Rangaramanujam M Kannan

List of Publications by Year
in descending order

87 papers	5,029 citations	109137 35 h-index	91712 69 g-index
91 all docs	91 docs citations	91 times ranked	5460 citing authors

#	Article	IF	Citations
1	Dendrimer-based drug and imaging conjugates: design considerations for nanomedical applications. Drug Discovery Today, 2010, 15, 171-185.	3.2	707
2	The effect of surface functionality on cellular trafficking of dendrimers. Biomaterials, 2008, 29, 3469-3476.	5.7	342
3	Dendrimer-Based Postnatal Therapy for Neuroinflammation and Cerebral Palsy in a Rabbit Model. Science Translational Medicine, 2012, 4, 130ra46.	5.8	327
4	Poly(amidoamine) dendrimerâ€“drug conjugates with disulfide linkages for intracellular drug delivery. Biomaterials, 2009, 30, 2112-2121.	5.7	207
5	Dendrimer-based targeted intravitreal therapy for sustained attenuation of neuroinflammation in retinal degeneration. Biomaterials, 2012, 33, 979-988.	5.7	171
6	Dendrimerâ^'Drug Conjugates for Tailored Intracellular Drug Release Based on Glutathione Levels. Bioconjugate Chemistry, 2008, 19, 2446-2455.	1.8	156
7	Drug release characteristics of PAMAM dendrimerâ€“drug conjugates with different linkers. International Journal of Pharmaceutics, 2010, 384, 189-194.	2.6	156
8	Dendrimer Brain Uptake and Targeted Therapy for Brain Injury in a Large Animal Model of Hypothermic Circulatory Arrest. ACS Nano, 2014, 8, 2134-2147.	7.3	127
9	Subconjunctival injectable dendrimer-dexamethasone gel for the treatment of corneal inflammation. Biomaterials, 2017, 125, 38-53.	5.7	115
10	Targeting Mitochondrial Dysfunction and Oxidative Stress in Activated Microglia using Dendrimer-Based Therapeutics. Theranostics, 2018, 8, 5529-5547.	4.6	115
11	Nanoscale effects in dendrimer-mediated targeting of neuroinflammation. Biomaterials, 2016, 101, 96-107.	5.7	107
12	Biodistribution of Fluorescently Labeled PAMAM Dendrimers in Neonatal Rabbits: Effect of Neuroinflammation. Molecular Pharmaceutics, 2013, 10, 4560-4571.	2.3	101
13	Intrinsic targeting of inflammatory cells in the brain by polyamidoamine dendrimers upon subarachnoid administration. Nanomedicine, 2010, 5, 1317-1329.	1.7	100
14	Dendrimer Nanoparticles for Ocular Drug Delivery. Journal of Ocular Pharmacology and Therapeutics, 2013, 29, 151-165.	0.6	96
15	Systemic dendrimer-drug treatment of ischemia-induced neonatal white matter injury. Journal of Controlled Release, 2015, 214, 112-120.	4.8	90
16	Cognitive impairments induced by necrotizing enterocolitis can be prevented by inhibiting microglial activation in mouse brain. Science Translational Medicine, 2018, 10, .	5.8	89
17	Uniform brain tumor distribution and tumor associated macrophage targeting of systemically administered dendrimers. Biomaterials, 2015, 52, 507-516.	5.7	83
18	Poly(amidoamine) dendrimer-erythromycin conjugates for drug delivery to macrophages involved in periprosthetic inflammation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2011, 7, 284-294.	1.7	82

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19	Activated Microglia Targeting Dendrimerâ€“Minocycline Conjugate as Therapeutics for Neuroinflammation. Bioconjugate Chemistry, 2017, 28, 2874-2886.	1.8	77
20	Dendrimer mediated targeted delivery of sinomenine for the treatment of acute neuroinflammation in traumatic brain injury. Journal of Controlled Release, 2020, 323, 361-375.	4.8	75
21	Effect of mannose targeting of hydroxyl PAMAM dendrimers on cellular and organ biodistribution in a neonatal brain injury model. Journal of Controlled Release, 2018, 283, 175-189.	4.8	74
22	Dendrimer-mediated delivery of N-acetyl cysteine to microglia in a mouse model of Rett syndrome. Journal of Neuroinflammation, 2017, 14, 252.	3.1	72
23	Targeting specific cells in the brain with nanomedicines for CNS therapies. Journal of Controlled Release, 2016, 240, 212-226.	4.8	71
24	Systemic and Intravitreal Delivery of Dendrimers to Activated Microglia/Macrophage in Ischemia/Reperfusion Mouse Retina. , 2015, 56, 4413.		70
25	Generation-6 hydroxyl PAMAM dendrimers improve CNS penetration from intravenous administration in a large animal brain injury model. Journal of Controlled Release, 2017, 249, 173-182.	4.8	67
26	Hydroxyl PAMAM dendrimer-based gene vectors for transgene delivery to human retinal pigment epithelial cells. Nanoscale, 2015, 7, 3845-3856.	2.8	62
27	Maternal dendrimer-based therapy for inflammation-induced preterm birth and perinatal brain injury. Scientific Reports, 2017, 7, 6106.	1.6	61
28	Multifunctional Dendrimerâ€Templated Antibody Presentation on Biosensor Surfaces for Improved Biomarker Detection. Advanced Functional Materials, 2010, 20, 409-421.	7.8	58
29	Rheooptical Fourier transform infrared spectroscopy of the deformation behavior in quenched and slow-cooled isotactic polypropylene films. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 2539-2551.	2.4	57
30	Intracellular delivery of dendrimer triamcinolone acetonide conjugates into microglial and human retinal pigment epithelial cells. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 95, 239-249.	2.0	56
31	Concurrent quantification of tryptophan and its major metabolites. Analytical Biochemistry, 2013, 443, 222-231.	1.1	51
32	Scalable synthesis and validation of PAMAM dendrimerâ€<i>N</i>â€acetyl cysteine conjugate for potential translation. Bioengineering and Translational Medicine, 2018, 3, 87-101.	3.9	47
33	Uptake of dendrimer-drug by different cell types in the hippocampus after hypoxicâ€“ischemic insult in neonatal mice: Effects of injury, microglial activation and hypothermia. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2359-2369.	1.7	45
34	Glycosylation of PAMAM dendrimers significantly improves tumor macrophage targeting and specificity in glioblastoma. Journal of Controlled Release, 2021, 337, 179-192.	4.8	45
35	Dense hydroxyl polyethylene glycol dendrimer targets activated glia in multiple CNS disorders. Science Advances, 2020, 6, eaay8514.	4.7	43
36	Dendrimer size effects on the selective brain tumor targeting in orthotopic tumor models upon systemic administration. Bioengineering and Translational Medicine, 2020, 5, e10160.	3.9	42

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37	Folate-functionalized dendrimers for targeting Chlamydia-infected tissues in a mouse model of reactive arthritis. International Journal of Pharmaceutics, 2014, 466, 258-265.	2.6	34
38	Evolution of oxidative stress, inflammation and neovascularization in the choroid and retina in a subretinal lipid induced age-related macular degeneration model. Experimental Eye Research, 2021, 203, 108391.	1.2	34
39	Supercritical Carbon Dioxide-Processed Dispersed Polystyreneâˆ'Clay Nanocomposites. Macromolecules, 2008, 41, 8038-8046.	2.2	33
40	Dendrimer-Mediated Targeted Delivery of Rapamycin to Tumor-Associated Macrophages Improves Systemic Treatment of Glioblastoma. Biomacromolecules, 2020, 21, 5148-5161.	2.6	33
41	Subconjunctival dendrimer-drug therapy for the treatment of dry eye in a rabbit model of induced autoimmune dacryoadenitis. Ocular Surface, 2018, 16, 415-423.	2.2	32
42	A dendrimer-based immunosensor for improved capture and detection of tumor necrosis factor-Î± cytokine. Analytica Chimica Acta, 2012, 720, 118-125.	2.6	30
43	Enhancing the Efficacy of Ara-C through Conjugation with PAMAM Dendrimer and Linear PEG: A Comparative Study. Biomacromolecules, 2013, 14, 801-810.	2.6	30
44	Fetal uptake of intra-amniotically delivered dendrimers in a mouse model of intrauterine inflammation and preterm birth. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1343-1351.	1.7	30
45	Preferential and Increased Uptake of Hydroxyl-Terminated PAMAM Dendrimers by Activated Microglia in Rabbit Brain Mixed Glial Culture. Molecules, 2018, 23, 1025.	1.7	30
46	Surface functionality affects the biodistribution and microglia-targeting of intra-amniotically delivered dendrimers. Journal of Controlled Release, 2016, 237, 61-70.	4.8	29
47	Leveraging the interplay of nanotechnology and neuroscience: Designing new avenues for treating central nervous system disorders. Advanced Drug Delivery Reviews, 2019, 148, 181-203.	6.6	25
48	FTIR spectroscopic investigation of thermal effects in semi-syndiotactic polypropylene. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 439-461.	2.4	24
49	Targeting Mitochondria in Tumor-Associated Macrophages using a Dendrimer-Conjugated TSPO Ligand that Stimulates Antitumor Signaling in Glioblastoma. Biomacromolecules, 2020, 21, 3909-3922.	2.6	23
50	Systemic dendrimer delivery of triptolide to tumor-associated macrophages improves anti-tumor efficacy and reduces systemic toxicity in glioblastoma. Journal of Controlled Release, 2021, 329, 434-444.	4.8	22
51	Systemic dendrimer nanotherapies for targeted suppression of choroidal inflammation and neovascularization in age-related macular degeneration. Journal of Controlled Release, 2021, 335, 527-540.	4.8	21
52	Pediatric oral formulation of dendrimer-N-acetyl-l-cysteine conjugates for the treatment of neuroinflammation. International Journal of Pharmaceutics, 2018, 545, 113-116.	2.6	20
53	Thermosensitive and biodegradable hydrogel encapsulating targeted nanoparticles for the sustained co-delivery of gemcitabine and paclitaxel to pancreatic cancer cells. International Journal of Pharmaceutics, 2021, 593, 120139.	2.6	20
54	Dendrimerâ€"tesaglitazar conjugate induces a phenotype shift of microglia and enhances Î²-amyloid phagocytosis. Nanoscale, 2021, 13, 939-952.	2.8	20

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55	Dendrimer-enabled transformation of Chlamydia trachomatis. Microbial Pathogenesis, 2013, 65, 29-35.	1.3	19
56	Dendrimer-2PMPA selectively blocks upregulated microglial GCPII activity and improves cognition in a mouse model of multiple sclerosis. Nanotheranostics, 2022, 6, 126-142.	2.7	18
57	Dendrimer-conjugated glutaminase inhibitor selectively targets microglial glutaminase in a mouse model of Rett syndrome. Theranostics, 2020, 10, 5736-5748.	4.6	17
58	Quantitative assessment of surface functionality effects on microglial uptake and retention of PAMAM dendrimers. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	15
59	Targeted systemic dendrimer delivery of <scp>CSFâ€1R</scp> inhibitor to tumorâ€associated macrophages improves outcomes in orthotopic glioblastoma. Bioengineering and Translational Medicine, 2021, 6, e10205.	3.9	15
60	Nanotechnology Approaches to Targeting Inflammation and Excitotoxicity in a CanineÂModelÂof Hypothermic Circulatory Arrestâ€“Induced Brain Injury. Annals of Thoracic Surgery, 2016, 102, 743-750.	0.7	14
61	Supercritical carbon dioxide (scCO₂) dispersion of poly(ethylene terephthalate)/clay nanocomposites: Structural, mechanical, thermal, and barrier properties. Journal of Applied Polymer Science, 2017, 134, .	1.3	14
62	Rationally Designed Galactose Dendrimer for Hepatocyte-Specific Targeting and Intracellular Drug Delivery for the Treatment of Liver Disorders. Biomacromolecules, 2021, 22, 3574-3589.	2.6	14
63	ssDNA nanotubes for selective targeting of glioblastoma and delivery of doxorubicin for enhanced survival. Science Advances, 2021, 7, eabl5872.	4.7	14
64	Investigation of clay modifier effects on the structure and rheology of supercritical carbon dioxideâ€processed polymer nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 823-831.	2.4	13
65	Systemic dendrimer-drug nanomedicines for long-term treatment of mild-moderate cerebral palsy in a rabbit model. Journal of Neuroinflammation, 2020, 17, 319.	3.1	12
66	Dendrimerâ€Triamcinolone Acetonide Reduces Neuroinflammation, Pathological Angiogenesis, and Neuroretinal Dysfunction in Ischemic Retinopathy. Advanced Therapeutics, 2021, 4, 2000181.	1.6	12
67	Unusual contributions of molecular architecture to rheology and flow birefringence in hyperbranched polystyrene melts. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 2562-2571.	2.4	11
68	Selective Localization of a Novel Dendrimer Nanoparticle in Myocardial Ischemia-Reperfusion Injury. Annals of Thoracic Surgery, 2017, 104, 891-898.	0.7	11
69	In vivo bone formation by and inflammatory response to resorbable polymer-nanoclay constructs. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 1871-1881.	1.7	10
70	Targeted drug delivery for maternal and perinatal health: Challenges and opportunities. Advanced Drug Delivery Reviews, 2021, 177, 113950.	6.6	10
71	A Rheo-Optical FTIR Spectrometer for Investigating Molecular Orientation and Viscoelastic Behavior in Polymers. International Journal of Polymer Analysis and Characterization, 2004, 9, 245-274.	0.9	9
72	Dendrimer-2PMPA Delays Muscle Function Loss and Denervation in a Murine Model of Amyotrophic Lateral Sclerosis. Neurotherapeutics, 2022, 19, 274-288.	2.1	9

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73	Dendrimer-enabled transformation of Anaplasma phagocytophilum. Microbes and Infection, 2015, 17, 817-822.	1.0	8
74	Emerging nanomedicine approaches in obstetrics. American Journal of Obstetrics and Gynecology, 2017, 216, 201-203.	0.7	6
75	Nanotechnology enabled regenerative medicine for neurological disorders. Advanced Drug Delivery Reviews, 2019, 148, 1-2.	6.6	6
76	Rheo-optical measurements of the first and third normal stresses of homopolymer poly(vinyl methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.1	5
77	Dendrimers and Hyperbranched Polymers for Drug Delivery. , 0, , 105-129.		4
78	Toward new design principles for superior gene silencing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3200-3201.	3.3	4
79	Glial restricted precursor delivery of dendrimer N-acetylcysteine promotes migration and differentiation following transplant in mouse white matter injury model. Nanoscale, 2020, 12, 16063-16068.	2.8	4
80	Dendrimer-Based N-Acetyl Cysteine Maternal Therapy Ameliorates Placental Inflammation via Maintenance of M1/M2 Macrophage Recruitment. Frontiers in Bioengineering and Biotechnology, 2022, 10, 819593.	2.0	4
81	Systemic administration of dendrimer Nâ€acetyl cysteine improves outcomes and survival following cardiac arrest. Bioengineering and Translational Medicine, 2022, 7, e10259.	3.9	3
82	Cellular Interactions of Nano Drug Delivery Systems. , 0, , 113-136.		2
83	NMDA Receptor Antagonism for Neuroprotection in a Canine Model of Hypothermic Circulatory Arrest. Journal of Surgical Research, 2021, 260, 177-189.	0.8	2
84	Engineering clinical translation-Introduction to Special Issue Dedicated to 2017 Bioengineering and Translational Medicine Conference. Bioengineering and Translational Medicine, 2018, 3, 185-185.	3.9	1
85	Characterization of microglial phagocytosis and dendrimer nanoparticle uptake in a neonatal rabbit model of cerebral palsy. Precision Nanomedicine, 2021, 4, .	0.4	1
86	Design of a Novel PAMAM-Based Nanomedicine with Sustained NAC Release for Treatment of Neuroinflammation. , 2017, , .		0
87	Engineering clinical translation-Introduction to Special Issue Dedicated to 2017 Bioengineering and Translational Medicine Conference. Bioengineering and Translational Medicine, 2018, 3, 73-73.	3.9	0