

## CURRICULUM VITAE

NAME: Takeshi Miyamoto

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DATE & PLACE OF BIRTH: 8/April/1969, Hyogo/Japan

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### EDUCATION:

Under-graduate, Kumamoto University School of Medicine (1988-1994); MD., 1994

Graduate, Kumamoto University School of Medicine (1997-2001) Ph.D., 2001

### LICENSURE & CERTIFICATION:

National Board of Medicine, Registration No. 367149

### POST-GRADUATE EXPERIENCE:

2021– present Deputy hospital director, Kumamoto University Hospital  
2019 –present Professor, Orthopedic Surgery, Kumamoto University, Kumamoto, Kumamoto  
(Concurrent, visiting Professor, Orthopedic Surgery, Keio University School of  
Medicine, Shinjuku, Tokyo)  
2015 – 2019 Visiting fellow, Orthopedic Surgery, The Tokyo University  
2008 - 2019 Associate professor, Orthopedic Surgery, Keio University School of Medicine,  
Shinjuku, Tokyo  
2006 - 2008 Associate professor, Orthopedic Surgery, Keio University School of Medicine,  
Shinjuku, Tokyo  
2004 – 2006 Assistant professor, Orthopedic Surgery/Cell Differentiation, Keio University  
School of Medicine, Shinjuku, Tokyo  
2002- 2004 Post Doctoral Research Fellow, Grant-in-Aid for Young Scientists Japan, Keio  
University School of Medicine, Department of Cell Differentiation, Kumamoto,  
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2001- 2002 Post Doctoral Research Fellow, Grant-in-Aid for Young Scientists Japan, Kumamoto  
University School of Medicine, Department of Cell Differentiation  
1997- 2001 Graduate Student, Department of Cell Differentiation, Kumamoto University School  
of Medicine, Kumamoto, Kumamoto  
1995- 1997 Orthopedic Surgeon, Department of Orthopedic Surgery,  
Kumamoto Rousai Hosipital, Yatsushiro, Kumamoto  
1994- 1995 Orthopedic Surgeon, Department of Orthopedic Surgery,  
Kumamoto University School of Medicine, Kumamoto, Kumamoto

### MEMBERSHIPS:

The Japanese Orthopaedic Association (Delegate)  
Japan College of Rheumatology (Councilors)  
The Japanese Association of Rehabilitation Medicine (Delegate)  
The American Society for Bone and Mineral Research  
The Japanese Society for Spine Surgery and Related Research (Director, Councilors)  
The Japanese Society for Bone and Mineral Research (Councilors)  
The Japanese Society of Cartilage Metabolism (Councilors)  
Japan Osteoporosis Society (Councilors)  
Japanese Society of Anti-aging Medicine (Councilors)

Japan Muscle Society  
The Japanese Society of Osteoimmunology (Director)  
The Japanese Society for Regenerative Medicine

**MAJOR RESEARCH INTERESTS:**

Osteoporosis and bone metabolism  
Orthopaedics and spinal disorder  
Cartilage metabolism and regenerative medicine  
Rheumatology  
Oncology

**PUBLICATIONS:**

1. Watanabe K, Lu X, Masuda S, Miyamoto T, Katoh T. Relationship between physical activity and locomotive syndrome among young and middle-aged Japanese workers. *J Occup Health*. 2024 Jan 9;uia001. doi: 10.1093/jocuh/uiae001.
2. Okamoto N, Nakamura E, Masuda T, Hisanaga S, Miyamoto T. Lateral Laxity in Flexion Influences Patient-Reported Outcome After Total Knee Arthroplasty. *Indian J Orthop*. 2023 Dec 7;58(1):24-29. doi: 10.1007/s43465-023-01045-8.
3. Arima T, Sugimoto K, Taniwaki T, Maeda K, Shibata Y, Tateyama M, Karasugi T, Tokunaga T, Sueyoshi T, Hisanaga S, Masuda T, Uehara Y, Yugami M, Matsushita K, Yonemitsu R, Kawakami J, Yoshimura N, Tanimura S, Kato H, Ito N, Inoue K, Bando K, Nakamura T, Miyamoto T. Cartilage tissues regulate systemic aging via ectonucleotide pyrophosphatase/phosphodiesterase 1 in mice. *J Biol Chem*. 2023 Nov 30;300(1):105512. doi: 10.1016/j.jbc.2023.105512.
4. Yoshimura N, Kariya R, Shimada M, Tateyama M, Matsunaga H, Shibata Y, Tanimura S, Takata K, Arima T, Kawakami J, Maeda K, Fukuma Y, Uragami M, Ideo K, Sugimoto K, Yonemitsu R, Matsushita K, Hisanaga S, Yugami M, Uehara Y, Masuda T, Nakamura T, Tokunaga T, Karasugi T, Sueyoshi T, Sato H, Iwakura Y, Araki K, Kobayashi E, Okada S, Miyamoto T. The IL-17-IL-17RA axis is required to promote osteosarcoma progression in mice. *Sci Rep*. 2023 Dec 7;13(1):21572. doi: 10.1038/s41598-023-49016-1.
5. Uragami M, Matsushita K, Shibata Y, Takata S, Karasugi T, Sueyoshi T, Masuda T, Nakamura T, Tokunaga T, Hisanaga S, Yugami M, Sugimoto K, Yonemitsu R, Ideo K, Fukuma Y, Takata K, Arima T, Kawakami J, Maeda K, Yoshimura N, Matsunaga H, Kai Y, Tanimura S, Shimada M, Tateyama M, Miyamoto T, Kubo R, Tajiri R, Tian X, Homma F, Morinaga J, Yamanouchi Y, Takebayashi M, Kajitani N, Uehara Y; Kumamoto Stop Osteoporotic Hip Fractures (K-STOP) Group; Miyamoto T. A machine learning-based scoring system and ten factors associated with hip fracture occurrence in the elderly. *Bone*. 2023 Nov;176:116865. doi: 10.1016/j.bone.2023.116865.
6. Iga T, Kobayashi H, Kusumoto D, Sanosaka T, Fujita N, Tai-Nagara I, Ando T, Takahashi T, Matsuo K, Hozumi K, Ito K, Ema M, Miyamoto T, Matsumoto M, Nakamura M, Okano H, Shibata S, Kohyama J, Kim KK, Takubo K, Kubota Y. Spatial heterogeneity of bone marrow endothelial cells unveils a distinct subtype in the epiphysis. *Nat Cell Biol*. 2023 Oct;25(10):1415-1425. doi: 10.1038/s41556-023-01240-7.
7. Igarashi H, Nishizawa S, Miyamoto T, Hikita A, Hoshi K. Involvement of Impaired Angiogenesis and Myelosuppression in Antiresorptive-agent Related Osteonecrosis of the Jaw Mouse Model. *Tokai J Exp Clin Med*. 2023 Apr 20;48(1):22-31.
8. Koike Y, Takahata M, Nakajima M, Otomo N, Suetsugu H, Liu X, Endo T, Imagama S, Kobayashi K, Kaito T, Kato S, Kawaguchi Y, Kanayama M, Sakai H, Tsuji T, Miyamoto T, Inose H, Yoshii T, Kashii M, Nakashima H, Ando K, Taniguchi Y, Takeuchi K, Ito S, Tomizuka K, Hikino K, Iwasaki Y, Kamatani Y, Maeda S, Nakajima H, Mori K, Seichi A, Fujibayashi S, Kanchiku T, Watanabe K, Tanaka T, Kida K, Kobayashi S, Takahashi M, Yamada K, Takuwa H, Lu HF, Niida S, Ozaki K, Momozawa Y; Genetic Study Group of Investigation Committee on Ossification of the Spinal Ligaments; Yamazaki M, Okawa A, Matsumoto M, Iwasaki N, Terao C, Ikegawa S. Genetic insights into ossification of the posterior longitudinal ligament of the spine. *Elife*. 2023 Jul 18;12:e86514. doi: 10.7554/eLife.86514.
9. Fukuma Y, Tokunaga T, Tanimura S, Yoshimoto Y, Mashimo T, Kaneko T, Tian X, Ideo K, Yonemitsu R, Matsushita K, Sugimoto K, Yugami M, Hisanaga S, Nakamura T, Uehara Y, Masuda T, Shukunami C, Karasugi T, Miyamoto T. Potential function of Scx<sup>+</sup>/Sox9<sup>+</sup> cells as progenitor cells in rotator cuff tear repair in rats. *Biochem Biophys Res Commun*. 2023 Jul 20;676:84-90. doi: 10.1016/j.bbrc.2023.07.039.

10. Maeda K, Sugimoto K, Tasaki M, Taniwaki T, Arima T, Shibata Y, Tateyama M, Karasugi T, Sueyoshi T, Masuda T, Uehara Y, Tokunaga T, Hisanaga S, Yugami M, Yonemitsu R, Ideo K, Matsushita K, Fukuma Y, Uragami M, Kawakami J, Yoshimura N, Takata K, Shimada M, Tanimura S, Matsunaga H, Kai Y, Takata S, Kubo R, Tajiri R, Homma F, Tian X, Ueda M, Nakamura T, Miyamoto T. Transthyretin amyloid deposition in ligamentum flavum (LF) is significantly correlated with LF and epidural fat hypertrophy in patients with lumbar spinal stenosis. *Sci Rep.* 2023 Nov 16;13(1):20019. doi: 10.1038/s41598-023-47282-7.
11. Kawakami J, Hisanaga S, Yoshimoto Y, Mashimo T, Kaneko T, Yoshimura N, Shimada M, Tateyama M, Matsunaga H, Shibata Y, Tanimura S, Takata K, Arima T, Maeda K, Fukuma Y, Uragami M, Ideo K, Sugimoto K, Yonemitsu R, Matsushita K, Yugami M, Uehara Y, Nakamura T, Tokunaga T, Karasugi T, Sueyoshi T, Shukunami C, Okamoto N, Masuda T, Miyamoto T. Remnant tissue enhances early postoperative biomechanical strength and infiltration of Scleraxis-positive cells within the grafted tendon in a rat anterior cruciate ligament reconstruction model. *PLoS One.* 2023 Nov 8;18(11):e0293944. doi: 10.1371/journal.pone.0293944.
12. Shiraiishi K, Nakaura T, Uetani H, Nagayama Y, Kidoh M, Kobayashi N, Morita K, Yamahita Y, Miyamoto T, Hirai T. Combination Use of Compressed Sensing and Deep Learning for Shoulder Magnetic Resonance Imaging With Various Sequences. *J Comput Assist Tomogr.* 2023 Mar-Apr 01;47(2):277-283. doi: 10.1097/RCT.0000000000001418.
13. Kushima Y, Sato Y, Kobayashi T, Fukuma Y, Matsumoto M, Nakamura M, Iwamoto T, Miyamoto T. TNF $\alpha$ -dependent mTOR activity is required for tenotomy-induced ectopic ossification in mice. *J Bone Miner Metab.* 2023 Sep;41(5):583-591. doi: 10.1007/s00774-023-01437-8.
14. Ito E, Sato Y, Kobayashi T, Soma T, Matsumoto T, Kimura A, Miyamoto K, Matsumoto H, Matsumoto M, Nakamura M, Sato K, Miyamoto T. Low energy availability reduces bone mass and gonadal function in male mice. *J Bone Miner Metab.* 2023 Mar;41(2):182-192. doi: 10.1007/s00774-023-01413-2.
15. Hata R, Miyamoto K, Abe Y, Sasaki T, Oguma Y, Tajima T, Arai Y, Matsumoto M, Nakamura M, Kanaji A, Miyamoto T. Osteoporosis and sarcopenia are associated with each other and reduced IGF1 levels are a risk for both diseases in the very old elderly. *Bone.* 2023 Jan;166:116570. doi: 10.1016/j.bone.2022.116570.
16. Nakagawa M, Nakaura T, Yoshida N, Azuma M, Uetani H, Nagayama Y, Kidoh M, Miyamoto T, Yamashita Y, Hirai T. Performance of Machine Learning Methods Based on Multi-Sequence Textural Parameters Using Magnetic Resonance Imaging and Clinical Information to Differentiate Malignant and Benign Soft Tissue Tumors. *Acad Radiol.* 2023 Jan;30(1):83-92. doi: 10.1016/j.acra.2022.04.007.
17. Tamura T, Tokunaga T, Karasugi T, Miyamoto T, Kikukawa K. The remaining teres minor and subscapularis may contribute to preventing superior migration of the humeral head and progression of osteoarthritic change in rotator cuff tears. *JSES Int.* 2023 Apr 7;7(4):561-567. doi: 10.1016/j.jseint.2023.03.005.
18. Tokunaga T, Karasugi T, Tanimura S, Miyamoto T. Association of Severe Histological Degeneration of the Torn Supraspinatus Tendon and Retear After Arthroscopic Repair of Full-Thickness Rotator Cuff Tears Using the Suture Bridge Technique. *Am J Sports Med.* 2023 Jul;51(9):2411-2421. doi: 10.1177/03635465231178294.
19. Furukawa M, Okuyama K, Ninomiya K, Miyamoto T, Yato Y. Assessment of the Necessity of Osteoporosis Treatment for Patients with Low Bone Density in Diffuse Idiopathic Skeletal Hyperostosis. *Spine Surg Relat Res.* 2022 Apr 12;6(5):526-532. doi: 10.22603/ssrr.2021-0149. eCollection 2022 Sep 27.
20. Kodama S, Togami W, Miyamoto T. Psoas Major Skeletal Muscle Mass Is a Predictive Factor for Independent Walking After Living Donor Liver Transplantation. *Transplant Proc.* 2022 Oct;54(8):2285-2294. doi: 10.1016/j.transproceed.2022.08.002.
21. Watanabe H, Okada H, Hirose J, Omata Y, Matsumoto T, Matsumoto M, Nakamura M, Saito T, Miyamoto T, Tanaka S. Transcription Factor Hematopoietically Expressed Homeobox Protein (Hhex) Negatively Regulates Osteoclast Differentiation by Controlling Cyclin-Dependent Kinase Inhibitors. *JBMR Plus.* 2022 Feb 14;6(4):e10608. doi: 10.1002/jbm4.10608. eCollection 2022 Apr.
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23. Kaneko Y, Ozawa SI, Sato Y, Kobayashi T, Matsumoto T, Miyamoto K, Kobayashi S, Harato K, Hirono S, Matsumoto M, Nakamura M, Niki Y, Miyamoto T. The Stat3 inhibitor F0648-0027 is a potential therapeutic against rheumatoid arthritis. *Biochem Biophys Res Commun*. 2022 Dec 25;636(Pt 2):133-140.
24. Yin X, Kim K, Suetsugu H, Bang SY, Wen L, Koido M, Ha E, Liu L, Sakamoto Y, Jo S, Leng RX, Otomo N, Kwon YC, Sheng Y, Sugano N, Hwang MY, Li W, Mukai M, Yoon K, Cai M, Ishigaki K, Chung WT, Huang H, Takahashi D, Lee SS, Wang M, Karino K, Shim SC, Zheng X, Miyamura T, Kang YM, Ye D, Nakamura J, Suh CH, Tang Y, Motomura G, Park YB, Ding H, Kuroda T, Choe JY, Li C, Niuro H, Park Y, Shen C, Miyamoto T, Ahn GY, Fei W, Takeuchi T, Shin JM, Li K, Kawaguchi Y, Lee YK, Wang YF, Amano K, Park DJ, Yang W, Tada Y, Lau YL, Yamaji K, Zhu Z, Shimizu M, Atsumi T, Suzuki A, Sumida T, Okada Y, Matsuda K, Matsuo K, Kochi Y; Japanese Research Committee on Idiopathic Osteonecrosis of the Femoral Head; Yamamoto K, Ohmura K, Kim TH, Yang S, Yamamoto T, Kim BJ, Shen N, Ikegawa S, Lee HS, Zhang X, Terao C, Cui Y, Bae SC. Biological insights into systemic lupus erythematosus through an immune cell-specific transcriptome-wide association study. *Ann Rheum Dis*. 2022 May 24;81(9):1273-80.
25. Kimura A, Hirayama A, Matsumoto T, Sato Y, Kobayashi T, Ikeda S, Maruyama M, Kaneko M, Shigeta M, Ito E, Soma T, Miyamoto K, Soga T, Tomita M, Oya A, Matsumoto M, Nakamura M, Kanaji A, Miyamoto T. Hao1 Is Not a Pathogenic Factor for Ectopic Ossifications but Functions to Regulate the TCA Cycle In Vivo. *Metabolites*. 2022 Jan 15;12(1):82. doi: 10.3390/metabo12010082.
26. Fukada K, Tachibana K, Kurashina Y, Kaneko Y, Matsumoto T, Miyamoto T, Niki Y, Nakamura M, Onoe H. A novel fabrication process of up-scalable microfiber-shaped tendon-like tissue with high cell density for uniformed macroscale assembly. *Biotechnol Bioeng*. 2022 Jan 24. doi: 10.1002/bit.28039.
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28. Furukawa M, Okuyama K, Ninomiya K, Yato Y, Miyamoto T, Nakamura M, Matsumoto M. Maximum number of bone cross-linked vertebrae: an index for BMD in diffuse idiopathic skeletal hyperostosis. *J Bone Miner Metab*. 2021 Nov 29. doi: 10.1007/s00774-021-01282-7.
29. Suetsugu H, Kim K, Yamamoto T, Bang SY, Sakamoto Y, Shin JM, Sugano N, Kim JS, Mukai M, Lee YK, Ohmura K, Park DJ, Takahashi D, Ahn GY, Karino K, Kwon YC, Miyamura T, Kim J, Nakamura J, Motomura G, Kuroda T, Niuro H, Miyamoto T, Takeuchi T, Ikari K, Amano K, Tada Y, Yamaji K, Shimizu M, Atsumi T, Seki T, Tanaka Y, Kubo T, Hisada R, Yoshioka T, Yamazaki M, Kabata T, Kajino T, Ohta Y, Okawa T, Naito Y, Kaneuji A, Yasunaga Y, Ohzono K, Tomizuka K, Koido M, Matsuda K, Okada Y, Suzuki A, Kim BJ, Kochi Y, Lee HS, Ikegawa S, Bae SC, Terao C. Novel susceptibility loci for steroid-associated osteonecrosis of the femoral head in systemic lupus erythematosus. *Hum Mol Genet*. 2021 Dec 1;30(24):4306. doi: 10.1093/hmg/ddab306.
30. Umezu T, Nakamura S, Sato Y, Kobayashi T, Ito E, Abe T, Kaneko M, Nomura M, Yoshimura A, Oya A, Matsumoto M, Nakamura M, Kanaji A, Miyamoto T. Smad2 and Smad3 expressed in skeletal muscle promote immobilization-induced bone atrophy in mice. *Biochem Biophys Res Commun*. 2021 Dec 10;636:111-117. doi: 10.1016/j.bbrc.2021.10.043.
31. Matsumoto T, Sato Y, Kobayashi T, Suzuki K, Kimura A, Soma T, Ito E, Kikuchi T, Kobayashi S, Harato K, Niki Y, Matsumoto M, Nakamura M, Miyamoto T. Adipose-Derived Stem Cell Sheets Improve Early Biomechanical Graft Strength in Rabbits After Anterior Cruciate Ligament Reconstruction. *Am J Sports Med*. 2021 Nov;49(13):3508-3518. doi: 10.1177/03635465211041582.
32. Ito E, Sato Y, Kobayashi T, Soma T, Matsumoto T, Kimura A, Miyamoto K, Matsumoto H, Matsumoto M, Nakamura M, Sato K, Miyamoto T. Transient alendronate administration to pregnant or lactating mothers prevents bone loss in mice without adverse effects on offspring. *Bone*. 2021 Jul 28;153:116133. doi: 10.1016/j.bone.2021.116133.
33. Shiba S, Nakamoto N, Chu PS, Ojio K, Taniki N, Yamaguchi A, Morikawa R, Katayama T, Yoshida A, Aoki R, Teratani T, Suzuki T, Miyamoto T, Hara S, Yokoyama A, Kanai T. Acetaldehyde exposure underlies functional defects in monocytes induced by excessive alcohol consumption. *Sci Rep*. 2021 Jul 1;11(1):13690. doi: 10.1038/s41598-021-93086-y.
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35. Miyamoto K, Hirayama A, Sato Y, Ikeda S, Maruyama M, Soga T, Tomita M, Nakamura M, Matsumoto M, Yoshimura N, Miyamoto T. A Metabolomic Profile Predictive of New Osteoporosis or Sarcopenia Development. *Metabolites*. 2021 Apr 28;11(5):278. doi: 10.3390/metabo11050278.
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38. Furukawa M, Okuyama K, Ninomiya K, Yato Y, Miyamoto T, Nakamura M, Matsumoto M. Association of Continuous Vertebral Bone Bridges and Bone Mineral Density with the Fracture Risk in Patients with Diffuse Idiopathic Skeletal Hyperostosis. *Asian Spine J*. 2021 May 3. doi: 10.31616/asj.2020.0352.
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42. Ito E, Sato Y, Kobayashi T, Nakamura S, Kaneko Y, Soma T, Matsumoto T, Kimura A, Miyamoto K, Matsumoto H, Matsumoto M, Nakamura M, Sato K, Miyamoto T. Treatment with an active vitamin D analogue blocks hypothalamic dysfunction-induced bone loss in mice. *Biochem Biophys Res Commun*. 2021 Jan 21;542:48-53. doi: 10.1016/j.bbrc.2021.01.026.
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45. Soma T, Iwasaki R, Sato Y, Kobayashi T, Nakamura S, Kaneko Y, Ito E, Okada H, Watanabe H, Miyamoto K, Matsumoto M, Nakamura M, Asoda S, Kawana H, Nakagawa T, Miyamoto T. Tooth extraction in mice administered zoledronate increases inflammatory cytokine levels and promotes osteonecrosis of the jaw. *J Bone Miner Metab*. 2020 Nov 17. doi: 10.1007/s00774-020-01174-2.
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49. Furukawa M, Okuyama K, Kawano Y, Kikuchi K, Miyamoto T, Nakamura M, Matsumoto M. Femur Bone Mineral Density and Pentosidine Level Distinguish Ankylosing Spinal Disorder Patients with and without Sacroiliac Ankylosis. *Spine Surg Relat Res*. 2020 Mar 19;4(4):333-340. doi: 10.22603/ssrr.2020-0001. eCollection 2020.
50. Nakamura S, Sato Y, Kobayashi T, Kaneko Y, Ito E, Soma T, Okada H, Miyamoto K, Oya A, Matsumoto M, Nakamura M, Kanaji A, Miyamoto T. Vitamin D protects against immobilization-induced

muscle atrophy via neural crest-derived cells in mice. *Sci Rep.* 2020 Jul 22;10(1):12242. doi: 10.1038/s41598-020-69021-y.

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#### PRESENTATIONS:

1. The 10<sup>th</sup> Seoul Symposium on Bone Health & The 34<sup>th</sup> Spring Scientific Congress of the Korean Society for Bone and Mineral Research, May 28, 2022, Grand Walkerhill Seoul, Seoul, Korea/web, KSBMR-ASBMR-JSBMR Joint Symposium, Osteoporosis: From Bench to Bedside, Takeshi Miyamoto
2. The 95<sup>th</sup> Annual Meeting of the Japanese Orthopaedic Association, May 19, 2022, Portpia Hotel, Kobe, Invited symposium 9, Osteoporosis: Bench to Bedside, Takeshi Miyamoto
3. The 9<sup>th</sup> Annual Meeting of Korean Spinal Neurosurgery Research Society, September 1, 2018, Samsung Seoul Medical Center, A missense single nucleotide polymorphism in the Aldehyde Dehydrogenase 2 Gene, rs671, is associated with osteoporosis development, Takeshi Miyamoto

4. 51<sup>th</sup> Bone Biology Forum, August 17-18 2018, Makuhari, Japan, Pathophysiological Regulation of Bone Homeostasis, Takeshi Miyamoto
5. 44<sup>th</sup> European Calcified Tissue Society Congress 2017, May 13-16, Mozart hall conference center, Salzburg, Austria. What is next in Musculoskeletal Research –the Japanese perspective- Takeshi Miyamoto
6. Orthopaedic Research Society annual meeting 2017 March 19-22 2017, San Diego convention Center, Sand Diego, California, USA Bisphosphonate Inhibit immobilization-induced Skeletal Muscle Atrophy, Ryuichi Watanabe\*, Takeshi Miyamoto, Morio Matsumoto, Masaya Nakamura
7. Annual Meeting of the American Society for Bone and Mineral Research 2016, September 16-19 2016, Georgia World Congress Center, Atlanta, Georgia, USA The roles of ENPP1 in osteocytes under phosphate overload condition, Ryuichi Watanabe\*, Takeshi Miyamoto, Morio Matsumoto, Masaya Nakamura
8. Annual Meeting of the American Society for Bone and Mineral Research 2016, September 16-19 2016, Georgia World Congress Center, Atlanta, Georgia, USA Smad4 In Osteoclasts Reduce Bone Mass by Inhibiting Osteoclast Differentiation, Mayu Morita, Ryotaro Iwasaki, Hiromasa Kawana, Shigeyuki Yoshida, Taneaki Nakagawa, Takeshi Miyamoto
9. Annual Meeting of the American Society for Bone and Mineral Research 2016, September 16-19 2016, Georgia World Congress Center, Atlanta, Georgia, USA The Effects of Switching From Teriparatide to Anti-Rankl Antibody on Bone Metabolism. Toshinobu Omiya, Jun Hirose, Yuho Kadono, Yasunori Omata, Naohiro Izawa, Takeshi Miyamoto, Sakae Tanaka
10. Annual Meeting of the American Society for Bone and Mineral Research 2016, September 16-19 2016, Georgia World Congress Center, Atlanta, Georgia, USA Functional analysis of Cadm1 gene, involved in epigenetic regulation during osteoclastogenesis.. Shinya Nakamura, Naohiro Izawa, Hiroyuki Aburatani, Takeshi Miyamoto, Sakae Tanaka
11. Annual Meeting of the American Society for Bone and Mineral Research 2016, September 16-19 2016, Georgia World Congress Center, Atlanta, Georgia, USA Establishment of autoinflammatory disease model in mice. Takatsugu Oike, Takeshi Miyamoto, Hiroya Kanagawa, Yasuo Niki, Morio Matsumoto, Masaya Nakamura.

AWARD:

1. 2018 Japan College of Rheumatology Award
2. 2017 The Japanese Society for Bone and Mineral Research Award
3. 2014 The Japanese Society for Bone and Mineral Research Award
4. 2012 The Japanese Society for Bone and Mineral Research Award
5. 2011 1<sup>st</sup> Bio-Rheumatology International Congress Poster Presentation Award Silver Prize
6. 2009 The Japanese Society of Cartilage Metabolism Award
7. 2008 The Japanese Orthopaedic Association Award