Steven R Caliari

List of Publications by Year
in descending order

32 papers	3,481 citations	331259 21 h-index	433756 31 g-index
38 all docs	38 docs citations	38 times ranked	5257 citing authors

#	Article	IF	Citations
1	A practical guide to hydrogels for cell culture. Nature Methods, 2016, 13, 405-414.	9.0	1,348
2	N-cadherin adhesive interactions modulate matrix mechanosensing and fate commitment of mesenchymal stem cells. Nature Materials, 2016, 15, 1297-1306.	13.3	262
3	Dimensionality and spreading influence MSC YAP/TAZ signaling in hydrogel environments. Biomaterials, 2016, 103, 314-323.	5.7	240
4	The effect of anisotropic collagen-GAG scaffolds and growth factor supplementation on tendon cell recruitment, alignment, and metabolic activity. Biomaterials, 2011, 32, 5330-5340.	5.7	200
5	Matching material and cellular timescales maximizes cell spreading on viscoelastic substrates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2686-E2695.	3.3	183
6	Stiffening hydrogels for investigating the dynamics of hepatic stellate cell mechanotransduction during myofibroblast activation. Scientific Reports, 2016, 6, 21387.	1.6	176
7	The development of collagen-GAG scaffold-membrane composites for tendon tissue engineering. Biomaterials, 2011, 32, 8990-8998.	5.7	127
8	Structural and Biochemical Modification of a Collagen Scaffold to Selectively Enhance MSC Tenogenic, Chondrogenic, and Osteogenic Differentiation. Advanced Healthcare Materials, 2014, 3, 1086-1096.	3.9	90
9	Spatiotemporal Control of Viscoelasticity in Phototunable Hyaluronic Acid Hydrogels. Biomacromolecules, 2019, 20, 4126-4134.	2.6	81
10	Mineralized collagen scaffolds induce hMSC osteogenesis and matrix remodeling. Biomaterials Science, 2015, 3, 533-542.	2.6	76
11	The influence of collagenâ€“glycosaminoglycan scaffold relative density and microstructural anisotropy on tenocyte bioactivity and transcriptomic stability. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 11, 27-40.	1.5	72
12	Gradually softening hydrogels for modeling hepatic stellate cell behavior during fibrosis regression. Integrative Biology (United Kingdom), 2016, 8, 720-728.	0.6	72
13	The generation of biomolecular patterns in highly porous collagen-GAG scaffolds using direct photolithography. Biomaterials, 2011, 32, 3949-3957.	5.7	71
14	Mechanically dynamic PDMS substrates to investigate changing cell environments. Biomaterials, 2017, 145, 23-32.	5.7	68
15	Composite Growth Factor Supplementation Strategies to Enhance Tenocyte Bioactivity in Aligned Collagen-GAG Scaffolds. Tissue Engineering - Part A, 2013, 19, 1100-1112.	1.6	67
16	Collagen Scaffolds Incorporating Coincident Gradations of Instructive Structural and Biochemical Cues for Osteotendinous Junction Engineering. Advanced Healthcare Materials, 2015, 4, 831-837.	3.9	54
17	The impact of discrete compartments of a multi-compartment collagenâ€“GAG scaffold on overall construct biophysical properties. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 26-36.	1.5	43
18	Collagen-GAG Scaffold Biophysical Properties Bias MSC Lineage Choice in the Presence of Mixed Soluble Signals. Tissue Engineering - Part A, 2014, 20, 2463-2472.	1.6	31

#	Article	IF	Citations
19	Aligned and electrically conductive 3D collagen scaffolds for skeletal muscle tissue engineering. Biomaterials Science, 2021, 9, 4040-4053.	2.6	31
20	Guestâ€“Host Supramolecular Assembly of Injectable Hydrogel Nanofibers for Cell Encapsulation. ACS Biomaterials Science and Engineering, 2021, 7, 4164-4174.	2.6	28
21	Temperature-Dependent Complex Coacervation of Engineered Elastin-like Polypeptide and Hyaluronic Acid Polyelectrolytes. Biomacromolecules, 2018, 19, 3925-3935.	2.6	24
22	The Combined Influence of Viscoelastic and Adhesive Cues on Fibroblast Spreading and Focal Adhesion Organization. Cellular and Molecular Bioengineering, 2021, 14, 427-440.	1.0	21
23	3D Hyaluronic Acid Hydrogels for Modeling Oligodendrocyte Progenitor Cell Behavior as a Function of Matrix Stiffness. Biomacromolecules, 2020, 21, 4962-4971.	2.6	18
24	Engineering biomaterial microenvironments to promote myelination in the central nervous system. Brain Research Bulletin, 2019, 152, 159-174.	1.4	17
25	Collagen Scaffold Arrays for Combinatorial Screening of Biophysical and Biochemical Regulators of Cell Behavior. Advanced Healthcare Materials, 2015, 4, 58-64.	3.9	16
26	Click-functionalized hydrogel design for mechanobiology investigations. Molecular Systems Design and Engineering, 2021, 6, 670-707.	1.7	15
27	Award Winner in the Young Investigator Category, 2014 Society for Biomaterials Annual Meeting and Exposition, Denver, Colorado, April 16â€“19, 2014: Periodically perforated coreâ€“shell collagen biomaterials balance cell infiltration, bioactivity, and mechanical properties. Journal of Biomedical Materials Research - Part A, 2014, 102, 917-927.	2.1	13
28	Photoreactive Hydrogel Stiffness Influences Volumetric Muscle Loss Repair. Tissue Engineering - Part A, 2022, 28, 312-329.	1.6	12
29	Controlling scaffold conductivity and pore size to direct myogenic cell alignment and differentiation. Journal of Biomedical Materials Research - Part A, 2022, 110, 1681-1694.	2.1	8
30	Fabrication approaches for high-throughput and biomimetic disease modeling. Acta Biomaterialia, 2021, 132, 52-82.	4.1	5
31	CXCR4/CXCL12 signaling impacts enamel progenitor cell proliferation and motility in the dental stem cell niche. Cell and Tissue Research, 2015, 362, 633-642.	1.5	4
32	Synthesis of Layered, Graded Bioscaffolds. , 2013, , 351-371.		0