Stephen Brown

List of Publications by Year in descending order

133 papers	4,019 citations	117625 34 h-index	144013 57 g-index
133 all docs	133 docs citations	133 times ranked	6884 citing authors

#	Article	IF	Citations
1	The red flour beetle's large nose: An expanded odorant receptor gene family in Tribolium castaneum. Insect Biochemistry and Molecular Biology, 2008, 38, 387-397.	2.7	225
2	Mutations in the pre-replication complex cause Meier-Gorlin syndrome. Nature Genetics, 2011, 43, 356-359.	21.4	219
3	Less is more: high pass filtering, to remove up to 99% of the surface EMG signal power, improves EMG-based biceps brachii muscle force estimates. Journal of Electromyography and Kinesiology, 2004, 14, 389-399.	1.7	182
4	Effects of abdominal stabilization maneuvers on the control of spine motion and stability against sudden trunk perturbations. Journal of Electromyography and Kinesiology, 2007, 17, 556-567.	1.7	161
5	Lifestyle interventions for the treatment of women with gestational diabetes. The Cochrane Library, 2017, 2017, CD011970.	2.8	132
6	Effects of different levels of torso coactivation on trunk muscular and kinematic responses to posteriorly applied sudden loads. Clinical Biomechanics, 2006, 21, 443-455.	1.2	123
7	Methotrexate Is a JAK/STAT Pathway Inhibitor. PLoS ONE, 2015, 10, e0130078.	2.5	123
8	Loss-of-Function Mutations in TBC1D20 Cause Cataracts and Male Infertility in blind sterile Mice and Warburg Micro Syndrome in Humans. American Journal of Human Genetics, 2013, 93, 1001-1014.	6.2	119
9	Genome-wide RNAi screen identifies the Parkinson disease GWAS risk locus SREBF1 as a regulator of mitophagy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8494-8499.	7.1	109
10	Mechanical Strength of the Side-to-Side Versus Pulvertaft Weave Tendon Repair. Journal of Hand Surgery, 2010, 35, 540-545.	1.6	102
11	Long-Term Safety of NGX-4010, a High-Concentration Capsaicin Patch, in Patients with Peripheral Neuropathic Pain. Journal of Pain and Symptom Management, 2010, 39, 1053-1064.	1.2	95
12	Effects of Abdominal Muscle Coactivation on the Externally Preloaded Trunk: Variations in Motor Control and Its Effect on Spine Stability. Spine, 2006, 31, E387-E393.	2.0	87
13	A Randomized, Double-Blind, Controlled Study of NGX-4010, a Capsaicin 8% Dermal Patch, for the Treatment of Painful HIV-Associated Distal Sensory Polyneuropathy. Journal of Acquired Immune Deficiency Syndromes (1999), 2012, 59, 126-133.	2.1	82
14	A comparison of ultrasound and electromyography measures of force and activation to examine the mechanics of abdominal wall contraction. Clinical Biomechanics, 2010, 25, 115-123.	1.2	79
15	The Active Straight Leg Raise Test and Lumbar Spine Stability. PM and R, 2009, 1, 530-535.	1.6	73
16	Constraining spine stability levels in an optimization model leads to the prediction of trunk muscle cocontraction and improved spine compression force estimates. Journal of Biomechanics, 2005, 38, 745-754.	2.1	70
17	An equation to calculate individual muscle contributions to joint stability. Journal of Biomechanics, 2005, 38, 973-980.	2.1	67
18	Long-term safety and effects of tesamorelin, a growth hormone-releasing factor analogue, in HIV patients with abdominal fat accumulation. Aids, 2008, 22, 1719-1728.	2.2	54

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19	ISSLS Prize Winner. Spine, 2011, 36, 1728-1736.	2.0	54
20	Physiological characterization of the high malic acid-producing Aspergillus oryzae strain 2103a-68. Applied Microbiology and Biotechnology, 2014, 98, 3517-3527.	3.6	53
21	The intrinsic stiffness of the in vivo lumbar spine in response to quick releases: Implications for reflexive requirements. Journal of Electromyography and Kinesiology, 2009, 19, 727-736.	1.7	52
22	Muscle forceâ€“stiffness characteristics influence joint stability: A spine example. Clinical Biomechanics, 2005, 20, 917-922.	1.2	51
23	Migratory connectivity of Semipalmated Sandpipers and implications for conservation. Condor, 2017, 119, 207-224.	1.6	50
24	Architectural Analysis of Human Abdominal Wall Muscles. Spine, 2010, 36, 1.	2.0	47
25	NGX-4010, a capsaicin 8% patch, for the treatment of painful HIV-associated distal sensory polyneuropathy: integrated analysis of two phase III, randomized, controlled trials. AIDS Research and Therapy, 2013, 10, 5.	1.7	46
26	A community study in Cornwall UK of sudden unexpected death in epilepsy (SUDEP) in a 9-year population sample. Seizure: the Journal of the British Epilepsy Association, 2014, 23, 382-385.	2.0	46
27	Paraspinal muscle pathophysiology associated with low back pain and spine degenerative disorders. JOR Spine, 2021, 4, e1171.	3.2	44
28	A direct comparison of spine rotational stiffness and dynamic spine stability during repetitive lifting tasks. Journal of Biomechanics, 2012, 45, 1593-1600.	2.1	41
29	Co-activation alters the linear versus non-linear impression of the EMGâ€“torque relationship of trunk muscles. Journal of Biomechanics, 2008, 41, 491-497.	2.1	40
30	Trunk muscle responses to suddenly applied loads: Do individuals who develop discomfort during prolonged standing respond differently?. Journal of Electromyography and Kinesiology, 2008, 18, 495-502.	1.7	40
31	How the inherent stiffness of the in vivo human trunk varies with changing magnitudes of muscular activation. Clinical Biomechanics, 2008, 23, 15-22.	1.2	39
32	Passive mechanical properties of rat abdominal wall muscles suggest an important role of the extracellular connective tissue matrix. Journal of Orthopaedic Research, 2012, 30, 1321-1326.	2.3	36
33	Live births in women with recurrent hydatidiform mole and two NLRP7 mutations. Reproductive BioMedicine Online, 2015, 31, 120-124.	2.4	36
34	The responses of leg and trunk muscles to sudden unloading of the hands: implications for balance and spine stability. Clinical Biomechanics, 2003, 18, 812-820.	1.2	35
35	Transmission of Muscularly Generated Force and Stiffness Between Layers of the Rat Abdominal Wall. Spine, 2009, 34, E70-E75.	2.0	35
36	The Effects of Experimentally Induced Low Back Pain on Spine Rotational Stiffness and Local Dynamic Stability. Annals of Biomedical Engineering, 2015, 43, 2120-2130.	2.5	35

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37	Vertebral end-plate fractures as a result of high rate pressure loading in the nucleus of the young adult porcine spine. Journal of Biomechanics, 2008, 41, 122-127.	2.1	33
38	Chronic Nicotine Blunts Hypoxic Sensitivity in Perinatal Rat Adrenal Chromaffin Cells via Upregulation of KATP Channels: Role of Â7 Nicotinic Acetylcholine Receptor and Hypoxia-Inducible Factor-2Â. Journal of Neuroscience, 2009, 29, 7137-7147.	3.6	33
39	Chronic nicotine in utero selectively suppresses hypoxic sensitivity in neonatal rat adrenal chromaffin cells. FASEB Journal, 2008, 22, 1317-1326.	0.5	32
40	Isokinetic Leg Strength Profile of Elite Male Basketball Players. Journal of Strength and Conditioning Research, 2009, 23, 1332-1337.	2.1	31
41	Exploring the geometric and mechanical characteristics of the spine musculature to provide rotational stiffness to two spine joints in the neutral posture. Human Movement Science, 2007, 26, 113-123.	1.4	29
42	Effect of methotrexate on JAK/STAT pathway activation in myeloproliferative neoplasms. Lancet, The, 2015, 385, S98.	13.7	26
43	Highâ€pass filtering surface EMG in an attempt to better represent the signals detected at the intramuscular level. Muscle and Nerve, 2010, 41, 234-239.	2.2	25
44	Architectural and morphological assessment of rat abdominal wall muscles: comparison for use as a human model. Journal of Anatomy, 2010, 217, 196-202.	1.5	25
45	The effects of trunk extensor and abdominal muscle fatigue on postural control and trunk proprioception in young, healthy individuals. Human Movement Science, 2018, 57, 13-20.	1.4	24
46	Mercury exposure and risk in breeding and staging Alaskan shorebirds. Condor, 2016, 118, 571-582.	1.6	23
47	Architectural analysis and predicted functional capability of the human latissimus dorsi muscle. Journal of Anatomy, 2013, 223, 112-122.	1.5	22
48	The effect of unstable loading versus unstable support conditions on spine rotational stiffness and spine stability during repetitive lifting. Journal of Biomechanics, 2014, 47, 491-496.	2.1	21
49	The relationship between trunk muscle activation and trunk stiffness: examining a non-constant stiffness gain. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 829-835.	1.6	20
50	Comparison of Different Rowing Exercises: Trunk Muscle Activation and Lumbar Spine Motion, Load, and Stiffness. Journal of Strength and Conditioning Research, 2009, 23, 350-358.	2.1	19
51	Loss of <scp>ALDH</scp>18A1 function is associated with a cellular lipid droplet phenotype suggesting a link between autosomal recessive cutis laxa type 3A and Warburg Micro syndrome. Molecular Genetics & Genomic Medicine, 2014, 2, 319-325.	1.2	19
52	The magnitude of muscular activation of four canine forelimb muscles in dogs performing two agility-specific tasks. BMC Veterinary Research, 2016, 13, 68.	1.9	19
53	Targeting Accuracy of Image-Guided Radiosurgery for Intracranial Lesions. Technology in Cancer Research and Treatment, 2016, 15, 243-248.	1.9	19
54	Paraspinal Muscle Passive Stiffness Remodels in Direct Response to Spine Stiffness. Spine, 2017, 42, 1440-1446.	2.0	19

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55	Kinesio taping influences the mechanical behaviour of the skin of the low back: A possible pathway for functionally relevant effects. Journal of Biomechanics, 2018, 67, 150-156.	2.1	19
56	Viscoelastic creep induced by repetitive spine flexion and its relationship to dynamic spine stability. Journal of Electromyography and Kinesiology, 2013, 23, 794-800.	1.7	18
57	Order of Orifices. Journal of Acquired Immune Deficiency Syndromes (1999), 2014, 67, 424-429.	2.1	18
58	MRI-based relationships between spine pathology, intervertebral disc degeneration, and muscle fatty infiltration in chondrodystrophic and non-chondrodystrophic dogs. Spine Journal, 2015, 15, 2433-2439.	1.3	18
59	Age-related changes in human single muscle fibre passive elastic properties are sarcomere length dependent. Experimental Gerontology, 2020, 137, 110968.	2.8	18
60	A Practical Approach to Genetic Inducible Fate Mapping: A Visual Guide to Mark and Track Cells In Vivo. Journal of Visualized Experiments, 2009, , .	0.3	17
61	Spine postural change elicits localized skin structural deformation of the trunk dorsum in vivo. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 67, 31-39.	3.1	17
62	Tactile cues can change movement: An example using tape to redistribute flexion from the lumbar spine to the hips and knees during lifting. Human Movement Science, 2018, 60, 32-39.	1.4	17
63	Low back skin sensitivity has minimal impact on active lumbar spine proprioception and stability in healthy adults. Experimental Brain Research, 2016, 234, 2215-2226.	1.5	16
64	Discriminating spatiotemporal movement strategies during spine flexion-extension in healthy individuals. Spine Journal, 2019, 19, 1264-1275.	1.3	16
65	Recurrent Pregnancy Loss in a Woman With NLRP7 Mutation. International Journal of Gynecological Pathology, 2013, 32, 399-405.	1.4	15
66	Athletic background is related to superior trunk proprioceptive ability, postural control, and neuromuscular responses to sudden perturbations. Human Movement Science, 2017, 52, 74-83.	1.4	15
67	Characterization of the passive mechanical properties of spine muscles across species. Journal of Biomechanics, 2019, 88, 173-179.	2.1	15
68	An ultrasound investigation into the morphology of the human abdominal wall uncovers complex deformation patterns during contraction. European Journal of Applied Physiology, 2008, 104, 1021-1030.	2.5	14
69	On the use of a Euclidean norm function for the estimation of local dynamic stability from 3D kinematics using time-delayed Lyapunov analyses. Medical Engineering and Physics, 2016, 38, 1139-1145.	1.7	14
70	Borderline personality disorder and sensory processing impairment. Progress in Neurology and Psychiatry, 2009, 13, 10-16.	0.9	13
71	Exploring the effect of repeated-day familiarization on the ability to generate reliable maximum voluntary muscle activation. Journal of Electromyography and Kinesiology, 2012, 22, 886-892.	1.7	13
72	Sarcomere length organization as a design for cooperative function amongst all lumbar spine muscles. Journal of Biomechanics, 2014, 47, 3087-3093.	2.1	13

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73	Deficits in foot skin sensation are related to alterations in balance control in chronic low back patients experiencing clinical signs of lumbar nerve root impingement. Gait and Posture, 2015, 41, 923-928.	1.4	13
74	Ageing reduces light touch and vibrotactile sensitivity on the anterior lower leg and foot dorsum. Experimental Gerontology, 2017, 99, 1-6.	2.8	13
75	Development of a Novel Technique to Record 3D Intersegmental Angular Kinematics During Dynamic Spine Movements. Annals of Biomedical Engineering, 2018, 46, 298-309.	2.5	13
76	Experimental validation of a novel spine model demonstrates the large contribution of passive muscle to the flexion relaxation phenomenon. Journal of Biomechanics, 2020, 102, 109431.	2.1	13
77	Mechanically relevant consequences of the composite laminate-like design of the abdominal wall muscles and connective tissues. Medical Engineering and Physics, 2012, 34, 521-523.	1.7	12
78	Do institutional logics predict interpretation of contract rules at the dental chair-side?. Social Science and Medicine, 2014, 122, 81-89.	3.8	12
79	Muscle activation timing and balance response in chronic lower back pain patients with associated radiculopathy. Clinical Biomechanics, 2016, 32, 124-130.	1.2	12
80	Pressure-induced end-plate fracture in the porcine spine: Is the annulus fibrosus susceptible to damage?. European Spine Journal, 2018, 27, 1767-1774.	2.2	12
81	The effect of short duration low back vibration on pain developed during prolonged standing. Applied Ergonomics, 2018, 67, 246-251.	3.1	12
82	HDAC4 is expressed on multiple T cell lineages but dispensable for their development and function. Oncotarget, 2017, 8, 17562-17572.	1.8	12
83	Local Dynamic Stability of Spine Muscle Activation and Stiffness Patterns During Repetitive Lifting. Journal of Biomechanical Engineering, 2014, 136, 121006.	1.3	11
84	Electromyographic assessment of isometric and dynamic activation characteristics of the latissimus dorsi muscle. Journal of Electromyography and Kinesiology, 2014, 24, 430-436.	1.7	11
85	Estimating Gait Stability: Asymmetrical Loading Effects Measured Using Margin of Stability and Local Dynamic Stability. Journal of Motor Behavior, 2016, 48, 455-467.	0.9	11
86	Differential effects of muscle fatigue on dynamic spine stability: Implications for injury risk. Journal of Electromyography and Kinesiology, 2018, 43, 209-216.	1.7	11
87	Strength limitations to proper child safety seat installation: Implications for child safety. Applied Ergonomics, 2009, 40, 617-621.	3.1	10
88	Effects of changes in muscle activation level and spine and hip posture on erector spinae fiber orientation. Muscle and Nerve, 2015, 51, 426-433.	2.2	10
89	Neuromuscular ultrasound imaging in low back pain patients withÂradiculopathy. Manual Therapy, 2016, 21, 83-88.	1.6	10
90	Effect of short-term application of kinesio tape on the flexion-relaxation phenomenon, trunk postural control and trunk repositioning in healthy females. Journal of Sports Sciences, 2016, 34, 862-870.	2.0	10

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91	Training Induced Changes to Skeletal Muscle Passive Properties Are Evident in Both Single Fibers and Fiber Bundles in the Rat Hindlimb. Frontiers in Physiology, 2020, 11, 907.	2.8	10
92	Decreasing the required lumbar extensor moment induces earlier onset of flexion relaxation. Journal of Electromyography and Kinesiology, 2016, 30, 38-45.	1.7	9
93	Spine Posture Influences Tactile Perceptual Sensitivity of the Trunk Dorsum. Annals of Biomedical Engineering, 2017, 45, 2804-2812.	2.5	9
94	Modifiability of residual force depression in single muscle fibers following uphill and downhill training in rats. Physiological Reports, 2021, 9, e14725.	1.7	9
95	Fiber Type and Size as Sources of Variation in Human Single Muscle Fiber Passive Elasticity. Journal of Biomechanical Engineering, 2020, 142, .	1.3	9
96	Investigation of the passive mechanical properties of spine muscles following disruption of the thoracolumbar fascia and erector spinae aponeurosis, as well as facet injury in a rat. Spine Journal, 2018, 18, 682-690.	1.3	8
97	The effect of reducing the number of EMG channel inputs on loading and stiffness estimates from an EMG-driven model of the spine. Ergonomics, 2007, 50, 743-751.	2.1	7
98	The effect of elbow flexor fatigue on spine kinematics and muscle activation in response to sudden loading at the hands. Journal of Electromyography and Kinesiology, 2015, 25, 392-399.	1.7	7
99	Muscular workload of veterinary students during simulated open and laparoscopic surgery: A pilot study*. Veterinary Surgery, 2017, 46, 868-878.	1.0	7
100	Tactile Feedback can be Used to Redistribute Flexion Motion Across Spine Motion Segments. Annals of Biomedical Engineering, 2018, 46, 789-800.	2.5	7
101	Effects of foot position on skin structural deformation. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 240-248.	3.1	7
102	Dysfunctional paraspinal muscles in adult spinal deformity patients lead to increased spinal loading. European Spine Journal, 2022, 31, 2383-2398.	2.2	7
103	Importance of sarcomere length when determining muscle physiological cross-sectional area: A spine example. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 384-388.	1.8	6
104	Factors to consider in identifying critical points in lumbar spine flexion relaxation. Journal of Electromyography and Kinesiology, 2015, 25, 914-918.	1.7	6
105	Distinguishing between typical and atypical motion patterns amongst healthy individuals during a constrained spine flexion task. Journal of Biomechanics, 2019, 86, 89-95.	2.1	6
106	Characterizing Local Dynamic Stability of Lumbar Spine Sub-regions During Repetitive Trunk Flexion-Extension Movements. Frontiers in Sports and Active Living, 2019, 1, 48.	1.8	6
107	Brace yourself: How abdominal bracing affects intersegmental lumbar spine kinematics in response to sudden loading. Journal of Electromyography and Kinesiology, 2020, 54, 102451.	1.7	6
108	Paraspinal Muscle Contractile Function is Impaired in the ENT1-deficient Mouse Model of Progressive Spine Pathology. Spine, 2021, 46, E710-E718.	2.0	6

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109	Local Dynamic Joint Stability During Human Treadmill Walking in Response to Lower Limb Segmental Loading Perturbations. Journal of Biomechanical Engineering, 2015, 137, .	1.3	5
110	A Systematic Analysis of Errors in Target Localization and Treatment Delivery for Stereotactic Radiosurgery Using 2D/3D Image Registration. Technology in Cancer Research and Treatment, 2017, 16, 321-331.	1.9	5
111	Experimentally induced neck pain causes a decrease in thoracic but not lumbar spine stability. Journal of Biomechanics, 2019, 90, 78-83.	2.1	5
112	Influence of creep deformation on sub-regional lumbar spine motion during manual lifting. Ergonomics, 2020, 63, 1304-1311.	2.1	5
113	Experimentally induced spine osteoarthritis in rats leads to neurogenic inflammation within neurosegmentally linked myotomes. Experimental Gerontology, 2021, 149, 111311.	2.8	5
114	Larger muscle fibers and fiber bundles manifest smaller elastic modulus in paraspinal muscles of rats and humans. Scientific Reports, 2021, 11, 18565.	3.3	5
115	Acute Experimentally Induced Neck Pain Does Not Affect Fatigability of the Peripheral Biceps Brachii Muscle. Motor Control, 2014, 18, 395-404.	0.6	4
116	A Comparison of the Sensitivity of Brush Allodynia and Semmesâ€“Weinstein Monofilament Testing in the Detection of Allodynia Within Regions of Secondary Hyperalgesia in Humans. Pain Practice, 2017, 17, 16-24.	1.9	4
117	Increased Substance P Immunoreactivity in Ipsilateral Knee Cartilage of Rats Exposed to Lumbar Spine Injury. Cartilage, 2020, 11, 251-261.	2.7	4
118	Cutaneous Sensitivity Across Regions of the Foot Sole and Dorsum are Influenced by Foot Posture. Frontiers in Bioengineering and Biotechnology, 2021, 9, 744307.	4.1	4
119	The Effect of Posterior Lumbar Spinal Surgery on Biomechanical Properties of Rat Paraspinal Muscles 13â€ŠWeeks After Surgery. Spine, 2021, 46, E1125-E1135.	2.0	3
120	Think about it: Cognitive-motor dual-tasking affects sub-regional spine responses to unexpected trunk perturbations. Human Movement Science, 2021, 76, 102766.	1.4	3
121	The effect of vertebral level on biomechanical properties of the lumbar paraspinal muscles in a rat model. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104446.	3.1	3
122	Influence of back muscle fatigue on dynamic lumbar spine stability and coordination variability of the thorax-pelvis during repetitive flexionâ€“extension movements. Journal of Biomechanics, 2022, 133, 110959.	2.1	3
123	Torso and Hip Muscle Activity and Resulting Spine Load and Stability while Using the ProFitter 3-D Cross Trainer. Journal of Applied Biomechanics, 2009, 25, 73-84.	0.8	2
124	Radiobiologically optimized couch shift: A new localization paradigm using coneâ€beam CT for prostate radiotherapy. Medical Physics, 2015, 42, 6028-6032.	3.0	2
125	The Effect of Contralateral Submaximal Contraction on the Development of Biceps Brachii Muscle Fatigue. Human Factors, 2015, 57, 461-470.	3.5	2
126	Time course of the acute effects of core stabilisation exercise on seated postural control. Sports Biomechanics, 2018, 17, 1-8.	1.6	2

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127	The Influence of Countermovements on Inter-Segmental Coordination and Mechanical Energy Transfer during Vertical Jumping. Journal of Motor Behavior, 2020, 53, 1-13.	0.9	2
128	A validated approach for collecting fine-wire electromyographic recordings in four canine shoulder muscles during highly dynamic tasks. Comparative Exercise Physiology, 2015, 11, 65-74.	0.6	1
129	The effect of different ranges of motion on local dynamic stability of the elbow during unloaded repetitive flexionâ€“extension movements. Human Movement Science, 2015, 42, 193-202.	1.4	1
130	Investigating how combined multifidus injury and facet joint compression influence changes in surrounding muscles and facet degeneration in the rat. European Spine Journal, 2021, 30, 2613-2621.	2.2	1
131	Investigating the active contractile function of the rat paraspinal muscles reveals unique cross-bridge kinetics in the multifidus. European Spine Journal, 2022, 31, 783-791.	2.2	1
132	Fales Hot Springs: A case study in renewable augmented net zero energy. Electricity Journal, 2016, 29, 59-70.	2.5	0
133	Variations of handheld loads increase the range of motion of the lumbar spine without compromising local dynamic stability during walking. Gait and Posture, 2018, 66, 101-106.	1.4	0