Tatiana Segura

List of Publications by Year
in descending order

106 papers	9,419 citations	46918 47 h-index	39575 94 g-index
117 all docs	117 docs citations	117 times ranked	11386 citing authors

#	Article	IF	Citations
1	Accelerated wound healing by injectable microporous gel scaffolds assembled fromÂannealed building blocks. Nature Materials, 2015, 14, 737-744.	13.3	698
2	Hydrogel microparticles for biomedical applications. Nature Reviews Materials, 2020, 5, 20-43.	23.3	646
3	In situ forming injectable hydrogels for drug delivery and wound repair. Advanced Drug Delivery Reviews, 2018, 127, 167-184.	6.6	547
4	A novel intracellular protein delivery platform based on single-protein nanocapsules. Nature Nanotechnology, 2010, 5, 48-53.	15.6	394
5	The chicken chorioallantoic membrane model in biology, medicine and bioengineering. Angiogenesis, 2014, 17, 779-804.	3.7	334
6	Crosslinked hyaluronic acid hydrogels: a strategy to functionalize and pattern. Biomaterials, 2005, 26, 359-371.	5.7	326
7	Anchorage of VEGF to the extracellular matrix conveys differential signaling responses to endothelial cells. Journal of Cell Biology, 2010, 188, 595-609.	2.3	279
8	Activating an adaptive immune response from a hydrogel scaffold imparts regenerative wound healing. Nature Materials, 2021, 20, 560-569.	13.3	260
9	The spreading, migration and proliferation of mouse mesenchymal stem cells cultured inside hyaluronic acid hydrogels. Biomaterials, 2011, 32, 39-47.	5.7	241
10	Dual-function injectable angiogenic biomaterial for the repair of brain tissue following stroke. Nature Materials, 2018, 17, 642-651.	13.3	235
11	Design of cellâ€"matrix interactions in hyaluronic acid hydrogel scaffolds. Acta Biomaterialia, 2014, 10, 1571-1580.	4.1	221
12	Evolving the use of peptides as components of biomaterials. Biomaterials, 2011, 32, 4198-4204.	5.7	203
13	Biocompatible Hydrogels by Oxime Click Chemistry. Biomacromolecules, 2012, 13, 3013-3017.	2.6	198
14	Systematic optimization of an engineered hydrogel allows for selective control of human neural stem cell survival and differentiation after transplantation in the stroke brain. Biomaterials, 2016, 105, 145-155.	5.7	184
15	Injection of Microporous Annealing Particle (MAP) Hydrogels in the Stroke Cavity Reduces Gliosis and Inflammation and Promotes NPC Migration to the Lesion. Advanced Materials, 2017, 29, 1606471.	11.1	182
16	Hydrogels with precisely controlled integrin activation dictate vascular patterning andÂpermeability. Nature Materials, 2017, 16, 953-961.	13.3	158
17	Granular hydrogels: emergent properties of jammed hydrogel microparticles and their applications in tissue repair and regeneration. Current Opinion in Biotechnology, 2019, 60, 1-8.	3.3	154
18	DNA delivery from hyaluronic acid-collagen hydrogels via a substrate-mediated approach. Biomaterials, 2005, 26, 1575-1584.	5.7	151

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19	Delivery of iPSâ€NPCs to the Stroke Cavity within a Hyaluronic Acid Matrix Promotes the Differentiation of Transplanted Cells. Advanced Functional Materials, 2014, 24, 7053-7062.	7.8	147
20	Surface-Tethered DNA Complexes for Enhanced Gene Delivery. Bioconjugate Chemistry, 2002, 13, 621-629.	1.8	146
21	Gene delivery through cell culture substrate adsorbed DNA complexes. Biotechnology and Bioengineering, 2005, 90, 290-302.	1.7	131
22	The effect of enzymatically degradable poly(ethylene glycol) hydrogels on smooth muscle cell phenotype. Biomaterials, 2008, 29, 314-326.	5.7	129
23	Materials for Non-Viral Gene Delivery. Annual Review of Materials Research, 2001, 31, 25-46.	4.3	115
24	siRNA applications in nanomedicine. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2010, 2, 305-315.	3.3	113
25	Hyaluronic acid and fibrin hydrogels with concentrated DNA/PEI polyplexes for local gene delivery. Journal of Controlled Release, 2011, 153, 255-261.	4.8	112
26	Imine Hydrogels with Tunable Degradability for Tissue Engineering. Biomacromolecules, 2015, 16, 2101-2108.	2.6	112
27	Particle Hydrogels Based on Hyaluronic Acid Building Blocks. ACS Biomaterials Science and Engineering, 2016, 2, 2034-2041.	2.6	112
28	Substrate-mediated DNA delivery: role of the cationic polymer structure and extent of modification. Journal of Controlled Release, 2003, 93, 69-84.	4.8	111
29	Porous Hyaluronic Acid Hydrogels for Localized Nonviral DNA Delivery in a Diabetic Wound Healing Model. Advanced Healthcare Materials, 2015, 4, 1084-1091.	3.9	101
30	Controlled Protein Delivery Based on Enzymeâ€Responsive Nanocapsules. Advanced Materials, 2011, 23, 4549-4553.	11.1	97
31	Hydrogels for brain repair after stroke: an emerging treatment option. Current Opinion in Biotechnology, 2016, 40, 155-163.	3.3	96
32	DNA delivery from matrix metalloproteinase degradable poly(ethylene glycol) hydrogels to mouse cloned mesenchymal stem cells. Biomaterials, 2009, 30, 254-265.	5.7	95
33	Microporous annealed particle hydrogel stiffness, void space size, and adhesion properties impact cell proliferation, cell spreading, and gene transfer. Acta Biomaterialia, 2019, 94, 160-172.	4.1	94
34	Hydrogel Design of Experiments Methodology to Optimize Hydrogel for iPSCâ€NPC Culture. Advanced Healthcare Materials, 2015, 4, 534-539.	3.9	93
35	Controlling the kinetics of thiol-maleimide Michael-type addition gelation kinetics for the generation of homogenous poly(ethylene glycol) hydrogels. Biomaterials, 2016, 101, 199-206.	5.7	92
36	Incorporation of active DNA/cationic polymer polyplexes into hydrogel scaffolds. Biomaterials, 2010, 31, 9106-9116.	5.7	86

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37	The phosphorylation of vascular endothelial growth factor receptor-2 (VEGFR-2) by engineered surfaces with electrostatically or covalently immobilized VEGF. Biomaterials, 2009, 30, 4618-4628.	5.7	83
38	Utilizing Cellâ€"Matrix Interactions To Modulate Gene Transfer to Stem Cells Inside Hyaluronic Acid Hydrogels. Molecular Pharmaceutics, 2011, 8, 1582-1591.	2.3	82
39	The effect of vascular endothelial growth factor (VEGF) presentation within fibrin matrices on endothelial cell branching. Biomaterials, 2011, 32, 7432-7443.	5.7	75
40	Non-viral DNA delivery from porous hyaluronic acid hydrogels in mice. Biomaterials, 2014, 35, 825-835.	5.7	75
41	Enzymeâ€Responsive Delivery of Multiple Proteins with Spatiotemporal Control. Advanced Materials, 2015, 27, 3620-3625.	11.1	73
42	Enhanced In Vivo Delivery of Stem Cells using Microporous Annealed Particle Scaffolds. Small, 2019, 15, e1903147.	5.2	71
43	The modulation of MSC integrin expression by RGD presentation. Biomaterials, 2013, 34, 3938-3947.	5.7	69
44	Itâ€™s All in the Delivery: Designing Hydrogels for Cell and Non-viral Gene Therapies. Molecular Therapy, 2018, 26, 2087-2106.	3.7	68
45	Synthesis and in Vitro Characterization of an ABC Triblock Copolymer for siRNA Delivery. Bioconjugate Chemistry, 2007, 18, 736-745.	1.8	67
46	Quantum-Dot-Decorated Robust Transductable Bioluminescent Nanocapsules. Journal of the American Chemical Society, 2010, 132, 12780-12781.	6.6	61
47	Click by Click Microporous Annealed Particle (MAP) Scaffolds. Advanced Healthcare Materials, 2020, 9, e1901391.	3.9	58
48	Injectable and Spatially Patterned Microporous Annealed Particle (MAP) Hydrogels for Tissue Repair Applications. Advanced Science, 2018, 5, 1801046.	5.6	56
49	Cutaneous wound healing through paradoxical MAPK activation by BRAF inhibitors. Nature Communications, 2016, 7, 12348.	5.8	52
50	Physically Associated Synthetic Hydrogels with Longâ€Term Covalent Stabilization for Cell Culture and Stem Cell Transplantation. Advanced Materials, 2011, 23, 5098-5103.	11.1	48
51	VEGF internalization is not required for VEGFR-2 phosphorylation in bioengineered surfaces with covalently linked VEGF. Integrative Biology (United Kingdom), 2011, 3, 887.	0.6	46
52	Biomaterials-Mediated Regulation of Macrophage Cell Fate. Frontiers in Bioengineering and Biotechnology, 2020, 8, 609297.	2.0	44
53	RNA Interference Targeting Hypoxia Inducible Factor 1Î± Reduces Post-Operative Adhesions in Rats. Journal of Surgical Research, 2007, 141, 162-170.	0.8	42
54	Proteinâ^'Polymer Nanoparticles for Nonviral Gene Delivery. Biomacromolecules, 2011, 12, 1006-1014.	2.6	42

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55	In Vivo Efficacy of a â€œSmartâ€•Antimicrobial Implant Coating. Journal of Bone and Joint Surgery - Series A, 2016, 98, 1183-1189.	1.4	42
56	Point-of-care antimicrobial coating protects orthopaedic implants from bacterial challenge. Nature Communications, 2021, 12, 5473.	5.8	40
57	Design and characterization of microporous hyaluronic acid hydrogels for in vitro gene transfer to mMSCs. Acta Biomaterialia, 2012, 8, 3921-3931.	4.1	39
58	Engineering Clustered Ligand Binding Into Nonviral Vectors: Î±vÎ²3 Targeting as an Example. Molecular Therapy, 2009, 17, 828-836.	3.7	37
59	Engineered HA hydrogel for stem cell transplantation in the brain: Biocompatibility data using a design of experiment approach. Data in Brief, 2017, 10, 202-209.	0.5	37
60	Subvoxel light-sheet microscopy for high-resolution high-throughput volumetric imaging of large biomedical specimens. Advanced Photonics, 2019, 1, 1.	6.2	37
61	Differential uptake of DNAâ€"poly(ethylenimine) polyplexes in cells cultured on collagen and fibronectin surfaces. Acta Biomaterialia, 2010, 6, 3436-3447.	4.1	36
62	Systematic evaluation of natural scaffolds in cutaneous wound healing. Journal of Materials Chemistry B, 2015, 3, 7986-7992.	2.9	36
63	Accelerated wound healing by injectable star poly(ethylene glycol)-b-poly(propylene sulfide) scaffolds loaded with poorly water-soluble drugs. Journal of Controlled Release, 2018, 282, 156-165.	4.8	36
64	Citrullination of fibronectin alters integrin clustering and focal adhesion stability promoting stromal cell invasion. Matrix Biology, 2019, 82, 86-104.	1.5	35
65	Matrix-based gene delivery for tissue repair. Current Opinion in Biotechnology, 2013, 24, 855-863.	3.3	34
66	Protease degradable tethers for controlled and cell-mediated release of nanoparticles in 2- and 3-dimensions. Biomaterials, 2010, 31, 8072-8080.	5.7	33
67	Encapsulation of PEGylated low-molecular-weight PEI polyplexes in hyaluronic acid hydrogels reduces aggregation. Acta Biomaterialia, 2015, 28, 45-54.	4.1	30
68	Hyaluronic acid hydrogel scaffolds loaded with cationic niosomes for efficient non-viral gene delivery. RSC Advances, 2018, 8, 31934-31942.	1.7	29
69	Hybrid Photopatterned Enzymatic Reaction (HyPER) for in Situ Cell Manipulation. ChemBioChem, 2014, 15, 233-242.	1.3	26
70	Integrating light-sheet imaging with virtual reality to recapitulate developmental cardiac mechanics. JCI Insight, 2017, 2, .	2.3	24
71	Cellular Cytoskeleton Dynamics Modulates Non-Viral Gene Delivery through RhoGTPases. PLoS ONE, 2012, 7, e35046.	1.1	24
72	Pathways Governing Polyethylenimine Polyplex Transfection in Microporous Annealed Particle Scaffolds. Bioconjugate Chemistry, 2019, 30, 476-486.	1.8	22

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73	Gold-Nanocrystal-Enhanced Bioluminescent Nanocapsules. ACS Nano, 2014, 8, 9964-9969.	7.3	19
74	Stoichiometric Postâ€Modification of Hydrogel Microparticles Dictates Neural Stem Cell Fate in Microporous Annealed Particle Scaffolds. Advanced Materials, 2022, 34, .	11.1	19
75	Synthesis of protein nano-conjugates for cancer therapy. Nano Research, 2011, 4, 425-433.	5.8	17
76	High-Throughput Quantification of Nanoparticle Degradation Using Computational Microscopy and Its Application to Drug Delivery Nanocapsules. ACS Photonics, 2017, 4, 1216-1224.	3.2	17
77	Directing three-dimensional multicellular morphogenesis by self-organization of vascular mesenchymal cells in hyaluronic acid hydrogels. Journal of Biological Engineering, 2017, 11, 12.	2.0	16
78	An intracellular protein delivery platform based on glutathione-responsive protein nanocapsules. Chemical Communications, 2016, 52, 13608-13611.	2.2	15
79	Nucleic Acid Delivery from Granular Hydrogels. Advanced Healthcare Materials, 2022, 11, e2101867.	3.9	15
80	Two and threeâ€dimensional gene transfer from enzymatically degradable hydrogel scaffolds. Microscopy Research and Technique, 2010, 73, 910-917.	1.2	13
81	Extracellular matrix modulates non-viral gene transfer to mouse mesenchymal stem cells. Soft Matter, 2012, 8, 1451-1459.	1.2	13
82	Transfection in the third dimension. Integrative Biology (United Kingdom), 2013, 5, 1206.	0.6	13
83	Chemical sintering generates uniform porous hyaluronic acid hydrogels. Acta Biomaterialia, 2014, 10, 205-213.	4.1	13
84	Three dimensional tubular structure self-assembled by vascular mesenchymal cells at stiffness interfaces of hydrogels. Biomedicine and Pharmacotherapy, 2016, 83, 1203-1211.	2.5	13
85	The Use of a Novel Antimicrobial Implant Coating In Vivo to Prevent Spinal Implant Infection. Spine, 2020, 45, E305-E311.	1.0	13
86	Particle Hydrogels Decrease Cerebral Atrophy and Attenuate Astrocyte and Microglia/Macrophage Reactivity after Stroke. Advanced Therapeutics, 2022, 5, .	1.6	12
87	Surface- and Hydrogel-Mediated Delivery of Nucleic Acid Nanoparticles. Methods in Molecular Biology, 2013, 948, 149-169.	0.4	11
88	Clustered Argâ€“Glyâ€“Asp Peptides Enhances Tumor Targeting of Nonviral Vectors. ChemMedChem, 2011, 6, 623-627.	1.6	10
89	Sustained Transgene Expression via Hydrogel-Mediated Gene Transfer Results from Multiple Transfection Events. ACS Biomaterials Science and Engineering, 2018, 4, 981-987.	2.6	10
90	Rapid Fabrication of Membrane-Integrated Thermoplastic Elastomer Microfluidic Devices. Micromachines, 2020, 11, 731.	1.4	9

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91	Cell-Demanded VEGF Release via Nanocapsules Elicits Different Receptor Activation Dynamics and Enhanced Angiogenesis. Annals of Biomedical Engineering, 2016, 44, 1983-1992.	1.3	8
92	Getting there is half the battle: recent advances in delivering therapeutics. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.6	8
93	Materials to promote recovery after stroke. Current Opinion in Biomedical Engineering, 2020, 14, 9-17.	1.8	7
94	Injectable biomaterial shuttles for cell therapy in stroke. Brain Research Bulletin, 2021, 176, 25-42.	1.4	7
95	Hydrogel-based nanocomposites of therapeutic proteins for tissue repair. Current Opinion in Chemical Engineering, 2014, 4, 128-136.	3.8	5
96	Injectable Biomaterials for Treatment of Glioblastoma. Advanced Materials Interfaces, 2020, 7, 2001055.	1.9	4
97	Wound healing with topical BRAF inhibitor therapy in a diabetic model suggests tissue regenerative effects. PLoS ONE, 2021, 16, e0252597.	1.1	4
98	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.2	4
99	Surface- and Hydrogel-Mediated Delivery of Nucleic Acid Nanoparticles. Methods in Molecular Biology, 2019, 1943, 177-197.	0.4	2
100	Formulations and Delivery Limitations of Nucleic-Acid-Based Therapies. , 0, , 1013-1059.		1
101	The Influence of Different Metal-Chelators on the Biological Profile of Nanoparticles for Gallium-68 Based Molecular Imaging. Journal of Nano Research, 2012, 20, 21-31.	0.8	1
102	â€œSmartâ€•Polymer Coating Prevents Spinal Implant Infection in a Mouse Model of Spine Surgery. Spine Journal, 2017, 17, S168.	0.6	1
103	Pro-Angiogenic Regenerative Therapies for the Damaged Brain: A Tissue Engineering Approach. Biological and Medical Physics Series, 2018, , 177-187.	0.3	0
104	Directing Cell Fate Through Biomaterial Microenvironments. , 2011, , 123-140.		0
105	High-throughput holographic monitoring of nanoparticle degradation for drug delivery applications. , 2018, , .		0
106	Injection of Hydrogel Biomaterial Scaffolds to The Brain After Stroke. Journal of Visualized Experiments, 2020, , .	0.2	0