Lucas R Smith

List of Publications by Year
in descending order

40 papers	2,384 citations	236925 25 h-index	361022 35 g-index
44 all docs	44 docs citations	44 times ranked	3504 citing authors

#	Article	IF	Citations
1	Passive stiffness of fibrotic skeletal muscle in <i>mdx</i> mice relates to collagen architecture. Journal of Physiology, 2021, 599, 943-962.	2.9	40
2	Contribution of extracellular matrix components to the stiffness of skeletal muscle contractures in patients with cerebral palsy. Connective Tissue Research, 2021, 62, 287-298.	2.3	32
3	Collagen Content and Crossâ€links Scale with Passive Stiffness in Dystrophic Mouse Diaphragm, but are not Altered with Administration of Collagen Crossâ€linking Inhibitor Betaâ€aminopropionitrile. FASEB Journal, 2021, 35, .	0.5	0
4	A mutation in desmin makes skeletal muscle less vulnerable to acute muscle damage after eccentric loading in rats. FASEB Journal, 2021, 35, e21860.	0.5	8
5	Skeletal muscle progenitors are sensitive to collagen architectural features of fibril size and cross linking. American Journal of Physiology - Cell Physiology, 2021, 321, C330-C342.	4.6	17
6	Skeletal muscle explants: ex-vivo models to study cellular behavior in a complex tissue environment. Connective Tissue Research, 2020, 61, 248-261.	2.3	10
7	Distinct effects of different matrix proteoglycans on collagen fibrillogenesis and cell-mediated collagen reorganization. Scientific Reports, 2020, 10, 19065.	3.3	42
8	Impaired skeletal muscle mitochondrial bioenergetics and physical performance in chronic kidney disease. JCI Insight, 2020, 5, .	5.0	48
9	Matrix Metalloproteinase 13 from Satellite Cells is Required for Efficient Muscle Growth and Regeneration. Cellular Physiology and Biochemistry, 2020, 54, 333-353.	1.6	24
10	Functional muscle hypertrophy by increased insulinâ€like growth factor 1 does not require dysferlin. Muscle and Nerve, 2019, 60, 464-473.	2.2	4
11	Rescue of DNA damage after constricted migration reveals a mechano-regulated threshold for cell cycle. Journal of Cell Biology, 2019, 218, 2545-2563.	5.2	76
12	Constricted migration modulates stem cell differentiation. Molecular Biology of the Cell, 2019, 30, 1985-1999.	2.1	23
13	Nuclear Rupture at Sites of High Curvature Compromises Retention of DNA Repair Factors. Biophysical Journal, 2019, 116, 19a.	0.5	1
14	Mechanosensing of Solid Tumors by Cancer-Attacking Macrophages. Biophysical Journal, 2018, 114, 654a.	0.5	1
15	Mechanisms of Plastic Deformation in Collagen Networks Induced by Cellular Forces. Biophysical Journal, 2018, 114, 450-461.	0.5	108
16	Regulation of fibrosis in muscular dystrophy. Matrix Biology, 2018, 68-69, 602-615.	3.6	87
17	Nuclear rupture at sites of high curvature compromises retention of DNA repair factors. Journal of Cell Biology, 2018, 217, 3796-3808.	5.2	134
18	Stem Cell Differentiation is Regulated by Extracellular Matrix Mechanics. Physiology, 2018, 33, 16-25.	3.1	191

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19	Matrix Rigidity Myosin-II and Lamin-A Regulate Curvature Induced Nuclear Rupture Causing Repair Factor Mislocalization and DNA Damage. Biophysical Journal, 2018, 114, 515a.	0.5	0
20	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.	5.0	61
21	Matrix Mechanosensing: From Scaling Concepts in â€™Omics Data to Mechanisms in the Nucleus, Regeneration, and Cancer. Annual Review of Biophysics, 2017, 46, 295-315.	10.0	89
22	SIRPA-Inhibited, Marrow-Derived Macrophages Engorge, Accumulate, and Differentiate in Antibody-Targeted Regression of Solid Tumors. Current Biology, 2017, 27, 2065-2077.e6.	3.9	99
23	Increased collagen crossâ€linking is a signature of dystrophinâ€deficient muscle. Muscle and Nerve, 2016, 54, 71-78.	2.2	66
24	Masticatory muscles of mouse do not undergo atrophy in space. FASEB Journal, 2015, 29, 2769-2779.	0.5	19
25	Collagen content does not alter the passive mechanical properties of fibrotic skeletal muscle in<i>mdx</i>mice. American Journal of Physiology - Cell Physiology, 2014, 306, C889-C898.	4.6	105
26	Skeletal muscle changes due to cerebral palsy. , 2014, , 135-155.		1
27	Targeting latent TGFÎ² release in muscular dystrophy. Science Translational Medicine, 2014, 6, 259ra144.	12.4	41
28	SMASH â€“ semi-automatic muscle analysis using segmentation of histology: a MATLAB application. Skeletal Muscle, 2014, 4, 21.	4.2	171
29	Influencing the secretion of myogenic factors from mesenchymal stem cells. Stem Cell Research and Therapy, 2014, 5, 96.	5.5	2
30	Systems analysis of biological networks in skeletal muscle function. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2013, 5, 55-71.	6.6	56
31	Reduced satellite cell population may lead to contractures in children with cerebral palsy. Developmental Medicine and Child Neurology, 2013, 55, 264-270.	2.1	81
32	Matrix metalloproteinase 13 is a new contributor to skeletal muscle regeneration and critical for myoblast migration. American Journal of Physiology - Cell Physiology, 2013, 305, C529-C538.	4.6	53
33	Response to Letter to the Editor: â€˜Poisson's ratios in anisotropic materials at finite strains; comment on short communication by Smith et al. (2011)â€™. Journal of Biomechanics, 2012, 45, 1859-1860.	2.1	0
34	Transcriptional Abnormalities of Hamstring Muscle Contractures in Children with Cerebral Palsy. PLoS ONE, 2012, 7, e40686.	2.5	50
35	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.	2.9	353
36	Muscle extracellular matrix applies a transverse stress on fibers with axial strain. Journal of Biomechanics, 2011, 44, 1618-1620.	2.1	31

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37	Method for Decellularizing Skeletal Muscle Without Detergents or Proteolytic Enzymes. Tissue Engineering - Part C: Methods, 2011, 17, 383-389.	2.1	109
38	Novel transcriptional profile in wrist muscles from cerebral palsy patients. BMC Medical Genomics, 2009, 2, 44.	1.5	84
39	Cooperative Cross-Bridge Activation of Thin Filaments Contributes to the Frank-Starling Mechanism in Cardiac Muscle. Biophysical Journal, 2009, 96, 3692-3702.	0.5	45
40	The Effects of Force Inhibition by Sodium Vanadate on Cross-Bridge Binding, Force Redevelopment, and Ca2+ Activation in Cardiac Muscle. Biophysical Journal, 2007, 92, 4379-4390.	0.5	20