Simon J O'carroll

List of Publications by Year
in descending order

59 papers	2,119 citations	257450 24 h-index	243625 44 g-index
63 all docs	63 docs citations	63 times ranked	2574 citing authors

#	Article	IF	Citations
1	Connexin43 mimetic peptide reduces vascular leak and retinal ganglion cell death following retinal ischaemia. Brain, 2012, 135, 506-520.	7.6	169
2	Connexin43 Mimetic Peptides Reduce Swelling, Astrogliosis, and Neuronal Cell Death after Spinal Cord Injury. Cell Communication and Adhesion, 2008, 15, 27-42.	1.0	162
3	Application of xCELLigence RTCA Biosensor Technology for Revealing the Profile and Window of Drug Responsiveness in Real Time. Biosensors, 2015, 5, 199-222.	4.7	139
4	Pro-inflammatory TNFÎ± and IL-1Î² differentially regulate the inflammatory phenotype of brain microvascular endothelial cells. Journal of Neuroinflammation, 2015, 12, 131.	7.2	134
5	Connexin hemichannel blockade improves outcomes in a model of fetal ischemia. Annals of Neurology, 2012, 71, 121-132.	5.3	129
6	Attenuation of mechanical pain hypersensitivity by treatment with Peptide5, a connexin-43 mimetic peptide, involves inhibition of NLRP3 inflammasome in nerve-injured mice. Experimental Neurology, 2018, 300, 1-12.	4.1	96
7	Connexin43 mimetic peptide is neuroprotective and improves function following spinal cord injury. Neuroscience Research, 2013, 75, 256-267.	1.9	92
8	Unique and shared inflammatory profiles of human brain endothelia and pericytes. Journal of Neuroinflammation, 2018, 15, 138.	7.2	83
9	A Key Role for Connexin Hemichannels in Spreading Ischemic Brain Injury. Current Drug Targets, 2013, 14, 36-46.	2.1	65
10	Astrocyte-selective AAV gene therapy through the endogenous GFAP promoter results in robust transduction in the rat spinal cord following injury. Gene Therapy, 2019, 26, 198-210.	4.5	60
11	Amylin Analog Pramlintide Induces Migraineâ€like Attacks in Patients. Annals of Neurology, 2021, 89, 1157-1171.	5.3	58
12	Tonabersat Prevents Inflammatory Damage in the Central Nervous System by Blocking Connexin43 Hemichannels. Neurotherapeutics, 2017, 14, 1148-1165.	4.4	49
13	Connexin43 Mimetic Peptide Improves Retinal Function and Reduces Inflammation in a Light-Damaged Albino Rat Model. , 2016, 57, 3961.		47
14	The Importance of Multifrequency Impedance Sensing of Endothelial Barrier Formation Using ECIS Technology for the Generation of a Strong and Durable Paracellular Barrier. Biosensors, 2018, 8, 64.	4.7	47
15	Characterizing the mode of action of extracellular Connexin43 channel blocking mimetic peptides in an in vitro ischemia injury model. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 68-78.	2.4	46
16	Dose-dependent protective effect of connexin43 mimetic peptide against neurodegeneration in an ex vivo model of epileptiform lesion. Epilepsy Research, 2010, 92, 153-162.	1.6	45
17	Connexins and Pannexins in cerebral ischemia. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 224-236.	2.6	44
18	Nuclear PLC Beta 1 is required for 3T3-L1 adipocyte differentiation and regulates expression of the cyclin D3â€“cdk4 complex. Cellular Signalling, 2009, 21, 926-935.	3.6	40

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19	Systemic Administration of Connexin43 Mimetic Peptide Improves Functional Recovery after Traumatic Spinal Cord Injury in Adult Rats. Journal of Neurotrauma, 2017, 34, 707-719.	3.4	37
20	AAV Targeting of Glial Cell Types in the Central and Peripheral Nervous System and Relevance to Human Gene Therapy. Frontiers in Molecular Neuroscience, 2020, 13, 618020.	2.9	36
21	The Use of Connexin-Based Therapeutic Approaches to Target Inflammatory Diseases. Methods in Molecular Biology, 2013, 1037, 519-546.	0.9	36
22	Extracellular signal-regulated kinase involvement in human astrocyte migration. Brain Research, 2007, 1164, 1-13.	2.2	35
23	Gestational Age-Dependent Up-Regulation of Prostaglandin D Synthase (PGDS) and Production of PGDS-Derived Antiinflammatory Prostaglandins in Human Placenta. Journal of Clinical Endocrinology and Metabolism, 2006, 91, 597-606.	3.6	33
24	Regulation of human cerebro-microvascular endothelial baso-lateral adhesion and barrier function by S1P through dual involvement of S1P1 and S1P2 receptors. Scientific Reports, 2016, 6, 19814.	3.3	29
25	Optimised techniques for high-throughput screening of differentiated SH-SY5Y cells and application for neurite outgrowth assays. Scientific Reports, 2021, 11, 23935.	3.3	29
26	Gap junction proteins and their role in spinal cord injury. Frontiers in Molecular Neuroscience, 2014, 7, 102.	2.9	28
27	Bradykinin receptorâ€1 activation induces inflammation and increases the permeability of human brain microvascular endothelial cells. Cell Biology International, 2020, 44, 343-351.	3.0	27
28	Astrocyte-selective AAV-ADAMTS4 gene therapy combined with hindlimb rehabilitation promotes functional recovery after spinal cord injury. Experimental Neurology, 2020, 327, 113232.	4.1	25
29	Connexin hemichannel induced vascular leak suggests a new paradigm for cancer therapy. FEBS Letters, 2014, 588, 1365-1371.	2.8	23
30	Statins Inhibit Fibrillary Î²-Amyloid Induced Inflammation in a Model of the Human Blood Brain Barrier. PLoS ONE, 2016, 11, e0157483.	2.5	23
31	Image-Based High-Throughput Quantification of Cellular Fat Accumulation. Journal of Biomolecular Screening, 2007, 12, 999-1005.	2.6	22
32	Real-Time Measurement of Melanoma Cell-Mediated Human Brain Endothelial Barrier Disruption Using Electric Cell-Substrate Impedance Sensing Technology. Biosensors, 2019, 9, 56.	4.7	19
33	Non-invasive neuromodulation for bowel, bladder and sexual restoration following spinal cord injury: A systematic review. Clinical Neurology and Neurosurgery, 2020, 194, 105822.	1.4	17
34	Externally triggered release of growth factors - A tissue regeneration approach. Journal of Controlled Release, 2021, 332, 74-95.	9.9	16
35	A model for ex vivo spinal cord segment cultureâ€"A tool for analysis of injury repair strategies. Journal of Neuroscience Methods, 2010, 192, 49-57.	2.5	15
36	IL-6 stimulates a concentration-dependent increase in MCP-1 in immortalised human brain endothelial cells. F1000Research, 2016, 5, 270.	1.6	15

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37	Characterisation of Peptide5 systemic administration for treating traumatic spinal cord injured rats. Experimental Brain Research, 2017, 235, 3033-3048.	1.5	13
38	ECIS technology reveals that monocytes isolated by CD14+ve selection mediate greater loss of BBB integrity than untouched monocytes, which occurs to a greater extent with IL-1Î² activated endothelium in comparison to TNFÎ±. PLoS ONE, 2017, 12, e0180267.	2.5	13
39	IL-6 stimulates a concentration-dependent increase in MCP-1 in immortalised human brain endothelial cells. F1000Research, 2016, 5, 270.	1.6	11
40	Determining Neurotrophin Gradients in Vitro To Direct Axonal Outgrowth Following Spinal Cord Injury. ACS Chemical Neuroscience, 2020, 11, 121-132.	3.5	10
41	A Subdural Bioelectronic Implant to Record Electrical Activity from the Spinal Cord in Freely Moving Rats. Advanced Science, 2022, 9, e2105913.	11.2	10
42	A Macroscopic Diffusion-Based Gradient Generator to Establish Concentration Gradients of Soluble Molecules Within Hydrogel Scaffolds for Cell Culture. Frontiers in Chemistry, 2019, 7, 638.	3.6	9
43	Optimisation of glutathione conjugation to liposomes quantified with a validated HPLC assay. International Journal of Pharmaceutics, 2019, 567, 118451.	5.2	9
44	In Vitro Wounding Models Using the Electric Cell-Substrate Impedance Sensing (ECIS)-ZÎ¸ Technology. Biosensors, 2018, 8, 90.	4.7	8
45	Make it simple: long-term stable gradient generation in a microfluidic microdevice. Biomedical Microdevices, 2019, 21, 77.	2.8	8
46	Upregulation of pannexin-1 hemichannels explains the apparent death of the syncytiotrophoblast during human placental explant culture. Placenta, 2020, 94, 1-12.	1.5	8
47	Synthesis and biological evaluation of S-lipidated lipopeptides of a connexin 43 channel inhibitory peptide. RSC Medicinal Chemistry, 2020, 11, 1041-1047.	3.9	8
48	Transcutaneous Electrical Stimulation for Neurogenic Bladder Dysfunction Following Spinal Cord Injury: Meta-Analysis of Randomized Controlled Trials. Neuromodulation, 2021, 24, 1237-1246.	0.8	8
49	Analysis of Melanoma Secretome for Factors That Directly Disrupt the Barrier Integrity of Brain Endothelial Cells. International Journal of Molecular Sciences, 2020, 21, 8193.	4.1	7
50	Biosensor Technology Reveals the Disruption of the Endothelial Barrier Function and the Subsequent Death of Blood Brain Barrier Endothelial Cells to Sodium Azide and Its Gaseous Products. Biosensors, 2017, 7, 41.	4.7	6
51	Comparison of Leading Biosensor Technologies to Detect Changes in Human Endothelial Barrier Properties in Response to Pro-Inflammatory TNFÎ± and IL1Î² in Real-Time. Biosensors, 2021, 11, 159.	4.7	6
52	Receptor for Advanced Glycation End Products (RAGE) is Expressed Predominantly in Medium Spiny Neurons of tgHD Rat Striatum. Neuroscience, 2018, 380, 146-151.	2.3	4
53	The involvement of extracellular vesicles in the transcytosis of nanoliposomes through brain endothelial cells, and the impact of liposomal pH-sensitivity. Materials Today Bio, 2022, 13, 100212.	5.5	4
54	Stretchable Electronics Based on Laser Structured, Vapor Phase Polymerized PEDOT/Tosylate. Polymers, 2020, 12, 1654.	4.5	3

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55	Spatiotemporal changes in Cx30 and Cx43 expression during neuronal differentiation of P19 EC and NT2/D1 cells. Cell Biology International Reports, 2013, 20, 13-23.	0.6	1
56	Tracking Antioxidant Status in Spinal Cord Injured Rodents: A Voltammetric Method Suited for Clinical Translation. World Neurosurgery, 2022, , .	1.3	1
57	Connexin43 Expression and Associated Chronic Inflammation Presages the Development of Cerebral Radiation Necrosis. Journal of Neuropathology and Experimental Neurology, 2020, 79, 791-799.	1.7	0
58	Comparison of Leading Biosensor Technologies to Measure Endothelial Adhesion, Barrier Properties, and Responses to Cytokines in Real-Time. , 2020, 60, .		0
59	Viral vector gene therapy approaches for regeneration and repair in spinal cord injury. , 2022, , 411-423.		0