Kyle J Lampe

List of Publications by Citations

30 papers	1,705 citations	16 h-index	34 g-index
34 ext. papers	1,990 ext. citations	7 avg, IF	5.19 L-index

#	Paper	IF	Citations
30	Improving viability of stem cells during syringe needle flow through the design of hydrogel cell carriers. *Tissue Engineering - Part A*, **2012**, 18, 806-15	3.9	452
29	Maintenance of neural progenitor cell stemness in 3D hydrogels requires matrix remodelling. *Nature Materials*, **2017**, 16, 1233-1242	27	223
28	Defining and designing polymers and hydrogels for neural tissue engineering. *Neuroscience Research*, **2012**, 72, 199-213	2.9	131
27	Stimuli-Responsive, Pentapeptide, Nanofiber Hydrogel for Tissue Engineering. *Journal of the American Chemical Society*, **2019**, 141, 4886-4899	16.4	127
26	Design of three-dimensional engineered protein hydrogels for tailored control of neurite growth. *Acta Biomaterialia*, **2013**, 9, 5590-9	10.8	119
25	Tetrakis(hydroxymethyl) phosphonium chloride as a covalent cross-linking agent for cell encapsulation within protein-based hydrogels. *Biomacromolecules*, **2012**, 13, 3912-6	6.9	90
24	Impact of lactic acid on cell proliferation and free radical-induced cell death in monolayer cultures of neural precursor cells. *Biotechnology and Bioengineering*, **2009**, 103, 1214-23	4.9	68
23	The administration of BDNF and GDNF to the brain via PLGA microparticles patterned within a degradable PEG-based hydrogel: Protein distribution and the glial response. *Journal of Biomedical Materials Research - Part A*, **2011**, 96, 595-607	5.4	66
22	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**, 94, 1162-71	5.4	60
21	Matrix Remodeling Enhances the Differentiation Capacity of Neural Progenitor Cells in 3D Hydrogels. *Advanced Science*, **2019**, 6, 1801716	13.6	58
20	Building stem cell niches from the molecule up through engineered peptide materials. *Neuroscience Letters*, **2012**, 519, 138-46	3.3	57
19	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, 1857-66	3.9	56
18	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	5.5	25
17	Microfluidic gradients reveal enhanced neurite outgrowth but impaired guidance within 3D matrices with high integrin ligand densities. *Small*, **2015**, 11, 722-30	11	23
16	Mimicking biological phenomena in hydrogel-based biomaterials to promote dynamic cellular responses. *Journal of Materials Chemistry B*, **2015**, 3, 7867-7880	7.3	21
15	Impact of Elastin-like Protein Temperature Transition on PEG-ELP Hybrid Hydrogel Properties. *Biomacromolecules*, **2019**, 20, 1914-1925	6.9	16
14	Temperature-Dependent Complex Coacervation of Engineered Elastin-like Polypeptide and Hyaluronic Acid Polyelectrolytes. *Biomacromolecules*, **2018**, 19, 3925-3935	6.9	15

List of Publications

13	From de novo peptides to native proteins: advancements in biomaterial scaffolds for acute ischemic stroke repair. *Biomedical Materials (Bristol)*, **2018**, 13, 034103	3.5	13
12	Rapidly Assembling Pentapeptides for Injectable Delivery (RAPID) Hydrogels as Cytoprotective Cell Carriers. *ACS Biomaterials Science and Engineering*, **2019**, 5, 2117-2121	5.5	12
11	Fabricating PLGA microparticles with high loads of the small molecule antioxidant N-acetylcysteine that rescue oligodendrocyte progenitor cells from oxidative stress. *Biotechnology and Bioengineering*, **2018**, 115, 246-256	4.9	11
10	Toward a Designable Extracellular Matrix: Molecular Dynamics Simulations of an Engineered Laminin-Mimetic, Elastin-Like Fusion Protein. *Biomacromolecules*, **2016**, 17, 3222-3233	6.9	10
9	Engineering biomaterial microenvironments to promote myelination in the central nervous system. *Brain Research Bulletin*, **2019**, 152, 159-174	3.9	10
8	3D Hyaluronic Acid Hydrogels for Modeling Oligodendrocyte Progenitor Cell Behavior as a Function of Matrix Stiffness. *Biomacromolecules*, **2020**, 21, 4962-4971	6.9	10
7	Engineering Biomaterials to Influence Oligodendroglial Growth, Maturation, and Myelin Production. *Cells Tissues Organs*, **2016**, 202, 85-101	2.1	10
6	Encapsulated oligodendrocyte precursor cell fate is dependent on PDGF-AA release kinetics in a 3D microparticle-hydrogel drug delivery system. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 2402-2411	5.4	8
5	Guiding Oligodendrocyte Precursor Cell Maturation With Urokinase Plasminogen Activator-Degradable Elastin-like Protein Hydrogels. *Biomacromolecules*, **2020**, 21, 4724-4736	6.9	6
4	Biomaterials via peptide assembly: design, characterization, and application in tissue engineering. *Acta Biomaterialia*, **2021**,	10.8	4
3	Influence of Supraphysiologic Biomaterial Stiffness on Ventricular Mechanics and Myocardial Infarct Reinforcement		1
2	3D Hyaluronic Acid Hydrogels for Modeling Oligodendrocyte Progenitor Cell Behavior as a Function of Matrix Stiffness		1
1	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	4.4	