

Takashi Tarumi, Ph.D.

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***** Currently looking for motivated PhD students at my laboratory *****

EDUCATIONS

- August 13th, 2012 **Doctor of Philosophy in Kinesiology**
The University of Texas at Austin
Mentor: Hirofumi Tanaka, Ph.D.
- May 23rd, 2009 **Master of Arts in Kinesiology**
The University of Texas at Austin
Mentor: Hirofumi Tanaka, Ph.D.
- December 9th, 2006 **Bachelor of Science in Human Physiology**
University of Oregon
Mentor: Christopher T. Minson, Ph.D.

PROFESSIONAL APPOINTMENTS & EXPERIENCES

- 2020- **Visiting Associate Professor**
University of Tsukuba, Japan
- 2018- **Senior Researcher**
National Institute of Advanced Industrial Science and Technology
Tsukuba, Japan
- 2018- **Associate Scientist**
Institute for Exercise and Environmental Medicine
Dallas, Texas, USA
- 2016-2018 **Instructor in Research Track**
University of Texas Southwestern Medical Center
Dallas, Texas, USA
- 2012-2016 **Postdoctoral Fellow**
University of Texas Southwestern Medical Center
Mentor: Rong Zhang, Ph.D.
- 2012 **Graduate Research Fellow**, Department of Kinesiology and Health Education, The
University of Texas at Austin
- 2009-2012 **Student Representative** for the Texas Chapter of American College of Sports

Medicine

- 2008-2011 **Graduate Teaching Fellow**, School of Biological Sciences, The University of Texas at Austin
- 2007 **Graduate Teaching Fellow**, Department of Kinesiology and Health Education, The University of Texas at Austin
- 2005-2007 **Laboratory Assistant**, Exercise and Environmental Physiology Laboratory, Department of Human Physiology, University of Oregon

RESEARCH STATEMENT

My research goal is to understand the impact of exercise on the brain function and structure, including neurocognitive and cerebrovascular functions in healthy adults and patients. Particularly, I am interested in the roles of aerobic exercise and cardiovascular function for improving the gray and white matter integrity, neural activity underlying cognitive performance, and cerebral blood and cerebrospinal fluid (CSF) flows. My recent research interest resides in the following questions. (1) How does exercise acutely alter cognitive function and its underlying neural activity, as well as the cerebral blood and CSF flows? (2) How does exercise training alter imaging biomarkers of cerebral small vessel disease in older adults? (3) How does resistance exercise impact cerebral and systemic hemodynamic controls? To address these questions, I use multimodal physiological imaging techniques such as magnetic resonance imaging (MRI), transcranial Doppler (TCD), and near infrared spectroscopy (NIRS).

GRANTS AND AWARDS*In Japan*

- 2022- **Grant-in-Aid for Scientific Research (22H03491)**
Title: Brain Waste Clearance, Arterial Stiffness, and Aerobic Exercise Training: A Study for Preventing Dementia
Funder: Japan Society for the Promotion of Science
- 2020- **AIST Edge Runners (intramural)**
Title: Development of Brain Aging Index for Risk Assessment and Prevention of Dementia
Funder: National Institute of Advanced Industrial Science and Technology
- 2020 **Research Funding for Sports Science**
Title: Athlete Brain: Effects of High-Intensity Aerobic Exercise Training on Brain Neural Function and Cardiovascular Function
Funder: The Descente and Ishimoto Memorial Foundation for the Promotion of Sports Science
- 2019-2021 **Grant-in-Aid for Young Scientists (19K19970)**
Title: Intracranial Fluid Dynamics and Cerebral Small Vessel Disease: Association with Age and Physical Activity
Funder: Japan Society for the Promotion of Science

- 2019 **Grant-in-Aid for Young Scientists**
Title: Effect of rhythmic handgrip exercise on intracranial fluid dynamics and brain neural activity
Funder: Meiji Yasuda Life Foundation of Health and Welfare
- 2018-2020 **Grant-in-Aid for Exploratory Research (intramural)**
Title: The Quantification of Brain Aging: Associations with Physical Activity and Vascular function
Funder: National Institute of Advanced Industrial Science and Technology
- In the United States*
- 2016-2018 **NIH Pathway to Independence Award (K99HL133449)**
Title: Midlife Brain Plasticity: Exercise and Vascular Function
Funder: National Heart, Lung, and Blood Institute (United States)
- 2014-2016 **AHA Postdoctoral Fellowship (14POST20140013)**
Title: Arterial Stiffness, Intracranial Hemodynamics and Leukoaraiosis in Isolated Systolic Hypertension
Funder: American Heart Association – Southwest Affiliate (United States)
- 2011-2012 **Livingston Continuing Endowed Fellowship**
Title: Regular Aerobic Exercise and Cognitive Function: The Roles of Vascular Function and Plasma Insulin
Funder: The University of Texas at Austin (United States)
- 2010 **School of Education Centennial Endowed Presidential Scholarship**
Funder: The University of Texas at Austin (United States)

SYMPOSIUM AND INVITED LECTURES

1. “Does Aerobic Exercise Prevent Dementia? – Effect of One-Year Aerobic Exercise on Neurocognitive Function –” presented at the BPCNP4, Tokyo, Japan, November 2022
2. “Mind-Body Interaction: How does aerobic exercise improve brain function in aging adults?” presented at the Enhancing Skills and Knowledge for Postgraduate Physical Therapy Students (Mahidol University, Thailand), Online, June 2022
3. “Proximal Aorta and Intracranial Fluid Dynamics in Endurance Athletes: The Findings from MRI Studies” presented at the European College of Sports Science, Online, September 2021
4. “Exercise and Brain in Older Adults: Physiological Studies for Preventing Dementia” presented at the 29th meeting of the Japan Society of Exercise and Sports Physiology, Online, August 2021
5. “Brain Aging and Aerobic Exercise: Neurocognitive Effects and Cerebrovascular Function” presented at the Cerebral Blood Flow Virtual Seminar Series, Online, March 2021

6. “The Role of Exercise and Cardiovascular Health for “Aging” Brain” presented at the Montpellier University, France, October 2019
7. “Does regular physical exercise slow brain aging and prevent dementia? Current evidence on cognition, brain structure, and cerebrovascular function” presented at the 2019 International Conference on Exercise Physiology and Fitness, National Taiwan Sport University, Taiwan, June 2019
8. “What is Good for the Heart is Good for the Brain? Cerebral Hemodynamics with Aging, Exercise Training, and Brain Function” presented at the Xuanwu Hospital Capital Medical University, Beijing, China, May 2019
9. “Cerebral Pressure-Flow Relation: Associations with Age, Exercise, and Brain Function” presented at the Chinese University of Hong Kong, China, May 2019
10. “The Aging Brain: Association with Vascular Function and Cardiorespiratory Fitness” presented at the 37th ARIHHP Human High-Performance Seminar, University of Tsukuba, Tsukuba, Japan, July 2018
11. “The Aging Brain: Link between Cardiovascular and Neurocognitive Function” presented at the Clinical Translational Research Forum, University of Texas at Arlington, Texas, USA, September 2017
12. “Aerobic Exercise, Neurocognitive Function, and Imaging Biomarkers in MCI Patients (A Randomized Controlled Trial)” presented at the ACSM's 64th Annual Meeting, World Congress on the Basic Science of Exercise and the Brain, Denver, Colorado, USA, June 2017
13. “The Aging Brain: Role of Cardiovascular Function and Fitness” presented at the Montreal Heart Institute, Montreal, Canada, May 2017
14. “Arterial Aging, Cardiorespiratory Fitness and Brain Neuronal Fiber Integrity” presented at the 39th GRSNC Symposium, Montreal, Canada, May 2017
15. “What's Good for the Heart Is Good for the Brain” presented at the Texas Health Resources University, Dallas, Texas, USA, November 2016
16. “What's Good for the Heart Is Good for the Brain” presented at the National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan, March 2016
17. “Amyloid Burden in Mild Cognitive Impairment: Associations with Ambulatory Blood Pressure profile and Cerebral Hemodynamics” presented at the Department of Radiology, UT Southwestern Medical Center, Dallas, Texas, USA, February 2015
18. “Central Artery Stiffness, Baroreflex Sensitivity, and Brain White Matter Integrity in Older Adults” presented at the Department of Kinesiology and Health Education, The University of Texas at Austin, Texas, USA, August 2014
19. “Cerebral Hemodynamics in Normal Aging: Associations with Central Hemodynamics and Cerebral

Small Vessel Disease” presented at the University of Kyorin, Tokyo, Japan, January 2014

20. “Cerebral Hemodynamics in Normal Aging: Impact of Central Arterial Stiffness and Pressure Pulsatility” presented at the Department of Biomedical Engineering, The University of Texas at Arlington, Texas, USA, November 2013

21. “Exercise, aging and the cardiovascular system” presented at the Texas Health Presbyterian Dallas, Texas, USA, March 2013

PROFESSIONAL SERVICES

Ad-Hoc Journal Reviews

- Alzheimer's & Dementia
- American Journal of Hypertension
- American Journal of Physiology – Heart and Circulatory Physiology
- American Journal of Physiology – Regulatory, Integrative and Comparative Physiology
- Annals of Medicine
- BMC Cardiovascular Disorders
- Brain Imaging and Behavior
- Current Alzheimer Research
- Current Hypertension Reviews
- European Journal of Sport Science
- Exercise and Sport Sciences Reviews
- Experimental Gerontology
- Experimental Physiology
- Frontiers in Aging Neuroscience
- Frontiers in Physiology
- Human Brain Mapping
- Hypertension
- Hypertension research
- Journal Alzheimer's Disease
- Journal of the American Heart Association
- Journal of Aging and Physical Activity
- Journal of Applied Physiology
- Journal of Cardiovascular Research
- Journal of Cerebral Blood Flow and Metabolism
- J Clinical Ultrasound
- Journal of Human Hypertension
- Journal of Neuroradiology
- Journal of Neurophysiology
- Journal Neuroscience Methods
- Journal of Physiology
- Journal of Physiological Sciences
- Journal of the International Neuropsychological Society
- Microvascular Research
- Medicine & Science in Sports & Exercise

- Neurobiology of Aging
- NeuroImage
- NeuroImage Clinical
- Neurology
- Neuroscience
- Nutrition, Metabolism & Cardiovascular Diseases
- Nutrition research
- Pediatrics
- Physiology and Behavior
- PLOS One
- Psychiatry Research
- Psychosomatic Medicine
- The Physician and Sports medicine

Journal Editor

- Associate Editor for the Journal of Alzheimer's Disease, 2015, 2020, 2021

TEACHING EXPERIENCES

2020-	Introduction to Sports Medicine University of Tsukuba, Japan
2020-	Exercise Physiology & Human Performance University of Tsukuba, Japan
2010-2011	Course Instructor, Systems Physiology Laboratory School of Biological Sciences, The University of Texas at Austin, USA
2010	Guest Lecturer, Exercise Physiology Department of Kinesiology and Health Education, The University of Texas at Austin, USA
2009-2010	Course Instructor, Physiology and Functional Anatomy II Laboratory School of Biological Sciences, The University of Texas at Austin, USA
2008-2009	Course Instructor, Physiology and Functional Anatomy I Laboratory School of Biological Sciences, The University of Texas at Austin, USA
2007-2008	Course Instructor, Weight Training Department of Kinesiology and Health Education, The University of Texas at Austin, USA

PROFESSIONAL MEMBERSHIPS

2019-	Japanese Society of Physical Fitness and Sports Medicine
2008-	American College of Sports Medicine

2009-2020	American Physiological Society
2012-2018	American Heart Association
2007-2012	Texas Chapter of American College of Sports Medicine

PEER-REVIEWED PUBLICATIONS

1. **Tarumi T**, Fukuie M, Yamabe T, Kimura R, Zhu DC, Ohyama-Byun K, Maeda S, Sugawara J. Microstructural Organization of the Corpus Callosum in Young Endurance Athletes: A Global Tractography Study. *Frontiers in Neuroscience*. 2022 (in press).
2. Tomoto T, Verma A, Kostroske K, **Tarumi T**, Patel NR, Pasha EP, Riley J, Tinajero CD, Hynan LS, Rodrigue KM, Kennedy KM, Park DC, Zhang R. One-year aerobic exercise increases cerebral blood flow in cognitively normal older adults. *Journal of Cerebral Blood Flow and Metabolism*. 2022 (in press).
3. Hoshi D, Fukuie M, Hashitomi T, **Tarumi T**, Sugawara J, Watanabe K. Hoshi D, Fukuie M, Hashitomi T, Tarumi T, Sugawara J, Watanabe K. *Physiological Reports*. 10(18):e15475, 2022.
4. Sugawara J, **Tarumi T**, Xing C, Liu J, Tomoto T, Pasha EP, Zhang R. Aerobic exercise training reduces cerebrovascular impedance in older adults: a 1-year randomized controlled trial. *Journal of Applied Physiology*. 133(4):902-912, 2022.
5. **Tarumi T**, Patel NR, Tomoto T, Pasha E, Khan AM, Kostroske K, Riley J, Tinajero CD, Wang C, Hynan LS, Rodrigue KM, Kennedy KM, Park DC, Zhang R. Aerobic exercise training and neurocognitive function in cognitively normal older adults: A one-year randomized controlled trial. *Journal of Internal Medicine*. 292(5): 788-803, 2022.
6. Kosaki K, **Tarumi T**, Mori S, Matsui M, Sugawara J, Sugaya T, Kuro-O M, Saito C, Yamagata K, Oka K, Maeda S. Cerebral and renal hemodynamics: similarities, differences, and associations with chronic kidney disease and aortic hemodynamics. *Hypertension Research*. 45(8):1363-1372, 2022.
7. Mori S, Kosaki K, Matsui M, Takahashi K, Yoshioka M, **Tarumi T**, Sugawara J, Shibata A, Kuro-O M, Saito C, Yamagata K, Oka K, Maeda S. Sedentary behavior is associated with reduced cardiovagal baroreflex sensitivity in healthy adults. *Hypertension Research*. 45(7):1193-1202, 2022.
8. Mori S, **Tarumi T**, Kosaki K, Matsui M, Yoshioka M, Sugawara J, Kuro-O M, Saito C, Yamagata K, Maeda S. Effects of the number of sit-stand maneuver repetitions on baroreflex sensitivity and cardiovascular risk assessments. *American Journal of Physiology. Regulatory, Integrative and Comparative Physiology*. 322(5):R400-R410, 2022.
9. Scheel N, **Tarumi T**, Tomoto T, Cullum CM, Zhang R, Zhu DC. Resting-state functional MRI signal fluctuation amplitudes are correlated with brain amyloid- β deposition in patients with mild cognitive impairment. *Journal of Cerebral Blood Flow & Metabolism*. 42(5):876-890, 2022.

10. Fukuie M, Hoshi D, Hashitomi T, Watanabe K, **Tarumi T**, Sugawara J. Exercise in Water Provides Better Cardiac Energy Efficiency Than on Land. *Frontiers in Cardiovascular Medicine*. Online ahead of print. 2021.
11. Tomoto T, Repshas J, Zhang R, **Tarumi T***. Midlife aerobic exercise and dynamic cerebral autoregulation: associations with baroreflex sensitivity and central arterial stiffness. *Journal of Applied Physiology*. 131(5):1599-1612, 2021. *Corresponding author
12. Tomoto T, Le T, **Tarumi T**, Dieppa M, Bell K, Madden C, Zhang R, Ding K. Carotid Arterial Compliance and Aerobic Exercise Training in Chronic Traumatic Brain Injury: A Pilot Study. *The Journal of Head Trauma Rehabilitation*. Online ahead of print. 2021.
13. Thomas BP, **Tarumi T**, Wang C, Zhu DC, Tomoto T, Munro Cullum C, Dieppa M, Diaz-Arrastia R, Bell K, Madden C, Zhang R, Ding K. Hippocampal and rostral anterior cingulate blood flow is associated with affective symptoms in chronic traumatic brain injury. *Brain Research*. 1771:147631. 2021.
14. Hoshi D, Fukuie M, Tamai S, Momma R, **Tarumi T**, Sugawara J, Watanabe K. Influence of water immersion on the airway impedance measured by forced oscillation technique. *Respiratory Physiology & Neurobiology*. 295:103779. 2022.
15. Kosaki K, **Tarumi T**, Sugawara J, Tanahashi K, Kumagai H, Matsui M, Sugaya T, Osuka Y, Tanaka K, Kuro-O M, Saito C, Yamagata K, Maeda S. Renal hemodynamics across the adult lifespan: Relevance of flow pulsatility to chronic kidney disease. *Experimental Gerontology*. 152:111459. 2021.
16. Tomoto T, Liu J, Tseng BY, Pasha EP, Cardim D, **Tarumi T**, Hynan LS, Munro Cullum C, Zhang R. One-Year Aerobic Exercise Reduced Carotid Arterial Stiffness and Increased Cerebral Blood Flow in Amnesic Mild Cognitive Impairment. *Journal of Alzheimer's Disease*. 80(2):841-853, 2021.
17. **Tarumi T***, Yamabe T, Fukuie M, Zhu DC, Zhang R, Ogoh S, Sugawara J. Brain blood and cerebrospinal fluid flow dynamics during rhythmic handgrip exercise in young healthy men and women. *The Journal of Physiology*. 599(6):1799-1813, 2021. *Corresponding author
18. Sugawara J, **Tarumi T**, Xing C, Liu J, Tomoto T, Pasha EP, Zhang R. Older Age and Male Sex are Associated with Higher Cerebrovascular Impedance. *Journal of Applied Physiology*. 130(1):172-181, 2021.
19. **Tarumi T***, Tomoto T, Repshas J, Wang C, Hynan LS, Cullum CM, Zhu DC, Zhang R. Midlife aerobic exercise and brain structural integrity: Associations with age and cardiorespiratory fitness. *NeuroImage*. 225:117512, 2021. *Corresponding author
20. **Tarumi T***, Yamabe T, Fukuie M, Kimura R, Zhu DC, Ohyama-Byun K, Maeda S, Sugawara J. Proximal Aortic Compliance in Young Male Endurance Athletes: An MRI Study. *Medicine & Science in Sport & Exercise*. 53(3):543-550, 2021. *Corresponding author

21. Tomoto T, **Tarumi T**, Chen J, Pasha EP, Cullum CM, Zhang R. Cerebral Vasomotor Reactivity in Amnesic Mild Cognitive Impairment. *Journal of Alzheimer's Disease*. 77(1): 191-202, 2020.
22. Sugawara J, Tomoto T, Repshas J, Zhang R, **Tarumi T***. Middle-Aged Endurance Athletes Exhibit Lower Cerebrovascular Impedance than Sedentary Peers. *Journal of Applied Physiology*. 129(2): 335-342, 2020. *Corresponding author
23. Ding K, **Tarumi T**, Tomoto T, Mccolloster M, Le T, Dieppa M, Diaz-Arrastia R, Bell K, Madden C, Cullum CM, Zhang R. Impaired cerebral blood flow regulation in chronic traumatic brain injury. *Brain Research*. 1743: 1-10, 2020.
24. Ding K, **Tarumi T**, Wang C, Vernino, S. Zhang R, Zhu DC. Central Autonomic Network Functional Connectivity: Correlation with Baroreflex Function and Cardiovascular Variability in Older Adults. *Brain Structure and Function*. 225(5):1575-1585, 2020.
25. Zhang L, Pasha EP, Liu J, Xing CY, Cardim D, **Tarumi T**, Womack K, Hynan LS, Cullum CM, Zhang R. Steady-state cerebral autoregulation in older adults with amnesic mild cognitive impairment: linear mixed model analysis. *Journal of Applied Physiology*. 129(2):377-385, 2020.
26. Thomas BP, **Tarumi T**, Sheng M, Tseng B, Womack KB, Munro Cullum C, Rypma B, Zhang R, Lu H. Brain Perfusion Change in Patients with Mild Cognitive Impairment After 12 Months of Aerobic Exercise Training. *Journal of Alzheimer's Disease*. 75(2):617-631, 2020.
27. Liu Y, **Tarumi T**, Liu B, Li J, Wu X, Zhang N, Hua Y. Dynamic Cerebral Autoregulation in Preclinical Atherosclerotic Cardiovascular Disease. *Journal of Stroke and Cerebrovascular Diseases*. 29(9):1-7, 2020.
28. Pasha EP, Rutjes E, Tomoto T, **Tarumi T**, Stowe A, Claassen JAHR, Munro Cullum C, Zhu DC, Zhang R. Carotid Stiffness is Associated with Brain Amyloid- β Burden in Amnesic Mild Cognitive Impairment. *Journal of Alzheimer's Disease*. 74(3):925-935, 2020.
29. Elting JW, Sanders ML, Panerai RB, Aries M, Bor-Seng-Shu E, Caicedo A, Chacon M, Gommer ED, Van Huffel S, Jara JL, Kostoglou K, Mahdi A, Marmarelis VZ, Mitsis GD, Müller M, Nikolic D, Nogueira RC, Payne SJ, Puppo C, Shin DC, Simpson DM, **Tarumi T**, Yelicich B, Zhang R, Claassen JAHR. Assessment of dynamic cerebral autoregulation in humans: Is reproducibility dependent on blood pressure variability? *PLoS One*. 15(1):e0227651, 2020.
30. Tanaka H, **Tarumi T**, Rittweger J. Aging and Physiological Lessons from Master Athletes. *Comprehensive Physiology*. 18;10(1):261-296, 2020.
31. **Tarumi T**, Thomas BP, Tseng BY, Wang C, Womack KB, Hynan L, Lu H, Cullum CM, Zhang R. Cerebral White Matter Integrity in Amnesic Mild Cognitive Impairment: A 1-Year Randomized Controlled Trial of Aerobic Exercise Training. *Journal of Alzheimer's Disease*. 73(2):489-501, 2020.
32. Ogoh S, **Tarumi T**. Cerebral blood flow regulation and cognitive function: a role of arterial baroreflex function. *The Journal of Physiological Sciences*. 69(6):813-823, 2019.

33. **Tarumi T**, Rossetti H, Thomas BP, Harris T, Tseng BY, Turner M, Wang C, German Z, Martin-Cook K, Stowe AM, Womack KB, Mathews D, Kerwin DR, Hynan L, Diaz-Arrastia R, Lu H, Munro Cullum C, Zhang R. Exercise Training in Amnesic Mild Cognitive Impairment: A 1-Year Randomized Controlled Trial. *Journal of Alzheimer's Disease*. 71(2):421-433, 2019.
34. Sanders ML, Elting JWJ, Panerai RB, Aries M, Bor-Seng-Shu E, Caicedo A, Chacon M, Gommer ED, Van Huffel S, Jara JL, Kostoglou K, Mahdi A, Marmarelis VZ, Mitsis GD, Müller M, Nikolic D, Nogueira RC, Payne SJ, Puppo C, Shin DC, Simpson DM, **Tarumi T**, Yelicich B, Zhang R, Claassen JAHR. Dynamic Cerebral Autoregulation Reproducibility Is Affected by Physiological Variability. *Frontiers in Physiology*. 10:865, 2019.
35. Marmarelis VZ, Shin DC, **Tarumi T**, Zhang R. Comparing model-based cerebrovascular physiologic markers with DTI biomarkers in MCI patients. *Brain and Behavior*. 9(8):e01356, 2019.
36. Shadiow J, **Tarumi T**, Dhindsa M, Hunter SD. A Comparison of Blood Viscosity and Hematocrit Levels between Yoga Practitioners and Sedentary Adults. *International Journal of Exercise Science*. 12(2):425-432, 2019.
37. Tomoto T, Riley J, Turner M, Zhang R, **Tarumi T***. Cerebral Vasomotor Reactivity during Hypo- and Hypercapnia across the Adult Lifespan. *Journal of Cerebral Blood Flow and Metabolism*. Mar;40(3):600-610, 2020. *Corresponding author
38. Cornwell WK 3rd, Ambardekar AV, Tran T, Pal JD, Cava L, Lawley J, **Tarumi T**, Cornwell CL, Aaronson K. Stroke Incidence and Impact of Continuous-Flow Left Ventricular Assist Devices on Cerebrovascular Physiology. *Stroke*. 50(2):542-548, 2019.
39. Hieda M, Howden E, Shibata S, Fujimoto N, Bhella PS, Hastings JL, **Tarumi T**, Sarma S, Fu Q, Zhang R, Levine BD. Impact of Lifelong Exercise Training Dose on Ventricular-Arterial Coupling. *Circulation*. 138(23):2638-2647, 2019.
40. Cornwell III WK, **Tarumi T**, Lawley JS, Ambardekar AV. CrossTalk opposing view: Blood flow pulsatility in left ventricular assist device patients is NOT essential to maintain normal brain physiology. *Journal of Physiology*. 597(2):357-359, 2019.
41. Sanders ML, Claassen JAHR, Aries M, Bor-Seng-Shu E, Caicedo A, Chacon M, Gommer ED, Van Huffel S, Jara JL, Kostoglou K, Mahdi A, Marmarelis VZ, Mitsis GD, Müller M, Nikolic D, Nogueira RC, Payne SJ, Puppo C, Shin DC, Simpson DM, **Tarumi T**, Yelicich B, Zhang R, Panerai RB, Elting JWJ. Reproducibility of dynamic cerebral autoregulation parameters: a multi-centre, multi-method study. *Physiological measurement*. 39(12):125002, 2018.
42. Hieda M, Howden EJ, Sarma S, Cornwell W, Lawley JS, **Tarumi T**, Palmer D, Samels M, Everding B, Livingston S, Fu Q, Zhang R, Levine BD. The impact of 2-years of high intensity exercise training on a model of integrated cardiovascular regulation. *Journal of Physiology*. 597(2):419-429, 2019.
43. Opondo MA, Aiad N, Cain MA, Sarma S, Howden E, Stoller DA, Ng J, van Rijckevorsel P, Hieda M, **Tarumi T**, Palmer MD, Levine BD. Does High-Intensity Endurance Training Increase the Risk

of Atrial Fibrillation? A Longitudinal Study of Left Atrial Structure and Function. *Circulation. Arrhythmia and electrophysiology*. 11(5):e005598, 2018.

44. **Tarumi T**, Thomas BP, Wang C, Zhang L, Liu J, Turner M, Riley J, Tangella N, Womack KB, Kerwin DR, Cullum CM, Lu H, Vongpatanasin W, Zhu DC, Zhang R. Ambulatory Pulse Pressure, Brain Neuronal Fiber Integrity, and Cerebral Blood Flow in Older Adults. *Journal of Cerebral Blood Flow and Metabolism*. 39(5):926-936, 2019.
45. Ding K*, **Tarumi T***, Zhu DC, Tseng B, Thomas BP, Turner M, Repshas J, Kerwin DR, Womack KB, Lu H, Cullum CM, Zhang R. Cardiorespiratory Fitness and White Matter Neuronal Fiber Integrity in Mild Cognitive Impairment. *Journal of Alzheimer's Disease*. 61(2):729-739, 2018.
*Equal contribution
46. Hieda M, Howden E, Shibata S, **Tarumi T**, Lawley JS, Hearon CM Jr, Palmer MD, Fu Q, Zhang R, Sarma S, Levine BD. Pre-load Corrected Dynamic Starling Mechanism in Patients with Heart Failure with Preserved Ejection Fraction. *Journal of Applied Physiology*. 124(1):76-82, 2018.
47. **Tarumi T***, Zhang R. Cerebral blood flow in normal aging adults: cardiovascular determinants, clinical implications, and aerobic fitness. *Journal of Neurochemistry*. 144(5):595-608, 2018.
*Corresponding author
48. Stowe AM, Ireland SJ, Ortega SB, Chen D, Huebinger RM, **Tarumi T**, Harris TS, Cullum CM, Rosenberg R, Monson NL, Zhang R. Adaptive lymphocyte profiles correlate to brain A β burden in patients with mild cognitive impairment. *Journal of Neuroinflammation*. 14(1):149-160, 2018.
49. Pasha EP, **Tarumi T**, Haley AP, Tanaka H. Transcranial Doppler of the middle cerebral artery indicates regional gray matter cerebral perfusion. *Physiological Measurement*. 38(12):2176-2185, 2017.
50. De Jong, **Tarumi T**, Liu J, Zhang R, Claassen AHR. Lack of linear correlation between dynamic and steady state cerebral autoregulation. *The Journal of Physiology*. 595(16):5623-5636, 2017.
51. Chalak LF, Tian F, Adams-Huet B, Vasil D, Laptook A, **Tarumi T**, and Zhang R. Novel Wavelet Real Time Analysis of Neurovascular Coupling in Neonatal Encephalopathy. *Scientific Report*. doi:10.1038/srep45958, 2017.
52. Xing CY, **Tarumi T**, Meijers RL, Turner M, Repshas J, Xiong L, Ding K, Vongpatanasin W, Yuan LJ, Zhang R. Arterial Pressure, Heart Rate, and Cerebral Hemodynamics Across the Adult Life Span. *Hypertension*. 69(4):712-720, 2017.
53. Marmarelis VZ, Shin DC, **Tarumi T**, Zhang R. Comparison of Model-Based Indices of Cerebral Autoregulation and Vasomotor Reactivity Using Transcranial Doppler versus Near-Infrared Spectroscopy in Patients with Amnesic Mild Cognitive Impairment. *Journal of Alzheimer's Disease*. 56(1):89-105, 2017.
54. Xing CY, **Tarumi T**, Liu J, Zhang Y, Turner M, Riley J, Tinajero CD, Yuan LJ, Zhang R. Distribution of cardiac output to the brain across the adult lifespan. *Journal of Cerebral Blood Flow & Metabolism*. 37(8):2848-2856, 2017.

55. Hunter SD, Dhindsa MS, Cunningham E, **Tarumi T**, Alkatan M, Nualnim N, Elmenshaw A, Tanaka H. The effect of Bikram yoga on endothelial function in young and middle-aged and older adults. *Journal of Bodywork and Movement Therapies*. 21(1):30-34, 2017.
56. Thomas BP, Sheng M, Tseng BY, **Tarumi T**, Martin-Cook K, Womack KB, Cullum MC, Levine BD, Zhang R, Lu H. Reduced brain oxygen metabolism but maintained vascular reactivity in amnesic MCI. *Journal of Cerebral Blood Flow & Metabolism*. 37(4):1508-1516, 2017.
57. Oleson S, Gonzales MM, **Tarumi T**, Davis JN, Cassill CK, Tanaka H, Haley AP. Nutrient intake and cerebral metabolism in healthy middle-aged adults: Implications for cognitive aging. *Nutritional Neuroscience*. 20(8):489-496, 2017.
58. Khan MA, Liu J, **Tarumi T**, Lawley JS, Liu P, Zhu DC, Lu H, Zhang R. Measurement of cerebral blood flow using phase contrast MRI and duplex ultrasonography. *Journal of Cerebral Blood Flow & Metabolism*. 37 (2):541-549, 2017.
59. Hunter SD, Dhindsa MS, Cunningham E, **Tarumi T**, Alkatan M, Nualnim N, Tanaka H. Impact of Hot Yoga on Arterial Stiffness and Quality of Life in Normal and Overweight/Obese Adults. *Journal of Bodywork and Movement Therapies*. 13(12):1360-1363, 2016.
60. Liu J, Tseng BY, Khan MA, **Tarumi T**, Hill C, Mirshams N, Hodics TM, Hynan LS, Zhang R. Individual Variability of Cerebral Autoregulation, Posterior Cerebral Circulation and White Matter Hyperintensity. *The Journal of Physiology*. 594(11):3141-55, 2016.
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