Laura J Suggs

List of Publications by Year
in descending order

88 papers	4,250 citations	87723 38 h-index	118652 62 g-index
90 all docs	90 docs citations	90 times ranked	5672 citing authors

#	Article	IF	Citations
1	Dynamic phototuning of 3D hydrogel stiffness. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1953-1958.	3.3	247
2	Controlled Release of Stromal Cellâ€“Derived Factor-1alphaIn SituIncreases C-kit+Cell Homing to the Infarcted Heart. Tissue Engineering, 2007, 13, 2063-2071.	4.9	187
3	A PEGylated Fibrin Patch for Mesenchymal Stem Cell Delivery. Tissue Engineering, 2006, 12, 9-19.	4.9	175
4	In vivo Ultrasound and Photoacoustic Monitoring of Mesenchymal Stem Cells Labeled with Gold Nanotracers. PLoS ONE, 2012, 7, e37267.	1.1	160
5	Repair of Traumatic Skeletal Muscle Injury with Bone-Marrow-Derived Mesenchymal Stem Cells Seeded on Extracellular Matrix. Tissue Engineering - Part A, 2010, 16, 2871-2881.	1.6	131
6	Bioengineering of dental stem cells in a PEGylated fibrin gel. Regenerative Medicine, 2011, 6, 191-200.	0.8	130
7	Enhancing Efficacy of Stem Cell Transplantation to the Heart with a PEGylated Fibrin Biomatrix. Tissue Engineering - Part A, 2008, 14, 1025-1036.	1.6	128
8	Functional Assessment of Skeletal Muscle Regeneration Utilizing Homologous Extracellular Matrix as Scaffolding. Tissue Engineering - Part A, 2010, 16, 1395-1405.	1.6	123
9	In vitro cytotoxicity andin vivo biocompatibility of poly(propylene fumarate-co-ethylene glycol) hydrogels. , 1999, 46, 22-32.		113
10	Imaging Strategies for Tissue Engineering Applications. Tissue Engineering - Part B: Reviews, 2015, 21, 88-102.	2.5	110
11	Three-dimensional culture for expansion and differentiation of mouse embryonic stem cells. Biomaterials, 2006, 27, 6004-6014.	5.7	95
12	Fibronectinâ€“hyaluronic acid composite hydrogels for three-dimensional endothelial cell culture. Acta Biomaterialia, 2011, 7, 2401-2409.	4.1	94
13	Function of mesenchymal stem cells following loading of gold nanotracers. International Journal of Nanomedicine, 2011, 6, 407.	3.3	93
14	Phenotypic Basis for Matrix Stiffness-Dependent Chemoresistance of Breast Cancer Cells to Doxorubicin. Frontiers in Oncology, 2018, 8, 337.	1.3	89
15	Development of Poly(Propylene Fumarate-co-Ethylene Glycol) as an Injectable Carrier for Endothelial Cells. Cell Transplantation, 1999, 8, 345-350.	1.2	87
16	In vitro andin vivo degradation of poly(propylene fumarate-co-ethylene glycol) hydrogels. , 1998, 42, 312-320.		86
17	Characterization of partially saturated poly(propylene fumarate) for orthopaedic application. Journal of Biomaterials Science, Polymer Edition, 1997, 8, 893-904.	1.9	79
18	Experimental and Computational Studies Reveal an Alternative Supramolecular Structure for Fmoc-Dipeptide Self-Assembly. Biomacromolecules, 2012, 13, 3562-3571.	2.6	79

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19	Vascular differentiation of bone marrow stem cells is directed by a tunable three-dimensional matrix. Acta Biomaterialia, 2010, 6, 3395-3403.	4.1	78
20	Preparation and characterization of poly(propylene fumarate-co-ethylene glycol) hydrogels. Journal of Biomaterials Science, Polymer Edition, 1998, 9, 653-666.	1.9	77
21	Matrices and scaffolds for drug delivery in vascular tissue engineering. Advanced Drug Delivery Reviews, 2007, 59, 360-373.	6.6	77
22	Platelet adhesion on a bioresorbable poly(propylene fumarate-co-ethylene glycol) copolymer. Biomaterials, 1999, 20, 683-690.	5.7	72
23	Fibrin-based 3D matrices induce angiogenic behavior of adipose-derived stem cells. Acta Biomaterialia, 2015, 17, 78-88.	4.1	72
24	A Visible Light-Cross-Linkable, Fibrinâ€"Gelatin-Based Bioprinted Construct with Human Cardiomyocytes and Fibroblasts. ACS Biomaterials Science and Engineering, 2019, 5, 4551-4563.	2.6	72
25	Synthesis of poly(propylene fumarate) by acylation of propylene glycol in the presence of a proton scavenger. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 363-373.	1.9	69
26	<i>In Vivo</i> Photoacoustic Tracking of Mesenchymal Stem Cell Viability. ACS Nano, 2019, 13, 7791-7799.	7.3	67
27	Multimodal release of transforming growth factor-Î²1 and the BB isoform of platelet derived growth factor from PEGylated fibrin gels. Journal of Controlled Release, 2010, 147, 180-186.	4.8	63
28	A Bilayer Construct Controls Adipose-Derived Stem Cell Differentiation into Endothelial Cells and Pericytes Without Growth Factor Stimulation. Tissue Engineering - Part A, 2011, 17, 941-953.	1.6	59
29	Synthesis and Characterization of a Block Copolymer Consisting of Poly(propylene fumarate) and Poly(ethylene glycol). Macromolecules, 1997, 30, 4318-4323.	2.2	57
30	Nonlinear photoacoustic signal increase from endocytosis of gold nanoparticles. Optics Letters, 2012, 37, 4708.	1.7	55
31	Nanoscale Strategies: Treatment for Peripheral Vascular Disease and Critical Limb Ischemia. ACS Nano, 2015, 9, 3436-3452.	7.3	55
32	The applicability of furfurylâ€gelatin as a novel bioink for tissue engineering applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 314-323.	1.6	54
33	A PEGylated fibrin-based wound dressing with antimicrobial and angiogenic activity. Acta Biomaterialia, 2011, 7, 2787-2796.	4.1	53
34	Enhanced wound vascularization using a dsASCs seeded FPEG scaffold. Angiogenesis, 2013, 16, 745-757.	3.7	53
35	A dual gold nanoparticle system for mesenchymal stem cell tracking. Journal of Materials Chemistry B, 2014, 2, 8220-8230.	2.9	53
36	Î² Sheets Not Required: Combined Experimental and Computational Studies of Self-Assembly and Gelation of the Ester-Containing Analogue of an Fmoc-Dipeptide Hydrogelator. Langmuir, 2014, 30, 5287-5296.	1.6	53

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37	The Development of Macrophage-Mediated Cell Therapy to Improve Skeletal Muscle Function after Injury. PLoS ONE, 2015, 10, e0145550.	1.1	52
38	Extracellular Matrix Stiffening Induces a Malignant Phenotypic Transition in Breast Epithelial Cells. Cellular and Molecular Bioengineering, 2017, 10, 114-123.	1.0	48
39	Evaluation of gold nanotracers to track adipose-derived stem cells in a PEGylated fibrin gel for dermal tissue engineering applications. International Journal of Nanomedicine, 2013, 8, 325.	3.3	45
40	Fibrinâ€based stem cell containing scaffold improves the dynamics of burn wound healing. Wound Repair and Regeneration, 2016, 24, 810-819.	1.5	40
41	Modulating inflammatory macrophages with an apoptotic body-inspired nanoparticle. Acta Biomaterialia, 2020, 108, 250-260.	4.1	38
42	Anti-inflammatory macrophages improve skeletal muscle recovery from ischemia-reperfusion. Journal of Applied Physiology, 2015, 118, 1067-1074.	1.2	35
43	Combined Ultrasound and Photoacoustic Imaging to Noninvasively Assess Burn Injury and Selectively Monitor a Regenerative Tissue-Engineered Construct. Tissue Engineering - Part C: Methods, 2015, 21, 557-566.	1.1	35
44	Controlled release of IGFâ€1 from a biodegradable matrix improves functional recovery of skeletal muscle from ischemia/reperfusion. Biotechnology and Bioengineering, 2012, 109, 1051-1059.	1.7	34
45	Therapeutic potential of adipose-derived stem cells and macrophages for ischemic skeletal muscle repair. Regenerative Medicine, 2017, 12, 153-167.	0.8	34
46	Controlled delivery of SDF-1Î± and IGF-1: CXCR4+cell recruitment and functional skeletal muscle recovery. Biomaterials Science, 2015, 3, 1475-1486.	2.6	33
47	Electrospun poly(N-isopropyl acrylamide)/poly(caprolactone) fibers for the generation of anisotropic cell sheets. Biomaterials Science, 2017, 5, 1661-1669.	2.6	30
48	Recruitment and therapeutic application of macrophages in skeletal muscles after hind limb ischemia. Journal of Vascular Surgery, 2018, 67, 1908-1920.e1.	0.6	30
49	Design and Characterization of Nucleopeptides for Hydrogel Self-Assembly. ACS Applied Bio Materials, 2019, 2, 2812-2821.	2.3	28
50	Therapeutic assessment of mesenchymal stem cells delivered within a PEGylated fibrin gel following an ischemic injury. Biomaterials, 2016, 102, 9-19.	5.7	26
51	Preservation of capillary-beds in rat lung tissue using optimized chemical decellularization. Journal of Materials Chemistry B, 2013, 1, 4801.	2.9	22
52	Making cardiomyocytes: How mechanical stimulation can influence differentiation of pluripotent stem cells. Biotechnology Progress, 2013, 29, 1089-1096.	1.3	22
53	Charge and sequence effects on the self-assembly and subsequent hydrogelation of Fmoc-depsipeptides. Soft Matter, 2014, 10, 2693-2702.	1.2	22
54	Multifunctional nanoscale strategies for enhancing and monitoring blood vessel regeneration. Nano Today, 2012, 7, 514-531.	6.2	19

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55	Self-assembled nucleo-tripeptide hydrogels provide local and sustained doxorubicin release. Biomaterials Science, 2020, 8, 3130-3137.	2.6	19
56	Mesenchymal stem cell response to TGF-Î²1 in both 2D and 3D environments. Biomaterials Science, 2013, 1, 860.	2.6	18
57	A general solid phase method for the synthesis of depsipeptides. Organic and Biomolecular Chemistry, 2013, 11, 1167.	1.5	18
58	Gene Transfection for Stem Cell Therapy. Current Stem Cell Reports, 2016, 2, 52-61.	0.7	18
59	Monitoring/Imaging and Regenerative Agents for Enhancing Tissue Engineering Characterization and Therapies. Annals of Biomedical Engineering, 2016, 44, 750-772.	1.3	18
60	Synthetic Biodegradable Polymers for Medical Applications. , 2007, , 939-950.		17
61	Maintenance of HLâ€1 cardiomyocyte functional activity in PEGylated fibrin gels. Biotechnology and Bioengineering, 2015, 112, 1446-1456.	1.7	17
62	Dynamic extracellular matrix stiffening induces a phenotypic transformation and a migratory shift in epithelial cells. Integrative Biology (United Kingdom), 2020, 12, 161-174.	0.6	14
63	Molecular Modeling of Conformational Properties of Oligodepsipeptides. Biomacromolecules, 2007, 8, 3015-3024.	2.6	13
64	Mechanisms of tubulogenesis and endothelial phenotype expression by MSCs. Microvascular Research, 2015, 99, 26-35.	1.1	13
65	A Comparative Study of a 3D Bioprinted Gelatin-Based Lattice and Rectangular-Sheet Structures. Gels, 2018, 4, 73.	2.1	13
66	Controlling Nucleopeptide Hydrogel Self-Assembly and Formation for Cell-Culture Scaffold Applications. ACS Biomaterials Science and Engineering, 2021, 7, 2605-2614.	2.6	12
67	Thin-Film Freeze-Drying Is a Viable Method to Convert Vaccines Containing Aluminum Salts from Liquid to Dry Powder. Methods in Molecular Biology, 2021, 2183, 489-498.	0.4	12
68	Three-Dimensional Image Quantification as a New Morphometry Method for Tissue Engineering. Tissue Engineering - Part C: Methods, 2012, 18, 507-516.	1.1	11
69	Paramagnetic Beads and Magnetically Mediated Strain Enhance Cardiomyogenesis in Mouse Embryoid Bodies. PLoS ONE, 2014, 9, e113982.	1.1	11
70	Gold Nanorods as Photoacoustic Nanoprobes to Detect Proinflammatory Macrophages and Inflammation. ACS Applied Nano Materials, 2020, 3, 7774-7780.	2.4	11
71	Mechanical properties of Î±â€tricalcium phosphateâ€based bone cements incorporating regenerative biomaterials for filling bone defects exposed to low mechanical loads. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 149-157.	1.6	10
72	Ultrasound-guided photoacoustic imaging-directed re-endothelialization of acellular vasculature leads to improved vascular performance. Acta Biomaterialia, 2016, 32, 35-45.	4.1	9

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73	Assessing the range of enzymatic and oxidative tunability for biosensor design. Journal of Materials Chemistry B, 2020, 8, 3460-3487.	2.9	8
74	Laser nanobubbles induce immunogenic cell death in breast cancer. Nanoscale, 2021, 13, 3644-3653.	2.8	7
75	Engineering a Bilayered Hydrogel to Control ASC differentiation. Journal of Visualized Experiments, 2012, , e3953.	0.2	6
76	Design and Evaluation of Short Self-Assembling Depsipeptides as Bioactive and Biodegradable Hydrogels. ACS Omega, 2018, 3, 1635-1644.	1.6	6
77	Apoptotic body-inspired nanoparticles target macrophages at sites of inflammation to support an anti-inflammatory phenotype shift. International Journal of Pharmaceutics, 2022, 618, 121634.	2.6	6
78	Ultrasound and photoacoustic imaging to monitor vascular growth in tissue engineered constructs. Proceedings of SPIE, 2009, , .	0.8	5
79	Ultrasound and photoacoustic imaging to monitor mesenchymal stem cells labeled with gold nanoparticles. Proceedings of SPIE, 2011, , .	0.8	5
80	Poly-<scp>d</scp>-lysine coated nanoparticles to identify pro-inflammatory macrophages. Nanoscale Advances, 2020, 2, 3849-3857.	2.2	5
81	A Model for Studying the Biomechanical Effects of Varying Ratios of Collagen Types I and III on Cardiomyocytes. Cardiovascular Engineering and Technology, 2021, 12, 311-324.	0.7	3
82	Corrigendum to â€œMatrices and scaffolds for drug delivery in vascular tissue engineeringâ€•[Advanced Drug Delivery Reviews 59 (2007) 360â€"373]. Advanced Drug Delivery Reviews, 2009, 61, 1386.	6.6	2
83	Cell-Inspired Biomaterials for Modulating Inflammation. Tissue Engineering - Part B: Reviews, 2022, 28, 279-294.	2.5	2
84	Tissue Engineering in Drug Delivery. , 2012, , 533-568.		1
85	In vitro cytotoxicity and in vivo biocompatibility of poly(propylene fumarate-co-ethylene glycol) hydrogels. , 1999, 46, 22.		1
86	Biomaterials as Stem Cell Niche: Cardiovascular Stem Cells. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2010, , 173-193.	0.7	0
87	Nanoparticle labeling of mesenchymal stem cells for in vivo imaging and tracking. , 2011, , .		0
88	Journal of Materials Chemistry B themed issue: stem cells. Journal of Materials Chemistry B, 2016, 4, 3420-3421.	2.9	0