

**CURRICULUM VITAE**

**Hiroshi Kumagai, PhD**

**Personal Information:**

**Date of Birth:** July 3, 1988

**Education:** BA (2012), Education  
Chiba University  
Chiba, Japan

MSc (2014), Physical Education  
University of Tsukuba  
Ibaraki, Japan

Ph.D. (2016), Sports Medicine  
University of Tsukuba  
Ibaraki, Japan

**Academic Appointment:**

November 2022 - present      Research Assistant Professor  
Leonard Davis School of Gerontology, University of Southern California,  
Los Angeles, CA, USA.

**Previous Academic Appointments:**

January 2019 – October 2022      Postdoctoral Research Fellow  
Leonard Davis School of Gerontology, University of Southern California,  
Los Angeles, CA, USA.

April 2017 – January 2019      Research Fellow of Japan Society for the Promotion of Science for  
postdoctoral research fellow (PD).  
Graduate School of Health and Sports Science, Juntendo University,  
Chiba, Japan.

April 2016 - March 2017      Research Fellow of Japan Society for the Promotion of Science for  
postdoctoral research fellow (PD).  
Faculty of Health and Sport Sciences, University of Tsukuba, Ibaraki,  
Japan.

April 2014 - March 2016      Research Fellow of Japan Society for the Promotion of Science for  
doctoral student (DC1).  
Graduate School of Comprehensive Human Sciences, University of  
Tsukuba, Ibaraki, Japan.

**Membership:**

2012 – present      Japanese Society of Physical Fitness and Sports Medicine

2013 – present European College of Sport Science  
2013 – present Japan Society of Exercise and Sports Physiology

**Educational Activities:**

2014 – 2016 Physiology and Health  
2016 – 2017 Physiological Experiments Class  
2017 – 2018 Physical Education (Soccer)

**Reviewer experiences:**

1. Hypertension Research
2. Scandinavian Journal of Medicine & Science in Sports
3. Journal of Strength and Conditioning Research
4. Frontiers in Physiology
5. Biology of Sport

**Research Grants:**

1. # **GR1064052: An aging-associated mitochondrial microprotein induces muscle dysfunction and is a novel target for sarcopenia.**  
Kumagai H. (PI), 07/01/2023 – 06/30/2025, \$150,000. AFAR
2. # **W81XWH-21-1-0625: Investigate the Functional Effects of Gene Variations in Mitochondrial Small ORFs on Parkinson's Disease.**  
Kumagai H (PI), 07/15/2021 – 07/13/2024, \$399,228. DOD

**Honors and Awards:**

- 2019: International Academic Award. Japanese Society of Physical fitness and Sports Medicine.
- 2018: International Academic Award. Japanese Society of Physical fitness and Sports Medicine.
- 2017: Incentive Award in Sports Medicine. The Otsuka Pharmaceutical Co. Ltd.
- 2016: The Dean's Award. Graduate School of Comprehensive Human Sciences in University of Tsukuba.
- 2016: The Head's Award. Graduate School of Sports Medicine in University of Tsukuba.
- 2015: Incentive Award. Japanese Society of Physical Fitness and Sports Medicine
- 2014: Best Poster Presentation Award. The Pulse of Asia 2014
- 2013: Travel Grant Award. 13th International Conference on Endothelin

**Publications (Articles in Journals with peer-review):**

Total 75 research articles, including 20 first-author articles.

Google Scholar: <https://scholar.google.com/citations?user=ktWP1ikAAAAJ&hl=ja&oi=ao>

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2024

- **Kumagai H**, Kim SJ, Miller B, Natsume T, Wan J, Kumagai ME, Ramirez R, Lee SH, Sato A, Mehta HH, Yen K, Cohen P. Mitochondrial-derived microprotein MOTS-c attenuates immobilization-induced skeletal muscle atrophy by suppressing lipid infiltration. *Am J Physiol Endocrinol Metab*. Online ahead of print.

### 2023

- **Kumagai H**, Miller B, Kim SJ, Leelaprachakul N, Kikuchi N, Yen K, Cohen P. Novel Insights into Mitochondrial DNA: Mitochondrial Microproteins and mtDNA Variants Modulate Athletic Performance and Age-Related Diseases. *Genes*. 2023, 14 (2), 286
- Ide H, Akehi Y, Fukuhara S, Ohira S, Ogawa S, Kataoka T, **Kumagai H**, Kobayashi K, Komiya A, Shigehara K, Syuto T, Soh J, Tanabe M, Taniguchi H, Chiba K, Matsushita K, Mitsui Y, Yoneyama T, Shirakawa T, Fujii Y, Kumano H, Ueshiba H, Amano T, Sasaki H, Maeda S, Mizokami A, Suzuki K, Horie S. Summary of the clinical practice manual for late-onset hypogonadism. *Int J Urol*. Online ahead of print.
- Kaneko T, **Kumagai H**, Yoshikawa T, Tsujimoto T, Miyauchi T, Tanaka K, Maeda S. Regular aerobic exercise decreases circulating estradiol/testosterone ratio in overweight and obese men. *J Phys Fitness Sports Med*. 2023, 12 (4), 101-106
- Zempo-Miyaki A, **Kumagai H**, Tanahashi K, Zempo H, Otsuki T, Maeda S. Sugar-Rich Food Intake Is Negatively Associated with Plasma Pentraxin 3 Levels. *J Obes Metab Syndr*. 2023, 32(4), 330-337

### 2022

- Semenova EA, Zempo H, Miyamoto-Mikami E, **Kumagai H**, Larin AK, Sultanov RI, Babalyan KA, Zhelankin AV, Tobina T, Shiose K, Kakigi R, Tsuzuki T, Schinoseki-Sekine N, Kobayashi H, Naito H, Burniston J, Generozov EV, Fuku N, Ahmetov II. Genome-Wide Association Study Identifies CDKN1A as a Novel Locus Associated with Muscle Fiber Composition. *Cells*. 2022, 11(23), 3910
- Miller B, Kim SJ, Mehta HH, Cao K, **Kumagai H**, Thumaty N, Leelaprachakul N, Jiao H, Vaughan J, Diedrich J, Saghatelian A, Arpawong TE, Crimmins EM, Ertekin-Taner N, Tubi MA, Hare ET, Braskie MN, Decarie-Spain L, Kanoski SE, Grodstein F, Bennett DA, Zhao L, Toga AW, Wan J, Yen K, Cohen P. Mitochondrial DNA variation in Alzheimer's disease reveals a unique microprotein called SHMOOSE. *Mol Psychiatry*. Online ahead of print.
- Alvarez-Romero J, Laguette MN, Seale K, Jacques M, Voisin S, Hiam D, Feller JA, Tirosh O, Miyamoto-Mikami E, **Kumagai H**, Kikuchi N, Kamiya N, Fuku N, Collins M, September AV, Eynon N. Genetic variants within the COL5A1 gene are associated with ligament injuries in physically active populations from Australia, South Africa, and Japan. *Eur J Sport Sci*. Online ahead of print.
- Akazawa N, Ohiwa N, Shimizu K, Suzuki N, **Kumagai H**, Fuku N, Suzuki Y. The association of ACTN3 R577X polymorphism with sports specificity in Japanese elite athletes. *Biol Sport*. 2022;39:905–911.
- Miller B, Kim SJ, **Kumagai H**, Yen K, Cohen P. Mitochondria-derived peptides in aging and healthspan. *J Clin Invest*. 2022;132:e158449
- **Kumagai H**, Miyamoto-Mikami E, Someya Y, Kidokoro T, Miller B, Kumagai ME, Yoshioka M, Choi Y, Tagawa K, Maeda S, Kohmura Y, Suzuki K, Machida S, Naito H, Fuku N. Sports activities at a young age decrease hypertension risk-The J-Fit<sup>+</sup> study. *Physiol Rep*. 2022;10:e15364
- **Kumagai H**, Miyamoto-Mikami E, Kikuchi N, Kamiya N, Zempo H, Fuku N. A rs936306 C/T polymorphism in the CYP19A1 is associated with stress fractures. *J Strength Cond Res*. 2022;36:2322-2325

- **Kumagai H**, Kaneko T, Shintake Y, Miyamoto-Mikami E, Tomita H, Fukuo M, Kawai W, Harada M, Kikuchi N, Kamiya N, Hirata K, Zempo H, Maeda S, Miyamoto N, Fuku N. Genetic polymorphisms related to muscular strength and flexibility are associated with artistic gymnastic performance in the Japanese population. *Eur J Sport Sci*. Online ahead of print.
- **Kumagai H**, Miyamoto-Mikami E, Takaragawa M, Kuriki K, Goto C, Shibata K, Yamada N, Hosono A, Fuku M, Suzuki S, Fuku N. Genetic polymorphisms in CYP19A1 and ESR1 are associated with serum CK activity after prolonged running in men. *J Appl Physiol*. 2022;132:966-973
- **Kumagai H**, Natsume T, Kim S-J, Tobina T, Miyamoto-Mikami E, Shiose K, Ichinoseki-Sekine N, Kakigi R, Tsuzuki T, Miller B, Yen K, Murakami H, Miyachi M, Zempo H, Dobashi S, Machida S, Kobayashi H, Naito H, Cohen P, Fuku N. The MOTS-c K14Q polymorphism in the mtDNA is associated with muscle fiber composition and muscular performance. *Biochim Biophys Acta Gen Subj*. 2022;1866:130048
- Kim S-J, Devgan A, Miller B, Lee SM, **Kumagai H**, Wilson KA, Wassef G, Wong R, Mehta HH, Cohen P, Yen K. Humanin-induced autophagy plays important roles in skeletal muscle function and lifespan extension. *Biochim Biophys Acta Gen Subj*. 2022;1866:130017
- Tagawa K, Choi Y, Ra S-G, Yoshikawa T, **Kumagai H**, Maeda S. Stature is negatively associated with increased arterial stiffness after high-intensity bicep curls training in young Japanese men. *Eur J Sport Sci*. 2022;22:1104-1112
- Zempo-Miyaki A, **Kumagai H**, Yoshikawa T, Tanaka K, Maeda S. PTX3 as a biomarker of lowered arterial stiffness due to weight loss in overweight and obese Japanese men. *J Mens Health*. 2022;18:48

## 2021

- Takaragawa M, Tobina T, Shiose K, Kakigi R, Tsuzuki T, Ichinoseki-Sekine N, **Kumagai H**, Zempo H, Miyamoto-Mikami E, Kobayashi H, Naito H, Fuku N. Genotype Score for Iron Status Is Associated with Muscle Fiber Composition in Women. *Genes*. 2021;13:5
- Akazawa N, **Kumagai H**, Yoshikawa T, Myoenzono K, Tanahashi K, Maeda S. Cerebral blood flow velocity is associated with endothelial function in men. *J Mens Health*. 2021;17:41-46
- **Kumagai H**, Zempo-Miyaki A, Yoshikawa T, Myoenzono K, Tanahashi K, Akazawa N, Maeda S. Relationship between serum testosterone concentration and microvascular endothelial function in Japanese men. *J Mens Health*. 2021;17:64-69
- Tagawa K, Ra S-G, Choi Y, Yoshikawa T, **Kumagai H**, Maeda S. Regular resistance training favorably affects central artery stiffness response following transient resistance exercise. *Sport Sci Health*. 2021;17:901-909
- Akazawa N, Tanahashi K, Kosaki K, Oikawa S, **Kumagai H**, Maeda S. Effects of aerobic exercise training on mental health and arterial stiffness in middle-aged and older adults. *J Sports Med Phys Fitness*. 2021;61:1387-1392
- Dieli-Conwright CM, Sami N, Norris MK, Wan J, **Kumagai H**, Kim S-J, Cohen P. Effect of aerobic and resistance exercise on the mitochondrial peptide MOTS-c in Hispanic and Non-Hispanic White breast cancer survivors. *Sci Rep*. 2021;11:16916
- 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. *Exp Gerontol*. 2021;152:111459

- **Kumagai H**, Coelho AR, Wan J, Mehta H, Yen K, Huang A, Zempo H, Fuku N, Maeda S, Oliveira PJ, Cohen P, Kim SJ. MOTS-c reduces myostatin and muscle atrophy signaling. *Am J Physiol Endocrinol Metab*. 2021;320:E680-E690
- Miller B, Silverstein A, Flores M, Cao K, **Kumagai H**, Mehta HH, Yen K, Kim S-J, Cohen P. Host mitochondrial transcriptome response to SARS-CoV-2 in multiple cell models and clinical samples. *Sci Rep*. 2021;11:3
- Miyamoto-Mikami E, **Kumagai H**, Tanisawa K, Taga Y, Hirata K, Kikuchi N, Kamiya N, Kawakami R, Midorikawa T, Kawamura T, Kakigi R, Natsume T, Zempo H, Suzuki K, Kohmura Y, Mizuno K, Torii S, Sakamoto S, Oka K, Higuchi M, Naito H, Miyamoto N, Fuku N. Female athletes genetically susceptible to fatigue fracture are resistant to muscle injury: Potential role of COL1A1 variant. *Med Sci Sports Exerc*. 2021;53:1855-1864
- Zempo H, Kim SJ, Fuku N, Nishida Y, Higaki Y, Wan J, Yen K, Miller B, Vicinanza R, Miyamoto-Mikami E, **Kumagai H**, Naito H, Xiao J, Mehta HH, Lee C, Hara M, Patel YM, Setiawan VW, Moore TM, Hevener AL, Sutoh Y, Shimizu A, Kojima K, Kinoshita K, Arai Y, Hirose N, Maeda S, Tanaka K, Cohen P. A pro-diabetogenic mtDNA polymorphism in the mitochondrial-derived peptide, MOTS-c. *Aging (Albany NY)*. 2021;13:1692-1717

## 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*. 2020;67:1199-1205
- Al-Khelaifi F, Yousri NA, Diboun I, Semenova EA, Kostryukova ES, Kulemin NA, Borisov OV, Andryushchenko LB, Larin AK, Generozov EV, Miyamoto-Mikami E, Murakami H, Zempo H, Miyachi M, Takaragawa M, **Kumagai H**, Naito H, Fuku N, Abraham D, Hingorani A, Donati F, Botre F, Georgakopoulos C, Suhre K, Ahmetov, II, Albagha O, Elrayess MA. Genome-wide association study reveals a novel association between MYBPC3 gene polymorphism, endurance athlete status, aerobic capacity and steroid metabolism. *Front Genet*. 2020;11:595
- D'Souza RF, Woodhead JST, Hedges CP, Zeng N, Wan J, **Kumagai H**, Lee C, Cohen P, Cameron-Smith D, Mitchell CJ, Merry TL. Increased expression of the mitochondrial derived peptide, MOTS-c, in skeletal muscle of healthy aging men is associated with myofiber composition. *Aging (Albany NY)*. 2020;12:5244-5258
- Guilherme J, Semenova EA, Zempo H, Martins GL, Lancha Junior AH, Miyamoto-Mikami E, **Kumagai H**, Tobina T, Shiose K, Kakigi R, Tsuzuki T, Ichinoseki-Sekine N, Kobayashi H, Naito H, Borisov OV, Kostryukova ES, Kulemin NA, Larin AK, Generozov EV, Fuku N, Ahmetov, II. Are genome-wide association study identified single-nucleotide polymorphisms associated with sprint athletic status? A replication study with 3 different cohorts. *Int J Sports Physiol Perform*. 2020;16:489-495
- Kim S-J, Miller B, **Kumagai H**, Silverstein AR, Flores M, Yen K. Mitochondrial-derived peptides in aging and age-related diseases. *GeroScience*. 2020;43:1113-1121
- Kosaki K, Kamijo-Ikemori A, Sugaya T, Kumamoto S, Tanahashi K, **Kumagai H**, 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*. 2020;30:709-715

- **Kumagai H**, Myoenzono K, Yoshikawa T, Tsujimoto T, Shimomura K, Maeda S. Regular aerobic exercise improves sexual function assessed by the Aging Males' Symptoms questionnaire in adult men. *Aging Male*. 2020;23:1194-1201
- **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*. 2020;43:36-44
- Massidda M, Myamoto-Mikami E, **Kumagai H**, Ikeda H, Shimasaki Y, Yoshimura M, Cugia P, Piras F, Scorcu M, Kikuchi N, Calo CM, Fuku N. Association between the ACE I/D polymorphism and muscle injuries in Italian and Japanese elite football players. *J Sports Sci*. 2020;38:2423-2429
- Merry TL, Chan A, Woodhead JST, Reynolds JC, **Kumagai H**, Kim SJ, Lee C. Mitochondrial-derived peptides in energy metabolism. *Am J Physiol Endocrinol Metab*. 2020;319:E659-E666
- Miller B, Kim SJ, **Kumagai H**, Mehta HH, Xiang W, Liu J, Yen K, Cohen P. Peptides derived from small mitochondrial open reading frames: Genomic, biological, and therapeutic implications. *Exp Cell Res*. 2020;393:112056
- Miyamoto-Mikami E, **Kumagai H**, Kikuchi N, Kamiya N, Miyamoto N, Fuku N. Eqt1 variants in COL22A1 are associated with muscle injury in athletes. *Physiol Genomics*. 2020;52:588-589
- Myoenzono K, Yoshikawa T, **Kumagai H**, Zempo-Miyaki A, So R, Tsujimoto T, Choi Y, Tanaka K, Maeda S. Changes in plasma amino acid concentrations in overweight and obese men after weight loss program including dietary modification and aerobic exercise. *J Sports Med Phys Fitness*. 2020;9:43-51
- Semenova EA, Miyamoto-Mikami E, Akimov EB, Al-Khelaifi F, Murakami H, Zempo H, Kostryukova ES, Kulemin NA, Larin AK, Borisov OV, Miyachi M, Popov DV, Boulygina EA, Takaragawa M, **Kumagai H**, Naito H, Pushkarev VP, Dyatlov DA, Lekontsev EV, Pushkareva YE, Andryushchenko LB, Elrayess MA, Generozov EV, Fuku N, Ahmetov, II. The association of HFE gene H63D polymorphism with endurance athlete status and aerobic capacity: Novel findings and a meta-analysis. *Eur J Appl Physiol*. 2020;120:665-673

## 2019

- Akazawa N, Kobayashi N, Nakamura Y, **Kumagai H**, Choi Y, Maeda S. Effect of sleep efficiency on salivary metabolite profile and cognitive function during exercise in volleyball athletes. *Eur J Appl Physiol*. 2019;119:2215-2223
- Kim SJ, Miller B, **Kumagai H**, Yen K, Cohen P. Mts-c: An equal opportunity insulin sensitizer. *J Mol Med*. 2019;97:487-490
- **Kumagai H**, Miyamoto-Mikami E, Hirata K, Kikuchi N, Kamiya N, Hoshikawa S, Zempo H, Naito H, Miyamoto N, Fuku N. ESR1 rs2234693 polymorphism is associated with muscle injury and muscle stiffness. *Med Sci Sports Exerc*. 2019;51:19-26
- **Kumagai H**, Yoshikawa T, Myoenzono K, Kosaki K, Akazawa N, Tanahashi K, Tagawa K, Zempo-Miyaki A, Maeda S. Role of high physical fitness in deterioration of male sexual function in Japanese adult men. *Am J Mens Health*. 2019;13:1557988319849171
- Miyamoto-Mikami E, Miyamoto N, **Kumagai H**, Hirata K, Kikuchi N, Zempo H, Kimura N, Kamiya N, Kanehisa H, Naito H, Fuku N. COL5A1 rs12722 polymorphism is not associated with passive muscle stiffness and sports-related muscle injury in Japanese athletes. *BMC Med Genet*. 2019;20:19

2018

- **Kumagai H**, Tobina T, Ichinoseki-Sekine N, Kakigi R, Tsuzuki T, Zempo H, Shiose K, Yoshimura E, Kumahara H, Ayabe M, Higaki Y, Yamada R, Kobayashi H, Kiyonaga A, Naito H, Tanaka H, Fuku N. Role of selected polymorphisms in determining muscle fiber composition in Japanese men and women. *J Appl Physiol*. 2018;124:1377-1384
- **Kumagai H**, Yoshikawa T, Myoenzono K, Kosaki K, Akazawa N, Asako ZM, Tsujimoto T, Kidokoro T, Tanaka K, Maeda S. Sexual function is an indicator of central arterial stiffness and arterial stiffness gradient in Japanese adult men. *J Am Heart Assoc*. 2018;7:e007964
- **Kumagai H**, Yoshikawa T, Zempo-Miyaki A, Myoenzono K, Tsujimoto T, Tanaka K, Maeda S. Vigorous physical activity is associated with regular aerobic exercise-induced increased serum testosterone levels in overweight/obese men. *Horm Metab Res*. 2018;50:73-79
- **Kumagai H**, Zempo-Miyaki A, Yoshikawa T, Eto M, So R, Tsujimoto T, Nishiyasu T, Tanaka K, Maeda S. Which cytokine is the most related to weight loss-induced decrease in arterial stiffness in overweight and obese men? *Endocr J*. 2018;65:53-61
- Tagawa K, Choi Y, Ra SG, Yoshikawa T, **Kumagai H**, Maeda S. Resistance training-induced decrease in central arterial compliance is associated with decreased subendocardial viability ratio in healthy young men. *Appl Physiol Nutr Metab*. 2018;43:510-516
- Tagawa K, Ra SG, **Kumagai H**, Sawano Y, Yamamoto K, Yoshikawa T, Choi Y, Yoshida Y, Takekoshi K, Sakai S, Maeda S. Resistance training-induced decreases in central arterial compliance is associated with increases in serum thromboxane B2 concentrations in young men. *Artery Res*. 2018;23:63-70
- Tagawa K, Ra SG, **Kumagai H**, Yoshikawa T, Yoshida Y, Takekoshi K, Sakai S, Miyauchi T, Maeda S. Effects of resistance training on arterial compliance and plasma endothelin-1 levels in healthy men. *Physiol Res*. 2018;67:S155-S166
- Yoshikawa T, **Kumagai H**, Myoenzono K, Tsujimoto T, Tanaka K, Maeda S. Aerobic exercise training normalizes central blood pressure regulation after oral glucose loading in overweight/obese men. *Clin Exp Hypertens*. 2018;41:28-35
- Yoshikawa T, Zempo-Miyaki A, **Kumagai H**, Myoenzono K, So R, Tsujimoto T, Tanaka K, Maeda S. Relationships between serum free fatty acid and pulse pressure amplification in overweight/obese men: Insights from exercise training and dietary modification. *J Clin Biochem Nutr*. 2018;62:254-258
- Zempo-Miyaki A, **Kumagai H**, Yoshikawa T, Myoenzono K, So R, Otsuki T, Tanaka K, Maeda S. Pentraxin3 increases in adult overweight and obese men after weight-loss by dietary modification with exercise training. *Appl Physiol Nutr Metab*. 2018;44:111-117

2017

- Komatsu M, Akazawa N, Tanahashi K, **Kumagai H**, Yoshikawa T, Kosaki K, Zempo-Miyaki A, Maeda S. Central blood pressure is associated with trunk flexibility in older adults. *Artery Res*. 2017;19:91-96
- Kosaki K, Kamijo-Ikemori A, Sugaya T, Tanahashi K, **Kumagai H**, Sawano Y, Akazawa N, Osuka Y, Tanaka K, Kimura K, Shibagaki Y, Maeda S. Urinary liver-type fatty acid-binding protein is associated with subendocardial viability ratio in middle- and older-aged adults. *Clin Exp Hypertens*. 2017:1-7

- Kosaki K, Kamiyo-Ikemori A, Sugaya T, Tanahashi K, **Kumagai H**, Sawano Y, Akazawa N, Ra SG, Kimura K, Shibagaki Y, Maeda S. Relationship between exercise capacity and urinary liver-type fatty acid-binding protein in middle-aged and older individuals. *Clin Exp Nephrol*. 2017;21:810-817
- Kosaki K, Kamiyo-Ikemori A, Sugaya T, Tanahashi K, **Kumagai H**, Sawano Y, Osuka Y, Tanaka K, Kimura K, Shibagaki Y, Maeda S. Association between muscular strength and intrarenal vascular resistance in middle-aged and older individuals. *Exp Gerontol*. 2017;91:72-78
- Tanahashi K, Kosaki K, Sawano Y, Yoshikawa T, Tagawa K, **Kumagai H**, Akazawa N, Maeda S. Impact of age and aerobic exercise training on conduit artery wall thickness: Role of the shear pattern. *J Vasc Res*. 2017;54:272-279
- Yoshikawa T, **Kumagai H**, Myoenzono K, Zempo-Miyaki A, Tsujimoto T, Tanaka K, Maeda S. Effects of dietary modification with weight loss on central blood pressure during oral glucose tolerance test in overweight/obese men. *Artery Res*. 2017;20:27-34

#### Before 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 increases in testosterone. *J Clin Biochem Nutr*. 2016;58:84-89
- Kosaki K, Sugawara J, Akazawa N, Tanahashi K, **Kumagai H**, Ajisaka R, Maeda S. No influence of lower leg heating on central arterial pulse pressure in young men. *J Physiol Sci*. 2015;65:311-316
- **Kumagai H**, Zempo-Miyaki A, Yoshikawa T, Tsujimoto T, Tanaka K, Maeda S. Lifestyle modification increases serum testosterone level and decrease central blood pressure in overweight and obese men. *Endocr J*. 2015;62:423-430
- Ra SG, Akazawa N, Choi Y, Matsubara T, Oikawa S, **Kumagai H**, Tanahashi K, Ohmori H, Maeda S. Taurine supplementation reduces eccentric exercise-induced delayed onset muscle soreness in young men. *Adv Exp Med Biol*. 2015;803:765-772
- **Kumagai H**, Miyaki A, Higashino R, Akazawa N, Choi Y, Ra S, Eto M, Tanaka K, Ajisaka R, Maeda S. Lifestyle modification-induced increase in serum testosterone and shbg decreases arterial stiffness in overweight and obese men. *Artery Res*. 2014;8:80-87
- Matsubara T, Miyaki A, Akazawa N, Choi Y, Ra SG, Tanahashi K, **Kumagai H**, Oikawa S, Maeda S. Aerobic exercise training increases plasma klotho levels and reduces arterial stiffness in postmenopausal women. *Am J Physiol Heart Circ Physiol*. 2014;306:H348-H355
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- Tanahashi K, Akazawa N, Miyaki A, Choi Y, Ra SG, Matsubara T, **Kumagai H**, Oikawa S, Maeda S. Aerobic exercise training decreases plasma asymmetric dimethylarginine concentrations with increase in arterial compliance in postmenopausal women. *Am J Hypertens*. 2014;27:415-421
- Tanahashi K, Akazawa N, Miyaki A, Choi Y, Ra SG, Matsubara T, **Kumagai H**, Oikawa S, Miyauchi T, Maeda S. Plasma ADMA concentrations associate with aerobic fitness in postmenopausal women. *Life Sci*. 2014;108:30-33



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- Maeda S, Miyaki A, **Kumagai H**, Eto M, So R, Tanaka K, Ajisaka R. Lifestyle modification decreases arterial stiffness and plasma asymmetric dimethylarginine level in overweight and obese men. *Coron Artery Dis.* 2013;24:583-588

### **Book**

- Debmalya Barh and Ildus I. Ahmetov. Sports, Exercise, and Nutritional Genomics: Current Status and Future Directions. Academic Press. 2019.  
Section III-14: Genetics of muscle fiber composition. p.295-314