Jayakumar Rajadas

List of Publications by Year
in descending order

107	4,668	94433	110387
papers	citations	37 h-index	64 g-index

107	107	107	8221
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Small molecule BDNF mimetics activate TrkB signaling and prevent neuronal degeneration in rodents. Journal of Clinical Investigation, 2010, 120, 1774-1785.	8.2	351
2	Enhancement of mesenchymal stem cell angiogenic capacity and stemness by a biomimetic hydrogel scaffold. Biomaterials, 2012, 33, 80-90.	11.4	340
3	Filamentous Bacteriophage Promote Biofilm Assembly and Function. Cell Host and Microbe, 2015, 18, 549-559.	11.0	235
4	Exosomes as nano-theranostic delivery platforms for gene therapy. Advanced Drug Delivery Reviews, 2013, 65, 357-367.	13.7	196
5	The effect of bioengineered acellular collagen patch on cardiac remodeling and ventricular function post myocardial infarction. Biomaterials, 2013, 34, 9048-9055.	11.4	168
6	Transdermal deferoxamine prevents pressure-induced diabetic ulcers. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 94-99.	7.1	160
7	Diabetes impairs the angiogenic potential of adipose-derived stem cells by selectively depleting cellular subpopulations. Stem Cell Research and Therapy, 2014, 5, 79.	5.5	153
8	Engineered Pullulanâ€“Collagen Composite Dermal Hydrogels Improve Early Cutaneous Wound Healing. Tissue Engineering - Part A, 2011, 17, 631-644.	3.1	142
9	Small Molecule, Non-Peptide p75NTR Ligands Inhibit Aβ-Induced Neurodegeneration and Synaptic Impairment. PLoS ONE, 2008, 3, e3604.	2.5	112
10	Quantum dots and carbon nanotubes in oncology: a review on emerging theranostic applications in nanomedicine. Nanomedicine, 2011, 6, 1101-1114.	3.3	106
11	Capillary Force Seeding of Hydrogels for Adipose-Derived Stem Cell Delivery in Wounds. Stem Cells Translational Medicine, 2014, 3, 1079-1089.	3.3	100
12	Nanomaterials engineering for drug delivery: a hybridization approach. Journal of Materials Chemistry B, 2017, 5, 3995-4018.	5.8	96
13	Pullulan Hydrogels Improve Mesenchymal Stem Cell Delivery into Highâ€Oxidativeâ€Stress Wounds. Macromolecular Bioscience, 2011, 11, 1458-1466.	4.1	88
14	Exosomes as Immunotheranostic Nanoparticles. Clinical Therapeutics, 2014, 36, 820-829.	2.5	84
15	Pharmacological rescue of diabetic skeletal stem cell niches. Science Translational Medicine, 2017, 9, .	12.4	80
16	Pathogenesis of Abeta Oligomers in Synaptic Failure. Current Alzheimer Research, 2013, 10, 316-323.	1.4	77
17	Polyvinylpyrrolidone microneedles enable delivery of intact proteins for diagnostic and therapeutic applications. Acta Biomaterialia, 2013, 9, 7767-7774.	8.3	72
18	Prolonged survival of transplanted stem cells after ischaemic injury via the slow release of pro-survival peptides from a collagen matrix. Nature Biomedical Engineering, 2018, 2, 104-113.	22.5	71

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19	Significant degradability enhancement in multilayer coating of polycaprolactone-bioactive glass/gelatin-bioactive glass on magnesium scaffold for tissue engineering applications. Applied Surface Science, 2015, 338, 137-145.	6.1	70
20	In situ Endothelialization: Bioengineering Considerations to Translation. Small, 2015, 11, 6248-6264.	10.0	64
21	A neurovascular-unit-on-a-chip for the evaluation of the restorative potential of stem cell therapies for ischaemic stroke. Nature Biomedical Engineering, 2021, 5, 847-863.	22.5	62
22	Inception to actualization: Next generation coronary stent coatings incorporating nanotechnology. Journal of Biotechnology, 2013, 164, 151-170.	3.8	60
23	Protein Corona Influences Cellâ€“Biomaterial Interactions in Nanostructured Tissue Engineering Scaffolds. Advanced Functional Materials, 2015, 25, 4379-4389.	14.9	57
24	Adipose-Derived Stem Cell-Seeded Hydrogels Increase Endogenous Progenitor Cell Recruitment and Neovascularization in Wounds. Tissue Engineering - Part A, 2016, 22, 295-305.	3.1	57
25	Efficient gene delivery of primary human cells using peptide linked polyethylenimine polymer hybrid. Biomaterials, 2011, 32, 4647-4658.	11.4	56
26	Delivery of monocyte lineage cells in a biomimetic scaffold enhances tissue repair. JCI Insight, 2017, 2, .	5.0	55
27	Inhibition of hyaluronan synthesis attenuates pulmonary hypertension associated with lung fibrosis. British Journal of Pharmacology, 2017, 174, 3284-3301.	5.4	52
28	Biochemical engineering nerve conduits using peptide amphiphiles. Journal of Controlled Release, 2012, 163, 342-352.	9.9	51
29	Identification of new drug candidates against Borrelia burgdorferi using high-throughput screening. Drug Design, Development and Therapy, 2016, 10, 1307.	4.3	49
30	Promotion of airway anastomotic microvascular regeneration and alleviation of airway ischemia by deferoxamine nanoparticles. Biomaterials, 2014, 35, 803-813.	11.4	46
31	Attenuation of synaptic toxicity and MARK4/PAR1-mediated Tau phosphorylation by methylene blue for Alzheimerâ€™s disease treatment. Scientific Reports, 2016, 6, 34784.	3.3	45
32	Controlled Delivery of a Focal Adhesion Kinase Inhibitor Results in Accelerated Wound Closure with Decreased ScarÂFormation. Journal of Investigative Dermatology, 2018, 138, 2452-2460.	0.7	45
33	Effect of Phenolic Compounds Against AÎ² Aggregation and AÎ²-Induced Toxicity in Transgenic C. elegans. Neurochemical Research, 2012, 37, 40-48.	3.3	44
34	[Pyr1]-Apelin-13 delivery via nano-liposomal encapsulation attenuates pressure overload-induced cardiac dysfunction. Biomaterials, 2015, 37, 289-298.	11.4	44
35	Disrupting biological sensors of force promotes tissue regeneration in large organisms. Nature Communications, 2021, 12, 5256.	12.8	43
36	An Anti-CD34 Antibody-Functionalized Clinical-Grade POSS-PCU Nanocomposite Polymer for Cardiovascular Stent Coating Applications: A Preliminary Assessment of Endothelial Progenitor Cell Capture and Hemocompatibility. PLoS ONE, 2013, 8, e77112.	2.5	41

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37	Tissue engineering vascular grafts a fortiori: looking back and going forward. Expert Opinion on Biological Therapy, 2015, 15, 231-244.	3.1	40
38	4-Methylumbelliferyl glucuronide contributes to hyaluronan synthesis inhibition. Journal of Biological Chemistry, 2019, 294, 7864-7877.	3.4	40
39	Surface modification of a polyhedral oligomeric silsesquioxane poly(carbonate-urea) urethane (POSS-PCU) nanocomposite polymer as a stent coating for enhanced capture of endothelial progenitor cells. Biointerphases, 2013, 8, 23.	1.6	39
40	AÎ² peptide conformation determines uptake and interleukin-1Î± expression by primary microglial cells. Neurobiology of Aging, 2009, 30, 1792-1804.	3.1	37
41	PEG/Dextran Double Layer Influences Fe Ion Release and Colloidal Stability of Iron Oxide Nanoparticles. Scientific Reports, 2018, 8, 4286.	3.3	36
42	Multilayered Magnetic Gelatin Membrane Scaffolds. ACS Applied Materials & Interfaces, 2015, 7, 23098-23109.	8.0	34
43	A small molecule TrkB/TrkC neurotrophin receptor co-activator with distinctive effects on neuronal survival and process outgrowth. Neuropharmacology, 2016, 110, 343-361.	4.1	31
44	Optimization of transdermal deferoxamine leads to enhanced efficacy in healing skin wounds. Journal of Controlled Release, 2019, 308, 232-239.	9.9	31
45	Adenosine and hyaluronan promote lung fibrosis and pulmonary hypertension in combined pulmonary fibrosis and emphysema. DMM Disease Models and Mechanisms, 2019, 12, .	2.4	31
46	Adipose-Derived Stromal Cells Seeded in Pullulan-Collagen Hydrogels Improve Healing in Murine Burns. Tissue Engineering - Part A, 2021, 27, 844-856.	3.1	31
47	Transdermal Delivery of Functional Collagen Via Polyvinylpyrrolidone Microneedles. Annals of Biomedical Engineering, 2015, 43, 2978-2990.	2.5	30
48	Microhemorrhage-associated tissue iron enhances the risk for Aspergillus fumigatus invasion in a mouse model of airway transplantation. Science Translational Medicine, 2018, 10, .	12.4	29
49	Upregulation of CD47 Is a Host Checkpoint Response to Pathogen Recognition. MBio, 2020, 11, .	4.1	29
50	Synergistic photothermal ablative effects of functionalizing carbon nanotubes with a POSS-PCU nanocomposite polymer. Journal of Nanobiotechnology, 2012, 10, 34.	9.1	26
51	Synthesis of d-amino acid peptides and their effect on beta-amyloid aggregation and toxicity in transgenic Caenorhabditis elegans. Medicinal Chemistry Research, 2013, 22, 3991-4000.	2.4	24
52	A Thermo-Sensitive Delivery Platform for Topical Administration of Inflammatory Bowel Disease Therapies. Gastroenterology, 2015, 149, 52-55.e2.	1.3	24
53	Therapeutic Nanoparticles for Targeted Delivery of Anticancer Drugs. , 2017, , 245-259.		23
54	Fidgetin-Like 2 siRNA Enhances the Wound Healing Capability of a Surfactant Polymer Dressing. Advances in Wound Care, 2019, 8, 91-100.	5.1	23

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55	Discovery of novel brain permeable and G protein-biased beta-1 adrenergic receptor partial agonists for the treatment of neurocognitive disorders. PLoS ONE, 2017, 12, e0180319.	2.5	22
56	Repurposing Disulfiram (Tetraethylthiuram Disulfide) as a Potential Drug Candidate against Borrelia burgdorferi In Vitro and In Vivo. Antibiotics, 2020, 9, 633.	3.7	22
57	Nanotechnology and regenerative therapeutics in plastic surgery: The next frontier. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2016, 69, 1-13.	1.0	21
58	Dendritic Cells as Targets for Biomaterial-Based Immunomodulation. ACS Biomaterials Science and Engineering, 2020, 6, 2726-2739.	5.2	21
59	Channelrhodopsins: visual regeneration and neural activation by a light switch. New Biotechnology, 2013, 30, 461-474.	4.4	20
60	Use of bio-mimetic three-dimensional technology in therapeutics for heart disease. Bioengineered, 2014, 5, 193-197.	3.2	20
61	Azlocillin can be the potential drug candidate against drug-tolerant Borrelia burgdorferi sensu stricto JLB31. Scientific Reports, 2020, 10, 3798.	3.3	20
62	Nanotechnology-Based Gene-Eluting Stents. Molecular Pharmaceutics, 2013, 10, 1279-1298.	4.6	19
63	Deferoxamine can prevent pressure ulcers and accelerate healing in aged mice. Wound Repair and Regeneration, 2018, 26, 300-305.	3.0	19
64	Borreliacidal activity of Borrelia metal transporter A (BmtA) binding small molecules by manganese transport inhibition. Drug Design, Development and Therapy, 2015, 9, 805.	4.3	17
65	Strategies for directing cells into building functional hearts and parts. Biomaterials Science, 2018, 6, 1664-1690.	5.4	17
66	From solvent-free microspheres to bioactive gradient scaffolds. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 1157-1169.	3.3	14
67	Screening of NCI-DTP library to identify new drug candidates for Borrelia burgdorferi. Journal of Antibiotics, 2017, 70, 308-312.	2.0	14
68	Lipidâ€induced conformational transition of the amyloid core fragment AÎ²(28â€“35) and its A30G and A30I mutants. FEBS Journal, 2008, 275, 2415-2427.	4.7	13
69	Amyloid toxicity in skeletal myoblasts: Implications for inclusion-body myositis. Archives of Biochemistry and Biophysics, 2008, 474, 15-21.	3.0	13
70	Altering the concentration of silica tunes the functional properties of collagenâ€“silica composite scaffolds to suit various clinical requirements. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 52, 131-138.	3.1	13
71	Oral hymecromone decreases hyaluronan in human study participants. Journal of Clinical Investigation, 2022, 132, .	8.2	13
72	Structural preferences of AÎ² fragments in different micellar environments. Neuropeptides, 2011, 45, 369-376.	2.2	12

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73	Pharmacological antagonism of histamine H2R ameliorated L-DOPAâ€“induced dyskinesia via normalization of GRK3 and by suppressing FosB and ERK in PD. Neurobiology of Aging, 2019, 81, 177-189.	3.1	12
74	Enhanced AÎ²1â€“40 Production in Endothelial Cells Stimulated with Fibrillar AÎ²1â€“42. PLoS ONE, 2013, 8, e58194.	2.5	12
75	Dynamic CT imaging of volumetric changes in pulmonary nodules correlates with physical measurements of stiffness. Radiotherapy and Oncology, 2017, 122, 313-318.	0.6	11
76	Infrared Imaging Tools for Diagnostic Applications in Dermatology. , 2015, 1, 1-5.		11
77	Vascularisation in regenerative therapeutics and surgery. Materials Science and Engineering C, 2015, 54, 225-238.	7.3	10
78	Effect of osmolytes on the conformation and aggregation of some amyloid peptides: CD spectroscopic data. Data in Brief, 2016, 7, 1643-1651.	1.0	10
79	In vitro analysis of Mg scaffolds coated with polymer/hydrogel/ceramic composite layers. Surface and Coatings Technology, 2016, 301, 126-132.	4.8	10
80	Enhanced Electrochemical Sensing with Carbon Nanotubes Modified with Bismuth and Magnetic Nanoparticles in a Labâ€onâ€aâ€Chip. ChemNanoMat, 2016, 2, 904-910.	2.8	9
81	Cytokines as therapeutic agents and targets in heart disease. Cytokine and Growth Factor Reviews, 2018, 43, 54-68.	7.2	9
82	Development of Vancomycin Delivery Systems Based on Autologous 3D Platelet-Rich Fibrin Matrices for Bone Tissue Engineering. Biomedicines, 2021, 9, 814.	3.2	9
83	Solvent Microenvironments and Copper Binding Alters the Conformation and Toxicity of a Prion Fragment. PLoS ONE, 2013, 8, e85160.	2.5	8
84	In vitro and in vivo metabolite identification of a novel benzimidazole compound ZLN005 by liquid chromatography/tandem mass spectrometry. Rapid Communications in Mass Spectrometry, 2018, 32, 480-488.	1.5	8
85	Possible Clues for Brain Energy Translation via Endolysosomal Trafficking of APP-CTFs in Alzheimerâ€™s Disease. Oxidative Medicine and Cellular Longevity, 2018, 2018, 1-11.	4.0	8
86	Characterization of Brain Dysfunction Induced by Bacterial Lipopeptides That Alter Neuronal Activity and Network in Rodent Brains. Journal of Neuroscience, 2018, 38, 10672-10691.	3.6	8
87	Amyloid protein aggregates: new clients for mitochondrial energy production in the brain?. FEBS Journal, 2020, 287, 3386-3395.	4.7	8
88	The Role of Pro, Gly Lys, and Arg Containing Peptides on Amyloid-Beta Aggregation. International Journal of Peptide Research and Therapeutics, 2012, 18, 53-61.	1.9	7
89	Association of serum allopregnanolone with restricted and repetitive behaviors in adult males with autism. Psychoneuroendocrinology, 2021, 123, 105039.	2.7	7
90	Recent Developments in Diffusion Tensor Imaging of Brain. Radiology - Open Journal, 2016, 1, 1-12.	0.1	7

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91	Salivary Thiocyanate as a Biomarker of Cystic Fibrosis Transmembrane Regulator Function. Analytical Chemistry, 2019, 91, 7929-7934.	6.5	6
92	Density functional theory analysis and spectral studies on amyloid peptide AÎ²(28â€“35) and its mutants A30G and A30I. Journal of Structural Biology, 2010, 170, 439-450.	2.8	5
93	Pharmaceuticals and Stem Cells in Autism Spectrum Disorders: Wishful Thinking?. World Neurosurgery, 2017, 98, 659-672.	1.3	5
94	Sutureless microvascular anastomosis with the aid of heparin loaded poloxamer 407. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2017, 70, 267-273.	1.0	5
95	An introduction to nanoengineered biomaterials. , 2019, , 1-11.		5
96	Integrated Ca²⁺ flux and AFM force analysis in human iPSC-derived cardiomyocytes. Biological Chemistry, 2020, 402, 113-121.	2.5	5
97	Aggregation and conformational studies on a pentapeptide derivative. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1659-1667.	2.3	4
98	Polymeric Nanoparticles to Combat Squamous Cell Carcinomas in Patients with Dystrophic Epidermolysis Bullosa. Recent Patents on Nanomedicine, 2014, 4, 15-24.	0.5	4
99	Self-assembly and sequence length dependence on nanofibrils of polyglutamine peptides. Neuropeptides, 2016, 57, 71-83.	2.2	4
100	In vitro and in vivo evaluation of cephalosporins for the treatment of Lyme disease. Drug Design, Development and Therapy, 2018, Volume 12, 2915-2921.	4.3	4
101	Antiâ€hyperlipidaemic effects of synthetic analogues of nordihydroguaiaretic acid in dyslipidaemic rats. British Journal of Pharmacology, 2019, 176, 369-385.	5.4	4
102	A hydrodynamic microchip for formation of continuous cell chains. Applied Physics Letters, 2014, 104, 203701.	3.3	3
103	Conformational dynamics of a hydrophobic prion fragment (113â€“127) in different pH and osmolyte solutions. Neuropeptides, 2016, 57, 9-14.	2.2	3
104	The Effect of Ethanol Consumption on Composition and Morphology of Femur Cortical Bone in Wild-Type and ALDH2*2-Homozygous Mice. Calcified Tissue International, 2021, 108, 265-276.	3.1	3
105	Conformational Preferences of AÎ²25-35 and AÎ²35-25 in Membrane Mimicking Environments. Protein and Peptide Letters, 2019, 26, 386-390.	0.9	3
106	Nanoparticles hybridization to engineer biomaterials for drug delivery. , 2017, , 147-161.		1
107	Electrophysiological Characterization of Glioma using a Biomimetic Spheroid Model. , 2021, , .		0