRM), Vision Society of Japan (VSJ), Japan Neuroscience Society (JNSS), ISMRM Japanese Chapter, Japan Human Brain Mapping Society (JHBM)*

## Invited talks

**2022** Tamagawa University, Japan

**2022** Nagoya University, Japan

**2021** The Japanese Neuro-Ophthalmology Society, Tokyo (hybrid meeting), Japan

**2020** Tokyo Clinical Brain Imaging Analysis Research Meeting (virtual meeting), Japan

**2020** Japanese Human Brain Imaging meeting (virtual meeting), Japan

**2020** National Institute for Physiological Sciences, Japan

**2020** Tamagawa University, Japan

**2019** ISMRM JPC, QST, Chiba, Japan

**2019** Hebrew University of Jerusalem, Israel

**2019** STYP meeting, Waseda University, Japan

**2019** Nanyang Technological University, Singapore

**2019** The Jikei University School of Medicine, Japan

**2018** Omron Keihanna Technology Innovation Center, Japan

**2018** 4th CiNet Conference, CiNet, Japan

**2017** International Symposium on Nanomedicine, Tohoku University, Japan

**2017** International workshop on Vision, Action and Brain, Kyoto University, Japan

**2017** Human Brain Imaging meeting, Tamagawa University, Japan

**2017** Forschungszentrum Jülich, Germany

**2017** ATR, Japan



**2016** National Institute for Physiological Sciences, Japan  
**2016** Duke-NUS Medical School, Singapore  
**2016** Nanyang Technological University, Singapore  
**2016** Kochi University of Technology, Japan  
**2015** NAIST, Japan  
**2015** RIKEN CLST, Japan  
**2015** NIPS symposium, Japan  
**2015** Indiana University Bloomington, USA  
**2015** Vision Society of Japan/Tutorial Talk on diffusion MRI  
**2014** Kyoto University, Japan  
**2014** UCSF, USA  
**2014** UC Berkeley, USA  
**2014** ATR, Japan  
**2014** RIKEN BSI, Japan  
**2014** CiNet, Japan  
**2013** NIH, USA  
**2013** Univ. Pennsylvania, USA  
**2013** New York University, USA  
**2013** Caltech, USA  
**2013** RIKEN BSI, Japan  
**2013** Tamagawa University, Japan  
**2013** CiNet, Japan  
**2013** NIPS, Japan  
**2012** Kyoto University, Japan  
**2012** University of Nevada, Reno, USA  
**2012** Kyushu University, Japan  
**2012** ATR, Japan  
**2011** Chiba University, Japan  
**2010** UTCP, Japan

### **Ad hoc Reviewer (journal)**

*Aperture Neuro*

*Attention, Perception & Psychophysics*

*Brain Structure and Function*

*Cerebral Cortex*

*Cognitive Processing*

*Communications Biology*

*Cortex*

*eNeuro*

*Frontiers in Neuroscience*

*Frontiers in Neuroanatomy*

*Human Brain Mapping*

*IEICE Transactions on*

*Information and Systems*

*Journal of Neurophysiology*

*Journal of Vision*

*Journal of Visualized Experiments*

*Nature Communications*

*NeuroImage*  
*Neurobiology of Language*  
*PLoS Biology*  
*PLoS ONE*

*PNAS*  
*Science*  
*Scientific Reports*  
*Vision Research*

### **Ad hoc Reviewer (grant)**

*Netherlands Organization for Scientific Research*

### **Ad hoc Reviewer (Ph.D. dissertation)**

*Hebrew University of Jerusalem*

### **Outreach**

**2017** Public lecture at Yamaguchi Gakugei University (organized by Research Institute for Time Studies, Yamaguchi University, Japan)

**2010** Invited talk at science café, organized by The University of Tokyo Center for Philosophy (UTCP), Tokyo, Japan

### **Other professional activities**

<b>2020-present</b>	Handling Editor, <i>Aperture Neuro</i>
<b>2018-present</b>	Section Editor, <i>Brain Structure and Function</i>
<b>2022</b>	Meeting Chair, The 7th CiNet Conference
<b>2021-2022</b>	Editor of <i>Brain Structure and Function</i> Special issue “Structure and Function of the Visual system” (co-edited with Marcello Rosa)
<b>2020</b>	Editor of <i>Brain Structure and Function</i> Special issue “Structural connectivity of the cerebral cortex” (co-edited with Michel Thiebaut de Schotten)
<b>2020-present</b>	Program Committee, Organization for Human Brain Mapping
<b>2020</b>	Executive committee of ISMRM Japanese Chapter Annual Meeting
<b>2017-present</b>	Organizing committee of Human Brain Imaging meeting, Japan
<b>2019-</b>	Organizer of CiNet MRI Study Group
<b>2016-2019</b>	Organizer of CiNet Diffusion Reading Club
<b>2015-2016</b>	Organizer of CiNet Vision Seminar Series, CiNet
<b>2014-2015</b>	Organizer of Vision Lunch Seminar Series, Stanford University
<b>2019</b>	Abstract Review Committee, Asia-Pacific Conference on Vision
<b>2016-present</b>	Abstract Review Committee, International Society for Magnetic Resonance in Medicine
<b>2013-present</b>	Abstract Review Committee, Organization for Human Brain Mapping
<b>2008-2011</b>	Vice President, Society for Young Researchers on Neuroscience, Japan.

## **References for Hiromasa Takemura**

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