



ARIHHP SCHOLARLY ACTIVITIES 2016

- ◆ Research Articles: 109
- ◆ Book Chapters: 20
- ◆ Distinctions/Awards: 12

A. Department of **Mind**

Research Articles

Shima T, Jesmin S, Matsui T, Soya M, Soya H. Differential effects of type 2 diabetes on brain glycometabolism in rats: focus on glycogen and monocarboxylate transporter 2. *J Physiol Sci*, 68(1): 69-75, 2016.

Shima T, Matsui T, Jesmin S, Okamoto M, Soya M, Inoue K, Liu YF, Torres-Aleman I, McEwen BS, Soya H. Moderate exercise ameliorates dysregulated hippocampal glycometabolism and memory function in a rat model of type 2 diabetes. *Diabetologia*, 60(3): 597-606, 2016.

Byun K, Hyodo K, Suwabe K, Fukuie T, Soya H. Possible neurophysiological mechanisms for mild-exercise-enhanced executive function: An fNIRS neuroimaging study. *J Phys Fit Sports Med*, 5: 361-367, 2016.

Llorens-Martín M, Teixeira CM, Jurado-Arjona J, Rakwal R, Shibato J, Soya H, Ávila J. Retroviral induction of GSK-3 β expression blocks the stimulatory action of physical exercise on the maturation of newborn neurons. *Cell Mol Life Sci*, 73(18): 3569-3582, 2016.

Hyodo K, Dan I, Kyutoku Y, Suwabe K, Byun K, Ochi G, Kato M, Soya H. The association between aerobic fitness and cognitive function in older men mediated by frontal lateralization. *Neuroimage*, 125: 291-300, 2016.

Yook JS, Okamoto M, Rakwal R, Shibato J, Lee MC, Matsui T, Chang HK, Cho JY, Soya H. Astaxanthin supplementation enhances adult hippocampal neurogenesis and spatial memory in mice. *Mol Nutr Food Res*, 60: 589-599, 2016.

Byun K, Hyodo K, Suwabe K, Fukuie T, Soya H. Possible neurophysiological mechanisms for mild-exercise-enhanced executive function: An fNIRS neuroimaging study. *J Phys Fit Sports Med*, 5(5): 361-367, 2016.

Nishijima T, Torres-Aleman I, Soya H. Chapter 11 - Exercise and cerebrovascular plasticity. *Prog Brain Res*, 225: 243-268, 2016.

Budde H, Wegner M, Soya H, Voelcker-Rehage C, McMorris T. Neuroscience of exercise: neuroplasticity and its behavioral consequences. *Neural Plast*, 3643879, 2016.

Reagh ZM, Do H, Noche J, Murray EA, Leal SL, Chun A, Yassa MA. Greater loss of object than spatial mnemonic discrimination in aged adults. *Hippocampus*, 26: 417-422, 2016.

Leal SL, Noche JA, Murray EA, Yassa MA. Positivity effect specific to older adults with subclinical memory impairment. *Learn Mem*, 23: 415-421, 2016.

Leal SL, Noche JA, Murray EA, Yassa MA. Age-related individual variability in memory performance is associated with amygdala-hippocampal circuit function and emotional pattern separation. *Neurobiol Aging*, 49: 9-19, 2016.

Wisse LE, Daugherty AM, Olsen RK, Berron D, Carr VA, Stark CE, Amaral RS, Amunts K, Augustinack JC, Bender AR, Bernstein JD, Boccardi M, Bocchetta M, Burggren A, Chakravarty MM, Chupin M, Ekstrom A, de Flores R, Insausti R, Kanel P, Kedo O, Kennedy KM, Kerchner GA, LaRocque KF, Liu X, Maass A, Malykhin N, Mueller SG, Ofen N, Palombo DJ, Parekh MB, Pluta JB, Pruessner JC, Raz N, Rodrigue KM, Schoemaker D, Shafer AT, Steve TA, Suthana N, Wang L, Winterburn JL, Yassa MA, Yushkevich PA, la Joie R, Hippocampal Subfield Group. A harmonized segmentation protocol for hippocampal and parahippocampal subregions: why do we need one and what are the key goals? *Hippocampus*, 27: 3-11, 2016.

+9 articles

Books

15 books

Distinctions/Awards

4 awards

B. Department of **Body**

Research Articles

Amano T, Ishitobi M, Ogura Y, Inoue Y, Koga S, Nishiyasu T, Kondo N. Effect of stride frequency on thermoregulatory responses during endurance running in distance runners. *J Therm Biol*, 61: 61-66, 2016.

Fujimoto T, Sasaki Y, Wakabayashi H, Sengoku Y, Tsubakimoto S, Nishiyasu T. Maximal workload but not peak oxygen uptake is decreased during immersed incremental exercise at cooler temperatures. *Eur J Appl Physiol*, 116: 1819-1827, 2016.

Ichinose M, Ichinose T, Nishiyasu T. Dynamic modulation of spontaneous cardiac baroreflex sensitivity to changes in workloads in humans. *Med Sci Sports Exerc*, 48: 367, 2016.

Tsuji B, Honda Y, Kondo N, Nishiyasu T. Diurnal variation in the control of ventilation in response to rising body temperature during exercise in the heat. *Am J Physiol Regul Integr Comp Physiol*, 311: R401-409, 2016.

Tsuji B, Hayashi K, Kondo N, Nishiyasu T. Characteristics of hyperthermia-induced hyperventilation in humans. *Temperature (Austin)*, 3: 146-160, 2016.

Amano T, Ichinose M, Inoue Y, Nishiyasu T, Koga S, Kenny GP, Kondo N. Influence of forearm muscle metaboreceptor activation on sweating and cutaneous vascular responses during dynamic exercise. *Am J Physiol Regul Integr Comp Physiol*, 310: R1332-9, 2016.

Amano T, Gerrett N, Inoue Y, Nishiyasu T, Havenith G, Kondo N. Determination of the maximum rate of eccrine sweat glands' ion reabsorption using the galvanic skin conductance to local sweat rate relationship. *Eur J Appl Physiol*, 116: 281-290, 2016.

Louie JC, Fujii N, Meade RD, Kenny GP. The roles of the Na⁺/K⁺-ATPase, NKCC, and K⁺ channels in regulating local sweating and cutaneous blood flow during exercise in humans in vivo. *Physiol Rep*, 4(22): e 13024, 2016.

Fujii N, Notley SR, Minson CT, Kenny GP. Administration of prostacyclin modulates

cutaneous blood flow but not sweating in young and older males: roles for nitric oxide and calcium-activated potassium channels. *J Physiol*, 594: 6419-6429, 2016.

Fujii N, Singh MS, Halili L, Louie JC, Kenny GP. The effect of endothelin A and B receptor blockade on cutaneous vascular and sweating responses in young men during and following exercise in the heat. *J Appl Physiol*, 121: 1263-1271, 2016.

Fujii N, Dervis S, Sigal RJ, Kenny GP. Type 1 diabetes modulates cyclooxygenase- and nitric oxide-dependent mechanisms governing sweating but not cutaneous vasodilation during exercise in the heat. *Am J Physiol Regul Integr Comp Physiol*, 311: R1076-R1084, 2016.

Fujii N, Louie JC, McNeely BD, Zhang SY, Tran MA, Kenny GP. K⁺ channel mechanisms underlying cholinergic cutaneous vasodilation and sweating in young humans: roles of K_{Ca}, K_{ATP}, and K_V channels? *Am J Physiol Regul Integr Comp Physiol*, 311: R600-606, 2016.

Fujii N, Singh MS, Halili L, Boulay P, Sigal RJ, Kenny GP. Cutaneous vascular and sweating responses to intradermal administration of prostaglandin E1 and E2 in young and older adults: a role for nitric oxide? *Am J Physiol Regul Integr Comp Physiol*, 310: R1064-1072, 2016.

Fujii N, Meade RD, Minson CT, Brunt VE, Boulay P, Sigal RJ, Kenny GP. Cutaneous blood flow during intradermal NO administration in young and older adults: roles for calcium-activated potassium channels and cyclooxygenase? *Am J Physiol Regul Integr Comp Physiol*, 310: R1081-1087, 2016.

Meade RD, Louie JC, Poirier MP, McGinn R, Fujii N, Kenny GP. Exploring the mechanisms underpinning sweating: the development of a specialized ventilated capsule for use with intradermal microdialysis. *Physiol Rep*, 4(6): e12738, 2016.

Louie JC, Fujii N, Meade RD, Kenny GP. The interactive contributions of Na⁽⁺⁾/K⁽⁺⁾-ATPase and nitric oxide synthase to sweating and cutaneous vasodilatation during exercise in the heat. *J Physiol*, 594: 3453-3462, 2016.

Halili L, Singh MS, Fujii N, Alexander LM, Kenny GP. Endothelin-1 modulates

methacholine-induced cutaneous vasodilatation but not sweating in young human skin. *J Physiol*, 594: 3439-3452, 2016.

Fujii N, Meade RD, Alexander LM, Akbari P, Foudil-Bey I, Louie JC, Boulay P, Kenny GP. iNOS-dependent sweating and eNOS-dependent cutaneous vasodilation are evident in younger adults, but are diminished in older adults exercising in the heat. *J Appl Physiol*, 120: 318-327, 2016.

Fujii N, Notley SR, Minson CT, Kenny GP. Administration of prostacyclin modulates cutaneous blood flow but not sweating in young and older males: roles for nitric oxide and calcium-activated potassium channels. *J Physiol*, 594: 6419-6429, 2016.

Kumagai H, Zempo-Miyaki A, Yoshikawa T, Tsujimoto T, Tanaka K, Maeda S. Increased physical activity has a greater effect than reduced energy intake on lifestyle modification-induced increase in testosterone. *J Clin Biochem Nutr*, 58(1): 84-89, 2016.

Ra SG, Choi Y, Akazawa N, Ohmori H, Maeda S. Taurine supplementation attenuates delayed increase in exercise-induced arterial stiffness. *Appl Physiol Nutr Metab*, 41(6): 618-623, 2016.

Sawano Y, Zempo-Miyaki A, Akazawa N, Kosaki K, So R, Tanaka K, Maeda S. Effect of static squat exercise with whole body vibration on arterial stiffness in older women. *Adv Exer Sport Physiol*, 22(1): 13-17, 2016.

Otsuki T, Shimizu K, Zempo-Miyaki A, Maeda S. Changes in salivary flow rate following Chlorella-derived multicomponent supplementation. *J Clin Biochem Nutr*, 59(1): 45-48, 2016.

Choi Y, Akazawa N, Miyaki A, Ra SG, Shiraki H, Ajisaka R, Maeda S. Acute effect of high-intensity eccentric exercise on vascular endothelial function in young men. *J Strength Cond Res*, 30(8): 2279-2285, 2016.

Miyaki A, Fujie S, Sato K, Hasegawa N, Sanada K, Maeda S, Hamaoka T, Iemitsu M. Elevated pentraxin 3 level at the early stage of exercise training is associated with reduction of arterial stiffness in middle-aged and older adults. *J Hum Hypertens*, 30(9): 521-526, 2016.

Monma T, Takeda F, Noguchi H, Takahashi H, Tamiya N. The impact of leisure and social activities on activities of daily living of middle-aged adults: Evidence from a National Longitudinal Survey in Japan. *PLOS ONE*, 11(10): e0165106, 2016.

Yamane M, Takeda F. Mental and physical health of participants in the masters ski tournament: Correlation between status of activities and psychosocial factors. *The Bulletin of Faculty of Health and Sport Sciences, University of Tsukuba*, 39: 81-88, 2016.

Monma T, Takeda F, Noguchi H, Tamiya N. Age and sex differences of risk factors of activity limitations in Japanese older adults. *Geriatr Gerontol Int*, 16(6): 670-678, 2016.

Obata A, Kubota N, Kubota T, Iwamoto M, Sato H, Sakurai Y, Takamoto I, Katsuyama H, Suzuki Y, Fukazawa M, Ikeda D, Iwayama K, Tokuyama K, Ueki K, Kadowaki T. Tofogliflozin improves insulin resistance in skeletal muscle and accelerates lipolysis in adipose tissue in male mice. *Endocrinology*, 157: 1029-1042, 2016.

Ogata H, Kobayashi F, Hibi M, Tanaka S, Tokuyama K. A novel approach to calculating the thermic effect of food in a metabolic chamber. *Physiol Rep*, 4: e12717, 2016.

Sato H, Kubota N, Kubota T, Takamoto I, Iwayama K, Tokuyama K, Moroi M, Sugi K, Nakaya K, Goto M, Jomori T, Kadowaki T. Anagliptin increases insulin-induced skeletal muscle glucose uptake via an NO-dependent mechanism in mice. *Diabetologia*, 59: 2426-2434, 2016.

Aikawa Y, Agata U, Kakutani Y, Kato S, Noma Y, Hattori S, Ogata H, Ezawa I, Omi N. The preventive effect of calcium supplement on weak bones caused by the interaction of exercise and food restriction in young female rats during the period from acquiring bone mass to maintaining bone mass. *Calcif Tissue Int*, 98: 94-103, 2016.

+9 articles

Books

3 books

Distinctions/Awards

4 awards

C. Department of **Technique**

Research Articles

Takeda T, Sakai S, Takagi H, Okuno K, Tsubakimoto S. Contribution of hand and foot force to take-off velocity for the kick-start in competitive swimming. *J Sports Sci*, 35(6): 565-571, 2016.

Sakai S, Koike S, Takeda T, Takagi H. Kinetic Analysis of start motion on starting block in competitive swimming. *ISBS-Conference Proceedings Archive*, 34(1): 960-963, 2016.

Kawai E, Tsunokawa T, Tsubakimoto S, Takagi H. A study of fluid forces acting on a foot during eggbeater kicks of water polo players. *ISBS-Conference Proceedings Archive*, 34(1): 723-726, 2016.

Kobayashi K, Takagi H, Tsubakimoto S, Sengoku Y. Activation pattern of trunk, thigh and lower leg muscles during underwater dolphin kick in skilled female swimmers. *ISBS-Conference Proceedings Archive*, 34(1): 711-714, 2016.

Homma M, Kawai Y, Takagi H. Estimating hydrodynamic forces acting on the hand during sculling in synchronized swimming. *ISBS-Conference Proceedings Archive*, 34(1): 656-659, 2016.

Shimojyo H, Murakawa R, Sengoku Y, Sakakibar A. Flow Visualization of undulatory underwater swimming -A pilot study of three dimensional analysis. *34th International Conference on Biomechanics in Sports, 2016*, 953-955, 2016.

Kobayashi K, Takagi H, Tsubakimoto S, Sengoku Y. Activation pattern of trunk, thigh and lower leg muscles during underwater dolphin kick in skilled female swimmers. *34th International Conference on Biomechanics in Sports, 2016*, 711-714, 2016.

Nakamura K, Sengoku Y, Ogata H, Watanabe K, Shirai Y, Nabekura Y. Blood glucose and lactate kinetics during an incremental running test in endurance runners. *Int J Sport Health Sci*, 14: 11-20, 2016.

Hong S, Asai T. Aerodynamics on official soccer balls using Korea leagues. *Korean Journal of Science and Football*, 5: 17-21, 2016.

Hong S, Sakamoto K, Oshima T, Lee K, Nakayama M, Koido M, Asai T. Aerodynamic analysis of vortex trajectory of soccer ball. *Korean Journal of Science and Football*, 5: 23-29, 2016.

Hong S, Nobori R, Sakamoto K, Koido M, Nakayama M, Asai T. Experiment of aerodynamic force on a rotating soccer ball. *Procedia Engineering*, 147: 56-61, 2016.

Sakamoto K, Numazu N, Hong S, Asai T. Kinetics analysis of instep and side-foot kick in female soccer players. *Procedia Engineering*, 147: 214-219, 2016.

Goff JE, Hobson CM, Asai T, Hong S. Wind-tunnel experiments and trajectory analyses for five non-spinning soccer balls. *Procedia Engineering*, 147: 32-37, 2016.

Asai T, Hong S, Ijuin K. Flow visualization of downhill ski racers using computational fluid dynamics. *Procedia Engineering*, 147: 44-49, 2016.

Hong S, Asai T. Effects of dimple on soccer ball aerodynamics. *Proceedings of the 4th International Congress on sport sciences research and technology support*, 5-7, 2016.

Asai T, Hong S. Trying to understand knuckling effect ball in soccer. *Proceedings of the 31st International Congress on High-Speed Imaging and Photonics*, 804-808, 2016.

Hong S, Asai T. Surface texture effects on the drag crisis for soccer balls. *Proceedings of the International conference in sports science and technology*, 120-125, 2016.

Takahashi K, Yoshida T, Kariyama Y, Hayashi R, Zushi K. Effects of stretch-shortening cycle during trunk-twist exercise using different loads. *Proceedings of the 34th Congress of the International Society of Biomechanics in Sports*, 2016.

Kariyama Y, Zushi K. Relationships between lower-limb joint kinetic parameters of sprint running and rebound jump during the support phases. *J Phys Fit Sports Med*, 5: 187-193, 2016.

Otani Y, Aibara T, Enomoto Y. Evaluation of running mechanics using motion sensor for distance runners. *International Conference on Biomechanics in Sports*, 1224-1227, 2016.

Seki K, Numazu N, Byun KO, Enomoto Y. Effect of a biomechanical factor on energy expenditure by distance runners during repeated vertical jumps. *International Conference on Biomechanics in Sports*, 34(1): 941-944, 2016.

+25 articles

Books

Hong S. Decyphering the 12 codes of Korean Football -Aerodynamics of modern soccer ball-. Namuwasup. 2016.

+1 book

Distinctions/Awards

4 awards