Catherine Le Visage

List of Publications by Year
in descending order

82 papers	3,667 citations	109321 35 h-index	144013 57 g-index
84 all docs	84 docs citations	84 times ranked	5276 citing authors

#	Article	IF	Citations
1	A nano-hydroxyapatite â€“ Pullulan/dextran polysaccharide composite macroporous material for bone tissue engineering. Biomaterials, 2013, 34, 2947-2959.	11.4	197
2	Doxorubicin Release Triggered by Alginate Embedded Magnetic Nanoheaters: A Combined Therapy. Advanced Materials, 2011, 23, 787-790.	21.0	169
3	A Novel Crossâ€linked Poly(vinyl alcohol) (PVA) for Vascular Grafts. Advanced Functional Materials, 2008, 18, 2855-2861.	14.9	162
4	Fabrication of porous polysaccharide-based scaffolds using a combined freeze-drying/cross-linking process. Acta Biomaterialia, 2010, 6, 3640-3648.	8.3	157
5	Intervertebral disc regeneration: From cell therapy to the development of novel bioinspired endogenous repair strategies. Advanced Drug Delivery Reviews, 2019, 146, 306-324.	13.7	132
6	Laponite nanoparticle-associated silated hydroxypropylmethyl cellulose as an injectable reinforced interpenetrating network hydrogel for cartilage tissue engineering. Acta Biomaterialia, 2018, 65, 112-122.	8.3	113
7	Low Molecular Weight Fucoidan Increases VEGF165-induced Endothelial Cell Migration by Enhancing VEGF165 Binding to VEGFR-2 and NRP1. Journal of Biological Chemistry, 2006, 281, 37844-37852.	3.4	107
8	Innovative strategies for intervertebral disc regenerative medicine: From cell therapies to multiscale delivery systems. Biotechnology Advances, 2018, 36, 281-294.	11.7	95
9	High-Resolution Cellular MRI: Gadolinium and Iron Oxide Nanoparticles for in-Depth Dual-Cell Imaging of Engineered Tissue Constructs. ACS Nano, 2013, 7, 7500-7512.	14.6	88
10	Interaction of Human Mesenchymal Stem Cells With Disc Cells. Spine, 2006, 31, 2036-2042.	2.0	87
11	Use of Magnetic Forces to Promote Stem Cell Aggregation During Differentiation, and Cartilage Tissue Modeling. Advanced Materials, 2013, 25, 2611-2616.	21.0	84
12	Magnetic resonance imaging tracking of human adipose derived stromal cells within three-dimensional scaffolds for bone tissue engineering. , 2011, 21, 341-354.		81
13	Planar and tubular patterning of micro and nano-topographies on poly(vinyl alcohol) hydrogel for improved endothelial cell responses. Biomaterials, 2016, 84, 184-195.	11.4	77
14	Pullulan-based hydrogel for smooth muscle cell culture. Journal of Biomedical Materials Research - Part A, 2007, 82A, 336-342.	4.0	75
15	The evaluation of a small-diameter polysaccharide-based arterial graft in rats. Biomaterials, 2006, 27, 5546-5553.	11.4	74
16	Assessing glucose and oxygen diffusion in hydrogels for the rational design of 3D stem cell scaffolds in regenerative medicine. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1238-1246.	2.7	74
17	Toward the development of biomimetic injectable and macroporous biohydrogels for regenerative medicine. Advances in Colloid and Interface Science, 2017, 247, 589-609.	14.7	72
18	Lessons learned from intervertebral disc pathophysiology to guide rational design of sequential delivery systems for therapeutic biological factors. Advanced Drug Delivery Reviews, 2019, 149-150, 49-71.	13.7	71

#	Article	IF	Citations
19	Proliferation and differentiation of human mesenchymal stem cell encapsulated in polyelectrolyte complexation fibrous scaffold. Biomaterials, 2006, 27, 6111-6122.	11.4	70
20	Cell interactions between human progenitor-derived endothelial cells and human mesenchymal stem cells in a three-dimensional macroporous polysaccharide-based scaffold promote osteogenesis. Acta Biomaterialia, 2013, 9, 8200-8213.	8.3	67
21	In vitro and in vivo evaluation of an electrospun-aligned microfibrous implant for Annulus fibrosus repair. Biomaterials, 2019, 205, 81-93.	11.4	66
22	Coculture of Mesenchymal Stem Cells and Respiratory Epithelial Cells to Engineer a Human Composite Respiratory Mucosa. Tissue Engineering, 2004, 10, 1426-1435.	4.6	65
23	Human endothelial progenitor cell attachment to polysaccharide-based hydrogels: A pre-requisite for vascular tissue engineering. Journal of Materials Science: Materials in Medicine, 2007, 18, 339-345.	3.6	65
24	Fucoidan in a 3D scaffold interacts with vascular endothelial growth factor and promotes neovascularization in mice. Drug Delivery and Translational Research, 2015, 5, 187-197.	5.8	58
25	Efficacy of Paclitaxel Released From Bio-Adhesive Polymer Microspheres on Model Superficial Bladder Cancer. Journal of Urology, 2004, 171, 1324-1329.	0.4	54
26	Magnetic micro-manipulations to probe the local physical properties of porous scaffolds and to confine stem cells. Biomaterials, 2010, 31, 1586-1595.	11.4	51
27	Mesenchymal Stem Cell Delivery into Rat Infarcted Myocardium Using a Porous Polysaccharide-Based Scaffold: A Quantitative Comparison With Endocardial Injection. Tissue Engineering - Part A, 2012, 18, 35-44.	3.1	51
28	Encapsulation of biologics in self-assembled fibers as biostructural units for tissue engineering. Journal of Biomedical Materials Research Part B, 2004, 71A, 586-595.	3.1	50
29	Evaluation of hemocompatibility and endothelialization of hybrid poly(vinyl alcohol) (PVA)/gelatin polymer films. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101, 1549-1559.	3.4	46
30	Plasma functionalization of poly(vinyl alcohol) hydrogel for cell adhesion enhancement. Biomatter, 2013, 3, .	2.6	45
31	MR imaging of biodegradable polymeric microparticles: A potential method of monitoring local drug delivery. Magnetic Resonance in Medicine, 2005, 53, 614-620.	3.0	43
32	Porous Polysaccharideâ€Based Scaffolds for Human Endothelial Progenitor Cells. Macromolecular Bioscience, 2012, 12, 901-910.	4.1	42
33	Small Intestinal Submucosa as a Potential Bioscaffold for Intervertebral Disc Regeneration. Spine, 2006, 31, 2423-2430.	2.0	41
34	Calcium-phosphate ceramics and polysaccharide-based hydrogel scaffolds combined with mesenchymal stem cell differently support bone repair in rats. Journal of Materials Science: Materials in Medicine, 2017, 28, 35.	3.6	39
35	High-Resolution 1.5-Tesla Magnetic Resonance Imaging for Tissue-Engineered Constructs: A Noninvasive Tool to Assess Three-Dimensional Scaffold Architecture and Cell Seeding. Tissue Engineering - Part C: Methods, 2010, 16, 185-200.	2.1	38
36	Composite pullulanâ€"dextran polysaccharide scaffold with interfacial polyelectrolyte complexation fibers: A platform with enhanced cell interaction and spatial distribution. Acta Biomaterialia, 2014, 10, 4410-4418.	8.3	38

#	Article	IF	Citations
37	Polysaccharide electrospun fibers with sulfated poly(fucose) promote endothelial cell migration and VEGF-mediated angiogenesis. Biomaterials Science, 2014, 2, 843-852.	5.4	35
38	Characterization of biomaterials intended for use in the nucleus pulposus of degenerated intervertebral discs. Acta Biomaterialia, 2020, 114, 1-15.	8.3	35
39	Successful chondrogenesis within scaffolds, using magnetic stem cell confinement and bioreactor maturation. Acta Biomaterialia, 2016, 37, 101-110.	8.3	34
40	Biomaterial-assisted cell therapy in osteoarthritis: From mesenchymal stem cells to cell encapsulation. Best Practice and Research in Clinical Rheumatology, 2017, 31, 730-745.	3.3	34
41	Abdominal Aortic Aneurysms Targeted by Functionalized Polysaccharide Microparticles: a new Tool for SPECT Imaging. Theranostics, 2014, 4, 592-603.	10.0	32
42	Pullulan microbeads/Si-HPMC hydrogel injectable system for the sustained delivery of GDF-5 and TGF-Î²1: new insight into intervertebral disc regenerative medicine. Drug Delivery, 2017, 24, 999-1010.	5.7	32
43	In situ photochemical crosslinking of hydrogel membrane for Guided Tissue Regeneration. Dental Materials, 2018, 34, 1769-1782.	3.5	32
44	Pullulan/dextran/nHA Macroporous Composite Beads for Bone Repair in a Femoral Condyle Defect in Rats. PLoS ONE, 2014, 9, e110251.	2.5	32
45	Submillimeter Diameter Poly(Vinyl Alcohol) Vascular Graft Patency in Rabbit Model. Frontiers in Bioengineering and Biotechnology, 2016, 4, 44.	4.1	31
46	Controlled release of biological factors for endogenous progenitor cell migration and intervertebral disc extracellular matrix remodelling. Biomaterials, 2020, 253, 120107.	11.4	31
47	Leukocyte mimetic polysaccharide microparticles tracked in vivo on activated endothelium and in abdominal aortic aneurysm. Acta Biomaterialia, 2014, 10, 3535-3545.	8.3	30
48	Three-Dimensional Environment Sustains Hematopoietic Stem Cell Differentiation into Platelet-Producing Megakaryocytes. PLoS ONE, 2015, 10, e0136652.	2.5	29
49	Design of Biomimetic Vascular Grafts with Magnetic Endothelial Patterning. Cell Transplantation, 2013, 22, 2105-2118.	2.5	28
50	Composite Scaffold of Poly(Vinyl Alcohol) and Interfacial Polyelectrolyte Complexation Fibers for Controlled Biomolecule Delivery. Frontiers in Bioengineering and Biotechnology, 2015, 3, 3.	4.1	27
51	Fucoidan Promotes Early Step of Cardiac Differentiation from Human Embryonic Stem Cells and Long-Term Maintenance of Beating Areas. Tissue Engineering - Part A, 2014, 20, 1285-1294.	3.1	26
52	Silica nanofibers as a new drug delivery system: a study of the proteinâ€"silica interactions. Journal of Materials Chemistry B, 2017, 5, 2908-2920.	5.8	25
53	Design and characterization of an in vivo injectable hydrogel with effervescently generated porosity for regenerative medicine applications. Acta Biomaterialia, 2022, 140, 324-337.	8.3	25
54	Novel microparticulate system made of poly(methylidene malonate 2.1.2). Biomaterials, 2001, 22, 2229-2238.	11.4	21

#	Article	IF	Citations
55	Long-Term Stabilization of Polysaccharide Electrospun Fibres by In Situ Cross-Linking. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 1459-1472.	3.5	21
56	Biomimicking Polysaccharide Nanofibers Promote Vascular Phenotypes: A Potential Application for Vascular Tissue Engineering. Macromolecular Bioscience, 2012, 12, 395-401.	4.1	21
57	Polysaccharide Hydrogels Support the Long-Term Viability of Encapsulated Human Mesenchymal Stem Cells and Their Ability to Secrete Immunomodulatory Factors. Stem Cells International, 2017, 2017, 1-11.	2.5	21
58	Biological challenges for regeneration of the degenerated disc using cellular therapies. Monthly Notices of the Royal Astronomical Society: Letters, 2016, 87, 39-46.	3.3	20
59	Microcarriers Based on Glycosaminoglycan-Like Marine Exopolysaccharide for TGF-Î²1 Long-Term Protection. Marine Drugs, 2019, 17, 65.	4.6	20
60	Osteoarthritis: From upcoming treatments to treatments yet to come. Joint Bone Spine, 2021, 88, 105206.	1.6	18
61	In Vivo US Monitoring of Catheter-based Vascular Delivery of Gene Microspheres in Pigs: Feasibility. Radiology, 2003, 228, 555-559.	7.3	15
62	Polysaccharide nanofibers with variable compliance for directing cell fate. Journal of Biomedical Materials Research - Part A, 2015, 103, 959-968.	4.0	15
63	Degenerative lumbar disc disease: in vivo data support the rationale for the selection of appropriate animal models. , 2020, 39, 17-48.		14
64	In vitroandin vivoEvaluation of Poly(Methylidene Malonate 2.1.2) Microparticles Behavior for Oral Administration. Journal of Drug Targeting, 2001, 9, 141-153.	4.4	13
65	Pro-angiogenic effect of RANTES-loaded polysaccharide-based microparticles for a mouse ischemia therapy. Scientific Reports, 2017, 7, 13294.	3.3	13
66	Bioadhesive characterization of poly(methylidene malonate 2.12) microparticle on model extracellular matrix. Biomaterials, 2004, 25, 4327-4332.	11.4	11
67	Application of Millifluidics to Encapsulate and Support Viable Human Mesenchymal Stem Cells in a Polysaccharide Hydrogel. International Journal of Molecular Sciences, 2018, 19, 1952.	4.1	11
68	Quantifying Oxygen Levels in 3D Bioprinted Cell-Laden Thick Constructs with Perfusable Microchannel Networks. Polymers, 2020, 12, 1260.	4.5	11
69	Lipid nanocapsules for intracellular delivery of microRNA: A first step towards intervertebral disc degeneration therapy. International Journal of Pharmaceutics, 2022, 624, 121941.	5.2	10
70	Microgels based on Infernan, a glycosaminoglycan-mimetic bacterial exopolysaccharide, as BMP-2 delivery systems. Carbohydrate Polymers, 2022, 284, 119191.	10.2	7
71	Evaluation of Functionalized Polysaccharide Microparticles Dosimetry for SPECT Imaging Based on Biodistribution Data of Rats. Molecular Imaging and Biology, 2015, 17, 504-511.	2.6	6
72	Comparison of MRI T1, T2, and T2* mapping with histology for assessment of intervertebral disc degeneration in an ovine model. Scientific Reports, 2022, 12, 5398.	3.3	6

#	Article	IF	Citations
73	Collateral effects of targeting the nucleus pulposus via a transpedicular or transannular surgical route: a combined X-ray, MRI, and histological long-term descriptive study in sheep. European Spine Journal, 2021, 30, 585-595.	2.2	4
74	Correlation between magnetic resonance, X-ray imaging alterations and histological changes in an ovine model of age-related disc degeneration. , 2021, 42, 166-178.		4
75	Mitochondrial Routing of Glucose and Sucrose Polymers after Pinocytotic Uptake: Avenues for Drug Delivery. Biomacromolecules, 2014, 15, 2119-2127.	5.4	3
76	The influence of the helicity of soluble peptides on their adsorption kinetics. Colloids and Surfaces B: Biointerfaces, 1997, 9, 233-238.	5.0	1
77	Coculture of Mesenchymal Stem Cells and Respiratory Epithelial Cells to Engineer a Human Composite Respiratory Mucosa. Tissue Engineering, 2004, 10, 1426-1435.	4.6	1
78	Novel method for imaging biodegradable polymeric microparticles using MRI: application toward monitoring drug delivery. , 0, , .		0
79	Microsphere as a contrast agent/gene vector in ultrasound imaging-based vascular gene delivery. , 0, , .		0
80	ArthroseÂ: des traitements Ã venir aux traitements dâ€™avenir. Revue Du Rhumatisme Monographies, 2021, 88, 165-171.	0.0	0
81	Tracheal Tissue Engineering. , 2007, , 33-1-33-19.		0
82	Animal Models and Imaging of Intervertebral Disc Degeneration. , 2018, , 19-66.		0