# Matthew J Silva

List of Publications by Year
in descending order



| 190 | 11,922 | 23879 60 | 38517 99 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 199 | 199 | 199 | 11040 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Dmp1 Lineage Cells Contribute Significantly to Periosteal Lamellar Bone Formation Induced by Mechanical Loading But Are Depleted from the Bone Surface During Rapid Bone Formation. JBMR Plus, 2022, 6, e10593. | 1.3 | 2 |
| 2 | Fracture healing is delayed in the absence of gasdermin-interleukin-1 signaling. ELife, 2022, 11, . | 2.8 | 7 |
| 3 | Cryogel Scaffold-Mediated Delivery of Adipose-Derived Stem Cells Promotes Healing in Murine Model of Atrophic Non-Union. Frontiers in Bioengineering and Biotechnology, 2022, 10, . | 2.0 | 2 |
| 4 | Interleukin-6 (IL-6) deficiency enhances intramembranous osteogenesis following stress fracture in mice. Bone, 2021, 143, 115737. | 1.4 | 10 |
| 5 | Estimation of load conditions and strain distribution for in vivo murine tibia compression loading using experimentally informed finite element models. Journal of Biomechanics, 2021, 115, 110140. | 0.9 | 8 |
| 6 | Type 1 diabetic Akita mice have low bone mass and impaired fracture healing. Bone, 2021, 147, 115906. | 1.4 | 9 |
| 7 | Ablation of Proliferating Osteoblast Lineage Cells After Fracture Leads to Atrophic Nonunion in a Mouse Model. Journal of Bone and Mineral Research, 2021, 36, 2243-2257. | 3.1 | 6 |
| 8 | Gene expression of intracortical bone demonstrates loading-induced increases in Wnt1 and Ngf and inhibition of bone remodeling processes. Bone, 2021, 150, 116019. | 1.4 | 9 |
| 9 | MicroCT for Scanning and Analysis of Mouse Bones. Methods in Molecular Biology, 2021, 2230, 169-198. | 0.4 | 13 |
| 10 | A Microarray Study of Articular Cartilage in Relation to Obesity and Severity of Knee Osteoarthritis. Cartilage, 2020, 11, 458-472. | 1.4 | 11 |
| 11 | Murine Axial Compression Tibial Loading Model to Study Bone Mechanobiology: Implementing the Model and Reporting Results. Journal of Orthopaedic Research, 2020, 38, 233-252. | 1.2 | 38 |
| 12 | Aging aggravates intervertebral disc degeneration by regulating transcription factors toward chondrogenesis. FASEB Journal, 2020, 34, 1970-1982. | 0.2 | 31 |
| 13 | Multiscale effects of spaceflight on murine tendon and bone. Bone, 2020, 131, 115152. | 1.4 | 13 |
| 14 | Ablation of Fat Cells in Adult Mice Induces Massive Bone Gain. Cell Metabolism, 2020, 32, 801-813.e6. | 7.2 | 51 |
| 15 | Proliferating osteoblasts are necessary for maximal bone anabolic response to loading in mice. FASEB Journal, 2020, 34, 12739-12750. | 0.2 | 11 |
| 16 | Sclerostin Regulation, Microarchitecture, and Advanced Glycation Endâ€Products in the Bone of Elderly Women With Type 2 Diabetes. Journal of Bone and Mineral Research, 2020, 35, 2415-2422. | 3.1 | 76 |
| 17 | An animal trial to study damage and repair in ovariectomized rabbits. Journal of Biomechanics, 2020, 108, 109866. | 0.9 | 2 |
| 18 | Inducible expression of Wnt7b promotes bone formation in aged mice and enhances fracture healing. Bone Research, 2020, 8, 4. | 5.4 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mechanosensitive Ca2+ signaling and coordination is diminished in osteocytes of aged mice during ex vivo tibial loading. Connective Tissue Research, 2020, 61, 389-398. | 1.1 | 13 |
| 20 | Old Mice Have Less Transcriptional Activation But Similar Periosteal Cell Proliferation Compared to <scp>Youngâ€Adult</scp> Mice in Response to in vivo Mechanical Loading. Journal of Bone and Mineral Research, 2020, 35, 1751-1764. | 3.1 | 26 |
| 21 | Osteoblast-Specific Wnt Secretion Is Required for Skeletal Homeostasis and Loading-Induced Bone Formation in Adult Mice. Journal of Bone and Mineral Research, 2020, 37, 108-120. | 3.1 | 15 |
| 22 | KIF26B Silencing Prevents Osseous Transdifferentiation of Progenitor/Stem Cells and Attenuates Ectopic Calcification in a Murine Model. Journal of Bone and Mineral Research, 2020, 37, 349-368. | 3.1 | 4 |
| 23 | Transcriptional profiling of intramembranous and endochondral ossification after fracture in mice. Bone, 2019, 127, 577-591. | 1.4 | 32 |
| 24 | Proliferation and Activation of Osterixâ€Lineage Cells Contribute to Loadingâ€Induced Periosteal Bone Formation in Mice. JBMR Plus, 2019, 3, e10227. | 1.3 | 16 |
| 25 | Congenital lipodystrophy induces severe osteosclerosis. PLoS Genetics, 2019, 15, e1008244. | 1.5 | 32 |
| 26 | Osteocyte Death and Bone Overgrowth in Mice Lacking Fibroblast Growth Factor Receptors 1 and 2 in Mature Osteoblasts and Osteocytes. Journal of Bone and Mineral Research, 2019, 34, 1660-1675. | 3.1 | 26 |
| 27 | VEGFA From Early Osteoblast Lineage Cells (Osterix+) Is Required in Mice for Fracture Healing. Journal of Bone and Mineral Research, 2019, 34, 1690-1706. | 3.1 | 47 |
| 28 | Effects of High-Fat Diet and Body Mass on Bone Morphology and Mechanical Properties in 1100 Advanced Intercross Mice. Journal of Bone and Mineral Research, 2019, 34, 711-725. | 3.1 | 28 |
| 29 | Activation of hedgehog signaling by systemic agonist improves fracture healing in aged mice. Journal of Orthopaedic Research, 2019, 37, 51-59. | 1.2 | 26 |
| 30 | Stimulation of Piezo1 by mechanical signals promotes bone anabolism. ELife, 2019, 8, . | 2.8 | 185 |
| 31 | Evaluation of loading parameters for murine axial tibial loading: Stimulating cortical bone formation while reducing loading duration. Journal of Orthopaedic Research, 2018, 36, 682-691. | 1.2 | 34 |
| 32 | Musculoskeletal mechanobiology: A new era for MechanoMedicine. Journal of Orthopaedic Research, 2018, 36, 531-532. | 1.2 | 7 |
| 33 | The effect of modified locking methods and suture materials on Zone II flexor tendon repairâ€”An ex vivo study. PLoS ONE, 2018, 13, e0205121. | 1.1 | 8 |
| 34 | In-vivo stiffness assessment of distal femur fracture locked plating constructs. Clinical Biomechanics, 2018, 56, 46-51. | 0.5 | 13 |
| 35 | In-Vivo Nucleus Pulposus-Specific Regulation of Adult Murine Intervertebral Disc Degeneration via Wnt/Beta-Catenin Signaling. Scientific Reports, 2018, 8, 11191. | 1.6 | 34 |
| 36 | Post-Traumatic Osteoarthritis in Mice Following Mechanical Injury to the Synovial Joint. Scientific Reports, 2017, 7, 45223. | 1.6 | 43 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Exogenous hedgehog antagonist delays but does not prevent fracture healing in young mice. Bone, 2017, 103, 241-251. | 1.4 | 26 |
| 38 | Gli1 identifies osteogenic progenitors for bone formation and fracture repair. Nature Communications, 2017, 8, 2043. | 5.8 | 248 |
| 39 | Loss of scleraxis in mice leads to geometric and structural changes in cortical bone, as well as asymmetry in fracture healing. FASEB Journal, 2017, 31, 882-892. | 0.2 | 14 |
| 40 | Early changes in the knee of healer and nonâ€healer mice following nonâ€invasive mechanical injury. Journal of Orthopaedic Research, 2017, 35, 524-536. | 1.2 | 12 |
| 41 | Therapeutic efficacy of intra-articular hyaluronan derivative and platelet-rich plasma in mice following axial tibial loading. PLoS ONE, 2017, 12, e0175682. | 1.1 | 22 |
| 42 | Development of an in vivo bone fatigue damage model using axial compression of the rabbit forelimb. Journal of Biomechanics, 2016, 49, 3564-3569. | 0.9 | 18 |
| 43 | Mechanical comparison of iliosacral reconstruction techniques after sarcoma resection. Clinical Biomechanics, 2016, 38, 35-41. | 0.5 | 1 |
| 44 | Activation of Wnt Signaling by Mechanical Loading Is Impaired in the Bone of Old Mice. Journal of Bone and Mineral Research, 2016, 31, 2215-2226. | 3.1 | 117 |
| 45 | Effect of adiposeâ€derived stromal cells and BMP12 on intrasynovial tendon repair: A biomechanical, biochemical, and proteomics study. Journal of Orthopaedic Research, 2016, 34, 630-640. | 1.2 | 31 |
| 46 | The effect of mesenchymal stromal cell sheets on the inflammatory stage of flexor tendon healing. Stem Cell Research and Therapy, 2016, 7, 144. | 2.4 | 73 |
| 47 | Thrombospondin-1 Regulates Bone Homeostasis Through Effects on Bone Matrix Integrity and Nitric Oxide Signaling in Osteoclasts. Journal of Bone and Mineral Research, 2015, 30, 106-115. | 3.1 | 51 |
| 48 | Establishing Biomechanical Mechanisms in Mouse Models: Practical Guidelines for Systematically Evaluating Phenotypic Changes in the Diaphyses of Long Bones. Journal of Bone and Mineral Research, 2015, 30, 951-966. | 3.1 | 232 |
| 49 | HIF-1Î± regulates bone formation after osteogenic mechanical loading. Bone, 2015, 73, 98-104. | 1.4 | 37 |
| 50 | Non-invasive mouse models of post-traumatic osteoarthritis. Osteoarthritis and Cartilage, 2015, 23, 1627-1638. | 0.6 | 107 |
| 51 | Adipose-derived mesenchymal stromal cells modulate tendon fibroblast responses to macrophage-induced inflammation in vitro. Stem Cell Research and Therapy, 2015, 6, 74. | 2.4 | 110 |
| 52 | Hedgehog signaling mediates woven bone formation and vascularization during stress fracture healing. Bone, 2015, 81, 524-532. | 1.4 | 36 |
| 53 | ASXL2 Regulates Glucose, Lipid, and Skeletal Homeostasis. Cell Reports, 2015, 11, 1625-1637. | 2.9 | 55 |
| 54 | Bmp2 conditional knockout in osteoblasts and endothelial cells does not impair bone formation after injury or mechanical loading in adult mice. Bone, 2015, 81, 533-543. | 1.4 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | mTORC2 Signaling Promotes Skeletal Growth and Bone Formation in Mice. Journal of Bone and Mineral Research, 2015, 30, 369-378. | 3.1 | 82 |
| 56 | Long Bone Structure and Strength Depend on BMP2 from Osteoblasts and Osteocytes, but Not Vascular Endothelial Cells. PLoS ONE, 2014, 9, e96862. | 1.1 | 26 |
| 57 | The aging mouse partially models the aging human spine: lumbar and coccygeal disc height, composition, mechanical properties, and Wnt signaling in young and old mice. Journal of Applied Physiology, 2014, 116, 1551-1560. | 1.2 | 27 |
| 58 | Antagonizing the Î±vÎ²3 Integrin Inhibits Angiogenesis and Impairs Woven but Not Lamellar Bone Formation Induced by Mechanical Loading. Journal of Bone and Mineral Research, 2014, 29, 1970-1980. | 3.1 | 15 |
| 59 | Early Response of Mouse Joint Tissue to Noninvasive Knee Injury Suggests Treatment Targets. Arthritis and Rheumatology, 2014, 66, 1256-1265. | 2.9 | 54 |
| 60 | Effect of Off-Axis Screw Insertion, Insertion Torque, and Plate Contouring on Locked Screw Strength. Journal of Orthopaedic Trauma, 2014, 28, 427-432. | 0.7 | 15 |
| 61 | Experimental and finite element analysis of strains induced by axial tibial compression in young-adult and old female C57Bl/6 mice. Journal of Biomechanics, 2014, 47, 451-457. | 0.9 | 85 |
| 62 | The early inflammatory response after flexor tendon healing: A gene expression and histological analysis. Journal of Orthopaedic Research, 2014, 32, 645-652. | 1.2 | 110 |
| 63 | Aging diminishes lamellar and woven bone formation induced by tibial compression in adult C57BL/6. Bone, 2014, 65, 83-91. | 1.4 | 94 |
| 64 | Nitric oxide-mediated vasodilation increases blood flow during the early stages of stress fracture healing. Journal of Applied Physiology, 2014, 116, 416-424. | 1.2 | 15 |
| 65 | The Role of Muscle Loading on Bone (Re)modeling at the Developing Enthesis. PLoS ONE, 2014, 9, e97375. | 1.1 | 38 |
| 66 | Experimental and computational analysis of composite ankle-foot orthosis. Journal of Rehabilitation Research and Development, 2014, 51, 1525-1536. | 1.6 | 33 |
| 67 | Adaptation of Tibial Structure and Strength to Axial Compression Depends on Loading History in Both C57BL/6 and BALB/c Mice. Calcified Tissue International, 2013, 93, 211-221. | 1.5 | 51 |
| 68 | Angiogenesis is required for stress fracture healing in rats. Bone, 2013, 52, 212-219. | 1.4 | 41 |
| 69 | Predicting ex vivo failure loads in human metatarsals using bone strength indices derived from volumetric quantitative computed tomography. Journal of Biomechanics, 2013, 46, 745-750. | 0.9 | 14 |
| 70 | Controlled delivery of mesenchymal stem cells and growth factors using a nanofiber scaffold for tendon repair. Acta Biomaterialia, 2013, 9, 6905-6914. | 4.1 | 131 |
| 71 | Skeletal Blood Flow in Bone Repair and Maintenance. Bone Research, 2013, 1, 311-322. | 5.4 | 196 |
| 72 | BMP12 induces tenogenic differentiation of adipose-derived stromal cells. PLoS ONE, 2013, 8, e77613. | 1.1 | 92 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Adaptive and injury response of bone to mechanical loading. BoneKEy Reports, 2012, 1, 192. | 2.7 | 25 |
| 74 | Biomechanical Testing of Fracture Fixation Constructs: Variability, Validity, and Clinical Applicability. Journal of the American Academy of Orthopaedic Surgeons, The, 2012, 20, 86-93. | 1.1 | 21 |
| 75 | Effect of Combined Traumatic Impact and Radial Transection of Medial Meniscus on Knee Articular Cartilage in a Rabbit In Vivo Model. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2012, 28, 1490-1496. | 1.3 | 14 |
| 76 | The Effects of Screw Length on Stability of Simulated Osteoporotic Distal Radius Fractures Fixed With Volar Locking Plates. Journal of Hand Surgery, 2012, 37, 446-453. | 0.7 | 96 |
| 77 | Weak genetic relationship between trabecular bone morphology and obesity in mice. Bone, 2012, 51, 46-53. | 1.4 | 9 |
| 78 | The Effect of Aging on Skeletal Mechanoresponsiveness: Animal Studies. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2012, , 191-216. | 0.7 | 1 |
| 79 | The Effect of Core and Epitendinous Suture Modifications on Repair of Intrasynovial Flexor Tendons in an In Vivo Canine Model. Journal of Hand Surgery, 2012, 37, 2526-2531. | 0.7 | 29 |
| 80 | Tibial Loading Increases Osteogenic Gene Expression and Cortical Bone Volume in Mature and Middle-Aged Mice. PLoS ONE, 2012, 7, e34980. | 1.1 | 54 |
| 81 | Intrasynovial flexor tendon repair: A biomechanical study of variations in suture application in human cadavera. Journal of Orthopaedic Research, 2012, 30, 1652-1659. | 1.2 | 33 |
| 82 | Effect of bone morphogenetic protein 2 on tendonâ€toâ€bone healing in a canine flexor tendon model. Journal of Orthopaedic Research, 2012, 30, 1702-1709. | 1.2 | 33 |
| 83 | Quantification of Skeletal Blood Flow and Fluoride Metabolism in Rats using PET in a Pre-Clinical Stress Fracture Model. Molecular Imaging and Biology, 2012, 14, 348-354. | 1.3 | 17 |
| 84 | Enhanced Periosteal and Endocortical Responses to Axial Tibial Compression Loading in Conditional Connexin43 Deficient Mice. PLoS ONE, 2012, 7, e44222. | 1.1 | 66 |
| 85 | Biomechanical Testing of Fracture Fixation Constructs: Variability, Validity, and Clinical Applicability. Journal of the American Academy of Orthopaedic Surgeons, The, 2012, 20, 86-93. | 1.1 | 25 |
| 86 | Comparing histological, vascular and molecular responses associated with woven and lamellar bone formation induced by mechanical loading in the rat ulna. Bone, 2011, 48, 250-258. | 1.4 | 56 |
| 87 | Short-term low-strain vibration enhances chemo-transport yet does not stimulate osteogenic gene expression or cortical bone formation in adult mice. Bone, 2011, 48, 468-475. | 1.4 | 7 |
| 88 | Differential fracture healing resulting from fixation stiffness variability: a mouse model. Journal of Orthopaedic Science, 2011, 16, 298-303. | 0.5 | 17 |
| 89 | Lowâ€magnitude wholeâ€body vibration does not enhance the anabolic skeletal effects of intermittent PTH in adult mice. Journal of Orthopaedic Research, 2011, 29, 465-472. | 1.2 | 23 |
| 90 | Connexin43 deficiency reduces the sensitivity of cortical bone to the effects of muscle paralysis. Journal of Bone and Mineral Research, 2011, 26, 2151-2160. | 3.1 | 70 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Pitx1 haploinsufficiency causes clubfoot in humans and a clubfoot-like phenotype in mice. Human Molecular Genetics, 2011, 20, 3943-3952. | 1.4 | 70 |
| 92 | Differential Gene Expression from Microarray Analysis Distinguishes Woven and Lamellar Bone Formation in the Rat Ulna following Mechanical Loading. PLoS ONE, 2011, 6, e29328. | 1.1 | 31 |
| 93 | The Effects of Exogenous Basic Fibroblast Growth Factor on Intrasynovial Flexor Tendon Healing in a Canine Model. Journal of Bone and Joint Surgery - Series A, 2010, 92, 2285-2293. | 1.4 | 87 |
| 94 | Age-Related Changes in Bone Structure and Strength in Female and Male BALB/c Mice. Calcified Tissue International, 2010, 86, 470-483. | 1.5 | 117 |
| 95 | bFGF and PDGF-BB for Tendon Repair: Controlled Release and Biologic Activity by Tendon Fibroblasts In Vitro. Annals of Biomedical Engineering, 2010, 38, 225-234. | 1.3 | 87 |
| 96 | Aged mice have enhanced endocortical response and normal periosteal response compared with young-adult mice following 1 week of axial tibial compression. Journal of Bone and Mineral Research, 2010, 25, 2006-2015. | 3.1 | 86 |
| 97 | Skeletal effects of wholeâ€body vibration in adult and aged mice. Journal of Orthopaedic Research, 2010, 28, 241-247. | 1.2 | 41 |
| 98 | Diminished cartilage creep properties and increased trabecular bone density following a single, subâ€fracture impact of the rabbit femoral condyle. Journal of Orthopaedic Research, 2010, 28, 1307-1314. | 1.2 | 20 |
| 99 | Microfibril-associated Glycoprotein-1, an Extracellular Matrix Regulator of Bone Remodeling. Journal of Biological Chemistry, 2010, 285, 23858-23867. | 1.6 | 26 |
| 100 | Technical and Biological Modifications for Enhanced Flexor Tendon Repair. Journal of Hand Surgery, 2010, 35, 1031-1037. | 0.7 | 52 |
| 101 | Healing of non-displaced fractures produced by fatigue loading of the mouse ulna. Bone, 2010, 46, 1604-1612. | 1.4 | 45 |
| 102 | Single highâ€energy impact load causes posttraumatic OA in young rabbits via a decrease in cellular metabolism. Journal of Orthopaedic Research, 2009, 27, 347-352. | 1.2 | 42 |
| 103 | Enhanced flexor tendon healing through controlled delivery of PDGFâ€BB. Journal of Orthopaedic Research, 2009, 27, 1209-1215. | 1.2 | 101 |
| 104 | Type 1 Diabetes in Young Rats Leads to Progressive Trabecular Bone Loss, Cessation of Cortical Bone Growth, and Diminished Whole Bone Strength and Fatigue Life. Journal of Bone and Mineral Research, 2009, 24, 1618-1627. | 3.1 | 128 |
| 105 | Constrained tibial vibration does not produce an anabolic bone response in adult mice. Bone, 2009, 45, 750-759. | 1.4 | 17 |
| 106 | Use of a Magnesium-Based Bone Adhesive for Flexor Tendon-to-Bone Healing. Journal of Hand Surgery, 2009, 34, 1066-1073. | 0.7 | 20 |
| 107 | Stress fracture healing: Fatigue loading of the rat ulna induces upregulation in expression of osteogenic and angiogenic genes that mimic the intramembranous portion of fracture repair. Bone, 2009, 44, 320-330. | 1.4 | 62 |
| 108 | On the Horizon From the ORS. Journal of the American Academy of Orthopaedic Surgeons, The, 2009, 17, 56-59. | 1.1 | 2 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | An in vitro analysis of the mechanical properties of 16 arthroscopic knots. Knee Surgery, Sports Traumatology, Arthroscopy, 2008, 16, 957-966. | 2.3 | 21 |
| 110 | Mechanical Stimulation of Bone Formation is Normal in the SAMP6 Mouse. Calcified Tissue International, 2008, 82, 489-497. | 1.5 | 22 |
| 111 | The effect of muscle loading on flexor tendonâ€toâ€bone healing in a canine model. Journal of Orthopaedic Research, 2008, 26, 1611-1617. | 1.2 | 73 |
| 112 | Attenuated Response to In Vivo Mechanical Loading in Mice With Conditional Osteoblast Ablation of the Connexin43 Gene (Gja1). Journal of Bone and Mineral Research, 2008, 23, 879-886. | 3.1 | 106 |
| 113 | Effect of Suture Material and Bone Quality on the Mechanical Properties of Zone I Flexor Tendonâ€"Bone Reattachment With Bone Anchors. Journal of Hand Surgery, 2008, 33, 709-717. | 0.7 | 46 |
| 114 | In vivo static creep loading of the rat forelimb reduces ulnar structural properties at time-zero and induces damage-dependent woven bone formation. Bone, 2008, 42, 942-949. | 1.4 | 23 |
| 115 | Age-Related Changes in Bone Morphology Are Accelerated in Group VIA Phospholipase A2 (iPLA2Î²)-Null Mice. American Journal of Pathology, 2008, 172, 868-881. | 1.9 | 55 |
| 116 | Constrained Tibial Vibration in Mice: A Method for Studying the Effects of Vibrational Loading of Bone. Journal of Biomechanical Engineering, 2008, 130, 044502. | 0.6 | 22 |
| 117 | Genetic relationships between obesity and osteoporosis in LGXSM recombinant inbred mice. Genetical Research, 2008, 90, 433-444. | 0.3 | 12 |
| 118 | The Early Effects of Sustained Platelet-Derived Growth Factor Administration on the Functional and Structural Properties of Repaired Intrasynovial Flexor Tendons: An In Vivo Biomechanic Study at 3 Weeks in Canines. Journal of Hand Surgery, 2007, 32, 373-379. | 0.7 | 66 |
| 119 | Alendronate prevents bone loss and improves tendon-to-bone repair strength in a canine model. Journal of Orthopaedic Research, 2007, 25, 473-479. | 1.2 | 42 |
| 120 | Bone formation after damaging in vivo fatigue loading results in recovery of whole-bone monotonic strength and increased fatigue life. Journal of Orthopaedic Research, 2007, 25, 252-261. | 1.2 | 29 |
| 121 | PDGF-BB released in tendon repair using a novel delivery system promotes cell proliferation and collagen remodeling. Journal of Orthopaedic Research, 2007, 25, 1358-1368. | 1.2 | 135 |
| 122 | Use of the rat forelimb compression model to create discrete levels of bone damage in vivo. Journal of Biomechanics, 2007, 40, 317-324. | 0.9 | 55 |
| 123 | Biomechanics of osteoporotic fractures. Injury, 2007, 38, 69-76. | 0.7 | 82 |
| 124 | Bone Loss after Temporarily Induced Muscle Paralysis by Botox Is Not Fully Recovered After 12 Weeks. Annals of the New York Academy of Sciences, 2007, 1116, 444-460. | 1.8 | 66 |
| 125 | Skeletal Self-Repair : Stress Fracture Healing by Rapid Formation and Densification of Woven Bone. Journal of Bone and Mineral Research, 2007, 22, 1548-1556. | 3.1 | 92 |
| 126 | Damaging Fatigue Loading Stimulates Increases in Periosteal Vascularity at Sites of Bone Formation in the Rat Ulna. Calcified Tissue International, 2007, 80, 391-399. | 1.5 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | In vivo skeletal imaging of 18F-fluoride with positron emission tomography reveals damage- and time-dependent responses to fatigue loading in the rat ulna. Bone, 2006, 39, 229-236. | 1.4 | 46 |
| 128 | Role of Connexin43 in Osteoblast Response to Physical Load. Annals of the New York Academy of Sciences, 2006, 1068, 214-224. | 1.8 | 40 |
| 129 | The Effect of Varying Magnitudes of Whole-Body Vibration on Several Skeletal Sites in Mice. Annals of Biomedical Engineering, 2006, 34, 1149-1156. | 1.3 | 91 |
| 130 | Characteristics of the rat supraspinatus tendon during tendon-to-bone healing after acute injury. Journal of Orthopaedic Research, 2006, 24, 541-550. | 1.2 | 280 |
| 131 | Early healing of flexor tendon insertion site injuries: Tunnel repair is mechanically and histologically inferior to surface repair in a canine model. Journal of Orthopaedic Research, 2006, 24, 990-1000. | 1.2 | 61 |
| 132 | Medial collateral ligament healing in macrophage metalloelastase (MMP-12)-deficient mice. Journal of Orthopaedic Research, 2006, 24, 2106-2113. | 1.2 | 11 |
| 133 | Biomechanical Evaluation of 2 Techniques for Ulnar Collateral Ligament Reconstruction of the Elbow. American Journal of Sports Medicine, 2006, 34, 1599-1603. | 1.9 | 84 |
| 134 | A New Selective Estrogen Receptor Modulator, CHF 4227.01, Preserves Bone Mass and Microarchitecture in Ovariectomized Rats. Journal of Bone and Mineral Research, 2005, 20, 2178-2188. | 3.1 | 20 |
| 135 | Decreased Collagen Organization and Content Are Associated With Reduced Strength of Demineralized and Intact Bone in the SAMP6 Mouse. Journal of Bone and Mineral Research, 2005, 21, 78-88. | 3.1 | 86 |
| 136 | Delayed repair of tendon to bone injuries leads to decreased biomechanical properties and bone loss. Journal of Orthopaedic Research, 2005, 23, 1441-1447. | 1.2 | 21 |
| 137 | Finite element analysis of the mouse tibia: Estimating endocortical strain during three-point bending in SAMP6 osteoporotic mice. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2005, 283A, 380-390. | 2.0 | 39 |
| 138 | Flexor digitorum profundus tendon to bone tunnel repair: A vascularization and histologic study in canines. Journal of Hand Surgery, 2005, 30, 246-257. | 0.7 | 21 |
| 139 | Zone I flexor digitorum profundus repair: An ex vivo biomechanical analysis of tendon to bone repair in cadavera. Journal of Hand Surgery, 2005, 30, 258-266. | 0.7 | 28 |
| 140 | Effect of Several Growth Factors on Canine Flexor Tendon Fibroblast Proliferation and Collagen Synthesis In Vitro. Journal of Hand Surgery, 2005, 30, 441-447. | 0.7 | 166 |
| 141 | Mechanical Properties of Bioabsorbable Meniscal Arrows as a Function of Tear Location. American Journal of Sports Medicine, 2004, 32, 666-674. | 1.9 | 3 |
| 142 | Marrow Stromal Cells and Osteoclast Precursors Differentially Contribute to TNF-Î±-Induced Osteoclastogenesis In Vivo. Journal of Immunology, 2004, 173, 4838-4846. | 0.4 | 175 |
| 143 | Impaired Marrow Osteogenesis Is Associated With Reduced Endocortical Bone Formation but Does Not Impair Periosteal Bone Formation in Long Bones of SAMP6 Mice. Journal of Bone and Mineral Research, 2004, 20, 419-427. | 3.1 | 44 |
| 144 | Lack of OH in nanocrystalline apatite as a function of degree of atomic order: implications for bone and biomaterials. Biomaterials, 2004, 25, 229-238. | 5.7 | 333 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Experimental and finite element analysis of the rat ulnar loading modelâ€"correlations between strain and bone formation following fatigue loading. Journal of Biomechanics, 2004, 37, 541-548. | 0.9 | 92 |
| 146 | Nanoindentation and whole-bone bending estimates of material properties in bones from the senescence accelerated mouse SAMP6. Journal of Biomechanics, 2004, 37, 1639-1646. | 0.9 | 99 |
| 147 | Tendon injury response: Assessment of biomechanical properties, tissue morphology and viability following flexor digitorum profundus tendon transection. Journal of Orthopaedic Research, 2004, 22, 990-997. | 1.2 | 14 |
| 148 | Morphological and mechanical properties of caudal vertebrae in the SAMP6 mouse model of senile osteoporosis. Bone, 2004, 35, 425-431. | 1.4 | 39 |
| 149 | Cartilage Tolerates Single Impact Loads of as Much as Half the Joint Fracture Threshold. Clinical Orthopaedics and Related Research, 2004, 426, 266-273. | 0.7 | 28 |
| 150 | Bone loss following tendon laceration, repair and passive mobilization. Journal of Orthopaedic Research, 2003, 21, 990-996. | 1.2 | 41 |
| 151 | Neovascularization of the flexor digitorum profundus tendon after avulsion injury: An in vivo canine study. Journal of Hand Surgery, 2003, 28, 231-236. | 0.7 | 9 |
| 152 | Two-portal repair of canine flexor tendon insertion site injuries: Histologic and immunohistochemical characterization of healing during the early postoperative period. Journal of Hand Surgery, 2003, 28, 469-474. | 0.7 | 25 |
| 153 | Effect of Hemorrhage on Medial Collateral Ligament Healing in a Mouse Model. American Journal of Sports Medicine, 2003, 31, 660-666. | 1.9 | 22 |
| 154 | A Method for Delivering Variable Impact Stresses to the Articular Cartilage of Rabbit Knees. Journal of Orthopaedic Trauma, 2002, 16, 182-188. | 0.7 | 28 |
| 155 | Separation of the Raman Spectral Signatures of Bioapatite and Collagen in Compact Mouse Bone Bleached with Hydrogen Peroxide. Applied Spectroscopy, 2002, 56, 770-775. | 1.2 | 22 |
| 156 | Vascular anatomy of the human flexor digitorum profundus tendon insertion. Journal of Hand Surgery, 2002, 27, 806-812. | 0.7 | 35 |
| 157 | Recent progress in flexor tendon healing. Journal of Orthopaedic Science, 2002, 7, 508-514. | 0.5 | 50 |
| 158 | In vivo fatigue loading of the rat ulna induces both bone formation and resorption and leads to time-related changes in bone mechanical properties and density. Journal of Orthopaedic Research, 2002, 20, 764-771. | 1.2 | 67 |
| 159 | SHIP-deficient mice are severely osteoporotic due to increased numbers of hyper-resorptive osteoclasts. Nature Medicine, 2002, 8, 943-949. | 15.2 | 237 |
| 160 | The insertion site of the canine flexor digitorum profundus tendon heals slowly following injury and suture repair. Journal of Orthopaedic Research, 2002, 20, 447-453. | 1.2 | 58 |
| 161 | The rigidity of repaired flexor tendons increases following ex vivo cyclic loading. Journal of Biomechanics, 2002, 35, 853-856. | 0.9 | 14 |
| 162 | Long Bones From the Senescence Accelerated Mouse SAMP6 Have Increased Size But Reduced Whole-bone Strength and Resistance to Fracture. Journal of Bone and Mineral Research, 2002, 17, 1597-1603. | 3.1 | 58 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Tunnel Syndromes. Journal of Bone and Joint Surgery - Series A, 2002, 84, 1501. | 1.4 | 22 |
| 164 | The effect of variations in applied rehabilitation force on collagen concentration and maturation at the intrasynovial flexor tendon repair site. Journal of Hand Surgery, 2001, 26, 841-846. | 0.7 | 31 |
| 165 | The influence of cross-sectional area on the tensile properties of flexor tendons. Journal of Hand Surgery, 2001, 26, 828-832. | 0.7 | 34 |
| 166 | Raman Spectroscopic Detection of Changes in Bioapatite in Mouse Femora as a Function of Age and In Vitro Fluoride Treatment. Calcified Tissue International, 2001, 68, 156-162. | 1.5 | 155 |
| 167 | BMP-12 gene transfer augmentation of lacerated tendon repair. Journal of Orthopaedic Research, 2001, 19, 1199-1202. | 1.2 | 217 |
| 168 | Intrasynovial Flexor Tendon Repair. Journal of Bone and Joint Surgery - Series A, 2001, 83, 891-899. | 1.4 | 131 |
| 169 | What's New in Orthopaedic Research. Journal of Bone and Joint Surgery - Series A, 2001, 83, 1117-1124. | 1.4 | 10 |
| 170 | Modelling fatigue damage accumulation in two-dimensional Voronoi honeycombs. International Journal of Mechanical Sciences, 2000, 42, 645-656. | 3.6 | 48 |
| 171 | In vitro sodium fluoride exposure decreases torsional and bending strength and increases ductility of mouse femora. Journal of Biomechanics, 2000, 33, 231-234. | 0.9 | 28 |
| 172 | Gelsolin Deficiency Blocks Podosome Assembly and Produces Increased Bone Mass and Strength. Journal of Cell Biology, 2000, 148, 665-678. | 2.3 | 246 |
| 173 | The resistance of a four- and eight-strand suture technique to gap formation during tensile testing: an experimental study of repaired canine flexor tendons after 10 days of in vivo healing. Journal of Hand Surgery, 2000, 25, 489-498. | 0.7 | 88 |
| 174 | Regulation of alphavbeta3 and alpha5beta1 integrin receptors by basic fibroblast growth factor and platelet-derived growth factor-BB in intrasynovial flexor tendon cells. Wound Repair and Regeneration, 1999, 7, 381-388. | 1.5 | 52 |
| 175 | Wrist and digital joint motion produce unique flexor tendon force and excursion in the canine forelimb. Journal of Biomechanics, 1999, 32, 175-181. | 0.9 | 70 |
| 176 | Growing C57Bl/6 Mice Increase Whole Bone Mechanical Properties by Increasing Geometric and Material Properties. Journal of Bone and Mineral Research, 1999, 14, 2159-2166. | 3.1 | 204 |
| 177 | Reduced bone stress as predicted by composite beam theory correlates with cortical bone loss following cemented total hip arthroplasty. Journal of Orthopaedic Research, 1999, 17, 525-531. | 1.2 | 20 |
| 178 | Effects of increasedin vivo excursion on digital range of motion and tendon strength following flexor tendon repair. Journal of Orthopaedic Research, 1999, 17, 777-783. | 1.2 | 77 |
| 179 | The Effect of Gap Formation at the Repair Site on the Strength and Excursion of Intrasynovial Flexor Tendons. AN EXPERIMENTAL STUDY ON THE EARLY STAGES OF TENDON-HEALING IN DOGS*. Journal of Bone and Joint Surgery - Series A, 1999, 81, 975-82. | 1.4 | 287 |
| 180 | Computed tomography-based finite element analysis predicts failure loads and fracture patterns for vertebral sections. Journal of Orthopaedic Research, 1998, 16, 300-308. | 1.2 | 122 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Flexor digitorum profundus tendon-to-bone repair: An ex vivo biomechanical analysis of 3 pullout suture techniques. Journal of Hand Surgery, 1998, 23, 120-126. | 0.7 | 58 |
| 182 | Integrin Expression is Upregulated During Early Healing in a Canine Intrasynovial Flexor Tendon Repair and Controlled Passive Motion Model. Connective Tissue Research, 1998, 39, 309-316. | 1.1 | 29 |
| 183 | Changes in Interstitial Pressure and Cross-Sectional Area of the Cubital Tunnel and of the Ulnar Nerve with Flexion of the Elbow. An Experimental Study in Human Cadavera*. Journal of Bone and Joint Surgery - Series A, 1998, 80, 492-501. | 1.4 | 254 |
| 184 | The Effects of Multiple-Strand Suture Techniques on the Tensile Properties of Repair of the Flexor Digitorum Profundus Tendon to Bone*. Journal of Bone and Joint Surgery - Series A, 1998, 80, 1507-14. | 1.4 | 52 |
| 185 | Load Sharing Between the Shell and Centrum in the Lumbar Vertebral Body. Spine, 1997, 22, 140-150. | 1.0 | 174 |
| 186 | Modeling the mechanical behavior of vertebral trabecular bone: Effects of age-related changes in microstructure. Bone, 1997, 21, 191-199. | 1.4 | 308 |
| 187 | The effects of non-periodic microstructure and defects on the compressive strength of two-dimensional cellular solids. International Journal of Mechanical Sciences, 1997, 39, 549-563. | 3.6 | 318 |
| 188 | The effects of non-periodic microstructure on the elastic properties of two-dimensional cellular solids. International Journal of Mechanical Sciences, 1995, 37, 1161-1177. | 3.6 | 299 |
| 189 | Direct and computed tomography thickness measurements of the human, lumbar vertebral shell and endplate. Bone, 1994, 15, 409-414. | 1.4 | 175 |
| 190 | Strength reductions of thoracic vertebrae in the presence of transcortical osseous defects: effects of defect location, pedicle disruption, and defect size. European Spine Journal, 1993, 2, 118-125. | 1.0 | 40 |