Sujatha Kannan

List of Publications by Citations

100 papers	4,901 citations	41 h-index	68 g-index
111 ext. papers	5,619 ext. citations	7.3 avg, IF	5.61 L-index

#	Paper	IF	Citations
100	Drug complexation, in vitro release and cellular entry of dendrimers and hyperbranched polymers. *International Journal of Pharmaceutics*, **2003**, 259, 143-60	6.5	346
99	The effect of surface functionality on cellular trafficking of dendrimers. *Biomaterials*, **2008**, 29, 3469-76	15.6	317
98	Dendrimer-based postnatal therapy for neuroinflammation and cerebral palsy in a rabbit model. *Science Translational Medicine*, **2012**, 4, 130ra46	17.5	268
97	Poly(amidoamine) dendrimer-drug conjugates with disulfide linkages for intracellular drug delivery. *Biomaterials*, **2009**, 30, 2112-21	15.6	182
96	Models of fetal brain injury, intrauterine inflammation, and preterm birth. *American Journal of Reproductive Immunology*, **2012**, 67, 287-94	3.8	163
95	Preparation, cellular transport, and activity of polyamidoamine-based dendritic nanodevices with a high drug payload. *Biomaterials*, **2006**, 27, 660-9	15.6	151
94	Dendrimer-drug conjugates for tailored intracellular drug release based on glutathione levels. *Bioconjugate Chemistry*, **2008**, 19, 2446-55	6.3	142
93	Drug release characteristics of PAMAM dendrimer-drug conjugates with different linkers. *International Journal of Pharmaceutics*, **2010**, 384, 189-94	6.5	134
92	Synthesis, cellular transport, and activity of polyamidoamine dendrimer-methylprednisolone conjugates. *Bioconjugate Chemistry*, **2005**, 16, 330-7	6.3	130
91	Inhibition of bacterial growth and intramniotic infection in a guinea pig model of chorioamnionitis using PAMAM dendrimers. *International Journal of Pharmaceutics*, **2010**, 395, 298-308	6.5	121
90	Predictors of red cell transfusion in children and adolescents undergoing spinal fusion surgery. *Spine*, **2002**, 27, 2137-42	3.3	104
89	Dendrimer brain uptake and targeted therapy for brain injury in a large animal model of hypothermic circulatory arrest. *ACS Nano*, **2014**, 8, 2134-47	16.7	101
88	Intrinsic targeting of inflammatory cells in the brain by polyamidoamine dendrimers upon subarachnoid administration. *Nanomedicine*, **2010**, 5, 1317-29	5.6	88
87	Dynamics of cellular entry and drug delivery by dendritic polymers into human lung epithelial carcinoma cells. *Journal of Biomaterials Science, Polymer Edition*, **2004**, 15, 311-30	3.5	88
86	Biodistribution of fluorescently labeled PAMAM dendrimers in neonatal rabbits: effect of neuroinflammation. *Molecular Pharmaceutics*, **2013**, 10, 4560-71	5.6	87
85	Intrauterine administration of endotoxin leads to motor deficits in a rabbit model: a link between prenatal infection and cerebral palsy. *American Journal of Obstetrics and Gynecology*, **2008**, 199, 651.e1-7	6.4	85
84	Amino acid-functionalized dendrimers with heterobifunctional chemoselective peripheral groups for drug delivery applications. *Biomacromolecules*, **2010**, 11, 1544-63	6.9	80

83	Nanoscale effects in dendrimer-mediated targeting of neuroinflammation. *Biomaterials*, **2016**, 101, 96-107	13.6	80
82	SARS-CoV-2 Spike RBD-Induced Inflammatory Response by CD14+ Monocytes Causes Endothelial Barrier Dysfunction. *FASEB Journal*, **2021**, 35,	0.9	78
81	Injectable PAMAM dendrimer-PEG hydrogels for the treatment of genital infections: formulation and in vitro and in vivo evaluation. *Molecular Pharmaceutics*, **2011**, 8, 1209-23	5.6	76
80	Microglial activation in perinatal rabbit brain induced by intrauterine inflammation: detection with 11C-(R)-PK11195 and small-animal PET. *Journal of Nuclear Medicine*, **2007**, 48, 946-54	8.9	75
79	Systemic dendrimer-drug treatment of ischemia-induced neonatal white matter injury. *Journal of Controlled Release*, **2015**, 214, 112-20	11.7	72
78	Hyperbranched polymer-drug conjugates with high drug payload for enhanced cellular delivery. *Pharmaceutical Research*, **2004**, 21, 2185-95	4.5	72
77	Neuroinflammation and neuroimmune dysregulation after acute hypoxic-ischemic injury of developing brain. *Frontiers in Pediatrics*, **2014**, 2, 144	3.4	69
76	Bleeding and coagulation changes during spinal fusion surgery: a comparison of neuromuscular and idiopathic scoliosis patients. *Pediatric Critical Care Medicine*, **2002**, 3, 364-9	3	69
75	Targeting Mitochondrial Dysfunction and Oxidative Stress in Activated Microglia using Dendrimer-Based Therapeutics. *Theranostics*, **2018**, 8, 5529-5547	12.1	69
74	Anti-inflammatory and anti-oxidant activity of anionic dendrimer-N-acetyl cysteine conjugates in activated microglial cells. *International Journal of Pharmaceutics*, **2009**, 377, 159-68	6.5	67
73	Cognitive impairments induced by necrotizing enterocolitis can be prevented by inhibiting microglial activation in mouse brain. *Science Translational Medicine*, **2018**, 10,	17.5	54
72	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	11.7	50
71	Targeting specific cells in the brain with nanomedicines for CNS therapies. *Journal of Controlled Release*, **2016**, 240, 212-226	11.7	50
70	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	11.7	50
69	Maternal dendrimer-based therapy for inflammation-induced preterm birth and perinatal brain injury. *Scientific Reports*, **2017**, 7, 6106	4.9	50
68	Transport and biodistribution of dendrimers across human fetal membranes: implications for intravaginal administration of dendrimer-drug conjugates. *Biomaterials*, **2010**, 31, 5007-21	15.6	50
67	Activated Microglia Targeting Dendrimer-Minocycline Conjugate as Therapeutics for Neuroinflammation. *Bioconjugate Chemistry*, **2017**, 28, 2874-2886	6.3	49
66	Dendrimer-mediated delivery of N-acetyl cysteine to microglia in a mouse model of Rett syndrome. *Journal of Neuroinflammation*, **2017**, 14, 252	10.1	49

65	Stimuli-responsive star poly(ethylene glycol) drug conjugates for improved intracellular delivery of the drug in neuroinflammation. *Journal of Controlled Release*, **2010**, 142, 447-56	11.7	46
64	Noninvasive C-rifampin positron emission tomography reveals drug biodistribution in tuberculous meningitis. *Science Translational Medicine*, **2018**, 10,	17.5	46
63	Microglial migration and interactions with dendrimer nanoparticles are altered in the presence of neuroinflammation. *Journal of Neuroinflammation*, **2016**, 13, 65	10.1	45
62	Decreased cortical serotonin in neonatal rabbits exposed to endotoxin in utero. *Journal of Cerebral Blood Flow and Metabolism*, **2011**, 31, 738-49	7.3	42
61	Effects of branching architecture and linker on the activity of hyperbranched polymer-drug conjugates. *Bioconjugate Chemistry*, **2009**, 20, 842-6	6.3	42
60	Dendrimer mediated targeted delivery of sinomenine for the treatment of acute neuroinflammation in traumatic brain injury. *Journal of Controlled Release*, **2020**, 323, 361-375	11.7	41
59	Maternal inflammation leads to impaired glutamate homeostasis and up-regulation of glutamate carboxypeptidase II in activated microglia in the fetal/newborn rabbit brain. *Neurobiology of Disease*, **2016**, 94, 116-28	7.5	41
58	Synthesis, characterization, and in vitro activity of dendrimer-streptokinase conjugates. *Bioconjugate Chemistry*, **2007**, 18, 791-9	6.3	41
57	Uptake of dendrimer-drug by different cell types in the hippocampus after hypoxic-ischemic insult in neonatal mice: Effects of injury, microglial activation and hypothermia. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2017**, 13, 2359-2369	6	37
56	Intrauterine endotoxin administration leads to white matter diffusivity changes in newborn rabbits. *Journal of Child Neurology*, **2009**, 24, 1179-89	2.5	37
55	Magnitude of [(11)C]PK11195 binding is related to severity of motor deficits in a rabbit model of cerebral palsy induced by intrauterine endotoxin exposure. *Developmental Neuroscience*, **2011**, 33, 231-40	2.2	37
54	Concurrent quantification of tryptophan and its major metabolites. *Analytical Biochemistry*, **2013**, 443, 222-31	3.1	36
53	Maternal Inflammation Results in Altered Tryptophan Metabolism in Rabbit Placenta and Fetal Brain. *Developmental Neuroscience*, **2017**, 39, 399-412	2.2	34
52	A New Rabbit Model of Pediatric Traumatic Brain Injury. *Journal of Neurotrauma*, **2015**, 32, 1369-79	5.4	33
51	Microglia activation in a pediatric rabbit model of tuberculous meningitis. *DMM Disease Models and Mechanisms*, **2016**, 9, 1497-1506	4.1	32
50	Diffuse crescentic glomerulonephritis in bacterial endocarditis. *Pediatric Nephrology*, **2001**, 16, 423-8	3.2	31
49	Scalable synthesis and validation of PAMAM dendrimer--acetyl cysteine conjugate for potential translation. *Bioengineering and Translational Medicine*, **2018**, 3, 87-101	14.8	30
48	Dense hydroxyl polyethylene glycol dendrimer targets activated glia in multiple CNS disorders. *Science Advances*, **2020**, 6, eaay8514	14.3	29

47	Maternal endotoxin exposure results in abnormal neuronal architecture in the newborn rabbit. *Developmental Neuroscience*, **2013**, 35, 396-405	2.2	28
46	Positron emission tomography imaging of neuroinflammation. *Journal of Child Neurology*, **2009**, 24, 1190-9	2.3	28
45	Fetal uptake of intra-amniotically delivered dendrimers in a mouse model of intrauterine inflammation and preterm birth. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2014**, 10, 1343-51	6	27
44	Trajectory of inflammatory and microglial activation markers in the postnatal rabbit brain following intrauterine endotoxin exposure. *Neurobiology of Disease*, **2018**, 111, 153-162	7.5	26
43	Surface functionality affects the biodistribution and microglia-targeting of intra-amniotically delivered dendrimers. *Journal of Controlled Release*, **2016**, 237, 61-70	11.7	26
42	Neuroimmune responses in the developing brain following traumatic brain injury. *Experimental Neurology*, **2019**, 320, 112957	5.7	25
41	Applications of positron emission tomography in the newborn nursery. *Seminars in Perinatology*, **2010**, 34, 39-45	3.3	23
40	Dendrimer size effects on the selective brain tumor targeting in orthotopic tumor models upon systemic administration. *Bioengineering and Translational Medicine*, **2020**, 5, e10160	14.8	21
39	Kearns-Sayre syndrome presenting as complete heart block. *Pediatric Cardiology*, **2008**, 29, 659-62	2.1	20
38	Traumatic Injury Leads to Inflammation and Altered Tryptophan Metabolism in the Juvenile Rabbit Brain. *Journal of Neurotrauma*, **2018**,	5.4	18
37	Augmented annotation and orthologue analysis for Oryctolagus cuniculus: Better Bunny. *BMC Bioinformatics*, **2012**, 13, 84	3.6	18
36	Preferential and Increased Uptake of Hydroxyl-Terminated PAMAM Dendrimers by Activated Microglia in Rabbit Brain Mixed Glial Culture. *Molecules*, **2018**, 23,	4.8	18
35	Dendrimer-N-acetyl-L-cysteine modulates monophagocytic response in adrenoleukodystrophy. *Annals of Neurology*, **2018**, 84, 452-462	9.4	17
34	Nanomedicine in cerebral palsy. *International Journal of Nanomedicine*, **2013**, 8, 4183-95	7.3	17
33	Dendrimer-Mediated Targeted Delivery of Rapamycin to Tumor-Associated Macrophages Improves Systemic Treatment of Glioblastoma. *Biomacromolecules*, **2020**, 21, 5148-5161	6.9	14
32	Severe Acute Respiratory Syndrome-Associated Coronavirus 2 Infection and Organ Dysfunction in the ICU: Opportunities for Translational Research **2021**, 3, e0374		12
31	Quantitative assessment of surface functionality effects on microglial uptake and retention of PAMAM dendrimers. *Journal of Nanoparticle Research*, **2018**, 20, 1	2.3	11
30	Nanotechnology Approaches to Targeting Inflammation and Excitotoxicity in a Canine Model of Hypothermic Circulatory Arrest-Induced Brain Injury. *Annals of Thoracic Surgery*, **2016**, 102, 743-750	2.7	11

29	Neuronanotechnology for brain regeneration. *Advanced Drug Delivery Reviews*, **2019**, 148, 3-18	18.5	10
28	Targeting Mitochondria in Tumor-Associated Macrophages using a Dendrimer-Conjugated TSPO Ligand that Stimulates Antitumor Signaling in Glioblastoma. *Biomacromolecules*, **2020**, 21, 3909-3922	6.9	10
27	Selective Localization of a Novel Dendrimer Nanoparticle in Myocardial Ischemia-Reperfusion Injury. *Annals of Thoracic Surgery*, **2017**, 104, 891-898	2.7	9
26	Pediatric Traumatic Brain Injury Causes Long-Term Deficits in Adult Hippocampal Neurogenesis and Cognition. *Journal of Neurotrauma*, **2020**, 37, 1656-1667	5.4	9
25	Glycosylation of PAMAM dendrimers significantly improves tumor macrophage targeting and specificity in glioblastoma. *Journal of Controlled Release*, **2021**, 337, 179-192	11.7	9
24	Early Detection of Hypothermic Neuroprotection Using T2-Weighted Magnetic Resonance Imaging in a Mouse Model of Hypoxic Ischemic Encephalopathy. *Frontiers in Neurology*, **2018**, 9, 304	4.1	8
23	Dendrimer-conjugated glutaminase inhibitor selectively targets microglial glutaminase in a mouse model of Rett syndrome. *Theranostics*, **2020**, 10, 5736-5748	12.1	8
22	Glutamine Antagonist JHU-083 Normalizes Aberrant Hippocampal Glutaminase Activity and Improves Cognition in APOE4 Mice. *Journal of Alzheimer's Disease*, **2020**, 77, 437-447	4.3	7
21	Dendrimer-tesaglitazar conjugate induces a phenotype shift of microglia and enhances β-amyloid phagocytosis. *Nanoscale*, **2021**, 13, 939-952	7.7	7
20	Administration of a 20-Hydroxyeicosatetraenoic Acid Synthesis Inhibitor Improves Outcome in a Rat Model of Pediatric Traumatic Brain Injury. *Developmental Neuroscience*, **2019**, 41, 166-176	2.2	6
19	Cerebellar injury and impaired function in a rabbit model of maternal inflammation induced neonatal brain injury. *Neurobiology of Learning and Memory*, **2019**, 165, 106901	3.1	6
18	Altered trajectories of neurodevelopment and behavior in mouse models of Rett syndrome. *Neurobiology of Learning and Memory*, **2019**, 165, 106962	3.1	6
17	Transient neonatal sleep fragmentation results in long-term neuroinflammation and cognitive impairment in a rabbit model. *Experimental Neurology*, **2020**, 327, 113212	5.7	5
16	Advanced nanotherapies to promote neuroregeneration in the injured newborn brain. *Advanced Drug Delivery Reviews*, **2019**, 148, 19-37	18.5	4
15	Systemic dendrimer-drug nanomedicines for long-term treatment of mild-moderate cerebral palsy in a rabbit model. *Journal of Neuroinflammation*, **2020**, 17, 319	10.1	4
14	Targeted systemic dendrimer delivery of CSF-1R inhibitor to tumor-associated macrophages improves outcomes in orthotopic glioblastoma. *Bioengineering and Translational Medicine*, **2021**, 6, e10205	14.8	4
13	Oropharyngeal dermoid cyst in an infant with intermittent airway obstruction. A case report. *Neuroradiology Journal*, **2014**, 27, 627-31	2	3
12	Dendrimers and Hyperbranched Polymers for Drug Delivery105-129		3

List of Publications

11	Dendrimer-2PMPA selectively blocks upregulated microglial GCPII activity and improves cognition in a mouse model of multiple sclerosis.. *Nanotheranostics*, **2022**, 6, 126-142	5.6	3
10	Cellular Interactions of Nano Drug Delivery Systems113-136		2
9	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	7.7	2
8	Dendrimer-2PMPA Delays Muscle Function Loss and Denervation in a Murine Model of Amyotrophic Lateral Sclerosis.. *Neurotherapeutics*, **2022**, 1	6.4	1
7	Acute Neurologic Dysfunction in Critically Ill Children: The PODIUM Consensus Conference.. *Pediatrics*, **2022**, 149, S32-S38	7.4	1
6	NMDA Receptor Antagonism for Neuroprotection in a Canine Model of Hypothermic Circulatory Arrest. *Journal of Surgical Research*, **2021**, 260, 177-189	2.5	1
5	Rationally Designed Galactose Dendrimer for Hepatocyte-Specific Targeting and Intracellular Drug Delivery for the Treatment of Liver Disorders. *Biomacromolecules*, **2021**, 22, 3574-3589	6.9	1
4	Microglial Metabolism After Pediatric Traumatic Brain Injury - Overlooked Bystanders or Active Participants?. *Frontiers in Neurology*, **2020**, 11, 626999	4.1	1
3	Targeted drug delivery for maternal and perinatal health: Challenges and opportunities. *Advanced Drug Delivery Reviews*, **2021**, 177, 113950	18.5	1
2	Dendrimer-Based N-Acetyl Cysteine Maternal Therapy Ameliorates Placental Inflammation Maintenance of M1/M2 Macrophage Recruitment.. *Frontiers in Bioengineering and Biotechnology*, **2022**, 10, 819593	5.8	0
1	Systemic administration of dendrimer N-acetyl cysteine improves outcomes and survival following cardiac arrest.. *Bioengineering and Translational Medicine*, **2022**, 7, e10259	14.8	0