Molly S Shoichet

List of Publications by Year in Descending Order

254 papers	18,908 citations	77 h-index	127 g-index
275 ext. papers	20,775 ext. citations	9.8 avg, IF	7.26 L-index

#	Paper	IF	Citations
254	Stable oxime-crosslinked hyaluronan-based hydrogel as a biomimetic vitreous substitute. *Biomaterials*, **2021**, 271, 120750	15.6	7
253	Gelatin-Hyaluronan Click-Crosslinked Cryogels Elucidate Human Macrophage Invasion Behavior. *Advanced Functional Materials*, **2021**, 31, 2008400	15.6	5
252	Designing Hydrogels for 3D Cell Culture Using Dynamic Covalent Crosslinking. *Advanced Healthcare Materials*, **2021**, 10, e2100234	10.1	20
251	Photochemically Activated Notch Signaling Hydrogel Preferentially Differentiates Human Derived Hepatoblasts to Cholangiocytes. *Advanced Functional Materials*, **2021**, 31, 2006116	15.6	5
250	Single-cell chromatin accessibility profiling of glioblastoma identifies an invasive cancer stem cell population associated with lower survival. *ELife*, **2021**, 10,	8.9	9
249	Wielding the Double-Edged Sword of Inflammation: Building Biomaterial-Based Strategies for Immunomodulation in Ischemic Stroke Treatment. *Advanced Functional Materials*, **2021**, 31, 2010674	15.6	0
248	Human Macrophage Invasion: Gelatin-Hyaluronan Click-Crosslinked Cryogels Elucidate Human Macrophage Invasion Behavior (Adv. Funct. Mater. 28/2021). *Advanced Functional Materials*, **2021**, 31, 2170205	15.6	1
247	Attenuated diphtheria toxin mediates siRNA delivery. *Science Advances*, **2020**, 6,	14.3	9
246	Nanoparticle delivery of a pH-sensitive prodrug of doxorubicin and a mitochondrial targeting VES-HR synergistically kill multi-drug resistant breast cancer cells. *Scientific Reports*, **2020**, 10, 8726	4.9	6
245	Evaluation of ASCs and HUVECs Co-cultures in 3D Biodegradable Hydrogels on Neurite Outgrowth and Vascular Organization. *Frontiers in Cell and Developmental Biology*, **2020**, 8, 489	5.7	5
244	Nonswelling, Ultralow Content Inverse Electron-Demand Diels–Alder Hyaluronan Hydrogels with Tunable Gelation Time: Synthesis and In Vitro Evaluation. *Advanced Functional Materials*, **2020**, 30, 1903978	15.6	25
243	Designer Biomaterials to Model Cancer Cell Invasion In Vitro: Predictive Tools or Just Pretty Pictures?. *Advanced Functional Materials*, **2020**, 30, 1909032	15.6	6
242	Injectable hydrogel enables local and sustained co-delivery to the brain: Two clinically approved biomolecules, cyclosporine and erythropoietin, accelerate functional recovery in rat model of stroke. *Biomaterials*, **2020**, 235, 119794	15.6	20
241	Inverse Electron-Demand Diels-Alder Methylcellulose Hydrogels Enable the Co-delivery of Chondroitinase ABC and Neural Progenitor Cells. *Biomacromolecules*, **2020**, 21, 2421-2431	6.9	16
240	An Injectable Hyaluronan-Methylcellulose (HAMC) Hydrogel Combined with Wharton's Jelly-Derived Mesenchymal Stromal Cells (WJ-MSCs) Promotes Degenerative Disc Repair. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	15
239	Hydrogel-mediated co-transplantation of retinal pigmented epithelium and photoreceptors restores vision in an animal model of advanced retinal degeneration. *Biomaterials*, **2020**, 257, 120233	15.6	8
238	Reengineering biocatalysts: Computational redesign of chondroitinase ABC improves efficacy and stability. *Science Advances*, **2020**, 6, eabc6378	14.3	7

237	Transplantation of Directly Reprogrammed Human Neural Precursor Cells Following Stroke Promotes Synaptogenesis and Functional Recovery. *Translational Stroke Research*, **2020**, 11, 93-107	7.8	23
236	Local delivery of stabilized chondroitinase ABC degrades chondroitin sulfate proteoglycans in stroke-injured rat brains. *Journal of Controlled Release*, **2019**, 297, 14-25	11.7	23
235	Microglia are an essential component of the neuroprotective scar that forms after spinal cord injury. *Nature Communications*, **2019**, 10, 518	17.4	189
234	Triggered Release Enhances the Cytotoxicity of Stable Colloidal Drug Aggregates. *ACS Chemical Biology*, **2019**, 14, 1507-1514	4.9	5
233	Local delivery of FK506 to injured peripheral nerve enhances axon regeneration after surgical nerve repair in rats. *Acta Biomaterialia*, **2019**, 96, 211-221	10.8	21
232	Cationic block amphiphiles show anti-mitochondrial activity in multi-drug resistant breast cancer cells. *Journal of Controlled Release*, **2019**, 305, 210-219	11.7	9
231	Effect of Sugar 2′,4′Modifications on Gene Silencing Activity of siRNA Duplexes. *Nucleic Acid Therapeutics*, **2019**, 29, 187-194	4.8	13
230	Colloidal Drug Aggregate Stability in High Serum Conditions and Pharmacokinetic Consequence. *ACS Chemical Biology*, **2019**, 14, 751-757	4.9	16
229	A hyaluronan/methylcellulose-based hydrogel for local cell and biomolecule delivery to the central nervous system. *Brain Research Bulletin*, **2019**, 148, 46-54	3.9	29
228	Modulated Protein Delivery to Engineer Tissue Repair. *Tissue Engineering - Part A*, **2019**, 25, 925-930	3.9	7
227	Rationally Designed 3D Hydrogels Model Invasive Lung Diseases Enabling High-Content Drug Screening. *Advanced Materials*, **2019**, 31, e1806214	24	32
226	Benchmarking to the Gold Standard: Hyaluronan-Oxime Hydrogels Recapitulate Xenograft Models with In Vitro Breast Cancer Spheroid Culture. *Advanced Materials*, **2019**, 31, e1901166	24	29
225	Induction of Rod and Cone Photoreceptor-Specific Progenitors from Stem Cells. *Advances in Experimental Medicine and Biology*, **2019**, 1185, 551-555	3.6	
224	Controlled release strategy designed for intravitreal protein delivery to the retina. *Journal of Controlled Release*, **2019**, 293, 10-20	11.7	35
223	Initial cell maturity changes following transplantation in a hyaluronan-based hydrogel and impacts therapeutic success in the stroke-injured rodent brain. *Biomaterials*, **2019**, 192, 309-322	15.6	20
222	Local Delivery of Brain-Derived Neurotrophic Factor Enables Behavioral Recovery and Tissue Repair in Stroke-Injured Rats. *Tissue Engineering - Part A*, **2019**, 25, 1175-1187	3.9	27
221	Modeling of Photoreceptor Donor-Host Interaction Following Transplantation Reveals a Role for Crx, Müller Glia, and Rho/ROCK Signaling in Neurite Outgrowth. *Stem Cells*, **2019**, 37, 529-541	5.8	9
220	Photo-immobilized EGF chemical gradients differentially impact breast cancer cell invasion and drug response in defined 3D hydrogels. *Biomaterials*, **2018**, 178, 751-766	15.6	39

219	Diels-Alder Click-Cross-Linked Hydrogels with Increased Reactivity Enable 3D Cell Encapsulation. *Biomacromolecules*, **2018**, 19, 926-935	6.9	85
218	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	15.6	49
217	Muscle stem cell intramuscular delivery within hyaluronan methylcellulose improves engraftment efficiency and dispersion. *Biomaterials*, **2018**, 173, 34-46	15.6	25
216	Reply to Comment on PAdult skin-derived precursor Schwann cell grafts form growths in the injured spinal cord of Fischer ratsP. *Biomedical Materials (Bristol)*, **2018**, 13, 048002	3.5	
215	Colloidal aggregation: from screening nuisance to formulation nuance. *Nano Today*, **2018**, 19, 188-200	17.9	44
214	In Vitro Maturation of Human iPSC-Derived Neuroepithelial Cells Influences Transplant Survival in the Stroke-Injured Rat Brain. *Tissue Engineering - Part A*, **2018**, 24, 351-360	3.9	22
213	Adult skin-derived precursor Schwann cell grafts form growths in the injured spinal cord of Fischer rats. *Biomedical Materials (Bristol)*, **2018**, 13, 034101	3.5	7
212	Combined delivery of chondroitinase ABC and human induced pluripotent stem cell-derived neuroepithelial cells promote tissue repair in an animal model of spinal cord injury. *Biomedical Materials (Bristol)*, **2018**, 13, 024103	3.5	30
211	Harnessing the Potential of Biomaterials for Brain Repair after Stroke. *Frontiers in Materials*, **2018**, 5,	4	22
210	Antibody-Antisense Oligonucleotide Conjugate Downregulates a Key Gene in Glioblastoma Stem Cells. *Molecular Therapy - Nucleic Acids*, **2018**, 11, 518-527	10.7	33
209	Bioengineered and Regenerative Medicine Strategies for Retina Repair. *Fundamental Biomedical Technologies*, **2018**, 51-86		
208	Induction of rod versus cone photoreceptor-specific progenitors from retinal precursor cells. *Stem Cell Research*, **2018**, 33, 215-227	1.6	8
207	Human Oligodendrogenic Neural Progenitor Cells Delivered with Chondroitinase ABC Facilitate Functional Repair of Chronic Spinal Cord Injury. *Stem Cell Reports*, **2018**, 11, 1433-1448	8	52
206	Biomaterials for cell transplantation. *Nature Reviews Materials*, **2018**, 3, 441-456	73.3	92
205	Biomaterials driving repair after stroke. *Nature Materials*, **2018**, 17, 573-574	27	5
204	Preclinical evaluation of taxane-binding peptide-modified polymeric micelles loaded with docetaxel in an orthotopic breast cancer mouse model. *Biomaterials*, **2017**, 123, 39-47	15.6	31
203	Engineered polymeric nanoparticles to guide the cellular internalization and trafficking of small interfering ribonucleic acids. *Journal of Controlled Release*, **2017**, 259, 3-15	11.7	26
202	Combinatorial Therapies After Spinal Cord Injury: How Can Biomaterials Help?. *Advanced Healthcare Materials*, **2017**, 6, 1601130	10.1	90

201	Local delivery of chondroitinase ABC with or without stromal cell-derived factor 1 promotes functional repair in the injured rat spinal cord. *Biomaterials*, **2017**, 134, 13-21	15.6	43
200	Leveraging Colloidal Aggregation for Drug-Rich Nanoparticle Formulations. *Molecular Pharmaceutics*, **2017**, 14, 1852-1860	5.6	14
199	Designing Peptide and Protein Modified Hydrogels: Selecting the Optimal Conjugation Strategy. *Journal of the American Chemical Society*, **2017**, 139, 7416-7427	16.4	78
198	Engineering Cellular Microenvironments with Photo- and Enzymatically Responsive Hydrogels: Toward Biomimetic 3D Cell Culture Models. *Accounts of Chemical Research*, **2017**, 50, 703-713	24.3	102
197	A New Spin on Antibody-Drug Conjugates: Trastuzumab-Fulvestrant Colloidal Drug Aggregates Target HER2-Positive Cells. *ACS Applied Materials & Interfaces*, **2017**, 9, 12195-12202	9.5	18
196	Internal Structure and Preferential Protein Binding of Colloidal Aggregates. *ACS Chemical Biology*, **2017**, 12, 282-290	4.9	19
195	Recent advances in regenerative medicine approaches for spinal cord injuries. *Current Opinion in Biomedical Engineering*, **2017**, 4, 40-49	4.4	4
194	Independently Tuning the Biochemical and Mechanical Properties of 3D Hyaluronan-Based Hydrogels with Oxime and Diels-Alder Chemistry to Culture Breast Cancer Spheroids. *Biomacromolecules*, **2017**, 18, 4373-4384	6.9	52
193	Human Pluripotent Stem Cell-Derived -Haploinsufficient Smooth Muscle Cells Recapitulate Features of Lymphangioleiomyomatosis. *Cancer Research*, **2017**, 77, 5491-5502	10.1	22
192	Cyclosporine-immunosuppression does not affect survival of transplanted skin-derived precursor Schwann cells in the injured rat spinal cord. *Neuroscience Letters*, **2017**, 658, 67-72	3.3	3
191	Dynamic bioengineered hydrogels as scaffolds for advanced stem cell and organoid culture. *MRS Communications*, **2017**, 7, 472-486	2.7	18
190	A glial cell line-derived neurotrophic factor delivery system enhances nerve regeneration across acellular nerve allografts. *Acta Biomaterialia*, **2016**, 29, 62-70	10.8	51
189	Combination of a peptide-modified gellan gum hydrogel with cell therapy in a lumbar spinal cord injury animal model. *Biomaterials*, **2016**, 105, 38-51	15.6	53
188	Local Affinity Release. *ACS Nano*, **2016**, 10, 6433-6	16.7	22
187	Encapsulation-free controlled release: Electrostatic adsorption eliminates the need for protein encapsulation in PLGA nanoparticles. *Science Advances*, **2016**, 2, e1600519	14.3	91
186	Hyaluronic Acid-Based Hydrogels Enable Rod Photoreceptor Survival and Maturation In Vitro through Activation of the mTOR Pathway. *Advanced Functional Materials*, **2016**, 26, 1975-1985	15.6	24
185	Hydrogel for Simultaneous Tunable Growth Factor Delivery and Enhanced Viability of Encapsulated Cells in Vitro. *Biomacromolecules*, **2016**, 17, 476-84	6.9	42
184	Designer protein delivery: From natural to engineered affinity-controlled release systems. *Science*, **2016**, 351, aac4750	33.3	104

183	Stable Colloidal Drug Aggregates Catch and Release Active Enzymes. *ACS Chemical Biology*, **2016**, 11, 992-1000	4.9	23
182	Injectable hydrogel promotes early survival of induced pluripotent stem cell-derived oligodendrocytes and attenuates longterm teratoma formation in a spinal cord injury model. *Biomaterials*, **2016**, 83, 23-36	15.6	131
181	An engineered biocompatible drug delivery system enhances nerve regeneration after delayed repair. *Journal of Biomedical Materials Research - Part A*, **2016**, 104, 367-76	5.4	23
180	Local Delivery of Neurotrophin-3 and Anti-NogoA Promotes Repair After Spinal Cord Injury. *Tissue Engineering - Part A*, **2016**, 22, 733-41	3.9	34
179	Transparent Porous Polysaccharide Cryogels Provide Biochemically Defined, Biomimetic Matrices for Tunable 3D Cell Culture. *Chemistry of Materials*, **2016**, 28, 3762-3770	9.6	41
178	6-Bromo-7-hydroxy-3-methylcoumarin (mBhc) is an efficient multi-photon labile protecting group for thiol caging and three-dimensional chemical patterning. *Organic and Biomolecular Chemistry*, **2016**, 14, 8289-300	3.9	20
177	Circumventing the blood-brain barrier: Local delivery of cyclosporin A stimulates stem cells in stroke-injured rat brain. *Journal of Controlled Release*, **2015**, 215, 1-11	11.7	57
176	Controlled release of bioactive PDGF-AA from a hydrogel/nanoparticle composite. *Acta Biomaterialia*, **2015**, 25, 35-42	10.8	25
175	Innovative use of the taxol binding peptide overcomes key challenges of stable and high drug loading in polymeric nanomicelles. *Chemical Communications*, **2015**, 51, 12000-3	5.8	7
174	A Hyaluronan-Based Injectable Hydrogel Improves the Survival and Integration of Stem Cell Progeny following Transplantation. *Stem Cell Reports*, **2015**, 4, 1031-45	8	149
173	Delivery strategies for treatment of age-related ocular diseases: From a biological understanding to biomaterial solutions. *Journal of Controlled Release*, **2015**, 219, 652-668	11.7	58
172	Assessing cognitive function following medial prefrontal stroke in the rat. *Behavioural Brain Research*, **2015**, 294, 102-10	3.4	22
171	Sustained delivery of bioactive neurotrophin-3 to the injured spinal cord. *Biomaterials Science*, **2015** , 3, 65-72	7.4	56
170	Mathematical model accurately predicts protein release from an affinity-based delivery system. *Journal of Controlled Release*, **2015**, 197, 69-77	11.7	52
169	Hybrid Crosslinked Methylcellulose Hydrogel: A Predictable and Tunable Platform for Local Drug Delivery. *Advanced Materials*, **2015**, 27, 5002-8	24	99
168	A novel polymeric drug delivery system for localized and sustained release of tacrolimus (FK506). *Biotechnology and Bioengineering*, **2015**, 112, 1948-53	4.9	42
167	Tuning the Microenvironment: Click-Crosslinked Hyaluronic Acid-Based Hydrogels Provide a Platform for Studying Breast Cancer Cell Invasion. *Advanced Functional Materials*, **2015**, 25, 7163-7172	15.6	78
166	Three Dimensional Hydrogel Scaffolds and Applications in the CNS. *FASEB Journal*, **2015**, 29, 13.2	0.9	2

165	Tissue mimetics: engineered hydrogel matrices provide biomimetic environments for cell growth. *Tissue Engineering - Part A*, **2014**, 20, 895-8	3.9	22
164	ECM-Inspired Chemical Cues: Biomimetic Molecules and Techniques of Immobilization **2014**, 5-24		1
163	Affinity-based drug delivery systems for tissue repair and regeneration. *Biomacromolecules*, **2014**, 15, 3867-80	6.9	91
162	Generation of the epicardial lineage from human pluripotent stem cells. *Nature Biotechnology*, **2014**, 32, 1026-35	44.5	127
161	Colloidal drug formulations can explain "bell-shaped" concentration-response curves. *ACS Chemical Biology*, **2014**, 9, 777-84	4.9	87
160	PEG-Graft Density Controls Polymeric Nanoparticle Micelle Stability. *Chemistry of Materials*, **2014**, 26, 2847-2855	9.6	77
159	Cell and biomolecule delivery for tissue repair and regeneration in the central nervous system. *Journal of Controlled Release*, **2014**, 190, 219-27	11.7	79
158	Cyclosporin A enhances neural precursor cell survival in mice through a calcineurin-independent pathway. *DMM Disease Models and Mechanisms*, **2014**, 7, 953-61	4.1	26
157	Regenerative therapies for central nervous system diseases: a biomaterials approach. *Neuropsychopharmacology*, **2014**, 39, 169-88	8.7	184
156	Affinity-based release of chondroitinase ABC from a modified methylcellulose hydrogel. *Journal of Controlled Release*, **2013**, 171, 11-6	11.7	71
155	Targeting HER2+ breast cancer cells: lysosomal accumulation of anti-HER2 antibodies is influenced by antibody binding site and conjugation to polymeric nanoparticles. *Journal of Controlled Release*, **2013**, 172, 395-404	11.7	41
154	Click conjugated polymeric immuno-nanoparticles for targeted siRNA and antisense oligonucleotide delivery. *Biomaterials*, **2013**, 34, 8408-15	15.6	27
153	Characterization of hyaluronan-methylcellulose hydrogels for cell delivery to the injured spinal cord. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 1472-7	5.4	57
152	Modulation of bone marrow mesenchymal stem cell secretome by ECM-like hydrogels. *Biochimie*, **2013**, 95, 2314-9	4.6	46
151	Design considerations of polymeric nanoparticle micelles for chemotherapeutic delivery. *Current Opinion in Chemical Engineering*, **2013**, 2, 53-59	5.4	16
150	Bioengineered sequential growth factor delivery stimulates brain tissue regeneration after stroke. *Journal of Controlled Release*, **2013**, 172, 1-11	11.7	96
149	A hydrogel composite system for sustained epi-cortical delivery of Cyclosporin A to the brain for treatment of stroke. *Journal of Controlled Release*, **2013**, 166, 197-202	11.7	56
148	Hyaluronic acid click hydrogels emulate the extracellular matrix. *Langmuir*, **2013**, 29, 7393-400	4	96

147	Repair of the injured spinal cord by transplantation of neural stem cells in a hyaluronan-based hydrogel. *Biomaterials*, **2013**, 34, 3775-83	15.6	182
146	Double click: dual functionalized polymeric micelles with antibodies and peptides. *Bioconjugate Chemistry*, **2013**, 24, 105-13	6.3	33
145	Localized and sustained delivery of fibroblast growth factor-2 from a nanoparticle-hydrogel composite for treatment of spinal cord injury. *Cells Tissues Organs*, **2013**, 197, 55-63	2.1	50
144	Positron emission tomography imaging of fibrillar parenchymal and vascular amyloid-β in TgCRND8 mice. *ACS Chemical Neuroscience*, **2013**, 4, 613-23	5.7	19
143	Fibrin gels containing GDNF microspheres increase axonal regeneration after delayed peripheral nerve repair. *Regenerative Medicine*, **2013**, 8, 27-37	2.5	47
142	Functional motor recovery is improved due to local placement of GDNF microspheres after delayed nerve repair. *Biotechnology and Bioengineering*, **2013**, 110, 1272-81	4.9	29
141	Core and Corona Modifications for the Design of Polymeric Micelle Drug-Delivery Systems. *Israel Journal of Chemistry*, **2013**, 53, n/a-n/a	3.4	1
140	In vitro sustained release of bioactive anti-NogoA, a molecule in clinical development for treatment of spinal cord injury. *International Journal of Pharmaceutics*, **2012**, 426, 284-290	6.5	31
139	Amphiphilic micelles of poly(2-methyl-2-carboxytrimethylene carbonate-co-D,L-lactide)-graft-poly(ethylene glycol) for anti-cancer drug delivery to solid tumours. *Biomaterials*, **2012**, 33, 2223-9	15.6	31
138	Hydrogel delivery of erythropoietin to the brain for endogenous stem cell stimulation after stroke injury. *Biomaterials*, **2012**, 33, 2681-92	15.6	106
137	The effects of intrathecal injection of a hyaluronan-based hydrogel on inflammation, scarring and neurobehavioural outcomes in a rat model of severe spinal cord injury associated with arachnoiditis. *Biomaterials*, **2012**, 33, 4555-64	15.6	65
136	The role of endothelial cells in the retinal stem and progenitor cell niche within a 3D engineered hydrogel matrix. *Biomaterials*, **2012**, 33, 5198-205	15.6	38
135	The effects of peptide modified gellan gum and olfactory ensheathing glia cells on neural stem/progenitor cell fate. *Biomaterials*, **2012**, 33, 6345-54	15.6	112
134	Polymeric micelle stability. *Nano Today*, **2012**, 7, 53-65	17.9	582
133	Creating permissive microenvironments for stem cell transplantation into the central nervous system. *Trends in Biotechnology*, **2012**, 30, 55-63	15.1	88
132	Polymers used to influence cell fate in 3D geometry: New trends. *Progress in Polymer Science*, **2012**, 37, 645-658	29.6	55
131	Targeting the amyloid-β antibody in the brain tissue of a mouse model of Alzheimer's disease. *Journal of Controlled Release*, **2012**, 159, 302-8	11.7	11
130	Enhanced neurotrophin-3 bioactivity and release from a nanoparticle-loaded composite hydrogel. *Journal of Controlled Release*, **2012**, 160, 666-75	11.7	76

129	Injectable hydrogels for central nervous system therapy. *Biomedical Materials (Bristol)*, **2012**, 7, 024101	3.5	164
128	A covalently modified hydrogel blend of hyaluronan–methyl cellulose with peptides and growth factors influences neural stem/progenitor cell fate. *Journal of Materials Chemistry*, **2012**, 22, 19402		75
127	The adult retinal stem cell is a rare cell in the ciliary epithelium whose progeny can differentiate into photoreceptors. *Biology Open*, **2012**, 1, 237-46	2.2	54
126	Tunable growth factor delivery from injectable hydrogels for tissue engineering. *Journal of the American Chemical Society*, **2012**, 134, 882-5	16.4	149
125	GDNF released from microspheres enhances nerve regeneration after delayed repair. *Muscle and Nerve*, **2012**, 46, 122-4	3.4	30
124	Colloidal aggregation affects the efficacy of anticancer drugs in cell culture. *ACS Chemical Biology*, **2012**, 7, 1429-35	4.9	118
123	The effect of growth factors and soluble Nogo-66 receptor protein on transplanted neural stem/progenitor survival and axonal regeneration after complete transection of rat spinal cord. *Cell Transplantation*, **2012**, 21, 1177-97	4	32
122	Anti-amyloid-–mediated positron emission tomography imaging in Alzheimer's disease mouse brains. *PLoS ONE*, **2012**, 7, e51958	3.7	11
121	Spatially controlled simultaneous patterning of multiple growth factors in three-dimensional hydrogels. *Nature Materials*, **2011**, 10, 799-806	27	399
120	Diels-Alder Click cross-linked hyaluronic acid hydrogels for tissue engineering. *Biomacromolecules*, **2011**, 12, 824-30	6.9	313
119	Stability of Self-Assembled Polymeric Micelles in Serum. *Macromolecules*, **2011**, 44, 6002-6008	5.5	231
118	Effects of dibutyryl cyclic-AMP on survival and neuronal differentiation of neural stem/progenitor cells transplanted into spinal cord injured rats. *PLoS ONE*, **2011**, 6, e21744	3.7	55
117	Transport of epidermal growth factor in the stroke-injured brain. *Journal of Controlled Release*, **2011**, 149, 225-35	11.7	19
116	Regenerative biomaterials that "click": simple, aqueous-based protocols for hydrogel synthesis, surface immobilization, and 3D patterning. *Bioconjugate Chemistry*, **2011**, 22, 2199-209	6.3	164
115	Chitosan implants in the rat spinal cord: biocompatibility and biodegradation. *Journal of Biomedical Materials Research - Part A*, **2011**, 97, 395-404	5.4	62
114	Three-dimensional spatial patterning of proteins in hydrogels. *Biomacromolecules*, **2011**, 12, 3789-96	6.9	60
113	Endothelial cells guided by immobilized gradients of vascular endothelial growth factor on porous collagen scaffolds. *Acta Biomaterialia*, **2011**, 7, 3027-35	10.8	67
112	Controlled epi-cortical delivery of epidermal growth factor for the stimulation of endogenous neural stem cell proliferation in stroke-injured brain. *Biomaterials*, **2011**, 32, 5688-97	15.6	90

111	Differentiation of neural stem cells in three-dimensional growth factor-immobilized chitosan hydrogel scaffolds. *Biomaterials*, **2011**, 32, 57-64	15.6	168
110	Spinal cord blood flow and blood vessel permeability measured by dynamic computed tomography imaging in rats after localized delivery of fibroblast growth factor. *Journal of Neurotrauma*, **2010**, 27, 2041-53	5.4	26
109	Hydrogel/electrospun fiber composites influence neural stem/progenitor cell fate. *Soft Matter*, **2010**, 6, 2227	3.6	67
108	Biomaterials for Brain Tissue Engineering. *Australian Journal of Chemistry*, **2010**, 63, 1143	1.2	80
107	Self-Assembled Polymeric Nanoparticles of Organocatalytic Copolymerizated d,l-Lactide and 2-Methyl 2-Carboxytrimethylene Carbonate. *Macromolecules*, **2010**, 43, 4943-4953	5.5	39
106	Experimental assessment of pro-lymphangiogenic growth factors in the treatment of post-surgical lymphedema following lymphadenectomy. *Breast Cancer Research*, **2010**, 12, R70	8.3	49
105	Biomaterials for neural-tissue engineering Chitosan supports the survival, migration, and differentiation of adult-derived neural stem and progenitor cells. *Canadian Journal of Chemistry*, **2010**, 88, 277-287	0.9	37
104	Functional immobilization of interferon-gamma induces neuronal differentiation of neural stem cells. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 625-33	5.4	36
103	Endogenous radial glial cells support regenerating axons after spinal cord transection. *NeuroReport* , **2010**, 21, 871-6	1.7	10
102	Chitosan channels containing spinal cord-derived stem/progenitor cells for repair of subacute spinal cord injury in the rat. *Neurosurgery*, **2010**, 67, 1733-44	3.2	51
101	Polymer Scaffolds for Biomaterials Applications. *Macromolecules*, **2010**, 43, 581-591	5.5	372
100	A hydrogel-based stem cell delivery system to treat retinal degenerative diseases. *Biomaterials*, **2010**, 31, 2555-64	15.6	172
99	The use of vascular endothelial growth factor functionalized agarose to guide pluripotent stem cell aggregates toward blood progenitor cells. *Biomaterials*, **2010**, 31, 8262-70	15.6	60
98	Poly(ethylene glycol) modification enhances penetration of fibroblast growth factor 2 to injured spinal cord tissue from an intrathecal delivery system. *Journal of Controlled Release*, **2010**, 144, 25-31	11.7	46
97	Design of three-dimensional biomimetic scaffolds. *Journal of Biomedical Materials Research - Part A*, **2010**, 94, 1321-31	5.4	81
96	Endothelial cell guidance in 3D patterned scaffolds. *Advanced Materials*, **2010**, 22, 4831-5	24	84
95	Intrathecal delivery of a polymeric nanocomposite hydrogel after spinal cord injury. *Biomaterials*, **2010**, 31, 7631-9	15.6	129
94	The use of immobilized neurotrophins to support neuron survival and guide nerve fiber growth in compartmentalized chambers. *Biomaterials*, **2010**, 31, 6987-99	15.6	35

93	A new paradigm for local and sustained release of therapeutic molecules to the injured spinal cord for neuroprotection and tissue repair. *Tissue Engineering - Part A*, **2009**, 15, 595-604	3.9	93
92	An injectable drug delivery platform for sustained combination therapy. *Journal of Controlled Release*, **2009**, 138, 205-13	11.7	154
91	Accelerated release of a sparingly soluble drug from an injectable hyaluronan-methylcellulose hydrogel. *Journal of Controlled Release*, **2009**, 140, 218-23	11.7	57
90	Doxorubicin-Conjugated Immuno-Nanoparticles for Intracellular Anticancer Drug Delivery. *Advanced Functional Materials*, **2009**, 19, 1689-1696	15.6	160
89	The effect of substrate stiffness on adult neural stem cell behavior. *Biomaterials*, **2009**, 30, 6867-78	15.6	499
88	Click chemistry functionalized polymeric nanoparticles target corneal epithelial cells through RGD-cell surface receptors. *Bioconjugate Chemistry*, **2009**, 20, 87-94	6.3	93
87	A quantitative ELISA for bioactive anti-Nogo-A, a promising regenerative molecule for spinal cord injury repair. *Methods*, **2009**, 47, 104-8	4.6	8
86	Organic nanoscale drug carriers coupled with ligands for targeted drug delivery in cancer. *Journal of Materials Chemistry*, **2009**, 19, 5485		76
85	Tunable immunonanoparticle binding to cancer cells: thermodynamic analysis of targeted drug delivery vehicles. *Soft Matter*, **2009**, 5, 1074	3.6	25
84	Neural stem/progenitor cells differentiate in vitro to neurons by the combined action of dibutyryl cAMP and interferon-gamma. *Stem Cells and Development*, **2009**, 18, 1423-32	4.4	39
83	Design of protein-releasing chitosan channels. *Biotechnology Progress*, **2008**, 24, 932-7	2.8	20
82	Extramedullary chitosan channels promote survival of transplanted neural stem and progenitor cells and create a tissue bridge after complete spinal cord transection. *Tissue Engineering - Part A*, **2008**, 14, 649-65	3.9	98
81	Furan-functionalized co-polymers for targeted drug delivery: characterization, self-assembly and drug encapsulation. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 1143-57	3.5	28
80	Two-photon micropatterning of amines within an agarose hydrogel. *Journal of Materials Chemistry*, **2008**, 18, 2716		63
79	Three-dimensional Chemical Patterning of Transparent Hydrogels. *Chemistry of Materials*, **2008**, 20, 55-60	9.6	133
78	Modular biodegradable biomaterials from surfactant and polyelectrolyte mixtures. *Biomacromolecules*, **2008**, 9, 166-74	6.9	32
77	Bioengineering neural stem/progenitor cell-coated tubes for spinal cord injury repair. *Cell Transplantation*, **2008**, 17, 245-54	4	62
76	Delayed implantation of intramedullary chitosan channels containing nerve grafts promotes extensive axonal regeneration after spinal cord injury. *Neurosurgery*, **2008**, 63, 127-41; discussion 141-3	3.2	46

75	Vascular endothelial growth factor immobilized in collagen scaffold promotes penetration and proliferation of endothelial cells. *Acta Biomaterialia*, **2008**, 4, 477-89	10.8	230
74	Promoting neuron adhesion and growth. *Materials Today*, **2008**, 11, 36-43	21.8	123
73	Miniaturized system of neurotrophin patterning for guided regeneration. *Journal of Neuroscience Methods*, **2008**, 171, 253-63	3	31
72	The effect of immobilized platelet derived growth factor AA on neural stem/progenitor cell differentiation on cell-adhesive hydrogels. *Biomaterials*, **2008**, 29, 4676-83	15.6	76
71	Synthesis of enzyme-degradable, peptide-cross-linked dextran hydrogels. *Bioconjugate Chemistry*, **2007**, 18, 874-85	6.3	111
70	Immuno-polymeric nanoparticles by Diels-Alder chemistry. *Angewandte Chemie - International Edition*, **2007**, 46, 6126-31	16.4	100
69	Peptide surface modification of methacrylamide chitosan for neural tissue engineering applications. *Journal of Biomedical Materials Research - Part A*, **2007**, 82, 243-55	5.4	116
68	Synthesis and thermal stability of hybrid fluorosilicone polymers. *Polymer*, **2007**, 48, 5233-5240	3.9	19
67	Intrathecal drug delivery strategy is safe and efficacious for localized delivery to the spinal cord. *Progress in Brain Research*, **2007**, 161, 385-92	2.9	32
66	Clip compression model is useful for thoracic spinal cord injuries: histologic and functional correlates. *Spine*, **2007**, 32, 2853-9	3.3	87
65	Coil-reinforced hydrogel tubes promote nerve regeneration equivalent to that of nerve autografts. *Biomaterials*, **2006**, 27, 505-18	15.6	65
64	Incorporation of protein-eluting microspheres into biodegradable nerve guidance channels for controlled release. *Journal of Controlled Release*, **2006**, 110, 400-407	11.7	71
63	Immobilized concentration gradients of neurotrophic factors guide neurite outgrowth of primary neurons in macroporous scaffolds. *Tissue Engineering*, **2006**, 12, 267-78		189
62	Bioengineered strategies for spinal cord repair. *Journal of Neurotrauma*, **2006**, 23, 496-507	5.4	172
61	Anisotropic three-dimensional peptide channels guide neurite outgrowth within a biodegradable hydrogel matrix. *Biomedical Materials (Bristol)*, **2006**, 1, 162-9	3.5	55
60	Complete spinal cord transection treated by implantation of a reinforced synthetic hydrogel channel results in syringomyelia and caudal migration of the rostral stump. *Neurosurgery*, **2006**, 59, 183-92; discussion 183-92	3.2	57
59	Nerve guidance channels as drug delivery vehicles. *Biomaterials*, **2006**, 27, 2018-27	15.6	76
58	Fast-gelling injectable blend of hyaluronan and methylcellulose for intrathecal, localized delivery to the injured spinal cord. *Biomaterials*, **2006**, 27, 2370-9	15.6	470

57	Synthesis of cell-adhesive dextran hydrogels and macroporous scaffolds. *Biomaterials*, **2006**, 27, 5277-85	15.6	116
56	Matrix inclusion within synthetic hydrogel guidance channels improves specific supraspinal and local axonal regeneration after complete spinal cord transection. *Biomaterials*, **2006**, 27, 519-33	15.6	170
55	Synthesis and characterization of novel polysiloxane-grafted fluoropolymers. *Canadian Journal of Chemistry*, **2005**, 83, 553-558	0.9	9
54	Novel Fluoro-Terpolymers for Coatings Applications. *Macromolecules*, **2005**, 38, 5560-5568	5.5	58
53	Thrombin mediated migration of osteogenic cells. *Bone*, **2005**, 37, 337-48	4.7	36
52	Injectable intrathecal delivery system for localized administration of EGF and FGF-2 to the injured rat spinal cord. *Experimental Neurology*, **2005**, 194, 106-19	5.7	88
51	Guided cell adhesion and outgrowth in peptide-modified channels for neural tissue engineering. *Biomaterials*, **2005**, 26, 1507-14	15.6	216
50	Long-term in vivo biomechanical properties and biocompatibility of poly(2-hydroxyethyl methacrylate-co-methyl methacrylate) nerve conduits. *Biomaterials*, **2005**, 26, 1741-9	15.6	101
49	Synthesis of degradable poly(L-lactide-co-ethylene glycol) porous tubes by liquid-liquid centrifugal casting for use as nerve guidance channels. *Biomaterials*, **2005**, 26, 7555-63	15.6	25
48	Macroporous interconnected dextran scaffolds of controlled porosity for tissue-engineering applications. *Biomaterials*, **2005**, 26, 7436-46	15.6	186
47	Chitin-based tubes for tissue engineering in the nervous system. *Biomaterials*, **2005**, 26, 4624-32	15.6	228
46	Controlling cell adhesion and degradation of chitosan films by N-acetylation. *Biomaterials*, **2005**, 26, 5872-78	15.6	468
45	Peripheral nerve regeneration through a synthetic hydrogel nerve tube. *Restorative Neurology and Neuroscience*, **2005**, 23, 19-29	2.8	63
44	Controlling modulus and morphology of hydrogel tubes through surface modification. *Journal of Biomaterials Science, Polymer Edition*, **2004**, 15, 215-27	3.5	4
43	Synthetic hydrogel guidance channels facilitate regeneration of adult rat brainstem motor axons after complete spinal cord transection. *Journal of Neurotrauma*, **2004**, 21, 789-804	5.4	151
42	Peripheral nerve regeneration through guidance tubes. *Neurological Research*, **2004**, 26, 151-60	2.7	334
41	A photolabile hydrogel for guided three-dimensional cell growth and migration. *Nature Materials*, **2004**, 3, 249-53	27	681
40	Immobilized concentration gradients of nerve growth factor guide neurite outgrowth. *Journal of Biomedical Materials Research Part B*, **2004**, 68, 235-43		177

39	Synthesis and Solubility of Linear Poly(tetrafluoroethylene-co-vinyl acetate) in Dense CO2: Experimental and Molecular Modeling Results. *Macromolecules*, **2004**, 37, 7799-7807	5.5	51
38	Light-activated immobilization of biomolecules to agarose hydrogels for controlled cellular response. *Biomacromolecules*, **2004**, 5, 2315-23	6.9	103
37	Axonal guidance channels in peripheral nerve regeneration. *Operative Techniques in Orthopaedics*, **2004**, 14, 190-198	0.3	48
36	In vivo bone engineering in a rabbit femur. *Journal of Craniofacial Surgery*, **2003**, 14, 324-32	1.2	45
35	Fabrication of precise cylindrical three-dimensional tissue engineering scaffolds for in vitro and in vivo bone engineering applications. *Journal of Craniofacial Surgery*, **2003**, 14, 317-23	1.2	28
34	Toward spinal cord injury repair strategies: peptide surface modification of expanded poly(tetrafluoroethylene) fibers for guided neurite outgrowth in vitro. *Journal of Craniofacial Surgery*, **2003**, 14, 308-16	1.2	49
33	Fiber templating of poly(2-hydroxyethyl methacrylate) for neural tissue engineering. *Biomaterials*, **2003**, 24, 4265-72	15.6	155
32	Insight into the Surface Properties of Fluorocarbon−Vinyl Acetate Copolymer Films and Blends. *Macromolecules*, **2003**, 36, 2343-2348	5.5	20
31	Novel intrathecal delivery system for treatment of spinal cord injury. *Experimental Neurology*, **2003**, 182, 300-9	5.7	46
30	Chemically-bound nerve growth factor for neural tissue engineering applications. *Journal of Biomaterials Science, Polymer Edition*, **2003**, 14, 383-94	3.5	76
29	Growth factor enhancement of peripheral nerve regeneration through a novel synthetic hydrogel tube. *Journal of Neurosurgery*, **2003**, 99, 555-65	3.2	145
28	Manufacture of poly(2-hydroxyethyl methacrylate-co-methyl methacrylate) hydrogel tubes for use as nerve guidance channels. *Biomaterials*, **2002**, 23, 3843-51	15.6	183
27	Synthesis of Fluorocarbon−Vinyl Acetate Copolymers in Supercritical Carbon Dioxide: Insight into Bulk Properties. *Macromolecules*, **2002**, 35, 3569-3575	5.5	79
26	Creating porous tubes by centrifugal forces for soft tissue application. *Biomaterials*, **2001**, 22, 2661-9	15.6	44
25	Investigating the Properties of Novel Poly(2-hydroxyethyl methacrylate-co-methyl methacrylate) Hydrogel Hollow Fiber Membranes. *Chemistry of Materials*, **2001**, 13, 4087-4093	9.6	37
24	Patterned poly(chlorotrifluoroethylene) guides primary nerve cell adhesion and neurite outgrowth. *Journal of Biomedical Materials Research Part B*, **2000**, 50, 465-74		35
23	Radical copolymerization of novel trifluorovinyl ethers with ethyl vinyl ether and vinyl acetate: Estimating reactivity ratios and understanding reactivity behavior of the propagating radical. *Journal of Polymer Science Part A*, **2000**, 38, 1344-1354	2.5	6
22	Engineering three-dimensional bone tissue in vitro using biodegradable scaffolds: investigating initial cell-seeding density and culture period. *Journal of Biomedical Materials Research Part B*, **2000**, 51, 376-82		357

21	Cell delivery to the central nervous system. *Advanced Drug Delivery Reviews*, **2000**, 42, 81-102	18.5	65
20	Synthesis of Linear Poly(tetrafluoroethylene-co-vinyl acetate) in Carbon Dioxide. *Macromolecules*, **2000**, 33, 1682-1685	5.5	25
19	Surface Enrichment of Poly(trifluorovinyl ether)s in Polystyrene Blends. *Macromolecules*, **2000**, 33, 4926-4931	5.5	36
18	Delivering neuroactive molecules from biodegradable microspheres for application in central nervous system disorders. *Biomaterials*, **1999**, 20, 329-39	15.6	150
17	In vitro degradation of a novel poly(lactide-co-glycolide) 75/25 foam. *Biomaterials*, **1999**, 20, 1177-85	15.6	191
16	Polymerization of novel trifluorovinyl ethers: Insight into the mechanisms of termination and chain transfer. *Journal of Polymer Science Part A*, **1999**, 37, 3301-3308	2.5	5
15	Insights into the Properties of Novel Trifluorovinyl Ether Copolymers 1. *Macromolecules*, **1999**, 32, 2669-2674	5.5	5
14	Defining the Surface Chemistry of Ammonia-Modified Poly(tetrafluoroethylene-co-hexafluoropropylene) Films. *Macromolecules*, **1999**, 32, 3464-3468	5.5	11
13	Patterned glass surfaces direct cell adhesion and process outgrowth of primary neurons of the central nervous system. *Journal of Biomedical Materials Research Part B*, **1998**, 42, 13-9		105
12	Peptide surface modification of poly(tetrafluoroethylene-co-hexafluoropropylene) enhances its interaction with central nervous system neurons. *Journal of Biomedical Materials Research Part B*, **1998**, 42, 85-95		52
11	Enhancing the interaction of central nervous system neurons with poly(tetrafluoroethylene-co-hexafluoropropylene) via a novel surface amine-functionalization reaction followed by peptide modification. *Journal of Biomaterials Science, Polymer Edition*, **1998**, 9, 713-29	3.5	17
10	Polymers for tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, **1998**, 9, 405-406	3.5	3
9	Patterned glass surfaces direct cell adhesion and process outgrowth of primary neurons of the central nervous system **1998**, 42, 13		1
8	Synthesis of Trifluorovinyl Ethers Incorporating Functionalized Hydrocarbon Ether Groups: Insight into the Mechanism of Trifluorovinyl Ether Formation from Trimethylsilyl 2-Alkoxy-2,3,3,3-tetrafluoropropionates. *Journal of Organic Chemistry*, **1997**, 62, 7844-7849	4.2	15
7	Stability of hydrogels used in cell encapsulation: An in vitro comparison of alginate and agarose. *Biotechnology and Bioengineering*, **1996**, 50, 374-81	4.9	219
6	In vivo biostability of a polymeric hollow fibre membrane for cell encapsulation. *Biomaterials*, **1996**, 17, 285-90	15.6	23
5	Polymer science for macroencapsulation of cells for central nervous system transplantation. *Reactive & Functional Polymers*, **1995**, 25, 207-227		46
4	Poly(ethylene oxide)-grafted thermoplastic membranes for use as cellular hybrid bio-artificial organs in the central nervous system. *Biotechnology and Bioengineering*, **1994**, 43, 563-72	4.9	50

3	Control of wettability of polymers using organic surface chemistry. *Journal of Adhesion Science and Technology*, **1992**, 6, 719-731	2	6
2	Convenient syntheses of carboxylic acid functionalized fluoropolymer surfaces. *Macromolecules*, **1991**, 24, 982-986	5.5	56
1	Surface modification of poly(tetrafluoroethylene-co-hexafluoropropylene) film by adsorption of poly(L-lysine) from aqueous solution. *Macromolecules*, **1991**, 24, 1441-1442	5.5	17