Swaminathan Sethuraman

List of Publications by Year
in descending order

112	4,984	76326	102487
papers	citations	40 h-index	66 g-index

116	116	116	8030
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Development of biomaterial scaffold for nerve tissue engineering: Biomaterial mediated neural regeneration. Journal of Biomedical Science, 2009, 16, 108.	7.0	488
2	Electrospun Nanofibers as Scaffolds for Skin Tissue Engineering. Polymer Reviews, 2014, 54, 348-376.	10.9	227
3	Injectable and 3D Bioprinted Polysaccharide Hydrogels: From Cartilage to Osteochondral Tissue Engineering. Biomacromolecules, 2017, 18, 1-26.	5.4	185
4	Hydrogel based injectable scaffolds for cardiac tissue regeneration. Biotechnology Advances, 2014, 32, 449-461.	11.7	148
5	Development of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) Fibers for Skin Tissue Engineering: Effects of Topography, Mechanical, and Chemical Stimuli. Biomacromolecules, 2011, 12, 3156-3165.	5.4	137
6	Fabrication of uniaxially aligned 3D electrospun scaffolds for neural regeneration. Biomedical Materials (Bristol), 2011, 6, 025004.	3.3	133
7	Gradient nano-engineered in situ forming composite hydrogel for osteochondral regeneration. Biomaterials, 2018, 162, 82-98.	11.4	130
8	Fabrication and characterization of chitosanâ€gelatin blend nanofibers for skin tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 94B, 264-272.	3.4	125
9	Self-assembly of peptides: influence of substrate, pH and medium on the formation of supramolecular assemblies. Soft Matter, 2011, 7, 2744-2754.	2.7	109
10	Influence of membrane lipid composition on flavonoidâ€“membrane interactions: Implications on their biological activity. Progress in Lipid Research, 2015, 58, 1-13.	11.6	100
11	Key advances of carboxymethyl cellulose in tissue engineering & 3D bioprinting applications. Carbohydrate Polymers, 2021, 256, 117561.	10.2	99
12	Mechanical properties and osteocompatibility of novel biodegradable alanine based polyphosphazenes: Side group effects. Acta Biomaterialia, 2010, 6, 1931-1937.	8.3	92
13	Electrospun nanostructured chitosanâ€“poly(vinyl alcohol) scaffolds: a biomimetic extracellular matrix as dermal substitute. Biomedical Materials (Bristol), 2012, 7, 045005.	3.3	88
14	Novel Resveratrol and 5-Fluorouracil Coencapsulated in PEGylated Nanoliposomes Improve Chemotherapeutic Efficacy of Combination against Head and Neck Squamous Cell Carcinoma. BioMed Research International, 2014, 2014, 1-14.	1.9	85
15	Living cardiac patch: the elixir for cardiac regeneration. Expert Opinion on Biological Therapy, 2012, 12, 1623-1640.	3.1	78
16	Engineering a growth factor embedded nanofiber matrix niche to promote vascularization for functional cardiac regeneration. Biomaterials, 2016, 97, 176-195.	11.4	77
17	Electrochemical acetylcholinesterase biosensor based on ZnO nanocuboids modified platinum electrode for the detection of carbosulfan in rice. Biosensors and Bioelectronics, 2016, 77, 1070-1077.	10.1	73
18	In vivo biodegradability and biocompatibility evaluation of novel alanine ester based polyphosphazenes in a rat model. Journal of Biomedical Materials Research - Part A, 2006, 77A, 679-687.	4.0	72

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19	Self-Assembling Peptide Nanofibrous Scaffolds for Tissue Engineering: Novel Approaches and Strategies for Effective Functional Regeneration. Current Protein and Peptide Science, 2013, 14, 70-84.	1.4	66
20	Mercury-based traditional herbo-metallic preparations: a toxicological perspective. Archives of Toxicology, 2012, 86, 831-838.	4.2	64
21	Dual drug loaded chitosan nanoparticlesâ€"sugar-coated arsenal against pancreatic cancer. Colloids and Surfaces B: Biointerfaces, 2015, 135, 689-698.	5.0	64
22	PCL and PCL-Gelatin Nanofibers as Esophageal Tissue Scaffolds: Optimization, Characterization and Cell-Matrix Interactions. Journal of Biomedical Nanotechnology, 2013, 9, 1540-1555.	1.1	62
23	Evaluation of chitosan nanoformulations as potent anti-HIV therapeutic systems. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 476-484.	2.4	62
24	Fabrication, Characterization and In Vitro Evaluation of Aligned PLGAâ€"PCL Nanofibers for Neural Regeneration. Annals of Biomedical Engineering, 2012, 40, 2098-2110.	2.5	61
25	Ellagic acid encapsulated chitosan nanoparticles as anti-hemorrhagic agent. Carbohydrate Polymers, 2014, 111, 215-221.	10.2	60
26	Gemcitabine loaded biodegradable PLGA nanospheres for in vitro pancreatic cancer therapy. Materials Science and Engineering C, 2015, 47, 40-47.	7.3	58
27	PLGA nanofibers blended with designer self-assembling peptides for peripheral neural regeneration. Materials Science and Engineering C, 2016, 62, 329-337.	7.3	58
28	Role of biomaterials, therapeutic molecules and cells for hepatic tissue engineering. Biotechnology Advances, 2012, 30, 742-752.	11.7	57
29	Multi-functional nanoparticles as theranostic agents for the treatment & imaging of pancreatic cancer. Acta Biomaterialia, 2017, 49, 422-433.	8.3	57
30	Additive manufacturing of biodegradable porous orthopaedic screw. Bioactive Materials, 2020, 5, 458-467.	15.6	56
31	Axially aligned electrically conducting biodegradable nanofibers for neural regeneration. Journal of Materials Science: Materials in Medicine, 2012, 23, 1797-1809.	3.6	53
32	Dual drug loaded nanoliposomal chemotherapy: A promising strategy for treatment of head and neck squamous cell carcinoma. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 99, 73-83.	4.3	53
33	Tissue engineering interventions for esophageal disorders â€" Promises and challenges. Biotechnology Advances, 2012, 30, 1481-1492.	11.7	51
34	Bioinspired hybrid mesoporous silicaâ€"gelatin sandwich construct for bone tissue engineering. Microporous and Mesoporous Materials, 2014, 187, 53-62.	4.4	50
35	Hierarchical mesoporous silica nanofibers as multifunctional scaffolds for bone tissue regeneration. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 1988-2005.	3.5	49
36	Investigations on Membrane Perturbation by Chrysin and Its Copper Complex Using Self-Assembled Lipid Bilayers. Langmuir, 2011, 27, 13374-13382.	3.5	48

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37	Current standards and ethical landscape of engineered tissuesâ€"3D bioprinting perspective. Journal of Tissue Engineering, 2021, 12, 204173142110276.	5.5	48
38	Targeting strategies for delivery of anti-HIV drugs. Journal of Controlled Release, 2014, 192, 271-283.	9.9	47
39	Combinatorial Effects of Curcumin with an Anti-Neoplastic Agent on Head and Neck Squamous Cell Carcinoma Through the Regulation of EGFR-ERK1/2 and Apoptotic Signaling Pathways. ACS Combinatorial Science, 2016, 18, 22-35.	3.8	47
40	Axially aligned 3D nanofibrous grafts of PLAâ€"PCL for small diameter cardiovascular applications. Journal of Biomaterials Science, Polymer Edition, 2014, 25, 1791-1812.	3.5	46
41	Simple Signaling Molecules for Inductive Bone Regenerative Engineering. PLoS ONE, 2014, 9, e101627.	2.5	41
42	Development and evaluation of axially aligned nanofibres for blood vessel tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 640-651.	2.7	41
43	Development and Characterization of Biodegradable Nanocomposite Injectables for Orthopaedic Applications Based on Polyphosphazenes. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 733-752.	3.5	38
44	Biocompatibility of Poly(3-hydroxybutyrate-co3-hydroxyvalerate) (PHBV) Nanofibers for Skin Tissue Engineering. Journal of Biomedical Nanotechnology, 2013, 9, 1383-1392.	1.1	38
45	In VivoBiocompatibility of PLGA-Polyhexylthiophene Nanofiber Scaffolds in a Rat Model. BioMed Research International, 2013, 2013, 1-8.	1.9	38
46	Scientific validation of the different purification steps involved in the preparation of an Indian Ayurvedic medicine, Lauha bhasma. Journal of Ethnopharmacology, 2012, 142, 98-104.	4.1	36
47	Superparamagnetic nanosystems based on iron oxide nanoparticles & mesoporous silica: synthesis & evaluation of their magnetic, relaxometric and biocompatability properties. Journal of Materials Chemistry, 2011, 21, 15698.	6.7	35
48	Polymeric Scaffold Aided Stem Cell Therapeutics for Cardiac Muscle Repair and Regeneration. Macromolecular Bioscience, 2013, 13, 1119-1134.	4.1	35
49	Epidermal Differentiation of Stem Cells on Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV) Nanofibers. Annals of Biomedical Engineering, 2014, 42, 2589-2599.	2.5	35
50	Injectable glycosaminoglycanâ€"protein nano-complex in semi-interpenetrating networks: A biphasic hydrogel for hyaline cartilage regeneration. Carbohydrate Polymers, 2017, 175, 63-74.	10.2	35
51	Interaction of human smooth muscle cells with nanofibrous scaffolds: Effect of fiber orientation on cell adhesion, proliferation, and functional gene expression. Journal of Biomedical Materials Research - Part A, 2015, 103, 2236-2250.	4.0	34
52	Nano interfaced biosensor for detection of choline in triple negative breast cancer cells. Journal of Colloid and Interface Science, 2016, 462, 334-340.	9.4	34
53	Topographic Cue from Electrospun Scaffolds Regulate Myelin-Related Gene Expressions in Schwann Cells. Journal of Biomedical Nanotechnology, 2015, 11, 512-521.	1.1	33
54	Recent advancements in cardiovascular bioprinting and bioprinted cardiac constructs. Biomaterials Science, 2021, 9, 1974-1994.	5.4	32

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55	Electrochemical biosensor with ceriaâ€“polyaniline core shell nano-interface for the detection of carbonic acid in blood. Journal of Colloid and Interface Science, 2014, 425, 52-58.	9.4	31
56	Evaluation of a quercetinâ€“gadolinium complex as an efficient positive contrast enhancer for magnetic resonance imaging. RSC Advances, 2015, 5, 86967-86979.	3.6	30
57	Safety and toxicity issues associated with lead-based traditional herbo-metallic preparations. Journal of Ethnopharmacology, 2014, 151, 1-11.	4.1	29
58	3D bioprinting and photocrosslinking: emerging strategies & future perspectives. Materials Science and Engineering C, 2022, 134, 112576.	7.3	28
59	Responsive Nanomicellar Theranostic Cages for Metastatic Breast Cancer. Bioconjugate Chemistry, 2018, 29, 275-286.	3.6	27
60	Clinical complications of biodegradable screws for ligament injuries. Materials Science and Engineering C, 2020, 109, 110423.	7.3	27
61	Synthesis, characterization and DNA binding properties of rutinâ€“iron complex. RSC Advances, 2012, 2, 2797.	3.6	26
62	Engineered chemoswitchable mesoporous silica for tumor-specific cytotoxicity. Journal of Materials Chemistry B, 2013, 1, 3494.	5.8	26
63	Electrochemical enzymeless detection of superoxide employing naringinâ€“copper decorated electrodes. Biosensors and Bioelectronics, 2014, 59, 134-139.	10.1	25
64	Management of retinoblastoma: opportunities and challenges. Drug Delivery, 2016, 23, 2488-2496.	5.7	25
65	Self-assembling peptide nanostructures on aligned poly(lactide-co-glycolide) nanofibers for the functional regeneration of sciatic nerve. Nanomedicine, 2017, 12, 219-235.	3.3	24
66	Novel low temperature setting nanocrystalline calcium phosphate cements for bone repair: Osteoblast cellular response and gene expression studies. Journal of Biomedical Materials Research - Part A, 2007, 82A, 884-891.	4.0	23
67	Poly(3-hydroxybutyrate-co-3-hydroxyvalerate)-based nanofibrous scaffolds to support functional esophageal epithelial cells towards engineering the esophagus. Journal of Biomaterials Science, Polymer Edition, 2014, 25, 574-593.	3.5	23
68	Influence of 3D porous galactose containing PVA/gelatin hydrogel scaffolds on three-dimensional spheroidal morphology of hepatocytes. Journal of Materials Science: Materials in Medicine, 2015, 26, 5345.	3.6	22
69	Nanoarchitecture of scaffolds and endothelial cells in engineering small diameter vascular grafts. Biotechnology Journal, 2015, 10, 96-108.	3.5	21
70	Hierarchical self-assembly of Tjernberg peptide at nanoscale. Soft Matter, 2013, 9, 2684.	2.7	19
71	Osteogenic differentiation of stem cells on mesoporous silica nanofibers. RSC Advances, 2015, 5, 69205-69214.	3.6	19
72	In vitro co-culture of epithelial cells and smooth muscle cells on aligned nanofibrous scaffolds. Materials Science and Engineering C, 2017, 81, 191-205.	7.3	19

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73	Development of nanotheranostics against metastatic breast cancer â€" A focus on the biology & mechanistic approaches. Biotechnology Advances, 2015, 33, 1897-1911.	11.7	17
74	Surface topography of polylactic acid nanofibrous mats: influence on blood compatibility. Journal of Materials Science: Materials in Medicine, 2018, 29, 145.	3.6	17
75	Designer DNA biomolecules as a defined biomaterial for 3D bioprinting applications. Materials Horizons, 2022, 9, 1141-1166.	12.2	17
76	Decoration of PLGA electrospun nanofibers with designer self-assembling peptides: a â€œNano-on-Nanoâ€• concept. RSC Advances, 2015, 5, 88748-88757.	3.6	16
77	Multidimensional nanofibrous scaffolds of poly(lactide-co-caprolactone) and poly(ethyl oxazoline) with improved features for cardiac tissue engineering. Nanomedicine, 2015, 10, 3451-3467.	3.3	16
78	Membrane fluidization & eryptotic properties of hesperidinâ€"copper complex. RSC Advances, 2012, 2, 11138.	3.6	15
79	Design considerations of bioinks for laser bioprinting technique towards tissue regenerative applications. Bioprinting, 2022, 27, e00205.	5.8	15
80	Influence of polyhydric solvents on the catalytic & adsorption properties of self-oriented mesoporous SBA-15 silica. Journal of Porous Materials, 2011, 18, 329-336.	2.6	14
81	Investigations on the membrane interactions of naringin and its complexes with copper and iron: implications for their cytotoxicity. RSC Advances, 2014, 4, 46407-46417.	3.6	14
82	â€˜Nanoâ€"inâ€"nanoâ€™ hybrid liposomes increase target specificity and gene silencing efficiency in breast cancer induced SCID mice. European Journal of Pharmaceutics and Biopharmaceutics, 2017, 119, 96-106.	4.3	14
83	A biomimetic mesoporous silicaâ€"polymer composite scaffold for bone tissue engineering. Journal of Porous Materials, 2018, 25, 397-406.	2.6	14
84	Determination of Putrescine in Tiger Prawn Using an Amperometric Biosensor Based on Immobilization of Diamine Oxidase onto Ceria Nanospheres. Food and Bioprocess Technology, 2016, 9, 717-724.	4.7	13
85	Peptide nanostructures on nanofibers for peripheral nerve regeneration. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 1059-1070.	2.7	13
86	Interaction of human smooth muscle cells on random and aligned nanofibrous scaffolds of PHBV and PHBV-gelatin. International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, 65, 816-825.	3.4	12
87	Engineered multifunctional nanomaterials for multimodal imaging of retinoblastoma cellsin vitro. Journal of Biomaterials Science, Polymer Edition, 2014, 25, 1093-1109.	3.5	11
88	Fabrication and investigation of nanofibrous matrices as esophageal tissue scaffolds using human non-keratinized, stratified, squamous epithelial cells. RSC Advances, 2016, 6, 26461-26473.	3.6	10
89	EpCAM-targeted liposomal si-RNA delivery for treatment of epithelial cancer. Drug Delivery, 2016, 23, 1101-1114.	5.7	10
90	Nanohybrids â€" cancer theranostics for tiny tumor clusters. Journal of Controlled Release, 2019, 299, 21-30.	9.9	10

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91	Heterogeneous mesoporous SBA-15 silica as catalyst towards the synthesis of various biodegradable aliphatic polyesters. Macromolecular Research, 2013, 21, 833-842.	2.4	9
92	Metabolic pathways in cancers: key targets and implications in cancer therapy. RSC Advances, 2015, 5, 41751-41762.	3.6	9
93	Electrochemical evidence for asialoglycoprotein receptor â€“ mediated hepatocyte adhesion and proliferation in three dimensional tissue engineering scaffolds. Analytica Chimica Acta, 2015, 890, 83-90.	5.4	9
94	Development of Porous Hydrogel Scaffolds with Multiple Cues for Liver Tissue Engineering. Regenerative Engineering and Translational Medicine, 2017, 3, 176-191.	2.9	8
95	Reverse engineering of an anatomically equivalent nerve conduit. Journal of Tissue Engineering and Regenerative Medicine, 2021, 15, 998-1011.	2.7	8
96	The Integration of Nanotechnology and Biology for Cell Engineering: Promises and Challenges. Nanomaterials and Nanotechnology, 2013, 3, 19.	3.0	7
97	The metamorphosis of vascular stents: passive structures to smart devices. RSC Advances, 2016, 6, 2835-2853.	3.6	7
98	Self-assembly characteristics of a structural analogue of Tjernberg peptide. RSC Advances, 2014, 4, 16517-16523.	3.6	6
99	Phase-induced porous composite microspheres sintered scaffold with proteinâ€“mineral interface for bone tissue engineering. RSC Advances, 2015, 5, 22005-22014.	3.6	6
100	Development and evaluation of a multi-functional organicâ€“inorganic nanotheranostic hybrid for pancreatic cancer therapy. Biomedical Materials (Bristol), 2021, 16, 055016.	3.3	6
101	Biodegradable Poly[bis(ethyl alanato)phosphazene] - Poly(lactide-co-glycolide) Blends: Miscibility and Osteocompatibility Evaluations. Materials Research Society Symposia Proceedings, 2004, 844, 1.	0.1	5
102	Investigation of the photodegradation properties of iron oxide doped mesoporous SBA-15 silica. Journal of Porous Materials, 2013, 20, 1009-1015.	2.6	4
103	Development of Novel Biodegradable Amino Acid Ester Based Polyphosphazeneâ€“ Hydroxyapatite Composites for Bone Tissue Engineering. Materials Research Society Symposia Proceedings, 2004, 845, 151.	0.1	3
104	In-situ generation of large microporous skeleton in mesoporous silica framework using different dicarboxylic acids. Journal of Porous Materials, 2014, 21, 53-62.	2.6	3
105	Tjernberg peptide: a double edged sword in Alzheimerâ€™s disease. RSC Advances, 2015, 5, 59480-59490.	3.6	3
106	In vivo biodistribution and pathological manifestations of iron oxide incorporated mesoporous silica: implications on its biomedical applications. Journal of Porous Materials, 2017, 24, 751-758.	2.6	3
107	ECM-Mimetic Multiresponsive Nanobullets Targeted Against Metastasizing Circulating Tumor Clusters in Breast Cancer. Annals of Biomedical Engineering, 2020, 48, 568-581.	2.5	3
108	Nanofiber matrices of protein mimetic bioactive peptides for biomedical applications. , 2020, , 199-217.		2

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109	Surface modified NIR magnetic nanoprobes for theranostic applications.. Expert Opinion on Drug Delivery, 2021, 18, 399-408.	5.0	2
110	Tissue engineering approaches towards the regeneration of biomimetic scaffolds for age-related macular degeneration. Journal of Materials Chemistry B, 2021, 9, 5935-5953.	5.8	2
111	Nanohydroxyapatite-Protein Interface in Composite Sintered Scaffold Influences Bone Regeneration in Rabbit Ulnar Segmental Defect. Journal of Materials Science: Materials in Medicine, 2022, 33, 36.	3.6	1
112	Self-Standing Photo-Crosslinked Hydrogel Construct: in vitro Microphysiological Vascular Model. Cells Tissues Organs, 2022, 211, 335-347.	2.3	0