Smadar Cohen

List of Publications by Year
in descending order

135 papers	13,685 citations	30551 56 h-index	24511 114 g-index
136 all docs	136 docs citations	136 times ranked	15976 citing authors

#	Article	IF	Citations
1	Hypoxia-sensitive drug delivery to tumors. Journal of Controlled Release, 2022, 341, 431-442.	4.8	11
2	Temporal Control over Macrophage Phenotype and the Host Response via Magnetically Actuated Scaffolds. ACS Biomaterials Science and Engineering, 2022, 8, 3526-3541.	2.6	0
3	High throughput microfluidic system with multiple oxygen levels for the study of hypoxia in tumor spheroids. Biofabrication, 2021, 13, 035037.	3.7	26
4	Generation and characterization of three human induced pluripotent stem cell lines (iPSC) from two family members with dilated cardiomyopathy and left ventricular noncompaction (DCM-LVNC) and one healthy heterozygote sibling. Stem Cell Research, 2021, 53, 102382.	0.3	4
5	High-throughput microfluidic 3D biomimetic model enabling quantitative description of the human breast tumor microenvironment. Acta Biomaterialia, 2021, 132, 473-488.	4.1	20
6	Effect of heparin and peptide conjugation on structure and functional properties of alginate in solutions and hydrogels. Materials Advances, 2021, 2, 440-447.	2.6	3
7	Inducing Endogenous Cardiac Regeneration: Can Biomaterials Connect the Dots?. Frontiers in Bioengineering and Biotechnology, 2020, 8, 126.	2.0	30
8	MiR-499 Responsive Lethal Construct for Removal of Human Embryonic Stem Cells after Cardiac Differentiation. Scientific Reports, 2019, 9, 14490.	1.6	8
9	Co-assembled Ca2+ Alginate-Sulfate Nanoparticles for Intracellular Plasmid DNA Delivery. Molecular Therapy - Nucleic Acids, 2019, 16, 378-390.	2.3	21
10	Exploring peptideâ€functionalized alginate scaffolds for engineering cardiac tissue from human embryonic stem cellâ€derived cardiomyocytes in serumâ€free medium. Polymers for Advanced Technologies, 2019, 30, 2493-2505.	1.6	16
11	Reconstruction of the ovary microenvironment utilizing macroporous scaffold with affinity-bound growth factors. Biomaterials, 2019, 205, 11-22.	5.7	32
12	Articular cartilage regeneration using acellular bioactive affinity-binding alginate hydrogel: A 6-month study in a mini-pig model of osteochondral defects. Journal of Orthopaedic Translation, 2019, 16, 40-52.	1.9	42
13	Prevention of acetaminophen-induced liver injury by alginate. Toxicology and Applied Pharmacology, 2019, 363, 72-78.	1.3	9
14	Periostin in cardiovascular disease and development: a tale of two distinct roles. Basic Research in Cardiology, 2018, 113, 1.	2.5	101
15	Magnetic Induction of Multiscale Anisotropy in Macroporous Alginate Scaffolds. Nano Letters, 2018, 18, 7314-7322.	4.5	26
16	Retention and Functional Effect of Adipose-Derived Stromal Cells Administered in Alginate Hydrogel in a Rat Model of Acute Myocardial Infarction. Stem Cells International, 2018, 2018, 1-13.	1.2	12
17	Angiogenesis PET Tracer Uptake (68Ga-NODAGA-E[(cRGDyK)]2) in Induced Myocardial Infarction and Stromal Cell Treatment in Minipigs. Diagnostics, 2018, 8, 33.	1.3	8
18	Nanoparticle Delivery of miRNA-21 Mimic to Cardiac Macrophages Improves Myocardial Remodeling after Myocardial Infarction. Nano Letters, 2018, 18, 5885-5891.	4.5	168

#	Article	IF	Citations
19	Live imaging flow bioreactor for the simulation of articular cartilage regeneration after treatment with bioactive hydrogel. Biotechnology and Bioengineering, 2018, 115, 2205-2216.	1.7	8
20	Surface Analysis of Nanocomplexes by X-ray Photoelectron Spectroscopy (XPS). ACS Biomaterials Science and Engineering, 2017, 3, 882-889.	2.6	119
21	GalNAc bio-functionalization of nanoparticles assembled by electrostatic interactions improves siRNA targeting to the liver. Journal of Controlled Release, 2017, 266, 310-320.	4.8	21
22	Mechanisms of cellular uptake and endosomal escape of calcium-siRNA nanocomplexes. International Journal of Pharmaceutics, 2016, 515, 46-56.	2.6	30
23	TGF-Î² affinity-bound to a macroporous alginate scaffold generates local and peripheral immunotolerant responses and improves allocell transplantation. Acta Biomaterialia, 2016, 45, 196-209.	4.1	20
24	Feasibility of Leadless Cardiac Pacing Using Injectable Magnetic Microparticles. Scientific Reports, 2016, 6, 24635.	1.6	6
25	A bridge to silencing: Co-assembling anionic nanoparticles of siRNA and hyaluronan sulfate via calcium ion bridges. Journal of Controlled Release, 2016, 232, 215-227.	4.8	18
26	Magnetically actuated tissue engineered scaffold: insights into mechanism of physical stimulation. Nanoscale, 2016, 8, 3386-3399.	2.8	57
27	Spontaneous Coassembly of Biologically Active Nanoparticles via Affinity Binding of Heparin-Binding Proteins to Alginate-Sulfate. Nano Letters, 2016, 16, 883-888.	4.5	27
28	Increased Paracrine Immunomodulatory Potential of Mesenchymal Stromal Cells in Three-Dimensional Culture. Tissue Engineering - Part B: Reviews, 2016, 22, 322-329.	2.5	106
29	Alginate biomaterial for the treatment of myocardial infarction: Progress, translational strategies, and clinical outlook. Advanced Drug Delivery Reviews, 2016, 96, 54-76.	6.6	232
30	The influence of sustained dual-factor presentation on the expansion and differentiation of neural progenitors in affinity-binding alginate scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 918-929.	1.3	8
31	Human adipose-derived stromal cells in a clinically applicable injectable alginate hydrogel: Phenotypic and immunomodulatory evaluation. Cytotherapy, 2015, 17, 1104-1118.	0.3	49
32	Calciumâ€“siRNA nanocomplexes: What reversibility is all about. Journal of Controlled Release, 2015, 203, 150-160.	4.8	32
33	Microfabrication of channel arrays promotes vessel-like network formation in cardiac cell construct and vascularization <i>in vivo</i>. Biofabrication, 2014, 6, 024102.	3.7	42
34	Principles of Cardiovascular Tissue Engineering. , 2014, , 627-683.		1
35	Alginateâ€coated magnetic nanoparticles for noninvasive MRI of extracellular calcium. NMR in Biomedicine, 2014, 27, 774-783.	1.6	33
36	Rapid Endâ€Group Modification of Polysaccharides for Biomaterial Applications in Regenerative Medicine. Macromolecular Rapid Communications, 2014, 35, 1754-1762.	2.0	22

#	Article	IF	Citations
37	Biomaterials for Cardiac Tissue Engineering and Regeneration. , 2014, , 83-111.		2
38	Reduced liver cell death using an alginate scaffold bandage: A novel approach for liver reconstruction after extended partial hepatectomy. Acta Biomaterialia, 2014, 10, 3209-3216.	4.1	28
39	Three-Dimensional Perfusion Cultivation of Human Cardiac-Derived Progenitors Facilitates Their Expansion While Maintaining Progenitor State. Tissue Engineering - Part C: Methods, 2014, 20, 886-894.	1.1	5
40	Cardiac tissue engineering in magnetically actuated scaffolds. Nanotechnology, 2014, 25, 014009.	1.3	58
41	Spatiotemporal Focal Delivery of Dual Regenerating Factors for Osteochondral Defect Repair. Advances in Delivery Science and Technology, 2014, , 473-509.	0.4	1
42	Magnetically Actuated Alginate Scaffold: A Novel Platform for Promoting Tissue Organization and Vascularization. Methods in Molecular Biology, 2014, 1181, 83-95.	0.4	17
43	Engineering Biomaterials for Myocardial Regeneration and Repair. Israel Journal of Chemistry, 2013, 53, 695-709.	1.0	2
44	Macrophage Subpopulations Are Essential for Infarct Repair With and Without Stem Cell Therapy. Journal of the American College of Cardiology, 2013, 62, 1890-1901.	1.2	215
45	Cardiac Tissue Engineering: Principles, Materials, and Applications. Synthesis Lectures on Tissue Engineering, 2012, 4, 1-200.	0.3	17
46	Effects of mechanical stimulation induced by compression and medium perfusion on cardiac tissue engineering. Biotechnology Progress, 2012, 28, 1551-1559.	1.3	42
47	Simultaneous regeneration of articular cartilage and subchondral bone induced by spatially presented TGF-beta and BMP-4 in a bilayer affinity binding system. Acta Biomaterialia, 2012, 8, 3283-3293.	4.1	105
48	A multi-shear perfusion bioreactor for investigating shear stress effects in endothelial cell constructs. Lab on A Chip, 2012, 12, 2696.	3.1	59
49	Magnetic nanoparticle-based approaches to locally target therapy and enhance tissue regeneration<i>in vivo</i>. Nanomedicine, 2012, 7, 1425-1442.	1.7	196
50	Primary Human Hepatocytes from Metabolic-Disordered Children Recreate Highly Differentiated Liver-Tissue-Like Spheroids on Alginate Scaffolds. Tissue Engineering - Part A, 2012, 18, 1443-1453.	1.6	15
51	Chondrogenesis of hMSC in affinity-bound TGF-beta scaffolds. Biomaterials, 2012, 33, 751-761.	5.7	115
52	The promotion of inÂvitro vessel-like organization of endothelial cells in magnetically responsive alginate scaffolds. Biomaterials, 2012, 33, 4100-4109.	5.7	107
53	Instructive Biomaterials for Myocardial Regeneration and Repair. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2011, , 289-328.	0.7	0
54	Alginate scaffold for organ culture of cryopreserved-thawed human ovarian cortical follicles. Journal of Assisted Reproduction and Genetics, 2011, 28, 761-769.	1.2	31

#	Article	IF	Citations
55	Bioengineering the Infarcted Heart by Applying Bio-inspired Materials. Journal of Cardiovascular Translational Research, 2011, 4, 559-574.	1.1	30
56	The effect of immobilized RGD peptide in alginate scaffolds on cardiac tissue engineering. Acta Biomaterialia, 2011, 7, 152-162.	4.1	211
57	Targeting of polymeric nanoparticles to lung metastases by surface-attachment of YIGSR peptide from laminin. Biomaterials, 2011, 32, 152-161.	5.7	82
58	The promotion of myocardial repair by the sequential delivery of IGF-1 and HGF from an injectable alginate biomaterial in a model of acute myocardial infarction. Biomaterials, 2011, 32, 565-578.	5.7	260
59	Integration of multiple cell-matrix interactions into alginate scaffolds for promoting cardiac tissue regeneration. Biomaterials, 2011, 32, 1838-1847.	5.7	154
60	Modulation of cardiac macrophages by phosphatidylserine-presenting liposomes improves infarct repair. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1827-1832.	3.3	301
61	Microenvironment Design for Stem Cell Fate Determination. Advances in Biochemical Engineering/Biotechnology, 2011, 126, 227-262.	0.6	5
62	Stromal cell-induced immune regulation in a transplantable lymphoid-like cell constructs. Biomaterials, 2010, 31, 9273-9284.	5.7	6
63	Silencing of proinflammatory genes targeted to peritoneal-residing macrophages using siRNA encapsulated in biodegradable microspheres. Biomaterials, 2010, 31, 2627-2636.	5.7	21
64	The effects of controlled HGF delivery from an affinity-binding alginate biomaterial on angiogenesis and blood perfusion in a hindlimb ischemia model. Biomaterials, 2010, 31, 4573-4582.	5.7	148
65	The effect of immobilized RGD peptide in macroporous alginate scaffolds on TGFÎ²1-induced chondrogenesis of human mesenchymal stem cells. Biomaterials, 2010, 31, 6746-6755.	5.7	171
66	Creating Unique Cell Microenvironments for the Engineering of a Functional Cardiac Patch. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2010, , 81-94.	0.7	0
67	Highly efficient osteogenic differentiation of human mesenchymal stem cells by eradication of STAT3 signaling. International Journal of Biochemistry and Cell Biology, 2010, 42, 1823-1830.	1.2	37
68	Electric Field Stimulation Integrated into Perfusion Bioreactor for Cardiac Tissue Engineering. Tissue Engineering - Part C: Methods, 2010, 16, 1417-1426.	1.1	87
69	Prevascularization of cardiac patch on the omentum improves its therapeutic outcome. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14990-14995.	3.3	325
70	The effects of peptide-based modification of alginate on left ventricular remodeling and function after myocardial infarction. Biomaterials, 2009, 30, 189-195.	5.7	136
71	The influence of the sequential delivery of angiogenic factors from affinity-binding alginate scaffolds on vascularization. Biomaterials, 2009, 30, 2122-2131.	5.7	240
72	Intracoronary Injection of In Situ Forming Alginate Hydrogel Reverses Left Ventricular Remodeling After Myocardial Infarction in Swine. Journal of the American College of Cardiology, 2009, 54, 1014-1023.	1.2	308

#	Article	IF	Citations
73	Perfusion Cell Seeding and Cultivation Induce the Assembly of Thick and Functional Hepatocellular Tissue-like Construct. Tissue Engineering - Part A, 2009, 15, 751-760.	1.6	29
74	Evaluation of a Peritoneal-Generated Cardiac Patch in a Rat Model of Heterotopic Heart Transplantation. Cell Transplantation, 2009, 18, 275-282.	1.2	31
75	The effect of sulfation of alginate hydrogels on the specific binding and controlled release of heparin-binding proteins. Biomaterials, 2008, 29, 3260-3268.	5.7	294
76	Signal transducer and activator of transcription 3â€"A key molecular switch for human mesenchymal stem cell proliferation. International Journal of Biochemistry and Cell Biology, 2008, 40, 2606-2618.	1.2	19
77	Degradable biomaterials based on magnesium corrosion. Current Opinion in Solid State and Materials Science, 2008, 12, 63-72.	5.6	1,537
78	Myocardial repair: from salvage to tissue reconstruction. Expert Review of Cardiovascular Therapy, 2008, 6, 669-686.	0.6	37
79	Effect of Injectable Alginate Implant on Cardiac Remodeling and Function After Recent and Old Infarcts in Rat. Circulation, 2008, 117, 1388-1396.	1.6	406
80	Induced differentiation and maturation of newborn liver cells into functional hepatic tissue in macroporous alginate scaffolds. FASEB Journal, 2008, 22, 1440-1449.	0.2	56
81	Bioreactor Engineering: Regenerating the Dynamic Cell Microenvironment. , 2008, , 517-535.		2
82	Human embryonic stem cell transplantation to repair the infarcted myocardium. Heart, 2007, 93, 1278-1284.	1.2	183
83	Activation of the ERK1/2 Cascade via Pulsatile Interstitial Fluid Flow Promotes Cardiac Tissue Assembly. Tissue Engineering, 2007, 13, 2185-2193.	4.9	106
84	Targeted Delivery of Immunomodulating Agents to Dendritic Cells for Treatment of Autoimmune Disease Using Biodegradable Microspheres. Clinical Immunology, 2007, 123, S145-S146.	1.4	0
85	Sustained delivery of IL-1Ra from biodegradable microspheres reduces the number of murine B16 melanoma lung metastases. Journal of Controlled Release, 2007, 123, 123-130.	4.8	46
86	Autospecies and Postâ€"Myocardial Infarction Sera Enhance the Viability, Proliferation, and Maturation of 3D Cardiac Cell Culture. Tissue Engineering, 2006, 12, 3467-3475.	4.9	15
87	Enhancing the Drug Metabolism Activities of C3Aâ€" A Human Hepatocyte Cell Lineâ€"By Tissue Engineering Within Alginate Scaffolds. Tissue Engineering, 2006, 12, 1357-1368.	4.9	118
88	A Novel Perfusion Bioreactor Providing a Homogenous Milieu for Tissue Regeneration. Tissue Engineering, 2006, 12, 2843-2852.	4.9	125
89	Renovation of the injured heart with myocardial tissue engineering. Expert Review of Cardiovascular Therapy, 2006, 4, 239-252.	0.6	43
90	Vascular Endothelial Growth Factor-Releasing Scaffolds Enhance Vascularization and Engraftment of Hepatocytes Transplanted on Liver Lobes. Tissue Engineering, 2005, 11, 715-722.	4.9	86

#	Article	IF	Citations
91	â€œDesignerâ€•scaffolds for tissue engineering and regeneration. Israel Journal of Chemistry, 2005, 45, 487-494.	1.0	36
92	Sustained release of IL-1Ra from biodegradable microspheres prolongs its IL-1-neutralizing effects. Israel Journal of Chemistry, 2005, 45, 457-464.	1.0	9
93	A continuous delivery system of ILâ€1 receptor antagonist reduces angiogenesis and inhibits tumor development. FASEB Journal, 2004, 18, 161-163.	0.2	91
94	Rebuilding Broken Hearts. Scientific American, 2004, 291, 44-51.	1.0	42
95	Myocardial Tissue Engineering: Creating a Muscle Patch for a Wounded Heart. Annals of the New York Academy of Sciences, 2004, 1015, 312-319.	1.8	74
96	Bioreactor cultivation enhances the efficiency of human embryoid body (hEB) formation and differentiation. Biotechnology and Bioengineering, 2004, 86, 493-502.	1.7	224
97	Modeling mass transfer in hepatocyte spheroids via cell viability, spheroid size, and hepatocellular functions. Biotechnology and Bioengineering, 2004, 86, 672-680.	1.7	292
98	Three-dimensional porous alginate scaffolds provide a conducive environment for generation of well-vascularized embryoid bodies from human embryonic stem cells. Biotechnology and Bioengineering, 2004, 88, 313-320.	1.7	182
99	Ultrastructural and Functional Investigations of Adult Hepatocyte Spheroids duringin VitroCultivation. Tissue Engineering, 2004, 10, 1806-1817.	4.9	46
100	Rebuilding broken hearts. Biologists and engineers working together in the fledgling field of tissue engineering are within reach of one of their greatest goals: constructing a living human heart patch. Scientific American, 2004, 291, 44-51.	1.0	10
101	Cardiac tissue engineering, ex-vivo: design principles in biomaterials and bioreactors. Heart Failure Reviews, 2003, 8, 271-276.	1.7	66
102	Enhancing the vascularization of three-dimensional porous alginate scaffolds by incorporating controlled release basic fibroblast growth factor microspheres. Journal of Biomedical Materials Research Part B, 2003, 65A, 489-497.	3.0	395
103	Human Embryonic Stem Cells as an In Vitro Model for Human Vascular Development and the Induction of Vascular Differentiation. Laboratory Investigation, 2003, 83, 1811-1820.	1.7	153
104	Liver Tissue Engineering within Alginate Scaffolds: Effects of Cell-Seeding Density on Hepatocyte Viability, Morphology, and Function. Tissue Engineering, 2003, 9, 757-766.	4.9	234
105	Local Delivery of IL-1Î± Polymeric Microspheres for the Immunotherapy of an Experimental Fibrosarcoma. Cancer Investigation, 2003, 21, 720-728.	0.6	21
106	Selective separation ofcis-trans geometrical isomers of ?-carotene via CO2 supercritical fluid extraction. Biotechnology and Bioengineering, 2002, 80, 169-174.	1.7	48
107	Optimization of cardiac cell seeding and distribution in 3D porous alginate scaffolds. Biotechnology and Bioengineering, 2002, 80, 305-312.	1.7	363
108	Tailoring the pore architecture in 3-D alginate scaffolds by controlling the freezing regime during fabrication. Biomaterials, 2002, 23, 4087-4094.	5.7	280

#	Article	IF	Citations
109	Hepatocyte behavior within three-dimensional porous alginate scaffolds. , 2000, 67, 344-353.		342
110	MACROPHAGE ACTIVATION FOR THE PRODUCTION OF IMMUNOSTIMULATORY CYTOKINES BY DELIVERING INTERLEUKIN 1 VIA BIODEGRADABLE MICROSPHERES. Cytokine, 2000, 12, 1683-1690.	1.4	26
111	Bioengineered Cardiac Grafts. Circulation, 2000, 102, .	1.6	54
112	Enhancing the immunogenicity of liposomal hepatitis B surface antigen (HBsAg) by controlling its delivery from polymeric microspheres. Journal of Pharmaceutical Sciences, 2000, 89, 1550-1557.	1.6	0
113	Characterization of microencapsulated liposome systems for the controlled delivery of liposome-associated macromolecules. Journal of Controlled Release, 1997, 43, 35-45.	4.8	34
114	Characterization of PLGA microspheres for the controlled delivery of IL-1Î± for tumor immunotherapy. Journal of Controlled Release, 1997, 43, 261-272.	4.8	102
115	A novel in situ-forming ophthalmic drug delivery system from alginates undergoing gelation in the eye. Journal of Controlled Release, 1997, 44, 201-208.	4.8	231
116	Novel alginate sponges for cell culture and transplantation. Biomaterials, 1997, 18, 583-590.	5.7	463
117	Determinants of liposome partitioning in aqueous two-phase systems: Evaluation by means of a factorial design. , 1996, 52, 529-537.		14
118	Controlled release of peptides and proteins from biodegradable polyester microspheres: an approach for treating infectious diseases and malignancies. Reactive & Functional Polymers, 1995, 25, 177-187.	0.8	22
119	In vitro evaluation of polymerized liposomes as an oral drug delivery system. Pharmaceutical Research, 1995, 12, 576-582.	1.7	71
120	Novel liposome-based formulations for prolonged delivery of proteins and vaccines. Journal of Liposome Research, 1995, 5, 813-827.	1.5	6
121	Pulsatile Release from Microencapsulated Liposomes. Journal of Liposome Research, 1994, 4, 349-360.	1.5	3
122	Novel Approaches to Controlled-Release Antigen Delivery. International Journal of Technology Assessment in Health Care, 1994, 10, 121-130.	0.2	54
123	Intercellular and Intracellular Targeting of Drugs. Advances in Molecular and Cell Biology, 1994, 9, 217-231.	0.1	0
124	Design of synthetic polymeric structures for cell transplantation and tissue engineering. Clinical Materials, 1993, 13, 3-10.	0.5	116
125	Controlled release using ionotropic polyphosphazene hydrogels. Journal of Controlled Release, 1993, 27, 69-77.	4.8	64
126	Determinants of release rate of tetanus vaccine from polyester microspheres. Pharmaceutical Research, 1993, 10, 945-953.	1.7	207

#	Article	IF	Citations
127	Poly(L-lactic acid)/Pluronic blends: characterization of phase separation behavior, degradation, and morphology and use as protein-releasing matrixes. Macromolecules, 1992, 25, 116-122.	2.2	214
128	Controlled protein release from polyethyleneimine-coated poly(L-lactic acid)/pluronic blend matrices. Pharmaceutical Research, 1992, 09, 37-39.	1.7	59
129	Controlled delivery systems for proteins based on poly(lactic/glycolic acid) microspheres. Pharmaceutical Research, 1991, 08, 713-720.	1.7	774
130	A Novel Synthetic Method for Hybridoma Cell Encapsulation. Nature Biotechnology, 1991, 9, 468-471.	9.4	32
131	Ionically crosslinkable polyphosphazene: a novel polymer for microencapsulation. Journal of the American Chemical Society, 1990, 112, 7832-7833.	6.6	142
132	THERMODYNAMICS OF PORPHYRIN BINDING TO SERUM ALBUMIN: EFFECTS OF TEMPERATURE, OF PORPHYRIN SPECIES and OF ALBUMIN-CARRIED FATTY ACIDS. Photochemistry and Photobiology, 1987, 46, 689-693.	1.3	37
133	Physicochemical studies of processes involving potential photodynamic drugs on route to their targets: Self-aggregation and membrane-binding of Zn-hematoporphyrin. Archives of Biochemistry and Biophysics, 1986, 247, 57-61.	1.4	3
134	Spectral and chemical evidence for the formation of zinc-porphyrin in aged, initially metal-free, porphyrin-ix solutions. Journal of Inorganic Biochemistry, 1985, 25, 187-195.	1.5	8
135	CHAPTER 11. Applications of Magnetic-Responsive Materials for Cardiovascular Tissue Engineering. RSC Smart Materials, 0, , 290-328.	0.1	3