




## Masataka Wada

Postdoctoral Scholar, Psychiatry

 Curriculum Vitae available Online

### Bio

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#### BIO

Dr. Masataka (he/him/his) is a postdoctoral scholar in the Department of Psychiatry & Behavioral Sciences at the Stanford University School of Medicine. He is a board-certified psychiatrist and holds a PhD in neuroscience.

His clinical and research interests center on psychiatric disorders in treatment-resistant conditions. To address these challenges, Dr. Masataka is engaged in exploring electrophysiological, neuroimaging, and neuromodulation techniques, including repetitive Transcranial Magnetic Stimulation (rTMS) and Deep Brain Stimulation (DBS). He spearheaded a significant Randomized Controlled Trial (RCT) that involved 180 patients with treatment-resistant depression, aiming to develop an innovative rTMS-based treatment. His efforts have led to him receiving awards at international conferences on three occasions for his significant contributions.

Dr. Masataka's scholarly work includes publications on the electrophysiological characteristics of psychiatric disorders and the effects of neuromodulation on clinical symptoms and neuroimaging features. Additionally, he has been the recipient of two scholarships and three grants, further highlighting his contributions to the field.

#### HONORS AND AWARDS

- Travel Award, SOBP (Society of Biological Psychiatry) (2019)
- Junior Investigators, Fellowship Award, APA (American Psychiatric Association) (2020)
- Best Poster Award, CINP (International College of Neuropsychopharmacology) (2018)
- Young Investigators Award, JSBP (Japanese Society of Biological Psychiatry) (2023)
- Young Investigators Award, JSBP (Japanese Society of Biological Psychiatry) (2022)
- Excellent Presentation Award, Keio University School of Medicine (2022)
- Encouragement Award, JSMD (Japanese Society of Mood Disorders) (2021)
- Excellent Presentation Award, JSBP (Japanese Society of Biological Psychiatry) (2018)

#### PROFESSIONAL EDUCATION

- Doctor of Philosophy, Keio University (2023)
- Doctor of Medicine, Keio University (2015)
- Ph.D., Keio University, School of Medicine, Medicine (2023)
- M.D., Keio University, School of Medicine, Medicine (2015)

#### STANFORD ADVISORS

- Cammie Rolle, Postdoctoral Research Mentor

- Nolan Williams, Postdoctoral Faculty Sponsor

## LINKS

- Google scholar: <https://scholar.google.com/citations?hl=en&user=1OkA9tMAAAAJ>

## Publications

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### PUBLICATIONS

- **Alterations in subcortical magnetic susceptibility and disease-specific relationship with brain volume in major depressive disorder and schizophrenia.** *Translational psychiatry*  
Shibukawa, S., Kan, H., Honda, S., Wada, M., Tarumi, R., Tsugawa, S., Tobar, Y., Maikusa, N., Mimura, M., Uchida, H., Nakamura, Y., Nakajima, S., Noda, et al  
2024; 14 (1): 164
- **Decreased short-latency afferent inhibition in individuals with mild cognitive impairment: A TMS-EEG study.** *Progress in neuro-psychopharmacology & biological psychiatry*  
Mimura, Y., Tobar, Y., Nakajima, S., Takano, M., Wada, M., Honda, S., Bun, S., Tabuchi, H., Ito, D., Matsui, M., Uchida, H., Mimura, M., Noda, et al  
2024; 132: 110967
- **Neuroplasticity of the left dorsolateral prefrontal cortex in patients with treatment-resistant depression as indexed with paired associative stimulation: a TMS-EEG study.** *Cerebral cortex (New York, N.Y. : 1991)*  
Kaneko, N., Wada, M., Nakajima, S., Takano, M., Taniguchi, K., Honda, S., Mimura, M., Noda, Y.  
2024; 34 (2)
- **Development of Artificial Intelligence for Determining Major Depressive Disorder Based on Resting-State EEG and Single-Pulse Transcranial Magnetic Stimulation-Evoked EEG Indices.** *Journal of personalized medicine*  
Noda, Y., Sakaue, K., Wada, M., Takano, M., Nakajima, S.  
2024; 14 (1)
- **Efficacy and moderators of prevention and treatment of delirium with melatonin receptor agonists: A systematic review and meta-analysis of randomized controlled trials.** *General hospital psychiatry*  
Wada, M., Yasuda, H., Nakajima, S., Etani, T., Miura, A., Asada, S., Yoshida, K., Noda, Y., Takeuchi, H.  
2023; 85: 71-79
- **Decrease in gamma-band auditory steady-state response in patients with treatment-resistant schizophrenia.** *Schizophrenia research*  
Ogyu, K., Matsushita, K., Honda, S., Wada, M., Tamura, S., Takenouchi, K., Tobar, Y., Kusudo, K., Kato, H., Koizumi, T., Arai, N., Koreki, A., Matsui, et al  
2023; 252: 129-137
- **Investigation of Spatiotemporal Profiles of Single-Pulse TMS-Evoked Potentials with Active Stimulation Compared with a Novel Sham Condition.** *Biosensors*  
Takano, M., Wada, M., Zomorodi, R., Taniguchi, K., Li, X., Honda, S., Tobar, Y., Mimura, Y., Nakajima, S., Kitahata, R., Mimura, M., Daskalakis, Z. J., Blumberger, et al  
2022; 12 (10)
- **Reduced signal propagation elicited by frontal transcranial magnetic stimulation is associated with oligodendrocyte abnormalities in treatment-resistant depression.** *Journal of psychiatry & neuroscience : JPN*  
Wada, M., Nakajima, S., Honda, S., Takano, M., Taniguchi, K., Tsugawa, S., Mimura, Y., Hattori, N., Koike, S., Zomorodi, R., Blumberger, D. M., Daskalakis, Z. J., Mimura, et al  
2022; 47 (5): E325-E335
- **Impact of Sevoflurane and Thiopental Used Over the Course of Electroconvulsive Therapy: Propensity Score Matching Analysis.** *Frontiers in human neuroscience*  
Yatomi, T., Uchida, T., Takamiya, A., Wada, M., Kudo, S., Nakajima, K., Nishida, H., Yamagata, B., Mimura, M., Hirano, J.  
2022; 16: 933622
- **Dopaminergic dysfunction and excitatory/inhibitory imbalance in treatment-resistant schizophrenia and novel neuromodulatory treatment.** *Molecular psychiatry*  
Wada, M., Noda, Y., Iwata, Y., Tsugawa, S., Yoshida, K., Tani, H., Hirano, Y., Koike, S., Sasabayashi, D., Katayama, H., Plitman, E., Ohi, K., Ueno, et al  
2022; 27 (7): 2950-2967

- **Thalamic and striato-pallidal volumes in schizophrenia patients and individuals at risk for psychosis: A multi-atlas segmentation study.** *Schizophrenia research*  
Takahashi, T., Tsugawa, S., Nakajima, S., Plitman, E., Chakravarty, M. M., Masuda, F., Wada, M., Kurose, S., Ochi, R., Matsushita, K., Sasabayashi, D., Nakamura, M., Nishikawa, et al  
2022; 243: 268-275
- **Glutamatergic and GABAergic metabolite levels in schizophrenia-spectrum disorders: a meta-analysis of 1H-magnetic resonance spectroscopy studies.** *Molecular psychiatry*  
Nakahara, T., Tsugawa, S., Noda, Y., Ueno, F., Honda, S., Kinjo, M., Segawa, H., Hondo, N., Mori, Y., Watanabe, H., Nakahara, K., Yoshida, K., Wada, et al  
2022; 27 (1): 744-757
- **Absence of multiple sleep-onset rapid eye movement periods (SOREMPs) is not a specific feature of patients with pathological sleep prolongation.** *Sleep and biological rhythms*  
Honda, M., Kimura, S., Sasaki, K., Wada, M., Ito, W.  
2022; 20 (1): 107-114
- **Insights of neurophysiology on unconscious state using combined transcranial magnetic stimulation and electroencephalography: A systematic review.** *Neuroscience and biobehavioral reviews*  
Arai, N., Nakanishi, T., Nakajima, S., Li, X., Wada, M., Daskalakis, Z. J., Goodman, M. S., Blumberger, D. M., Mimura, M., Noda, Y.  
2021; 131: 293-312
- **A comparison of cost-effectiveness between offering antidepressant-CBT combinations first or second, for moderate to severe depression in Japan.** *Journal of affective disorders*  
Yamada, Y., Miyahara, R., Wada, M., Ninomiya, A., Kosugi, T., Mimura, M., Sado, M.  
2021; 292: 574-582
- **Photobiological Neuromodulation of Resting-State EEG and Steady-State Visual-Evoked Potentials by 40 Hz Violet Light Optical Stimulation in Healthy Individuals.** *Journal of personalized medicine*  
Noda, Y., Takano, M., Hayano, M., Li, X., Wada, M., Nakajima, S., Mimura, M., Kondo, S., Tsubota, K.  
2021; 11 (6)
- **TMS-EEG Research to Elucidate the Pathophysiological Neural Bases in Patients with Schizophrenia: A Systematic Review.** *Journal of personalized medicine*  
Li, X., Honda, S., Nakajima, S., Wada, M., Yoshida, K., Daskalakis, Z. J., Mimura, M., Noda, Y.  
2021; 11 (5)
- **Evaluation of pathological sleepiness by Multiple Sleep Latency Test and 24-hour polysomnography in patients suspected of idiopathic hypersomnia.** *Psychiatry and clinical neurosciences*  
Honda, M., Kimura, S., Sasaki, K., Wada, M., Ito, W.  
2021; 75 (4): 149-151
- **Polygenic risk scores for major psychiatric and neurodevelopmental disorders contribute to sleep disturbance in childhood: Adolescent Brain Cognitive Development (ABCD) Study.** *Translational psychiatry*  
Ohi, K., Ochi, R., Noda, Y., Wada, M., Sugiyama, S., Nishi, A., Shioiri, T., Mimura, M., Nakajima, S.  
2021; 11 (1): 187
- **Neurophysiological biomarkers using transcranial magnetic stimulation in Alzheimer's disease and mild cognitive impairment: A systematic review and meta-analysis.** *Neuroscience and biobehavioral reviews*  
Mimura, Y., Nishida, H., Nakajima, S., Tsugawa, S., Morita, S., Yoshida, K., Tarumi, R., Ogyu, K., Wada, M., Kurose, S., Miyazaki, T., Blumberger, D. M., Daskalakis, et al  
2021; 121: 47-59
- **Transcranial magnetic stimulation neurophysiology of patients with major depressive disorder: a systematic review and meta-analysis.** *Psychological medicine*  
Kinjo, M., Wada, M., Nakajima, S., Tsugawa, S., Nakahara, T., Blumberger, D. M., Mimura, M., Noda, Y.  
2021; 51 (1): 1-10
- **Development and validation of the hypersomnia-specific beliefs scale.** *Sleep medicine*  
Hazumi, M., Ito, W., Okubo, R., Wada, M., Honda, M.  
2020; 75: 256-262

- **Resting-State Isolated Effective Connectivity of the Cingulate Cortex as a Neurophysiological Biomarker in Patients with Severe Treatment-Resistant Schizophrenia.** *Journal of personalized medicine*  
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2020; 10 (3)
- **White matter microstructural organizations in patients with severe treatment-resistant schizophrenia: A diffusion tensor imaging study.** *Progress in neuro-psychopharmacology & biological psychiatry*  
Ochi, R., Noda, Y., Tsuchimoto, S., Tarumi, R., Honda, S., Matsushita, K., Tsugawa, S., Plitman, E., Masuda, F., Ogyu, K., Wada, M., Miyazaki, T., Fujii, et al  
2020; 100: 109871
- **Early improvements of individual symptoms as a predictor of treatment response to asenapine in patients with schizophrenia.** *Neuropsychopharmacology reports*  
Ogyu, K., Noda, Y., Yoshida, K., Kurose, S., Masuda, F., Mimura, Y., Nishida, H., Plitman, E., Tarumi, R., Tsugawa, S., Wada, M., Miyazaki, T., Uchida, et al  
2020; 40 (2): 138-149
- **Neural correlates of delay discount alterations in addiction and psychiatric disorders: A systematic review of magnetic resonance imaging studies.** *Progress in neuro-psychopharmacology & biological psychiatry*  
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2020; 99: 109822
- **Levels of glutamatergic neurometabolites in patients with severe treatment-resistant schizophrenia: a proton magnetic resonance spectroscopy study.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*  
Tarumi, R., Tsugawa, S., Noda, Y., Plitman, E., Honda, S., Matsushita, K., Chavez, S., Sawada, K., Wada, M., Matsui, M., Fujii, S., Miyazaki, T., Chakravarty, et al  
2020; 45 (4): 632-640
- **Glutathione levels and activities of glutathione metabolism enzymes in patients with schizophrenia: A systematic review and meta-analysis.** *Journal of psychopharmacology (Oxford, England)*  
Tsugawa, S., Noda, Y., Tarumi, R., Mimura, Y., Yoshida, K., Iwata, Y., Elsalhy, M., Kuromiya, M., Kurose, S., Masuda, F., Morita, S., Ogyu, K., Plitman, et al  
2019; 33 (10): 1199-1214
- **Clinical effectiveness of repetitive transcranial magnetic stimulation treatment in children and adolescents with neurodevelopmental disorders: A systematic review.** *Autism : the international journal of research and practice*  
Masuda, F., Nakajima, S., Miyazaki, T., Tarumi, R., Ogyu, K., Wada, M., Tsugawa, S., Croarkin, P. E., Mimura, M., Noda, Y.  
2019; 23 (7): 1614-1629
- **The P300 event-related potential in bipolar disorder: A systematic review and meta-analysis.** *Journal of affective disorders*  
Wada, M., Kurose, S., Miyazaki, T., Nakajima, S., Masuda, F., Mimura, Y., Nishida, H., Ogyu, K., Tsugawa, S., Mashima, Y., Plitman, E., Chakravarty, M. M., Mimura, et al  
2019; 256: 234-249
- **Does the rapid response of an antidepressant contribute to better cost-effectiveness? Comparison between mirtazapine and SSRIs for first-line treatment of depression in Japan.** *Psychiatry and clinical neurosciences*  
Sado, M., Wada, M., Ninomiya, A., Nohara, H., Kosugi, T., Arai, M., Endo, R., Mimura, M.  
2019; 73 (7): 400-408
- **Glutamatergic neurometabolite levels in major depressive disorder: a systematic review and meta-analysis of proton magnetic resonance spectroscopy studies.** *Molecular psychiatry*  
Moriguchi, S., Takamiya, A., Noda, Y., Horita, N., Wada, M., Tsugawa, S., Plitman, E., Sano, Y., Tarumi, R., ElSalhy, M., Katayama, N., Ogyu, K., Miyazaki, et al  
2019; 24 (7): 952-964
- **Actigraphy for evaluation of mood disorders: A systematic review and meta-analysis.** *Journal of affective disorders*  
Tazawa, Y., Wada, M., Mitsukura, Y., Takamiya, A., Kitazawa, M., Yoshimura, M., Mimura, M., Kishimoto, T.  
2019; 253: 257-269
- **Neuroimaging correlates of narcolepsy with cataplexy: A systematic review.** *Neuroscience research*  
Wada, M., Mimura, M., Noda, Y., Takasu, S., Plitman, E., Honda, M., Natsubori, A., Ogyu, K., Tarumi, R., Graff-Guerrero, A., Nakajima, S.  
2019; 142: 16-29
- **Motor cortex excitability and inhibitory imbalance in autism spectrum disorder assessed with transcranial magnetic stimulation: a systematic review.** *Translational psychiatry*

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2019; 9 (1): 110

- **Effectiveness of the prefrontal repetitive transcranial magnetic stimulation on cognitive profiles in depression, schizophrenia, and Alzheimer's disease: A systematic review.** *Progress in neuro-psychopharmacology & biological psychiatry*

Iimori, T., Nakajima, S., Miyazaki, T., Tarumi, R., Ogyu, K., Wada, M., Tsugawa, S., Masuda, F., Daskalakis, Z. J., Blumberger, D. M., Mimura, M., Noda, Y.

2019; 88: 31-40

- **Kynurenine pathway in depression: A systematic review and meta-analysis.** *Neuroscience and biobehavioral reviews*

Ogyu, K., Kubo, K., Noda, Y., Iwata, Y., Tsugawa, S., Omura, Y., Wada, M., Tarumi, R., Plitman, E., Moriguchi, S., Miyazaki, T., Uchida, H., Graff-Guerrero, et al

2018; 90: 16-25

- **Effect of Education on Alzheimer's Disease-Related Neuroimaging Biomarkers in Healthy Controls, and Participants with Mild Cognitive Impairment and Alzheimer's Disease: A Cross-Sectional Study.** *Journal of Alzheimer's disease : JAD*

Wada, M., Noda, Y., Shinagawa, S., Chung, J. K., Sawada, K., Ogyu, K., Tarumi, R., Tsugawa, S., Miyazaki, T., Yamagata, B., Graff-Guerrero, A., Mimura, M., Nakajima, et al

2018; 63 (2): 861-869