

Curriculum Vitae

Takashi Tarumi, Ph.D.

CONTACT INFORMATION

Human Informatics and Interaction Research Institute
National Institute of Advanced Industrial Science and Technology
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**Currently looking for doctoral students*

ACADEMIC DEGREES

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|--------------|--|------|
| Ph.D. | The University of Texas at Austin, Austin, Texas, USA College of Education Department of Kinesiology and Health Education Dissertation: <i>Regular Aerobic Exercise and Cognitive Function: The Roles of Vascular Function and Plasma Insulin</i> Advisor: Hirofumi Tanaka | 2012 |
| M.A. | The University of Texas at Austin, Austin, Texas, USA College of Education Department of Kinesiology and Health Education Advisor: Hirofumi Tanaka | 2009 |
| B.S. | University of Oregon, Eugene, Oregon, USA Major: Human Physiology, Minor: Biology | 2006 |

PROFESSIONAL APPOINTMENTS AND EXPERIENCE

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| Chief Senior Researcher Human Informatics and Interaction Research Institute National Institute of Advanced Industrial Science and Technology Tsukuba, Japan | 2023-present |
| Visiting Associate Professor Graduate School of Comprehensive Human Sciences University of Tsukuba, Japan | 2020-present |
| Associate Scientist Institute for Exercise and Environmental Medicine Texas Health Presbyterian Hospital Dallas Dallas, Texas, USA | 2018-present |
| Senior Researcher Human Informatics and Interaction Research Institute | 2018-2022 |

National Institute of Advanced Industrial Science and Technology
Tsukuba, Japan

Instructor in Research Track 2016-2018
Department of Neurology
University of Texas Southwestern Medical Center
Dallas, Texas, USA

Postdoctoral Fellow 2012-2016
Department of Internal Medicine
University of Texas Southwestern Medical Center
Supervisor: Rong Zhang, Ph.D.

Graduate Research Fellow 2012
Department of Kinesiology and Health Education
The University of Texas at Austin

Student Representative for the Texas Chapter of American College of Sports Medicine 2009-2012

Graduate Teaching Fellow 2008-2011
School of Biological Sciences
The University of Texas at Austin

Graduate Teaching Fellow 2007
Department of Kinesiology and Health Education
The University of Texas at Austin

Laboratory Assistant 2005-2007
Exercise and Environmental Physiology Laboratory Department of Human Physiology, University of Oregon
Advisor: Christopher Minson

GRANTS

Extramural Awards

Japan Society for the Promotion of Science 2022-present
Grant-in-Aid for Scientific Research (A), 22H00499
Role: Co-I (PI: Takeshi Nishiyasu, Ph.D.)

Japan Society for the Promotion of Science 2022-present
Grant-in-Aid for Scientific Research (B), 22H03491
“Brain Waste Clearance, Arterial Stiffness, and Aerobic Exercise Training: A Study for Preventing Dementia”
Role: PI

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| Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research (B), 22H03493 Role: Co-I (PI: Soichi Ando, Ph.D.) | 2022-present |
| Japan Society for the Promotion of Science Grant-in-Aid for Challenging Research (Pioneering), 21K18299 Role: Co-I (PI: Jun Sugawara, Ph.D.) | 2021-present |
| Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research (B), 20H04086 Role: Co-I (PI: Jun Sugawara, Ph.D.) | 2020-present |
| Japan Society for the Promotion of Science Grant-in-Aid for Challenging Research (Exploratory), 20K20859 Role: Co-I (PI: Saho Ayabe, Ph.D.) | 2020-2022 |
| Meiji Yasuda Life Foundation of Health and Welfare Grant-in-Aid for Young Scientists “Effects of age and acute aerobic exercise on the brain waste clearance” Role: PI | 2020-2022 |
| Descente and Ishimoto Memorial Foundation for the Promotion of Sports Science Research Funding for Sports Science “Athlete Brain: Effects of High-Intensity Aerobic Exercise Training on Brain Neural Function and Cardiovascular Function” Role: PI | 2020 |
| Japan Society for the Promotion of Science Grant-in-Aid for Challenging Research (Exploratory), 19K22796 Role: Co-I (PI: Seiji Maeda, Ph.D.) | 2019-2021 |
| Japan Society for the Promotion of Science Grant-in-Aid for Young Scientists, 19K19970 “Intracranial Fluid Dynamics and Cerebral Small Vessel Disease: Association with Age and Physical Activity” Role: PI | 2019-2021 |
| Japan Society for the Promotion of Science Grant-in-Aid for Scientific Research (B), 17H02186 Role: Co-I (PI: Jun Sugawara, Ph.D.) | 2017-2020 |
| Meiji Yasuda Life Foundation of Health and Welfare Grant-in-Aid for Young Scientists “Effect of rhythmic handgrip exercise on intracranial fluid dynamics and brain | 2018-2019 |

neural activity”

Role: PI

National Heart, Lung, and Blood Institute

2016-2018

NIH Pathway to Independence Award, K99HL133449

“Midlife Brain Plasticity: Exercise and Vascular Function”

Role: PI

American Heart Association

2014-2016

AHA Postdoctoral Fellowship, 14POST20140013

“Arterial Stiffness, Intracranial Hemodynamics and Leukoaraiosis in Isolated Systolic Hypertension”

Role: PI

Intramural Awards

National Institute of Advanced Industrial Science and Technology

2020-present

AIST Edge Runners

“Development of Brain Aging Index for Risk Assessment and Prevention of Dementia”

Role: PI

National Institute of Advanced Industrial Science and Technology

2018-2020

Grant-in-Aid for Exploratory Research

“The Quantification of Brain Aging: Associations with Physical Activity and Vascular function”

Role: PI

The University of Texas at Austin

2011-2012

Livingston Continuing Endowed Fellowship

“Regular Aerobic Exercise and Cognitive Function: The Roles of Vascular Function and Plasma Insulin”

Role: PI

The University of Texas at Austin (United States)

2010

School of Education Centennial Endowed Presidential Scholarship

Trainee Grants

Japan Society for the Promotion of Science

2023-present

Research Fellowships for Young Scientists (PD)

Awarded to Marina Fukuie, Ph.D. (postdoc)

Japan Society for the Promotion of Science

2023-present

Research Fellowships for Young Scientists (PD)

Awarded to Ayumi Fukazawa, Ph.D. (postdoc)

INVITED PRESENTATIONS AND SEMINARS

1. “Exercise and Brain Function in Athletes and Prevention of Dementia” presented at the International Conference in Sports and Exercise Science 2023, Taiwan, June 3rd 2023.
2. “Exercise Training for the Aging Brain: Timing, Dose, and Mechanisms” presented at the ACSM 2023 Annual Meeting and World Congress, Denver, Colorado, June 1st 2023.
3. “Exercise Training for the Aging Brain: Dementia Prevention Research” presented at a study abroad program of the University of Texas at Austin in Tokyo, Japan, May 23rd 2023.
4. “Neurocognitive and Vascular Effects of Exercise for Preventing Dementia” presented at the International Conference in Sports and Exercise Science 2022, Taiwan, December 2022.
5. “Does Aerobic Exercise Prevent Dementia? – Effect of One-Year Aerobic Exercise on Neurocognitive Function –” presented at the BPCNP4, Tokyo, Japan, November 2022.
6. “Exercise, Intracranial Flow Dynamics, and Brain Structure Studied by Magnetic Resonance Imaging” presented at the Institute for Exercise and Environmental Medicine, Dallas, Texas, USA, September 2022.
7. “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.
8. “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.
9. “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.
10. “Brain Aging and Aerobic Exercise: Neurocognitive Effects and Cerebrovascular Function” presented at the Cerebral Blood Flow Virtual Seminar Series, Online, March 2021.
11. “The Role of Exercise and Cardiovascular Health for “Aging” Brain” presented at the Montpellier University, France, October 2019.
12. “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.
13. “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.

14. “Cerebral Pressure-Flow Relation: Associations with Age, Exercise, and Brain Function” presented at the Chinese University of Hong Kong, China, May 2019.
15. “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.
16. “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.
17. “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.
18. “The Aging Brain: Role of Cardiovascular Function and Fitness” presented at the Montreal Heart Institute, Montreal, Canada, May 2017.
19. “Arterial Aging, Cardiorespiratory Fitness and Brain Neuronal Fiber Integrity” presented at the 39th GRSNC Symposium, Montreal, Canada, May 2017.
20. “What's Good for the Heart Is Good for the Brain” presented at the Texas Health Resources University, Dallas, Texas, USA, November 2016.
21. “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.
22. “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.
23. “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.
24. “Cerebral Hemodynamics in Normal Aging: Associations with Central Hemodynamics and Cerebral Small Vessel Disease” presented at the University of Kyorin, Tokyo, Japan, January 2014.
25. “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.
26. “Exercise, aging and the cardiovascular system” presented at the Texas Health Presbyterian

Dallas, Texas, USA, March 2013.

PROFESSIONAL SERVICE

Journal Editor

Journal of Applied Physiology, Editor (2023-present)

Frontiers in Physiology, Associate editor (2022-present)

Journal of Alzheimer's Disease, Associate editor (2015, 2020, 2021)

Journal Referee

Alzheimer's & Dementia (2020-), *American Journal of Physiology-Heart and Circulatory Physiology* (2013-), *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology* (2016-), *Annals of Medicine* (2014-), *BMC Cardiovascular Disorders* (2016-), *Brain Imaging and Behavior* (2018-), *Brain Plasticity* (2021-), *Cells* (2022-), *Cerebral Cortex* (2021-), *Clinical Autonomic Research* (2021-), *Current Alzheimer Research* (2018-), *Current Hypertension Reviews* (2016-), *European Journal of Sport Science* (2021-), *Exercise and Sport Sciences Reviews* (2019-), *Experimental Gerontology* (2016-), *Experimental Physiology* (2020-), *Frontiers in Aging Neuroscience* (2020-), *Frontiers in Behavioral Neuroscience* (2021-), *Frontiers in Human Neuroscience* (2021-), *Frontiers in Neuroscience* (2020-), *Frontiers in Physiology* (2017-), *Human Brain Mapping* (2019-), *Hypertension* (2015-), *Hypertension Research* (2019-), *International Journal of Neuroscience* (2022-), *Journal Alzheimer's Disease* (2020-), *Journal of the American Heart Association* (2016-), *Journal Aging and Physical Activity* (2018-), *Journal of Applied Physiology* (2014-), *Journal of Cardiovascular Research* (2015-), *Journal of Cerebral Blood Flow and Metabolism* (2021-), *Journal of Clinical Ultrasound* (2019-), *Journal of Integrative and Complementary Medicine* (2022-), *Journal of Human Hypertension* (2016-), *Journal of Neurophysiology* (2016-), *Journal of Neuroradiology* (2022-), *Journal Neuroscience Methods* (2019-), *Journal of Physiological Sciences* (2017-), *Journal of Physiology* (2021-), *Journal of the International Neuropsychological Society* (2015-), *Microvascular Research* (2017-), *Medicine & Science in Sports & Exercise* (2018-), *Neurobiology of Aging* (2019-), *NeuroImage* (2018-), *NeuroImage Clinical* (2016-), *Neurology* (2015-), *Neurorehabilitation and Neural Repair* (2021-), *Neuroscience* (2018-), *Nutrition, Metabolism & Cardiovascular Diseases* (2014-), *Nutrition Research* (2018-), *Pediatrics* (2016-), *Physiology and Behavior* (2020-), *PLOS One* (2017-), *Psychiatry Research* (2017-), *Psychosomatic Medicine* (2019-), *The Physician and Sports medicine* (2015-)

ACADEMIC ADVISING

Doctoral Students Supervised

Qin Wenxing
Faculty of Health and Sport Sciences
University of Tsukuba, Japan

2022-present
(mentor)

Tomoko Kaneko
Faculty of Health and Sport Sciences

2021-present
(subadvisor)

University of Tsukuba, Japan

Membership on Dissertation Committee

Sonchai Ponlasen 2023-present
Faculty of Sports Science
Chulalongkorn University, Thailand

Thanwalai Pisalayon 2020-present
Faculty of Physical Therapy
Mahidol University, Thailand

Atef Badji 2021
Department of Neuroscience, Faculty of Medicine
University of Montreal, Canada

TEACHING AND LECTURE EXPERIENCE

Course Instructor (*taught in Japanese*) 2020-present
Introduction to Sports Medicine II
Graduate School of Comprehensive Human Sciences
University of Tsukuba, Japan

Guest Lecturer (*taught in English*) 2020-present
Exercise Physiology & Human Performance
Tsukuba International Academy for Sport Studies (TIAS)
University of Tsukuba, Japan

Course Instructor (*taught in English*) 2010-2011
Systems Physiology Laboratory
School of Biological Sciences, The University of Texas at Austin, USA

Guest Lecturer (*taught in English*) 2010
Exercise Physiology
Department of Kinesiology and Health Education
The University of Texas at Austin, USA

Course Instructor (*taught in English*) 2009-2010
Physiology and Functional Anatomy II Laboratory
School of Biological Sciences
The University of Texas at Austin, USA

Course Instructor (*taught in English*) 2008-2009
Physiology and Functional Anatomy I Laboratory
School of Biological Sciences
The University of Texas at Austin, USA

Course Instructor (*taught in English*) 2007-2008
 Physical Education (weight training)
 Department of Kinesiology and Health Education
 The University of Texas at Austin, USA

PROFESSIONAL SOCIETIES

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| Japanese Society of Physical Fitness and Sports Medicine | 2019-present |
| American College of Sports Medicine | 2008-present |
| American Physiological Society | 2009-2020 |
| American Heart Association | 2012-2018 |
| Texas Chapter of American College of Sports Medicine | 2007-2012 |

PEER-REVIEWED PUBLICATIONS

1. **Tarumi T**, Zhang R. Point-Counterpoint: Transfer function analysis of dynamic cerebral autoregulation: To band or not to band? *Journal of Cerebral Blood Flow and Metabolism*. 2023 (in press).
2. Tomoto T, **Tarumi T**, Zhang R. Central arterial stiffness, brain white matter hyperintensity and total brain volume across the adult lifespan. *Journal of Hypertension*. 41(5):819-829, 2023.
3. Tomoto T, Lu M, Khan AM, Liu J, Pasha EP, **Tarumi T**, Zhang R. Cerebral blood flow and cerebrovascular resistance across the adult lifespan: A multimodality approach. *Journal of Cerebral Blood Flow and Metabolism*. 43(6):962-976, 2023.
4. Hashitomi T, Hoshi D, Fukuie M, **Tarumi T**, Sugawara J, Watanabe K. Differences in the prefrontal cortex responses of healthy young men performing either water-based or land-based exercise at light to moderate intensity. *Experimental Brain Research*. 241(4):991-1000, 2023.
5. 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*. 43(3):404-418, 2023.
6. **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*. DOI: 10.3389/fnins.2022.1042426. eCollection 2022.
7. Hoshi D, Fukuie M, Hashitomi T, **Tarumi T**, Sugawara J, Watanabe K. Respiratory function and breathing response to water- and land-based cycling at the matched oxygen uptake. *Physiological Reports*. 10(18):e15475, 2022.

8. 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.
9. **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.
10. 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.
11. 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 cardiovascular baroreflex sensitivity in healthy adults. *Hypertension Research*. 45(7):1193-1202, 2022.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
 19. 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.
 20. 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.
 21. **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.
 22. 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.
 23. **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.
 24. **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.
 25. 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.
 26. 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.
 27. 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.

28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. Tanaka H, **Tarumi T**, Rittweger J. Aging and Physiological Lessons from Master Athletes. *Comprehensive Physiology*. 18;10(1):261-296, 2020.
35. **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.
36. 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.
37. **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.

38. 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.
39. Marmarelis VZ, Shin DC, **Tarumi T**, Zhang R. Comparing model-based cerebrovascular physiometers with DTI biomarkers in MCI patients. *Brain and Behavior*. 9(8):e01356, 2019.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
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ABSTRACTS

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