

October 4, 2013

The Journal of Physical Fitness and Sports Medicine (JPFMSM)

EDITORIAL BOARD

Kazuhiko IMAIZUMI (Editor-in-Chief)

Nobuharu L. FUJII	Shigeo FUJIMOTO	Katsumasa GOTO
Hideo HATTA	Shigeru INOUE	Akihiko ISHIHARA
Naokata ISHII	Tetsuya IZAWA	Fuminori KATSUKAWA
Yasuo KAWAKAMI	Takako KIZAKI	Tomoyoshi KOMIYAMA
Motohiko MIYACHI	Masao MIZUNO	Hisashi NAITO
Kimitaka NAKAZAWA	Kazuo NARITA	Mamoru NISHIMUTA
Takeshi NISHIYASU	Hiroshi NOSE	Shizuo SAKAMOTO
Yoshiharu SHIMOMURA	Shoji SHINKAI	Masato SUZUKI
Shigeru TAKEMORI	Suguru TORII	Sunao UCHIDA
Jun UDAKA	Hidefumi WAKI	Hideki YAMAUCHI

Invited Review articles and Short review articles

Volume 1 (No. 1-4, 2012) and Volume 2 (No. 1-4, 2013)

Publication lists (Articles = 140 papers < 2012 : 79 and 2013 : 61 papers>)

◆Invited review and short review article contents (2012~2013)

Volume Number	(Year)	Review	Short review	Total
Vol. 1, No. 1	(2012)	13	7	20
Vol. 1, No. 2	(2012)	15	5	20
Vol. 1, No. 3	(2012)	18	5	23
Vol. 1, No. 4	(2012)	13 (n=59)	3 (n=20)	16 (n=79)
Vol. 2, No. 1	(2013)	11	4	15
Vol. 2, No. 2	(2013)	10	5	15
Vol. 2, No. 3	(2013)	9	7	16
Vol. 2, No. 4	(2013)	9 (n=39)	6 (n=22)	15 (n=61)
Total		98	42	140

◆JPFSM : Vol.1, No. 1 (May, 2012) : 20 papers

<Review Articles>

- 1. Effect of exercise on HIF-1 and VEGF signaling, Hideki Ohno¹, Ken Shirato², Takuya Sakurai¹, Junetsu Ogasawara¹, Yoshikazu Sumitani^{1,3}, Shogo Sato^{1,2}, Kazuhiko Imaizumi², Hitoshi Ishida³ and Takako Kizaki¹** (¹*Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, Mitaka, Tokyo 181-8611,* ²*Laboratory of Physiological Sciences, Faculty of Human Sciences, Waseda University, Tokorozawa, Saitama 359-1192 and* ³*Third Department of Internal Medicine, Kyorin University, School of Medicine, Mitaka, Tokyo 181-8611, Japan*)
- 2. Lifestyle-related disease and skeletal muscle: A review, Akihiko Ishihara¹, Fumiko Nagatomo¹, Hidemi Fujino², Hiroyo Kondo³ and Kinsuke Tsuda⁴** (¹*Laboratory of Cell Biology and Life Science, Graduate School of Human and Environmental Studies, Kyoto University, Kyoto 606-8501,* ²*Department of Rehabilitation Science, Kobe University Graduate School of Health Sciences, Kobe 654-0142,* ³*Department of Food Sciences and Nutrition, Nagoya Women's University, Nagoya 467-8610 and* ⁴*Laboratory of Metabolism, Graduate School of Human and Environmental Studies, Kyoto University, Kyoto 606-8501, Japan*)
- 3. Regulation of soleus muscle properties by mechanical stress and/or neural activity, Fuminori Kawano, Naoya Nakai and Yoshinobu Ohira** (*Graduate School of Medicine, Osaka University, 1-17 Machikaneyama-cho, Toyonaka City, Osaka 560-0043, Japan*)
- 4. Reflex modulation during rhythmic limb movements in humans, Tomoyoshi Komiyama^{1,2} and Tsuyoshi Nakajima³** (¹*Department of Health and Sports Sciences, Faculty of Education, Chiba University, Chiba 263-8522,* ²*Division of Health and Sport Education, The United Graduate School of Education, Tokyo Gakugei University, Tokyo 184-8501 and* ³*Department of Integrative Physiology, Kyorin University, School of Medicine, Tokyo 181-8611, Japan*)
- 5. Myokines: Do they really exist?, Yasuko Manabe, Shouta Miyatake and Mayumi Takagi** (*Department of Health Promotion Sciences, Graduate School of Human Health Sciences, Tokyo Metropolitan University, 1-1 Minami-Osawa, Hachioji 192-0397, Japan*)
- 6. Metabolic Sensor for Low Intensity Exercise: Insights from AMPK α 1 Activation in Skeletal Muscle, Taro Toyoda¹, Tatsuro Egawa² and Tatsuya Hayashi²** (¹*Department of Cell Growth and Differentiation, Center for iPS Cell Research and Application, Kyoto University, 53 Kawahara-cho, Shogoin Yoshida, Sakyo-ku, Kyoto 606-8507 and* ²*Laboratory of Sports and Exercise Medicine, Graduate School of Human and Environmental Studies, Kyoto University, Yoshida-nihonmatsu-cho, Sakyo-ku, Kyoto 606-8501, Japan*)

7. **Exercise training based on individual physical fitness and interval walking training to prevent lifestyle-related diseases in middle-aged and older people, Hiroshi Nose^{1,2}, Mayuko Morikawa^{1,2}, Shizue Masuki¹, Ken Miyagawa^{1,2}, Yoshi-ichiro Kamijo¹ and Hirokazu Gen-no²** (¹*Department of Sports Medical Sciences, Division of Bioregulatory Medicine, Institute of Pathogenesis and Disease Prevention, Shinshu University Graduate School of Medicine, 3-1-1 Asahi, Matsumoto 390-8621, and* ²*Jukunen Taiikudaigaku Research Center, 3-1-1 Asahi, Matsumoto 390-8621, Japan*)
8. **Exercise and thermoregulation, Kei Nagashima^{1,4}, Ken Tokizawa^{1,2}, Yuki Uchida¹, Mayumi Nakamura-Matsuda¹ and Chen-Hsien Lin^{1,2}** (¹*Laboratory of Integrative Physiology (Body Temperature and Fluid Laboratory), Faculty of Human Sciences, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ²*Sports Sciences for the Promotion of Active Life, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ³*Institute of Applied Brain Sciences, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, and* ⁴*Advanced Research Center for Human Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
9. **Roles played by protein metabolism and myogenic progenitor cells in exercise-induced muscle hypertrophy and their relation to resistance training regimens, Naokata Ishii^{1,2}, Riki Ogasawara², Koji Kobayashi³ and Koichi Nakazato³** (¹*Department of Life Science, Graduate School of Arts and Sciences, The University of Tokyo, Komaba, Tokyo 153-8902,* ²*Department of Environmental Sciences, Graduate School of Frontier Sciences, The University of Tokyo, Kashiwa, Chiba 227-8653, and* ³*Graduate School of Health and Sport Sciences, Nippon Sport Science University, Fukazawa, Tokyo 153-8850, Japan*)
10. **Structure and function of skeletal muscle and locomotive systems: Involvement of water-state transitions, Shigeru Takemori¹ and Masako Kimura^{1,2}** (¹*Department of Molecular Physiology, The Jikei University School of Medicine, Tokyo 105-8461, and* ²*Department of Radiology, Tokyo Dental College Ichikawa General Hospital, Chiba 272-8513, Japan*)
11. **Motor imagery and sport performance, Nobuaki Mizuguchi^{1,2}, Hiroki Nakata³, Yusuke Uchida³ and Kazuyuki Kanosue³** (¹*Laboratory of Sport Neuroscience, Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ²*Research Fellow of the Japan Society for the Promotion of Science, 8 Ichiban-cho, Chiyoda-ku, Tokyo 102-8472, and* ³*Laboratory of Sport Neuroscience, Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
12. **The effects of exercise on macrophage function, Takako Kizaki¹, Shogo Sato¹, Takuya**

Sakurai¹, Junetsu Ogasawara¹, Kazuhiko Imaizumi², Tetsuya Izawa³, Junichi Nagasawa⁴, Daizo Saitoh⁵, Shukoh Haga⁶ and Hideki Ohno¹ (¹*Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611,* ²*Laboratory of Physiological Sciences, Faculty of Human Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ³*Faculty of Health and Sport Science, Doshisha University, 1-3 Tatara Miyakodani, Kyotanabe, Kyoto 610-0394,* ⁴*Department of Applied Physics and Chemistry, The University of Electro-Communications, 1-5-1 Chofugaoka, Chofu, Tokyo 182-8585,* ⁵*Division of Traumatology, National Defense Medical College Research Institute, 3-2 Namiki, Tokorozawa, Saitama 359-8513, and* ⁶*Graduate School of Comprehensive Human Sciences, University of Tsukuba, 1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8573, Japan)*

- 13. Heat stress-induced changes in skeletal muscle: Heat shock proteins and cell signaling transduction, Hisashi Naito^{1,2}, Toshinori Yoshihara¹, Ryo Kakigi², Noriko Ichinoseki-Sekine² and Takamasa Tsuzuki¹** (¹*Graduate School of Health and Sports Science, Juntendo University, 1-1 Hiragagakuendai, Inzai, Chiba 270-1695, and* ²*Institute of Health and Sports Science & Medicine, Juntendo University, 1-1 Hiragagakuendai, Inzai, Chiba 270-1695, Japan)*

<Short Review Articles>

- 14. Exercise, nutrition and iron status, Takako Fujii¹, Tatsuhiko Matsuo² and Koji Okamura¹** (¹*Exercise Nutrition Laboratory, Graduate School of Sport Sciences, Osaka University of Health and Sport Sciences, 1-1 Asashirodai, Kumatori-cho, Sennan-gun, Osaka 590-0496, and* ²*Faculty of Agriculture, Kagawa University, 2393, Ikenobe, Miki-cho, Kita-gun, Kagawa 761-0795, Japan)*

- 15. Effects of β_2 -agonists and exercise on β_2 -adrenergic receptor signaling in skeletal muscles, Shogo Sato^{1,2}, Ken Shirato¹, Takako Kizaki³, Hideki Ohno³, Kaoru Tachiyashiki⁴ and Kazuhiko Imaizumi^{1,5}** (¹*Laboratory of Physiological Sciences, Faculty of Human Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ²*Japan Society for the Promotion of Science, 8 Ichiban-cho, Chiyoda-ku, Tokyo 102-8472,* ³*Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611,* ⁴*Department of Natural and Living Sciences, Graduate School of Education, Joetsu University of Education, 1 Yamayashiki, Joetsu, Niigata 943-8512, and* ⁵*Global COE Doctoral Program, Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)*

- 16. Effects of exercise on the hexosamine biosynthetic pathway and glycosylation, Ken**

Shirato¹, Takako Kizaki², Hideki Ohno² and Kazuhiko Imaizumi¹ (¹Laboratory of Physiological Sciences, Faculty of Human Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, and ²Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611, Japan)

17. Skeletal muscle regeneration and muscle progenitor cells, Norio Motohashi¹, Matthew S. Alexander^{1,4} and Louis M. Kunkel¹⁻⁴ (¹Program in Genomics, Department of Pediatrics, Children's Hospital Boston, Boston, Massachusetts 02115, ²Department of Genetics, Harvard Medical School, Boston, Massachusetts 02115, ³The Manton Center for Orphan Disease Research, Children's Hospital Boston, Boston, Massachusetts 02115 and ⁴Harvard Stem Cell Institute, Cambridge, Massachusetts 02138, USA)

18. Warm-up procedures to enhance dynamic muscular performance, Naokazu Miyamoto (Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)

19. The role of autophagy in skeletal muscle homeostasis, Tomonori Ogata (Faculty of Human Environmental Studies, Hiroshima Shudo University, 1-1-1 Ozuka-Higashi, Asaminami-ku, Hiroshima 731-3195, Japan)

20. Regulatory mechanisms involved in blunting protein synthesis in working skeletal muscle, Taro Murakami (Department of Nutrition, Shigakkan University, 55 Nadakayama, Yokone-Machi, Ohbu 474-8651, Japan)

◆JPFSM : Vol. 1, No. 2 (July, 2012) : 20 papers

<Review Articles>

1. Some aspects of heat stress on the plasticity of skeletal muscle cells, Katsumasa Goto^{1,2}, Yoshitaka Ohno², Ayumi Goto¹, Akihiro Ikuta¹, Miho Suzuki¹, Tomotaka Ohira¹, Noriko Tsuchiya³, Sono Nishizawa⁴, Tomoyuki Koya⁴, Tatsuro Egawa^{1,5}, Takao Sugiura⁶, Yoshinobu Ohira⁷ and Toshitada Yoshioka⁸ (¹Department of Physiology, Graduate School of Health Sciences, Toyohashi SOZO University, 2-16-1 Matsushita, Ushikawa, Toyohashi, Aichi 440-8511, ²Laboratory of Physiology, School of Health Sciences, Toyohashi SOZO University, 2-16-1 Matsushita, Ushikawa, Toyohashi, Aichi 440-8511, ³Department of Public Health Nursing, Graduate School of Health Sciences, Toyohashi SOZO University, 2-16-1 Matsushita, Ushikawa, Toyohashi, Aichi 440-8511, ⁴Department of Orthopaedic Surgery, St. Marianna University School of Medicine, 2-16-1 Sugao, Miyamae, Kawasaki, Kanagawa 216-8511, ⁵Japan Society for the Promotion of Science, 1-8 Ichiban-cho, Chiyoda, Tokyo

102-8472, ⁶Department of Exercise and Health Sciences, Yamaguchi University, 1677-1 Yoshida, Yamaguchi 753-8513, ⁷Graduate School of Medicine, Osaka University, 1-17 Machikaneyama, Toyonaka, Osaka 560-0043, and ⁸Hirosaki Gakuin University, 13-1 Minori, Hirosaki, Aomori 036-8577, Japan)

2. **Arterial stiffness and lifestyle modification, Asako Miyaki¹ and Seiji Maeda²** (¹Graduate School of Comprehensive Human Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8577, and ²Faculty of Health and Sport Sciences, University of Tsukuba, Tsukuba, Ibaraki 305-8574, Japan)
3. **Association of exercise with appetite and energy intake through endocrine mechanism, Takahiro Yoshikawa and Shigeo Fujimoto** (Department of Sports Medicine, Osaka City University Graduate School of Medicine, 1-4-3, Asahi-machi, Abeno-ku, Osaka 545-8585, Japan)
4. **Effects of protein and amino acid supplementation on muscle protein metabolism in relation to exercise, Yoshiharu Shimomura, Yasuyuki Kitaura and Noriko Shimomura** (Laboratory of Nutritional Biochemistry, Department of Applied Molecular Biosciences Graduate School of Bioagricultural Sciences, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Aichi 464-8601, Japan)
5. **Rowing as an aerobic and resistance exercise for elderly people, Meiko Asaka, Hiroshi Kawano and Mitsuru Higuchi** (Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)
6. **Neural regulation of respiration during exercise -Beyond the conventional central command and afferent feedback mechanisms-, Koji Ishida¹ and Miharuru Miyamura²** (¹Research Center of Health, Physical Fitness and Sports, Nagoya University, E5-2(130), Fro-cho, Chikusa-ku, Nagoya 464-8601 and ²Faculty of Human Science, Kanazawa Seiryō University, Gosho-Machi, Kanazawa 920-8620, Japan)
7. **Monocarboxylate transporter and lactate metabolism, Yu Kitaoka, Daisuke Hoshino and Hideo Hatta** (Department of Sports Sciences, The University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo 153-8902, Japan)
8. **Central mechanisms of cardiovascular regulation during exercise: Integrative functions of the nucleus of the solitary tract, Hidefumi Waki** (Department of Physiology, Wakayama Medical University School of Medicine, 811-1 Kimiidera, Wakayama 641-8509, Japan)
9. **Neural control of human gait and posture, Kimitaka Nakazawa, Hiroki Obata and**

Shun Sasagawa (*Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo, 3-8-1 Komaba, Meguro-Ku, Tokyo 153-8902, Japan*)

10. Heat stress and orthostatic tolerance, Fumio Yamazaki (*School of Health Sciences, University of Occupational and Environmental Health, 1-1 Iseigaoka, Yahatanishi-ku, Kitakyushu 807-8555, Japan*)

11. Blood flow in non-muscle tissues and organs during exercise: Nature of splanchnic and ocular circulation, Naoyuki Hayashi¹, Masako Yamaoka-Endo², Nami Someya³ and Yoshiyuki Fukuba² (*¹Institute of Health Science, Kyushu University, 6-1 Kasuga-koen, Kasuga, Fukuoka 816-8580, ²Department of Health Science, Prefectural University of Hiroshima, 1-1-71 Ujina-higashi, Minami-ku, Hiroshima 734-8558 and ³Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, 2-4 Hibikino, Wakamatsu-ku, Kitakyushu, Fukuoka 808-0196, Japan*)

12. Morphological and functional characteristics of the muscle-tendon unit, Yasuo Kawakami (*Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 358-1192, Japan*)

13. Control of muscle protein synthesis in response to exercise and amino acids, Naoya Nakai, Fuminori Kawano and Yoshinobu Ohira (*Department of Health and Sports Sciences, Graduate School of Medicine, Osaka University, 1-17 Machikaneyama, Toyonaka City, Osaka 560-0043, Japan*)

14. Exercise in a metabolic chamber - Effects of exercise on 24 h fat oxidation, Kaito Iwayama^{1,2} and Kumpei Tokuyama² (*¹Body and Mind Integrated Science Center, Graduate School of Comprehensive Human Science, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8574 and ²Doctoral Program in Sports Medicine, Graduate School of Comprehensive Human Science, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8574, Japan*)

15. Exercise and sleep – Review and future directions, Sunao Uchida¹, Kohei Shioda², Yuko Morita³, Chie Kubota³, Masashi Ganeko³ and Noriko Takeda^{1,4} (*¹Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ²Faculty of Human Sciences, Kanagawa University, 3-27-1 Rokkakubashi, Kanagawa-ku, Yokohama, Kanagawa 221-8686, ³Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192 and ⁴Japan Society for the Promotion of Science, 8 Ichiban-cho, Chiyoda-ku, Tokyo 102-8472, Japan*)

[<Short Review Articles>](#)

16. **Exercise training and the promotion of neurogenesis and neurite outgrowth in the hippocampus, Takuya Sakurai¹, Junetsu Ogasawara¹, Takako Kizaki¹, Yoshinaga Ishibashi¹, Tomonori Fujiwara², Kimio Akagawa², Tetsuya Izawa³, Zsolt Radák⁴ and Hideki Ohno¹** (¹*Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, Mitaka, Tokyo 181-8611, Japan,* ²*Department of Cell Physiology, Kyorin University, School of Medicine, Mitaka, Tokyo 181-8611, Japan,* ³*Faculty of Health and Sport Science, Doshisha University, Kyotanabe, Kyoto 610-0394, Japan and* ⁴*Research Institute of Sport Science, Faculty of Physical Education and Sport Science, Semmelweis University, Budapest, Hungary)*
17. **Body composition of Japanese children, Taishi Midorikawa** (*College of Health and Welfare, J.F. Oberlin University, 3758 Tokiwamachi, Machida, Tokyo 194-0294, Japan*)
18. **Mechanisms of heat acclimation and tolerance induced by exercise training and heat exposure, Ken Tokizawa^{1,2}, Cheng-Hsien Lin² and Kei Nagashima^{2,4}** (¹*Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ²*Sports Sciences for the Promotion of Active Life, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192,* ³*Laboratory of Integrative Physiology (Body Temperature and Fluid Laboratory), Faculty of Human Sciences, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192 and* ⁴*Institute of Applied Brain Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
19. **Visualization of metabolite change in skeletal muscle by contraction using imaging mass spectrometry, Naoko Goto-Inoue^{1,2}, Mitsutoshi Setou² and Nobuharu L. Fujii¹** (¹*Department of Health Promotion Sciences, Graduate School of Human Health Sciences, Tokyo Metropolitan University, 1-1 Minami-Osawa, Hachioji, Tokyo 192-0397 and* ²*Department of Cell Biology and Anatomy, Hamamatsu University School of Medicine, 1-20-1 Handayama, Higashi-ku, Hamamatsu, Shizuoka 431-3192, Japan*)
20. **Effect of physical exercise on lipolysis in white adipocytes, Junetsu Ogasawara¹, Takuya Sakurai¹, Takako Kizaki¹, Kazuto Takahashi², Hitoshi Ishida², Tetsuya Izawa³, Koji Toshinai⁴, Norihiko Nakano⁵ and Hideki Ohno¹** (¹*Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611,* ²*Third Department of Internal Medicine, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611,* ³*Department of Sports Biochemistry, Faculty of Health and Sports Science, Doshisha University, Tataramiyakodani, Kyotanabe, Kyoto 610-0394,* ⁴*Neurology, Respiriology, Endocrinology, and Metabolism, Division of Internal*

Medicine, Faculty of Medicine, University of Miyazaki, 5200 Kihara, Kiyotake, Miyazaki 889-1692 and ⁵Aino Institute of Regeneration and Rehabilitation, Aino University, 4-5-4 Higashiohara, Ibaraki, Osaka 567-0012, Japan)

◆ **JPFSM : Vol. 1, No. 3 (September, 2012) : 23 papers**

<Review Articles>

1. **Mental processes and breathing during exercise, Takahiro Yunoki** (Department of Human Developmental Sciences, Faculty of Education, Hokkaido University, Kita-11, Nishi-7, Kita-ku, Sapporo 060-0811, Japan)
2. **Behavioral neuroscience of emotion and exercise, Ichiro Kita** (Department of Human Health Science, Tokyo Metropolitan University, 1-1 Minamiohsawa, Hachioji, Tokyo 192-0397, Japan)
3. **Cognitive neuroscience of motor learning and motor control, Hiroaki Masaki¹ and Werner Sommer²** (¹Faculty of Sport Sciences, Waseda University, 2-579-15, Mikajima, Tokorozawa, Saitama 359-1192, Japan and ²Institute for Psychology, Humboldt-University of Berlin, Rudower Chaussee 18, 12489 Berlin, Germany)
4. **Recent advances in the adaptations of adipose tissue to physical activity: Morphology and adipose tissue cellularity, Tetsuya Izawa¹, Jun-etsu Ogasawara², Takuya Sakurai², Sachiko Nomura³, Takako Kizaki² and Hideki Ohno²** (¹Graduate School of Health and Sports Science, Doshisha University, Tatara-miyakodani, Kyotanabe, Kyoto 610-0394, ²Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611 and ³Department of Neuroscience, Osaka City University Graduate School of Medicine, Osaka, Osaka 545-8585, Japan)
5. **Variable factors of total daily energy expenditure in humans, Kazunori Ohkawara^{1,2}, Yuki Hikiyama^{2,3}, Tomoaki Matsuo⁴, Edward L. Melanson⁵ and Masanobu Hibi⁶** (¹Faculty of Informatics and Engineering, University of Electro-Communications, 1-5-1 Chofugaoka, Chofu, Tokyo 182-8585, Japan, ²Department of Nutritional Science, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku-ku, Tokyo 162-8636, Japan, ³Faculty of Engineering, Chiba Institute of Technology, 2-1-1 Shibazono, Narashino, Chiba 275-0023, Japan, ⁴Flight Crew Operations and Technology Department, Japan Aerospace Exploration Agency (JAXA), 2-1-1, Sengen, Tsukuba, Ibaraki 305-8505, Japan, ⁵Division of Endocrinology, Metabolism, and Diabetes/Division of Geriatric Medicine, University of Colorado Anschutz Medical Campus, 12801 East 17th Ave, RC1 South RM 7103, Aurora, CO 80045, USA and ⁶Health Care Food Research Laboratories, Kao Corporation, 2-1-3, Bunka, Sumida-ku, Tokyo

131-8501, Japan)

6. **Recent research developments in regeneration of skeletal muscle, Kunihiro Sakuma¹ and Akihiko Yamaguchi²** (¹*Research Center for Physical Fitness, Sports and Health, Toyohashi University of Technology, 1-1 Hibarigaoka, Tenpaku-cho, Toyohashi, Aichi 441-8580* and ²*School of Dentistry, Health Sciences University of Hokkaido, Kanazawa, Ishikari-Tobetsu, Hokkaido 061-0293, Japan*)
7. **Transporter-centric view of urate metabolism: From genome-wide association study to pathophysiology, Hiroyuki Sakurai** (*Department of Pharmacology & Toxicology, Kyorin University School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611, Japan*)
8. **Multipotency and physiological role of skeletal muscle interstitium-derived stem cells, Tetsuro Tamaki** (*Muscle Physiology & Cell Biology Unit, Department of Regenerative Medicine, Division of Basic Clinical Science, Tokai University School of Medicine, 143-Shimokasuya, Isehara, Kanagawa 259-1143, Japan*)
9. **Cardiovascular regulation during exercise – Contribution of peripheral reflexes, Masashi Ichinose¹, Kazuhiro Watanabe², Naoto Fujii^{2,3} and Takeshi Nishiyasu²** (¹*Human Integrative Physiology Laboratory, School of Business Administration, Meiji University, 1-9-1 Eifuku, Suginami-ku, Tokyo, 168-8555*, ²*Institute of Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennoudai, Tsukuba, Ibaraki, 305-8574* and ³*Faculty of Human Development, Kobe University, 3-11 Tsurukabuto, Nada-ku, Kobe 657-8501, Japan*)
10. **Effects of the “live high-train high” and “live high-train low” protocols on physiological adaptations and athletic performance, Isao Muraoka and Yuko Gando** (*Department of Exercise Physiology, Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
11. **Exercise, diet, and weight loss, Kiyoji Tanaka¹, Ryosuke Shigematsu², Tim Henwood³ and Hiroyuki Sasai⁴** (¹*Faculty of Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8577, Japan*, ²*Faculty of Education, Mie University, 1577 Kurimamachiya, Tsu, Mie 514-8507, Japan*, ³*University of Queensland/Blue Care Research and Practice Development Centre, University of Queensland, 56 Sylvan Rd, Toowong QLD, Brisbane 4066 Australia* and ⁴*Diabetes, Endocrinology, and Obesity Branch, National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, 9000 Rockville Pike, Bethesda, Maryland 20892, USA*)
12. **Measures of physical activity and exercise for health promotion by the Ministry of Health, Labour and Welfare, Motohiko Miyachi** (*Department of Health Promotion and*

Exercise, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku, Tokyo 162-8636, Japan)

- 13. Skeletal muscle fiber plasticity: Heat shock proteins and satellite cell activation, Yasuharu Oishi¹ and Tomonori Ogata²** (*¹Laboratory of Muscle Physiology, Kumamoto University, 2-40-1 Kurokami, Chuo-ku, Kumamoto 860-8555 and ²Faculty of Human Environmental Studies, Hiroshima Shudo University, 1-1-1 Ozuka-Higashi, Asaminami-ku, Hiroshima 731-3195, Japan)*)
- 14. Modification of thermoregulatory response to heat stress by body fluid regulation, Akira Takamata** (*Department of Environmental Health, Nara Women's University, Kitauoya Nishimachi, Nara 630-8506, Japan)*)
- 15. Status of physical activity in the Japanese population, Shigeho Tanaka** (*Department of Nutritional Science, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku-ku, Tokyo 162-8636, Japan)*)
- 16. Exercise prescription for fat metabolism disorder – From the viewpoint of fat oxidation rate, Shizuo Sakamoto¹, Masayuki Konishi¹, Hyeon Ki Kim¹, Naoya Endoh¹, Masaki Takahashi¹, Syun Takagi² and Taishi Midorikawa³** (*¹Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ²Department of Sports Medicine for Health Promotion, Tokyo Medical University, 6-1-1 Shinjuku, Shinjuku-ku, Tokyo 160-8402 and ³College of Health and Welfare, J.F. Oberlin University, 3758 Tokiwamachi, Machida, Tokyo 194-0294, Japan)*)
- 17. Mechanisms of exercise-induced muscle damage and fatigue: Intracellular calcium accumulation, Yutaka Kano¹, Takashi Sonobe², Tadakatsu Inagaki², Mizuki Sudo³ and David C Poole⁴** (*¹Department of Engineering Science, Bioscience and Technology Program, University of Electro-Communications, 1-5-1 Chofugaoka, Chofu, Tokyo, 182-8585, Japan, ²National Cerebral and Cardiovascular Center Research Institute, Department of Cardiac Physiology, 5-7-1 Fujishiro-dai, Suita, Osaka 565-8565, Japan, ³Central Research Institute for Physical Activity, Fukuoka University, 8-19-1 Nanakuma, Jonan-ku, Fukuoka, 814-0180, Japan and ⁴Departments of Anatomy & Physiology and Kinesiology, Kansas State University, Manhattan, Kansas, 66506, USA)*)
- 18. Mechanisms of post-contraction activation in skeletal muscle, Azusa Uematsu¹, Hirofumi Sekiguchi², Hirofumi Kobayashi³, Kazushi Tsuchiya³, Tibor Hortobágyi⁴ and Shuji Suzuki³** (*¹School of Health and Sport Sciences, Osaka University of Health and Sport Sciences, Sennan-gun, 1-1 Asashirodai, Kumatori-cho, Sennan-gun, Osaka 590-0496,*

Japan, ²Faculty of Business and Information Sciences, Jobu University, 634-1, Toyatsukamachi, Isesaki, Gunma 372-8588, Japan, ³Faculty of Human Sciences, Waseda University, 2-579-15, Mikajima, Tokorozawa, Saitama 359-1192, Japan and ⁴Center of Human Movement Sciences, University Medical Center Groningen, University of Groningen, 9700 AD Groningen, The Netherlands)

<Short Review Articles>

19. **Respiratory muscle fatigue modulates the circulatory response to exercise, Keisho Katayama¹ and Markus Amann²** (¹Research Center of Health, Physical Fitness and Sports, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Aichi 464-8601, Japan, ²VA Medical Center, Department of Medicine, University of Utah, Salt Lake City, UT 84148, USA)
20. **The effects of exercise on adipokines -Focus on circulating adiponectin level in human studies-, Shigeharu Numao** (Department of Health and Sports Sciences, Kyoto Pharmaceutical University, 5 Nakauchi-cho, Misasagi, Yamashina-ku, Kyoto 607-8414 and Waseda Institute for Sport Sciences, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)
21. **Exercise and skeletal muscle regeneration, Mitsutoshi Kurosaka^{1,2} and Shuichi Machida¹** (¹School of Physical Education, Tokai University, 4-1-1 Kitakaname, Hiratuka, Kanagawa 259-1292 and ²Department of Physiology, St. Marianna University School of Medicine, 2-16-1 Sugao, Miyamae, Kawasaki, Kanagawa 216-8511, Japan)
22. **Accumulating exercise and postprandial lipaemia, Masashi Miyashita¹, Stephen F Burns² and David J Stensel³** (¹Tokyo Gakugei University, Department of Health and Sports Sciences, 4-1-1 Nukuikitamachi, Koganei 184-8501, Japan, ²Nanyang Technological University, Physical Education and Sports Science Academic Group, 1 Nanyang Walk 637616 Singapore and ³Loughborough University, School of Sport, Exercise and Health Sciences, New Ashby Road, Loughborough LE11 3TU United Kingdom)
23. **Spatial perception and vestibular function, Keisuke Kushiro** (Center for the Promotion of Excellence in Higher Education, Kyoto University, Yoshida Nihonmatsu-cho, Sakyo-ku, Kyoto 606-8501, Japan)

◆**JPFSM : Vol. 1, No.4 (November, 2012): 16 papers**

<Review Articles>

1. **Application of bioelectrical impedance to sports science, Hideaki Komiya** (Department of Health and Sports Sciences, Faculty of Education, Utsunomiya University, 350 Mine-machi, Utsunomiya City, Tochigi 321-8505, Japan)

2. **Regulation of glucose transport in skeletal muscle during and after exercise, Kentaro Kawanaka** (*Musculoskeletal System Function Research Center, Niigata University of Health and Welfare, 1398 Shimami-cho, Niigata City, Niigata 950-3198, Japan*)
3. **Central command: Feedforward control of the sympathoadrenal system during exercise, Kanji Matsukawa, Nan Liang and Kei Ishii** (*Department of Integrative Physiology, Graduate School of Biomedical and Health Sciences, Hiroshima University, 1-2-3 Kasumi, Minami-ku, Hiroshima 734-8551, Japan*)
4. **The role of exercise and diet in maintaining bone health, Yoshiko Ishimi^{1,2} and Kaoru Yanaka^{1,3}** (*¹Department of Food Function and Labeling, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku-ku, Tokyo 162-8636, ²Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192 and ³Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
5. **Mild exercise model for enhancement of hippocampal neurogenesis: A possible candidate for promotion of neurogenesis, Masahiro Okamoto and Hideaki Soya** (*Laboratory of Exercise Biochemistry and Neuroendocrinology, Institute for Health & Sports Sciences, University of Tsukuba, 1-1-1 Tennoudai, Tsukuba, Ibaraki 305-8574, Japan*)
6. **An optimal exercise protocol for improving endurance performance and health, Hiroaki Tanaka, Kazuhiro Morimura and Keisuke Shiose** (*Laboratory of Exercise Physiology, Faculty of Sports and Health Science, Fukuoka University, 8-19-1 Nanakuma, Jonan-ku, Fukuoka 814-0180, Japan*)
7. **Arterial function during various acute exercises, Hajime Miura** (*Laboratory for Applied Physiology, Institute of Socio-Arts and Science, University of Tokushima, 1-1 Minamijyosanjima, Tokushima 770-8502, Japan*)
8. **The old-but-new theories about human voluntary motor control, Masataka Suzuki¹ and Toshiaki Wasaka²** (*¹Department of Psychology, Kinjo Gakuin University, 2-1723 Omori, Moriyama, Nagoya 463-8521 and ²Department of Integrative Physiology, National Institute for Physiological Sciences, 38 Nishigonaka, Myodaiji, Okazaki, Aichi 444-8585, Japan*)
9. **Evaluation of functional properties of skeletal muscle using functional magnetic resonance imaging (fMRI), Hiroshi Akima** (*Research Center of Health, Physical Fitness & Sports, Graduate School of Education and Human Development, Nagoya University, Furo, Chikusa, Nagoya, Aichi 464-8601, Japan*)
10. **Arterial baroreflex regulation of cerebral blood flow in humans, Shigehiko Ogoh¹, Ai Hirasawa¹ and James P. Fisher²** (*¹Department of Biomedical Engineering, Toyo University,*

2100 Kujirai, Kawagoe-shi, Saitama 350-8585, Japan and ²School of Sport and Exercise Sciences, University of Birmingham, Edgbaston, Birmingham, West Midlands B15 2TT UK)

11. **Reference values and prediction of sarcopenia in Japanese men and women, Kiyoshi Sanada¹ and Motohiko Miyachi²** (¹College of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577 and ²Department of Health Promotion and Exercise, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku, Tokyo 162-8636, Japan)
12. **The suppression of tumor necrosis factor–alpha production in response to pathogen stimulation by strenuous exercise and underlying mechanisms, Hiromi Yano¹, Masataka Uchida¹, Eri Oyanagi², Noriaki Kawanishi³, Daisuke Shiva⁴ and Hiromi Kitamura⁵** (¹Department of Health and Sports Science, Kawasaki University of Medical Welfare, 288 Matsushima, Kurashiki, Okayama 701-0193, ²Department of Health Promotion and Exercise, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku, Tokyo 162-8636, ³Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ⁴Department of Health Science, Kurashiki University of Science and the Arts, 2640 Nishinoura, Tsurajima, Kurashiki, Okayama 712-8505 and ⁵Exercise Physiology Laboratory, Wayo Women's University, 2-3-1 Konodai, Ichikawa, Chiba 272-8533, Japan)
13. **Regulatory mechanisms of muscle fiber types and their possible interactions with external nutritional stimuli, Koichi Nakazato and Arata Tsutaki** (Department of Exercise Physiology, Nippon Sport Science University, 7-1-1 Fukasawa, Setagaya-ku, Tokyo 158-8508, Japan)

[<Short Review Articles>](#)

14. **Somatosensory control of spinal reflex circuitry during robotic-assisted stepping, Tsuyoshi Nakajima¹, Kiyotaka Kamibayashi² and Kimitaka Nakazawa³** (¹Integrative Physiology, Kyorin University School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611, ²Graduate School of Systems and Information Engineering, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8577 and ³Graduate School of Arts and Sciences, University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo 153-8902, Japan)
15. **Effect of hyperthermia-induced hyperventilation on central fatigue during exercise in heat, Keiji Hayashi** (Junior College, University of Shizuoka, 2-2-1 Oshika, Suruga-ku, Shizuoka 422-8021, Japan)
16. **The regulatory mechanisms of satellite cell migration in skeletal muscle, Minenori**

Ishido (*Faculty of Education, Creative Arts and Sciences, Aichi University of Education, 1 Hirosawa, Igaya-cho, Kariya, Aichi 448-0001, Japan*)

◆ **JPFSM : Vol. 2, No. 1 (March, 2013) : 15 papers**

<**Review Articles**>

1. **Molecular mechanisms of skeletal tissue formation, Akira Nifuji** (*Department of Pharmacology, Tsurumi University School of Dental Medicine, 2-1-3 Tsurumi, Tsurumi-ku, Yokohama City, Kanagawa 230-8501, Japan*)
2. **Role of myoglobin in regulating respiration during muscle contraction, Kazumi Masuda¹, Tatsuya Yamada¹, Rie Ishizawa¹ and Hisashi Takakura²** (*¹Faculty of Human Sciences, Kanazawa University, Kakuma, Kanazawa, Ishikawa 920-1192 and ²Faculty of Health and Sports Science, Doshisha University, 1-3 Tatara-Miyakodani, Kyotanabe, Kyoto 610-0394, Japan*)
3. **Association of mitochondrial DNA polymorphisms and/or haplogroups with elite Japanese athlete status, Noriyuki Fuku¹, Eri Mikami¹⁻³ and Masashi Tanaka¹** (*¹Department of Genomics for Longevity and Health, Tokyo Metropolitan Institute of Gerontology, 35-2 Sakae-cho, Itabashi-ku, Tokyo 173-0015, ²Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192 and ³Japan Society for the Promotion of Science, 5-3-1 Kojimachi, Chiyoda-ku, Tokyo 102-0083, Japan*)
4. **Significance of finger tactile information for postural stability in humans, Motoki Kouzaki** (*Laboratory of Neurophysiology, Graduate School of Human and Environmental Studies, Kyoto University, Yoshida-nihonmatsu-cho, Sakyo-ku, Kyoto 606-8501, Japan*)
5. **Aging and thermoregulation, Manabu Shibasaki¹, Kazunobu Okazaki² and Yoshimitsu Inoue³** (*¹Faculty of Human Life and Environment, Nara Women's University, Kita-uoya, Nishi-machi, Nara 630-8506, ²Research Center for Urban Health and Sports, Osaka City University, 3-3-138 Sugimoto, Sumiyoshi-ku, Osaka 558-8585 and ³Laboratory for Human Performance Research, Osaka International University, 6-21-57 Tohdacho, Moriguchi, Osaka 570-8555, Japan*)
6. **Control of cell differentiation by mechanical stress, Jong-Hoon Park, Takashi Ushida and Takayuki Akimoto** (*Division of Regenerative Medical Engineering, Center for Disease Biology and Integrative Medicine, Graduate School of Medicine, The University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo 113-0033, Japan*)
7. **How baseball spin influences the performance of a pitcher, Tomoyuki Nagami¹, Takatoshi Higuchi² and Kazuyuki Kanosue¹** (*¹Faculty of Sport Sciences, Waseda University,*

2-579-15 Mikajima, Tokorozawa, Saitama 359-1192 and ²Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)

8. **The role of gut-hypothalamus axis for feeding regulation, Koji Toshinai** (*Department of Neurology, Respiriology, Endocrinology and Metabolism, Faculty of Internal Medicine, Miyazaki Medical College, University of Miyazaki, 5200 Kihara, Miyazaki, Miyazaki 889-1692, Japan*)
9. **Age and activity-related changes in the respiratory motor system, Hirofumi Miyata** (*Biological Sciences, Graduate School of Medicine, Yamaguchi University, 1677-1 Yoshida, Yamaguchi City, Yamaguchi 753-8515, Japan*)
10. **Regulation of the exercise-induced expression of the monocarboxylate transporters MCT1 and MCT4 in skeletal muscle, Taku Hamada and Masaki Takimoto** (*Laboratory of Exercise Physiology and Biochemistry, Graduate School of Sport and Exercise Sciences, Osaka University of Health and Sport Sciences (OUHS), 1-1 Asashirodai, Kumatori-cho, Sennan-gun, Osaka 590-0496, Japan*)
11. **Human calorimetry: Energy expenditure and substrate utilization measurements using a respiratory chamber, Masanobu Hibi¹, Takafumi Ando^{2,3}, Shigeo Tanaka³ and Kumpei Tokuyama⁴** (*¹Health Care Food Research Laboratories, Kao Corporation, 2-5-7 Bunka, Sumida-ku, Tokyo 131-8501, ²Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ³Department of Nutritional Science, National Institute of Health and Nutrition, 1-23-1 Toyama, Shinjuku-ku, Tokyo 162-8636 and ⁴Institute of Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8574, Japan*)

<Short Review Articles>

12. **Growth factor-dependent and independent regulation of skeletal muscle mass - Is IGF-1 necessary for skeletal muscle hypertrophy? -, Mitsunori Miyazaki** (*Department of Physical Therapy, School of Rehabilitation Sciences, Health Sciences University of Hokkaido, 1757 Kanazawa, Tobetsu-cho, Ishikari-gun, Hokkaido 061-0293, Japan*)
13. **Exercise training modes and vascular adaptations, Hiroshi Kawano** (*Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
14. **Genes and molecules related to obesity and lifestyle-related disease and exercise, Masaki Kimura** (*Department of Pharmacotherapeutics, Faculty of Pharmacy, Keio University, 1-5-30 Shibakoen, Minato-ku, Tokyo 105-8512, Japan*)
15. **Molecular signaling mechanisms that mediate exercise training effects on insulin sensitivity, Masaru Nagasaki¹, Yoshiharu Shimomura² and Yuzo Sato¹** (*¹Department of*

Health Science, Faculty of Psychological & Physical Science, Aichi Gakuin University, 12 Araiike, Iwasaki-cho, Nisshin, Aichi 470-0915 and ²Department of Applied Molecular Biosciences, Graduate School of Bioagricultural Sciences, Nagoya University, Furo-cho, Chikusa-ku, Nagoya, Aichi 464-8601, Japan)

◆ **JPFSM : Vol. 2, No.2 (May, 2013) : 15 papers**

<**Review Articles**>

1. **Lipid metabolism and exercise, Takeshi Hashimoto** (*Faculty of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577, Japan*)
2. **Anticipatory postural control during arm movements and floor translation, Katsuo Fujiwara** (*Department of Human Movement and Health, Faculty of Medicine, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, 13-1 Takara-machi, Kanazawa 920-8640, Japan*)
3. **Exercise-induced hypoxemia and anaerobic capacity in Thoroughbred horses, Hajime Ohmura¹, Atsushi Hiraga¹ and James H. Jones²** (*¹Equine Research Institute, JRA, 321-4 Tokami-cho, Utsunomiya, Tochigi 320-0856, Japan and ²Department of Surgical and Radiological Sciences, School of Veterinary Medicine, University of California, Davis, CA 95616 USA*)
4. **Calcium kinetics of sarcoplasmic reticulum and muscle fatigue, Masanobu Wada¹, Mai Kuratani¹ and Keita Kanzaki²** (*¹Graduate School of Integrated Arts and Sciences, Hiroshima University, 1-7-1 Kagamiyama, Higashi-hiroshima, Hiroshima, 739-8521 and ²Faculty of Food Culture, Kurashiki Sakuyo University, 3515 Nagao-Tamashima, Kurashiki-shi, Okayama, 710-0292, Japan*)
5. **Molecular basis of muscle hypertrophy and atrophy: potential therapy for muscular dystrophy, Naoki Ito^{1,2}, Yuko Miyagoe-Suzuki¹ and Shin'ichi Takeda^{1,3}** (*¹Department of Molecular Therapy, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Kodaira 187-8502 and ²Department of Biological Information, Tokyo Institute of Technology, Yokohama 226-8501, Japan*)
6. **Low back disorders among athletes and its prevention, Koji Kaneoka** (*Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan*)
7. **Neural control of muscle lengthening: Task- and muscle-specificity, Hirofumi Sekiguchi¹, Kimitaka Nakazawa² and Tibor Hortobágyi³** (*¹Sports Management Program, Faculty of Business and Information Sciences, Jobu University, 634-1, Toyatsukamachi, Isesaki, Gunma 372-8588, Japan, ²Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo 3-8-1, Komaba, Meguro-Ku, Tokyo 153-8902, Japan, ³Center for*

Human Movement Sciences, University Medical Center Groningen, A. Deusinglaan 1, Room 334, Building 3215, 9700 AD Groningen, The Netherlands)

8. **Muscle oxygenation monitoring using near-infrared spectroscopy, Takafumi Hamaoka** (*Faculty of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577, Japan*)
9. **The biomarkers of sarcopenia in elderly people, Kishiko Ogawa** (*Laboratory of Nutritional Physiology, School of Food and Nutrition Sciences, The University of Shizuoka, 52-1 Yoda, Suruga-ku, Shizuoka-shi, Shizuoka 422-8526, Japan*)
10. **Metabolic and endocrine responses to hypoxic exposure, Kazushige Goto** (*Faculty of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577, Japan*)

<Short Review Articles>

11. **Effects of exercise on glucagon-like peptide-1 (GLP-1), Shin-ya Ueda, Hidehiro Nakahara and Tadayoshi Miyamoto** (*Department of Acupuncture, Morinomiya University of Medical Sciences, 1-26-16, Nankokita, Suminoe-ku, Osaka City, Osaka 559-8611, Japan*)
12. **Mechanisms underlying ultraviolet radiation-induced dermal aging, Shigeo Kawada^{1,2}, Satoshi Nakada¹ and Yuhei Makanae¹** (*¹Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo 153-8902 and ²Future Institute for Sport Sciences, Waseda University, 1-6-1 Nishiwaseda, Shinjuku-ku, Tokyo 169-8601, Japan*)
13. **Alpha-actinin isoform and skeletal muscle activity, Yuji Ogura¹, Ryo Kakigi² and Hisashi Naito³** (*¹Department of Anatomical Sciences and Neurobiology, School of Medicine, University of Louisville, 500 S Preston St. Louisville, KY, 40202, ²Department of Physiology, School of Medicine, Juntendo University 2-1-1 Hongo, Bunkyo, Tokyo 113-8421, Japan and ³Department of Exercise Physiology, Graduate School of Health and Sports Science, Juntendo University, 1-1 Hiragagakuendai, Inzai, Chiba 270-1695, Japan*)
14. **Role of macrophages in exercise-induced enhancement of insulin sensitivity in skeletal muscle, Shin-ichi Ikeda and Yoshifumi Tamura** (*Department of Metabolism and Endocrinology, Sportology Center, Juntendo University Graduate School of Medicine, 2-1-1 Hongo, Bunkyo, Tokyo 113-8421, Japan*)
15. **Influence of amino acid supplementation on capillary growth in the heart and skeletal muscles, Junichi Suzuki** (*Laboratory of Exercise Physiology, Health and Sports Sciences, Course of Sports Education, Department of Education, Hokkaido University of Education,*

Midorigaoka, Iwamizawa, Hokkaido 068-8642, Japan)

◆JPFSM : Vol. 2, No.3 (August, 2013) : 16 papers

<Review Articles>

- 1. Mechanisms of lifespan extension and preventive effects of calorie restriction on tumor development: Possible link between central neuroendocrine system and peripheral metabolic adaptation, Takuya Chiba^{1,2}, Kesu Dong¹, Shoko Nishizono³ and Isao Shimokawa⁴** (¹Biomedical Gerontology Laboratory, Faculty of Human Sciences, and ²Institute of Applied Brain Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ³Faculty of Biotechnology and Life Science, Sojo University, 4-22-1 Ikeda, Nishi-ku, Kumamoto, Kumamoto 860-0082 and ⁴Investigative Pathology, Graduate School of Biomedical Sciences, Nagasaki University, 1-12-4 Sakamoto, Nagasaki, Nagasaki 852-8523, Japan)
- 2. Development and activities of the fight against doping, Takao Akama¹ and Ayako Abe²** (¹Faculty of Sport Sciences and ²Graduate School of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, Japan)
- 3. Physical fitness, physical activity, exercise training and cognitive function in older adults, Tomohiro Okura¹, Mahshid Saghazadeh², Yuki Soma² and Kenji Tsunoda³** (¹Faculty of Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8574, ²Doctoral Program in Physical Education, Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8574 and ³Meiji Yasuda Life Foundation of Health and Welfare Physical Fitness Research Institute, Tobuki 150, Hachioji, Tokyo 192-0001, Japan)
- 4. Spatiotemporal adaptability of the human perceptuo-motor system, Shigeki Takeuchi¹, Hirofumi Sekiguchi¹, Kozue S Matsuzaki², Makoto Miyazaki^{2,3}** (¹Sports Management Program, Faculty of Business and Information Sciences, Jobu University, 634-1, Toyatsukamachi, Isesaki, Gunma 372-8588, ²Research Institute of Kochi University of Technology, Tosayamada, Kami-city, Kochi 782-8502 and ³Research Institute for Time Studies, Yamaguchi University, 1677-1 Yoshida, Yamaguchi 753-8511, Japan)
- 5. Exercise, nutrition, and aging in the regulation of muscle protein synthesis, Koji Sato and Satoshi Fujita** (Faculty of Sport and Health Science, Ritsumeikan University, Shiga 525-8577, Japan)
- 6. Exercise-induced changes in amino acid levels in skeletal muscle and plasma, Keisuke Ishikura¹, Song-Gyu Ra^{2,4} and Hajime Ohmori³** (¹Sports Research and Development Core, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki, 305-8574, ²Graduate School of

Comprehensive Human Sciences University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki, 305-8574, ³Faculty of Health and Sport Sciences, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki, 305-8574 and ⁴Reserch Fellow of The Japan Society for the Promotion of Science, 5-3-1 Kojimachi, Chiyoda-ku, Tokyo, 102-0083, Japan)

7. **Pathophysiological significance of measuring exhaled gasotransmitters during exercise, Yoshifumi Yasuda** (*Health Science Center, Toyohashi University of Technology, 1-1 Hibarigaoka, Tenpaku-cho, Toyohashi, Aichi 441-8580, Japan*)
8. **Shifts in the baroreflex control of sympathetic nerve activity induced by exercise, Kenju Miki¹ and Misa. Yoshimoto²** (*¹Department of Environmental Health, Life Science and Human Technology, Nara Women's University, Kita-Uoya Nishimachi, Nara 630-8506 and ²Department of Cardiac Physiology, National Cerebral & Cardiovascular Center Research Institute, 5-7-1 Fujishiro-dai, Suita, Osaka 565-8565, Japan*)
9. **Genetic factors associating the effects of habitual exercise on arterial stiffness, Motoyuki Iemitsu** (*Faculty of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577, Japan*)

[<Short Review Articles>](#)

10. **Natriuretic peptide and exercise, Kazuhiro Suda** (*Graduate School of Decision Science and Technology, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8552, Japan*)
11. **Central command and muscle metaboreflex effect on superficial venoconstriction in the resting limb, Anna Ooue^{1,2} and Tomoko Sadamoto¹** (*¹Research Institute of Physical Fitness, Japan Women's College of Physical Education, 8-19-1 Karasuyama, Setagaya-ku, Tokyo 157-8565 and ²Faculty of Food Life Sciences, Toyo University, 1-1-1 Izumino, Itakura-machi, Gunma 374-0193, Japan*)
12. **Effects of intermittent hypobaric hypoxic exercise on cardiovascular adaptation, Futoshi Ogita** (*Department of Sports and Life Science, National Institute of Fitness and Sports, 1 Shiromizu-cho, Kanoya City, Kagoshima, Japan*)
13. **Influence of stretch and pressure as mechanical stresses on skeletal muscle, Noriteru Morita¹, Shingo Takada^{2,3} and Koichi Okita⁴** (*¹Hokkaido University of Education, Iwamizawa, 2-34-1 Midorigaoka, Iwamizawa, Hokkaido 068-8642, ²Hokkaido University Graduate School of Medicine, ³Research Fellow of the Japan Society for the Promotion of Science, ⁴Hokusho University*)
14. **Modulation of core body temperature and energy metabolism by amino acids, Ippei**

Yamaoka (*NarutoReserch Institute, Reserch and Development Center, Otsuka Pharmaceutical Factory, Inc. 115 Kuguhara, Tateiwa Muya-cho, Naruto, Tokushima 772-8601, Japan*)

15. Regulation of skeletal muscle GLUT-4 expression by exercise and nutritional stimuli, **Kazuhiko Higashida¹, Izumi Tabata², Mitsuru Higuchi¹ and Shin Terada³** (*Faculty of Sport Sciences, Waseda University, 2-579-15 Mikajima, Tokorozawa, Saitama 359-1192, ²Faculty of Sport and Health Science, Ritsumeikan University, 1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577 and ³Department of Life Sciences, Graduate School or Arts and Sciences, The University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo 153-8902, Japan*)

16. Economical running strategy for East African distance runners, **Masaki Ishikawa¹, Kanae Sano¹, Yoko Kunimasa¹, Toshiaki Oda², Caroline Nicol³, Akira Ito¹, Paavo V Komi⁴** (*¹Osaka University of Health and Sport Sciences, Graduate School of Sport and Exercise Sciences, 1-1 Asashirodai, Kumatori-cho, Sennan-gun, Osaka 590-0496, Japan, ²Hyogo University of Teacher Education, Faculty of Physical Education, 942-1 Shimokume, Kato-city, Hyogo 673-1494, Japan, ³Aix-Marseille Universit´e, CNRS, Facult´edes Sciences du Sport, CP 910, av. de Luminy, Marseille cedex 09, Marseille, F-13288, France and ⁴University of Jyvaskylä, Likes Research Center, PO Box 35, Jyvaskylä, FI-40014, Finland*)

◆ **JPFSM : Vol.2, No. 4 (November, 2013) : 15 papers**

<**Review Articles**>

1. Role of dietary flavonoids in oxidative stress and prevention of muscle atrophy, **Rie Mukai and Junji Terao** (*Department of Food Science, Graduate School of Nutrition and Biosciences, University, of Tokushima, 3-18-15 Kuramoto-cho, Tokushima 770-8503, Japan*)
2. Water exercise and health promotion, **Sho Onodera¹, Akira Yoshioka², Kazuki Nishimura³, Hiroshi Kawano⁴, Kumiko Ono⁵, Takeshi Matsui⁶, Futoshi Ogita⁷ and Hideki Hara⁸** (*¹Department of Health and Sports Sciences, Kawasaki University of Medical Welfare, 288, matsushima, Kurashiki-shi, Okayama 701-0193, ²Public Health, Kagawa University, Saiwai-cho Takamatsu-shi, Kagawa 760-0016, ³Department of Global Environment Studies, Faculty of Environmental studies, Hiroshima Institute of Technology, 2-1-1 Miyake, Saeki-ku, Hiroshima 731-5193, ⁴Faculty of Letters, Kokushikan University, 4-28-1, Setagaya, Setagaya-ku, Tokyo 154-8515, ⁵Graduate School of Health Sciences, Kobe University, 7-10-2, Tomogaoka, Suma-ku, Kobe Hyogo 654-0142, ⁶Nihon Fukushi University, Okuda, Mihama-cho, Chita-gun, Aichi 470-3295, ⁷Department of Sports and Life Science, National Institute of Fitness and Sports, 1 Shiromizu-cho, Kanoya-shi, Kagoshima 891-2393 and ⁸Faculty of Letters, Kokugakuin University, 4-10-28 higashi, shibuya-ku, Tokyo 150-8440, Japan*)

3. **Age-related sarcopenia and amino acid nutrition, Hisamine Kobayashi** (*Wellness Business R&D Planning Department, Ajinomoto Co., Inc., 1-15-1 Kyobashi, Chuo-ku, Tokyo 104-8315, Japan*)
4. **Role of nutrient transporters in lifestyle-related diseases, Yutaka Taketani, Hisami Yamanaka-Okumura, Hironori Yamamoto, Eiji Takeda** (*Department of Clinical Nutrition, Institute of Health Biosciences, University of Tokushima Graduate School, 3-18-15 Kuramoto-cho, Tokushima 770-8503, Japan*)
5. **Effects of aging on unloading-induced skeletal muscle atrophy and subsequent recovery in rats, Hideki Yamauchi, Yuki Takeda, Shino Tsuruoka and Shigeru Takemori** (*Division of Physical Fitness, Department of Molecular Physiology, Jikei University School of Medicine, 8-3-1 Kokuryo, Chofu, Tokyo 182-8570, Japan*)
6. **How β_2 -adrenergic agonists induce skeletal muscle hypertrophy?, Takashi Kitaura** (*Laboratory of Exercise Biochemistry, Division of Sports Education, Health Service Center, Kanazawa University, Kakuma, Kanazawa, Ishikawa 920-1192, Japan*)
7. **Hyperthermia effects on brain function and exercise capacity, Hiroshi Hasegawa¹ and Stephen S. Cheung²** (*¹Graduate School of Faculty of Integrated Arts and Sciences, Hiroshima University, 1-7-1 Kagamiyama, Higashihiroshima739-8521, Japan and ²Department of Kinesiology, Brock University, 500 Glenridge Avenue, St. Catharines, Ontario, Canada*)
8. **Sarcopenia: its definition, prevalence, functional outcomes and prevention, Miji Kim^{1,2} and Shoji Shinkai¹** (*¹Tokyo Metropolitan Institute of Gerontology, 35-2 Sakae-cho, Itabashi-ku, Tokyo 173-0015, Japan and ²The Center on Aging and Health, Johns Hopkins University, Baltimore, MD 21205, USA*)
9. **Alteration in blood leukocyte profile due to exercise and its implication, Ryoichi Nagatomi** (*Division of Biomedical Engineering for Health & Welfare, Tohoku University Graduate School of Biomedical Engineering*)

[<Short Review Articles>](#)

10. **Regulation of skeletal muscle atrophy, Shigetada Teshima-Kondo and Takeshi Nikawa** (*Department of Nutritional Physiology, Institute of Health Biosciences, The University of Tokushima Graduate School, 3-18-15 Kuramoto-cho, Tokushima 770-8503, Japan*)
11. **Reactive oxygen species and endurance training-induced adaptations, Hideki Matoba** (*Laboratory of Exercise Physiology, Institute of Socio-Arts and Sciences, The University of Tokushima, 1-1 Minamijosanjima-cho, Tokushima 770-8502, Japan*)
12. **Glutamine and Exercise, Mioko Nagashima, Yuji Soejima and Kazuto Saito** (*Department*

of Sports and Life Science, National Institute of Sports and Fitness in Kanoya, Shiromizu-1, Kanoya, Kagoshima 891-2393, Japan)

- 13. Cardiovascular responses in rest, exercise, and recovery phases in water immersion, Takeshi Matsui¹ and Sho Onodera²** (*¹Faculty of Economics, Nihon Fukushi University, Okuda, Mihama-cho, Chita-gun, Aichi 470-3295 and ²Faculty of Health Science and Technology, Kawasaki University of Medical Welfare, 288 Matsushima, Kurashiki-shi, Okayama 701-0193, Japan)*)
- 14. Exercise and oxidative stress in hypoxia, Junichi Nagasawa¹, Takako Kizaki² and Hideki Ohno²** (*¹Bioscience and Technology Program, Department of Engineering Science, Graduate School of Informatics and Engineering, The University of Electro-Communications, Tokyo 182-8585 and ²Department of Molecular Predictive Medicine and Sport Science, Kyorin University, School of Medicine, 6-20-2 Shinkawa, Mitaka, Tokyo 181-8611, Japan)*)
- 15. Mechanisms of chronic inflammation improvement by exercise: focus on immune response of local tissue, Noriaki Kawanishi¹, Hiromi Yano², Tsubasa Mizokami³ and Katsuhiko Suzuki⁴** (*¹Faculty of Health Sciences, Hokkaido University, Kita-12, Nishi-5, Sapporo, Hokkaido, ²Department of Health and Sports Science, Kawasaki University of Medical Welfare, 288 Matsushima, Kurashiki, Okayama 701-0193, ³Graduate School of Sport Sciences, Waseda University, 2-579-15 Tokorozawa, Saitama 359-1192 and ⁴Faculty of Sport Sciences, Waseda University, 2-579-15 Tokorozawa, Saitama 359-1192, Japan)*)