Kyle J Lampe

List of Publications by Year
in descending order

30 papers	2,275 citations	430442 18 h-index	476904 29 g-index
34 all docs	34 docs citations	34 times ranked	3847 citing authors

#	Article	IF	Citations
1	Improving Viability of Stem Cells During Syringe Needle Flow Through the Design of Hydrogel Cell Carriers. Tissue Engineering - Part A, 2012, 18, 806-815.	1.6	569
2	Maintenance of neural progenitor cell stemness in 3D hydrogels requires matrix remodelling. Nature Materials, 2017, 16, 1233-1242.	13.3	310
3	Stimuli-Responsive, Pentapeptide, Nanofiber Hydrogel for Tissue Engineering. Journal of the American Chemical Society, 2019, 141, 4886-4899.	6.6	211
4	Defining and designing polymers and hydrogels for neural tissue engineering. Neuroscience Research, 2012, 72, 199-213.	1.0	162
5	Design of three-dimensional engineered protein hydrogels for tailored control of neurite growth. Acta Biomaterialia, 2013, 9, 5590-5599.	4.1	138
6	Tetrakis(hydroxymethyl) Phosphonium Chloride as a Covalent Cross-Linking Agent for Cell Encapsulation within Protein-Based Hydrogels. Biomacromolecules, 2012, 13, 3912-3916.	2.6	112
7	Matrix Remodeling Enhances the Differentiation Capacity of Neural Progenitor Cells in 3D Hydrogels. Advanced Science, 2019, 6, 1801716.	5.6	83
8	The administration of BDNF and GDNF to the brain via PLGA microparticles patterned within a degradable PEGâ€based hydrogel: Protein distribution and the glial response. Journal of Biomedical Materials Research - Part A, 2011, 96A, 595-607.	2.1	81
9	Impact of lactic acid on cell proliferation and free radicalâ€induced cell death in monolayer cultures of neural precursor cells. Biotechnology and Bioengineering, 2009, 103, 1214-1223.	1.7	79
10	Effect of macromer weight percent on neural cell growth in 2D and 3D nondegradable PEG hydrogel culture. Journal of Biomedical Materials Research - Part A, 2010, 94A, 1162-1171.	2.1	76
11	Building stem cell niches from the molecule up through engineered peptide materials. Neuroscience Letters, 2012, 519, 138-146.	1.0	65
12	Impact of Degradable Macromer Content in a Poly(Ethylene Glycol) Hydrogel on Neural Cell Metabolic Activity, Redox State, Proliferation, and Differentiation. Tissue Engineering - Part A, 2010, 16, 1857-1866.	1.6	62
13	Biomaterials via peptide assembly: Design, characterization, and application in tissue engineering. Acta Biomaterialia, 2022, 140, 43-75.	4.1	38
14	Oligodendrocyte Precursor Cell Viability, Proliferation, and Morphology is Dependent on Mesh Size and Storage Modulus in 3D Poly(ethylene glycol)-Based Hydrogels. ACS Biomaterials Science and Engineering, 2017, 3, 3459-3468.	2.6	33
15	Mimicking biological phenomena in hydrogel-based biomaterials to promote dynamic cellular responses. Journal of Materials Chemistry B, 2015, 3, 7867-7880.	2.9	27
16	Microfluidic Gradients Reveal Enhanced Neurite Outgrowth but Impaired Guidance within 3D Matrices with High Integrin Ligand Densities. Small, 2015, 11, 722-730.	5.2	26
17	Rapidly Assembling Pentapeptides for Injectable Delivery (RAPID) Hydrogels as Cytoprotective Cell Carriers. ACS Biomaterials Science and Engineering, 2019, 5, 2117-2121.	2.6	25
18	Temperature-Dependent Complex Coacervation of Engineered Elastin-like Polypeptide and Hyaluronic Acid Polyelectrolytes. Biomacromolecules, 2018, 19, 3925-3935.	2.6	24

#	Article	IF	Citations
19	Impact of Elastin-like Protein Temperature Transition on PEG-ELP Hybrid Hydrogel Properties. Biomacromolecules, 2019, 20, 1914-1925.	2.6	22
20	From de novo peptides to native proteins: advancements in biomaterial scaffolds for acute ischemic stroke repair. Biomedical Materials (Bristol), 2018, 13, 034103.	1.7	18
21	3D Hyaluronic Acid Hydrogels for Modeling Oligodendrocyte Progenitor Cell Behavior as a Function of Matrix Stiffness. Biomacromolecules, 2020, 21, 4962-4971.	2.6	18
22	Toward a Designable Extracellular Matrix: Molecular Dynamics Simulations of an Engineered Laminin-Mimetic, Elastin-Like Fusion Protein. Biomacromolecules, 2016, 17, 3222-3233.	2.6	17
23	Engineering biomaterial microenvironments to promote myelination in the central nervous system. Brain Research Bulletin, 2019, 152, 159-174.	1.4	17
24	Fabricating PLGA microparticles with high loads of the small molecule antioxidant Nâ€acetylcysteine that rescue oligodendrocyte progenitor cells from oxidative stress. Biotechnology and Bioengineering, 2018, 115, 246-256.	1.7	16
25	Engineering Biomaterials to Influence Oligodendroglial Growth, Maturation, and Myelin Production. Cells Tissues Organs, 2016, 202, 85-101.	1.3	15
26	Guiding Oligodendrocyte Precursor Cell Maturation With Urokinase Plasminogen Activator-Degradable Elastin-like Protein Hydrogels. Biomacromolecules, 2020, 21, 4724-4736.	2.6	12
27	Encapsulated oligodendrocyte precursor cell fate is dependent on PDGFâ€AA release kinetics in a 3D microparticleâ€hydrogel drug delivery system. Journal of Biomedical Materials Research - Part A, 2018, 106, 2402-2411.	2.1	10
28	Influence of Supraphysiologic Biomaterial Stiffness on Ventricular Mechanics and Myocardial Infarct Reinforcement. Acta Biomaterialia, 2022, 149, 30-39.	4.1	4
29	Development and implementation of biomaterials to promote neural repair. Brain Research Bulletin, 2019, 152, 297-298.	1.4	3
30	The need for tissue-engineered models to facilitate the study of oligodendrocyte progenitor cells in traumatic brain injury and repair. Current Opinion in Biomedical Engineering, 2022, 22, 100378.	1.8	0