



ARIHHP SCHOLARLY ACTIVITIES 2020

- ◆ Research Articles: 127
- ◆ Book Chapters: 11
- ◆ Award: 1

A. Department of **Mind**

Research Articles

Budde H, Velasques B, Ribeiro P, Soya H. Editorial: Neuromodulation of exercise: Impact on different kinds of behavior. *Front Neurosci*, 14: 455, 2020.

Kuwamizu R, Suwabe K, Damrongthai C, Fukuie T, Ochi G, Hyodo K, Hiraga T, Nagano-Saito A, Soya H. Is aerobic fitness associated with the dopaminergic system? Evidence from spontaneous eye blink rate. *Med Sci Sports Exerc*, 52(7S): 836, 2020.

Jesmin S, Sohael F, Rahman Ma, Maqbool A, Islam MM, Shima T, Shimojo N, Moroi M, Yamaguchi N, Watanabe K, Takeda F, Soya H. Short term life style intervention program through daily walking improves circulatory low HDL level in rural Bangladeshi women. *J Phys Fit Sport Med*, 9(4): 181-190, 2020.

Miyazaki S, Fujita Y, Oikawa H, Takekoshi H, Soya H, Ogata M, Fujikawa T. Combination of syringaresinol - di - O - β -d-glucoside and chlorogenic acid shows behavioral pharmacological anxiolytic activity and activation of hippocampal BDNF-TrkB signaling. *Sci Rep*, 10: 18177, 2020.

Budnik-Przybylska D, Laskowski R, Pawlicka P, Anikiej-Wiczenbach P, Łada-Maśko A, Szumilewicz A, Makurat F, Przybylski J, Soya H, Kaźmierczak M. Do physical activity and personality matter for hair cortisol concentration and self-reported stress in pregnancy? A pilot cross-sectional study. *Int J Environ Res Public Health*, 17(21): 8050, 2020.

Holbrook AJ, Tustison NJ, Marquez F, Roberts J, Yassa MA, Gillen DL. Anterolateral entorhinal cortex thickness as a new biomarker for early detection of Alzheimer's disease. *Alzheimers Dement (Amst)*, 12(1): e12068, 2020.

Keator DB, Doran E, Taylor L, Phelan MJ, Hom C, Tseung K, van Erp TGM, Potkin SG, Brickman AM, Rosas DH, Yassa MA, Silverman W, Lott IT. Brain amyloid and the transition to dementia in Down syndrome. *Alzheimers Dement (Amst)*, 12(1): e12126, 2020.

Lao PJ, Gutierrez J, Keator D, Rizvi B, Banerjee A, Igwe KC, Laing KK, Sathishkumar M, Moni F, Andrews H, Krinsky-McHale S, Head E, Lee JH, Lai F, Yassa MA, Rosas HD, Silverman W, Lott IT, Schupf N, Brickman AM. Alzheimer-related cerebrovascular disease in down syndrome. *Ann Neurol*, 88(6): 1165-1177, 2020.

Rosas HD, Hsu E, Mercaldo ND, Lai F, Pulsifer M, Keator D, Brickman AM, Price J, Yassa MA, Hom C, Krinsky-McHale SJ, Silverman W, Lott I, Schupf N. Alzheimer-related altered white matter microstructural integrity in Down syndrome: A model for sporadic AD? *Alzheimers Dement (Amst)*, 12(1): e12040, 2020.

Riphagen JM, Schmiedek L, Gronenschild EHB, Yassa MA, Priovoulos N, Sack AT, Verhey FRJ, Jacobs HIL. Associations between pattern separation and hippocampal subfield structure and function vary along the lifespan: A 7 T imaging study. *Sci Rep*, 10(1): 7572, 2020.

Amemiya R, Takahashi G, Randeep R, Kahata M, Isono K, Sakairi Y. Effects of yoga in a physical education course on attention control and mental health among graduate students with high sensory processing sensitivity. *Cogent Psychol*, 7: 1778895, 2020.

Amemiya R, Sakairi Y. The role of self-compassion in athlete mindfulness and burnout: Examination of the effects of gender differences. *Pers Individ Dif*, 166: 110167, 2020.

Inagaki K, Shoji Y, Maehara C, Sakairi Y. Effects of G-ball exercises on mood states and computer task performance. *Sport and Olympic-Paralympic Studies Journal*, 6: 35-42, 2020.

Mieda T, Kokubu M. Blind footballers direct their head towards an approaching ball during ball trapping. *Sci Rep*, 10: 20246, 2020.

Stevenson RF, Reagh ZM, Chun AP, Murray EA, Yassa MA. Pattern Separation and Source Memory Engage Distinct Hippocampal and Neocortical Regions during Retrieval. *J Neurosci*, 40(4): 843-851, 2020.

+13 articles

Books

3 books

Award

1 award

B. Department of **Body**

Research Articles

Amano T, Fujii N, Kenny GP, Nishiyasu T, Inoue Y, Kondo N. The relative contribution of α - and β -adrenergic sweating during heat exposure and the influence of sex and training status. *Exp Dermatol*, 29(12): 1216-1224, 2020.

Amano T, Fujii N, Kenny GP, Okamoto Y, Inoue Y, Kondo N. Effects of L-type voltage-gated Ca²⁺ channel blockade on cholinergic and thermal sweating in habitually trained and untrained men. *Am J Physiol Regul Integr Comp Physiol*, 319(5): R584-R591, 2020.

Fujii N, Kenny GP, McGarr GW, Amano T, Honda Y, Kondo N, Nishiyasu T. TRPV4 channel blockade does not modulate skin vasodilation and sweating during hyperthermia or cutaneous post-occlusive reactive and thermal hyperemia. *Am J Physiol Regul Integr Comp Physiol*, 2020. doi: 10.1152/ajpregu.00123.

Arnold JT, Lloyd AB, Bailey SJ, Fujimoto T, Matsutake R, Takayanagi M, Nishiyasu T, Fujii N. The nitric oxide dependence of cutaneous microvascular function to independent and combined hypoxic cold exposure. *J Appl Physiol*, 129(4): 947-956, 2020.

Fujii N, McGarr GW, Amano T, Sigal RJ, Boulay P, Nishiyasu T, Kenny GP. Ageing augments β -adrenergic cutaneous vasodilatation differently in men and women, with no effect on β -adrenergic sweating. *Exp Physiol*, 105(10): 1720-1729, 2020.

Amano T, Sekihara S, Fujii N, Kenny GP, Inoue Y, Kondo N. Does the iontophoretic application of bretylium tosylate modulate sweating during exercise in the heat in habitually trained and untrained men? *Exp Physiol*, 105(10): 1692-1699, 2020.

Dobashi K, Fujii N, Ichinose M, Fujimoto T, Nishiyasu T. Voluntary hypocapnic hyperventilation lasting 5 min and 20 min similarly reduce aerobic metabolism without affecting power outputs during Wingate anaerobic test. *Eur J Sport Sci*, 1-8, 2020. doi: 10.1080/17461391.2020.1812728.

Fujii N, McGarr GW, Ghassa R, Schmidt MD, McCormick JJ, Nishiyasu T, Kenny GP. Sex-differences in Cholinergic, Nicotinic, and β -adrenergic Cutaneous Vasodilation: Roles of Nitric Oxide Synthase, Cyclooxygenase, and K⁺ Channels. *Microvasc Res*, 131: 104030, 2020.

McGarr GW, Fujii N, Schmidt MD, Muia CM, Kenny GP. Heat shock protein 90 modulates cutaneous vasodilation during an exercise-heat stress, but not during passive whole-body heating in young women. *Physiol Rep*, 8(16): e14552, 2020.

McCormick JJ, King KE, Côté MD, McManus MK, Topshee SM, Hsu HS, Fujii N, Kenny GP. Regulation of autophagy following ex vivo heating in peripheral blood mononuclear cells from young adults. *J Therm Biol*, 91: 102643, 2020.

Schmidt MD, McGarr GW, Muia CM, Fujii N, Amano T, Kenny GP. Regional Influence of Nitric Oxide on Cutaneous Vasodilatation and Sweating During Exercise-Heat Stress in Young Men. *Exp Physiol*, 105(5): 773-782, 2020.

Amano T, Fujii N, Kenny GP, Inoue Y, Kondo N. Does α -1-adrenergic Receptor Blockade Modulate Sweating During Incremental Exercise in Young Endurance-Trained Men? *Eur J Appl Physiol*, 120(5): 1123-1129, 2020.

Ogawa T, Nagao M, Fujii N, Nishiyasu T. Effect of inspiratory muscle-loaded exercise training on peak oxygen uptake and ventilatory response during incremental exercise under normoxia and hypoxia. *BMC Sports Sci Med Rehabil*, 15(12): 25, 2020.

Kosaki K, Kamijo-Ikemori A, Sugaya T, Kumamoto S, Tanahashi K, Kimura K, Shibagaki Y, Maeda S. Incremental short maximal exercise increases urinary liver-type fatty acid-binding protein in adults without CKD. *Scand J Med Sci Sports*, 30: 709-715, 2020.

Kosaki K, Tanahashi K, Matsui M, Akazawa N, Osuka Y, Tanaka K, Dunstan DW, Owen N, Shibata A, Oka K, Maeda S. Sedentary behaviour, physical activity, and renal function in older adults: isothermal substitution modelling. *BMC Nephrol*, 21: 211, 2020.

Park J, Choi Y, Myoenzono K, Yoshikawa T, Tagawa K, Isobe T, Saotome K, Sankai Y, Shimojo N, Maeda S. Effects of aerobic exercise training on the arterial stiffness and intramyocellular or extramyocellular lipid in overweight and obese men. *Clin Exp Hypertens*, 42: 302-308, 2020.

Yoshida Y, Kosaki K, Sugasawa T, Matsui M, Yoshioka M, Aoki K, Kuji T, Mizuno R, Kuro-o M, Yamagata K, Maeda S, Takekoshi K. High salt diet impacts the risk of sarcopenia associated with reduction of skeletal muscle performance. *Nutrients*, 12: 3474, 2020.

Kumagai H, Myoenzono K, Yoshikawa T, Tsujimoto T, Shimomura K, Maeda S. Regular aerobic exercise improves sexual function assessed by Aging Males' Symptoms questionnaire in adult men. *Aging Male*, 23(5): 1194-1201, 2020.

Akazawa N, Tanahashi K, Kosaki K, Kumagai H, Oikawa S, Hamasaki A, Maeda S. The impact of aerobic fitness on arterial stiffness and adrenal cortex hormones in middle-aged and older adults. *Endocr J*, 67: 1199-1205, 2020.

Akazawa N, Tanahashi K, Kosaki K, Hamasaki A, Maeda S. Association between mental health and arterial stiffness in middle-aged and older adults. *Artery Res*, 26: 223-227, 2020.

Monma T, Kohda Y, Yamane M, Mitsui T, Ando K, Takeda F. Prevalence and risk factors of sleep disorders in visually impaired athletes. *Sleep Med*, 79: 175-182, 2020.

Sagayama H, Kondo E, Tanabe Y, Ohnishi T, Yamada Y, Takahashi H. Bone mineral density in male weight-classified athletes is higher than that in male endurance-athletes and non-athletes. *Clin Nutr ESPEN*, 36: 106-110, 2020.

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Nakamura D, Muraishi K, Hasegawa H, Yasumatsu M, Takahashi H. Effect of a cooling strategy combining forearm water immersion and a low dose of ice slurry ingestion on physiological response and subsequent exercise performance in the heat. *J Therm Biol*, 89: 102530, 2020.

Naito T, Haramura M, Muraishi K, Yamazaki M, Takahashi H. Impact of ice slurry ingestion during break-times on repeated-sprint exercise in the heat. *Sports Med Int Open*, 4(2): E45-E52, 2020.

Iwayama K, Onishi T, Maruyama K, Takahashi H. Diurnal variation in the glycogen content of the human liver using ¹³C MRS. *NMR biomedicine*, 33(6): e4289, 2020.

Ishibashi A, Kojima C, Tanabe Y, Iwayama K, Hiroyama T, Tsuji T, Kamei A, Goto K, Takahashi H. Effect of low energy availability during three consecutive days of endurance training on iron metabolism in male long distance runners. *Physiol Rep*, 8: e14494, 2020.

Nakamura D, Tanabe Y, Arimitsu T, Hasegawa H, Takahashi H. Low caffeine dose improves intermittent sprint performance in hot and humid environments. *J Therm Biol*, 93: 102698, 2020.

Iizuka T, Kon M, Maegawa T, Yuda J, Aoyanagi T, Takahashi H, Atomi T, Shimizu M, Atomi Y. Comparison of morning heart rate variability at the beginning and end of a competition season in elite speed skaters. *Sports*, 8(12): 164, 2020.

Shiose K, Kondo E, Takae R, Sagayama H, Motonaga K, Yamada Y, Uehara Y, Higaki Y, Takahashi H, Tanaka H. Validity of bioimpedance spectroscopy in the assessment of total body water and body composition in wrestlers and untrained subjects. *Int J Environ Res Public Health*, 17(24): 9433. 2020.

Yamada Y, Sagayama H, Itoi A, Nishimura M, Fujisawa K, Higaki Y, Kimura M, Aoki Y. Total energy expenditure, body composition, physical activity, and step count in Japanese preschool children: A Study Based on Doubly Labeled Water. *Nutrients*, 12(5): 1223, 2020.

Ogata H, Horie M, Kayaba M, Tanaka Y, Ando A, Park I, Zhang S, Yajima K, Shoda J, Omi N, Kaneko M, Kiyono K, Satoh M, Tokuyama K. Skipping Breakfast for 6 Days Delayed the Circadian Rhythm of the Body Temperature without Altering Clock Gene Expression in Human Leukocytes. *Nutrients*, 12(9): 2797, 2020.

Hattori S, Park S, Park JH, Omi N. The effect of dehydroepiandrosterone administration on intestinal calcium absorption in ovariectomized female rats. *Physiol Act Nutr*, 24(4): 24-27, 2020.

Nakata Y, Sasai H, Tsujimoto T, Hashimoto K, Kobayashi H. A Single Motivational Lecture Can Promote Modest Weight Loss: A Randomized Controlled Trial. *Obes Facts*, 13(2): 267-278, 2020.

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Wakaba K, Sasai H, Nakata Y. Associations of objectively measured physical activity and sleep with weight loss maintenance: a preliminary study of Japanese adults. *Behav Sci (Basel)*, 10(1): 3, 2020.

Zhang S, Osumi H, Uchizawa A, Hamada H, Park I, Suzuki Y, Tanaka Y, Ishihara A, Yajima K, Seol J, Satoh M, Omi N, Tokuyama K. Changes in sleeping energy metabolism and thermoregulation during menstrual cycle. *Physiol Rep*, 8(2): e14353, 2020.

Kumagai H, Yoshikawa T, Kosaki K, Myoenzono K, Maeda S. Deterioration of sexual function is associated with central hemodynamics in adult Japanese men. *Hypertens Res*, 43: 36-44, 2020.

McGarr GW, Ghassa R, Fujii N, Amano T, Kenny GP. Exp Physiol Regional contributions of nitric oxide synthase to cholinergic cutaneous vasodilatation and sweating in young men. *Exp Physiol*, 105(2): 236-243, 2020.

McGarr GW, Fujii N, Muia CM, Nishiyasu T, Kenny GP. Intradermal Administration of Atrial Natriuretic Peptide Attenuates Cutaneous Vasodilation but Not Sweating in Young Men during Exercise in the Heat. *Skin Pharmacol Physiol*, 31: 1-8, 2020.

Fujii N, McGarr GW, McNeely BD, Ichinose M, Nishiyasu T, Kenny GP. KCa and KV channels modulate the venoarteriolar reflex in non-glabrous human skin with no roles of KATP channels, NOS, and COX. *Eur J Pharmacol*, 5: 866, 172828, 2020.

Fujii N, McGarr GW, Kenny GP, Amano T, Honda Y, Kondo N, Nishiyasu T. NO mediated activation of KATP channels contributes to cutaneous thermal hyperaemia in young adults. *Am J Physiol Regul Integr Comp Physiol*, 318(2): R390-R398, 2020.

Aikawa Y, Murata M, Omi N. Relationship of height, body mass, Muscle mass, fat mass, and the percentage of fat with athletic performance in male Japanese college sprinters, distance athletes, jumpers, throwers, and decathletes. *J Phys Fitness Sports Med*, 9(1): 7-14, 2020.

Tanaka Y, Ogata H, Kayaba M, Ando A, Park I, Yajima K, Araki A, Suzuki C, Zhang S, Ishihara A, Takahashi K, Shoda J, Nabekura Y, Satoh M, Tokuyama K. Effect of a single bout of exercise on clock gene expression in human leukocyte. *J Appl Physiol*, 128(4): 847-854, 2020.

Zhang S, Takano J, Murayama N, Tominaga M, Abe T, Park I, Seol J, Ishihara A, Tanaka Y, Yajima K, Suzuki Y, Suzuki C, Fukusumi S, Yanagisawa M, Kokubo T, Tokuyama K. Subacute ingestion of caffeine and oolong tea increases fat oxidation without affecting energy expenditure and sleep architecture: a randomized, placebo-controlled, double-blinded cross-over trial. *Nutrients*, 2020.

Iwayam K, Ogawa A, Tanaka Y, Yajima K, Park I, Ando A, Ogata H, Kayaba M, Zhang S, Tanji F, Nabekura Y, Yamamoto K, Tokuyama K. Effects of exercise before breakfast on plasma free fatty acid profile and 24-h fat oxidation. *Metabol Open*, 8: 100067, 2020.

+15 articles

Books

6 books

C. Department of **Technique**

Research Articles

Asai T, Nakanichi T, Akiyama N, Hong S. Flow visualization of spinning and nonspinning soccer balls using computational fluid dynamics. *Appl Sci*, 10: 4543, 2020.

Hong S, Ozaki H, Watanabe K, Asai T. Aerodynamic characteristics of new volleyball for the 2020 Tokyo Olympics. *Appl Sci*, 10: 3256, 2020.

Hong S, Asai T. Effect of surface groove structure on the aerodynamics of soccer balls. *Appl Sci*, 10: 5877, 2020.

Kurosawa Y, Monji H, Sonoki S, Asai T, Hong S. Study on drag force acting on tandem car models. *Adv Exp Mech*, 5: 91-96, 2020.

Kimachi K, Liu R, Koido M, Hong S, Shimonagata S, Nakayama M, Asai T. Comparison of Biomechanical Factors among Straight, Curve and Knuckle Kicking Motions in Soccer. *Proceedings*, 49: 119, 2020.

Goff JE, Hong S, Asai T. Influence of Surface Properties on Soccer Ball Trajectories. *Proceedings*, 49: 143, 2020.

Sakamoto K, Fujii A, Hong S, Asai T, Kariyama Y. Knee joint kinematics of support leg during maximal instep kicking in female soccer players. *ISBS Proceedings 2020*, 812-815, 2020.

Asai T, Kimachi K, Liu R, Koido M, Nakayama M, Goff JE, Hong S. Measurements of the Flight Trajectory of a Spinning Soccer Ball and the Magnus Force Acting on It. *Proceedings*, 49: 88, 2020.

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Kawai E, Tsunokawa T, Sakaue H, Takagi H. Propulsive forces on water polo players' feet from eggbeater kicking estimated by pressure distribution analysis. *Sports Biomech*, 2020. doi: 10.1080/14763141.2020.1797152.

Koga D, Homoto K, Tsunokawa T, Takagi H. Hydrodynamic re-examination of underwater non-propulsive phase in front crawl. *ISBS Proceedings Archive*, 38(1): 80, 2020.

Sengoku Y, Kobayashi K, Yamakawa K, Tsunokawa T, Narita K. Training to enhance underwater dolphin kick speed in elite swimmers: focusing on kick frequency and propelling efficiency. *Res J Sports Perform*, 12: 396-407, 2020.

Matsuoka H, Tahara Y, Ando K, Nishijima T. Development of defence and offence play items for deep learning model of offence play analysis in soccer game. *Football Sci*, 17: 69-85, 2020.

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Tsuchida S, Yoshimura K, Nakamura N, Asanuma N, Iwasaki S, Miyagawa Y, Yamagiwa S, Ebihara T, Morozumi Y, Asami T, Kosuge N. Non-invasive intravital observation of lingual surface features using sliding oral mucoscopy techniques in clinically healthy subjects. *Odontology*, 108: 43-56, 2020.

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Yamakawa K, Kobayashi, Homoto K, Shimojo H, Sengoku Y, Takagi H. Changes of kinematics during underwater undulatory swimming with increasing swimming velocity. *ISBS Proceedings Archive*, 38 (1): 42, 2020.

Enomoto Y, Suzuki Y, Hahn M, Aibara T, Yahata T. Change in shock attenuation during marathon running. In Robinson, Mark A. (Eds.) *ISBS Proceedings Archive*, 38(1): 208, 2020.

Suzuki Y, Enomoto Y, Hahn M, Yahata T, Aibara T. Estimation of Ground Reaction Forces During Running using Inertial Measurement Units and Artificial Neural Networks. In Robinson, Mark A. (Eds.) *ISBS Proceedings Archive*, 38(1): 138, 2020.

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+11 articles

Books

2 books