

# Jianwu Dai

## List of Publications by Year in descending order

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Version: 2024-02-01

109  
papers

5,407  
citations

50170

46  
h-index

95083

68  
g-index

110  
all docs

110  
docs citations

110  
times ranked

4890  
citing authors

#	ARTICLE	IF	CITATIONS
1	The enhancement of cancer stem cell properties of MCF-7 cells in 3D collagen scaffolds for modeling of cancer and anti-cancer drugs. <i>Biomaterials</i> , 2012, 33, 1437-1444.	5.7	241
2	Homogeneous osteogenesis and bone regeneration by demineralized bone matrix loading with collagen-targeting bone morphogenetic protein-2. <i>Biomaterials</i> , 2007, 28, 1027-1035.	5.7	163
3	Regeneration of uterine horns in rats by collagen scaffolds loaded with collagen-binding human basic fibroblast growth factor. <i>Biomaterials</i> , 2011, 32, 8172-8181.	5.7	131
4	Myocardial Infarction-Responsive Smart Hydrogels Targeting Matrix Metalloproteinase for On-Demand Growth Factor Delivery. <i>Advanced Materials</i> , 2019, 31, e1902900.	11.1	128
5	Clinical Study of NeuroRegen Scaffold Combined with Human Mesenchymal Stem Cells for the Repair of Chronic Complete Spinal Cord Injury. <i>Cell Transplantation</i> , 2017, 26, 891-900.	1.2	127
6	Linear Ordered Collagen Scaffolds Loaded with Collagen-Binding Brain-Derived Neurotrophic Factor Improve the Recovery of Spinal Cord Injury in Rats. <i>Tissue Engineering - Part A</i> , 2009, 15, 2927-2935.	1.6	126
7	The promotion of neural regeneration in an extreme rat spinal cord injury model using a collagen scaffold containing a collagen binding neuroprotective protein and an EGFR neutralizing antibody. <i>Biomaterials</i> , 2010, 31, 9212-9220.	5.7	123
8	The use of laminin modified linear ordered collagen scaffolds loaded with laminin-binding ciliary neurotrophic factor for sciatic nerve regeneration in rats. <i>Biomaterials</i> , 2011, 32, 3939-3948.	5.7	123
9	The linear-ordered collagen scaffold-BDNF complex significantly promotes functional recovery after completely transected spinal cord injury in canine. <i>Biomaterials</i> , 2015, 41, 89-96.	5.7	123
10	A collagen microchannel scaffold carrying paclitaxel-liposomes induces neuronal differentiation of neural stem cells through Wnt/ $\beta$ -catenin signaling for spinal cord injury repair. <i>Biomaterials</i> , 2018, 183, 114-127.	5.7	118
11	Significant Improvement of Acute Complete Spinal Cord Injury Patients Diagnosed by a Combined Criteria Implanted with NeuroRegen Scaffolds and Mesenchymal Stem Cells. <i>Cell Transplantation</i> , 2018, 27, 907-915.	1.2	118
12	A modified collagen scaffold facilitates endogenous neurogenesis for acute spinal cord injury repair. <i>Acta Biomaterialia</i> , 2017, 51, 304-316.	4.1	117
13	Collagen-Targeting Vascular Endothelial Growth Factor Improves Cardiac Performance After Myocardial Infarction. <i>Circulation</i> , 2009, 119, 1776-1784.	1.6	115
14	Cetuximab modified collagen scaffold directs neurogenesis of injury-activated endogenous neural stem cells for acute spinal cord injury repair. <i>Biomaterials</i> , 2017, 137, 73-86.	5.7	106
15	Promotion of neuronal differentiation of neural progenitor cells by using EGFR antibody functionalized collagen scaffolds for spinal cord injury repair. <i>Biomaterials</i> , 2013, 34, 5107-5116.	5.7	104
16	The effect of collagen-targeting platelet-derived growth factor on cellularization and vascularization of collagen scaffolds. <i>Biomaterials</i> , 2006, 27, 5708-5714.	5.7	101
17	One-year clinical study of NeuroRegen scaffold implantation following scar resection in complete chronic spinal cord injury patients. <i>Science China Life Sciences</i> , 2016, 59, 647-655.	2.3	90
18	Nogo-66 Promotes the Differentiation of Neural Progenitors into Astroglial Lineage Cells through mTOR-STAT3 Pathway. <i>PLoS ONE</i> , 2008, 3, e1856.	1.1	89

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19	The effect of collagen-binding vascular endothelial growth factor on the remodeling of scarred rat uterus following full-thickness injury. <i>Biomaterials</i> , 2012, 33, 1801-1807.	5.7	89
20	Scaffold-facilitated locomotor improvement post complete spinal cord injury: Motor axon regeneration versus endogenous neuronal relay formation. <i>Biomaterials</i> , 2019, 197, 20-31.	5.7	82
21	Small molecules combined with collagen hydrogel direct neurogenesis and migration of neural stem cells after spinal cord injury. <i>Biomaterials</i> , 2021, 269, 120479.	5.7	82
22	Radially Aligned Electrospun Fibers with Continuous Gradient of SDF1 $\alpha$ for the Guidance of Neural Stem Cells. <i>Small</i> , 2016, 12, 5009-5018.	5.2	81
23	A novel hydrogel-based treatment for complete transection spinal cord injury repair is driven by microglia/macrophages repopulation. <i>Biomaterials</i> , 2020, 237, 119830.	5.7	77
24	Functionalized Collagen Scaffold Neutralizing the Myelin-Inhibitory Molecules Promoted Neurites Outgrowth in Vitro and Facilitated Spinal Cord Regeneration in Vivo. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 13960-13971.	4.0	76
25	Collagen scaffolds modified with CNTF and bFGF promote facial nerve regeneration in minipigs. <i>Biomaterials</i> , 2014, 35, 7819-7827.	5.7	74
26	Novel nerve guidance material prepared from bovine aponeurosis. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 79A, 591-598.	2.1	73
27	Linear Ordered Collagen Scaffolds Loaded with Collagen-Binding Neurotrophin-3 Promote Axonal Regeneration and Partial Functional Recovery after Complete Spinal Cord Transection. <i>Journal of Neurotrauma</i> , 2010, 27, 1671-1683.	1.7	73
28	A DAMP-scavenging, IL-10-releasing hydrogel promotes neural regeneration and motor function recovery after spinal cord injury. <i>Biomaterials</i> , 2022, 280, 121279.	5.7	73
29	Functional Multichannel Poly(Propylene Fumarate)-Collagen Scaffold with Collagen-Binding Neurotrophic Factor 3 Promotes Neural Regeneration After Transected Spinal Cord Injury. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800315.	3.9	71
30	Vascularization and cellularization of collagen scaffolds incorporated with two different collagen-targeting human basic fibroblast growth factors. <i>Journal of Biomedical Materials Research - Part A</i> , 2007, 82A, 630-636.	2.1	69
31	Regeneration of full-thickness abdominal wall defects in rats using collagen scaffolds loaded with collagen-binding basic fibroblast growth factor. <i>Biomaterials</i> , 2011, 32, 753-759.	5.7	64
32	Human placenta-derived mesenchymal stem cells loaded on linear ordered collagen scaffold improves functional recovery after completely transected spinal cord injury in canine. <i>Science China Life Sciences</i> , 2018, 61, 2-13.	2.3	64
33	Acceleration of diabetic wound healing by collagen-binding vascular endothelial growth factor in diabetic rat model. <i>Diabetes Research and Clinical Practice</i> , 2010, 90, 66-72.	1.1	62
34	Functionalized collagen scaffold implantation and cAMP administration collectively facilitate spinal cord regeneration. <i>Acta Biomaterialia</i> , 2016, 30, 233-245.	4.1	61
35	Transplantation of hUC-MSCs seeded collagen scaffolds reduces scar formation and promotes functional recovery in canines with chronic spinal cord injury. <i>Scientific Reports</i> , 2017, 7, 43559.	1.6	61
36	The promotion of neurological recovery in the rat spinal cord crushed injury model by collagen-binding BDNF. <i>Biomaterials</i> , 2010, 31, 8634-8641.	5.7	60

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37	LncRNA Neat1 mediates miR-124-induced activation of Wnt/ $\beta$ -catenin signaling in spinal cord neural progenitor cells. <i>Stem Cell Research and Therapy</i> , 2019, 10, 400.	2.4	60
38	Controlled release of collagen-binding SDF-1 $\alpha$ from the collagen scaffold promoted tendon regeneration in a rat Achilles tendon defect model. <i>Biomaterials</i> , 2018, 162, 22-33.	5.7	59
39	Bladder Regeneration by Collagen Scaffolds With Collagen Binding Human Basic Fibroblast Growth Factor. <i>Journal of Urology</i> , 2010, 183, 2432-2439.	0.2	58
40	Training Neural Stem Cells on Functional Collagen Scaffolds for Severe Spinal Cord Injury Repair. <i>Advanced Functional Materials</i> , 2016, 26, 5835-5847.	7.8	58
41	A Dual Functional Scaffold Tethered with EGFR Antibody Promotes Neural Stem Cell Retention and Neuronal Differentiation for Spinal Cord Injury Repair. <i>Advanced Healthcare Materials</i> , 2017, 6, 1601279.	3.9	56
42	Bridging the gap with functional collagen scaffolds: tuning endogenous neural stem cells for severe spinal cord injury repair. <i>Biomaterials Science</i> , 2018, 6, 265-271.	2.6	56
43	Cetuximab and Taxol co-modified collagen scaffolds show combination effects for the repair of acute spinal cord injury. <i>Biomaterials Science</i> , 2018, 6, 1723-1734.	2.6	55
44	Promotion of diabetic wound healing by collagen scaffold with collagen-binding vascular endothelial growth factor in a diabetic rat model. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014, 8, 195-201.	1.3	54
45	Aligned collagen scaffold combination with human spinal cord-derived neural stem cells to improve spinal cord injury repair. <i>Biomaterials Science</i> , 2020, 8, 5145-5156.	2.6	51
46	Taxol-modified collagen scaffold implantation promotes functional recovery after long-distance spinal cord complete transection in canines. <i>Biomaterials Science</i> , 2018, 6, 1099-1108.	2.6	50
47	Collagen scaffold combined with human umbilical cord-derived mesenchymal stem cells promote functional recovery after scar resection in rats with chronic spinal cord injury. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, e1154-e1163.	1.3	50
48	Collagen scaffolds modified with collagen-binding bFGF promotes the neural regeneration in a rat hemisectioned spinal cord injury model. <i>Science China Life Sciences</i> , 2014, 57, 232-240.	2.3	49
49	Linear Ordered Collagen Scaffolds Loaded with Collagen-Binding Basic Fibroblast Growth Factor Facilitate Recovery of Sciatic Nerve Injury in Rats. <i>Tissue Engineering - Part A</i> , 2014, 20, 1253-1262.	1.6	47
50	A dual functional collagen scaffold coordinates angiogenesis and inflammation for diabetic wound healing. <i>Biomaterials Science</i> , 2020, 8, 6337-6349.	2.6	45
51	NSCs Migration Promoted and Drug Delivered Exosomes@Collagen Scaffold via a Bio-specific Peptide for One-step Spinal Cord Injury Repair. <i>Advanced Healthcare Materials</i> , 2021, 10, e2001896.	3.9	45
52	Modified VEGF targets the ischemic myocardium and promotes functional recovery after myocardial infarction. <i>Journal of Controlled Release</i> , 2015, 213, 27-35.	4.8	44
53	Improved neovascularization and wound repair by targeting human basic fibroblast growth factor (bFGF) to fibrin. <i>Journal of Molecular Medicine</i> , 2008, 86, 1127-1138.	1.7	42
54	Extrahepatic bile duct regeneration in pigs using collagen scaffolds loaded with human collagen-binding bFGF. <i>Biomaterials</i> , 2012, 33, 4298-4308.	5.7	42

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55	Adhesive, Stretchable, and Spatiotemporal Delivery Fibrous Hydrogels Harness Endogenous Neural Stem/Progenitor Cells for Spinal Cord Injury Repair. <i>ACS Nano</i> , 2022, 16, 1986-1998.	7.3	40
56	Collagen-binding basic fibroblast growth factor improves functional remodeling of scarred endometrium in uterine infertile women: a pilot study. <i>Science China Life Sciences</i> , 2019, 62, 1617-1629.	2.3	38
57	Controlled Release of Collagen-Binding SDF-1 $\beta$ Improves Cardiac Function after Myocardial Infarction by Recruiting Endogenous Stem Cells. <i>Scientific Reports</i> , 2016, 6, 26683.	1.6	37
58	Advances in Biomaterials-Based Spinal Cord Injury Repair. <i>Advanced Functional Materials</i> , 2022, 32, 2110628.	7.8	37
59	The neuronal differentiation microenvironment is essential for spinal cord injury repair. <i>Organogenesis</i> , 2017, 13, 63-70.	0.4	35
60	Different functional bio-scaffolds share similar neurological mechanism to promote locomotor recovery of canines with complete spinal cord injury. <i>Biomaterials</i> , 2019, 214, 119230.	5.7	32
61	Neural regrowth induced by PLGA nerve conduits and neurotrophin-3 in rats with complete spinal cord transection. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011, 97B, 271-277.	1.6	31
62	Long-term clinical observation of patients with acute and chronic complete spinal cord injury after transplantation of NeuroRegen scaffold. <i>Science China Life Sciences</i> , 2022, 65, 909-926.	2.3	31
63	Single-molecule level binding force between collagen and collagen binding domain-growth factor conjugates. <i>Biomaterials</i> , 2013, 34, 6139-6146.	5.7	28
64	Comparison of subacute and chronic scar tissues after complete spinal cord transection. <i>Experimental Neurology</i> , 2018, 306, 132-137.	2.0	26
65	Bladder regeneration in a canine model using a bladder acellular matrix loaded with a collagen-binding bFGF. <i>Biomaterials Science</i> , 2017, 5, 2427-2436.	2.6	26
66	Collagen/Heparin Biotin-Affinity Multilayer Modified Collagen Scaffolds for Controlled bFGF Release to Improve Angiogenesis In Vivo. <i>Macromolecular Bioscience</i> , 2018, 18, e1800086.	2.1	25
67	Comparison of Regenerative Effects of Transplanting Three-Dimensional Longitudinal Scaffold Loaded-Human Mesenchymal Stem Cells and Human Neural Stem Cells on Spinal Cord Completely Transected Rats. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 1671-1680.	2.6	25
68	Use of Natural Neural Scaffolds Consisting of Engineered Vascular Endothelial Growth Factor Immobilized on Ordered Collagen Fibers Filled in a Collagen Tube for Peripheral Nerve Regeneration in Rats. <i>International Journal of Molecular Sciences</i> , 2014, 15, 18593-18609.	1.8	24
69	Bladder Acellular Matrix Conjugated with Basic Fibroblast Growth Factor for Bladder Regeneration. <i>Tissue Engineering - Part A</i> , 2014, 20, 2234-2242.	1.6	24
70	Long-term stability, high strength, and 3D printable alginate hydrogel for cartilage tissue engineering application. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 064102.	1.7	24
71	Aligned Scaffolds with Biomolecular Gradients for Regenerative Medicine. <i>Polymers</i> , 2019, 11, 341.	2.0	23
72	Direct Neuronal Differentiation of Neural Stem Cells for Spinal Cord Injury Repair. <i>Stem Cells</i> , 2021, 39, 1025-1032.	1.4	23

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73	Transplantation of human adipose-derived mesenchymal stem cells on a bladder acellular matrix for bladder regeneration in a canine model. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 031001.	1.7	22
74	Heparan sulfate proteoglycan promotes fibroblast growth factor-2 function for ischemic heart repair. <i>Biomaterials Science</i> , 2019, 7, 5438-5450.	2.6	21
75	Biomaterialization improves the thermostability of foot-and-mouth disease virus-like particles and the protective immune response induced. <i>Nanoscale</i> , 2019, 11, 22748-22761.	2.8	21
76	Complete canine spinal cord transection model: a large animal model for the translational research of spinal cord regeneration. <i>Science China Life Sciences</i> , 2018, 61, 115-117.	2.3	20
77	Epidermal growth factor receptor-extracellular-regulated kinase blockade upregulates TRIM32 signaling cascade and promotes neurogenesis after spinal cord injury. <i>Stem Cells</i> , 2020, 38, 118-133.	1.4	19
78	Identification of ZG16B as a prognostic biomarker in breast cancer. <i>Open Medicine (Poland)</i> , 2020, 16, 1-13.	0.6	19
79	Acceleration of Healing of Traumatic Tympanic Membrane Perforation in Rats by Implanted Collagen Membrane Integrated with Collagen-Binding Basic Fibroblast Growth Factor. <i>Tissue Engineering - Part A</i> , 2017, 23, 20-29.	1.6	17
80	Collagen-binding VEGF targeting the cardiac extracellular matrix promotes recovery in porcine chronic myocardial infarction. <i>Biomaterials Science</i> , 2018, 6, 356-363.	2.6	17
81	Pre-Clinical Evaluation of CBD-NT3 Modified Collagen Scaffolds in Completely Spinal Cord Transected Non-Human Primates. <i>Journal of Neurotrauma</i> , 2019, 36, 2316-2324.	1.7	17
82	Identification of NCAPH as a biomarker for prognosis of breast cancer. <i>Molecular Biology Reports</i> , 2020, 47, 7831-7842.	1.0	17
83	Dual Cues Laden Scaffold Facilitates Neurovascular Regeneration and Motor Functional Recovery After Complete Spinal Cord Injury. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100089.	3.9	17
84	Transplantation of adult spinal cord grafts into spinal cord transected rats improves their locomotor function. <i>Science China Life Sciences</i> , 2019, 62, 725-733.	2.3	16
85	Optimized, visible light-induced crosslinkable hybrid gelatin/hyaluronic acid scaffold promotes complete spinal cord injury repair. <i>Biomedical Materials (Bristol)</i> , 2022, 17, 024104.	1.7	14
86	Lower fluidity of supported lipid bilayers promotes neuronal differentiation of neural stem cells by enhancing focal adhesion formation. <i>Biomaterials</i> , 2018, 161, 106-116.	5.7	13
87	Transplantation of collagen sponge-based three-dimensional neural stem cells cultured in a RCCS facilitates locomotor functional recovery in spinal cord injury animals. <i>Biomaterials Science</i> , 2022, 10, 915-924.	2.6	13
88	Binary scaffold facilitates in situ regeneration of axons and neurons for complete spinal cord injury repair. <i>Biomaterials Science</i> , 2021, 9, 2955-2971.	2.6	12
89	Scar tissue removal-activated endogenous neural stem cells aid Taxol-modified collagen scaffolds in repairing chronic long-distance transected spinal cord injury. <i>Biomaterials Science</i> , 2021, 9, 4778-4792.	2.6	12
90	Upregulation of Apol8 by Epothilone D facilitates the neuronal relay of transplanted NSCs in spinal cord injury. <i>Stem Cell Research and Therapy</i> , 2021, 12, 300.	2.4	12

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91	The Rotary Cell Culture System increases NTRK3 expression and promotes neuronal differentiation and migratory ability of neural stem cells cultured on collagen sponge. <i>Stem Cell Research and Therapy</i> , 2021, 12, 298.	2.4	12
92	The Alterations and Potential Roles of MCMs in Breast Cancer. <i>Journal of Oncology</i> , 2021, 2021, 1-17.	0.6	11
93	Systematic Analysis of mRNA and miRNA Expression of 3D-Cultured Neural Stem Cells (NSCs) in Spaceflight. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 434.	1.8	10
94	Epithelial Splicing Regulatory Protein 1 Is Overexpressed in Breast Cancer and Predicts Poor Prognosis for Breast Cancer Patients. <i>Medical Science Monitor</i> , 2021, 27, e931102.	0.5	10
95	Urethral Tissue Reconstruction Using the Acellular Dermal Matrix Patch Modified with Collagen-Binding VEGF in Beagle Urethral Injury Models. <i>BioMed Research International</i> , 2021, 2021, 1-10.	0.9	10
96	The role of mechanosensitive Piezo1 channel in diseases. <i>Progress in Biophysics and Molecular Biology</i> , 2022, 172, 39-49.	1.4	10
97	Allotransplantation of adult spinal cord tissues after complete transected spinal cord injury: Long-term survival and functional recovery in canines. <i>Science China Life Sciences</i> , 2020, 63, 1879-1886.	2.3	9
98	Specific angiogenic peptide binding with injectable cardiac ECM collagen gel promotes the recovery of myocardial infarction in rat. <i>Journal of Biomedical Materials Research - Part A</i> , 2020, 108, 1881-1889.	2.1	8
99	Specific biofunctional CBD-PRIP peptide binding VEGF to collagen hydrogels promotes the recovery of cerebral ischemia in rats. <i>Journal of Biomedical Materials Research - Part A</i> , 0, , .	2.1	6
100	Bioinspired bimodal micro-nanofibrous scaffolds promote the tenogenic differentiation of tendon stem/progenitor cells for achilles tendon regeneration. <i>Biomaterials Science</i> , 2022, 10, 753-769.	2.6	5
101	Scaffolds for spinal cord injury repair: from proof of concept to first in-human studies and clinical trials. , 2020, , 603-619.		4
102	Spatiotemporal dynamic changes, proliferation, and differentiation characteristics of Sox9-positive cells after severe complete transection spinal cord injury. <i>Experimental Neurology</i> , 2021, 337, 113556.	2.0	4
103	High strength pure chitosan hydrogels via double crosslinking strategy. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 045048.	1.7	4
104	Application of biomaterials and tissue engineering in bladder regeneration. <i>Journal of Biomaterials Applications</i> , 2022, 36, 1484-1502.	1.2	4
105	Specific bFGF targeting of KIM-1 in ischemic kidneys protects against renal ischemia-reperfusion injury in rats. <i>International Journal of Energy Production and Management</i> , 2022, 9, .	1.9	4
106	Spinal cord decellularized matrix scaffold loaded with engineered basic fibroblast growth factor overexpressed human umbilical cord mesenchymal stromal cells promoted the recovery of spinal cord injury. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2023, 111, 51-61.	1.6	4
107	Transmembrane protein 16A/noctamin 1 inhibitor T16A <sub>inh</sub> reversed monocrotaline-induced rat pulmonary arterial hypertension. <i>Pulmonary Circulation</i> , 2020, 10, 1-11.	0.8	3
108	Contralateral Axon Sprouting but Not Ipsilateral Regeneration Is Responsible for Spontaneous Locomotor Recovery Post Spinal Cord Hemisection. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 730348.	1.8	3

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109	Identification of LIG1 and LIG3 as prognostic biomarkers in breast cancer. Open Medicine (Poland), 2021, 16, 1705-1717.	0.6	2