

Stephanie Michelle Willerth

List of Publications by Year in descending order

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92
papers

4,045
citations

147801

31
h-index

118850

62
g-index

98
all docs

98
docs citations

98
times ranked

5041
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of SARS-CoV-2 on the nervous system: a review of neurological impacts caused by human coronaviruses. <i>Reviews in the Neurosciences</i> , 2022, 33, 257-268.	2.9	3
2	Smart Biopinks for the Printing of Human Tissue Models. <i>Biomolecules</i> , 2022, 12, 141.	4.0	17
3	Characterizing the Mechanical Performance of a Bare-Metal Stent with an Auxetic Cell Geometry. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 910.	2.5	10
4	Trends in hydrogel-based encapsulation technologies for advanced cell therapies applied to limb ischemia. <i>Materials Today Bio</i> , 2022, 13, 100221.	5.5	3
5	Using clinically derived human tissue to 3-dimensionally bioprint personalized testicular tubules for in vitro culturing: first report. <i>F&S Science</i> , 2022, 3, 130-139.	0.9	7
6	Protocol for printing 3D neural tissues using the BIO X equipped with a pneumatic printhead. <i>STAR Protocols</i> , 2022, 3, 101348.	1.2	5
7	Effect of bioactive Biosilicate [®] /F18 glass scaffolds on osteogenic differentiation of human adipose stem cells. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 1293-1308.	4.0	5
8	Strategies for Delivering Online Biomedical Engineering Electives During the COVID-19 Pandemic. <i>Biomedical Engineering Education</i> , 2021, 1, 115-120.	0.7	2
9	Natural Biomaterials and Their Use as Biopinks for Printing Tissues. <i>Bioengineering</i> , 2021, 8, 27.	3.5	93
10	3D Tissue Models as an Effective Tool for Studying Viruses and Vaccine Development. <i>Frontiers in Materials</i> , 2021, 8, .	2.4	10
11	Recent advances in the design of microfluidic technologies for the manufacture of drug releasing particles. <i>Journal of Controlled Release</i> , 2021, 333, 258-268.	9.9	30
12	3D Bioprinting Human [®] -Induced Pluripotent Stem Cells and Drug [®] -Releasing Microspheres to Produce Responsive Neural Tissues. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2000077.	3.6	15
13	Editorial: Stem Cell Systems Bioengineering. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 693107.	4.1	0
14	3D Printing for Medical Applications: Current State of the Art and Perspectives during the COVID-19 Crisis. <i>Surgeries</i> , 2021, 2, 244-259.	0.6	7
15	Physical and Mechanical Characterization of Fibrin-Based Bioprinted Constructs Containing Drug-Releasing Microspheres for Neural Tissue Engineering Applications. <i>Processes</i> , 2021, 9, 1205.	2.8	16
16	Evaluation of 3D-printer settings for producing personal protective equipment. <i>Journal of 3D Printing in Medicine</i> , 2021, 5, .	2.0	2
17	3D Bioprinting Mesenchymal Stem Cell-Derived Neural Tissues Using a Fibrin-Based Bioink. <i>Biomolecules</i> , 2021, 11, 1250.	4.0	15
18	Drug [®] -releasing Microspheres for Stem Cell Differentiation. <i>Current Protocols</i> , 2021, 1, e331.	2.9	5

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19	Quantitative Analysis of the Rewiring of Signaling Pathways to Alter Cancer Cell Fate. <i>Journal of Medical and Biological Engineering</i> , 2020, 40, 41-52.	1.8	0
20	CRISPR, Prime Editing, Optogenetics, and DREADDs: New Therapeutic Approaches Provided by Emerging Technologies in the Treatment of Spinal Cord Injury. <i>Molecular Neurobiology</i> , 2020, 57, 2085-2100.	4.0	13
21	Metal additive manufacturing: Technology, metallurgy and modelling. <i>Journal of Manufacturing Processes</i> , 2020, 57, 978-1003.	5.9	179
22	Extrusion and Microfluidic-Based Bioprinting to Fabricate Biomimetic Tissues and Organs. <i>Advanced Materials Technologies</i> , 2020, 5, 1901044.	5.8	110
23	The Use of Patient-Derived Induced Pluripotent Stem Cells for Alzheimer's Disease Modeling. <i>Progress in Neurobiology</i> , 2020, 192, 101804.	5.7	15
24	3D Bioprinting Pluripotent Stem Cell Derived Neural Tissues Using a Novel Fibrin Bioink Containing Drug Releasing Microspheres. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 57.	4.1	97
25	Novel N-cadherin antagonist causes glioblastoma cell death in a 3D bioprinted co-culture model. <i>Biochemical and Biophysical Research Communications</i> , 2020, 529, 162-168.	2.1	20
26	Three-dimensional bioprinting healthy and diseased models of the brain tissue using stem cells. <i>Current Opinion in Biomedical Engineering</i> , 2020, 14, 25-33.	3.4	12
27	Determining the mechanism behind yoga's effects on preventing the symptoms of Alzheimer's disease. <i>Neural Regeneration Research</i> , 2020, 15, 261.	3.0	2
28	Electrospun Nanofibers for Diverse Applications. , 2019, , 275-286.		0
29	A Visible Light-Cross-Linkable, Fibrin-Gelatin-Based Bioprinted Construct with Human Cardiomyocytes and Fibroblasts. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 4551-4563.	5.2	72
30	3D Printing Breast Tissue Models: A Review of Past Work and Directions for Future Work. <i>Micromachines</i> , 2019, 10, 501.	2.9	24
31	The 2019 Young Innovators of Cellular and Molecular Bioengineering. <i>Cellular and Molecular Bioengineering</i> , 2019, 12, 355-356.	2.1	0
32	Combining Stem Cells and Biomaterial Scaffolds for Constructing Tissues and Cell Delivery. <i>StemJournal</i> , 2019, 1, 1-25.	0.6	62
33	Bioprinting a novel glioblastoma tumor model using a fibrin-based bioink for drug screening. <i>Materials Today Chemistry</i> , 2019, 12, 78-84.	3.5	85
34	Advancements in Canadian Biomaterials Research in Neurotraumatic Diagnosis and Therapies. <i>Processes</i> , 2019, 7, 336.	2.8	2
35	3D bioprinting models of neural tissues: The current state of the field and future directions. <i>Brain Research Bulletin</i> , 2019, 150, 240-249.	3.0	32
36	A Novel Toolkit for Characterizing the Mechanical and Electrical Properties of Engineered Neural Tissues. <i>Biosensors</i> , 2019, 9, 51.	4.7	9

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37	How can microsphere-mediated delivery of small molecules serve as a novel tool for engineering tissues from stem cells?. <i>Therapeutic Delivery</i> , 2019, 10, 671-674.	2.2	2
38	3D Printing of Neural Tissues Derived from Human Induced Pluripotent Stem Cells Using a Fibrin-Based Bioink. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 234-243.	5.2	114
39	Guggulsterone-releasing microspheres direct the differentiation of human induced pluripotent stem cells into neural phenotypes. <i>Biomedical Materials (Bristol)</i> , 2018, 13, 034104.	3.3	23
40	Modeling the Effects of Yoga on the Progression of Alzheimer's Disease in a Dish. <i>Cells Tissues Organs</i> , 2018, 206, 263-271.	2.3	8
41	Transdifferentiating Astrocytes Into Neurons Using ASCL1 Functionalized With a Novel Intracellular Protein Delivery Technology. <i>Frontiers in Bioengineering and Biotechnology</i> , 2018, 6, 173.	4.1	11
42	3D Bioprinting Human Induced Pluripotent Stem Cell-Derived Neural Tissues Using a Novel Lab-on-a-Printer Technology. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2414.	2.5	57
43	Bioprinting neural tissues using stem cells as a tool for screening drug targets for Alzheimer's disease. <i>Journal of 3D Printing in Medicine</i> , 2018, 2, 163-165.	2.0	6
44	Engineering Neural Tissue from Human Pluripotent Stem Cells Using Novel Small Molecule Releasing Microspheres. <i>Advanced Biology</i> , 2018, 2, 1800133.	3.0	15
45	3D Bioprinting Stem Cell Derived Tissues. <i>Cellular and Molecular Bioengineering</i> , 2018, 11, 219-240.	2.1	58
46	Direct Reprogramming of Glioblastoma Cells into Neurons Using Small Molecules. <i>ACS Chemical Neuroscience</i> , 2018, 9, 3175-3185.	3.5	39
47	Fibrin hydrogels induce mixed dorsal/ventral spinal neuron identities during differentiation of human induced pluripotent stem cells. <i>Acta Biomaterialia</i> , 2017, 51, 237-245.	8.3	47
48	Emerging Biofabrication Strategies for Engineering Complex Tissue Constructs. <i>Advanced Materials</i> , 2017, 29, 1606061.	21.0	307
49	Biomimetic strategies for replicating the neural stem cell niche. <i>Current Opinion in Chemical Engineering</i> , 2017, 15, 8-14.	7.8	4
50	Commercializing Electrospun Scaffolds For Pluripotent Stem Cell-Based Tissue Engineering Applications. <i>Electrospinning</i> , 2017, 2, 62-72.	1.6	2
51	Mechanically stable fibrin scaffolds promote viability and induce neurite outgrowth in neural aggregates derived from human induced pluripotent stem cells. <i>Scientific Reports</i> , 2017, 7, 6250.	3.3	47
52	The need for engineering neural tissue using stem cells. , 2017, , 1-15.		0
53	Introduction to the nervous system. , 2017, , 17-38.		0
54	Design considerations when engineering neural tissue from stem cells. , 2017, , 65-88.		1

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55	Natural biomaterials for engineering neural tissue from stem cells. , 2017, , 89-125.		2
56	Synthetic biomaterials for engineering neural tissue from stem cells. , 2017, , 127-158.		3
57	New technologies for engineering neural tissue from stem cells. , 2017, , 181-204.		1
58	Stem cells and their applications in repairing the damaged nervous system. , 2017, , 39-64.		1
59	Drug delivery systems for engineering neural tissue. , 2017, , 159-180.		0
60	Localized Tacrolimus Delivery Repairs the Damaged Central Nervous System. EBioMedicine, 2017, 26, 4-5.	6.1	1
61	3-D Bioprinting of Neural Tissue for Applications in Cell Therapy and Drug Screening. Frontiers in Bioengineering and Biotechnology, 2017, 5, 69.	4.1	56
62	An Affordable Microsphere-Based Device for Visual Assessment of Water Quality. Biosensors, 2017, 7, 31.	4.7	1
63	Modeling the behavior of human induced pluripotent stem cells seeded on melt electrospun scaffolds. Journal of Biological Engineering, 2017, 11, 38.	4.7	1
64	Functionalizing Ascl1 with Novel Intracellular Protein Delivery Technology for Promoting Neuronal Differentiation of Human Induced Pluripotent Stem Cells. Stem Cell Reviews and Reports, 2016, 12, 476-483.	5.6	15
65	Biomaterial Strategies for Delivering Stem Cells as a Treatment for Spinal Cord Injury. Cells Tissues Organs, 2016, 202, 42-51.	2.3	39
66	Engineering personalized neural tissue using functionalized transcription factors. Neural Regeneration Research, 2016, 11, 1570.	3.0	2
67	Optimizing Differentiation Protocols for Producing Dopaminergic Neurons from Human Induced Pluripotent Stem Cells for Tissue Engineering Applications. Biomarker Insights, 2015, 10s1, BMI.S20064.	2.5	17
68	Engineering personalized neural tissue by combining induced pluripotent stem cells with fibrin scaffolds. Biomaterials Science, 2015, 3, 401-413.	5.4	48
69	Electrospun biomaterial scaffolds with varied topographies for neuronal differentiation of human-induced pluripotent stem cells. Journal of Biomedical Materials Research - Part A, 2015, 103, 2591-2601.	4.0	61
70	Mathematical model for predicting topographical properties of poly(ϵ -caprolactone) melt electrospun scaffolds including the effects of temperature and linear transitional speed. Journal of Micromechanics and Microengineering, 2015, 25, 045018.	2.6	7
71	Incorporation of Retinoic Acid Releasing Microspheres into Pluripotent Stem Cell Aggregates for Inducing Neuronal Differentiation. Cellular and Molecular Bioengineering, 2015, 8, 307-319.	2.1	23
72	Development of a glial cell-derived neurotrophic factor-releasing artificial dura for neural tissue engineering applications. Journal of Materials Chemistry B, 2015, 3, 7974-7985.	5.8	31

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73	Fabrication of poly (μ -caprolactone) microfiber scaffolds with varying topography and mechanical properties for stem cell-based tissue engineering applications. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2014, 25, 1-17.	3.5	68
74	Controlled release of glial cell line-derived neurotrophic factor from poly(μ -caprolactone) microspheres. <i>Drug Delivery and Translational Research</i> , 2014, 4, 159-170.	5.8	17
75	Using mathematical modeling to control topographical properties of poly (μ -caprolactone) melt electrospun scaffolds. <i>Journal of Micromechanics and Microengineering</i> , 2014, 24, 065009.	2.6	10
76	Multifunctional Electrospun Scaffolds for Promoting Neuronal Differentiation of Induced Pluripotent Stem Cells. <i>Journal of Biomaterials and Tissue Engineering</i> , 2014, 4, 906-914.	0.1	13
77	Biomaterial-based drug delivery systems for the controlled release of neurotrophic factors. <i>Biomedical Materials (Bristol)</i> , 2013, 8, 022001.	3.3	87
78	Preparation of 3D Fibrin Scaffolds for Stem Cell Culture Applications. <i>Journal of Visualized Experiments</i> , 2012, , e3641.	0.3	26
79	Towards high throughput tissue engineering: development of chitosan-calcium phosphate scaffolds for engineering bone tissue from embryonic stem cells. <i>American Journal of Stem Cells</i> , 2012, 1, 81-9.	0.4	2
80	Neural tissue engineering using embryonic and induced pluripotent stem cells. <i>Stem Cell Research and Therapy</i> , 2011, 2, 17.	5.5	55
81	Development of a Low Bias Method for Characterizing Viral Populations Using Next Generation Sequencing Technology. <i>PLoS ONE</i> , 2010, 5, e13564.	2.5	58
82	Kinetic Analysis of Neurotrophin-3 Mediated Differentiation of Embryonic Stem Cells into Neurons. <i>Tissue Engineering - Part A</i> , 2009, 15, 307-318.	3.1	13
83	Conductive Core Sheath Nanofibers and Their Potential Application in Neural Tissue Engineering. <i>Advanced Functional Materials</i> , 2009, 19, 2312-2318.	14.9	305
84	The differentiation of embryonic stem cells seeded on electrospun nanofibers into neural lineages. <i>Biomaterials</i> , 2009, 30, 354-362.	11.4	420
85	Cell therapy for spinal cord regeneration. <i>Advanced Drug Delivery Reviews</i> , 2008, 60, 263-276.	13.7	97
86	The effect of controlled growth factor delivery on embryonic stem cell differentiation inside fibrin scaffolds. <i>Stem Cell Research</i> , 2008, 1, 205-218.	0.7	107
87	The Effects of Soluble Growth Factors on Embryonic Stem Cell Differentiation Inside of Fibrin Scaffolds. <i>Stem Cells</i> , 2007, 25, 2235-2244.	3.2	101
88	Rationally designed peptides for controlled release of nerve growth factor from fibrin matrices. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 80A, 13-23.	4.0	74
89	Approaches to neural tissue engineering using scaffolds for drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2007, 59, 325-338.	13.7	325
90	Optimization of fibrin scaffolds for differentiation of murine embryonic stem cells into neural lineage cells. <i>Biomaterials</i> , 2006, 27, 5990-6003.	11.4	232

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91	Fabrication of Highly Ordered Polycaprolactone Microspheres for In Vitro Drug Delivery Using Microfluidic Technologies. , 0, , .		0
92	Neural Tissue Engineering: Applications. , 0, , 5678-5692.		0