

# Role of matrix metalloproteinases in skeletal muscle

Cell Adhesion and Migration

3, 337-341

DOI: 10.4161/cam.3.4.9338

Citation Report

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Matrix metalloproteinases are less essential for the in-situ gelatinolytic activity in heart muscle than in skeletal muscle. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2010, 156, 518-522.  | 0.8 | 11        |
| 2  | Regulation and dysregulation of fibrosis in skeletal muscle. Experimental Cell Research, 2010, 316, 3050-3058.  | 1.2 | 247       |
| 3  | Osteopontin, a chemotactic protein with cytokine-like properties, is up-regulated in muscle injury caused by Bothrops lanceolatus (fer-de-lance) snake venom. Toxicon, 2011, 58, 398-409.   | 0.8 | 13        |
| 4  | Vascular remodelling in human skeletal muscle. Biochemical Society Transactions, 2011, 39, 1628-1632.   | 1.6 | 47        |
| 5  | Cellular and Molecular Mechanisms Regulating Fibrosis in Skeletal Muscle Repair and Disease. Current Topics in Developmental Biology, 2011, 96, 167-201.  | 1.0 | 147       |
| 6  | Hamstring contractures in children with spastic cerebral palsy result from a stiffer extracellular matrix and increased <i>in vivo</i> sarcomere length. Journal of Physiology, 2011, 589, 2625-2639.                                 | 1.3 | 353       |
| 7  | In situ real-time imaging of the satellite cells in rat intact and injured soleus muscles using quantum dots. Histochemistry and Cell Biology, 2011, 135, 21-26.  | 0.8 | 16        |
| 8  | Aberrant repair and fibrosis development in skeletal muscle. Skeletal Muscle, 2011, 1, 21.  | 1.9 | 627       |
| 9  | Protein expression and enzymatic activities in normal and soft textured Atlantic salmon ( <i>Salmo salar</i> ) muscle. Food Chemistry, 2011, 126, 140-148.  | 4.2 | 37        |
| 10 | Transgenic overexpression of the $\beta 7$ integrin reduces muscle pathology and improves viability in the dyW mouse model of merosin-deficient congenital muscular dystrophy type 1A. Journal of Cell Science, 2011, 124, 2287-2297. | 1.2 | 43        |
| 11 | Matrix metalloproteinases in skeletal muscles: Friends or foes?. Neurobiology of Disease, 2012, 48, 508-518.  | 2.1 | 58        |
| 12 | Muscle degeneration in rotator cuff tears. Journal of Shoulder and Elbow Surgery, 2012, 21, 164-174.  | 1.2 | 79        |
| 13 | Effects of matrix metalloproteinase-1 on the myogenic differentiation of bone marrow-derived mesenchymal stem cells in vitro. Biochemical and Biophysical Research Communications, 2012, 428, 309-314.                                | 1.0 | 7         |
| 14 | Transcriptional Abnormalities of Hamstring Muscle Contractures in Children with Cerebral Palsy. PLoS ONE, 2012, 7, e40686.  | 1.1 | 50        |
| 15 | Fine-structural distribution of MMP-2 and MMP-9 activities in the rat skeletal muscle upon training: a study by high-resolution in situ zymography. Histochemistry and Cell Biology, 2012, 138, 75-87.                                | 0.8 | 30        |
| 16 | Biochemical Mechanisms of Exercise-Induced Angiogenesis. , 2013, , 181-206.   |     | 2         |
| 17 | Xin Is a Marker of Skeletal Muscle Damage Severity in Myopathies. American Journal of Pathology, 2013, 183, 1703-1709.  | 1.9 | 35        |
| 18 | Mitigation of diabetes-related complications in implanted collagen and elastin scaffolds using matrix-binding polyphenol. Biomaterials, 2013, 34, 685-695.  | 5.7 | 46        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Regeneration of Soft Tissues Is Promoted by MMP1 Treatment after Digit Amputation in Mice. PLoS ONE, 2013, 8, e59105.   | 1.1 | 37        |
| 20 | Macrophages commit postnatal endothelium-derived progenitors to angiogenesis and restrict endothelial to mesenchymal transition during muscle regeneration. Cell Death and Disease, 2014, 5, e1031-e1031.   | 2.7 | 72        |
| 21 | Understanding the Process of Fibrosis in Duchenne Muscular Dystrophy. BioMed Research International, 2014, 2014, 1-11.  | 0.9 | 165       |
| 22 | MMP-14 is necessary but not sufficient for invasion of three-dimensional collagen by human muscle satellite cells. American Journal of Physiology - Cell Physiology, 2014, 307, C140-C149.                  | 2.1 | 16        |
| 23 | Effects of Low-Level Laser Therapy on Skeletal Muscle Repair. American Journal of Physical Medicine and Rehabilitation, 2014, 93, 1073-1085.  | 0.7 | 80        |
| 24 | Defining the role of mesenchymal stromal cells on the regulation of matrix metalloproteinases in skeletal muscle cells. Experimental Cell Research, 2014, 323, 297-313.                                     | 1.2 | 41        |
| 25 | MMP-10 Is Required for Efficient Muscle Regeneration in Mouse Models of Injury and Muscular Dystrophy. Stem Cells, 2014, 32, 447-461.   | 1.4 | 39        |
| 26 | Modulating effect of low level-laser therapy on fibrosis in the repair process of the tibialis anterior muscle in rats. Lasers in Medical Science, 2014, 29, 813-821.                                       | 1.0 | 61        |
| 27 | Expression of Transthyretin during bovine myogenic satellite cell differentiation. In Vitro Cellular and Developmental Biology - Animal, 2014, 50, 756-765.   | 0.7 | 7         |
| 28 | The effect of low-level laser therapy (LLLT) applied prior to muscle injury. Lasers in Surgery and Medicine, 2015, 47, 571-578.   | 1.1 | 26        |
| 29 | Adult Vascular Wall Resident Multipotent Vascular Stem Cells, Matrix Metalloproteinases, and Arterial Aneurysms. Stem Cells International, 2015, 2015, 1-16.  | 1.2 | 14        |
| 30 | MMP-14 in skeletal muscle repair. Journal of Muscle Research and Cell Motility, 2015, 36, 215-225.  | 0.9 | 38        |
| 31 | Correlation between Fibrillin-1 Degradation and mRNA Downregulation and Myofibroblast Differentiation in Cultured Human Dental Pulp Tissue. Journal of Histochemistry and Cytochemistry, 2015, 63, 438-448. | 1.3 | 10        |
| 32 | Fat deposition and accumulation in the damaged and inflamed skeletal muscle: cellular and molecular players. Cellular and Molecular Life Sciences, 2015, 72, 2135-2156.                                     | 2.4 | 53        |
| 33 | Intracellular MMP-2 Activity in Skeletal Muscle Is Associated With Type II Fibers. Journal of Cellular Physiology, 2015, 230, 160-169.  | 2.0 | 28        |
| 34 | Therapeutic strategies for preventing skeletal muscle fibrosis after injury. Frontiers in Pharmacology, 2015, 6, 87.  | 1.6 | 117       |
| 35 | Messenger RNA sequencing and pathway analysis provide novel insights into the biological basis of chickens' feed efficiency. BMC Genomics, 2015, 16, 195.   | 1.2 | 53        |
| 36 | Use of Mesenchymal Stem Cells for Therapy of Cardiac Disease. Circulation Research, 2015, 116, 1413-1430.   | 2.0 | 356       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 37 | A Nanomedicine Approach to Effectively Inhibit Contracture During Bladder Acellular Matrix Allograft-Induced Bladder Regeneration by Sustained Delivery of Vascular Endothelial Growth Factor. <i>Tissue Engineering - Part A</i> , 2015, 21, 45-52.                         | 1.6  | 9         |
| 38 | Functional MMP-10 is required for efficient tissue repair after experimental hind limb ischemia. <i>FASEB Journal</i> , 2015, 29, 960-972.   | 0.2  | 19        |
| 39 | Despite normal arteriogenic and angiogenic responses, hind limb perfusion recovery and necrotic and fibroadipose tissue clearance are impaired in matrix metalloproteinase 9-deficient mice. <i>Journal of Vascular Surgery</i> , 2015, 61, 1583-1594.e10.                   | 0.6  | 17        |
| 40 | Remodelling of Skeletal Muscle Extracellular Matrix: Effect of Unloading and Reloading. , 2016, , .  |      | 2         |
| 41 | Composition and Function of Extracellular Matrix in Development of Skeletal Muscle. , 0, , .   |      | 1         |
| 42 | The Extracellular Matrix Complexome from Skeletal Muscle. , 0, , .   |      | 4         |
| 43 | Neo-epitope Peptides as Biomarkers of Disease Progression for Muscular Dystrophies and Other Myopathies. <i>Journal of Neuromuscular Diseases</i> , 2016, 3, 333-346.  | 1.1  | 7         |
| 44 | Doxycycline Inhibits IL-17-Stimulated MMP-9 Expression by Downregulating ERK1/2 Activation: Implications in Myogenic Differentiation. <i>Mediators of Inflammation</i> , 2016, 2016, 1-11.   | 1.4  | 15        |
| 45 | Comparative study of muscle proteins in relation to the development of yake in three tropical tuna species yellowfin ( <i>Thunnus albacares</i> ), big eye ( <i>Thunnus obesus</i> ) and skipjack ( <i>Katsuwonus pelamis</i> ). <i>Food Chemistry</i> , 2016, 201, 284-291. | 4.2  | 7         |
| 46 | The role of matrix metalloproteinases in muscle and adipose tissue development and meat quality: A review. <i>Meat Science</i> , 2016, 119, 138-146.   | 2.7  | 34        |
| 47 | Effects of choline treatment in concentrations of serum matrix metalloproteinases (MMPs), MMP tissue inhibitors (TIMPs) and immunoglobulins in an experimental model of canine sepsis. <i>Veterinary Immunology and Immunopathology</i> , 2016, 180, 9-14.                   | 0.5  | 4         |
| 48 | Muscle Injuries and Repair: What's New on the Horizon!. <i>Cells Tissues Organs</i> , 2016, 202, 227-236.  | 1.3  | 18        |
| 49 | Matrix Metalloproteinases and Tissue Inhibitor of Metalloproteinases in Inflammation and Fibrosis of Skeletal Muscles. <i>Journal of Neuromuscular Diseases</i> , 2016, 3, 455-473.  | 1.1  | 72        |
| 50 | Rebuilding the Damaged Heart: Mesenchymal Stem Cells, Cell-Based Therapy, and Engineered Heart Tissue. <i>Physiological Reviews</i> , 2016, 96, 1127-1168.   | 13.1 | 251       |
| 51 | Light-emitting diode therapy increases collagen deposition during the repair process of skeletal muscle. <i>Lasers in Medical Science</i> , 2016, 31, 531-538.   | 1.0  | 10        |
| 52 | Protein-leucine ingestion activates a regenerative inflammo-myogenic transcriptome in skeletal muscle following intense endurance exercise. <i>Physiological Genomics</i> , 2016, 48, 21-32.   | 1.0  | 37        |
| 53 | Effects of Resistance Training Volume on MMPs in Circulation, Muscle and Adipose Tissue. <i>International Journal of Sports Medicine</i> , 2017, 38, 307-313.  | 0.8  | 28        |
| 54 | Platelet rich plasma promotes skeletal muscle cell migration in association with up-regulation of FAK, paxillin, and F-Actin formation. <i>Journal of Orthopaedic Research</i> , 2017, 35, 2506-2512.  | 1.2  | 19        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 55 | The Satellite Cell Niche in Skeletal Muscle. , 2017, , 145-166.  |     | 2         |
| 56 | Investigating the Life Expectancy and Proteolytic Degradation of Engineered Skeletal Muscle Biological Machines. Scientific Reports, 2017, 7, 3775.  | 1.6 | 21        |
| 57 | Mechanosensing of matrix by stem cells: From matrix heterogeneity, contractility, and the nucleus in pore-migration to cardiogenesis and muscle stem cells in vivo. Seminars in Cell and Developmental Biology, 2017, 71, 84-98.   | 2.3 | 61        |
| 58 | Low-Intensity Training and the C5a Complement Antagonist NOX-D21 Rescue the mdx Phenotype through Modulation of Inflammation. American Journal of Pathology, 2017, 187, 1147-1161.   | 1.9 | 19        |
| 59 | Cell based therapeutic approach in vascular surgery: application and review. Open Medicine (Poland), 2017, 12, 308-322.  | 0.6 | 2         |
| 60 | The Matrix Metalloproteinase and Tissue Inhibitors of Metalloproteinase Balance in Physiological and Pathological Remodeling of Skeletal Muscles. , 2017, , 49-76.   |     | 1         |
| 61 | Gelatinases and physical exercise. Medicine (United States), 2017, 96, e8072.  | 0.4 | 33        |
| 62 | Phase-contrast hard X-ray microscopy using synchrotron radiation for the properties of skeletal muscle in mouse hind limbs. Microscopy Research and Technique, 2017, 80, 1221-1228.  | 1.2 | 8         |
| 63 | Fibrosis development in early-onset muscular dystrophies: Mechanisms and translational implications. Seminars in Cell and Developmental Biology, 2017, 64, 181-190.  | 2.3 | 74        |
| 64 | Inflammatory response during slow- and fast-twitch muscle regeneration. Muscle and Nerve, 2017, 55, 400-409.   | 1.0 | 31        |
| 65 | Defining the Balance between Regeneration and Pathological Ossification in Skeletal Muscle Following Traumatic Injury. Frontiers in Physiology, 2017, 8, 194.  | 1.3 | 23        |
| 66 | Therapeutic effectiveness of instrument-assisted soft tissue mobilization for soft tissue injury: mechanisms and practical application. Journal of Exercise Rehabilitation, 2017, 13, 12-22.                                       | 0.4 | 65        |
| 67 | Effects of Whey, Soy or Leucine Supplementation with 12 Weeks of Resistance Training on Strength, Body Composition, and Skeletal Muscle and Adipose Tissue Histological Attributes in College-Aged Males. Nutrients, 2017, 9, 972. | 1.7 | 76        |
| 68 | Electrical Stimulation of Denervated Rat Skeletal Muscle Retards Capillary and Muscle Loss in Early Stages of Disuse Atrophy. BioMed Research International, 2017, 2017, 1-8.  | 0.9 | 13        |
| 69 | Role of transforming growth factor- $\beta$ 2 in muscle damage and regeneration: focused on eccentric muscle contraction. Journal of Exercise Rehabilitation, 2017, 13, 621-626.   | 0.4 | 44        |
| 70 | Chronic inflammation in skeletal muscle impairs satellite cells function during regeneration: can physical exercise restore the satellite cell niche?. FEBS Journal, 2018, 285, 1973-1984.   | 2.2 | 106       |
| 71 | Comparative proteomic analysis of fluoride treated rat bone provides new insights into the molecular mechanisms of fluoride toxicity. Toxicology Letters, 2018, 291, 39-50.  | 0.4 | 25        |
| 72 | Regulation of fibrosis in muscular dystrophy. Matrix Biology, 2018, 68-69, 602-615.  | 1.5 | 87        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 73 | Genetic Variants and Hamstring Injury in Soccer. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 361-368.   | 0.2 | 26        |
| 74 | Silencing of gelatinase expression delays myoblast differentiation in vitro. <i>Cell Biology International</i> , 2018, 42, 373-382.  | 1.4 | 7         |
| 75 | Exercise mitigates the effects of hyperhomocysteinemia on adverse muscle remodeling. <i>Physiological Reports</i> , 2018, 6, e13637.   | 0.7 | 5         |
| 76 | Effect of diets supplemented with linseed alone or combined with vitamin E and selenium or with plant extracts, on Longissimus thoracis transcriptome in growing-finishing Italian Large White pigs. <i>Journal of Animal Science and Biotechnology</i> , 2018, 9, 81.                                 | 2.1 | 12        |
| 77 | RAGE in the pathophysiology of skeletal muscle. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2018, 9, 1213-1234.  | 2.9 | 75        |
| 78 | Exercise Prevents Diaphragm Wasting Induced by Cigarette Smoke through Modulation of Antioxidant Genes and Metalloproteinases. <i>BioMed Research International</i> , 2018, 2018, 1-8.   | 0.9 | 12        |
| 79 | Combined use of bone marrow-derived mesenchymal stromal cells (BM-MSCs) and platelet rich plasma (PRP) stimulates proliferation and differentiation of myoblasts in vitro: new therapeutic perspectives for skeletal muscle repair/regeneration. <i>Cell and Tissue Research</i> , 2018, 372, 549-570. | 1.5 | 51        |
| 80 | Agent-based model illustrates the role of the microenvironment in regeneration in healthy and <i>mdx</i> skeletal muscle. <i>Journal of Applied Physiology</i> , 2018, 125, 1424-1439.   | 1.2 | 31        |
| 81 | Effects of Resistance Training on Matrix Metalloproteinase Activity in Skeletal Muscles and Blood Circulation During Aging. <i>Frontiers in Physiology</i> , 2018, 9, 190.   | 1.3 | 38        |
| 82 | Effect of Resistance Training on Extracellular Matrix Adaptations in Skeletal Muscle of Older Rats. <i>Frontiers in Physiology</i> , 2018, 9, 374.   | 1.3 | 33        |
| 83 | Use of ultrasound shear wave to measure muscle stiffness in children with cerebral palsy. <i>Journal of Ultrasound</i> , 2018, 21, 241-247.  | 0.7 | 28        |
| 84 | Differential expression of zinc transporters accompanies the differentiation of C2C12 myoblasts. <i>Journal of Trace Elements in Medicine and Biology</i> , 2018, 49, 27-34.   | 1.5 | 23        |
| 85 | Distribution and activation of matrix metalloproteinase-2 in skeletal muscle fibers. <i>American Journal of Physiology - Cell Physiology</i> , 2019, 317, C613-C625.   | 2.1 | 16        |
| 86 | Morphological evidence for telocytes as stromal cells supporting satellite cell activation in eccentric contraction-induced skeletal muscle injury. <i>Scientific Reports</i> , 2019, 9, 14515.  | 1.6 | 34        |
| 87 | The genetic association with exercise-induced muscle damage and muscle injury risk. , 2019, , 375-407.   |     | 4         |
| 88 | Impaired Skeletal Muscle Regeneration Induced by Macrophage Depletion Could Be Partly Ameliorated by MGF Injection. <i>Frontiers in Physiology</i> , 2019, 10, 601.  | 1.3 | 9         |
| 89 | Influence of Platelet-Rich and Platelet-Poor Plasma on endogenous mechanisms of skeletal muscle repair/regeneration. <i>International Journal of Molecular Sciences</i> , 2019, 20, 683.   | 1.8 | 54        |
| 90 | Emerging Development of Microfluidics-Based Approaches to Improve Studies of Muscle Cell Migration. <i>Tissue Engineering - Part B: Reviews</i> , 2019, 25, 30-45.   | 2.5 | 7         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 91  | Skeletal muscle fibrosis: an overview. <i>Cell and Tissue Research</i> , 2019, 375, 575-588.  | 1.5 | 192       |
| 92  | Matrix Metalloproteinases: A challenging paradigm of cancer management. <i>Seminars in Cancer Biology</i> , 2019, 56, 100-115.  | 4.3 | 169       |
| 93  | A study of chewing muscles: Age-related changes in type I collagen and matrix metalloproteinase-2 expression. <i>Archives of Oral Biology</i> , 2020, 109, 104583.  | 0.8 | 2         |
| 94  | Hyaluronan derived nanoparticle for simvastatin delivery: evaluation of simvastatin induced myotoxicity in tissue engineered skeletal muscle. <i>Biomaterials Science</i> , 2020, 8, 302-312.                 | 2.6 | 9         |
| 95  | Increased Fibrogenic Gene Expression in Multifidus Muscles of Patients With Chronic Versus Acute Lumbar Spine Pathology. <i>Spine</i> , 2020, 45, E189-E195.  | 1.0 | 22        |
| 96  | Fibrosis following Acute Skeletal Muscle Injury: Mitigation and Reversal Potential in the Clinic. Hindawi Publishing Corporation, 2020, 2020, 1-7.  | 2.3 | 8         |
| 97  | Hydrogen Sulfide Alleviates Skeletal Muscle Fibrosis via Attenuating Inflammation and Oxidative Stress. <i>Frontiers in Physiology</i> , 2020, 11, 533690.  | 1.3 | 21        |
| 98  | Gene expression profile of adhesion and extracellular matrix molecules during early stages of skeletal muscle regeneration. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 10140-10150.        | 1.6 | 11        |
| 99  | Anti-Fibrotic Effect of Human Whartonâ€™s Jelly-Derived Mesenchymal Stem Cells on Skeletal Muscle Cells, Mediated by Secretion of MMP-1. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6269. | 1.8 | 12        |
| 100 | Crosstalk Between Skeletal Muscle and Immune System: Which Roles Do IL-6 and Glutamine Play?. <i>Frontiers in Physiology</i> , 2020, 11, 582258.  | 1.3 | 36        |
| 101 | Thermal injury initiates pervasive fibrogenesis in skeletal muscle. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 319, C277-C287.   | 2.1 | 9         |
| 102 | Implications of Skeletal Muscle Extracellular Matrix Remodeling in Metabolic Disorders: Diabetes Perspective. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3845.                            | 1.8 | 24        |
| 103 | Transcriptome Analysis of Skeletal Muscle Reveals Altered Proteolytic and Neuromuscular Junction Associated Gene Expressions in a Mouse Model of Cerebral Ischemic Stroke. <i>Genes</i> , 2020, 11, 726.      | 1.0 | 8         |
| 104 | Impaired ECM Remodeling and Macrophage Activity Define Necrosis and Regeneration Following Damage in Aged Skeletal Muscle. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4575.               | 1.8 | 34        |
| 105 | Modulation of Monocyte-Driven Myositis in Alphavirus Infection Reveals a Role for CX <sub>3</sub> CR1 <sup>+</sup> Macrophages in Tissue Repair. <i>MBio</i> , 2020, 11, .                                    | 1.8 | 16        |
| 106 | Tissue-Engineered Human Myobundle System as a Platform for Evaluation of Skeletal Muscle Injury Biomarkers. <i>Toxicological Sciences</i> , 2020, 176, 124-136.   | 1.4 | 17        |
| 107 | Elevated MMP2 abundance and activity in mdx mice are alleviated by prenatal taurine supplementation. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 318, C1083-C1091.                        | 2.1 | 3         |
| 108 | Computational Models Provide Insight into In Vivo Studies and Reveal the Complex Role of Fibrosis in mdx Muscle Regeneration. <i>Annals of Biomedical Engineering</i> , 2021, 49, 536-547.                    | 1.3 | 6         |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 109 | Morphofunctional Characterization of Different Tissue Factors in Congenital Diaphragmatic Hernia Affected Tissue. <i>Diagnostics</i> , 2021, 11, 289.  | 1.3 | 1         |
| 110 | Periostin Is Required for the Maintenance of Muscle Fibers during Muscle Regeneration. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3627.  | 1.8 | 15        |
| 111 | High Fat Diet Dysbiotic Mechanism of Decreased Gingival Blood Flow. <i>Frontiers in Physiology</i> , 2021, 12, 625780.   | 1.3 | 4         |
| 112 | Omics Approaches in Adipose Tissue and Skeletal Muscle Addressing the Role of Extracellular Matrix in Obesity and Metabolic Dysfunction. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2756.  | 1.8 | 15        |
| 113 | Reduced RECK levels accelerate skeletal muscle differentiation, improve muscle regeneration, and decrease fibrosis. <i>FASEB Journal</i> , 2021, 35, e21503.   | 0.2 | 3         |
| 114 | Actions and interactions of IGF-I and MMPs during muscle regeneration. <i>Seminars in Cell and Developmental Biology</i> , 2021, 119, 11-22.   | 2.3 | 10        |
| 115 | The relationship between primary sarcopenia and SARC-F, serum MMP9, TIMP1 levels, and MMP9/TIMP1 ratio in the geriatric patients. <i>European Geriatric Medicine</i> , 2021, 12, 1229-1235.  | 1.2 | 6         |
| 117 | Udział czynników endokrynnych i komórek macierzystych w regeneracji mięśni szkieletowych <sup>*</sup> . <i>Postępy Higieny i Medycyny Doswiadczalnej</i> , 2021, 75, 371-384.  | 0.1 | 1         |
| 119 | The Combination of Electroacupuncture and Massage Therapy Alleviates Myofibroblast Transdifferentiation and Extracellular Matrix Production in Blunt Trauma-Induced Skeletal Muscle Fibrosis. <i>Evidence-based Complementary and Alternative Medicine</i> , 2021, 2021, 1-10. | 0.5 | 3         |
| 120 | Growth factor delivery using extracellular matrix-mimicking substrates for musculoskeletal tissue engineering and repair. <i>Bioactive Materials</i> , 2021, 6, 1945-1956.   | 8.6 | 55        |
| 121 | Genetic variations associated with non-contact muscle injuries in sport: A systematic review. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2021, 31, 2014-2032.   | 1.3 | 9         |
| 122 | The Role of the Skeletal Muscle Secretome in Mediating Endurance and Resistance Training Adaptations. <i>Frontiers in Physiology</i> , 2021, 12, 709807.   | 1.3 | 37        |
| 123 | Thermosensitive Hydrogel Harboring CD146/IGF-1 Nanoparticles for Skeletal-Muscle Regeneration. <i>ACS Applied Bio Materials</i> , 2021, 4, 7070-7080.  | 2.3 | 5         |
| 124 | Paternal Resistance Exercise Modulates Skeletal Muscle Remodeling Pathways in Fathers and Male Offspring Submitted to a High-Fat Diet. <i>Frontiers in Physiology</i> , 2021, 12, 706128.  | 1.3 | 1         |
| 125 | Matrix Metalloproteinase-9 is Involved in the Fibrotic Process in Denervated Muscles after Sciatic Nerve Trauma and Recovery. <i>Journal of Neurological Surgery, Part A: Central European Neurosurgery</i> , 2023, 84, 116-122.   | 0.4 | 3         |
| 126 | Bariatric surgery induces morphological changes in the extensor digitorum longus muscle in the offspring of obese rats. <i>Tissue and Cell</i> , 2021, 72, 101537.   | 1.0 | 2         |
| 127 | Bone, muscle, and sarcopenia. , 2021, , 847-873.   |     | 0         |
| 128 | High Final Energy of Low-Level Gallium Arsenide Laser Therapy Enhances Skeletal Muscle Recovery without a Positive Effect on Collagen Remodeling. <i>Photochemistry and Photobiology</i> , 2015, 91, 957-965.  | 1.3 | 22        |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 129 | Knocking-out matrix metalloproteinase-13 exacerbates rotator cuff muscle fatty infiltration. <i>Muscles, Ligaments and Tendons Journal</i> , 2017, 7, 202.   | 0.1 | 6         |
| 130 | Matrix metalloproteinase and tissue inhibitor of metalloproteinase responses to muscle damage after eccentric exercise. <i>Journal of Exercise Rehabilitation</i> , 2016, 12, 260-265.                                       | 0.4 | 14        |
| 131 | Intramuscular Transplantation of Muscle Precursor Cells over-expressing MMP-9 improves Transplantation Success. <i>PLOS Currents</i> , 2011, 3, RRN1275.   | 1.4 | 8         |
| 132 | Insulin-Like Growth Factor-I E-Peptide Activity Is Dependent on the IGF-I Receptor. <i>PLoS ONE</i> , 2012, 7, e45588.   | 1.1 | 45        |
| 133 | Requirement of Plasminogen Binding to Its Cell-Surface Receptor $\alpha_2$ -Enolase for Efficient Regeneration of Normal and Dystrophic Skeletal Muscle. <i>PLoS ONE</i> , 2012, 7, e50477.                                  | 1.1 | 13        |
| 134 | Aging and metalloproteinases expression in mussels extracellular matrix. <i>Pomeranian Journal of Life Sciences</i> , 2019, 65, 105-112.   | 0.1 | 1         |
| 135 | Aging Changes in Satellite Cells and Their Functions. <i>Current Aging Science</i> , 2011, 4, 279-297.   | 0.4 | 38        |
| 136 | Paradoxical effect of fat diet in matrix metalloproteinases induced mitochondrial dysfunction in diabetic cardiomyopathy. <i>Journal of Cardiovascular Medicine</i> , 2021, 22, 268-278.                                     | 0.6 | 6         |
| 137 | Remodeling the Skeletal Muscle Extracellular Matrix in Older Age—Effects of Acute Exercise Stimuli on Gene Expression. <i>International Journal of Molecular Sciences</i> , 2020, 21, 7089.                                  | 1.8 | 14        |
| 138 | Expression of MMP-1, -2, and -8 in longissimus dorsi muscle and their relationship with meat quality traits in cattle. <i>Genetics and Molecular Research</i> , 2016, 15, 15017593.  | 0.3 | 7         |
| 139 | Resistance training improves body composition and increases matrix metalloproteinase 2 activity in biceps and gastrocnemius muscles of diet-induced obese rats. <i>Clinics</i> , 2014, 69, 265-270.                          | 0.6 | 24        |
| 140 | Skeletal muscle regeneration with robotic actuation—mediated clearance of neutrophils. <i>Science Translational Medicine</i> , 2021, 13, eabe8868.   | 5.8 | 42        |
| 141 | Electroacupuncture regulates inflammation, collagen deposition and macrophage function in skeletal muscle through the TGF $\beta$ 1/Smad3/p38/ERK1/2 pathway. <i>Experimental and Therapeutic Medicine</i> , 2021, 22, 1457. | 0.8 | 8         |
| 142 | Beneficial effects of $\beta$ -escin on muscle regeneration in rat model of skeletal muscle injury. <i>Phytomedicine</i> , 2021, 93, 153791.   | 2.3 | 7         |
| 143 | Leucine-Protein Supplemented Recovery and Exercise. , 2015, , 15-32.   |     | 0         |
| 144 | The Science of Neuromuscular Healing. , 2017, , 1-62.  |     | 0         |
| 145 | Effect of Eight Weeks of Aerobic Exercise on the Plasma Levels of Matrix Metalloproteinase in Life Guards: A Pilot Study. <i>Health Education and Health Promotion</i> , 2019, 7, 59-63.                                     | 0.1 | 1         |
| 146 | PECULIARITIES OF THE COURSE AND TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE IN PATIENTS WITH SYNDROME OF UNDIFFERENTIATED CONNECTIVE TISSUE DYSPLASIA. (SYSTEMATIC LITERATURE) <i>Tj ETQq1 1o4784314rgBT /Ove</i>           |     |           |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 147 | Matrix metalloproteinase inhibition negatively affects muscle stem cell behavior. International Journal of Clinical and Experimental Pathology, 2013, 6, 124-41.  | 0.5 | 17        |
| 148 | Moderate Treadmill Training Induces Limited Effects on Quadriceps Muscle Hypertrophy in Mice Exposed to Cigarette Smoke Involving Metalloproteinase 2. International Journal of COPD, 2022, Volume 17, 33-42.   | 0.9 | 0         |
| 149 | The pathophysiology and treatment of musculoskeletal fibrosis. Journal of Cellular Biochemistry, 2022, 123, 843-851.  | 1.2 | 5         |
| 150 | Gene Ontology Groups and Signaling Pathways Regulating the Process of Avian Satellite Cell Differentiation. Genes, 2022, 13, 242.   | 1.0 | 8         |
| 151 | The Contributions of Extracellular Matrix and Sarcomere Properties to Passive Muscle Stiffness in Cerebral Palsy. Frontiers in Physiology, 2021, 12, 804188.  | 1.3 | 2         |
| 152 | Neutrophil and natural killer cell imbalances prevent muscle stem cell-mediated regeneration following murine volumetric muscle loss. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2111445119.                        | 3.3 | 24        |
| 153 | Association of Primary Sarcopenia with Serum MMP2, TIMP2 Levels, and MMP2/TIMP2 Ratio. European Journal of Geriatrics and Gerontology, 2021, .  | 0.1 | 0         |
| 154 | Key concepts in muscle regeneration: muscle "cellular ecology" integrates a gestalt of cellular cross-talk, motility, and activity to remodel structure and restore function. European Journal of Applied Physiology, 2022, 122, 273-300.                             | 1.2 | 14        |
| 155 | Protein Expression in the Gastrocnemius Muscle of a Rodent Shrapnel-Injury Model. International Journal of Toxicology, 2022, 41, 26-46.   | 0.6 | 1         |
| 156 | Improved tenderness of beef from bulls supplemented with active dry yeast is related to matrix metalloproteinases and reduced oxidative stress. Animal, 2022, 16, 100517.   | 1.3 | 5         |
| 158 | Research on Orientation of Basic Fibroblast Growth Factor with Magnetic Nanoparticles (MNPs) on Regeneration and Recovery of Rats' Dampered Skeletal Muscle and Expressed Level of Matrix Metalloproteinase. Journal of Biomedical Nanotechnology, 2022, 18, 557-564. | 0.5 | 3         |
| 159 | Paraspinal Muscle Health is Related to Fibrogenic, Adipogenic, and Myogenic Gene Expression in Patients with Lumbar Spine Pathology. BMC Musculoskeletal Disorders, 2022, 23, .   | 0.8 | 2         |
| 160 | Effects of STAT3 on aging-dependent neovascularization impairment following limb ischemia: from bedside to bench. Aging, 2022, 14, 4897-4913.   | 1.4 | 3         |
| 161 | Physiological Properties, Functions, and Trends in the Matrix Metalloproteinase Inhibitors in Inflammation-Mediated Human Diseases. Current Medicinal Chemistry, 2023, 30, 2075-2112.   | 1.2 | 8         |
| 163 | Current understanding on the role of proteolysis on meat quality. , 2022, , 95-114.   |     | 0         |
| 164 | The Use of Instrument-Assisted Soft-Tissue Mobilization for Manual Medicine: Aiding Hand Health in Clinical Practice. Cureus, 2022, , .   | 0.2 | 1         |
| 165 | Mechanotransduction through adhesion molecules: Emerging roles in regulating the stem cell niche. Frontiers in Cell and Developmental Biology, 0, 10, .   | 1.8 | 2         |
| 167 | Role of Matrix Metalloproteinases in Musculoskeletal Diseases. Biomedicines, 2022, 10, 2477.  | 1.4 | 11        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 168 | Mechanisms of cooperative cell-cell interactions in skeletal muscle regeneration. Inflammation and Regeneration, 2022, 42, .   | 1.5 | 11        |
| 169 | Exercise builds the scaffold of life: muscle extracellular matrix biomarker responses to physical activity, inactivity, and aging. Biological Reviews, 2023, 98, 481-519.  | 4.7 | 7         |
| 170 | Effects of Home-Based Electrical Stimulation on Plasma Cytokines Profile, Redox Biomarkers, and Metalloproteinases in the Heart Failure with Reduced Ejection Fraction: A Randomized Trial. Journal of Cardiovascular Development and Disease, 2022, 9, 463. | 0.8 | 0         |
| 171 | Muscle Regeneration in Holothurians without the Upregulation of Muscle Genes. International Journal of Molecular Sciences, 2022, 23, 16037.  | 1.8 | 3         |
| 189 | Muscle stem cell niche dynamics during muscle homeostasis and regeneration. Current Topics in Developmental Biology, 2024, , 151-177.  | 1.0 | 0         |