Richard T Jaspers

List of Publications by Year
in descending order

117	3,450	147801	182427
papers	citations	31 h-index	51 g-index

131	131	131	4666
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stiff matrices enhance myoblast proliferation, reduce differentiation, and alter the response to fluid shear stress in vitro. Cell Biochemistry and Biophysics, 2022, 80, 161.	1.8	1
2	Reduced growth rate of aged muscle stem cells is associated with impaired mechanosensitivity. Aging, 2022, 14, 28-53.	3.1	8
3	Glycine receptor subunit-Î²-deficiency in a mouse model of spasticity results in attenuated physical performance, growth, and muscle strength. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2022, 322, R368-R388.	1.8	2
4	Local administration of low doses of exogenous BMP2 and leptin promotes ectopic bone regeneration in leptin-deficient mice. Bio-Medical Materials and Engineering, 2022, , 1-11.	0.6	0
5	Lack of Tgfbr1 and Acvr1b synergistically stimulates myofibre hypertrophy and accelerates muscle regeneration. ELife, 2022, 11, .	6.0	9
6	The relationship between quantitative magnetic resonance imaging of the ankle plantar flexors, muscle function during walking and maximal strength in people with neuromuscular diseases. Clinical Biomechanics, 2022, 94, 105609.	1.2	0
7	Does a Hypertrophying Muscle Fibre Reprogramme its Metabolism Similar to a Cancer Cell?. Sports Medicine, 2022, 52, 2569-2578.	6.5	17
8	Fluid shear stress-induced mechanotransduction in myoblasts: Does it depend on the glycocalyx?. Experimental Cell Research, 2022, 417, 113204.	2.6	2
9	Effects of Acute and Chronic Resistance Exercise on the Skeletal Muscle Metabolome. Metabolites, 2022, 12, 445.	2.9	9
10	Notoginsenoside R1 Promotes Migration, Adhesin, Spreading, and Osteogenic Differentiation of Human Adipose Tissue-Derived Mesenchymal Stromal Cells. Molecules, 2022, 27, 3403.	3.8	3
11	Synergistic short-term and long-term effects of TGF-Î²1 and 3 on collagen production in differentiating myoblasts. Biochemical and Biophysical Research Communications, 2021, 547, 176-182.	2.1	11
12	Pulsating fluid flow affects preâ€osteoblast behavior and osteogenic differentiation through production of soluble factors. Physiological Reports, 2021, 9, e14917.	1.7	5
13	Myofiber stretch induces tensile and shear deformation of muscle stem cells in their native niche. Biophysical Journal, 2021, 120, 2665-2678.	0.5	13
14	Under the Hood: Skeletal Muscle Determinants of Endurance Performance. Frontiers in Sports and Active Living, 2021, 3, 719434.	1.8	28
15	Systematic Review of Lumbar Elastic Tape on Trunk Mobility: A Debatable Issue. Archives of Rehabilitation Research and Clinical Translation, 2021, 3, 100131.	0.9	2
16	Stimuli for Adaptations in Muscle Length and the Length Range of Active Force Exertionâ€”A Narrative Review. Frontiers in Physiology, 2021, 12, 742034.	2.8	27
17	Fibrodysplasia Ossificans Progressiva: What Have We Achieved and Where Are We Now? Follow-up to the 2015 Lorentz Workshop. Frontiers in Endocrinology, 2021, 12, 732728.	3.5	15
18	Notoginsenoside R1 attenuates oxidative stressâ€induced osteoblast dysfunction through JNK signalling pathway. Journal of Cellular and Molecular Medicine, 2021, 25, 11278-11289.	3.6	27

#	Article	IF	Citations
19	Training-Induced Muscle Adaptations During Competitive Preparation in Elite Female Rowers. Frontiers in Sports and Active Living, 2021, 3, 781942.	1.8	6
20	Effect of vasti morphology on peak sprint cycling power of a human musculoskeletal simulation model. Journal of Applied Physiology, 2020, 128, 445-455.	2.5	5
21	RGDâ€functionalized supported lipid bilayers modulate preâ€osteoblast adherence and promote osteogenic differentiation. Journal of Biomedical Materials Research - Part A, 2020, 108, 923-937.	4.0	5
22	Foot flexibility confounds the assessment of triceps surae extensibility in children with spastic paresis during typical physical examinations. Journal of Biomechanics, 2020, 99, 109532.	2.1	9
23	Shear Stress Modulates Osteoblast Cell and Nucleus Morphology and Volume. International Journal of Molecular Sciences, 2020, 21, 8361.	4.1	15
24	Gastrocnemius Medialis Muscle Geometry and Extensibility in Typically Developing Children and Children With Spastic Paresis Aged 6â€“13 Years. Frontiers in Physiology, 2020, 11, 528522.	2.8	7
25	Changes in inflammation and musculoskeletal tissue-derived biomarker serum levels in response to high- and low-intensity resistance training in individuals with knee osteoarthritis. Osteoarthritis and Cartilage, 2020, 28, S336-S337.	1.3	0
26	TGF-Î² Regulates Collagen Type I Expression in Myoblasts and Myotubes via Transient Ctgf and Fgf-2 Expression. Cells, 2020, 9, 375.	4.1	44
27	Salivary Histatin 1 and 2 Are Targeted to Mitochondria and Endoplasmic Reticulum in Human Cells. Cells, 2020, 9, 795.	4.1	11
28	PKM2 Determines Myofiber Hypertrophy In Vitro and Increases in Response to Resistance Exercise in Human Skeletal Muscle. International Journal of Molecular Sciences, 2020, 21, 7062.	4.1	21
29	Remodeling of Rat M. Gastrocnemius Medialis During Recovery From Aponeurotomy. Frontiers in Physiology, 2020, 11, 541302.	2.8	2
30	Physicochemical Niche Conditions and Mechanosensing by Osteocytes and Myocytes. Current Osteoporosis Reports, 2019, 17, 235-249.	3.6	17
31	Comprehensive evaluation of gait, spasticity, and muscle morphology: A case report of a child with spastic paresis treated with Botulinum NeuroToxinâ€A, serial casting, and physiotherapy. Clinical Case Reports (discontinued), 2019, 7, 1637-1646.	0.5	2
32	Anthropometric Clusters of Competitive Cyclists and Their Sprint and Endurance Performance. Frontiers in Physiology, 2019, 10, 1276.	2.8	19
33	Metabolic Cost of Activation and Mechanical Efficiency of Mouse Soleus Muscle Fiber Bundles During Repetitive Concentric and Eccentric Contractions. Frontiers in Physiology, 2019, 10, 760.	2.8	8
34	Effects of different training modalities on phosphate homeostasis and local vitamin D metabolism in rat bone. PeerJ, 2019, 7, e6184.	2.0	6
35	Single-cell analysis uncovers that metabolic reprogramming by ErbB2 signaling is essential for cardiomyocyte proliferation in the regenerating heart. ELife, 2019, 8, .	6.0	162
36	ÂÂÂMechanosensitivity of aged muscle stem cells. Journal of Orthopaedic Research, 2018, 36, 632-641.	2.3	29

#	Article	IF	Citations
37	Muscle morphology of the vastus lateralis is strongly related to ergometer performance, sprint capacity and endurance capacity in Olympic rowers. Journal of Sports Sciences, 2018, 36, 2111-2120.	2.0	30
38	Measuring wearing time of knee-ankle-foot orthoses in children with cerebral palsy: comparison of parent-report and objective measurement. Disability and Rehabilitation, 2018, 40, 398-403.	1.8	9
39	Reduced dietary intake of micronutrients with antioxidant properties negatively impacts muscle health in aged mice. Journal of Cachexia, Sarcopenia and Muscle, 2018, 9, 146-159.	7.3	26
40	Critical determinants of combined sprint and endurance performance: an integrative analysis from muscle fiber to the human body. FASEB Journal, 2018, 32, 2110-2123.	0.5	45
41	The Role of IGF-1 Signaling in Skeletal Muscle Atrophy. Advances in Experimental Medicine and Biology, 2018, 1088, 109-137.	1.6	60
42	Past, Present, and Future Perspective of Targeting Myostatin and Related Signaling Pathways to Counteract Muscle Atrophy. Advances in Experimental Medicine and Biology, 2018, 1088, 153-206.	1.6	27
43	Commentaries on Viewpoint: V̀‡<scp>o</scp>_{2peak} is an acceptable estimate of cardiorespiratory fitness but not V̀‡<scp>o</scp>_{2max}. Journal of Applied Physiology, 2018, 125, 966-967.	2.5	3
44	Adaptations in muscle oxidative capacity, fiber size, and oxygen supply capacity after repeated-sprint training in hypoxia combined with chronic hypoxic exposure. Journal of Applied Physiology, 2018, 124, 1403-1412.	2.5	25
45	Outcome of medial hamstring lengthening in children with spastic paresis: A biomechanical and morphological observational study. PLoS ONE, 2018, 13, e0192573.	2.5	19
46	O63: Medial gastrocnemius muscle in children with Spastic Paresis show growth defects for muscle volume and altered normalized muscle and tendon length compared to typically developed children. Gait and Posture, 2017, 57, 110-111.	1.4	0
47	Effects of Botulinum Toxin-A and casting treatment on assessed spasticity, muscle morphology and gait kinematics in spastic paresis. Gait and Posture, 2017, 57, 104-105.	1.4	0
48	3D Ultrasound Imaging: Fast and Cost-effective Morphometry of Musculoskeletal Tissue. Journal of Visualized Experiments, 2017, , .	0.3	19
49	Exercise, fasting, and mimetics: toward beneficial combinations?. FASEB Journal, 2017, 31, 14-28.	0.5	36
50	Muscle Volume Is A Critical Determinant Of Rowing Performance In Olympic Rowers. Medicine and Science in Sports and Exercise, 2017, 49, 768-769.	0.4	1
51	Commentary: Validation of a Ramp Running Protocol for Determination of the True VO2max in Mice. Frontiers in Physiology, 2017, 8, 330.	2.8	3
52	IGF-1 Attenuates Hypoxia-Induced Atrophy but Inhibits Myoglobin Expression in C2C12 Skeletal Muscle Myotubes. International Journal of Molecular Sciences, 2017, 18, 1889.	4.1	14
53	Oxygenation Threshold Derived from Near-Infrared Spectroscopy: Reliability and Its Relationship with the First Ventilatory Threshold. PLoS ONE, 2016, 11, e0162914.	2.5	48
54	Maximal oxygen uptake is proportional to muscle fiber oxidative capacity, from chronic heart failure patients to professional cyclists. Journal of Applied Physiology, 2016, 121, 636-645.	2.5	59

#	Article	IF	Citations
55	Freehand threeâ€dimensional ultrasound to assess semitendinosus muscle morphology. Journal of Anatomy, 2016, 229, 591-599.	1.5	34
56	Effects of 1,25(OH)₂D₃and 25(OH)D₃on C2C12 Myoblast Proliferation, Differentiation, and Myotube Hypertrophy. Journal of Cellular Physiology, 2016, 231, 2517-2528.	4.1	45
57	Regulation of myoglobin in hypertrophied rat cardiomyocytes in experimental pulmonary hypertension. Pflugers Archiv European Journal of Physiology, 2016, 468, 1697-1707.	2.8	7
58	Reply to Gifford et al.: Symmorphosis in chronic heart failure patients?. Journal of Applied Physiology, 2016, 121, 1040-1040.	2.5	0
59	Blunted angiogenesis and hypertrophy are associated with increased fatigue resistance and unchanged aerobic capacity in old overloaded mouse muscle. Age, 2016, 38, 39.	3.0	35
60	Mechanical Stimulation and IGFâ€1 Enhance mRNA Translation Rate in Osteoblasts Via Activation of the AKTâ€mTOR Pathway. Journal of Cellular Physiology, 2016, 231, 1283-1290.	4.1	33
61	Comparison of the validity of Hill and Huxley muscle tendon complex models using experimental data obtained from rat m. soleus in situ. Journal of Experimental Biology, 2016, 219, 977-87.	1.7	9
62	Knee Moment-Angle Characteristics and Semitendinosus Muscle Morphology in Children with Spastic Paresis Selected for Medial Hamstring Lengthening. PLoS ONE, 2016, 11, e0166401.	2.5	20
63	Single muscle fibre contractile properties differ between bodyâ€builders, power athletes and control subjects. Experimental Physiology, 2015, 100, 1331-1341.	2.0	37
64	Assessment of net knee moment-angle characteristics by instrumented hand-held dynamometry in children with spastic cerebral palsy and typically developing children. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 67.	4.6	8
65	Aging related ER stress is not responsible for anabolic resistance in mouse skeletal muscle. Biochemical and Biophysical Research Communications, 2015, 468, 702-707.	2.1	22
66	Blunted hypertrophic response in old mouse muscle is associated with a lower satellite cell density and is not alleviated by resveratrol. Experimental Gerontology, 2015, 62, 23-31.	2.8	32
67	Muscle contractile properties as an explanation of the higher mean power output in marmosets than humans during jumping. Journal of Experimental Biology, 2015, 218, 2166-73.	1.7	12
68	A chronotype comparison of South African and Dutch marathon runners: The role of scheduled race start times and effects on performance. Chronobiology International, 2015, 32, 858-868.	2.0	44
69	Increased Endoplasmic Reticulum Stress in Mouse Osteocytes with Aging Alters Cox-2 Response to Mechanical Stimuli. Calcified Tissue International, 2015, 96, 123-128.	3.1	29
70	IL-6 and IGF-1 Signaling Within and Between Muscle and Bone: How Important is the mTOR Pathway for Bone Metabolism?. Current Osteoporosis Reports, 2015, 13, 131-139.	3.6	36
71	Medial gastrocnemius muscle growth during adolescence is mediated by increased fascicle diameter rather than by longitudinal fascicle growth. Journal of Anatomy, 2015, 226, 530-541.	1.5	35
72	Decrease in ankleâ€“foot dorsiflexion range of motion is related to increased knee flexion during gait in children with spastic cerebral palsy. Journal of Electromyography and Kinesiology, 2015, 25, 339-346.	1.7	8

#	Article	IF	Citations
73	Mechanical output in jumps of marmosets (Callithrix jacchus). Journal of Experimental Biology, 2014, 217, 482-8.	1.7	6
74	Intramuscular Connective Tissue Differences in Spastic and Control Muscle: A Mechanical and Histological Study. PLoS ONE, 2014, 9, e101038.	2.5	92
75	Muscle-Type Specific Autophosphorylation of CaMKII Isoforms after Paced Contractions. BioMed Research International, 2014, 2014, 1-20.	1.9	8
76	Increased oxidative metabolism and myoglobin expression in zebrafish muscle during chronic hypoxia. Biology Open, 2014, 3, 718-727.	1.2	24
77	Plantaris muscle weakness in old mice: relative contributions of changes in specific force, muscle mass, myofiber cross-sectional area, and number. Age, 2014, 36, 9726.	3.0	21
78	CaMKII content affects contractile, but not mitochondrial, characteristics in regenerating skeletal muscle. BMC Physiology, 2014, 14, 7.	3.6	21
79	An MRI study on the relations between muscle atrophy, shoulder function and glenohumeral deformity in shoulders of children with obstetric brachial plexus injury. Journal of Brachial Plexus and Peripheral Nerve Injury, 2014, 04, e21-e28.	1.0	27
80	Aging related changes in determinants of muscle force generating capacity: A comparison of muscle aging in men and male rodents. Ageing Research Reviews, 2014, 14, 43-55.	10.9	93
81	Biochemical Interaction Between Muscle and Bone: A Physiological Reality?. Clinical Reviews in Bone and Mineral Metabolism, 2014, 12, 27-43.	0.8	8
82	Mechanically Loaded Myotubes Affect Osteoclast Formation. Calcified Tissue International, 2014, 94, 319-326.	3.1	21
83	Mechanical Loading by Fluid Shear Stress of Myotube Glycocalyx Stimulates Growth Factor Expression and Nitric Oxide Production. Cell Biochemistry and Biophysics, 2014, 69, 411-419.	1.8	49
84	A randomized controlled trial studying efficacy and tolerance of a knee-ankle-foot orthosis used to prevent equinus in children with spastic cerebral palsy. Clinical Rehabilitation, 2014, 28, 1025-1038.	2.2	22
85	Muscle physiology: move to translation. Journal of Muscle Research and Cell Motility, 2014, 35, 1-2.	2.0	0
86	Right ventricular oxygen supply parameters are decreased in human and experimental pulmonary hypertension. Journal of Heart and Lung Transplantation, 2013, 32, 231-240.	0.6	53
87	Attenuated Increase in Maximal Force of Rat Medial Gastrocnemius Muscle after Concurrent Peak Power and Endurance Training. BioMed Research International, 2013, 2013, 1-9.	1.9	12
88	Effects of Concurrent Training on Oxidative Capacity in Rat Gastrocnemius Muscle. Medicine and Science in Sports and Exercise, 2013, 45, 1674-1683.	0.4	7
89	Movement within foot and ankle joint in children with spastic cerebral palsy: a 3-dimensional ultrasound analysis of medial gastrocnemius length with correction for effects of foot deformation. BMC Musculoskeletal Disorders, 2013, 14, 365.	1.9	29
90	Musculoskeletal growth in the upper arm in infants after obstetric brachial plexus lesions and its relation with residual muscle function. Developmental Medicine and Child Neurology, 2012, 54, 1050-1056.	2.1	14

#	Article	IF	Citations
91	Expression of muscle anabolic and metabolic factors in mechanically loaded MLO-Y4 osteocytes. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E389-E395.	3.5	64
92	Splint: the efficacy of orthotic management in rest to prevent equinus in children with cerebral palsy, a randomised controlled trial. BMC Pediatrics, 2012, 12, 38.	1.7	16
93	Early effects of muscle atrophy on shoulder joint development in infants with unilateral birth brachial plexus injury. Developmental Medicine and Child Neurology, 2011, 53, 173-178.	2.1	28
94	Effects of growth on geometry of gastrocnemius muscle in children: a three-dimensional ultrasound analysis. Journal of Anatomy, 2011, 219, 388-402.	1.5	66
95	Physiological angiogenesis is a graded, not threshold, response. Journal of Physiology, 2011, 589, 195-206.	2.9	29
96	The time course of myonuclear accretion during hypertrophy in young adult and older rat plantaris muscle. Annals of Anatomy, 2011, 193, 56-63.	1.9	29
97	Effects of alfacalcidol on circulating cytokines and growth factors in rat skeletal muscle. Journal of Physiological Sciences, 2011, 61, 525-35.	2.1	10
98	Timeâ€course of changes in the myonuclear domain during denervation in youngâ€adult and old rat gastrocnemius muscle. Muscle and Nerve, 2011, 43, 212-222.	2.2	39
99	The muscle fiber typeâ€“fiber size paradox: hypertrophy or oxidative metabolism?. European Journal of Applied Physiology, 2010, 110, 665-694.	2.5	213
100	SB431542 treatment promotes the hypertrophy of skeletal muscle fibers but decreases specific force. Muscle and Nerve, 2010, 41, 624-629.	2.2	31
101	Reproducibility of hand-held ankle dynamometry to measure altered ankle moment-angle characteristics in children with spastic cerebral palsy. Clinical Biomechanics, 2010, 25, 802-808.	1.2	41
102	Reinforcement versus Fluidization in Cytoskeletal Mechanoresponsiveness. PLoS ONE, 2009, 4, e5486.	2.5	232
103	Anatomical information is needed in ultrasound imaging of muscle to avoid potentially substantial errors in measurement of muscle geometry. Muscle and Nerve, 2009, 39, 652-665.	2.2	129
104	A critical role for myoglobin in zebrafish development. International Journal of Developmental Biology, 2009, 53, 517-524.	0.6	18
105	Transcriptome analysis of the response to chronic constant hypoxia in zebrafish hearts. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2008, 178, 77-92.	1.5	103
106	Skeletal muscle capillarization and oxidative metabolism in healthy smokers. Applied Physiology, Nutrition and Metabolism, 2008, 33, 1240-1245.	1.9	20
107	Humans adjust control to initial squat depth in vertical squat jumping. Journal of Applied Physiology, 2008, 105, 1428-1440.	2.5	68
108	MUSCLE ACTIVATION PATTERNS IN SQUAT JUMPS FROM DIFFERENT INITIAL POSITIONS. Journal of Biomechanics, 2007, 40, S300.	2.1	1

#	Article	IF	Citations
109	Differential effects of muscle fibre length and insulin on muscle-specific mRNA content in isolated mature muscle fibres during long-term culture. Cell and Tissue Research, 2006, 326, 795-808.	2.9	24
110	Kroghâ€™s diffusion coefficient for oxygen in isolated Xenopus skeletal muscle fibers and rat myocardial trabeculae at maximum rates of oxygen consumption. Journal of Applied Physiology, 2005, 99, 2173-2180.	2.5	44
111	Healing of the aponeurosis during recovery from aponeurotomy: Morphological and histological adaptation and related changes in mechanical properties. Journal of Orthopaedic Research, 2005, 23, 266-273.	2.3	14
112	Adaptation of muscle size and myofascial force transmission: a review and some new experimental results. Scandinavian Journal of Medicine and Science in Sports, 2005, 15, 349-380.	2.9	126
113	Effects of strain on contractile force and number of sarcomeres in series of Xenopus laevis single muscle fibres during long-term culture. Journal of Muscle Research and Cell Motility, 2004, 25, 285-296.	2.0	13
114	Myofascial force transmission between a single muscle head and adjacent tissues: length effects of head III of rat EDL. Journal of Applied Physiology, 2003, 95, 2004-2013.	2.5	39
115	Acute and Long-Term Effects on Muscle Force After Intramuscular Aponeurotic Lengthening. Clinical Orthopaedics and Related Research, 2000, 378, 264-273.	1.5	38
116	Acute effects of intramuscular aponeurotomy on rat gastrocnemius medialis: Force transmission, muscle force and sarcomere length. Journal of Biomechanics, 1999, 32, 71-79.	2.1	62
117	IGF1 stimulates protein synthesis by enhancing mRNA translation rate in osteoblasts. Bone Abstracts, 0, , .	0.0	0