

# Ulrich Dirnagl

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/7542502/ulrich-dirnagl-publications-by-citations.pdf>  
**Version:** 2024-04-09

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.  
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

386 papers	34,186 citations	93 h-index	175 g-index
429 ext. papers	39,148 ext. citations	7 avg, IF	7.14 L-index

#	Paper	IF	Citations
386	Pathobiology of ischaemic stroke: an integrated view. <i>Trends in Neurosciences</i> , <b>1999</b> , 22, 391-7	13.3	3094
385	Near infrared spectroscopy (NIRS): a new tool to study hemodynamic changes during activation of brain function in human adults. <i>Neuroscience Letters</i> , <b>1993</b> , 154, 101-4	3.3	827
384	The ARRIVE guidelines 2.0: Updated guidelines for reporting animal research. <i>PLoS Biology</i> , <b>2020</b> , 18, e3000410	9.7	757
383	Ischemic tolerance and endogenous neuroprotection. <i>Trends in Neurosciences</i> , <b>2003</b> , 26, 248-54	13.3	686
382	Stroke-induced immunodeficiency promotes spontaneous bacterial infections and is mediated by sympathetic activation reversal by poststroke T helper cell type 1-like immunostimulation. <i>Journal of Experimental Medicine</i> , <b>2003</b> , 198, 725-36	16.6	672
381	Central nervous system injury-induced immune deficiency syndrome. <i>Nature Reviews Neuroscience</i> , <b>2005</b> , 6, 775-86	13.5	631
380	Neuroprotection in acute stroke: targeting excitotoxicity, oxidative and nitrosative stress, and inflammation. <i>Lancet Neurology, The</i> , <b>2016</b> , 15, 869-881	24.1	551
379	Biomedical research: increasing value, reducing waste. <i>Lancet, The</i> , <b>2014</b> , 383, 101-4	40	527
378	Targeting gene-modified hematopoietic cells to the central nervous system: use of green fluorescent protein uncovers microglial engraftment. <i>Nature Medicine</i> , <b>2001</b> , 7, 1356-61	50.5	517
377	Preconditioning and tolerance against cerebral ischaemia: from experimental strategies to clinical use. <i>Lancet Neurology, The</i> , <b>2009</b> , 8, 398-412	24.1	466
376	Continuous measurement of cerebral cortical blood flow by laser-Doppler flowmetry in a rat stroke model. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1989</b> , 9, 589-96	7.3	425
375	Cortical spreading ischaemia is a novel process involved in ischaemic damage in patients with aneurysmal subarachnoid haemorrhage. <i>Brain</i> , <b>2009</b> , 132, 1866-81	11.2	415
374	Erythropoietin is a paracrine mediator of ischemic tolerance in the brain: evidence from an in vitro model. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 10291-301	6.6	408
373	Estrogen increases bone marrow-derived endothelial progenitor cell production and diminishes neointima formation. <i>Circulation</i> , <b>2003</b> , 107, 3059-65	16.7	391
372	Bone marrow-derived progenitor cells modulate vascular reendothelialization and neointimal formation: effect of 3-hydroxy-3-methylglutaryl coenzyme a reductase inhibition. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2002</b> , 22, 1567-72	9.4	381
371	Vascular imprints of neuronal activity: relationships between the dynamics of cortical blood flow, oxygenation, and volume changes following sensory stimulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1997</b> , 94, 14826-31	11.5	368
370	Simultaneous recording of cerebral blood oxygenation changes during human brain activation by magnetic resonance imaging and near-infrared spectroscopy. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1996</b> , 16, 817-26	7.3	365

369	Stroke-induced immunodepression: experimental evidence and clinical relevance. <i>Stroke</i> , <b>2007</b> , 38, 770-3.	3.7	354
368	Reporting animal research: Explanation and elaboration for the ARRIVE guidelines 2.0. <i>PLoS Biology</i> , <b>2020</b> , 18, e3000411	9.7	352
367	Stroke and the immune system: from pathophysiology to new therapeutic strategies. <i>Lancet Neurology</i> , <b>2011</b> , 10, 471-80	24.1	316
366	Decrease in parietal cerebral hemoglobin oxygenation during performance of a verbal fluency task in patients with Alzheimer's disease monitored by means of near-infrared spectroscopy (NIRS)--correlation with simultaneous rCBF-PET measurements. <i>Brain Research</i> , <b>1997</b> , 755, 293-303	3.7	310
365	Atorvastatin upregulates type III nitric oxide synthase in thrombocytes, decreases platelet activation, and protects from cerebral ischemia in normocholesterolemic mice. <i>Stroke</i> , <b>2000</b> , 31, 2442-9	6.7	310
364	Pericytes in capillaries are contractile in vivo, but arterioles mediate functional hyperemia in the mouse brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 22290-5	11.5	298
363	Bench to bedside: the quest for quality in experimental stroke research. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2006</b> , 26, 1465-78	7.3	274
362	Capillary perfusion of the rat brain cortex. An in vivo confocal microscopy study. <i>Circulation Research</i> , <b>1994</b> , 75, 55-62	15.7	253
361	Hypoxia-induced stroke tolerance in the mouse is mediated by erythropoietin. <i>Stroke</i> , <b>2003</b> , 34, 1981-6	6.7	252
360	Increased formation of reactive oxygen species after permanent and reversible middle cerebral artery occlusion in the rat. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1998</b> , 18, 196-205	7.3	247
359	Rosuvastatin, a new HMG-CoA reductase inhibitor, upregulates endothelial nitric oxide synthase and protects from ischemic stroke in mice. <i>Brain Research</i> , <b>2002</b> , 942, 23-30	3.7	245
358	Evidence for the efficacy of NXY-059 in experimental focal cerebral ischaemia is confounded by study quality. <i>Stroke</i> , <b>2008</b> , 39, 2824-9	6.7	241
357	Tolerance against ischemic neuronal injury can be induced by volatile anesthetics and is inducible NO synthase dependent. <i>Stroke</i> , <b>2002</b> , 33, 1889-98	6.7	239
356	Role of glial cells in cerebral ischemia. <i>Glia</i> , <b>2005</b> , 50, 281-6	9	237
355	Reprint: Good laboratory practice: preventing introduction of bias at the bench. <i>Stroke</i> , <b>2009</b> , 29, 221-3	6.7	236
354	Nitric oxide scavenging by hemoglobin or nitric oxide synthase inhibition by N-nitro-L-arginine induces cortical spreading ischemia when K <sup>+</sup> is increased in the subarachnoid space. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1998</b> , 18, 978-90	7.3	234
353	Pathophysiology of stroke: lessons from animal models. <i>Metabolic Brain Disease</i> , <b>2004</b> , 19, 151-67	3.9	231
352	Mechanisms of stroke protection by physical activity. <i>Annals of Neurology</i> , <b>2003</b> , 54, 582-90	9.4	230

351	DNA methyltransferase contributes to delayed ischemic brain injury. <i>Journal of Neuroscience</i> , <b>2000</b> , 20, 3175-81	6.6	230
350	Attenuated stroke severity after prodromal TIA: a role for ischemic tolerance in the brain?. <i>Stroke</i> , <b>1999</b> , 30, 1851-4	6.7	226
349	Neogenesis of cerebellar Purkinje neurons from gene-marked bone marrow cells in vivo. <i>Journal of Cell Biology</i> , <b>2001</b> , 155, 733-8	7.3	221
348	The ARRIVE guidelines 2.0: Updated guidelines for reporting animal research. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2020</b> , 40, 1769-1777	7.3	220
347	Neuroprotective role of astrocytes in cerebral ischemia: focus on ischemic preconditioning. <i>Glia</i> , <b>2005</b> , 50, 307-20	9	216
346	Stroke-induced immunodepression and post-stroke infections: lessons from the preventive antibacterial therapy in stroke trial. <i>Neuroscience</i> , <b>2009</b> , 158, 1184-93	3.9	208
345	Improving outcome after stroke: overcoming the translational roadblock. <i>Cerebrovascular Diseases</i> , <b>2008</b> , 25, 268-78	3.2	206
344	Mild cerebral ischemia induces loss of cyclin-dependent kinase inhibitors and activation of cell cycle machinery before delayed neuronal cell death. <i>Journal of Neuroscience</i> , <b>2001</b> , 21, 5045-53	6.6	205
343	Role of nitric oxide in the coupling of cerebral blood flow to neuronal activation in rats. <i>Neuroscience Letters</i> , <b>1993</b> , 149, 43-6	3.3	202
342	Angiotensin AT2 receptor protects against cerebral ischemia-induced neuronal injury. <i>FASEB Journal</i> , <b>2005</b> , 19, 617-9	0.9	201
341	Physical activity improves long-term stroke outcome via endothelial nitric oxide synthase-dependent augmentation of neovascularization and cerebral blood flow. <i>Circulation Research</i> , <b>2006</b> , 99, 1132-40	15.7	197
340	Cerebral oxygenation changes in response to motor stimulation. <i>Journal of Applied Physiology</i> , <b>1996</b> , 81, 1174-83	3.7	196
339	Products of hemolysis in the subarachnoid space inducing spreading ischemia in the cortex and focal necrosis in rats: a model for delayed ischemic neurological deficits after subarachnoid hemorrhage?. <i>Journal of Neurosurgery</i> , <b>2000</b> , 93, 658-66	3.2	195
338	Empirical evidence of bias in the design of experimental stroke studies: a metaepidemiologic approach. <i>Stroke</i> , <b>2008</b> , 39, 929-34	6.7	185
337	Preventive antibacterial therapy in acute ischemic stroke: a randomized controlled trial. <i>PLoS ONE</i> , <b>2008</b> , 3, e2158	3.7	184
336	Desferrioxamine induces delayed tolerance against cerebral ischemia in vivo and in vitro. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2002</b> , 22, 520-5	7.3	170
335	Results of a preclinical randomized controlled multicenter trial (pRCT): Anti-CD49d treatment for acute brain ischemia. <i>Science Translational Medicine</i> , <b>2015</b> , 7, 299ra121	17.5	167
334	Neuroprotective effects of atorvastatin against glutamate-induced excitotoxicity in primary cortical neurones. <i>Journal of Neurochemistry</i> , <b>2005</b> , 92, 1386-98	6	165

333	Endothelin-1 potently induces Leu <sup>15</sup> cortical spreading depression in vivo in the rat: a model for an endothelial trigger of migrainous aura?. <i>Brain</i> , <b>2002</b> , 125, 102-12	11.2	160
332	Serial analysis of gene expression identifies metallothionein-II as major neuroprotective gene in mouse focal cerebral ischemia. <i>Journal of Neuroscience</i> , <b>2002</b> , 22, 5879-88	6.6	158
331	The neurovascular unit as a selective barrier to polymorphonuclear granulocyte (PMN) infiltration into the brain after ischemic injury. <i>Acta Neuropathologica</i> , <b>2013</b> , 125, 395-412	14.3	156
330	Cellular immunodepression preceding infectious complications after acute ischemic stroke in humans. <i>Cerebrovascular Diseases</i> , <b>2008</b> , 25, 50-8	3.2	154
329	Stroke propagates bacterial aspiration to pneumonia in a model of cerebral ischemia. <i>Stroke</i> , <b>2006</b> , 37, 2607-12	6.7	154
328	Immune surveillance of mouse brain perivascular spaces by blood-borne macrophages. <i>European Journal of Neuroscience</i> , <b>2001</b> , 14, 1651-8	3.5	152
327	Autoregulation of cerebral blood flow in experimental focal brain ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1990</b> , 10, 327-36	7.3	152
326	Increased hypoxic tolerance by chemical inhibition of oxidative phosphorylation: "chemical preconditioning". <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1997</b> , 17, 257-64	7.3	149
325	Human cerebrospinal fluid monoclonal N-methyl-D-aspartate receptor autoantibodies are sufficient for encephalitis pathogenesis. <i>Brain</i> , <b>2016</b> , 139, 2641-2652	11.2	148
324	Pathobiology of injury after stroke: the neurovascular unit and beyond. <i>Annals of the New York Academy of Sciences</i> , <b>2012</b> , 1268, 21-5	6.5	144
323	Stroke induced Sarcopenia: muscle wasting and disability after stroke. <i>International Journal of Cardiology</i> , <b>2013</b> , 170, 89-94	3.2	142
322	Withdrawal of statin treatment abrogates stroke protection in mice. <i>Stroke</i> , <b>2003</b> , 34, 551-7	6.7	140
321	Differential mechanisms of neuroprotection by 17 beta-estradiol in apoptotic versus necrotic neurodegeneration. <i>Journal of Neuroscience</i> , <b>2001</b> , 21, 2600-9	6.6	140
320	Essential role of interleukin-6 in post-stroke angiogenesis. <i>Brain</i> , <b>2012</b> , 135, 1964-80	11.2	139
319	Age dependency of changes in cerebral hemoglobin oxygenation during brain activation: a near-infrared spectroscopy study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1995</b> , 15, 1103-8	7.3	138
318	Physical model for the spectroscopic analysis of cortical intrinsic optical signals. <i>Physics in Medicine and Biology</i> , <b>2000</b> , 45, 3749-64	3.8	137
317	Distinguishing between exploratory and confirmatory preclinical research will improve translation. <i>PLoS Biology</i> , <b>2014</b> , 12, e1001863	9.7	136
316	Respiratory chain inhibition induces tolerance to focal cerebral ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1999</b> , 19, 1229-37	7.3	135

315	Global cerebral ischemia in the rat: online monitoring of oxygen free radical production using chemiluminescence in vivo. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1995</b> , 15, 929-40	7.3	135
314	No evidence for early decrease in blood oxygenation in rat whisker cortex in response to functional activation. <i>NeuroImage</i> , <b>2001</b> , 13, 988-1001	7.9	133
313	Preventive antibacterial treatment improves the general medical and neurological outcome in a mouse model of stroke. <i>Stroke</i> , <b>2004</b> , 35, 2-6	6.7	131
312	Sulfonylureas improve outcome in patients with type 2 diabetes and acute ischemic stroke. <i>Stroke</i> , <b>2007</b> , 38, 2526-30	6.7	125
311	Endogenous neuroprotection: mitochondria as gateways to cerebral preconditioning?. <i>Neuropharmacology</i> , <b>2008</b> , 55, 334-44	5.5	121
310	Spinal cord injury-induced immune deficiency syndrome enhances infection susceptibility dependent on lesion level. <i>Brain</i> , <b>2016</b> , 139, 692-707	11.2	119
309	Depletion of Cultivable Gut Microbiota by Broad-Spectrum Antibiotic Pretreatment Worsens Outcome After Murine Stroke. <i>Stroke</i> , <b>2016</b> , 47, 1354-63	6.7	119
308	Induction of tolerance in rat cortical neurons: hypoxic preconditioning. <i>FEBS Letters</i> , <b>1997</b> , 414, 117-21	3.8	116
307	Microvascular changes during the early phase of experimental bacterial meningitis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1990</b> , 10, 914-22	7.3	116
306	Ion changes in spreading ischaemia induce rat middle cerebral artery constriction in the absence of NO. <i>Brain</i> , <b>2005</b> , 128, 2042-51	11.2	115
305	ZK200775: a phosphonate quinoxalinedione AMPA antagonist for neuroprotection in stroke and trauma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1998</b> , 95, 10960-5	11.5	114
304	Pre- and post-treatment with MK-801 but not pretreatment alone reduces neocortical damage after focal cerebral ischemia in the rat. <i>Brain Research</i> , <b>1990</b> , 527, 62-8	3.7	108
303	Non-invasive functional mapping of the human motor cortex using near-infrared spectroscopy. <i>NeuroReport</i> , <b>1996</b> , 7, 1977-81	1.7	104
302	Assessment of Local Brain Activation. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 149-153	3.6	104
301	Modeling stroke in mice - middle cerebral artery occlusion with the filament model. <i>Journal of Visualized Experiments</i> , <b>2011</b> ,	1.6	100
300	The ARRIVE guidelines 2.0: Updated guidelines for reporting animal research. <i>British Journal of Pharmacology</i> , <b>2020</b> , 177, 3617-3624	8.6	99
299	SUMO2/3 conjugation is an endogenous neuroprotective mechanism. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2011</b> , 31, 2152-9	7.3	97
298	Turnover of rat brain perivascular cells. <i>Experimental Neurology</i> , <b>2001</b> , 168, 242-9	5.7	95

297	Functional neurological recovery after spinal cord injury is impaired in patients with infections. <i>Brain</i> , <b>2012</b> , 135, 3238-50	11.2	94
296	Body weight after stroke: lessons from the obesity paradox. <i>Stroke</i> , <b>2011</b> , 42, 3646-50	6.7	94
295	Visualizing cell death in experimental focal cerebral ischemia: promises, problems, and perspectives. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2012</b> , 32, 213-31	7.3	93
294	Improved reperfusion and neuroprotection by creatine in a mouse model of stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2007</b> , 27, 452-9	7.3	93
293	Circulating monocytic cells infiltrate layers of anterograde axonal degeneration where they transform into microglia. <i>FASEB Journal</i> , <b>2005</b> , 19, 647-9	0.9	93
292	Increased postischemic brain injury in mice deficient in uracil-DNA glycosylase. <i>Journal of Clinical Investigation</i> , <b>2004</b> , 113, 1711-1721	15.9	91
291	Results of the ICTuS 2 Trial (Intravascular Cooling in the Treatment of Stroke 2). <i>Stroke</i> , <b>2016</b> , 47, 2888-2895	26.95	89
290	IL-1 $\beta$ stimulates COX-2 dependent PGE $\beta$ synthesis and CGRP release in rat trigeminal ganglia cells. <i>PLoS ONE</i> , <b>2011</b> , 6, e17360	3.7	89
289	Induction of hypoxia inducible factor 1 by oxygen glucose deprivation is attenuated by hypoxic preconditioning in rat cultured neurons. <i>Neuroscience Letters</i> , <b>1998</b> , 254, 117-20	3.3	87
288	Nitric oxide: a modulator, but not a mediator, of neurovascular coupling in rat somatosensory cortex. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>1999</b> , 277, H799-811	5.2	87
287	Anti ICAM-1 (CD 54) monoclonal antibody reduces inflammatory changes in experimental bacterial meningitis. <i>Journal of Neuroimmunology</i> , <b>1995</b> , 63, 63-8	3.5	86
286	Noninvasive assessment of changes in cytochrome-c oxidase oxidation in human subjects during visual stimulation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1999</b> , 19, 592-603	7.3	85
285	Neurotoxicity mechanisms of thioether ecstasy metabolites. <i>Neuroscience</i> , <b>2007</b> , 146, 1743-57	3.9	84
284	Effects of cerebral ischemia in mice lacking DNA methyltransferase 1 in post-mitotic neurons. <i>NeuroReport</i> , <b>2001</b> , 12, 3763-6	1.7	84
283	Cerebrovascular vasodilation to extraluminal acidosis occurs via combined activation of ATP-sensitive and Ca <sup>2+</sup> -activated potassium channels. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2003</b> , 23, 1227-38	7.3	82
282	A concerted appeal for international cooperation in preclinical stroke research. <i>Stroke</i> , <b>2013</b> , 44, 1754-60	6.7	81
281	Acute pathophysiological processes after ischaemic and traumatic brain injury. <i>Baillieres Best Practice and Research in Clinical Anaesthesiology</i> , <b>2010</b> , 24, 495-509	4	79
280	HMG-CoA reductase inhibition causes neurite loss by interfering with geranylgeranylpyrophosphate synthesis. <i>Journal of Neurochemistry</i> , <b>2004</b> , 89, 24-32	6	79



279	Hyperbaric oxygenation induced tolerance against focal cerebral ischemia in mice is strain dependent. <i>Brain Research</i> , <b>2000</b> , 871, 146-50	3.7	79
278	High prevalence of NMDA receptor IgA/IgM antibodies in different dementia types. <i>Annals of Clinical and Translational Neurology</i> , <b>2014</b> , 1, 822-32	5.3	78
277	Spinal cord injury-induced immunodeficiency is mediated by a sympathetic-neuroendocrine adrenal reflex. <i>Nature Neuroscience</i> , <b>2017</b> , 20, 1549-1559	25.5	76
276	The Hong Kong Principles for assessing researchers: Fostering research integrity. <i>PLoS Biology</i> , <b>2020</b> , 18, e3000737	9.7	75
275	Non-resolving aspects of acute inflammation after spinal cord injury (SCI): indices and resolution plateau. <i>Brain Pathology</i> , <b>2011</b> , 21, 652-60	6	74
274	Neurovascular coupling in rat brain operates independent of hemoglobin deoxygenation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 757-68	7.3	74
273	Selective neuronal vulnerability following mild focal brain ischemia in the mouse. <i>Brain Pathology</i> , <b>2003</b> , 13, 452-64	6	74
272	Analysis of CO <sub>2</sub> vasomotor reactivity and vessel diameter changes by simultaneous venous and arterial Doppler recordings. <i>Stroke</i> , <b>1999</b> , 30, 81-6	6.7	73
271	Neuronal gelsolin prevents apoptosis by enhancing actin depolymerization. <i>Molecular and Cellular Neurosciences</i> , <b>2004</b> , 25, 69-82	4.8	71
270	Ischemia Triggered by Red Blood Cell Products in the Subarachnoid Space Is Inhibited by Nimodipine Administration or Moderate Volume Expansion/Hemodilution in Rats. <i>Neurosurgery</i> , <b>2002</b> , 51, 1457-1467	3.2	71
269	Robust research: Institutions must do their part for reproducibility. <i>Nature</i> , <b>2015</b> , 525, 25-7	50.4	69
268	Pharmacological uncoupling of activation induced increases in CBF and CMRO <sub>2</sub> . <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 311-22	7.3	69
267	Nitric oxide modulates spreading depolarization threshold in the human and rodent cortex. <i>Stroke</i> , <b>2008</b> , 39, 1292-9	6.7	69
266	A fluorescence based non-radioactive electrophoretic mobility shift assay. <i>Journal of Biotechnology</i> , <b>2000</b> , 78, 163-70	3.7	69
265	Increased extracellular K <sup>+</sup> concentration reduces the efficacy of N-methyl-D-aspartate receptor antagonists to block spreading depression-like depolarizations and spreading ischemia. <i>Stroke</i> , <b>2005</b> , 36, 1270-7	6.7	67
264	Ecstasy-induced cell death in cortical neuronal cultures is serotonin 2A-receptor-dependent and potentiated under hyperthermia. <i>Neuroscience</i> , <b>2006</b> , 139, 1069-81	3.9	67
263	Effect and reporting bias of RhoA/ROCK-blockade intervention on locomotor recovery after spinal cord injury: a systematic review and meta-analysis. <i>JAMA Neurology</i> , <b>2014</b> , 71, 91-9	17.2	66
262	Ischaemia triggered by spreading neuronal activation is inhibited by vasodilators in rats. <i>Journal of Physiology</i> , <b>2001</b> , 531, 515-26	3.9	66



261	The Gut Microbiome as Therapeutic Target in Central Nervous System Diseases: Implications for Stroke. <i>Neurotherapeutics</i> , <b>2016</b> , 13, 762-774	6.4	65
260	Near-infrared fluorescence imaging with fluorescently labeled albumin: a novel method for non-invasive optical imaging of blood-brain barrier impairment after focal cerebral ischemia in mice. <i>Journal of Neuroscience Methods</i> , <b>2009</b> , 180, 126-32	3	63
259	Saccadic suppression induces focal hypooxygenation in the occipital cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2000</b> , 20, 1103-10	7.3	63
258	Isoflurane induced prolonged protection against cerebral ischemia in mice: a redox sensitive mechanism?. <i>NeuroReport</i> , <b>2002</b> , 13, 1431-5	1.7	61
257	Blockade of nitric oxide synthesis in rats strongly attenuates the CBF response to extracellular acidosis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1993</b> , 13, 535-9	7.3	61
256	Catabolic signaling and muscle wasting after acute ischemic stroke in mice: indication for a stroke-specific sarcopenia. <i>Stroke</i> , <b>2014</b> , 45, 3675-83	6.7	60
255	Olfactory Ensheathing Cell Transplantation in Experimental Spinal Cord Injury: Effect size and Reporting Bias of 62 Experimental Treatments: A Systematic Review and Meta-Analysis. <i>PLoS Biology</i> , <b>2016</b> , 14, e1002468	9.7	60
254	In vivo near-infrared fluorescence imaging of matrix metalloproteinase activity after cerebral ischemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2009</b> , 29, 1284-92	7.3	59
253	CGRP release and c-fos expression within trigeminal nucleus caudalis of the rat following glyceryltrinitrate infusion. <i>Cephalalgia</i> , <b>2005</b> , 25, 225-36	6.1	59
252	Near infrared spectroscopy in the diagnosis of Alzheimer's disease. <i>Annals of the New York Academy of Sciences</i> , <b>1996</b> , 777, 22-9	6.5	59
251	Imaging of leukocytes within the rat brain cortex in vivo. <i>Microvascular Research</i> , <b>1991</b> , 42, 305-15	3.7	59
250	Laminar analysis of cerebral blood flow in cortex of rats by laser-Doppler flowmetry: a pilot study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1997</b> , 17, 1326-36	7.3	58
249	Fucoidin, a polysaccharide inhibiting leukocyte rolling, attenuates inflammatory responses in experimental pneumococcal meningitis in rats. <i>Neuroscience Letters</i> , <b>1995</b> , 191, 1-4	3.3	58
248	Phosphatidylinositol 3-Akt-kinase-dependent phosphorylation of p21(Waf1/Cip1) as a novel mechanism of neuroprotection by glucocorticoids. <i>Journal of Neuroscience</i> , <b>2007</b> , 27, 4562-71	6.6	57
247	Distinct physiologic properties of microglia and blood-borne cells in rat brain slices after permanent middle cerebral artery occlusion. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2000</b> , 20, 1537-49	7.3	57
246	Long-term functional outcome in patients with acquired infections after acute spinal cord injury. <i>Neurology</i> , <b>2017</b> , 88, 892-900	6.5	55
245	Dysexecutive syndrome after mild cerebral ischemia? Mice learn normally but have deficits in strategy switching. <i>Stroke</i> , <b>2004</b> , 35, 191-5	6.7	55
244	Ischemia triggered by spreading neuronal activation is induced by endothelin-1 and hemoglobin in the subarachnoid space. <i>Annals of Neurology</i> , <b>2003</b> , 54, 591-8	9.4	55

243	Global forebrain ischaemia in the rat: controlled reduction of cerebral blood flow by hypobaric hypotension and two-vessel occlusion. <i>Neurological Research</i> , <b>1993</b> , 15, 128-30	2.7	55
242	Where Have All the Rodents Gone? The Effects of Attrition in Experimental Research on Cancer and Stroke. <i>PLoS Biology</i> , <b>2016</b> , 14, e1002331	9.7	55
241	Cholinergic Pathway Suppresses Pulmonary Innate Immunity Facilitating Pneumonia After Stroke. <i>Stroke</i> , <b>2015</b> , 46, 3232-40	6.7	54
240	Small-molecule-induced Rho-inhibition: NSAIDs after spinal cord injury. <i>Cell and Tissue Research</i> , <b>2012</b> , 349, 119-32	4.2	54
239	In-vivo confocal scanning laser microscopy of the cerebral microcirculation. <i>Journal of Microscopy</i> , <b>1992</b> , 165, 147-57	1.9	54
238	Ischemia and stroke. <i>Advances in Experimental Medicine and Biology</i> , <b>2002</b> , 513, 455-73	3.6	54
237	Pathophysiological interference with neurovascular coupling - when imaging based on hemoglobin might go blind. <i>Frontiers in Neuroenergetics</i> , <b>2010</b> , 2,		53
236	Stroke research at a road block: the streets from adversity should be paved with meta-analysis and good laboratory practice. <i>British Journal of Pharmacology</i> , <b>2009</b> , 157, 1154-6	8.6	53
235	Melatonin is protective in necrotic but not in caspase-dependent, free radical-independent apoptotic neuronal cell death in primary neuronal cultures. <i>FASEB Journal</i> , <b>2000</b> , 14, 1814-24	0.9	53
234	Inhibition of Na(+),K(+)-ATPase activity in cultured rat cerebellar granule cells prevents the onset of apoptosis induced by low potassium. <i>Neuroscience Letters</i> , <b>2000</b> , 283, 41-4	3.3	53
233	Non-invasive visualization of CNS inflammation with nuclear and optical imaging. <i>Neuroscience</i> , <b>2009</b> , 158, 1161-73	3.9	52
232	Noninvasive near infrared spectroscopy monitoring of regional cerebral blood oxygenation changes during peri-infarct depolarizations in focal cerebral ischemia in the rat. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1997</b> , 17, 950-4	7.3	52
231	In vivo imaging of the inflammatory receptor CD40 after cerebral ischemia using a fluorescent antibody. <i>Stroke</i> , <b>2008</b> , 39, 2845-52	6.7	52
230	Pneumococcal cell wall components induce nitric oxide synthase and TNF-alpha in astroglial-enriched cultures. <i>Glia</i> , <b>1996</b> , 16, 1-6	9	52
229	Nitric oxide modulates the CBF response to increased extracellular potassium. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1995</b> , 15, 914-9	7.3	51
228	Three-dimensional reconstruction of the rat brain cortical microcirculation in vivo. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1991</b> , 11, 353-60	7.3	51
227	Reprint: Good Laboratory Practice: Preventing Introduction of Bias at the Bench. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2009</b> , 29, 221-223	7.3	50
226	Bone marrow-derived cells expressing green fluorescent protein under the control of the glial fibrillary acidic protein promoter do not differentiate into astrocytes in vitro and in vivo. <i>Journal of Neuroscience</i> , <b>2003</b> , 23, 5004-11	6.6	50

225	Focal laminar cortical MR signal abnormalities after subarachnoid hemorrhage. <i>Annals of Neurology</i> , <b>2002</b> , 52, 825-9	9.4	50
224	Ischemia Triggered by Red Blood Cell Products in the Subarachnoid Space Is Inhibited by Nimodipine Administration or Moderate Volume Expansion/Hemodilution in Rats. <i>Neurosurgery</i> , <b>2002</b> , 51, 1457-1467	3.2	49
223	Nitric oxide synthase blockade enhances vasomotion in the cerebral microcirculation of anesthetized rats. <i>Microvascular Research</i> , <b>1993</b> , 45, 318-23	3.7	49
222	Mrp-8 and -14 mediate CNS injury in focal cerebral ischemia. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , <b>2009</b> , 1792, 1198-204	6.9	47
221	Vascular signal transducer and activator of transcription-3 promotes angiogenesis and neuroplasticity long-term after stroke. <i>Circulation</i> , <b>2015</b> , 131, 1772-82	16.7	46
220	Blocking stroke-induced immunodeficiency increases CNS antigen-specific autoreactivity but does not worsen functional outcome after experimental stroke. <i>Journal of Neuroscience</i> , <b>2015</b> , 35, 7777-94	6.6	46
219	Certain types of iron oxide nanoparticles are not suited to passively target inflammatory cells that infiltrate the brain in response to stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2013</b> , 33, e1-9	7.3	46
218	Effects of the PDE5-inhibitor vardenafil in a mouse stroke model. <i>Brain Research</i> , <b>2009</b> , 1265, 148-57	3.7	46
217	Mitochondrial hexokinase II (HKII) and phosphoprotein enriched in astrocytes (PEA15) form a molecular switch governing cellular fate depending on the metabolic state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 1518-23	11.5	46
216	Protection from brain damage and bacterial infection in murine stroke by the novel caspase-inhibitor Q-VD-OPH. <i>Experimental Neurology</i> , <b>2007</b> , 206, 183-91	5.7	46
215	Confocal laser microscopy to study microcirculation on the rat brain surface in vivo. <i>Brain Research</i> , <b>1989</b> , 504, 159-60	3.7	46
214	Tracking of systemically administered mononuclear cells in the ischemic brain by high-field magnetic resonance imaging. <i>NeuroImage</i> , <b>2006</b> , 33, 886-97	7.9	45
213	ET-1 induces cortical spreading depression via activation of the ETA receptor/phospholipase C pathway in vivo. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2004</b> , 286, H1339-46	5.2	45
212	Thomas Willis Lecture: Is Translational Stroke Research Broken, and if So, How Can We Fix It?. <i>Stroke</i> , <b>2016</b> , 47, 2148-53	6.7	44
211	Gut microbiota impact on stroke outcome: Fad or fact?. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2016</b> , 36, 891-8	7.3	44
210	Excessive oxygen or glucose supply does not alter the blood flow response to somatosensory stimulation or spreading depression in rats. <i>Brain Research</i> , <b>1997</b> , 761, 290-9	3.7	44
209	Triptans reduce the inflammatory response in bacterial meningitis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2002</b> , 22, 988-96	7.3	44
208	Improved selective, simple, and contrast staining of acidophilic neurons with vanadium acid fuchsin. <i>Brain Research Protocols</i> , <b>2000</b> , 5, 135-9		44

207	Immune responses after acute ischemic stroke or myocardial infarction. <i>International Journal of Cardiology</i> , <b>2012</b> , 155, 372-7	3.2	43
206	Imaging of leukocyte-endothelium interaction using in vivo confocal laser scanning microscopy during the early phase of experimental pneumococcal meningitis. <i>Journal of Infectious Diseases</i> , <b>1993</b> , 168, 927-33	7	43
205	B-waves in healthy persons. <i>Neurological Research</i> , <b>1989</b> , 11, 194-6	2.7	43
204	Systematic survey of the design, statistical analysis, and reporting of studies published in the 2008 volume of the Journal of Cerebral Blood Flow and Metabolism. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2011</b> , 31, 1064-72	7.3	42
203	Separation of changes in light scattering and chromophore concentrations during cortical spreading depression in rats. <i>Optics Letters</i> , <b>1998</b> , 23, 555-7	3	42
202	The ARRIVE guidelines 2.0: Updated guidelines for reporting animal research. <i>BMC Veterinary Research</i> , <b>2020</b> , 16, 242	2.7	42
201	Nitric oxide synthase inhibition does not affect somatosensory evoked potentials in the rat. <i>Neuroscience Letters</i> , <b>1996</b> , 216, 207-10	3.3	41
200	Histone acetylation and CREB binding protein are required for neuronal resistance against ischemic injury. <i>PLoS ONE</i> , <b>2014</b> , 9, e95465	3.7	41
199	Increased postischemic brain injury in mice deficient in uracil-DNA glycosylase. <i>Journal of Clinical Investigation</i> , <b>2004</b> , 113, 1711-21	15.9	41
198	Membrane attack complex inhibitor CD59a protects against focal cerebral ischemia in mice. <i>Journal of Neuroinflammation</i> , <b>2010</b> , 7, 15	10.1	40
197	Rapid Ca <sup>2+</sup> -dependent NO-production from central nervous system cells in culture measured by NO-nitrite/ozone chemoluminescence. <i>Brain Research</i> , <b>1997</b> , 748, 1-11	3.7	40
196	Systemic nitric oxide synthase inhibition does not affect brain oxygenation during cortical spreading depression in rats: a noninvasive near-infrared spectroscopy and laser-Doppler flowmetry study. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1996</b> , 16, 1100-7	7.3	40
195	Primary trigeminal afferents are the main source for stimulus-induced CGRP release into jugular vein blood and CSF. <i>Cephalalgia</i> , <b>2012</b> , 32, 659-67	6.1	39
194	Neuroprotective effects of the antifungal drug clotrimazole. <i>Neuroscience</i> , <b>2002</b> , 113, 47-53	3.9	39
193	Age-related changes of oxygen free radical production in the rat brain slice after hypoxia: on-line measurement using enhanced chemiluminescence. <i>Brain Research</i> , <b>1995</b> , 703, 227-30	3.7	38
192	Induced hypothermia in experimental pneumococcal meningitis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2000</b> , 20, 834-8	7.3	37
191	Towards noninvasive molecular fluorescence imaging of the human brain. <i>Neurodegenerative Diseases</i> , <b>2008</b> , 5, 296-303	2.3	35
190	Specific imaging of inflammation with the 18 kDa translocator protein ligand DPA-714 in animal models of epilepsy and stroke. <i>PLoS ONE</i> , <b>2013</b> , 8, e69529	3.7	35

189	Superiority of preventive antibiotic treatment compared with standard treatment of poststroke pneumonia in experimental stroke: a bed to bench approach. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2013</b> , 33, 846-54	7.3	34
188	Visualization of cell death in mice with focal cerebral ischemia using fluorescent annexin A5, propidium iodide, and TUNEL staining. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2011</b> , 31, 1311-20	7.3	34
187	Heparin inhibits leukocyte rolling in pial vessels and attenuates inflammatory changes in a rat model of experimental bacterial meningitis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1997</b> , 17, 1221-9	7.3	34
186	Simultaneous assessment of cerebral oxygenation and hemodynamics during a motor task. A combined near infrared and transcranial Doppler sonography study. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 411, 461-9	3.6	34
185	Ischemia triggered by red blood cell products in the subarachnoid space is inhibited by nimodipine administration or moderate volume expansion/hemodilution in rats. <i>Neurosurgery</i> , <b>2002</b> , 51, 1457-65; discussion 1465-7	3.2	34
184	Doxorubicin induces biphasic neurotoxicity to rat cortical neurons. <i>NeuroToxicology</i> , <b>2008</b> , 29, 286-93	4.4	32
183	Neuronal activity-induced changes of local cerebral microvascular blood oxygenation in the rat: effect of systemic hyperoxia or hypoxia. <i>Brain Research</i> , <b>2003</b> , 975, 135-40	3.7	32
182	The ARRIVE guidelines 2019: updated guidelines for reporting animal research		32
181	The neurotoxicity of hallucinogenic amphetamines in primary cultures of hippocampal neurons. <i>NeuroToxicology</i> , <b>2013</b> , 34, 254-63	4.4	31
180	Changing the mindset in life sciences toward translation: a consensus. <i>Science Translational Medicine</i> , <b>2014</b> , 6, 264cm12	17.5	31
179	Functional imaging with laser speckle contrast analysis: vascular compartment analysis and correlation with laser Doppler flowmetry and somatosensory evoked potentials. <i>Brain Research</i> , <b>2006</b> , 1121, 95-103	3.7	31
178	Protective effects of PJ34, a novel, potent inhibitor of poly(ADP-ribose) polymerase (PARP) in in vitro and in vivo models of stroke. <i>International Journal of Molecular Medicine</i> , <b>2001</b> , 7, 255	4.4	31
177	Sulfonylurea Drugs Do Not Influence Initial Stroke Severity and In-Hospital Outcome in Stroke Patients With Diabetes. <i>Stroke</i> , <b>2001</b> , 32, 2029-2032	6.7	31
176	Cerebral oxygenation changes during motor and somatosensory stimulation in humans, as measured by near-infrared spectroscopy. <i>Advances in Experimental Medicine and Biology</i> , <b>1996</b> , 388, 219-24	3.6	31
175	Neurovascular coupling during cortical spreading depolarization and -depression. <i>Stroke</i> , <b>2015</b> , 46, 1392-401	4.9	30
174	CD93/AA4.1: a novel regulator of inflammation in murine focal cerebral ischemia. <i>Journal of Immunology</i> , <b>2010</b> , 184, 6407-17	5.3	30
173	The ARRIVE guidelines 2.0: updated guidelines for reporting animal research. <i>BMJ Open Science</i> , <b>2020</b> , 4, e100115	4.6	30
172	The SCIntinel study--prospective multicenter study to define the spinal cord injury-induced immune depression syndrome (SCI-IDS)--study protocol and interim feasibility data. <i>BMC Neurology</i> , <b>2013</b> , 13, 168	3.1	29

171	Hypothermia for Stroke: call to action 2010. <i>International Journal of Stroke</i> , <b>2010</b> , 5, 489-92	6.3	29
170	Determination of the brain-blood partition coefficient for water in mice using MRI. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 1821-4	7.3	29
169	Evidence of intrathecal immunoglobulin synthesis in stroke: a cohort study. <i>Archives of Neurology</i> , <b>2012</b> , 69, 714-7		29
168	Impaired cerebrovascular reactivity after cortical spreading depression in rats: Restoration by nitric oxide or cGMP. <i>Experimental Neurology</i> , <b>2006</b> , 202, 449-55	5.7	29
167	Effect of catalase on regional cerebral blood flow and brain edema during the early phase of experimental pneumococcal meningitis. <i>Journal of Infectious Diseases</i> , <b>1992</b> , 166, 1442-5	7	29
166	Endothelin-1-induced spreading depression in rats is associated with a microarea of selective neuronal necrosis. <i>Experimental Biology and Medicine</i> , <b>2007</b> , 232, 204-13	3.7	29
165	Protective conditioning of the brain: expressway or roadblock?. <i>Journal of Physiology</i> , <b>2011</b> , 589, 4147-55	5.9	28
164	Cortical spreading depression-associated hyperemia in rats: involvement of serotonin. <i>Brain Research</i> , <b>1998</b> , 783, 188-93	3.7	28
163	Nitric oxide from perivascular nerves modulates cerebral arterial pH reactivity. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2001</b> , 281, H1353-63	5.2	28
162	The worldwide clinical trial research response to the COVID-19 pandemic - the first 100 days. <i>F1000Research</i> , <b>2020</b> , 9, 1193	3.6	28
161	Vascular change and opposing effects of the angiotensin type 2 receptor in a mouse model of vascular cognitive impairment. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2015</b> , 35, 476-84	7.3	26
160	Human gestational N-methyl-d-aspartate receptor autoantibodies impair neonatal murine brain function. <i>Annals of Neurology</i> , <b>2019</b> , 86, 656-670	9.4	26
159	Hypothermia effects on neurovascular coupling and cerebral metabolic rate of oxygen. <i>NeuroImage</i> , <b>2008</b> , 40, 1523-32	7.9	26
158	Role of nitric oxide in the ethylcholine aziridinium model of delayed apoptotic neurodegeneration in vivo and in vitro. <i>Neuroscience</i> , <b>2000</b> , 97, 383-93	3.9	26
157	Perivascular nerves contribute to cortical spreading depression-associated hyperemia in rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>1998</b> , 274, H1979-87	5.2	26
156	Atlas registration for edema-corrected MRI lesion volume in mouse stroke models. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2019</b> , 39, 313-323	7.3	26
155	Increasing efficiency of preclinical research by group sequential designs. <i>PLoS Biology</i> , <b>2017</b> , 15, e2001307	9.7	25
154	Electrochemical failure of the brain cortex is more deleterious when it is accompanied by low perfusion. <i>Stroke</i> , <b>2013</b> , 44, 490-6	6.7	25



153	Role of nitric oxide synthase inhibition in leukocyte-endothelium interaction in the rat pial microvasculature. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1996</b> , 16, 1143-52	7.3	25
152	Statistics in experimental cerebrovascular research: comparison of more than two groups with a continuous outcome variable. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 1558-63	7.3	24
151	Mitochondrial free radical production induced by glucose deprivation in cerebellar granule neurons. <i>Biochemistry (Moscow)</i> , <b>2008</b> , 73, 149-55	2.9	24
150	Mendelian adult-onset leukodystrophy genes in Alzheimer's disease: critical influence of CSF1R and NOTCH3. <i>Neurobiology of Aging</i> , <b>2018</b> , 66, 179.e17-179.e29	5.6	23
149	Reprint: Good laboratory practice: preventing introduction of bias at the bench. <i>International Journal of Stroke</i> , <b>2009</b> , 4, 3-5	6.3	23
148	Histamine (H1) receptor antagonist inhibits leukocyte rolling in pial vessels in the early phase of bacterial meningitis in rats. <i>Neuroscience Letters</i> , <b>1997</b> , 226, 17-20	3.3	23
147	Tumour necrosis factor alpha induces only minor inflammatory changes in the central nervous system, but augments experimental meningitis. <i>Neuroscience</i> , <b>1998</b> , 86, 627-34	3.9	23
146	Role of NAD(P)H:quinone oxidoreductase in the progression of neuronal cell death in vitro and following cerebral ischaemia in vivo. <i>Journal of Neurochemistry</i> , <b>2003</b> , 84, 1028-39	6	23
145	Improving target assessment in biomedical research: the GOT-IT recommendations. <i>Nature Reviews Drug Discovery</i> , <b>2021</b> , 20, 64-81	64.1	23
144	Elevated levels of plasma homocysteine, deficiencies in dietary folic acid and uracil-DNA glycosylase impair learning in a mouse model of vascular cognitive impairment. <i>Behavioural Brain Research</i> , <b>2015</b> , 283, 215-26	3.4	22
143	Distinct influence of the group III metabotropic glutamate receptor agonist (R,S)-4-phosphonophenylglycine [(R,S)-PPG] on different forms of neuronal damage. <i>Neuropharmacology</i> , <b>2000</b> , 39, 911-7	5.5	22
142	Short-term block of Na <sup>+</sup> /K <sup>+</sup> -ATPase in neuro-glial cell cultures of cerebellum induces glutamate dependent damage of granule cells. <i>FEBS Letters</i> , <b>1999</b> , 456, 41-4	3.8	22
141	The trigeminal nerve and augmentation of regional cerebral blood flow during experimental bacterial meningitis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>1996</b> , 16, 1319-24	7.3	22
140	The worldwide clinical trial research response to the COVID-19 pandemic - the first 100 days. <i>F1000Research</i> , <b>2020</b> , 9, 1193	3.6	22
139	Investigation of changes in body composition, metabolic profile and skeletal muscle functional capacity in ischemic stroke patients: the rationale and design of the Body Size in Stroke Study (BoSSS). <i>Journal of Cachexia, Sarcopenia and Muscle</i> , <b>2013</b> , 4, 199-207	10.3	21
138	Inducible nitric oxide synthase does not mediate brain damage after transient focal cerebral ischemia in mice. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2008</b> , 28, 526-39	7.3	21
137	Serotonin uptake and release mechanisms in developing cultures of rat embryonic raphe neurons: age- and region-specific differences. <i>Neuroscience</i> , <b>2000</b> , 99, 519-27	3.9	21
136	A pocket guide to electronic laboratory notebooks in the academic life sciences. <i>F1000Research</i> , <b>2016</b> , 5, 2	3.6	21



135	3Rs missing: animal research without scientific value is unethical.. <i>BMJ Open Science</i> , <b>2019</b> , 3,	4.6	20
134	Brain perfusion SPECT in the mouse: normal pattern according to gender and age. <i>NeuroImage</i> , <b>2012</b> , 63, 1807-17	7.9	20
133	Nitric oxide modulates calcium entry through P/Q-type calcium channels and N-methyl-d-aspartate receptors in rat cortical neurons. <i>Brain Research</i> , <b>2005</b> , 1063, 9-14	3.7	20
132	Revision of the ARRIVE guidelines: rationale and scope. <i>BMJ Open Science</i> , <b>2018</b> , 2, e000002	4.6	20
131	Length of resting period between stimulation cycles modulates hemodynamic response to a motor stimulus. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 411, 471-80	3.6	20
130	Result dissemination from clinical trials conducted at German university medical centers was delayed and incomplete. <i>Journal of Clinical Epidemiology</i> , <b>2019</b> , 115, 37-45	5.7	19
129	Proteolysis of oxidized proteins after oxygen-glucose deprivation in rat cortical neurons is mediated by the proteasome. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2001</b> , 21, 1090-6	7.3	19
128	Methylprednisolone blocks interleukin 1 beta induced calcitonin gene related peptide release in trigeminal ganglia cells. <i>Journal of Headache and Pain</i> , <b>2016</b> , 17, 19	8.8	19
127	Elevating intracranial pressure reverses the decrease in deoxygenated hemoglobin and abolishes the post-stimulus overshoot upon somatosensory activation in rats. <i>NeuroImage</i> , <b>2010</b> , 52, 445-54	7.9	18
126	Noninvasive Near-infrared Imaging of Fluorochromes within the Brains of Live Mice: An In Vivo Phantom Study. <i>Molecular Imaging</i> , <b>2006</b> , 5, 7290.2006.00021	3.7	18
125	Cerebral ischemia: the microcirculation as trigger and target. <i>Progress in Brain Research</i> , <b>1993</b> , 96, 49-65	2.9	18
124	Inflammation in stroke: the good, the bad, and the unknown. <i>Ernst Schering Research Foundation Workshop</i> , <b>2004</b> , 87-99		18
123	Impaired vascular reactivity of isolated rat middle cerebral artery after cortical spreading depression in vivo. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2004</b> , 24, 526-30	7.3	17
122	Neuroimaging Biomarkers Predict Brain Structural Connectivity Change in a Mouse Model of Vascular Cognitive Impairment. <i>Stroke</i> , <b>2017</b> , 48, 468-475	6.7	16
121	Increased homocysteine levels impair reference memory and reduce cortical levels of acetylcholine in a mouse model of vascular cognitive impairment. <i>Behavioural Brain Research</i> , <b>2017</b> , 321, 201-208	3.4	16
120	Systematic review of guidelines for internal validity in the design, conduct and analysis of preclinical biomedical experiments involving laboratory animals.. <i>BMJ Open Science</i> , <b>2020</b> , 4, e100046	4.6	16
119	Interaction of ARC and Daxx: A Novel Endogenous Target to Preserve Motor Function and Cell Loss after Focal Brain Ischemia in Mice. <i>Journal of Neuroscience</i> , <b>2016</b> , 36, 8132-48	6.6	16
118	Methylenetetrahydrofolate reductase deficiency alters levels of glutamate and G-aminobutyric acid in brain tissue. <i>Molecular Genetics and Metabolism Reports</i> , <b>2015</b> , 3, 1-4	1.8	15

117	The ischemic cascade and mediators of ischemic injury. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , <b>2009</b> , 92, 31-41	3	15
116	Fluorescence tomography technique optimized for noninvasive imaging of the mouse brain. <i>Journal of Biomedical Optics</i> , <b>2008</b> , 13, 041311	3.5	15
115	Tyrosine kinase inhibition reduces inflammation in the acute stage of experimental pneumococcal meningitis. <i>Infection and Immunity</i> , <b>2004</b> , 72, 3294-8	3.7	15
114	The Hong Kong Principles for Assessing Researchers: Fostering Research Integrity		15
113	Towards brain mapping combining near-infrared spectroscopy and high resolution 3D MRI. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 413, 139-47	3.6	15
112	Rethinking research reproducibility. <i>EMBO Journal</i> , <b>2019</b> , 38,	13	15
111	Preregistration of exploratory research: Learning from the golden age of discovery. <i>PLoS Biology</i> , <b>2020</b> , 18, e3000690	9.7	15
110	The bench is closer to the bedside than we think: Uncovering the ethical ties between preclinical researchers in translational neuroscience and patients in clinical trials. <i>PLoS Biology</i> , <b>2018</b> , 16, e2006343	9.7	15
109	Outcome heterogeneity and bias in acute experimental spinal cord injury: A meta-analysis. <i>Neurology</i> , <b>2019</b> , 93, e40-e51	6.5	14
108	Effects of parecoxib on plasma protein extravasation and c-fos expression in the rat. <i>Headache</i> , <b>2006</b> , 46, 276-85	4.2	14
107	Acute treatment of hypertension increases infarct sizes in spontaneously hypertensive rats. <i>NeuroReport</i> , <b>2000</b> , 11, 355-9	1.7	14
106	Metabolic aspects of neurovascular coupling. <i>Advances in Experimental Medicine and Biology</i> , <b>1997</b> , 413, 155-9	3.6	14
105	Standard operating procedures (SOP) in experimental stroke research: SOP for middle cerebral artery occlusion in the mouse. <i>Nature Precedings</i> , <b>2012</b> ,		13
104	Evidence that glypican is a receptor mediating beta-amyloid neurotoxicity in PC12 cells. <i>European Journal of Neuroscience</i> , <b>1998</b> , 10, 2085-93	3.5	13
103	Roller culture of free-floating retinal slices: a new system of organotypic cultures of adult rat retina. <i>Ophthalmic Research</i> , <b>2006</b> , 38, 263-9	2.9	13
102	Partial antagonistic effect of adenosine on inverse coupling between spreading neuronal activation and cerebral blood flow in rats. <i>Neurocritical Care</i> , <b>2004</b> , 1, 85-94	3.3	13
101	SCISSOR-Spinal Cord Injury Study on Small molecule-derived Rho inhibition: a clinical study protocol. <i>BMJ Open</i> , <b>2016</b> , 6, e010651	3	13
100	Quality management for academic laboratories: burden or boon? Professional quality management could be very beneficial for academic research but needs to overcome specific caveats. <i>EMBO Reports</i> , <b>2018</b> , 19,	6.5	13

99	Exact replication: Foundation of science or game of chance?. <i>PLoS Biology</i> , <b>2019</b> , 17, e3000188	9.7	12
98	Infarct Volume Prediction by Early Magnetic Resonance Imaging in a Murine Stroke Model Depends on Ischemia Duration and Time of Imaging. <i>Stroke</i> , <b>2015</b> , 46, 3249-59	6.7	12
97	Improving the trustworthiness, usefulness, and ethics of biomedical research through an innovative and comprehensive institutional initiative. <i>PLoS Biology</i> , <b>2020</b> , 18, e3000576	9.7	12
96	The cerebrovascular response to elevated potassium--role of nitric oxide in the in vitro model of isolated rat middle cerebral arteries. <i>Neuroscience Letters</i> , <b>2001</b> , 306, 61-4	3.3	12
95	Noninvasive near-infrared imaging of fluorochromes within the brain of live mice: an in vivo phantom study. <i>Molecular Imaging</i> , <b>2006</b> , 5, 180-7	3.7	12
94	Introduction to the EQIPD quality system. <i>ELife</i> , <b>2021</b> , 10,	8.9	11
93	An exploratory investigation of brain collateral circulation plasticity after cerebral ischemia in two experimental C57BL/6 mouse models. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2020</b> , 40, 276-287	7.3	11
92	Intracisternal injection of inflammatory soup activates the trigeminal nerve system. <i>Cephalalgia</i> , <b>2009</b> , 29, 1212-7	6.1	10
91	Chemiluminescence detection of nitric oxide production from rat cerebral cortical endothelial cells in culture. <i>Brain Research Protocols</i> , <b>1998</b> , 2, 175-82		10
90	Neuroprotective effects of the beta-carboline abecarnil studied in cultured cortical neurons and organotypic retinal cultures. <i>Neuropharmacology</i> , <b>2007</b> , 52, 1488-95	5.5	10
89	Ischemia caused by inverse coupling between neuronal activation and cerebral blood flow in rats. <i>International Congress Series</i> , <b>2002</b> , 1235, 487-492		10
88	SorCS2 facilitates release of endostatin from astrocytes and controls post-stroke angiogenesis. <i>Glia</i> , <b>2020</b> , 68, 1304-1316	9	10
87	Natural Killer (NK) Cell Functionality after human Spinal Cord Injury (SCI): protocol of a prospective, longitudinal study. <i>BMC Neurology</i> , <b>2016</b> , 16, 170	3.1	9
86	A fluorescence-based method to assess plasma protein extravasation in rat dura mater using confocal laser scanning microscopy. <i>Brain Research Protocols</i> , <b>2003</b> , 12, 77-82		9
85	Resolving the Tension Between Exploration and Confirmation in Preclinical Biomedical Research. <i>Handbook of Experimental Pharmacology</i> , <b>2020</b> , 257, 71-79	3.2	8
84	A functional role of the cyclin-dependent kinase inhibitor 1 (p21(WAF1/CIP1)) for neuronal preconditioning. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2013</b> , 33, 351-5	7.3	8
83	Statistics in experimental cerebrovascular research-comparison of two groups with a continuous outcome variable. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 474-9	7.3	8
82	Individual and temporal variability of the retina after chronic bilateral common carotid artery occlusion (BCCAO). <i>PLoS ONE</i> , <b>2018</b> , 13, e0193961	3.7	8

81	Unique properties of PTEN-L contribute to neuroprotection in response to ischemic-like stress. <i>Scientific Reports</i> , <b>2019</b> , 9, 3183	4.9	8
80	Improving preclinical studies through replications. <i>ELife</i> , <b>2021</b> , 10,	8.9	8
79	Investigating APOE, APP-A $\beta$ metabolism genes and Alzheimer's disease GWAS hits in brain small vessel ischemic disease. <i>Scientific Reports</i> , <b>2020</b> , 10, 7103	4.9	7
78	Influence of essential amino acids on muscle mass and muscle strength in patients with cerebral stroke during early rehabilitation: protocol and rationale of a randomized clinical trial (AMINO-Stroke Study). <i>BMC Neurology</i> , <b>2016</b> , 16, 10	3.1	7
77	A dual-labeled Annexin A5 is not suited for SPECT imaging of brain cell death in experimental murine stroke. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2014</b> , 34,	7.3	7
76	Modeling immunity and inflammation in stroke: can mice be trusted?. <i>Stroke</i> , <b>2014</b> , 45, e177-8	6.7	7
75	Exploratory Investigation of Intestinal Function and Bacterial Translocation After Focal Cerebral Ischemia in the Mouse. <i>Frontiers in Neurology</i> , <b>2018</b> , 9, 937	4.1	7
74	Non-invasive surface-stripping for epifluorescence small animal imaging. <i>Biomedical Optics Express</i> , <b>2010</b> , 1, 97-105	3.5	6
73	A Laboratory Critical Incident and Error Reporting System for Experimental Biomedicine. <i>PLoS Biology</i> , <b>2016</b> , 14, e2000705	9.7	6
72	Health tips for research groups. <i>Nature</i> , <b>2018</b> , 557, 302-304	50.4	5
71	Effect of 3,4-methylenedioxymphetamine on dendritic spine dynamics in rat neocortical neurons--involvement of heat shock protein 27. <i>Brain Research</i> , <b>2011</b> , 1370, 43-52	3.7	5
70	Standard operating procedures (SOP) in experimental stroke research: SOP for middle cerebral artery occlusion in the mouse. <i>Nature Precedings</i> , <b>2010</b> ,		5
69	5,7-Dihydroxytryptamine toxicity to serotonergic neurons in serum free raphe cultures. <i>European Journal of Pharmacology</i> , <b>2008</b> , 588, 232-8	5.3	5
68	Stage 1 Registered Report: Effect of deficient phagocytosis on neuronal survival and neurological outcome after temporary middle cerebral artery occlusion (tMCAo). <i>F1000Research</i> , <b>2017</b> , 6, 1827	3.6	5
67	Stage 1 Registered Report: Effect of deficient phagocytosis on neuronal survival and neurological outcome after temporary middle cerebral artery occlusion (tMCAo). <i>F1000Research</i> , <b>2017</b> , 6, 1827	3.6	5
66	Complexities, Confounders, and Challenges in Experimental Stroke Research: A Checklist for Researchers and Reviewers. <i>Neuromethods</i> , <b>2010</b> , 263-277	0.4	5
65	Longitudinal 19F magnetic resonance imaging of brain oxygenation in a mouse model of vascular cognitive impairment using a cryogenic radiofrequency coil. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , <b>2019</b> , 32, 105-114	2.8	5
64	Role of the Gut Microbiota in Ischemic Stroke. <i>Neurology International Open</i> , <b>2017</b> , 01, E287-E293		4

63	Single-cell resolution mapping of neuronal damage in acute focal cerebral ischemia using thallium autometallography. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2014</b> , 34, 144-52	7.3	4
62	Brain-immune interactions in acute and chronic brain disorders. <i>Neuroscience</i> , <b>2009</b> , 158, 969-71	3.9	4
61	Subsurface Microscopical visualization of brain tissue in vivo: Present, problems and prospects. <i>Micron</i> , <b>1993</b> , 24, 611-622	2.3	4
60	Reproducibility, Relevance and Reliability as Barriers to Efficient and Credible Biomedical Technology Translation.. <i>Advanced Drug Delivery Reviews</i> , <b>2022</b> , 182, 114118	18.5	4
59	Reporting animal research: Explanation and Elaboration for the ARRIVE guidelines 2019		4
58	Toward noninvasive optical human brain mapping: improvements of the spectral, temporal, and spatial resolution of near-infrared spectroscopy <b>1997</b> ,		3
57	The trigeminovascular system in bacterial meningitis. <i>Microscopy Research and Technique</i> , <b>2001</b> , 53, 188-228		3
56	Refining humane endpoints in mouse models of disease by systematic review and machine learning-based endpoint definition. <i>ALTEX: Alternatives To Animal Experimentation</i> , <b>2019</b> , 36, 555-571	4.3	3
55	Focal Cerebral Ischemia: The Multifaceted Role of Glial Cells <b>2004</b> , 511-520		3
54	A Semiquantitative Non-invasive Measurement of PcomA Patency in C57BL/6 Mice Explains Variance in Ischemic Brain Damage in Filament MCAo. <i>Frontiers in Neuroscience</i> , <b>2020</b> , 14, 576741	5.1	3
53	The microcirculation--fantastic voyage: introduction. <i>Stroke</i> , <b>2013</b> , 44, S83	6.7	2
52	Oxygen maps in the brain. <i>Nature Methods</i> , <b>2010</b> , 7, 697-9	21.6	2
51	Improved protocol for SAGE tag-to-gene allocation. <i>BioTechniques</i> , <b>2003</b> , 34, 1212-4, 1216-9	2.5	2
50	System for the measurement of blood flow and oxygenation in tissue applied to neurovascular coupling in brain <b>2005</b> ,		2
49	#IchbinHannah and the fight for permanent jobs for postdocs: How a fictitious postdoc (almost) triggered a fundamental reform of German academia: How a fictitious postdoc (almost) triggered a fundamental reform of German academia.. <i>EMBO Reports</i> , <b>2022</b> , e54623	6.5	2
48	Tracking the timely dissemination of clinical studies. Characteristics and impact of 10 tracking variables. <i>F1000Research</i> , <b>2018</b> , 7, 1863	3.6	2
47	Introduction to the EQIPD Quality System		2
46	INFECTION - AN AMENDMENT TO THE STROKE MODEL GUIDELINES. <i>Journal of Experimental Stroke &amp; Translational Medicine</i> , <b>2010</b> , 3, 29-32		2

45	fiddle: a tool to combat publication bias by getting research out of the file drawer and into the scientific community. <i>Clinical Science</i> , <b>2020</b> , 134, 2729-2739	6.5	2
44	Protocol for a systematic review of guidelines for rigour in the design, conduct and analysis of biomedical experiments involving laboratory animals.. <i>BMJ Open Science</i> , <b>2018</b> , 2, e000004	4.6	2
43	Wisdom of the expert crowd prediction of response for 3 neurology randomized trials. <i>Neurology</i> , <b>2020</b> , 95, e488-e498	6.5	1
42	Ischemic Stroke: Basic Pathophysiology and Clinical Implication <b>2013</b> , 2543-2563		1
41	Standard operating procedures (SOP) in experimental stroke research: SOP for middle cerebral artery occlusion in the mouse. <i>Nature Precedings</i> , <b>2009</b> ,		1
40	Neuronal activation induced changes in microcirculatory haemoglobin oxygenation: to dip or not to dip. <i>International Congress Series</i> , <b>2002</b> , 1235, 137-144		1
39	Continuous spectrum near-infrared spectroscopy approach in functional activation studies in the human adult <b>1996</b> , 2926, 58		1
38	Paracrine Interleukin 6 Induces Cerebral Remodeling at Early Stages After Unilateral Common Carotid Artery Occlusion in Mice.. <i>Frontiers in Cardiovascular Medicine</i> , <b>2021</b> , 8, 805095	5.4	1
37	Stage 1 Registered Report: Effect of deficient phagocytosis on neuronal survival and neurological outcome after temporary middle cerebral artery occlusion (tMCAo). <i>F1000Research</i> , <b>6</b> , 1827	3.6	1
36	Errors and Error Management in Biomedical Research <b>2018</b> , 149-160		1
35	Cerebral Blood Flow, Hemoglobin Oxygenation, and Water Diffusion Changes During Stroke: Fingerprinting with Near-Infrared Spectroscopy and MRI <b>2001</b> , 232-240		1
34	Preclinical research: Meet patients to sharpen up research. <i>Nature</i> , <b>2017</b> , 551, 300	50.4	1
33	Allosteric release of nitric oxide from hemoglobin does not mediate neurovascular coupling. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2005</b> , 25, S207-S207	7.3	1
32	Quality Control and Standard Operating Procedures. <i>Neuromethods</i> , <b>2010</b> , 239-248	0.4	1
31	Assessing the Organizational Climate for Translational Research with a New Survey Tool. <i>Science and Engineering Ethics</i> , <b>2020</b> , 26, 2893-2910	3.1	1
30	PHACTR1 genetic variability is not critical in small vessel ischemic disease patients and Pcoma recruitment in C57BL/6J mice. <i>Scientific Reports</i> , <b>2021</b> , 11, 6072	4.9	1
29	Kommentare zu R. Spanagel (2021): Replikationskrise in der präklinischen Suchtforschung und Vorschläge zur Krisenbewältigung. <i>Sucht</i> , <b>2021</b> , 67, 207-219	0.5	1
28	External validity in translational biomedicine: understanding the conditions enabling the cause to have an effect.. <i>EMBO Molecular Medicine</i> , <b>2021</b> , e14334	12	1

- 27 Die Bedeutung des intestinalen Mikrobioms beim ischämischen Schlaganfall. *Aktuelle Neurologie*, **2018**, 45, 127-134 o
- 26 Therapierelevante Pathophysiologie des akuten ischämischen Schlaganfalls: Was ist gesichert?. *Aktuelle Neurologie*, **2004**, 31, 113-121 o
- 25 Improving quality of preclinical academic research through auditing: A feasibility study. *PLoS ONE*, **2020**, 15, e0240719 3.7 o
- 24 Incorporating equity, diversity, and inclusiveness into the Hong Kong Principles. *PLoS Biology*, **2021**, 19, e3001140 9.7 o
- 23 Quality Control and Standard Operating Procedures. *Neuromethods*, **2016**, 291-300 0.4 o
- 22 Statistics in Experimental Stroke Research: From Sample Size Calculation to Data Description and Significance Testing. *Neuromethods*, **2016**, 301-315 0.4
- 21 Ischemic Stroke: Basic Pathophysiology and Clinical Implication **2016**, 3385-3405
- 20 Hoffnung auf Neuroprotektion. *InFo Neurologie & Psychiatrie*, **2013**, 15, 22-22 o
- 19 Das Centrum für Schlaganfallforschung Berlin (CSB). *E-Neuroforum*, **2009**, 15, 132-135
- 18 Long-Term Connectome Analysis Reveals Reshaping of Visual, Spatial Networks in a Model With Vascular Dementia Features.. *Stroke*, **2022**, STROKEAHA121036997 6.7
- 17 Neuroprotective effects of creatine in a mouse model of stroke: An experimental MRI study. *Journal of Cerebral Blood Flow and Metabolism*, **2005**, 25, S6-S6 7.3
- 16 Mechanisms of vascular reactivity during cortical spreading depression (CSD) and cortical spreading ischemia (CSI). *Journal of Cerebral Blood Flow and Metabolism*, **2005**, 25, S483-S483 7.3
- 15 Increased extracellular potassium concentration reduces the efficacy of N-methyl-D-aspartate receptor antagonists to block spreading depression in human and rat brain slices. *Journal of Cerebral Blood Flow and Metabolism*, **2005**, 25, S470-S470 7.3
- 14 Neuroimmunology 435-466
- 13 Role of superoxide anion in rat cerebral blood flow response to somatosensory stimulation.. *Nosotchu*, **1994**, 16, 231-238 0.1
- 12 The Physiological Basis of Functional Magnetic Resonance Imaging\*\*Supported by the Deutsche Forschungsgemeinschaft (Vi 97/71, Di 454/40), the Sander-Stiftung (90.023.2), and the Human Frontiers Science Program Organization. **1995**, 499-508
- 11 Regulation of Cerebral Blood Flow by Ions **1997**, 75-77
- 10 Measurements of Microcirculatory Events in the Brain in Vivo **1997**, 133-136



9 Zerebrale Ischämie **1999**, 510-541

8 Complexities, Confounders, and Challenges in Experimental Stroke Research: A Checklist for Researchers and Reviewers. *Neuromethods*, **2016**, 317-331 0.4

7 Statistics in Experimental Stroke Research: From Sample Size Calculation to Data Description and Significance Testing. *Neuromethods*, **2010**, 249-261 0.4

6 Old Dogmas, Surprising Complexities, and Novel Therapeutic Targets **2014**, 1-8

5 Ischemic Stroke: Basic Pathophysiology and Clinical Implication **2021**, 1-22

4 Improving quality of preclinical academic research through auditing: A feasibility study **2020**, 15, e0240719

3 Improving quality of preclinical academic research through auditing: A feasibility study **2020**, 15, e0240719

2 Improving quality of preclinical academic research through auditing: A feasibility study **2020**, 15, e0240719

1 Improving quality of preclinical academic research through auditing: A feasibility study **2020**, 15, e0240719