Hiromasa Takemura

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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

Oct 2024 – present: Professor, Core for Spin Life Sciences, Okazaki Collaborative Platform, National Institutes of Natural Sciences

Apr 2024 – present: Professor, Department of Quantitative and Imaging Biology, Headquarter for Co-Creation Strategy, National Institutes of Natural Sciences

Apr 2022 – Mar 2023: Professor, International Research Collaboration Center, National Institutes of Natural Sciences

Sep 2021 – present: Professor, The Graduate University for Advanced 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
2023-present Lecturer, "Special Lectures in Physiological Sciences", SOKENDAI

2023-present Lecturer, "Clinical pathophysiology 2", SOKENDAI

2023-present Lecturer, "Mechanisms of Perception and Learning B", Nagoya University

2022-present Lecturer, "Basic Physiological and Anatomical Brain Science", SOKENDAI

2022-present Lecturer, "Systems Neuroscience II", SOKENDAI

2022-present Guest Professor, Graduate School of Frontier Biosciences, Osaka University

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

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
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

Research Grants

2024 – 2027   Grant-in-Aid for Scientific Research (B), Japan Society for the Promotion of Science (role: PI, ¥14,300,000 for three years)

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

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   Nakayama, R., Uetsuki, M., Maruya, K. & **Takemura, H.** (2024) Evaluating correlations between reading ability and psychophysical measurements of dynamic visual information processing in Japanese adults. *Scientific Reports*, **14**, 29546.

P   Luo, J., Yokoi, I., Dumoulin, S.O. & **Takemura, H.** (2024) Bistable perception of symbolic numbers. *Journal of Vision*, **24**, 12.

P   **Takemura, H.,** Kaneko, T., Sherwood, C.C., Johnson, G.A., Axer, M., Hecht, E.E., Ye, F.Q. & Leopold, D.A. (2024) A prominent vertical occipital white matter fasciculus unique to primate brains. *Current Biology*, **16**, 3632-3643.

R   **Takemura, H.,** Kruper, J.A., Miyata, T. & Rokem, A. (2024) Tractometry of the human visual white matter pathways in health and disease. *Magnetic Resonance in Medical Sciences*, **23**, 316-340.

P   Uesaki, M., Furlan, M., Smith, A.T. & **Takemura, H.** (2024) White matter tracts adjacent to the human cingulate sulcus visual area (CSv). *PLoS ONE*, **19**, e0300575.

P   **Takemura, H.,** Liu, W., Kuribayashi, H., Miyata, T. & Kida, I. (2023) Evaluation of simultaneous multi-slice readout-segmented diffusion-weighted MRI acquisition in human optic nerve measurements. *Magnetic Resonance Imaging*, **102**, 103-114.

P   Morita, T., **Takemura, H.** & Naito, E. (2023) Functional and structural properties of interhemispheric interaction between bilateral precentral hand motor regions in a top wheelchair racing Paralympian. *Brain Sciences*, **13**, 715.

R   **Takemura, H.** (2023) Investigating human visual cortex variability. *Nature Reviews Neuroscience*, **24,** 270.

P   Oishi, H., **Takemura, H.** & Amano, K. (2023) Macromolecular tissue volume mapping of lateral geniculate nucleus subdivisions in living human brains. *NeuroImage*, **265**, 119777.

P   Miyata, T., Benson, N.C., Winawer, J. & **Takemura, H.** (2022) Structural covariance and heritability of the optic tract and primary visual cortex in living human brains. *The Journal of Neuroscience*, **42,** 6761–6769.

R   **Takemura, H.** & Rosa, M.P.G. (2022) Understanding structure–function relationships in the mammalian visual system: part two. *Brain Structure and Function*, **227,** 1167–1170.

P   Morita, T., Hirose, S., Kimura, N., **Takemura, H.**, Asada, M. & Naito, E. (2022) Hyper-adaptation 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., Gräßel, 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 (preprints)

P   Benson, N.C., Song, S., Chen, S., Miyata, T., **Takemura, H.** & Winawer, J. (2025) Machine learning matches human performance at segmenting the human visual cortex. *bioRxiv*, 2025.05.16.654503.

Sessions organized at conferences

Gellersen, H., Dalton, M., Olsen, R. & **Takemura, H.** (2025, Jun) High-resolution structural and functional imaging of visual and memory systems. Symposium on the 2025 Organization for Human Brain Mapping, Brisbane, Australia (accepted).

Takemura, H. & Palomero-Gallagher, N. (2025, Jun) Neuroanatomy and its impact on structural and functional imaging (in honor of Karl Zilles). Educational Course on the 2025 Organization for Human Brain Mapping, Brisbane, Australia (accepted).

Takemura, H. & Palomero-Gallagher, N. (2024, Jun) Neuroanatomy and its impact on structural and functional imaging (in honor of Karl Zilles). Educational Course on the 2024 Organization for Human Brain Mapping, Seoul, Korea.

Takemura, H. & Palomero-Gallagher, N. (2023, Jul) Neuroanatomy and its impact on structural and functional imaging (in honor of Karl Zilles). Educational Course on the 2023 Organization for Human Brain Mapping, Montreal, Canada.

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. Comparative analysis of visual pathways using neuroimaging and high-resolution neuroanatomy datasets across species. OHBM 2025 (Symposium talk, accepted).

Uesaki, Miyata, Benson, Winawer & **Takemura**. Correlations between inter-subject variability in tissue properties of human V1, V2, and V3. OHBM 2024.

Takemura. How anatomy will help us to build models of information processing in the brain. OHBM 2024 (Educational Course talk).

Takemura, Benson, Winawer & Miyata. (2023) Structural properties of the optic tract correlate with the size of V1 in the Human Connectome Project 7T Retinotopy Dataset. CRCNS 2023.

Benson, Song, Miyata, **Takemura**, & Winawer. (2023) Automated delineation of visual area boundaries and eccentricities by a CNN. CRCNS 2023.

Benson, Song, Miyata, **Takemura**, & Winawer. (2023) Automated Delineaon of Visual Area Boundaries and Eccentricies by a CNN Using Funconal, Anatomical, and Diffusion-Weighted MRI Data. MODVIS 2023.

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

Hermes, Yanez-Ramos, Gregg, Worrell, McIntyre, **Takemura** & Miller. Anatomy-based estimates indicate that cortical stimulation can only sparsely affect long-range connections. CCNeuro 2025 (accepted).

Nakamura, Luo, Yokoi & **Takemura**. Assessing the inter-hemispheric transfer of symbolic numeral adaptation effect. OHBM 2025 (accepted).

Taguma, Yokoi, Kinjo, Tsuchida, Miyata, Lerma-Usabiaga & **Takemura**. Assessing intra-, inter-scanner, and inter-site reproducibility of diffusion MRI-based tractometry. OHBM 2025 (accepted).

Miyata, Fukunaga, Luo, Yokoi, Yamamoto, Yoshioka, Yang, Morita & **Takemura**. Evaluating the spatial distribution of negative BOLD induced by an auditory task in the human visual cortex. SfN 2024.

Iida, Masuda, Ogawa, Terao, Amano, **Takemura**, Horiguchi, Ogawa, Matsumoto, Nakadomari & Nakano. Sensory modality-independent and task-dependent response in the primary visual cortex (V1) in patients with retinal dystrophy. International Visual Field and Imaging Symposium 2024.

Taguma, Ogawa & **Takemura**. Evaluating the impact of denoising on diffusion MRI-based tractometry on glaucoma patients. OHBM 2024.

Luo, Yokoi & **Takemura**. Perceptual bistability in occluded digital numbers: a behavioral study. OHBM 2024.

Saito, Rapan, Niu, Chao, Tsujimura, Palomero-Gallagher & **Takemura**. Multi-receptor analysis of the macaque lateral geniculate nucleus. OHBM 2024.

Takemura, Kaneko, Sherwood, Johnson, Axer, Hecht, Ye & Leopold. Inter-species comparison of the vertical occipital fasciculus across mammalian species: a diffusion MRI study. SfN 2023.

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 uncinate 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, Gräßel, 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. ECVP 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

Society for Neuroscience (SfN), Organization for Human Brain Mapping (OHBM), Vision Society of Japan (VSJ), Japan Neuroscience Society (JNSS), Japan Human Brain Mapping Society (JHBM)

Invited talks

2024 Japan Society for the Promotion of Science, Japan

2024 National Taiwan University, Taiwan

2024 Keio University, Japan

2024 Japanese Ophthalmological Society Annual Meeting, Japan

2024 RIKEN CBS, Japan

2023 CNIR IBS, Republic of Korea

2023 Chuo University, Japan

2023 Hebrew University of Jerusalem, Israel

2023 University of Bordeaux, France

2023 Basque Center on Cognition, Brain and Language, Basque Country, Basque Country, Spain

2022 Princeton University, USA

2022 Rutgers University, New Ark, USA

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 Nangyang 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

Current Biology

eNeuro

Frontiers in Neuroscience

Frontiers in Neuroanatomy

Human Brain Mapping

IEICE Transactions on Information and Systems

Journal of Neurophysiology

Journal of Neuroscience

Journal of Vision

Journal of Visualized Experiments

Nature Communications

Nature Human Behaviour

Nature Methods	*PNAS*
Neurobiology of Language	*Science*
NeuroImage	*Scientific Reports*
PLoS Biology	*Vision Research*
PLoS ONE	

Ad hoc Academic Editor
PLoS Biology

Ad hoc Reviewer (grant)
Netherland Organization for Scientific Research, Israel Science Foundation

Ad hoc Reviewer (Ph.D. dissertation)
Hebrew University of Jerusalem, The University of Queensland, SOKENDAI

Outreach
2022-2024 The organizer of the OHBM Multilingual Live Kids Reviews, Japanese event

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

2024-present	Council member, Japan Human Brain Mapping Society
2023-present	Council member (Secretary), Organization for Human Brain Mapping
2020-present	Handling Editor, *Aperture Neuro*
2018-present	Section Editor, *Brain Structure and Function*
2024	Organizer, International Symposium on Brain Structure and Function
2023	Meeting Chair, The 7th Japanese Meeting for Human Brain Imaging
2022	Meeting Chair, The 7th CiNet Conference
2021-2022	Editor of *Brain Structure and Function* Special issue "Structure and Function of the Visual system" (co-edited with Marcello Rosa)
2020	Editor of *Brain Structure and Function* Special issue "Structural connectivity of the cerebral cortex" (co-edited with Michel Thiebaut de Schotten)
2020-2023	Program Committee, Organization for Human Brain Mapping
2020	Executive committee of ISMRM Japanese Chapter Annual Meeting
2017-present	Organizing committee of Japanese Meeting for Human Brain Imaging
2019	Organizer of CiNet MRI Study Group
2019	Abstract Review Committee, Asia-Pacific Conference on Vision

2016-2019	Organizer of CiNet Diffusion Reading Club
2015-2016	Organizer of CiNet Vision Seminar Series, CiNet
2014-2015	Organizer of Vision Lunch Seminar Series, Stanford University
2008-2011	Vice President, Society for Young Researchers on Neuroscience, Japan.

References for Hiromasa Takemura

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Department of Psychology, The University of Tokyo ikuya [at]

<add l.u-tokyo.ac.jp following [at]>

Franco Pestilli, Ph.D. Associate Professor, The University of Texas, Austin

Department of Psychology, The University of Texas, Austin pestilli [at]