Shelly E Sakiyama-Elbert

List of Publications by Year
in descending order

103 papers	8,753 citations	34016 52 h-index	42291 92 g-index
110 all docs	110 docs citations	110 times ranked	8407 citing authors

#	Article	IF	Citations
1	Development of fibrin derivatives for controlled release of heparin-binding growth factors. Journal of Controlled Release, 2000, 65, 389-402.	4.8	537
2	The differentiation of embryonic stem cells seeded on electrospun nanofibers into neural lineages. Biomaterials, 2009, 30, 354-362.	5.7	420
3	Controlled release of nerve growth factor from a heparin-containing fibrin-based cell ingrowth matrix. Journal of Controlled Release, 2000, 69, 149-158.	4.8	402
4	Covalently conjugated VEGFâ€"fibrin matrices for endothelialization. Journal of Controlled Release, 2001, 72, 101-113.	4.8	351
5	Controlled release of nerve growth factor enhances sciatic nerve regeneration. Experimental Neurology, 2003, 184, 295-303.	2.0	328
6	Approaches to neural tissue engineering using scaffolds for drug delivery. Advanced Drug Delivery Reviews, 2007, 59, 325-338.	6.6	325
7	Conductive Coreâ€"Sheath Nanofibers and Their Potential Application in Neural Tissue Engineering. Advanced Functional Materials, 2009, 19, 2312-2318.	7.8	305
8	Neurite Outgrowth on Nanofiber Scaffolds with Different Orders, Structures, and Surface Properties. ACS Nano, 2009, 3, 1151-1159.	7.3	236
9	Optimization of fibrin scaffolds for differentiation of murine embryonic stem cells into neural lineage cells. Biomaterials, 2006, 27, 5990-6003.	5.7	232
10	Controlled release of neurotrophin-3 from fibrin gels for spinal cord injury. Journal of Controlled Release, 2004, 98, 281-294.	4.8	229
11	Incorporation of heparinâ€binding peptides into fibrin gels enhances neurite extension: an example of designer matrices in tissue engineering. FASEB Journal, 1999, 13, 2214-2224.	0.2	186
12	Controlled Release of Neurotrophin-3 and Platelet-Derived Growth Factor from Fibrin Scaffolds Containing Neural Progenitor Cells Enhances Survival and Differentiation into Neurons in a Subacute Model of SCI. Cell Transplantation, 2010, 19, 89-101.	1.2	185
13	Incorporation of heparin into biomaterials. Acta Biomaterialia, 2014, 10, 1581-1587.	4.1	180
14	Development of growth factor fusion proteins for cellâ€triggered drug delivery. FASEB Journal, 2001, 15, 1300-1302.	0.2	171
15	Sustained delivery of transforming growth factor beta three enhances tendonâ€toâ€bone healing in a rat model. Journal of Orthopaedic Research, 2011, 29, 1099-1105.	1.2	149
16	Delivery of neurotrophin-3 from fibrin enhances neuronal fiber sprouting after spinal cord injury. Journal of Controlled Release, 2006, 113, 226-235.	4.8	142
17	Affinity-based release of glial-derived neurotrophic factor from fibrin matrices enhances sciatic nerve regeneration. Acta Biomaterialia, 2009, 5, 959-968.	4.1	137
18	PDGF-BB released in tendon repair using a novel delivery system promotes cell proliferation and collagen remodeling. Journal of Orthopaedic Research, 2007, 25, 1358-1368.	1.2	135

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19	Controlled delivery of mesenchymal stem cells and growth factors using a nanofiber scaffold for tendon repair. Acta Biomaterialia, 2013, 9, 6905-6914.	4.1	131
20	Tissue-engineered fibrin scaffolds containing neural progenitors enhance functional recovery in a subacute model of SCI. Soft Matter, 2010, 6, 5127.	1.2	120
21	Controlled release of neurotrophinâ€3 from fibrinâ€based tissue engineering scaffolds enhances neural fiber sprouting following subacute spinal cord injury. Biotechnology and Bioengineering, 2009, 104, 1207-1214.	1.7	112
22	Fibrinâ€based tissue engineering scaffolds enhance neural fiber sprouting and delay the accumulation of reactive astrocytes at the lesion in a subacute model of spinal cord injury. Journal of Biomedical Materials Research - Part A, 2010, 92A, 152-163.	2.1	110
23	The early inflammatory response after flexor tendon healing: A gene expression and histological analysis. Journal of Orthopaedic Research, 2014, 32, 645-652.	1.2	110
24	Adipose-derived mesenchymal stromal cells modulate tendon fibroblast responses to macrophage-induced inflammation in vitro. Stem Cell Research and Therapy, 2015, 6, 74.	2.4	110
25	The effect of controlled growth factor delivery on embryonic stem cell differentiation inside fibrin scaffolds. Stem Cell Research, 2008, 1, 205-218.	0.3	107
26	Fund Black scientists. Cell, 2021, 184, 561-565.	13.5	107
27	The Effects of Soluble Growth Factors on Embryonic Stem Cell Differentiation Inside of Fibrin Scaffolds. Stem Cells, 2007, 25, 2235-2244.	1.4	101
28	Enhanced flexor tendon healing through controlled delivery of PDGFâ€BB. Journal of Orthopaedic Research, 2009, 27, 1209-1215.	1.2	101
29	Cell therapy for spinal cord regeneration. Advanced Drug Delivery Reviews, 2008, 60, 263-276.	6.6	97
30	BMP12 induces tenogenic differentiation of adipose-derived stromal cells. PLoS ONE, 2013, 8, e77613.	1.1	92
31	The Effects of Exogenous Basic Fibroblast Growth Factor on Intrasynovial Flexor Tendon Healing in a Canine Model. Journal of Bone and Joint Surgery - Series A, 2010, 92, 2285-2293.	1.4	87
32	bFGF and PDGF-BB for Tendon Repair: Controlled Release and Biologic Activity by Tendon Fibroblasts In Vitro. Annals of Biomedical Engineering, 2010, 38, 225-234.	1.3	87
33	Effect of controlled delivery of neurotrophin-3 from fibrin on spinal cord injury in a long term model. Journal of Controlled Release, 2006, 116, 204-210.	4.8	86
34	Fibrin matrices with affinityâ€based delivery systems and neurotrophic factors promote functional nerve regeneration. Biotechnology and Bioengineering, 2010, 106, 970-979.	1.7	80
35	Combination therapies in the CNS: Engineering the environment. Neuroscience Letters, 2012, 519, 115-121.	1.0	75
36	Engineering peripheral nerve repair. Current Opinion in Biotechnology, 2013, 24, 887-892.	3.3	75

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37	Rationally designed peptides for controlled release of nerve growth factor from fibrin matrices. Journal of Biomedical Materials Research - Part A, 2007, 80A, 13-23.	2.1	74
38	The effect of mesenchymal stromal cell sheets on the inflammatory stage of flexor tendon healing. Stem Cell Research and Therapy, 2016, 7, 144.	2.4	73
39	Effect of hyaluronic acid hydrogels containing astrocyte-derived extracellular matrix and/or V2a interneurons on histologic outcomes following spinal cord injury. Biomaterials, 2018, 162, 208-223.	5.7	71
40	Development of rationally designed affinity-based drug delivery systems. Acta Biomaterialia, 2005, 1, 101-113.	4.1	69
41	The Early Effects of Sustained Platelet-Derived Growth Factor Administration on the Functional and Structural Properties of Repaired Intrasynovial Flexor Tendons: An In Vivo Biomechanic Study at 3 Weeks in Canines. Journal of Hand Surgery, 2007, 32, 373-379.	0.7	66
42	Schwann cells seeded in acellular nerve grafts improve functional recovery. Muscle and Nerve, 2014, 49, 267-276.	1.0	64
43	Combination therapy of stem cell derived neural progenitors and drug delivery of anti-inhibitory molecules for spinal cord injury. Acta Biomaterialia, 2015, 28, 23-32.	4.1	64
44	The Neuroplastic and Therapeutic Potential of Spinal Interneurons in the Injured Spinal Cord. Trends in Neurosciences, 2018, 41, 625-639.	4.2	64
45	Combined Administration of ASCs and BMP-12 Promotes an M2 Macrophage Phenotype and Enhances Tendon Healing. Clinical Orthopaedics and Related Research, 2017, 475, 2318-2331.	0.7	63
46	Combining Stem Cells and Biomaterial Scaffolds for Constructing Tissues and Cell Delivery. StemJournal, 2019, 1, 1-25.	0.8	62
47	Characterization of a multifunctional PEG-based gene delivery system containing nuclear localization signals and endosomal escape peptides. Acta Biomaterialia, 2009, 5, 854-864.	4.1	61
48	The effect of endosomal escape peptides on <i>in vitro</i> gene delivery of polyethylene glycolâ€based vehicles. Journal of Gene Medicine, 2008, 10, 1134-1149.	1.4	59
49	Finely Tuned Temporal and Spatial Delivery of GDNF Promotes Enhanced Nerve Regeneration in a Long Nerve Defect Model. Tissue Engineering - Part A, 2015, 21, 2852-2864.	1.6	59
50	Transplantation of Neural Progenitors and V2a Interneurons after Spinal Cord Injury. Journal of Neurotrauma, 2018, 35, 2883-2903.	1.7	58
51	Sustained dual drug delivery of anti-inhibitory molecules for treatment of spinal cord injury. Journal of Controlled Release, 2015, 213, 103-111.	4.8	57
52	Scaffolds to promote spinal cord regeneration. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2012, 109, 575-594.	1.0	56
53	Controlled-Release Kinetics and Biologic Activity of Platelet-Derived Growth Factor-BB for Use in Flexor Tendon Repair. Journal of Hand Surgery, 2008, 33, 1548-1557.	0.7	55
54	Survival, differentiation, and migration of high-purity mouse embryonic stem cell-derived progenitor motor neurons in fibrin scaffolds after sub-acute spinal cord injury. Biomaterials Science, 2014, 2, 1672-1682.	2.6	54

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55	The Parkinsonian mimetic, 6-OHDA, impairs axonal transport in dopaminergic axons. Molecular Neurodegeneration, 2014, 9, 17.	4.4	53
56	Controlled release of glialâ€derived neurotrophic factor from fibrin matrices containing an affinityâ€based delivery system. Journal of Biomedical Materials Research - Part A, 2009, 89A, 909-918.	2.1	52
57	Heparin-Binding-Affinity-Based Delivery Systems Releasing Nerve Growth Factor Enhance Sciatic Nerve Regeneration. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 771-787.	1.9	52
58	Differential gene expression in motor and sensory Schwann cells in the rat femoral nerve. Journal of Neuroscience Research, 2012, 90, 96-104.	1.3	52
59	Matrices, scaffolds & carriers for cell delivery in nerve regeneration. Experimental Neurology, 2019, 319, 112837.	2.0	50
60	Generation of V2a Interneurons from Mouse Embryonic Stem Cells. Stem Cells and Development, 2014, 23, 1765-1776.	1.1	46
61	Comparison of Acellular Nerve Allograft Modification with Schwann Cells or VEGF. Hand, 2015, 10, 396-402.	0.7	45
62	Release rate controls biological activity of nerve growth factor released from fibrin matrices containing affinityâ€based delivery systems. Journal of Biomedical Materials Research - Part A, 2008, 84A, 300-312.	2.1	44
63	Controlled Delivery of Glial Cell Lineâ€œDerived Neurotrophic Factor Enhances Motor Nerve Regeneration. Journal of Hand Surgery, 2010, 35, 2008-2017.	0.7	44
64	A microdevice platform for visualizing mitochondrial transport in aligned dopaminergic axons. Journal of Neuroscience Methods, 2012, 209, 35-39.	1.3	44
65	Effects of borateâ€based bioactive glass on neuron viability and neurite extension. Journal of Biomedical Materials Research - Part A, 2014, 102, 2767-2775.	2.1	44
66	Stem cells for spinal cord injury: Strategies to inform differentiation and transplantation. Biotechnology and Bioengineering, 2017, 114, 245-259.	1.7	43
67	A systematic evaluation of Schwann cell injection into acellular cold-preserved nerve grafts. Journal of Neuroscience Methods, 2011, 197, 209-215.	1.3	41
68	The effect of adipose-derived stem cell sheets and CTGF on early flexor tendon healing in a canine model. Scientific Reports, 2018, 8, 11078.	1.6	37
69	Anisotropic mechanical properties of magnetically aligned fibrin gels measured by magnetic resonance elastography. Journal of Biomechanics, 2009, 42, 2047-2053.	0.9	32
70	The influence of microenvironment and extracellular matrix molecules in driving neural stem cell fate within biomaterials. Brain Research Bulletin, 2019, 148, 25-33.	1.4	32
71	Synthesis and Characterization of Four-Arm Poly(ethylene glycol)-Based Gene Delivery Vehicles Coupled to Integrin and DNA-Binding Peptides. Molecular Pharmaceutics, 2008, 5, 140-150.	2.3	31
72	Effect of adiposeâ€derived stromal cells and BMP12 on intrasynovial tendon repair: A biomechanical, biochemical, and proteomics study. Journal of Orthopaedic Research, 2016, 34, 630-640.	1.2	31

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73	Fabrication and characterization of poly-(Îµ)-caprolactone and bioactive glass composites for tissue engineering applications. Materials Science and Engineering C, 2015, 49, 632-639.	3.8	27
74	GDNF preconditioning can overcome Schwann cell phenotypic memory. Experimental Neurology, 2015, 265, 1-7.	2.0	27
75	Generation of highly enriched V2a interneurons from mouse embryonic stem cells. Experimental Neurology, 2016, 277, 305-316.	2.0	26
76	V2a interneuron differentiation from mouse and human pluripotent stem cells. Nature Protocols, 2019, 14, 3033-3058.	5.5	25
77	Glial cell line-derived neurotrophic factor promotes increased phenotypic marker expression in femoral sensory and motor-derived Schwann cell cultures. Experimental Neurology, 2014, 257, 10-18.	2.0	24
78	Directed Differentiation of V3 Interneurons from Mouse Embryonic Stem Cells. Stem Cells and Development, 2015, 24, 2723-2732.	1.1	22
79	Transgenic enrichment of mouse embryonic stem cell-derived progenitor motor neurons. Stem Cell Research, 2012, 8, 368-378.	0.3	21
80	Using biomaterials to promote pro-regenerative glial phenotypes after nervous system injuries. Biomedical Materials (Bristol), 2018, 13, 024104.	1.7	20
81	A new method for generating high purity motoneurons from mouse embryonic stem cells. Biotechnology and Bioengineering, 2014, 111, 2041-2055.	1.7	19
82	Increased Tissue Stiffness in Tumors from Mice with Neurofibromatosis-1 Optic Glioma. Biophysical Journal, 2017, 112, 1535-1538.	0.2	19
83	Development of novel poly(ethylene glycol)-based vehicles for gene delivery. Biotechnology and Bioengineering, 2007, 96, 967-976.	1.7	16
84	A puromycin selectable cell line for the enrichment of mouse embryonic stem cell-derived V3 interneurons. Stem Cell Research and Therapy, 2015, 6, 220.	2.4	16
85	Effect of connective tissue growth factor delivered via porous sutures on the proliferative stage of intrasynovial tendon repair. Journal of Orthopaedic Research, 2018, 36, 2052-2063.	1.2	15
86	Derivation of Specific Neural Populations From Pluripotent Cells for Understanding and Treatment of Spinal Cord Injury. Developmental Dynamics, 2019, 248, 78-87.	0.8	15
87	Kinetic Analysis of Neurotrophin-3â€"Mediated Differentiation of Embryonic Stem Cells into Neurons. Tissue Engineering - Part A, 2009, 15, 307-318.	1.6	13
88	Comparison of Conventional, Revascularized, and Bioengineered Methods of Recurrent Laryngeal Nerve Reconstruction. JAMA Otolaryngology - Head and Neck Surgery, 2016, 142, 526.	1.2	13
89	Transgenic SCs expressing GDNFâ€IRESâ€DsRed impair nerve regeneration within acellular nerve allografts. Biotechnology and Bioengineering, 2017, 114, 2121-2130.	1.7	13
90	Viral transduction of primary Schwann cells using a Creâ€lox system to regulate GDNF expression. Biotechnology and Bioengineering, 2014, 111, 1886-1894.	1.7	12

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91	Controlled Neurotrophic Factor Delivery To Promote Functional Peripheral Nerve Regeneration. Plastic and Reconstructive Surgery, 2010, 126, 55.	0.7	11
92	Different Mixed Astrocyte Populations Derived from Embryonic Stem Cells Have Variable Neuronal Growth Support Capacities. Stem Cells and Development, 2017, 26, 1597-1611.	1.1	11
93	Flexor Tendon Injury and Repair. Journal of Bone and Joint Surgery - Series A, 2021, 103, e36.	1.4	11
94	A microfluidic platform to study the effects of GDNF on neuronal axon entrapment. Journal of Neuroscience Methods, 2018, 308, 183-191.	1.3	9
95	Passive Clearing and 3D Lightsheet Imaging of the Intact and Injured Spinal Cord in Mice. Frontiers in Cellular Neuroscience, 2021, 15, 684792.	1.8	7
96	Genome engineering for CNS injury and disease. Current Opinion in Biotechnology, 2018, 52, 89-94.	3.3	6
97	Analysis of Cell Binding and Internalization of Multivalent PEG-Based Gene Delivery Vehicles. IEEE Transactions on Nanobioscience, 2012, 11, 54-61.	2.2	5
98	Induction of Ventral Spinal V0 Interneurons from Mouse Embryonic Stem Cells. Stem Cells and Development, 2021, 30, 816-829.	1.1	3
99	Metabolic regulation of intrasynovial flexor tendon repair: The effects of dichloroacetate administration on early tendon healing in a canine model. Journal of Orthopaedic Research, 2022, , .	1.2	2
100	Returning What is Lost: Schwann Cell Versus VEGF Addition to Acellular Nerve Allografts. Journal of Hand Surgery, 2014, 39, e12-e13.	0.7	1
101	Getting Your Research Out There: Open Access & More. Annals of Biomedical Engineering, 2012, 40, 2503-2504.	1.3	0
102	Effect of GDNF on schwann cell differentiation and interaction with neurons in vitro. , 2014, , .		0
103	A transgenic mouse embryonic stem cell line for puromycin selection of V0V interneurons from heterogenous induced cultures. Stem Cell Research and Therapy, 2022, 13, 131.	2.4	0