Jess G Snedeker

List of Publications by Year
in descending order

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154 papers	5,736 citations	81743 39 h-index	102304 66 g-index
161 all docs	161 docs citations	161 times ranked	6701 citing authors

#	Article	IF	Citations
1	Tendon injury and repair â€“ A perspective on the basic mechanisms of tendon disease and future clinical therapy. Acta Biomaterialia, 2017, 63, 18-36.	4.1	262
2	Advanced glycation end-products: Mechanics of aged collagen from molecule to tissue. Matrix Biology, 2017, 59, 95-108.	1.5	186
3	Supraspinatus tendon load during abduction is dependent on the size of the critical shoulder angle: A biomechanical analysis. Journal of Orthopaedic Research, 2014, 32, 952-957.	1.2	185
4	Advanced glycation end-products diminish tendon collagen fiber sliding. Matrix Biology, 2013, 32, 169-177.	1.5	170
5	A novel concept for scaffold-free vessel tissue engineering: Self-assembly of microtissue building blocks. Journal of Biotechnology, 2010, 148, 46-55.	1.9	162
6	Misalignment of Total Ankle Components Can Induce High Joint Contact Pressures. Journal of Bone and Joint Surgery - Series A, 2010, 92, 1179-1187.	1.4	159
7	Biochemical and biomechanical gradients for directed bone marrow stromal cell differentiation toward tendon and bone. Biomaterials, 2010, 31, 7695-7704.	5.7	137
8	Evidence against proteoglycan mediated collagen fibril load transmission and dynamic viscoelasticity in tendon. Matrix Biology, 2009, 28, 503-510.	1.5	135
9	Mechanical force induces mitochondrial fission. ELife, 2017, 6, .	2.8	125
10	Pedicle screw navigation using surface digitization on the Microsoft HoloLens. International Journal of Computer Assisted Radiology and Surgery, 2019, 14, 1157-1165.	1.7	118
11	Advanced Glycation End-Products Reduce Collagen Molecular Sliding to Affect Collagen Fibril Damage Mechanisms but Not Stiffness. PLoS ONE, 2014, 9, e110948.	1.1	113
12	Strain-rate dependent material properties of the porcine and human kidney capsule. Journal of Biomechanics, 2005, 38, 1011-1021.	0.9	106
13	Dose- and time-dependent effects of genipin crosslinking on cell viability and tissue mechanics â€“ Toward clinical application for tendon repair. Acta Biomaterialia, 2014, 10, 1897-1906.	4.1	105
14	Elastography: modality-specific approaches, clinical applications, and research horizons. Skeletal Radiology, 2011, 40, 389-397.	1.2	102
15	Tendon glycosaminoglycan proteoglycan sidechains promote collagen fibril slidingâ€”AFM observations at the nanoscale. Journal of Biomechanics, 2013, 46, 813-818.	0.9	102
16	Local strain measurement reveals a varied regional dependence of tensile tendon mechanics on glycosaminoglycan content. Journal of Biomechanics, 2009, 42, 1547-1552.	0.9	101
17	Equivalent stiffness after glycosaminoglycan depletion in tendon â€” an ultra-structural finite element model and corresponding experiments. Journal of Theoretical Biology, 2011, 268, 77-83.	0.8	96
18	Pelvic incidenceâ€“lumbar lordosis mismatch results in increased segmental joint loads in the unfused and fused lumbar spine. European Spine Journal, 2014, 23, 1384-1393.	1.0	81

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19	Suitability of Thiel embalmed tendons for biomechanical investigation. Annals of Anatomy, 2011, 193, 237-241.	1.0	74
20	The role of collagen crosslinks in ageing and diabetes - the good, the bad, and the ugly. Muscles, Ligaments and Tendons Journal, 0, , .	0.1	73
21	Macromechanics and polycaprolactone fiber organization drive macrophage polarization and regulate inflammatory activation of tendon in vitro and in vivo. Biomaterials, 2020, 249, 120034.	5.7	71
22	Substrate fiber alignment mediates tendon cell response to inflammatory signaling. Acta Biomaterialia, 2018, 71, 306-317.	4.1	70
23	Influence of component positioning on impingement in conventional total shoulder arthroplasty. Clinical Biomechanics, 2008, 23, 175-183.	0.5	68
24	Strain energy density as a rupture criterion for the kidney: impact tests on porcine organs, finite element simulation, and a baseline comparison between human and porcine tissues. Journal of Biomechanics, 2005, 38, 993-1001.	0.9	64
25	A larger critical shoulder angle requires more rotator cuff activity to preserve joint stability. Journal of Orthopaedic Research, 2016, 34, 961-968.	1.2	64
26	Paracrine Interactions between Mesenchymal Stem Cells Affect Substrate Driven Differentiation toward Tendon and Bone Phenotypes. PLoS ONE, 2012, 7, e31504.	1.1	63
27	Differences between the Cell Populations from the Peritenon and the Tendon Core with Regard to Their Potential Implication in Tendon Repair. PLoS ONE, 2014, 9, e92474.	1.1	61
28	Biomaterial surface modifications can dominate cellâ€“substrate mechanics: the impact of PDMS plasma treatment on a quantitative assay of cell stiffness. Soft Matter, 2012, 8, 673-681.	1.2	59
29	Computer assisted reconstruction of complex proximal humerus fractures for preoperative planning. Medical Image Analysis, 2012, 16, 704-720.	7.0	58
30	Biomaterial surface energy-driven ligand assembly strongly regulates stem cell mechanosensitivity and fate on very soft substrates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4631-4636.	3.3	57
31	Shear-stress sensing by PIEZO1 regulates tendon stiffness in rodents and influences jumping performance in humans. Nature Biomedical Engineering, 2021, 5, 1457-1471.	11.6	54
32	Mechanical response of individual collagen fibrils in loaded tendon as measured by atomic force microscopy. Journal of Structural Biology, 2011, 176, 9-15.	1.3	52
33	Biomechanical contribution of spinal structures to stability of the lumbar spineâ€”novel biomechanical insights. Spine Journal, 2020, 20, 1705-1716.	0.6	51
34	Genetically Modified Mesenchymal Stem Cells Induce Mechanically Stable Posterior Spine Fusion. Tissue Engineering - Part A, 2010, 16, 3679-3686.	1.6	50
35	Potential of collagen cross-linking therapies to mediate tendon mechanical properties. Journal of Shoulder and Elbow Surgery, 2012, 21, 209-217.	1.2	50
36	An integrated model of active glenohumeral stability. Journal of Biomechanics, 2012, 45, 2248-2255.	0.9	49

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37	Collagen fibril morphology and mechanical properties of the Achilles tendon in two inbred mouse strains. Journal of Anatomy, 2010, 216, 724-731.	0.9	48
38	Elastic and surgeon friendly electrospun tubes delivering PDGF-BB positively impact tendon rupture healing in a rabbit Achilles tendon model. Biomaterials, 2020, 232, 119722.	5.7	46
39	Glenohumeral joint reaction forces increase with critical shoulder angles representative of osteoarthritisâ€"A biomechanical analysis. Journal of Orthopaedic Research, 2016, 34, 1047-1052.	1.2	45
40	Notchâ€inducing hydrogels reveal a perivascular switch of mesenchymal stem cell fate. EMBO Reports, 2018, 19, .	2.0	43
41	Intervertebral reaction force prediction using an enhanced assembly of OpenSim models. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 538-548.	0.9	42
42	Mechanical Characterization of the Liver Capsule and Parenchyma. Lecture Notes in Computer Science, 2006, , 150-158.	1.0	41
43	Tissue composition regulates distinct viscoelastic responses in auricular and articular cartilage. Journal of Biomechanics, 2016, 49, 344-352.	0.9	41
44	Biomechanics of the Normal and Arthritic Ankle Joint. Foot and Ankle Clinics, 2012, 17, 517-528.	0.5	40
45	Exogenous collagen crossâ€linking recovers tendon functional integrity in an experimental model of partial tear. Journal of Orthopaedic Research, 2012, 30, 973-981.	1.2	40
46	The relationship between metastatic potential and in vitro mechanical properties of osteosarcoma cells. Molecular Biology of the Cell, 2019, 30, 887-898.	0.9	39
47	High-resolution traction force microscopy on small focal adhesions - improved accuracy through optimal marker distribution and optical flow tracking. Scientific Reports, 2017, 7, 41633.	1.6	38
48	Tissue alignment enhances remodeling potential of tendon-derived cells - Lessons from a novel microtissue model of tendon scarring. Matrix Biology, 2018, 65, 14-29.	1.5	38
49	Smad8/BMP2â€engineered mesenchymal stem cells induce accelerated recovery of the biomechanical properties of the achilles tendon. Journal of Orthopaedic Research, 2012, 30, 1932-1939.	1.2	37
50	Mesenchymal stromal cell activation by breast cancer secretomes in bioengineered 3D microenvironments. Life Science Alliance, 2019, 2, e201900304.	1.3	37
51	Tendon response to matrix unloading is determined by the patho-physiological niche. Matrix Biology, 2020, 89, 11-26.	1.5	36
52	A novel silkâ€"TCPâ€"PEEK construct for anterior cruciate ligament reconstruction: an off-the shelf alternative to a boneâ€"tendonâ€"bone autograft. Biofabrication, 2014, 6, 015010.	3.7	35
53	A novel silk-based artificial ligament and tricalcium phosphate/polyether ether ketone anchor for anterior cruciate ligament reconstruction â€" Safety and efficacy in a porcine model. Acta Biomaterialia, 2014, 10, 3696-3704.	4.1	34
54	Osteosarcoma-Derived Extracellular Vesicles Induce Lung Fibroblast Reprogramming. International Journal of Molecular Sciences, 2020, 21, 5451.	1.8	34

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55	Tendon explant models for physiologically relevantinvitrostudy of tissue biology â€“ a perspective. Connective Tissue Research, 2020, 61, 262-277.	1.1	34
56	Surfaceâ€Driven Collagen Selfâ€Assembly Affects Early Osteogenic Stem Cell Signaling. Advanced Healthcare Materials, 2016, 5, 1481-1492.	3.9	33
57	Numerical modelling of the shoulder for clinical applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2095-2118.	1.6	32
58	A novel method for assessing adherent single-cell stiffness in tension: design and testing of a substrate-based live cell functional imaging device. Biomedical Microdevices, 2011, 13, 291-301.	1.4	32
59	Wired silk architectures provide a biomimetic ACL tissue engineering scaffold. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 22, 30-40.	1.5	32
60	Kinematics of the Spine Under Healthy and Degenerative Conditions: A Systematic Review. Annals of Biomedical Engineering, 2019, 47, 1491-1522.	1.3	31
61	Extracellular Matrix Production by Mesenchymal Stromal Cells in Hydrogels Facilitates Cell Spreading and Is Inhibited by FGFâ€2. Advanced Healthcare Materials, 2020, 9, 1901669.	3.9	31
62	Influence of Resection Geometry on Fracture Risk in the Treatment of Femoroacetabular Impingement. American Journal of Sports Medicine, 2012, 40, 2002-2008.	1.9	30
63	Two-month longitudinal study of mechanical properties of absorbable sutures used in orthopedic surgery. Journal of Orthopaedic Surgery and Research, 2016, 11, 111.	0.9	30
64	Tendon tissue microdamage and the limits of intrinsic repair. Matrix Biology, 2020, 85-86, 68-79.	1.5	30
65	Loading Patterns of the Posterior Cruciate Ligament in the Healthy Knee: A Systematic Review. PLoS ONE, 2016, 11, e0167106.	1.1	29
66	Cytoskeleton reorganization of spreading cellsÂon micro-patterned islands: a functional model. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2629-2652.	1.6	28
67	Further characterisation of an experimental model of tendinopathy in the horse. Equine Veterinary Journal, 2013, 45, 642-648.	0.9	28
68	Minimal mechanical load and tissue culture conditions preserve native cell phenotype and morphology in tendonâ€”a novel ex vivo mouse explant model. Journal of Orthopaedic Research, 2018, 36, 1383-1390.	1.2	28
69	Ultrasound-Mediated Gene Delivery Enhances Tendon Allograft Integration in Mini-Pig Ligament Reconstruction. Molecular Therapy, 2018, 26, 1746-1755.	3.7	28
70	Prevention of Peritendinous Adhesions Using an Electrospun DegraPol Polymer Tube: A Histological, Ultrasonographic, and Biomechanical Study in Rabbits. BioMed Research International, 2014, 2014, 1-11.	0.9	27
71	Fusion angle affects intervertebral adjacent spinal segment joint forcesâ€”Modelâ€based analysis of patient specific alignment. Journal of Orthopaedic Research, 2017, 35, 131-139.	1.2	27
72	HoloYolo: A proofâ€ofâ€concept study for markerâ€less surgical navigation of spinal rod implants with augmented reality and onâ€device machine learning. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, 1-10.	1.2	27

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73	Bioactive polyacrylamide hydrogels with gradients in mechanical stiffness. Biotechnology and Bioengineering, 2013, 110, 1508-1519.	1.7	26
74	Macrophage Polarization by Titanium Dioxide (TiO₂) Particles: Size Matters. ACS Biomaterials Science and Engineering, 2016, 2, 908-919.	2.6	26
75	The creation of a high-fidelity finite element model of the kidney for use in trauma research. Computer Animation and Virtual Worlds, 2002, 13, 53-64.	0.9	25
76	Biomechanical consequences of first metatarsal osteotomy in treating hallux valgus. Clinical Biomechanics, 2010, 25, 721-727.	0.5	25
77	The miRâ€143/145 Cluster, a Novel Diagnostic Biomarker in Chondrosarcoma, Acts as a Tumor Suppressor and Directly Inhibits Fascinâ€1. Journal of Bone and Mineral Research, 2020, 35, 1077-1091.	3.1	25
78	Load-induced regulation of tendon homeostasis by SPARC, a genetic predisposition factor for tendon and ligament injuries. Science Translational Medicine, 2021, 13, .	5.8	25
79	Friction between finger flexor tendons and the pulley system in the crimp grip position. Clinical Biomechanics, 2009, 24, 20-25.	0.5	24
80	Fascin-1 enhances experimental osteosarcoma tumor formation and metastasis and is related to poor patient outcome. BMC Cancer, 2019, 19, 83.	1.1	23
81	Feasibility of the annulus fibrosus repair with in situ gelating hydrogels â€“ A biomechanical study. PLoS ONE, 2018, 13, e0208460.	1.1	22
82	Exploring the Role of Osteosarcoma-Derived Extracellular Vesicles in Pre-Metastatic Niche Formation and Metastasis in the 143-B Xenograft Mouse Osteosarcoma Model. Cancers, 2020, 12, 3457.	1.7	22
83	Endoscopic cellular microscopy for in vivo biomechanical assessment of tendon function. Journal of Biomedical Optics, 2006, 11, 064010.	1.4	21
84	Cross-links in posterior pedicle screw-rod instrumentation of the spine: a systematic review on mechanical, biomechanical, numerical and clinical studies. European Spine Journal, 2021, 30, 34-49.	1.0	21
85	Automated muscle wrapping using finite element contact detection. Journal of Biomechanics, 2010, 43, 1931-1940.	0.9	20
86	Tendon Collagen Crosslinking Offers Potential to Improve Suture Pullout in Rotator Cuff Repair: An Ex Vivo Sheep Study. Clinical Orthopaedics and Related Research, 2016, 474, 1778-1785.	0.7	20
87	TRPV4 Inhibition and CRISPR-Cas9 Knockout Reduce Inflammation Induced by Hyperphysiological Stretching in Human Annulus Fibrosus Cells. Cells, 2020, 9, 1736.	1.8	20
88	An Analytical Model for Elucidating Tendon Tissue Structure and Biomechanical Function from in vivo Cellular Confocal Microscopy Images. Cells Tissues Organs, 2009, 190, 111-119.	1.3	19
89	Rabbit Achilles tendon full transection model â€“ wound healing, adhesion formation and biomechanics at 3, 6 and 12â€…weeks post-surgery. Biology Open, 2016, 5, 1324-1333.	0.6	19
90	Effect of Angular Deformities of the Proximal Femur on Impingement-Free Hip Range of Motion in a Three-Dimensional Rigid Body Model. HIP International, 2015, 25, 574-580.	0.9	18

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91	An automatic genetic algorithm framework for the optimization of three-dimensional surgical plans of forearm corrective osteotomies. Medical Image Analysis, 2020, 60, 101598.	7.0	18
92	Individualized prediction of pedicle screw fixation strength with a finite element model. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 155-167.	0.9	17
93	Serum deprivation limits loss and promotes recovery of tenogenic phenotype in tendon cell culture systems. Journal of Orthopaedic Research, 2020, 39, 1561-1571.	1.2	17
94	Intervertebral disc degeneration relates to biomechanical changes of spinal ligaments. Spine Journal, 2021, 21, 1399-1407.	0.6	17
95	Sensitivity of intervertebral joint forces to center of rotation location and trends along its migration path. Journal of Biomechanics, 2018, 70, 140-148.	0.9	16
96	Biomechanical comparison of two biplanar and one monoplanar reconstruction techniques of the acromioclavicular joint. Archives of Orthopaedic and Trauma Surgery, 2019, 139, 779-786.	1.3	16
97	Kidney Injury: An Experimental Investigation of Blunt Renal Trauma. Journal of Trauma, 2006, 60, 880-884.	2.3	15
98	Functional Fibered Confocal Microscopy: A Promising Tool for Assessing Tendon Regeneration. Tissue Engineering - Part C: Methods, 2009, 15, 485-491.	1.1	14
99	In vitro assessments of reverse glenoid stability using displacement gages are misleading â€" Recommendations for accurate measurements of interface micromotion. Clinical Biomechanics, 2011, 26, 917-922.	0.5	14
100	Osteochondral glenoid allograft for biologic resurfacing of the glenoid: biomechanical comparison of novel design concepts. Journal of Shoulder and Elbow Surgery, 2011, 20, 909-916.	1.2	14
101	Structure of retracted tendons after staged repair following continuous traction. Knee Surgery, Sports Traumatology, Arthroscopy, 2011, 19, 2131-2137.	2.3	14
102	T1- and T2*-Mapping for Assessment of Tendon Tissue Biophysical Properties. Investigative Radiology, 2019, 54, 212-220.	3.5	14
103	3D printed clamps improve spine specimen fixation in biomechanical testing. Journal of Biomechanics, 2020, 98, 109467.	0.9	14
104	Dynamic knee valgus in competitive alpine skiers: Observation from youth to elite and influence of biological maturation. Scandinavian Journal of Medicine and Science in Sports, 2020, 30, 1212-1220.	1.3	14
105	Mechanical evaluation of electrospun poly(Îµ-caprolactone) single fibers. Materials Today Communications, 2020, 24, 101211.	0.9	13
106	Small hook thread (Quill) and soft felt internal splint to increase the primary repair strength of lacerated rabbit Achilles tendons: Biomechanical analysis and considerations for hand surgery. Clinical Biomechanics, 2011, 26, 626-631.	0.5	12
107	Detection of small tendon lesions by sonoelastographic visualization of strain profile differences: initial experiences. Skeletal Radiology, 2012, 41, 1073-1079.	1.2	12
108	Optimizing controlled laser cutting of hard tissue (bone). Automatisierungstechnik, 2018, 66, 1072-1082.	0.4	12

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109	Patellofemoral instability in trochleodysplastic knee joints and the quantitative influence of simulated trochleoplasty â€“ A finite element simulation. Clinical Biomechanics, 2021, 81, 105216.	0.5	12
110	Analysis of the Biomechanical Response of Kidneys Under Blunt Impact. Traffic Injury Prevention, 2006, 7, 171-181.	0.6	11
111	Contact pressure on ACL hamstring grafts in the bone tunnel with interference screw fixation â€” Dynamic adaptation under load. Knee, 2012, 19, 676-679.	0.8	11
112	Pull-out strength of patient-specific template-guided vs. free-hand fluoroscopically controlled thoracolumbar pedicle screws: a biomechanical analysis of a randomized cadaveric study. European Spine Journal, 2017, 26, 2865-2872.	1.0	11
113	Extrinsic Macrophages Protect While Tendon Progenitors Degrade: Insights from a Tissue Engineered Model of Tendon Compartmental Crosstalk. Advanced Healthcare Materials, 2021, 10, e2100741.	3.9	11
114	Assessment of Pelvis and Upper Leg Injury Risk in Car-Pedestrian Collisions: Comparison of Accident Statistics, Impactor Tests and a Human Body Finite Element Model. , 0, , .		11
115	Comparing the Biomechanical Response of Human and Porcine Kidneys to Blunt Trauma. Journal of Trauma, 2006, 60, 885-887.	2.3	10
116	A Comprehensive Renal Injury Concept Based on a Validated Finite Element Model of the Human Abdomen. Journal of Trauma, 2007, 62, 1240-1249.	2.3	10
117	The lever arm ratio of the rotator cuff to deltoid muscle explains and predicts pseudoparalysis of the shoulder. Bone and Joint Journal, 2018, 100-B, 1600-1608.	1.9	10
118	Can Genipin-coated Sutures Deliver a Collagen Crosslinking Agent to Improve Suture Pullout in Degenerated Tendon? An Ex Vivo Animal Study. Clinical Orthopaedics and Related Research, 2018, 476, 1104-1113.	0.7	10
119	Microstructural insight into pedestrian pelvic fracture as assessed by high-resolution computed tomography. Journal of Biomechanics, 2006, 39, 2709-2713.	0.9	9
120	Viscoelastic adaptation of tendon graft material to compression: biomechanical quantification of graft preconditioning. Archives of Orthopaedic and Trauma Surgery, 2012, 132, 1315-1320.	1.3	9
121	Easy and Accurate Mechano-profiling on Micropost Arrays. Journal of Visualized Experiments, 2015, , .	0.2	9
122	Comparison of shear wave velocity measurements assessed with two different ultrasound systems in an ex-vivo tendon strain phantom. Skeletal Radiology, 2016, 45, 1541-1551.	1.2	9
123	Inhibition of ERK 1/2 kinases prevents tendon matrix breakdown. Scientific Reports, 2021, 11, 6838.	1.6	9
124	Static and dynamic human flexor tendonâ€“pulley interaction. Journal of Biomechanics, 2009, 42, 1856-1861.	0.9	8
125	Embossing of a screw thread and TCP granules enhances the fixation strength of compressed ACL grafts with interference screws. Knee Surgery, Sports Traumatology, Arthroscopy, 2012, 20, 268-274.	2.3	8
126	Simulation and evaluation of 3D traction force microscopy. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 853-860.	0.9	8

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127	Biomechanical quantification of deadbug bridging performance in competitive alpine skiers: Reliability, reference values, and associations with skiing performance and back overuse complaints. Physical Therapy in Sport, 2020, 45, 56-62.	0.8	8
128	Numerically bridging lamellipodial and filopodial activity during cell spreading reveals a potentially novel trigger of focal adhesion maturation. Integrative Biology (United Kingdom), 2012, 4, 508-521.	0.6	7
129	Interference screws should be shorter than the hamstring tendon graft in the bone tunnel for best fixation. Knee Surgery, Sports Traumatology, Arthroscopy, 2013, 21, 584-588.	2.3	7
130	Biomechanical comparison of sagittal-parallel versus non-parallel pedicle screw placement. Acta Neurochirurgica, 2014, 156, 2147-2151.	0.9	7
131	A Time Saver: Optimization Approach for the Fully Automatic 3D Planning of Forearm Osteotomies. Lecture Notes in Computer Science, 2017, , 488-496.	1.0	7
132	The influence of muscle-tendon forces on ACL loading during jump landing: a systematic review. Muscles, Ligaments and Tendons Journal, 2017, 7, 125.	0.1	7
133	Incorporating BMP-2 and skeletal muscle to a semitendinosus autograft in an oversized tunnel yields robust bone tunnel ossification in rabbits: Toward single-step revision of failed anterior cruciate ligament reconstruction. Knee, 2018, 25, 765-773.	0.8	7
134	Spinal sagittal alignment goals based on statistical modelling and musculoskeletal simulations. Journal of Biomechanics, 2020, 102, 109621.	0.9	6
135	Assessing the effects of intratendinous genipin injections: Mechanical augmentation and spatial distribution in an ex vivo degenerative tendon model. PLoS ONE, 2020, 15, e0231619.	1.1	6
136	Pedicle screw augmentation with bone cement enforced Vicryl mesh. Journal of Orthopaedic Research, 2018, 36, 212-216.	1.2	5
137	Is a cross-connector beneficial for single level traditional or cortical bone trajectory pedicle screw instrumentation?. PLoS ONE, 2021, 16, e0253076.	1.1	5
138	Helical Cutting as a New Method for Tendon-Lengthening in Continuity. Journal of Bone and Joint Surgery - Series A, 2011, 93, 733-738.	1.4	4
139	An actin length threshold regulates adhesion maturation at the lamellipodium/lamellum interface. Integrative Biology (United Kingdom), 2013, 5, 865-876.	0.6	4
140	How High Glucose Levels Affect Tendon Homeostasis. Advances in Experimental Medicine and Biology, 2016, 920, 191-198.	0.8	4
141	The Protein Mat(ters)â€"Revealing the Biologically Relevant Mechanical Contribution of Collagen- and Fibronectin-Coated Micropatterns. ACS Applied Materials & Interfaces, 2019, 11, 41791-41798.	4.0	4
142	Biomechanical Evaluation of a Novel Loop Retention Mechanism for Cortical Graft Fixation in ACL Reconstruction. Orthopaedic Journal of Sports Medicine, 2020, 8, 232596712090432.	0.8	4
143	The nuclear envelope as a mechanostat: a central cog in the machinery of cell and tissue regulation?. BoneKEy Reports, 2014, 3, 562.	2.7	3
144	Digitalization of the IOM: A comprehensive cadaveric study for obtaining three-dimensional models and morphological properties of the forearmâ€™s interosseous membrane. Scientific Reports, 2020, 10, 6401.	1.6	3

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145	Optical feedback control loop for the precise and robust acoustic focusing of cells, micro- and nanoparticles. Lab on A Chip, 2022, 22, 2810-2819.	3.1	3
146	REGENERATION OF ANTERIOR CRUCIATE LIGAMENT WITH SILK-BASED SCAFFOLD IN PORCINE MODEL. Journal of Mechanics in Medicine and Biology, 2015, 15, 1550006.	0.3	2
147	Biomechanical comparison of the use of different surgical suture techniques for continuous loop tendon grafts preparation. Scientific Reports, 2020, 10, 538.	1.6	2
148	Hydrostatic integrity of the intervertebral disc assessed by MRI. Journal of Biomechanics, 2021, 127, 110661.	0.9	2
149	Functional microimaging: an integrated approach for advanced bone biomechanics and failure analysis. , 2006, , .		1
150	Measurement of muscle actions and foot reaction forces from crew members during entire working days on the International Space Station (ISS). AIP Conference Proceedings, 2000, , .	0.3	0
151	Tensile Mechanical Characterization of Cell Stiffness Improves Correlation to Metastatic Potential in Models of Osteosarcoma. Biophysical Journal, 2011, 100, 599a.	0.2	0
152	An Integrative Approach using Numerical Models to Bridge Spatiotemporal Interactions of Subcellular Processes: Cell Spreading. Biophysical Journal, 2011, 100, 611a-612a.	0.2	0
153	Endoscopic Functional Imaging of Partial Tendon Tearsâ€”Proof of Concept and Intraoperative Feasibility. Journal of Biomechanical Engineering, 2013, 135, 041007.	0.6	0
154	Interplay of surface hydrophobicity and ligand nanoassembly in stem cell mechanosensitivity. Frontiers in Bioengineering and Biotechnology, 0, 4, .	2.0	0