

Aki Tsuchiyagaito

Associate Investigator, Laureate Institute for Brain Research
6655 S Yale Ave., Tulsa, OK 74136

Email: atsuchiyagaito@laureateinstitute.org

Web: <https://www.laureateinstitute.org/>

RESEARCH INTERESTS

My research focuses on investigating the efficacy of novel therapeutics, cures and preventions to improve the well-being of persons who suffer from or are at risk for developing neuropsychiatric disorders. Especially, I am interested in relationship between brain plasticity and recovery from mental disorders.

EDUCATION

Osaka University, Osaka, Japan

Ph.D. in Child Development

April 2015–March 2018

Dissertation: “Cognitive-Behavioral Therapy for Obsessive-Compulsive Disorder with and without Autism Spectrum Disorder: Gray Matter Differences Associated with Poor Outcome.”

Committee: Makoto Sato, M.D., Ph.D., Akemi Tomoda., M.D., Ph.D., Hitoshi Kuwabara, M.D., Ph.D.

Health Sciences University of Hokkaido, Hokkaido, Japan

M.A in Clinical Psychology

April 2013–March 2015

Thesis: “Cognitive Behavioral Model of Hoarding.”

Committee: Norihito Nakano, M.D., Ph.D., Naoaki Tomiie, Ph.D., Yuji Sakano, Ph.D.

The University of Tokyo, Tokyo, Japan

B.A. in Education

April 2001–March 2005

Thesis: “Autobiographical Memories in Middle-Aged Mothers and Their Children.”

RESEARCH EXPERIENCE

Laureate Institute for Brain Research, Tulsa, OK

Associate Investigator

January 2022-Present

- Working on real-time fMRI neurofeedback (rtfMRI-nf) project to reduce repetitive negative thinking (rumination and worry).
- Research question: How can this non-invasive brain modulation approach enhance neuroplasticity and will influence neurobehavioral changes?

Laureate Institute for Brain Research, Tulsa, OK

Research Associate

September 2021–December 2021

- Developed independent and collaborative research projects on a variety of topics related to rtfMRI-nf with other PIs.
- Conducted MRI data analysis utilizing a large dataset (N=300) with bias correction approach.

Laureate Institute for Brain Research, Tulsa, OK

Post-doctoral Associate (supervised by Jerzy Bodurka, Ph.D.)

April 2018–August 2021

- Designed psychological evaluation set including self-ratings, interviewer-ratings, and cognitive/behavioral tests, which fits the study purpose and research questions.
- Processed and analyzed MRI data and cognitive/behavioral data using AFNI, FreeSurfer, SPM, and R statistics software.
- Trained and supervised research assistants, graduate and undergraduate researchers on the collection of physiological data on a 32-channel EEG, functional and structural MRI, physiological data with Brain Vision Acquisition and Analysis software, AFNI, FreeSurfer and SPM software.
- Performed advanced statistical analyses using R, SPSS, AMOS, and Mplus.
- Writing IRB documents, registering clinical trials, managing confidential documents.
- Writing grant applications based on the preliminary data.
- Budgeting and managing the lab supplies for future clinical trials.

Chiba University, Research Center for Child Development, Chiba, Japan

Specially Appointed Research Fellow

April 2018–January 2021

- Collaborating with Japanese researchers to understand psychological factors related to treatment outcome of autism spectrum disorder (ASD) and obsessive-compulsive disorder (OCD).

Osaka University and Chiba University, Osaka, Chiba, Japan

Graduate School Researcher (supervised by Akiko Nakagawa, M.D., Ph.D.)

April 2015–March 2018

- Scheduled appointments, and conducted neuropsychological testing battery (intellectual ability, executive-functioning, cognitive and experimental tasks) to adults with obsessive-compulsive disorder (OCD).
- Scored, analyzed, and organized the datasets.
- Trained a graduate research assistant who assisted neuropsychological testing battery.
- Wrote manuscripts for publication (topics: predictors of treatment outcomes using brain imaging data).
- Conducted neuropsychological testing battery (intellectual ability, executive-functioning, and developmental assessment) to children with autism spectrum disorder (ASD).
- Worked toward obtaining reliability on administration and scoring of Autism Diagnostic Observation Schedule™, Second Edition (ADOS-2) Modules 1 through 4.

CLINICAL EXPERIENCE

Fukushima Medical University Hospital, Fukushima, Japan

Clinical Psychotherapist

April 2016–March 2018

- Provided cognitive behavioral therapy to adult clients with anxiety disorder, major depressive disorder, eating disorder, obesity, and chronic pain.
- Supervised internship therapists as they conduct psychotherapy.

Fukushima Medical University, Fukushima, Japan

University Counselor

April 2016–March 2018

- Provided psychotherapy to university students who have problems with studies, carrier developments, and daily lives.
- Provided psychotherapy to university staff, nurses, and medical doctors who have problems with works, carrier developments, and daily lives.
- Used integrative model incorporating cognitive-developmental and behavioral strategies to teach emotion regulation, conversation skills, relaxation and anxiety management skills, and coping skills.

Chiba University, Chiba, Japan

Clinical Psychotherapist

April 2015–March 2018

- Conducted diagnostic intakes for potential psychotherapies for adult clients with hoarding disorder.
- Provided cognitive behavioral therapy to adult clients with hoarding disorder.
- Conducted psychological assessments and neuropsychological tests to adults with OCD.
- Scored and interpreted test data and wrote comprehensive reports for patients with OCD.

Naganuma Municipal Hospital, Hokkaido, Japan

Psychotherapist

April 2014–March 2015

- Conducted diagnostic intakes for potential psychotherapy for child and adult clients with anxiety disorders, major depressive disorder, and dementia.

Sanko Gakuen Medical Welfare Vocational School, Hokkaido, Japan

School Counselor

April 2014–March 2015

- Provided psychotherapy to students and staff who have problems with studies, works, carrier developments, and daily lives based on the principle of cognitive-behavioral therapy.

MENTORING, TEACHING, AND EDUCATION EXPERIENCE

University of Tulsa, Tulsa, OK

Guest Lecturer of Introduction to MRI

October 29th, 2020

- Presented a guest lecture for introduction of clinical application of real-time fMRI for undergraduate students.

- Fukushima Medical University, Fukushima, Japan** *April 2016–March 2018*
Instructor of Medical Education, Medical Communication during Bed Side Learning
- Taught regular classes of an undergraduate course on medical communication.
 - Designed patient scenarios, course materials, and activities. Educated simulated patients.
- Fukushima Medical University, Fukushima, Japan** *April 2016–March 2018*
Instructor of Medical Education, Tutorial Learning for Medical Education
- Taught four classes/semester of an undergraduate course on medical education.
 - Designed tutorial work and activities. Facilitated activities.
- Fukushima Medical University, Fukushima, Japan** *April 2016–March 2018*
Instructor of Medical Education, Preceptor and Preceptee Training for Nurse
- Taught two classes/semester of an undergraduate course on nurse education.
 - Designed course materials and activities. Supervised nurse managers.
- Fukushima Medical University, Fukushima, Japan** *April 2016–March 2018*
Instructor of Neuropsychiatry, Behavioral Science II
- Taught four classes/semester of an undergraduate course on medical education.
 - Designed tutorial work and activities. Facilitated activities.
- Fukushima Prefectural School for Health Care Profession, Fukushima, Japan** *April 2016–March 2018*
Guest Lecturer of Nursing Management
- Presented guest lectures for introduction to stress management and medical communication.

MILITARY AND OTHER EXPERIENCES

- Ministry of Health, Labour, and Welfare, Hokkaido, Japan** *November 2011–March 2013*
Career Consultant
- Provided career consulting for working professionals and job seekers. Offered training in successful job search techniques.
- The 1st Air Defense Artillery Group, Japan Ground Self-Defense Force, Camp Higashi-Chitose, Hokkaido, Japan** *December 2007–October 2011*
Launchers Platoon Leader, 1st LT
- Training of conscripts for specific missions - surface to air missiles system. Planning and coordinating missions.
 - Responsible for the health, welfare, morale, development, and discipline of the platoon members.

PSYCHOLOGICAL TRAINING AND CERTIFICATION

- Licensed Clinical Psychologist** *April 2016*
Association of Japanese Clinical Psychology, Japan
- Autism Diagnostic Observation Schedule (ADOS-2) Training** *November 2015*
Hogrefe Ltd, England
- Hoarding Behaviour Therapist** *November 2014*
International OCD Foundation, Boston, MA

TECHNICAL SKILL

- Statistical Software** MATLAB, R, SPSS, AMOS, Mplus
- Brain Imaging Software** AFNI, SPM, FreeSurfer, FSL, MRtrix3
- Statistical Analysis Skill** Mixed effect modelling, propensity score, Bayesian modelling, causal inference

AWARDS AND HONORS

- Student Travel Award** *September 2017*
The 25th International Society for Neurofeedback & Research (ISNR), Mashantucket, CT
- Student Presentation Award** *August 2017*
The 11th International Applied Neuroscience Society of Australia, Canberra, Australia

Outstanding Research Award The 24th International OCD Foundation (IOCDF), San Francisco, CA	July 2017
2016-2017 Initiative for Realizing Diversity in the Research Environment Chiba University, Chiba, Japan	July 2017
Emerging Psychologists' Program International Congress of Psychology, Yokohama, Japan	July 2016
Poster Award The 8th Annual Congress of Japanese Anxiety and Related Disorders, Chiba, Japan	February 2017
President's Award The University of Tokyo, Tokyo, Japan	March 2015

GRANTS AND FELLOWSHIPS

FELLOWSHIP

JSPS Overseas Research Fellowship "Does Neurofeedback Change Resting-state Brain Connectivity Patterns?: A simultaneous EEG-fMRI study."	April 2018-March 2020
JSPS Pre-Doctoral Research Fellowship "Self-help Program for Hoarding Disorder based on Cognitive Behavioural Model."	April 2015-March 2016

PROFESSIONAL AFFILIATIONS

Visiting Researcher, Chiba University, Research Center for Child Development, Chiba, Japan	2022-Present
Research Assistant Professor, University of Tulsa, Oxley College of Health Sciences, Tulsa OK	2022-Present
Member, Organization for Human Brain Mapping	2020-Present
Member, Society of Biological Psychiatry	2020-Present
Member, ENIGMA OCD project	2017-Present
Supervisor, Japan Clinical Neurofeedback Association	2017-Present
Education and Training Committee Member, Japanese Association of Behavioral and Cognitive Therapies	2016-2018
Student Member, International OCD Foundation	2014-2018
Student Member, Association for Behavioral and Cognitive Therapies (ABCT)	2013-2018
Member, Association of Japanese Clinical Psychology (AJCP)	2013-2018
Member, Japanese Psychological Association (JPA)	2013-2018
Member, Japanese Association of Behavioral and Cognitive Therapies	2013-2018
Japanese Society of Anxiety and Related Disorders	2013-2018

PEER REVIEW EXPERIENCE

Current Psychology; Frontiers in Psychiatry; Frontiers in Human Neuro Science; IEEE Transactions on Neural Systems and Rehabilitation Engineering; Progress in Neuropsychopharmacology & Biological Psychiatry; Brain Sciences; International Journal of Environmental Research and Public Health

PUBLICATIONS

PEER-REVIEWED ARTICLES

- Tsuchiyagaito A***, Misaki M*, Kirlic N, Yu X, Sánchez SM, Cochran G, Stewart JL, Smith R, Fitzgerald KD, Rohan ML, Paulus MP, Guinjoan SM. (in press). Real-time fMRI functional connectivity neurofeedback reducing repetitive negative thinking in depression: a double-blind, randomized, sham-controlled proof-of-concept trial. *Psychother Psychosom*. *Contributed equally.
- Park H, Sánchez SM, Kuplicki R, **Tsuchiyagaito A**, Khalsa SS, Paulus MP, Guinjoan SM. Attenuated interoceptive processing in individuals with major depressive disorder and high repetitive negative

- thinking. *J Psychiatr Res.* 2022 Oct 10;156:237-244. doi: 10.1016/j.jpsychires.2022.10.020. [Epub ahead of print] PubMed PMID: 36270063.
3. Mulyana B, **Tsuchiyagaito A**, Misaki M, Kuplicki R, Smith J, Soleimani G, Rashedi A, Shereen D, Bergman TO, Cheng S, Paulus M, Bodurka J, Ekhtiari H. Online Closed-Loop Real-Time tES-fMRI for Brain Modulation: A Technical Report. *Brain Behav.* 2022 Sep 22;:e2667. doi: 10.1002/brb3.2667. [Epub ahead of print] PubMed PMID: 36134450.
 4. **Tsuchiyagaito A**, Sánchez SM, Misaki M, Kuplicki R, Park H, Paulus MP, Guinjoan S M. Intensity of repetitive negative thinking in depression is associated with greater functional connectivity between semantic processing and emotion regulation areas. *Psychol Med.* 2022 Aug 31;:1-12. doi: 10.1017/S0033291722002677. [Epub ahead of print] PubMed PMID: 36043367.
 5. Kirlic N, Cohen ZP, **Tsuchiyagaito A**, Misaki M, McDermott TJ, Aupperle RL, Stewart JL, Singh MK, Paulus MP, Bodurka J. Self-regulation of the posterior cingulate cortex with real-time fMRI neurofeedback augmented mindfulness training in healthy adolescents: A nonrandomized feasibility study. *Cogn Affect Behav Neurosci.* 2022 Aug;22(4):849-867. doi: 10.3758/s13415-022-00991-4. Epub 2022 Mar 15. PubMed PMID: 35292905; PubMed Central PMCID: PMC9293874.
 6. Yu X, Cohen ZP, **Tsuchiyagaito A**, Cochran G, Aupperle RL, Stewart JL, Singh MK, Misaki M, Bodurka J, Paulus MP, Kirlic N. Neurofeedback-Augmented Mindfulness Training Elicits Distinct Responses in the Subregions of the Insular Cortex in Healthy Adolescents. *Brain Sci.* 2022 Mar 9;12(3). doi: 10.3390/brainsci12030363. PubMed PMID: 35326319; PubMed Central PMCID: PMC8946655.
 7. Ekhtiari H, Ghobadi-Azbari P, Thielscher A, Antal A, Li LM, Shereen AD, Cabral-Calderin Y, Keeser D, Bergmann TO, Jamil A, Violante IR, Almeida J, Meinzer M, Siebner HR, Woods AJ, Stagg CJ, Abend R, Antonenko D, Auer T, Bächinger M, Baeken C, Barron HC, Chase HW, Crinion J, Datta A, Davis MH, Ebrahimi M, Esmailpour Z, Falcone B, Fiori V, Ghodratoostani I, Gilam G, Grabner RH, Greenspan JD, Groen G, Hartwigsen G, Hauser TU, Herrmann CS, Juan CH, Krekelberg B, Lefebvre S, Liew SL, Madsen KH, MahdaviFar-Khayati R, Malmir N, Marangolo P, Martin AK, Meeker TJ, Ardabili HM, Moisa M, Momi D, Mulyana B, Opitz A, Orlov N, Ragert P, Ruff CC, Ruffini G, Ruttorf M, Sangchooli A, Schellhorn K, Schlaug G, Sehm B, Soleimani G, Tavakoli H, Thompson B, Timmann D, **Tsuchiyagaito A**, Ulrich M, Vosskuhl J, Weinrich CA, Zare-Bidoky M, Zhang X, Zoefel B, Nitsche MA, Bikson M. A checklist for assessing the methodological quality of concurrent tES-fMRI studies (ContES checklist): a consensus study and statement. *Nat Protoc.* 2022 Mar;17(3):596-617. doi: 10.1038/s41596-021-00664-5. Epub 2022 Feb 4. Review. PubMed PMID: 35121855.
 8. Al Zoubi O, Mayeli A, Misaki M, **Tsuchiyagaito A**, Zotev V, Refai H, Paulus M, Bodurka J. Canonical EEG microstates transitions reflect switching among BOLD resting state networks and predict fMRI signal. *J Neural Eng.* 2022 Jan 6;18(6). doi: 10.1088/1741-2552/ac4595. PubMed PMID: 34937003.
 9. Al Zoubi O, Misaki M, **Tsuchiyagaito A**, Zotev V, White E, Paulus M, Bodurka J. Machine Learning Evidence for Sex Differences Consistently Influences Resting-State Functional Magnetic Resonance Imaging Fluctuations Across Multiple Independently Acquired Data Sets. *Brain Connect.* 2021 Oct 6;. doi: 10.1089/brain.2020.0878. [Epub ahead of print] PubMed PMID: 34269609.
 10. **Tsuchiyagaito A**, Misaki M, Zoubi OA, Paulus M, Bodurka J. Prevent breaking bad: A proof of concept study of rebalancing the brain's rumination circuit with real-time fMRI functional connectivity neurofeedback. *Hum Brain Mapp.* 2021 Mar;42(4):922-940. doi: 10.1002/hbm.25268. Epub 2020 Nov 10. PubMed PMID: 33169903; PubMed Central PMCID: PMC7856643.
 11. **Tsuchiyagaito A**, Smith JL, El-Sabbagh N, Zotev V, Misaki M, Al Zoubi O, Kent Teague T, Paulus MP, Bodurka J, Savitz J. Real-time fMRI neurofeedback amygdala training may influence kynurenine pathway metabolism in major depressive disorder. *Neuroimage Clin.* 2021;29:102559. doi: 10.1016/j.nicl.2021.102559. Epub 2021 Jan 19. PubMed PMID: 33516062; PubMed Central PMCID: PMC7847971.
 12. Oshima F, William M, Takahashi N, **Tsuchiyagaito A**, Kuwabara H, Shiina A, Seto M, Hongo M, Iwama Y, Hirano Y, Sutoh C, Taguchi K, Yoshida T, Kawasaki Y, Ozawa Y, Masuya J, Sato N, Nakamura S, Kuno M, Takahashi J, Ohtani T, Matsuzawa D, Inada N, Kuroda M, Ando M, Hori A, Nakagawa A, Shimizu E. Cognitive-behavioral family therapy as psychoeducation for adolescents with high-functioning autism spectrum disorders: Aware and Care for my Autistic Traits (ACAT) program study protocol for a pragmatic multisite randomized controlled trial. *Trials.* 2020 Sep 29;21(1):814. doi: 10.1186/s13063-020-04750-z. PubMed PMID: 32993775; PubMed Central PMCID: PMC7526096.
 13. Hamatani S, **Tsuchiyagaito A**, Nihei M, Hayashi Y, Yoshida T, Takahashi J, Okawa S, Arai H, Nagaoka M, Matsumoto K, Shimizu E, Hirano Y. Predictors of response to exposure and response prevention-based

- cognitive behavioral therapy for obsessive-compulsive disorder. *BMC Psychiatry*. 2020 Sep 4;20(1):433. doi: 10.1186/s12888-020-02841-4. PubMed PMID: 32887553; PubMed Central PMCID: PMC7473813.
14. Boedhoe PSW, van Rooij D, Hoogman M, Twisk JWR, Schmaal L, Abe Y, Alonso P, Ameis SH, Anikin A, Anticevic A, Arango C, Arnold PD, Asherson P, Assogna F, Auzias G, Banaschewski T, Baranov A, Batistuzzo MC, Baumeister S, Baur-Streubel R, Behrmann M, Bellgrove MA, Benedetti F, Beucke JC, Biederman J, Bollettini I, Bose A, Bralten J, Bramati IE, Brandeis D, Brem S, Brennan BP, Busatto GF, Calderoni S, Calvo A, Calvo R, Castellanos FX, Cercignani M, Chaim-Avancini TM, Chantiluke KC, Cheng Y, Cho KIK, Christakou A, Coghill D, Conzelmann A, Cubillo AI, Dale AM, Dallspezia S, Daly E, Denys D, Deruelle C, Di Martino A, Dinstein I, Doyle AE, Durston S, Earl EA, Ecker C, Ehrlich S, Ely BA, Epstein JN, Ethofer T, Fair DA, Fallgatter AJ, Faraone SV, Fedor J, Feng X, Feusner JD, Fitzgerald J, Fitzgerald KD, Fouché JP, Freitag CM, Fridegeirsson EA, Frodl T, Gabel MC, Gallagher L, Gogberashvili T, Gori I, Gruner P, Gürsel DA, Haar S, Haavik J, Hall GB, Harrison NA, Hartman CA, Heslenfeld DJ, Hirano Y, Hoekstra PJ, Hoexter MQ, Hohmann S, Høvik MF, Hu H, Huyser C, Jahanshad N, Jalbrzikowski M, James A, Janssen J, Jaspers-Fayer F, Jernigan TL, Kapilushniy D, Kardatzki B, Karkashadze G, Kathmann N, Kaufmann C, Kelly C, Khadka S, King JA, Koch K, Kohls G, Konrad K, Kuno M, Kuntsi J, Kvale G, Kwon JS, Lázaro L, Lera-Miguel S, Lesch KP, Hoekstra L, Liu Y, Lochner C, Louza MR, Luna B, Lundervold AJ, Malpas CB, Marques P, Marsh R, Martínez-Zalacaín I, Mataix-Cols D, Mattos P, McCarthy H, McGrath J, Mehta MA, Menchón JM, Mennes M, Martinho MM, Moreira PS, Morer A, Morgado P, Muratori F, Murphy CM, Murphy DGM, Nakagawa A, Nakamae T, Nakao T, Namazova-Baranova L, Narayanaswamy JC, Nicolau R, Nigg JT, Novotny SE, Nurmi EL, Weiss EO, O'Gorman Tuura RL, O'Hearn K, O'Neill J, Oosterlaan J, Oranje B, Paloyelis Y, Parellada M, Pauli P, Perriello C, Piacentini J, Piras F, Piras F, Plessen KJ, Puig O, Ramos-Quiroga JA, Reddy YCJ, Reif A, Reneman L, Retico A, Rosa PGP, Rubia K, Rus OG, Sakai Y, Schranter A, Schwarz L, Schweren LJS, Seitz J, Shaw P, Shook D, Silk TJ, Simpson HB, Skokauskas N, Soliva Vila JC, Solovieva A, Soreni N, Soriano-Mas C, Spalletta G, Stern ER, Stevens MC, Stewart SE, Sudre G, Szeszko PR, Tamm L, Taylor MJ, Tolin DF, Tosetti M, Tovar-Moll F, **Tsuchiyagaito A**, van Erp TGM, van Wingen GA, Vance A, Venkatasubramanian G, Vilarroya O, Vives-Gilabert Y, von Polier GG, Walitza S, Wallace GL, Wang Z, Wolfers T, Yoncheva YN, Yun JY, Zanetti MV, Zhou F, Ziegler GC, Zierhut KC, Zwiers MP, Thompson PM, Stein DJ, Buitelaar J, Franke B, van den Heuvel OA. Subcortical Brain Volume, Regional Cortical Thickness, and Cortical Surface Area Across Disorders: Findings From the ENIGMA ADHD, ASD, and OCD Working Groups. *Am J Psychiatry*. 2020 Sep 1;177(9):834-843. doi: 10.1176/appi.ajp.2020.19030331. Epub 2020 Jun 16. PubMed PMID: 32539527; NIHMSID:NIHMS1624699.
 15. Kong XZ, Boedhoe PSW, Abe Y, Alonso P, Ameis SH, Arnold PD, Assogna F, Baker JT, Batistuzzo MC, Benedetti F, Beucke JC, Bollettini I, Bose A, Brem S, Brennan BP, Buitelaar J, Calvo R, Cheng Y, Cho KIK, Dallspezia S, Denys D, Ely BA, Feusner J, Fitzgerald KD, Fouché JP, Fridegeirsson EA, Glahn DC, Gruner P, Gürsel DA, Hauser TU, Hirano Y, Hoexter MQ, Hu H, Huyser C, James A, Jaspers-Fayer F, Kathmann N, Kaufmann C, Koch K, Kuno M, Kvale G, Kwon JS, Lázaro L, Liu Y, Lochner C, Marques P, Marsh R, Martínez-Zalacaín I, Mataix-Cols D, Medland SE, Menchón JM, Minuzzi L, Moreira PS, Morer A, Morgado P, Nakagawa A, Nakamae T, Nakao T, Narayanaswamy JC, Nurmi EL, O'Neill J, Pariente JC, Perriello C, Piacentini J, Piras F, Piras F, Pittenger C, Reddy YCJ, Rus-Oswald OG, Sakai Y, Sato JR, Schmaal L, Simpson HB, Soreni N, Soriano-Mas C, Spalletta G, Stern ER, Stevens MC, Stewart SE, Szeszko PR, Tolin DF, **Tsuchiyagaito A**, van Rooij D, van Wingen GA, Venkatasubramanian G, Wang Z, Yun JY, Thompson PM, Stein DJ, van den Heuvel OA, Francks C. Mapping Cortical and Subcortical Asymmetry in Obsessive-Compulsive Disorder: Findings From the ENIGMA Consortium. *Biol Psychiatry*. 2020 Jun 15;87(12):1022-1034. doi: 10.1016/j.biopsych.2019.04.022. Epub 2019 Apr 30. PubMed PMID: 31178097; PubMed Central PMCID: PMC7094802.
 16. Misaki M, **Tsuchiyagaito A**, Al Zoubi O, Paulus M, Bodurka J. Connectome-wide search for functional connectivity locus associated with pathological rumination as a target for real-time fMRI neurofeedback intervention. *Neuroimage Clin*. 2020;26:102244. doi: 10.1016/j.nicl.2020.102244. Epub 2020 Mar 12. PubMed PMID: 32193171; PubMed Central PMCID: PMC7082218.
 17. Mayeli A, Misaki M, Zotev V, **Tsuchiyagaito A**, Al Zoubi O, Phillips R, Smith J, Stewart JL, Refai H, Paulus MP, Bodurka J. Self-regulation of ventromedial prefrontal cortex activation using real-time fMRI neurofeedback-Influence of default mode network. *Hum Brain Mapp*. 2020 Feb 1;41(2):342-352. doi: 10.1002/hbm.24805. Epub 2019 Oct 21. PubMed PMID: 31633257; PubMed Central PMCID: PMC7267960.
 18. Al Zoubi O, Mayeli A, **Tsuchiyagaito A**, Misaki M, Zotev V, Refai H, Paulus M, Bodurka J. EEG Microstates

- Temporal Dynamics Differentiate Individuals with Mood and Anxiety Disorders From Healthy Subjects. *Front Hum Neurosci.* 2019;13:56. doi: 10.3389/fnhum.2019.00056. eCollection 2019. PubMed PMID: 30863294; PubMed Central PMCID: PMC6399140.
19. Tanaka Y, Yoshinaga N, **Tsuchiyagaito A**, Sutoh C, Matsuzawa D, Hirano Y, Shimizu E. Mental imagery in social anxiety disorder: the development and clinical utility of a Japanese version of the Spontaneous Use of Imagery Scale (SUIS-J). *Asia pacific journal of counselling and psychotherapy.* 2018; 9(2):171-185.
 20. Nihei M, Arai H, Maeda K, Aoki S, **Tsuchiyagaito A**, Iwano S, Tomioka N, Okamura H, Mihara K, Shirotsubi K, Horiuchi S, Sakano Y. Reassessment of Factor Structure, Reliability, and Validity of the Short Fear of Negative Evaluation Scale for the Japanese. *Japanese Anxiety Research.* 2018; 10(1):54-63.
 21. **Tsuchiyagaito A**, Hirano Y, Asano K, Oshima F, Nagaoka S, Takebayashi Y, Matsumoto K, Masuda Y, Iyo M, Shimizu E, Nakagawa A. Cognitive-Behavioral Therapy for Obsessive-Compulsive Disorder with and without Autism Spectrum Disorder: Gray Matter Differences Associated with Poor Outcome. *Front Psychiatry.* 2017;8:143. doi: 10.3389/fpsyt.2017.00143. eCollection 2017. PubMed PMID: 28861007; PubMed Central PMCID: PMC5559438.
 22. **Tsuchiyagaito A**, Horiuchi S, Igarashi T, Kawanori Y, Hirano Y, Yabe H, Nakagawa A. Factor structure, reliability, and validity of the Japanese version of the Hoarding Rating Scale-Self-Report (HRS-SR-J). *Neuropsychiatr Dis Treat.* 2017;13:1235-1243. doi: 10.2147/NDT.S133471. eCollection 2017. PubMed PMID: 28533685; PubMed Central PMCID: PMC5431741.
 23. Koike H, **Tsuchiyagaito A**, Hirano Y, Oshima F, Asano K, Sugiura Y, Kobori O, Ishikawa R, Nishikawa H, Shimizu E, Nakagawa A. Reliability and validity of the Japanese version of the Obsessive-Compulsive Inventory-Revised (OCI-R). *Current psychology.* 2017; 11:1-7. doi: 10.1007/s12144-017-9741-2.
 24. **Tsuchiyagaito A**, Kuromiya K, Horiuchi S, Ando T, Kira H, Deng K, Tsuda A, Sakano Y. Development of the Japanese Version of the Saving Cognitions Inventory: Reliability and Validity among Japanese Adults. *The Journal of Center of Clinical and Developmental Psychology.* 2015; 11(1):1-18.
 25. **Tsuchiyagaito A**, Kuromiya K, Igarashi T, Horiuchi S, Ando T, Deng K, Kira H, Tsuda A, Sakano Y. A Consideration of Clinical Characteristics of Non-Clinical Hoarding among Japanese Adolescents. *Japanese Anxiety Research.* 2015; 6(2):31-35.
 26. Horiuchi S, Tsuda A, Honda Y, Kobayashi H, Naruse M, **Tsuchiyagaito A**. Mood changes by self-administered acupressure in Japanese college students: a randomized controlled trial. *Glob J Health Sci.* 2014 Dec 17;7(4):40-4. doi: 10.5539/gjhs.v7n4p40. PubMed PMID: 25946916; PubMed Central PMCID: PMC4802122.
 27. Aoki S, Tsuda A, Horiuchi S, Kim E, Naruse M, **Tsuchiyagaito A**, Hong K. Factor Structure of the Center for Epidemiologic Studies Depression Scale in South Korea. *Open journal of medical psychology.* 2014; 3(4).
 28. Deng K, Tsuda A, Horiuchi S, Kim E, Matsuda T, Doi S, **Tsuchiyagaito A**, Kobayashi H, Hong K. Development of a Korean Version of Pro-Change's Processes of Change Measure for Effective Stress Management. *Open Journal of Social Sciences.* 2014; 2(8):41-48.
 29. Deng K, Tsuda A, **Tsuchiyagaito A**, Prochaska J, Yang T, Horiuchi S. Relationships between Stages of Change and Self-Efficacy for Effective Stress Management in Chinese College Students. *International Journal of Psychological Studies.* 2014; 6(2):31-35.

BOOK CHAPTERS

1. Sakano, Y., Igarashi, T., & **Tsuchiyagaito, A.** (2017). *Japanese translation of "Buried in Treasures by Tolin, D.F., Frost, R.O., & Steketee, G., Kongo-shuppan, Japan.*
2. Nakagawa, A., Kanazawa, J., Oshima, F., & **Tsuchiyagaito, A.** (2016). Cognitive behavioural therapy for adults with obsessive-compulsive disorder and autism spectrum disorder: Influence of comorbidity and improvement of treatment outcomes. In Menzies, R. G., Kyrios, M., and Kazantzis, N. (Ed.) *Innovations and Future Directions in the Behavioural and Cognitive Therapies*, Australian Academic Press, pp199-202.

ORAL PRESENTATIONS

1. **Tsuchiyagaito, A.**, & Bodurka, J. (2019, June). *Modulation of amygdala activity with fMRI neurofeedback during simultaneous EEG recordings: Implication for novel depression and PTSD interventions.* 14th World Congress of Biological Psychiatry, Vancouver, Canada.
2. **Tsuchiyagaito, A.** (2017, August). *Integrating Neuropsychological Evidence into Cognitive Behavioral Therapy (CBT) and Neurofeedback: Brain Abnormalities Associated with CBT Outcome.* Oral session presented at the 11th Applied Neuroscience Society of Australia, Canberra, Australia.
3. **Tsuchiyagaito, A.** (2016, July). *How Does Developmental Disorder Influence the Treatment Outcome of Cognitive Behavioral Therapy? Clinical Characteristics Associated with Comorbid Obsessive-Compulsive Disorder and Autism*

- Spectrum Disorder*. Invited presentation in Emerging Psychologist' Program, the 31st International Congress of Psychology, Yokohama, Japan.
4. Nakagawa, A., **Tsuchiyagaito, A.**, Kanazawa, J., & Oshima, F. (2016, July). *CBT for Adults with Obsessive-Compulsive Disorder and Autism Spectrum Disorder: How Does Comorbidity Influence, and How Can We Improve Treatment Outcome?* Symposium presented at the 8th World Congress of Behavioural and Cognitive Therapies, Melbourne, Australia.
 5. **Tsuchiyagaito, A.**, Oshima, F., Asano, K., Nagaoka, S., Miyata, H., Kunou, M., Hirano, Y., Shimizu, E., & Nakagawa, A. (2016, July). *Clinical Predictors of Response to Cognitive Behavioral Treatment for Obsessive-Compulsive Disorder with and without Autism Spectrum Disorder*. Oral session presented at the 8th World Congress of Behavioural and Cognitive Therapies, Melbourne, Australia.
 6. **Tsuchiyagaito, A.**, Nakagawa, A., Nakao, T., Igarashi, T., Kuwano, M., & Kanazawa, J. (2015, October). *Cognitive Behavioral Treatment for Hoarding Disorder*. Symposium presented at the 41th Conference for Japanese Association of Behavioral and Cognitive Therapies, Sendai, Japan.
 7. Igarashi, T., Yoshimura, Y., & **Tsuchiyagaito, A.** (2014, August). *Understanding and Current Issue about Hoarding Disorder*. Symposium presented at the 33th Conference for Association of Japanese Clinical Psychology, Yokohama, Japan.
 8. **Tsuchiyagaito, A.**, Kuromiya, K., Ando, T., Kira, H., Deng, K., Tsuda, A., & Sakano, Y. (2014, June). *Cross-cultural Perspectives on Hoarding Behavior among Japanese College Students*. Oral session presented at the 8th International Congress of Cognitive Psychotherapy, Hong Kong.

POSTER PRESENTATIONS (first author only)

1. **Tsuchiyagaito, A.**, Guinjoan, S., Kirlic, N., Sanchez, S., Fitzgerald, K., Paulus, M., Misaki, M. (2022). A Connectivity-Based fMRI Neurofeedback Targeting the Repetitive Negative Thinking in Depression. Organization for Human Brain Mapping, June 19-23, 2022, Glasgow, Scotland.
2. **Tsuchiyagaito, A.**, Sanchez, S., Misaki, M., Kuplicki, R., Park, H., Paulus, M., Guinjoan, S. (2022). Resting-State Functional Connectivity of Repetitive Negative Thinking in Major Depression. Society of Biological Psychiatry, April 28-30, New Orleans, LA.
3. **Tsuchiyagaito, A.**, Smith, J., El-Sabbagh, N., Zotev, V., Misaki, M., Al Zoubi, O., ... & Savitz, J. (2021). Effect of Left-Amygdala fMRI Neurofeedback Positive Emotion Training on Immune Mediators in Major Depressive Disorder. *Biological Psychiatry*, 89(9), S212.
4. **Tsuchiyagaito, A.**, Mayeli, A., Al Zoubi, O., Misaki, M., Zotev, V., & Bodurka, J. (2019). F75. How Many Sessions Needed for fMRI Neurofeedback Training to Increase Amygdala Activity and to Influence Functional Connectivity?. *Biological Psychiatry*, 85(10), S241-S242.
5. **Tsuchiyagaito, A.**, Misaki, M., Mayeli, A., Zotev, V., Al Zoubi, O., Paulus, M., ... & Bodurka, J. (2019). T144. Targeted vmPFC Modulation With fMRI Neurofeedback Changes Functional Connectivity in Depression. *Biological Psychiatry*, 85(10), S185.
6. **Tsuchiyagaito, A.**, Hirano, Y., Takebayashi, Y., Shimizu, E., & Nakagawa, A. (2017, October). *For a better treatment effect - Model Study Using Brain Regions Related to the Effect of Cognitive Behavioral Therapy on Obsessive-Compulsive Disorder with Autistic Spectrum Disorder -*. Poster presented at the 44th Annual Meeting of the Japan Brain Science of Society, Hiroasaki, Japan.
7. **Tsuchiyagaito, A.**, Hirano, Y., Tazaki, M., & Nakagawa, A. (2017, September). *Neurostructural Predictors of Cognitive Behavioral Therapy (CBT) for Obsessive-Compulsive Disorder: Implications for the Integration of Neurofeedback Training and CBT*. The 25th International Society for Neurofeedback & Research, Connecticut, US.
8. **Tsuchiyagaito, A.**, Hirano, Y., Shimizu, E., & Nakagawa, A. (2017, July). *Do Differential Brain Alterations Predict CBT Outcomes?* Poster presented at the 24th International OCD foundation, San Francisco, US.
9. **Tsuchiyagaito, A.**, Horiuchi, S., Kawanori, Y., Hirano, Y., Igarashi, T., Nakagawa, A., & Yabe, H. (2016, October). *The Japanese version of the Hoarding Rating Scale (HRS): Reliability, and Validity in a Sample of Web survey*. Poster presented at the 42nd Conference for Japanese Association of Behavioral and Cognitive Therapies, Tokushima, Japan.
10. **Tsuchiyagaito, A.**, Asano, K., Oshima, F., Nagaoka, S., Miyata, H., Matsumoto, J., Oshiro, K., Nagaoka, M., Kunou, M., Hirano, Y., Shimizu, E., & Nakagawa, A. (2016, February). *The Cognitive Behavioral Treatment for Obsessive-Compulsive Disorder Comorbid with Autism Spectrum Disorder*. Poster presented at the 8th Annual Congress of Japanese Anxiety and Related Disorders, Chiba, Japan.
11. **Tsuchiyagaito, A.**, Nakagawa, A., & Sakano, Y. (2015, November) *Do Hoarding Cognitions Intensify Negative Emotions while Discarding Possessions? An Experimental Investigation of Hoarding Mechanism*. Poster presented at the 49th Annual Convention of the Association for Behavioral and Cognitive Therapies, Chicago, IL.
12. **Tsuchiyagaito, A.**, Koike, H., Shimizu, E., & Nakagawa, A. (2015, July). *The Japanese version of the Obsessive-Compulsive Inventory-Revised (OCI-R): Factor Structure, Reliability, and Validity in a Sample of OCD Patients*. Poster presented at the 22nd Annual Conference for the International Obsessive-Compulsive Foundation, Westin Boston

- Waterfront, Boston, MA.
13. **Tsuchiyagaito, A.**, Shimizu, E., & Nakagawa, A. (2015, July). *Psychometric Properties of the Clutter Image Rating among Japanese Adolescents*. Poster presented at the 22nd Annual Conference for the International Obsessive-Compulsive Foundation, Westin Boston Waterfront, Boston, MA.
 14. **Tsuchiyagaito, A.**, Kuromiya, K., Ando, T., Horiuchi, S., & Sakano, Y. (2015, February). *Personality and Information Processing Problems Effect the Hoarding Cognitions and Hoarding Symptoms*. Poster presented at the 7th Annual Congress of Japanese Anxiety and Related Disorders, Hiroshima, Japan.
 15. **Tsuchiyagaito, A.**, Kuromiya, K., Horiuchi, S., Ando, T., Deng, K., Kira, H., Tsuda, A., & Sakano, Y. (2014, November). *Psychometric Properties of the Japanese Version of the Saving Cognitions Inventory (SCI): Factor Structure, Reliability and Validity in a Japanese College Sample*. Poster presented at the 48th Annual Convention of the Association for Behavioral and Cognitive Therapies, Philadelphia, PA.
 16. **Tsuchiyagaito, A.**, Kuromiya, K., Ando, T., Horiuchi, S., Kira, H., Deng, K., Tsuda, A., & Sakano, Y. (2014, September). *The Co-occurring Patterns of Hoarding and Depression, and Disabilities: in a Sample of Japanese College Students*. Poster presented at the 44th Annual Congress of the European Association for Behavioural and Cognitive Therapies, Hague, Netherlands.
 17. **Tsuchiyagaito, A.**, Aoki, S., & Sakano, Y. (2014, August). *A Meta-Analysis of Group-Based Interventions for Hoarding*. Poster presented at the 21st Annual Conference for the International Obsessive-Compulsive Foundation, Los Angeles, CA.

REFERENCES

Jonathan Savitz, Ph.D.

Principal Investigator
Laureate Institute for Brain Research
Associate Professor,
Tulsa University
6655 South Yale Avenue
Tulsa, OK 74136-3326
Phone: (+1) 918-502-5104
E-mail: jsavitz@laureateinstitute.org

Salvador Guinjoan, M.D., Ph.D.

Principal Investigator
Laureate Institute for Brain Research
6655 South Yale Avenue
Tulsa, OK 74136-3326
Phone: (+1) 918-502-5119
E-mail: sguinjoan@laureateinstitute.org

Akiko Nakagawa, M.D., Ph.D.

Professor
Research Center for Child Mental Development
Chiba University
1-8-1 Inohana, Chuo-ku,
Chiba 260-8670, Japan
Phone: (+81) 43-226-2975
E-mail: akikon@chiba-u.jp