

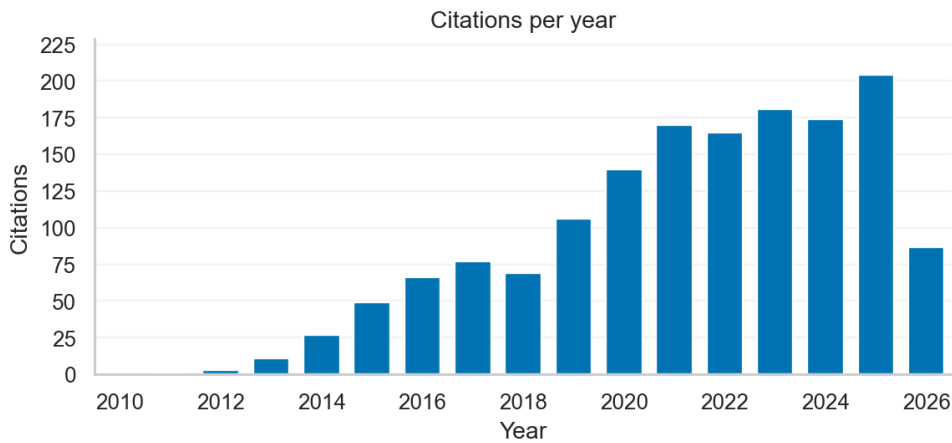
Author Citation Report

Author: Markus Aswendt

ORCID: <https://orcid.org/0000-0003-1423-0934>

Total citations: 1531

Generated: 2026-08-13 10:44



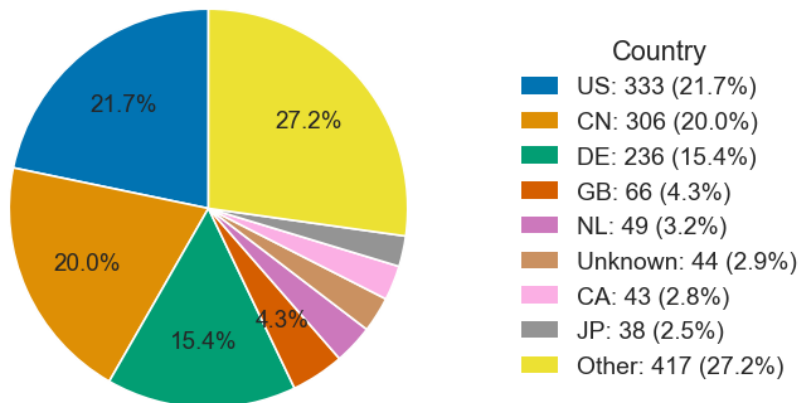
Summary

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Average/year: **95.69**

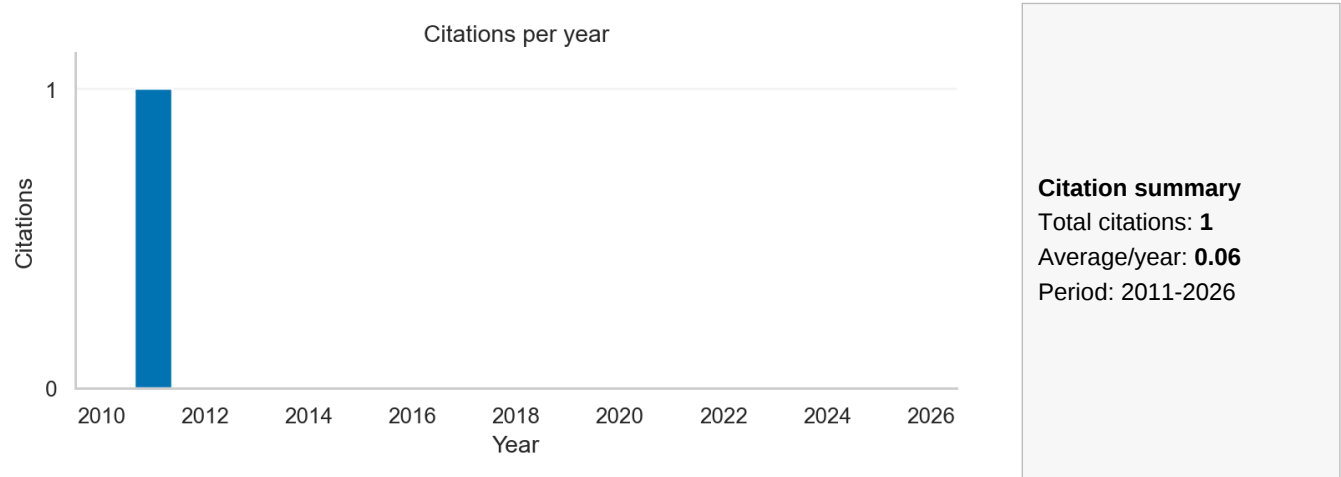
Period: 2011-2026

Citations by country

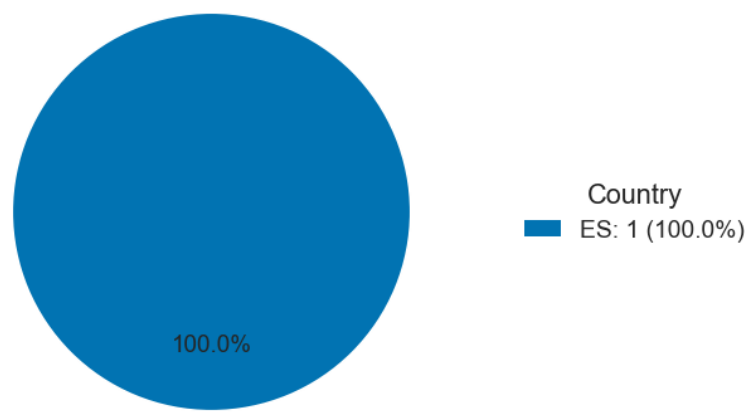


Publication

Aswendt M, Gianolio E, Pariani P, Napolitano R, Fedeli F, Himmelreich U, Hoehn M, Aime S. Imaging GABAergic neurons by MRI: Use of a responsive contrast agent for glutamic acid decarboxylase. 2011 Jun 1;6:31.



Citations by country

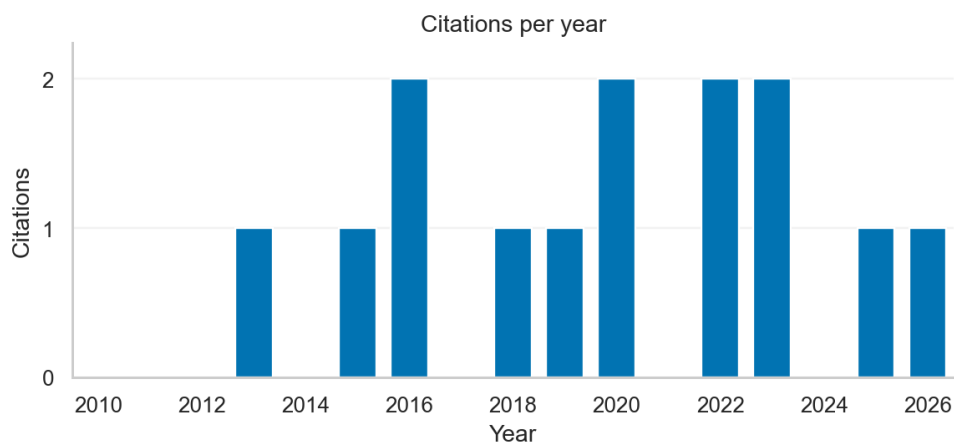


Cited by

1. Ramos■Cabrer P, Hoehn M. MRI Stem Cell Tracking for Therapy in Experimental Cerebral Ischemia. *Translational Stroke Research*. 2011 Oct 26;3(1):22-35. doi: 10.1007/s12975-011-0111-3. PMID: 24323753.

Publication

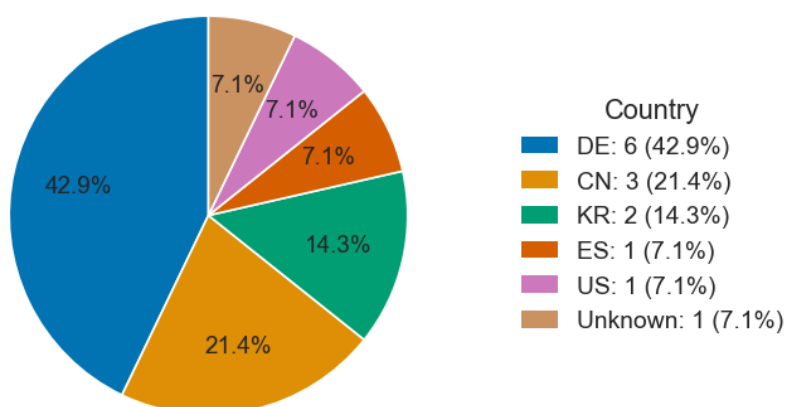
Hoehn M, Aswendt M. Structure–function relationship of cerebral networks in experimental neuroscience: Contribution of magnetic resonance imaging. *Experimental Neurology*. 2012 May 1;242:65-73. doi: 10.1016/j.expneurol.2012.04.014. PMID: 22572591.



Citation summary

Total citations: **14**
Average/year: **0.93**
Period: 2012-2026
SCImago cites/doc 2y
(2025): **5.03**
SJR 2025: **1.39** (Q1)

Citations by country



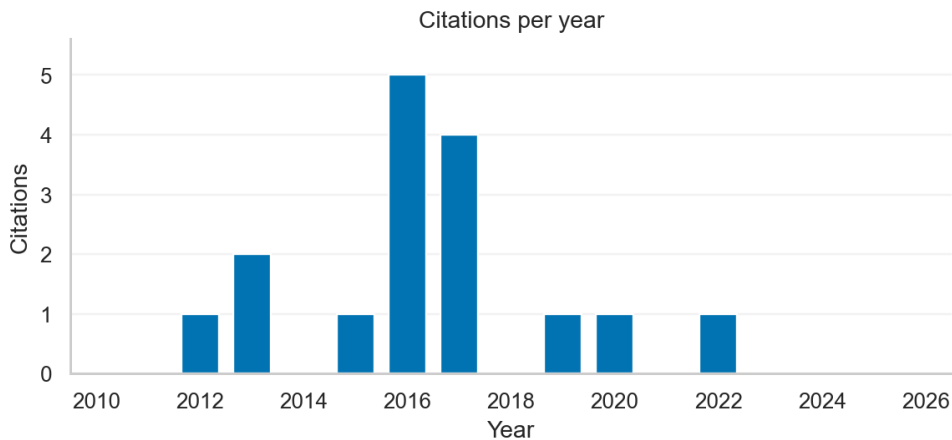
Cited by

1. Yang X, Kendrick KM, Wu Q, Chen T, Lama S, Cheng B, Li S, Huang X, Gong Q. Structural and Functional Connectivity Changes in the Brain Associated with Shyness but Not with Social Anxiety. *PLoS ONE*. 2013 May 10;8(5.0):e63151. doi: 10.1371/journal.pone.0063151. PMID: 0.
2. Cheng M, Aswendt M, Steinberg GK. Optogenetic Approaches to Target Specific Neural Circuits in Post-stroke Recovery. *Neurotherapeutics*. 2015 Dec 23;13.0(2.0):325-340. doi: 10.1007/s13311-015-0411-5. PMID: 0.
3. Aswendt M, Schwarz MK, Abdelmoula WM, Dijkstra J, Dedeurwaerdere S. Whole-Brain Microscopy Meets In Vivo Neuroimaging: Techniques, Benefits, and Limitations. *Molecular Imaging and Biology*. 2016 Sep 2;19.0(1.0):1-9. doi: 10.1007/s11307-016-0988-z. PMID: 0.
4. Aswendt M, Boehm M, Sturm P, Hoehn M. Chapter 10 Neural Stem Cells. *Pan Stanford Publishing eBooks*. 2016 Oct 21;:283-310. doi: 10.1201/9781315364605-11.
5. Aswendt M, Green C, Hoehn M. Plastic Network Changes During Brain Disease. *Handbook of behavioral neuroscience*. 2018 Jan 1;:415-424. doi: 10.1016/b978-0-12-812028-6.00022-7.
6. Pallast N, Diedenhofen M, Blaschke S, Wieters F, Wiedermann D, Hoehn M, Fink GR, Aswendt M. Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). *Frontiers in Neuroinformatics*. 2019 Jun 4;13.0:42. doi: 10.3389/fninf.2019.00042. PMID: 0.
7. Carbó M, Carreté M, Cañete M, Massé C, Però M, Guàrdia J, Olmos J. Using fMRI to Assess Brain Activity in People With Down Syndrome: A Systematic Review. *Frontiers in Human Neuroscience*. 2020 Apr 27;14.0:147. doi: 10.3389/fnhum.2020.00147. PMID: 0.
8. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16.0(7.0):1423. doi: 10.4103/1673-5374.301004. PMID: 0.

- 9.** Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253.0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
- 10.** Zheng N, Mei L, Wu Y, Kaewborisuth C, Li Z, Gui Z, Wu J, Cai A, Lin K, Su K, Xiang H, Tian X, Manyande A, Xu F, Wang J. A novel technology for in vivo detection of cell type-specific neural connection with AQP1-encoding rAAV2-retro vector and metal-free MRI. *NeuroImage*. 2022 Jun 19;258.0:119402. doi: 10.1016/j.neuroimage.2022.119402. PMID: 0.
- 11.** Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.
- 12.** Kale MB, Wankhede NL, Taksande BG, Upaganlawar A, Umekar M, Koppula S, Kopalli SR. Imaging-Based Biomarkers in Neurological Diseases-A Critical Review. *Preprints.org*. 2023 Sep 7;. doi: 10.20944/preprints202309.0536.v1.
- 13.** Wankhede NL, Koppula S, Umare PD, Umare MD, Lokhande S, Taksande BG, Upaganlawar AB, Umekar M, Kopalli SR, Kale MB. Neuroimaging biomarkers: a critical review of their role in neurological disease diagnosis and management. *Brain Disorders*. 2025 Apr 21;18.0:100222. doi: 10.1016/j.dscb.2025.100222.
- 14.** Zou Y, Lai X, Liu Q, Zhang H, Li H, Li W, He D, Yao L, Yang X. Transcranial magnetic stimulation combined with functional near-infrared spectroscopy to elucidate the neurophysiological mechanisms of post-stroke hemiplegia: a systematic review. *Frontiers in Neurology*. 2026 Jun 10;17.0:1824157. doi: 10.3389/fneur.2026.1824157. PMID: 0.

Publication

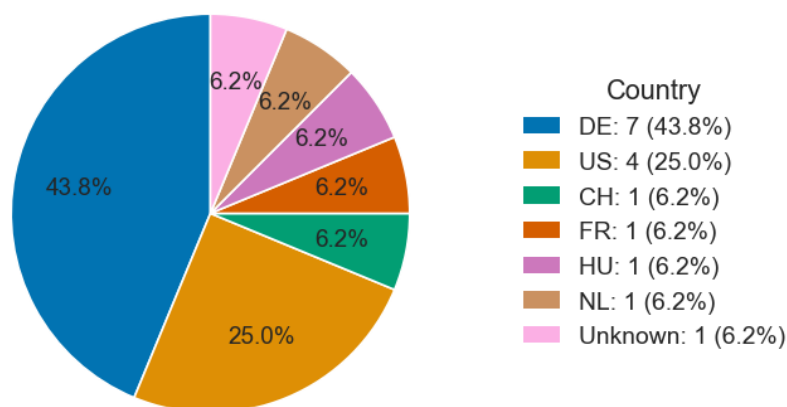
Aswendt M, Gianolio E, Pariani G, Napolitano R, Fedeli F, Himmelreich U, Aime S, Hoehn M. In vivo imaging of inhibitory, GABAergic neurons by MRI. *NeuroImage*. 2012 May 18;62(3):1685-1693. doi: 10.1016/j.neuroimage.2012.05.029. PMID: 22609794.



Citation summary

Total citations: **16**
Average/year: **1.07**
Period: 2012-2026
SCImago cites/doc 2y
(2025): **5.31**
SJR 2025: **1.93** (Q1)

Citations by country



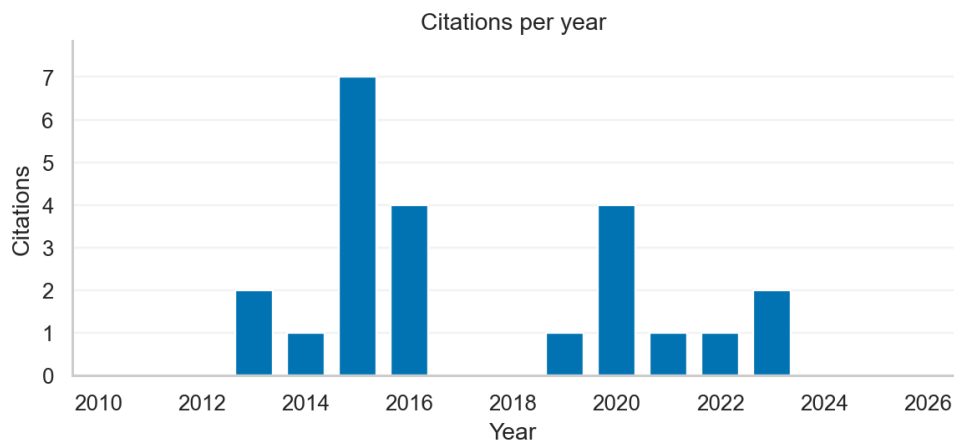
Cited by

- Adamczak J, Hoehn M. In vivo imaging of cell transplants in experimental ischemia. *Progress in brain research*. 2012 Jan 1;201.0:55-78. doi: 10.1016/b978-0-444-59544-7.00004-4. PMID: 0.
- Napolitano R, Pariani G, Fedeli F, Baranyai Z, Aswendt M, Aime S, Gianolio E. Synthesis and Relaxometric Characterization of a MRI Gd-Based Probe Responsive to Glutamic Acid Decarboxylase Enzymatic Activity. *Journal of Medicinal Chemistry*. 2013 Mar 8;56.0(6.0):2466-2477. doi: 10.1021/jm301831f. PMID: 0.
- Boehm■ Sturm P, Aswendt M, Minassian A, Michalk S, Mengler L, Adamczak J, Mezzanotte L, Löwik CW, Hoehn M. A multi-modality platform to image stem cell graft survival in the naïve and stroke-damaged mouse brain. *Biomaterials*. 2013 Dec 16;35.0(7.0):2218-2226. doi: 10.1016/j.biomaterials.2013.11.085. PMID: 0.
- Tennstaedt A, Aswendt M, Adamczak J, Collienne U, Selt M, Schneider G, Henn N, Schaefer C, Lagouge M, Wiedermann D, Kloppenburg P, Hoehn M. Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. *Biomaterials*. 2015 Jan 12;44.0:143-154. doi: 10.1016/j.biomaterials.2014.12.038. PMID: 0.
- Cruz LJ, Que I, Aswendt M, Chan A, Hoehn M, Löwik CW. Targeted nanoparticles for the non-invasive detection of traumatic brain injury by optical imaging and fluorine magnetic resonance imaging. *Nano Research*. 2016 Apr 14;9.0(5.0):1276-1289. doi: 10.1007/s12274-016-1023-z.
- Selt M, Tennstaedt A, Beyrau A, Nelles M, Schneider G, Löwik CW, Hoehn M. In Vivo Non-Invasive Tracking of Macrophage Recruitment to Experimental Stroke. *PLoS ONE*. 2016 Jun 24;11.0(6.0):e0156626. doi: 10.1371/journal.pone.0156626. PMID: 0.
- Modo M. Gaining Mechanistic Insights into Cell Therapy Using Magnetic Resonance Imaging. *Current Stem Cell Reports*. 2016 Jul 7;2.0(3.0):221-227. doi: 10.1007/s40778-016-0059-z.

8. Taj SH, Kho W, Aswendt M, Collmann FM, Green C, Adamczak J, Tennstaedt A, Hoehn M. Dynamic Modulation of Microglia/Macrophage Polarization by miR-124 after Focal Cerebral Ischemia. *Journal of Neuroimmune Pharmacology*. 2016 Aug 18;11.0(4.0):733-748. doi: 10.1007/s11481-016-9700-y. PMID: 0.
9. Aswendt M, Boehm M, Sturm P, Hoehn M. Chapter 10 Neural Stem Cells. *Pan Stanford Publishing eBooks*. 2016 Oct 21;:283-310. doi: 10.1201/9781315364605-11.
10. Schroeter A, Rudin M, Gianolio E, Viale A, Castelli DD, Aime S, Hövener J, Bastiaansen J, Comment A, Düwel S, Ardenkjær-Larsen JH, Becker M. MRI. *Small Animal Imaging*. 2017 Jan 1;:227-324. doi: 10.1007/978-3-319-42202-2_13.
11. Chen B, Liebman C, Rabbani P, Cho M. Stem Cell Tissue Engineering and Regenerative Medicine. *Magnetic Resonance Imaging in Tissue Engineering*. 2017 Feb 8;:1-20. doi: 10.1002/9781119193272.ch1.
12. Lacerda S, Tóth É. Lanthanide Complexes in Molecular Magnetic Resonance Imaging and Theranostics. *ChemMedChem*. 2017 May 4;12.0(12.0):883-894. doi: 10.1002/cmdc.201700210. PMID: 0.
13. Vogel SN, Aswendt M, Nelles M, Henn N, Schneider G, Hoehn M. Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jun 9;12.0(3.0):784-793. doi: 10.1002/term.2497. PMID: 0.
14. Pallast N, Diedenhofen M, Blaschke S, Wieters F, Wiedermann D, Hoehn M, Fink GR, Aswendt M. Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). *Frontiers in Neuroinformatics*. 2019 Jun 4;13.0:42. doi: 10.3389/fninf.2019.00042. PMID: 0.
15. Sedgwick AC, Brewster JT, Harvey P, Iovan DA, Smith G, He X, Tian H, Sessler JL, James TD. Metal-based imaging agents: progress towards interrogating neurodegenerative disease. *Chemical Society Reviews*. 2020 Jan 1;49.0(10.0):2886-2915. doi: 10.1039/c8cs00986d. PMID: 0.
16. Uselman TW, Medina CS, Gray HB, Jacobs RE, Bearer EL. Longitudinal manganese-enhanced magnetic resonance imaging of neural projections and activity. *NMR in Biomedicine*. 2022 Mar 6;35.0(6.0):e4675. doi: 10.1002/nbm.4675. PMID: 0.

Publication

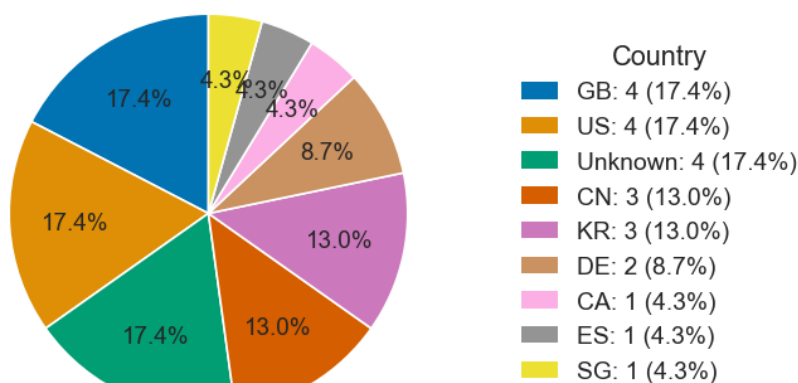
Tennstaedt A, Aswendt M, Adamczak J, Hoehn M. Noninvasive Multimodal Imaging of Stem Cell Transplants in the Brain Using Bioluminescence Imaging and Magnetic Resonance Imaging. *Methods in molecular biology*. 2013 Jan 1;1052:153-166. doi: 10.1007/7651_2013_14. PMID: 23733537.



Citation summary

Total citations: **23**
Average/year: **1.64**
Period: 2013-2026
SCImago cites/doc 2y (2025): **1.07**
SJR 2025: **0.423** (Q4)

Citations by country



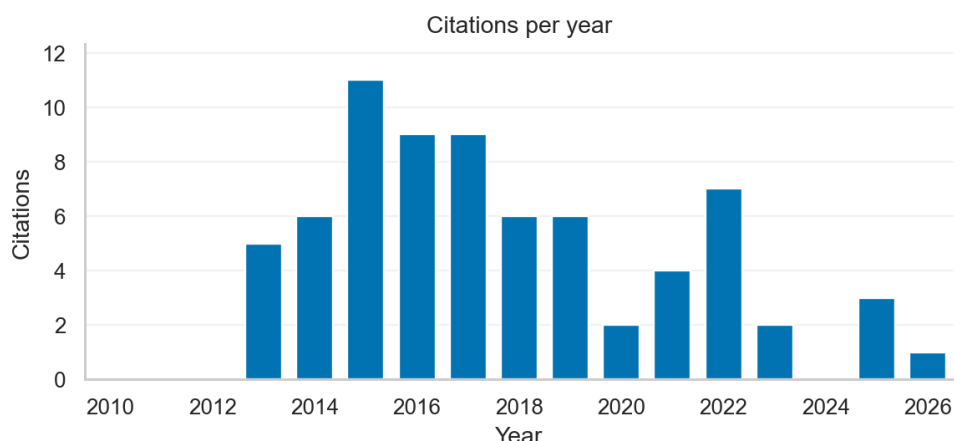
Cited by

1. Turksen K. Imaging and Tracking Stem Cells. *Methods in molecular biology*. 2013 Jan 1;. doi: 10.1007/978-1-62703-559-0.
2. Ha S, Ahn S, Kim S, Joo Y, Chong YH, Suh Y, Chang K. In vivo imaging of human adipose-derived stem cells in Alzheimer's disease animal model. *Journal of Biomedical Optics*. 2013 Dec 2;19.0(5.0):051206. doi: 10.1117/1.jbo.19.5.051206. PMID: 0.
3. Kang S, Lee S, Na JH, Yoon HI, Lee D, Koo H, Cho YW, Kim SH, Jeong SY, Kwon IC, Choi K, Kim K. Cell Labeling and Tracking Method without Distorted Signals by Phagocytosis of Macrophages. *Theranostics*. 2014 Jan 1;4.0(4.0):420-431. doi: 10.7150/thno.7265. PMID: 0.
4. Square P, Novgorod N, Federation R, State L. Modern Techniques for Stem Cells in vivo Imaging (Review). *CyberLeninK (CyberLeninka)*. 2015 Jan 1;.
5. Barrow M, Taylor A, Murray P, Rosseinsky MJ, Adams DJ. Design considerations for the synthesis of polymer coated iron oxide nanoparticles for stem cell labelling and tracking using MRI. *Chemical Society Reviews*. 2015 Jan 1;44.0(19.0):6733-6748. doi: 10.1039/c5cs00331h. PMID: 0.
6. Aswendt M, Henn N, Michalk S, Schneider G, Steiner M, Bissa U, Dose C, Hoehn M. Novel Bimodal Iron Oxide Particles for Efficient Tracking of Human Neural Stem Cells in Vivo. *Nanomedicine*. 2015 Aug 1;10.0(16.0):2499-2512. doi: 10.2217/nnm.15.94. PMID: 0.
7. Fan Z, Cai H, Ge Z, Wang L, Zhang X, Li L, Zhai X. The Efficacy and Safety of Granulocyte Colony-Stimulating Factor for Patients with Stroke. *Journal of Stroke and Cerebrovascular Diseases*. 2015 Aug 1;24.0(8.0):1701-1708. doi: 10.1016/j.jstrokecerebrovasdis.2014.11.033. PMID: 0.
8. Savitz SI, Parsha K. Enhancing Stroke Recovery with Cellular Therapies. *Stroke*. 2015 Aug 27;981-991. doi: 10.1016/b978-0-323-29544-4.00060-8.

- 9.** Meleshina AV, Cherkasova EI, Shirmanova MV, Khrapichev AA, Udenkova VV, Zagaynova EV. Modern Techniques for Stem Cells in vivo Imaging (Review). ■■■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■. 2015 Dec 1;7.0(4.0):174-188. doi: 10.17691/stm2015.7.4.24.
- 10.** Kim SM, Jeong CH, Woo JS, Ryu CH, Lee JH, Jeun S. In vivo near-infrared imaging for the tracking of systemically delivered mesenchymal stem cells: tropism for brain tumors and biodistribution. *International Journal of Nanomedicine*. 2015 Dec 1;11.0:13. doi: 10.2147/ij.n.s97073. PMID: 0.
- 11.** Martín A, Ramos■Cabrer P, Planas AM. Noninvasive Brain Imaging in Small Animal Stroke Models: MRI, PET, and SPECT. *Neuromethods*. 2016 Jan 1;:147-186. doi: 10.1007/978-1-4939-5620-3_11.
- 12.** Tung JK, Berglund K, Gutekunst C, Hochgeschwender U, Gross RE. Bioluminescence imaging in live cells and animals. *Neurophotonics*. 2016 Apr 5;3.0(2.0):1. doi: 10.1117/1.nph.3.2.025001. PMID: 0.
- 13.** Chehade M, Srivastava AK, Bulte JWM. Co-Registration of Bioluminescence Tomography, Computed Tomography, and Magnetic Resonance Imaging for Multimodal In Vivo Stem Cell Tracking. *Tomography*. 2016 Jun 1;2.0(2.0):158-165. doi: 10.18383/j.tom.2016.00160. PMID: 0.
- 14.** Barrow M, Taylor A, Carrión JG, Mandal P, Park BK, Poptani H, Murray P, Rosseinsky MJ, Adams DJ. Co■precipitation of DEAE■dextran coated SPIONs: how synthesis conditions affect particle properties, stem cell labelling and MR contrast. *Contrast Media & Molecular Imaging*. 2016 Jun 30;11.0(5.0):362-370. doi: 10.1002/cm.m.1700. PMID: 0.
- 15.** Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
- 16.** Xia Y, Bao H, Huang J, Li X, Yu C, Zhang Z, Wang H. Near-infrared-persistent luminescence/bioluminescence imaging tracking of transplanted mesenchymal stem cells in pulmonary fibrosis. *Biomaterials Science*. 2020 Jan 1;8.0(11.0):3095-3105. doi: 10.1039/d0bm00063a. PMID: 0.
- 17.** Mousavinejad M, Skidmore S, Barone FG, Tyers P, Pisupati V, Poptani H, Plagge A, Barker RA, Murray P, Taylor A, Hill CJ. Assessing Human Embryonic Stem Cell-Derived Dopaminergic Neuron Progenitor Transplants Using Non-invasive Imaging Techniques. *Molecular Imaging and Biology*. 2020 May 6;22.0(5.0):1244-1254. doi: 10.1007/s11307-020-01499-4. PMID: 0.
- 18.** Raikwar SP, Thangavel R, Ahmed ME, Selvakumar GP, Kempuraj D, Wu K, Khan O, Bazley K, Bussinger B, Kukulka K, Zaheer S, Iyer SS, Govindarajan R, Burton C, James D, Zaheer A. Real-Time Noninvasive Bioluminescence, Ultrasound and Photoacoustic Imaging in NFκB-RE-Luc Transgenic Mice Reveal Glia Maturation Factor-Mediated Immediate and Sustained Spatio-Temporal Activation of NFκB Signaling Post-Traumatic Brain Injury in a Gender-Specific Manner. *Cellular and Molecular Neurobiology*. 2020 Aug 12;41.0(8.0):1687-1706. doi: 10.1007/s10571-020-00937-9. PMID: 0.
- 19.** Jiang SE, Qiu L, Chan LL, Tan E, Zeng L. Current Status of Stem Cell-Derived Therapies for Parkinson's Disease: From Cell Assessment and Imaging Modalities to Clinical Trials. *Frontiers in Neuroscience*. 2020 Oct 16;14.0:558532. doi: 10.3389/fnins.2020.558532. PMID: 0.
- 20.** Satani N, Parsha K, Savitz SI. Enhancing Stroke Recovery With Cellular Therapies. *Stroke*. 2021 Apr 24;;900-911.e5. doi: 10.1016/b978-0-323-69424-7.00062-4.
- 21.** Li X, Yu C, Bao H, Chen Z, Liu X, Huang J, Zhang Z. CT/bioluminescence dual-modal imaging tracking of stem cells labeled with Au@PEI@PEG nanotracers and RfLuc in nintedanib-assisted pulmonary fibrosis therapy. *Nanomedicine Nanotechnology Biology and Medicine*. 2022 Jan 13;41.0:102517. doi: 10.1016/j.nano.2022.102517. PMID: 0.
- 22.** Skidmore S, Barker RA. Challenges in the clinical advancement of cell therapies for Parkinson's disease. *Nature Biomedical Engineering*. 2023 Jan 12;7.0(4.0):370-386. doi: 10.1038/s41551-022-00987-y. PMID: 0.
- 23.** Nguyen VP, Zhe J, Hu J, Ahmed U, Paulus YM. Molecular and cellular imaging of the eye. *Biomedical Optics Express*. 2023 Dec 11;15.0(1.0):360. doi: 10.1364/boe.502350. PMID: 0.

Publication

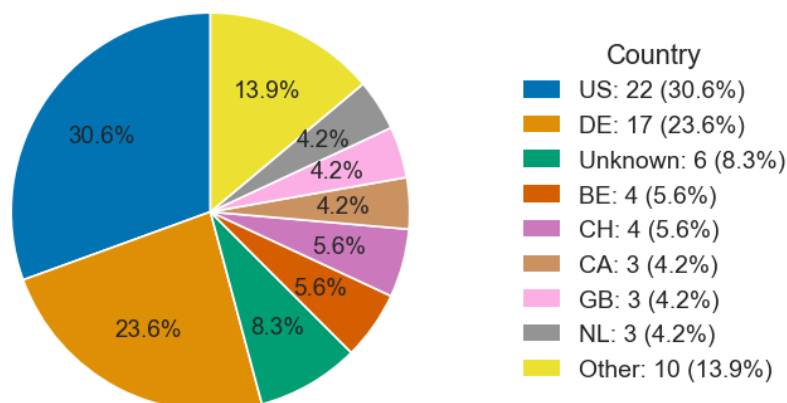
Aswendt M, Adamczak J, Couillard M, Després S, Hoehn M. Boosting Bioluminescence Neuroimaging: An Optimized Protocol for Brain Studies. *PLoS ONE*. 2013 Feb 6;8(2):e55662. doi: 10.1371/journal.pone.0055662. PMID: 23405190.



Citation summary

Total citations: **72**
Average/year: **5.14**
Period: 2013-2026
SCImago cites/doc 2y (2025): **2.95**
SJR 2025: **0.726** (Q1)

Citations by country



Cited by

- Mistretta A, Sorrentino F, Caltagirone S, Inclimona V. [Electron microscopy observations of the small coronary vessels after prolonged lipid load]. *PubMed*. 1967 Jan 1;2.0:119-20. PMID: 0.
- Rotschafer JH, Hu S, Little MR, Erickson M, Low WC, Cheeran MC. Modulation of neural stem/progenitor cell proliferation during experimental Herpes Simplex encephalitis is mediated by differential FGF-2 expression in the adult brain. *Neurobiology of Disease*. 2013 Jun 5;58.0:144-155. doi: 10.1016/j.nbd.2013.05.018. PMID: 0.
- Myburgh E, Coles JA, Ritchie R, Kennedy PGE, McLatchie AP, Rodgers J, Taylor MC, Barrett MP, Brewer JM, Mottram JC. In Vivo Imaging of Trypanosome-Brain Interactions and Development of a Rapid Screening Test for Drugs against CNS Stage Trypanosomiasis. *PLoS neglected tropical diseases*. 2013 Aug 22;7.0(8.0):e2384. doi: 10.1371/journal.pntd.0002384. PMID: 0.
- Stout D, Berr SS, LeBlanc AK, Kalen JD, Osborne D, Price JC, Schiffer WK, Kuntner C, Wall JS. Guidance for Methods Descriptions Used in Preclinical Imaging Papers. *Molecular Imaging*. 2013 Oct 1;12.0(7.0):1-15. doi: 10.2310/7290.2013.00055. PMID: 0.
- Bakhsheshian J, Wei B, Chang K, Shukla S, Ambudkar SV, Simpson RJ, Gottesman MM, Hall MD. Bioluminescent imaging of drug efflux at the blood-brain barrier mediated by the transporter ABCG2. *Proceedings of the National Academy of Sciences*. 2013 Dec 2;110.0(51.0):20801-20806. doi: 10.1073/pnas.1312159110. PMID: 0.
- Boehm M, Sturm P, Aswendt M, Minassian A, Michalk S, Mengler L, Adamczak J, Mezzanotte L, Löwik CW, Hoehn M. A multi-modality platform to image stem cell graft survival in the naïve and stroke-damaged mouse brain. *Biomaterials*. 2013 Dec 16;35.0(7.0):2218-2226. doi: 10.1016/j.biomaterials.2013.11.085. PMID: 0.
- Patterson AP, Booth SA, Saba R. The Emerging Use of In Vivo Optical Imaging in the Study of Neurodegenerative Diseases. *BioMed Research International*. 2014 Jan 1;2014.0:1-14. doi: 10.1155/2014/401306. PMID: 0.
- Bernau K, Lewis C, Petelinsek A, Benink HA, Zimprich C, Meyerand ME, Suzuki M, Svendsen CN. In vivo tracking of human neural progenitor cells in the rat brain using bioluminescence imaging. *Journal of Neuroscience Methods*. 2014 Mar 24;228.0:67-78. doi:

10.1016/j.jneumeth.2014.03.005. PMID: 0.

9. Naumova A, Balu N, Yarnykh VL, Reinecke H, Murry CE, Yuan C. Magnetic Resonance Imaging Tracking of Graft Survival in the Infarcted Heart. *Journal of Cardiovascular Pharmacology and Therapeutics*. 2014 Mar 30;19.0(4.0):358-367. doi: 10.1177/1074248414525999. PMID: 0.

10. Aswendt M, Adamczak J, Tennstaedt A. A review of novel optical imaging strategies of the stroke pathology and stem cell therapy in stroke. *Frontiers in Cellular Neuroscience*. 2014 Aug 14;8.0:226. doi: 10.3389/fncel.2014.00226. PMID: 0.

11. Van Reet N, Van de Vyver H, Pyana PP, Van der Linden A, Büscher P. A Panel of Trypanosoma brucei Strains Tagged with Blue and Red-Shifted Luciferases for Bioluminescent Imaging in Murine Infection Models. *PLoS neglected tropical diseases*. 2014 Aug 21;8.0(8.0):e3054. doi: 10.1371/journal.pntd.0003054. PMID: 0.

12. Keuters MH, Aswendt M, Tennstaedt A, Wiedermann D, Pikhovych A, Rotthues S, Fink GR, Schroeter M, Hoehn M, Rueger MA. Transcranial direct current stimulation promotes the mobility of engrafted NSCs in the rat brain. *NMR in Biomedicine*. 2014 Dec 17;28.0(2.0):231-239. doi: 10.1002/nbm.3244. PMID: 0.

13. Mofford DM. Pushing The Boundaries of Bioluminescence Using Synthetic Luciferins: A Dissertation. *The Journal of the American Medical Association (JAMA) Network (American Medical Association)*. 2015 Jan 1;. doi: 10.13028/m2fk5x.

14. Tennstaedt A, Aswendt M, Adamczak J, Collienne U, Selt M, Schneider G, Henn N, Schaefer C, Lagouge M, Wiedermann D, Kloppenburg P, Hoehn M. Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. *Biomaterials*. 2015 Jan 12;44.0:143-154. doi: 10.1016/j.biomaterials.2014.12.038. PMID: 0.

15. Coleman S, McGregor A. A bright Future for Bioluminescent Imaging in Viral Research. *Future Virology*. 2015 Feb 1;10.0(2.0):169-183. doi: 10.2217/fvl.14.96. PMID: 0.

16. Ayzenberg I, Schlevogt S, Metzdorf J, Stahlke S, Pedreitturia X, Hunfeld A, Couillard■Després S, Kleiter I. Analysis of Neurogenesis during Experimental Autoimmune Encephalomyelitis Reveals Pitfalls of Bioluminescence Imaging. *PLoS ONE*. 2015 Mar 17;10.0(3.0):e0118550. doi: 10.1371/journal.pone.0118550. PMID: 0.

17. De Niz M, Helm S, Horstmann S, Annoura T, del Portillo HA, Khan SM, Heussler VT. In Vivo and In Vitro Characterization of a Plasmodium Liver Stage-Specific Promoter. *PLoS ONE*. 2015 Apr 15;10.0(4.0):e0123473. doi: 10.1371/journal.pone.0123473. PMID: 0.

18. Rotschafer JH. Immune Modulation of Adult Neurogenesis during Experimental Herpes Simplex Encephalitis. *University of Minnesota Digital Conservancy (University of Minnesota)*. 2015 May 1;.

19. Bala S, Csák T, Momen■Heravi F, Lippai D, Kodys K, Catalano D, Satishchandran A, Ambros V, Szabó G. Biodistribution and function of extracellular miRNA-155 in mice. *Scientific Reports*. 2015 May 29;5.0(1.0):10721. doi: 10.1038/srep10721. PMID: 0.

20. Mofford DM, Miller SC. Luciferins Behave Like Drugs. *ACS Chemical Neuroscience*. 2015 Jul 30;6.0(8.0):1273-1275. doi: 10.1021/acscchemneuro.5b00195. PMID: 0.

21. Mastropietro A, Tennstaedt A, Beyrau A, Henn N, Hoehn M, Baselli G. Proof of concept of an automatic tool for bioluminescence imaging data analysis. *PubMed*. 2015 Aug 1;1.0:6269-6272. doi: 10.1109/embc.2015.7319825. PMID: 0.

22. Aswendt M, Henn N, Michalk S, Schneider G, Steiner M, Bissa U, Dose C, Hoehn M. Novel Bimodal Iron Oxide Particles for Efficient Tracking of Human Neural Stem Cells in Vivo. *Nanomedicine*. 2015 Aug 1;10.0(16.0):2499-2512. doi: 10.2217/nnm.15.94. PMID: 0.

23. Tennstaedt A, Mastropietro A, Nelles M, Beyrau A, Hoehn M. In Vivo Fate Imaging of Intracerebral Stem Cell Grafts in Mouse Brain. *PLoS ONE*. 2015 Dec 7;10.0(12.0):e0144262. doi: 10.1371/journal.pone.0144262. PMID: 0.

24. Brown AK. Investigating the Effect of Energy Substrates and LPS-activation on the In Vitro Energy Metabolism of BV-2, RAW264.7 and VM-M3 Cells. 2016 Jan 1;.

25. Bakhsheshian J, Wei B, Hall MD, Simpson RJ, Gottesman MM. In Vivo Bioluminescent Imaging of ATP-Binding Cassette Transporter-Mediated Efflux at the Blood–Brain Barrier. *Methods in molecular biology*. 2016 Jan 1;1461.0:227-239. doi: 10.1007/978-1-4939-3813-1_19. PMID: 0.

26. Tandle A, Shankavaram U, Schlaff CD, Camphausen K, Krauze A. Preclinical Models of Glioblastoma in Radiobiology: Evolving Protocols and Research Methods. *Current clinical pathology*. 2016 Jan 1;:255-274. doi: 10.1007/978-3-319-28305-0_16.

27. Tung JK, Berglund K, Gutekunst C, Hochgeschwender U, Gross RE. Bioluminescence imaging in live cells and animals. *Neurophotonics*. 2016 Apr 5;3.0(2.0):1. doi: 10.1117/1.nph.3.2.025001. PMID: 0.

28. Chehade M, Srivastava AK, Bulte JWM. Co-Registration of Bioluminescence Tomography, Computed Tomography, and Magnetic Resonance Imaging for Multimodal In Vivo Stem Cell Tracking. *Tomography*. 2016 Jun 1;2.0(2.0):158-165. doi: 10.18383/j.tom.2016.00160. PMID: 0.

29. Selt M, Tennstaedt A, Beyrau A, Nelles M, Schneider G, Löwik CW, Hoehn M. In Vivo Non-Invasive Tracking of Macrophage Recruitment to Experimental Stroke. *PLoS ONE*. 2016 Jun 24;11.0(6.0):e0156626. doi: 10.1371/journal.pone.0156626. PMID: 0.

30. Maysinger D, Zhang I. Nutritional and Nanotechnological Modulators of Microglia. *Frontiers in Immunology*. 2016 Jul 15;7.0:270. doi: 10.3389/fimmu.2016.00270. PMID: 0.

31. Zare-Shahabadi A, Ataei A, Rezaei N. Proteins brighten the brain. *Life Sciences*. 2016 Oct 22;167.0:1-5. doi: 10.1016/j.lfs.2016.10.024. PMID: 0.

32. Adamczak J, Aswendt M, Kreutzer C, Rotheneichner P, Riou A, Selt M, Beyrau A, Uhlenküken U, Diedenhofen M, Nelles M, Aigner L, Couillard■Després S, Hoehn M. Neurogenesis upregulation on the healthy hemisphere after stroke enhances compensation for age-dependent decrease of basal neurogenesis. *Neurobiology of Disease*. 2016 Dec 20;99.0:47-57. doi: 10.1016/j.nbd.2016.12.015. PMID: 0.

33. Rose L, Bulte JWM. Cell Tracking and Transplant Imaging. *Small Animal Imaging*. 2017 Jan 1;:593-603. doi: 10.1007/978-3-319-42202-2_23.

34. Fricke IB, Schelhaas S, Zinnhardt B, Viel T, Hermann S, Couillard■Després S, Jacobs AH. In vivo bioluminescence imaging of neurogenesis – the role of the blood brain barrier in an experimental model of Parkinson's disease. *European Journal of Neuroscience*.

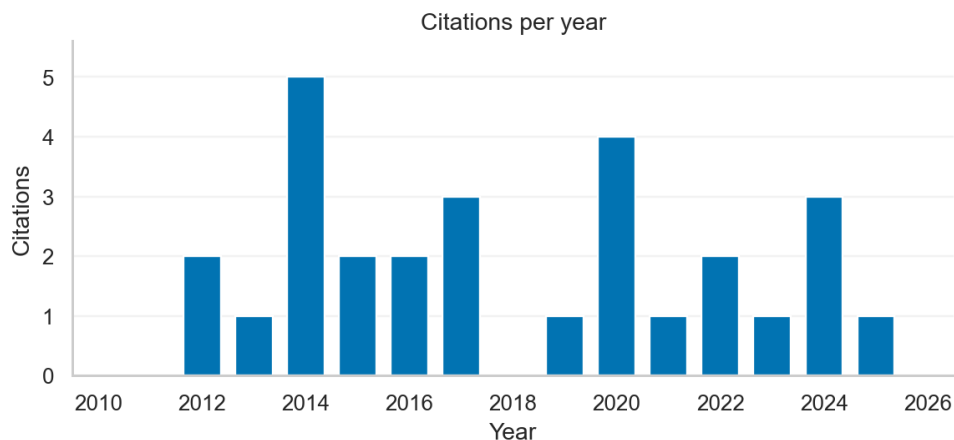
2017 Feb 13;45.0(7.0):975-986. doi: 10.1111/ejn.13540. PMID: 0.

35. Wu W, Su J, Tang C, Bai H, Ma Z, Zhang T, Yuan Z, Li Z, Zhou W, Zhang H, Liu Z, Wang Y, Zhou Y, Du L, Gu L, Li M. cybLuc: An Effective Aminoluciferin Derivative for Deep Bioluminescence Imaging. *Analytical Chemistry*. 2017 Apr 5;89.0(9.0):4808-4816. doi: 10.1021/acs.analchem.6b03510. PMID: 0.
36. Vogel SN, Aswendt M, Nelles M, Henn N, Schneider G, Hoehn M. Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jun 9;12.0(3.0):784-793. doi: 10.1002/term.2497. PMID: 0.
37. Branchini BR, Southworth TL, Fontaine DM, Kohrt D, Welcome FS, Florentine CM, Henricks ER, DeBartolo DB, Michelini E, Cevenini L, Roda A, Gossel MJ. Red-emitting chimeric firefly luciferase for in vivo imaging in low ATP cellular environments. *Analytical Biochemistry*. 2017 Jul 4;534.0:36-39. doi: 10.1016/j.ab.2017.07.001. PMID: 0.
38. Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
39. Mannheim JG, Kara F, Doorduyn J, Fuchs K, Reischl G, Liang S, Verhoye M, Gremse F, Mezzanotte L, Huisman MC. Standardization of Small Animal Imaging—Current Status and Future Prospects. *Molecular Imaging and Biology*. 2017 Oct 2;20.0(5.0):716-731. doi: 10.1007/s11307-017-1126-2. PMID: 0.
40. Mezzanotte L, Iljas JD, Que I, Chan A, Kaijzel EL, Hoeben RC, Löwik CW. Optimized Longitudinal Monitoring of Stem Cell Grafts in Mouse Brain Using a Novel Bioluminescent/Near Infrared Fluorescent Fusion Reporter. *Cell Transplantation*. 2017 Dec 1;26.0(12.0):1878-1889. doi: 10.1177/0963689717739718. PMID: 0.
41. Madala HR, Punganuru SR, Ali■Osman F, Zhang R, Srivenugopal KS. Brain- and brain tumor-penetrating disulfiram nanoparticles: Sequence of cytotoxic events and efficacy in human glioma cell lines and intracranial xenografts. *Oncotarget*. 2017 Dec 15;9.0(3.0):3459-3482. doi: 10.18632/oncotarget.23320. PMID: 0.
42. Stout D, David J. Optical Bioluminescence Protocol for Imaging Mice. *Methods in molecular biology*. 2018 Jan 1;1790.0:29-40. doi: 10.1007/978-1-4939-7860-1_3. PMID: 0.
43. Cao J, Hu Y, Shazeeb MS, Pedraza CE, Pande N, Weinstock D, Polites GH, Zhang W, Chandross KJ, Ying X. In Vivo Optical Imaging of Myelination Events in a Myelin Basic Protein Promoter-Driven Luciferase Transgenic Mouse Model. *ASN NEURO*. 2018 Jan 1;10.0(1.0):1759091418777329. doi: 10.1177/1759091418777329. PMID: 0.
44. Shah N. Investigational Chemotherapy and Novel Pharmacokinetics for the Treatment of Cancers of the CNS. *The Research Repository @ WVU (West Virginia University)*. 2018 Jan 1;. doi: 10.33915/etd.7250.
45. Hall MP, Woodrooffe CC, Wood MG, Que I, Root MV, Ridwan Y, Shi C, Kirkland TA, Encell LP, Wood KV, Löwik CW, Mezzanotte L. Click beetle luciferase mutant and near infrared naphthyl-luciferins for improved bioluminescence imaging. *Nature Communications*. 2018 Jan 3;9.0(1.0):132. doi: 10.1038/s41467-017-02542-9. PMID: 0.
46. Green C, Minassian A, Vogel SN, Diedenhofen M, Beyrau A, Wiedermann D, Hoehn M. Sensorimotor Functional and Structural Networks after Intracerebral Stem Cell Grafts in the Ischemic Mouse Brain. *Journal of Neuroscience*. 2018 Jan 10;38.0(7.0):1648-1661. doi: 10.1523/jneurosci.2715-17.2018. PMID: 0.
47. Martin EC, Aarons L, Yates J. Pharmacodynamic modelling of resistance to epidermal growth factor receptor inhibition in brain metastasis mouse models. *Cancer Chemotherapy and Pharmacology*. 2018 Jul 27;82.0(4.0):669-675. doi: 10.1007/s00280-018-3630-8. PMID: 0.
48. Schomann T, Mezzanotte L, de Groot JC, Löwik CW, Frijns JHM, Huisman MA. Imaging Bioluminescent Exogenous Stem Cells in the Intact Guinea Pig Cochlea. *The Anatomical Record*. 2019 Jan 12;303.0(3.0):427-440. doi: 10.1002/ar.24068. PMID: 0.
49. Vogel SN, Schäfer C, Heß S, Folz■Donahue K, Nelles M, Minassian A, Schwarz MK, Kukut C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37.0:101429. doi: 10.1016/j.scr.2019.101429. PMID: 0.
50. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
51. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
52. Vanherp L, Ristani A, Poelmans J, Hillen A, Lagrou K, Janbon G, Brock M, Himmelreich U, Velde GV. Sensitive bioluminescence imaging of fungal dissemination to the brain in mouse models of cryptococcosis. *Disease Models & Mechanisms*. 2019 May 17;12.0(6.0). doi: 10.1242/dmm.039123. PMID: 0.
53. Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.
54. Vanherp L, Poelmans J, Hillen A, Janbon G, Brock M, Lagrou K, Velde GV, Himmelreich U. The Added Value of Longitudinal Imaging for Preclinical In Vivo Efficacy Testing of Therapeutic Compounds against Cerebral Cryptococcosis. *Antimicrobial Agents and Chemotherapy*. 2020 Apr 11;64.0(7.0). doi: 10.1128/aac.00070-20. PMID: 0.
55. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.
56. Yevtdiyenko A, Bazhin A, Khodakivskyi P, Godinat A, Budin G, Maric T, Pietramaggiore G, Scherer SS, Kunchulia M, Eppeldauer GP, Polyakov SV, Francis KP, Bryan JN, Goun EA. Portable bioluminescent platform for in vivo monitoring of biological processes in non-transgenic animals. *Nature Communications*. 2021 May 11;12.0(1.0):2680. doi: 10.1038/s41467-021-22892-9. PMID: 0.
57. Amadeo F, Plagge A, Chacko AR, Wilm B, Hanson V, Liptrott NJ, Murray P, Taylor A. Firefly luciferase offers superior performance to AkaLuc for tracking the fate of administered cell therapies. *European Journal of Nuclear Medicine and Molecular Imaging*. 2021 Jul 27;49.0(3.0):796-808. doi: 10.1007/s00259-021-05439-4. PMID: 0.

58. Yang M, Jin L, Wu Z, Xie Y, Zhang P, Wang Q, Yan S, Chen B, Liang H, Naman CB, Zhang J, He S, Yan X, Zhao L, Cui W. PLGA-PEG Nanoparticles Facilitate In Vivo Anti-Alzheimer's Effects of Fucoxanthin, a Marine Carotenoid Derived from Edible Brown Algae. *Journal of Agricultural and Food Chemistry*. 2021 Aug 18;69.0(34.0):9764-9777. doi: 10.1021/acs.jafc.1c00569. PMID: 0.
59. Uyar O, Plante P, Piret J, Venable M, Carboneau J, Corbeil J, Boivin G. A novel bioluminescent herpes simplex virus 1 for in vivo monitoring of herpes simplex encephalitis. *Scientific Reports*. 2021 Sep 21;11.0(1.0):18688. doi: 10.1038/s41598-021-98047-z. PMID: 0.
60. Rust R, Weber R, Generali M, Kehl D, Bodenmann C, Uhr D, Wanner D, Zürcher KJ, Saito H, Hoerstrup SP, Nitsch RM, Tackenberg C. Xeno-free induced pluripotent stem cell-derived neural progenitor cells for in vivo applications. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Jan 20;. doi: 10.1101/2022.01.18.476253.
61. Weber R, Bodenmann C, Uhr D, Zürcher KJ, Wanner D, Generali M, Nitsch RM, Rust R, Tackenberg C. Intracerebral Transplantation and In Vivo Bioluminescence Tracking of Human Neural Progenitor Cells in the Mouse Brain. *Journal of Visualized Experiments*. 2022 Jan 27;(179.0). doi: 10.3791/63102. PMID: 0.
62. Weber R, Bodenmann C, Uhr D, Zürcher KJ, Wanner D, Generali M, Nitsch RM, Rust R, Tackenberg C. Intracerebral Transplantation and In Vivo Bioluminescence Tracking of Human Neural Progenitor Cells in the Mouse Brain. *Journal of Visualized Experiments*. 2022 Jan 27;(179.0). doi: 10.3791/63102-v.
63. Reséndiz-Sharpe A, da Silva RP, Geib E, Vanderbeke L, Seldeslachts L, Hupko C, Brock M, Lagrou K, Velde GV. Longitudinal multimodal imaging-compatible mouse model of triazole-sensitive and -resistant invasive pulmonary aspergillosis. *Disease Models & Mechanisms*. 2022 Mar 1;15.0(3.0). doi: 10.1242/dmm.049165. PMID: 0.
64. Boitet M, Eun H, Lee T, Kim J, Grailhe R. Non-invasive In Vivo Brain Astrogenesis and Astrogliosis Quantification Using a Far-red E2-Crimson Transgenic Reporter Mouse. *Molecular Neurobiology*. 2022 Aug 24;59.0(11.0):6740-6753. doi: 10.1007/s12035-022-02997-y. PMID: 0.
65. Rust R, Weber R, Generali M, Kehl D, Bodenmann C, Uhr D, Wanner D, Zürcher KJ, Saito H, Hoerstrup SP, Nitsch RM, Tackenberg C. Xeno-free induced pluripotent stem cell-derived neural progenitor cells for in vivo applications. *Journal of Translational Medicine*. 2022 Sep 16;20.0(1.0):421. doi: 10.1186/s12967-022-03610-5. PMID: 0.
66. Curia G, Estrada Camarena E, Manjarrez E, Mizuno H. Editorial: In vivo investigations on neurological disorders: From traditional approaches to forefront technologies. *Frontiers in Neuroscience*. 2022 Oct 18;16.0:1052089. doi: 10.3389/fnins.2022.1052089. PMID: 0.
67. Su Y, Walker JR, Hall MP, Klein MA, Wu X, Encell LP, Casey KM, Liu LX, Hong G, Lin MZ, Kirkland TA. An optimized bioluminescent substrate for non-invasive imaging in the brain. *Nature Chemical Biology*. 2023 Feb 9;19.0(6.0):731-739. doi: 10.1038/s41589-023-01265-x. PMID: 0.
68. Sivanesan E, Sanchez KR, Zhang C, He S, Linderoth B, Stephens K, Raja SN, Guan Y. Spinal Cord Stimulation Increases Chemoefficacy and Prevents Paclitaxel-Induced Pain via CX3CL1. *Neuromodulation Technology at the Neural Interface*. 2023 Apr 11;26.0(5.0):938-949. doi: 10.1016/j.neurom.2023.03.006. PMID: 0.
69. Nakanishi T, Matsumaru D, Ishida K. Advances in Bioluminescence Imaging for Assessment of Developmental Neurotoxicity. *BPB Reports*. 2025 Jan 1;8.0(6.0):176-181. doi: 10.1248/bpbreports.8.6_176.
70. Saito Moriya R, Iwano S, Kitada N, Yamasaki N, Kamiya G, Ogo K, Sugiyama T, Chuluun-Erdene A, Isagawa T, Obata R, Ijuin R, Abe H, Kashiwakura Y, Mabuchi Y, Takahashi M, Yamamoto Y, Sawaki D, Sato T, Sato S, Nishikii H, Yoshimura K, Hioki H, Ohmori T, Nakashiba T, Hirano T, Aoyama H, Takeda N, Miyawaki A, Maki S, Kuchimaru T. A bright synthetic near-infrared luciferin enhances the capabilities of deep-tissue bioluminescence imaging using firefly luciferases. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Jan 22;. doi: 10.1101/2025.01.20.633992.
71. Esimbekova EN, Kratasyuk VA, Rozanova NA, Lonshakova-Mukina VI, Torgashina IG, Komleva YK, Saridis MR, Korsakova SA, Yurchenko SO, . Current and prospective trends in the application of bioluminescent analysis in experimental brain studies. *Talanta*. 2025 Jun 24;296.0:128510. doi: 10.1016/j.talanta.2025.128510. PMID: 0.
72. Bhattarai A, Moret R, Zhang X, Maresh G, Yip H, Haupt C, Graham R, Latsis M, Matrana M, Rose K, BARDOT S, Li L. Optimizing Sequential Targeted Therapies in Advanced Renal Cell Carcinoma Using Patient-Derived Orthotopic Xenograft Mouse Avatars. *Cancers*. 2026 May 16;18.0(10.0):1615. doi: 10.3390/cancers18101615. PMID: 0.

Publication

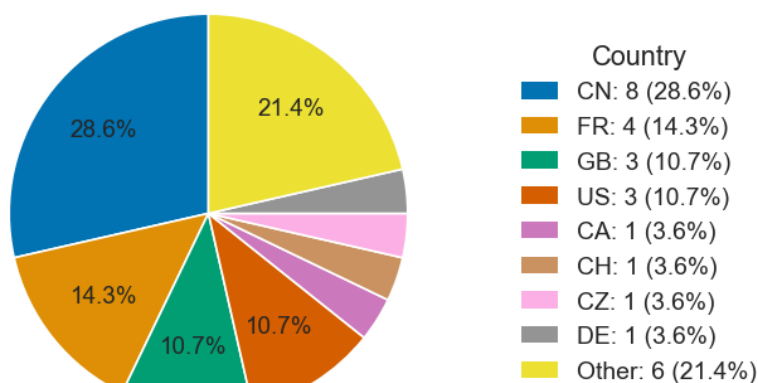
Napolitano R, Pariani G, Fedeli F, Baranyai Z, Aswendt M, Aime S, Gianolio E. Synthesis and Relaxometric Characterization of a MRI Gd-Based Probe Responsive to Glutamic Acid Decarboxylase Enzymatic Activity. *Journal of Medicinal Chemistry*. 2013 Mar 8;56(6):2466-2477. doi: 10.1021/jm301831f. PMID: 23469759.



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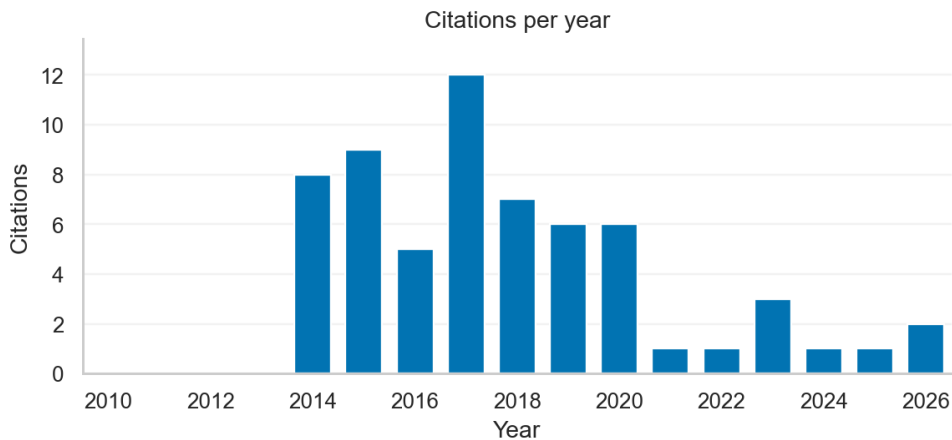
Cited by

- Aswendt M, Gianolio E, Pariani G, Napolitano R, Fedeli F, Himmelreich U, Aime S, Hoehn M. In vivo imaging of inhibitory, GABAergic neurons by MRI. *NeuroImage*. 2012 May 18;62.0(3.0):1685-1693. doi: 10.1016/j.neuroimage.2012.05.029. PMID: 0.
- Bernsen MR, Ruggiero A, van Straten M, Kotek G, Haeck J, Wielopolski PA, Krestin GP. Computed Tomography and Magnetic Resonance Imaging. *Recent results in cancer research/Recent Results in Cancer Research*. 2012 Oct 17;187.0:3-63. doi: 10.1007/978-3-642-10853-2_1. PMID: 0.
- Davies G, Kramberger I, Davis JJ. Environmentally responsive MRI contrast agents. *Chemical Communications*. 2013 Jan 1;49.0(84.0):9704. doi: 10.1039/c3cc44268c. PMID: 0.
- Sowers MA. Advancements in branched bottlebrush polymers for responsive, targeted imaging. *DSpace@MIT (Massachusetts Institute of Technology)*. 2014 Jan 1;.
- Bonnet CS, Tóth É. MRI Contrast Agents. *HAL (Le Centre pour la Communication Scientifique Directe)*. 2014 May 2;:321-354. doi: 10.1002/9781118697191.ch12.
- Hingorani DV, Yoo B, Bernstein A, Pagel MD. Detecting Enzyme Activities with Exogenous MRI Contrast Agents. *Chemistry - A European Journal*. 2014 Jul 2;20.0(32.0):9840-9850. doi: 10.1002/chem.201402474. PMID: 0.
- Nelson K, Winter PM, Shokeen M, Wang S, Berezin MY. Nanoparticles for Bioimaging. *Nanotechnology for Biomedical Imaging and Diagnostics*. 2014 Sep 25;:151-192. doi: 10.1002/9781118873151.ch6.
- Hingorani DV, Bernstein A, Pagel MD. A review of responsive MRI contrast agents: 2005–2014. *Contrast Media & Molecular Imaging*. 2014 Oct 29;10.0(4.0):245-265. doi: 10.1002/cmmi.1629. PMID: 0.

9. Bonnet CS, Tóth É. Molecular Magnetic Resonance Imaging Probes Based on Ln³⁺ Complexes. *Advances in inorganic chemistry*. 2015 Nov 6;:43-96. doi: 10.1016/bs.adioch.2015.09.002.
10. Buzhor M, Avram L, Frish L, Cohen Y, Amir RJ. Fluorinated smart micelles as enzyme-responsive probes for ¹⁹F-magnetic resonance. *Journal of Materials Chemistry B*. 2015 Dec 15;4.0(18.0):3037-3042. doi: 10.1039/c5tb02445e. PMID: 0.
11. Brethon A, Bouix■Peter C, Clary L, Fournier J, Harris CS, Claude L, Roche D, Rodeschini V, Talano S. An expedient synthesis of non-racemic N-alkylated pyrrolidin-2,5-diones and piperidin-2,6-diones as peptidomimetics. *Tetrahedron Letters*. 2016 Nov 21;57.0(52.0):5924-5927. doi: 10.1016/j.tetlet.2016.11.083.
12. Sun C, Lin H, Gao J. Recent advances in biological-environment-responsive smart MRI contrast agents. *Scientia Sinica Chimica*. 2016 Dec 20;47.0(2.0):119-132. doi: 10.1360/n032016-00134.
13. Schroeter A, Rudin M, Gianolio E, Viale A, Castelli DD, Aime S, Hövener J, Bastiaansen J, Comment A, Düwel S, Ardenkjær■Larsen JH, Becker M. MRI. *Small Animal Imaging*. 2017 Jan 1;:227-324. doi: 10.1007/978-3-319-42202-2_13.
14. Lacerda S, Tóth É. Lanthanide Complexes in Molecular Magnetic Resonance Imaging and Theranostics. *ChemMedChem*. 2017 May 4;12.0(12.0):883-894. doi: 10.1002/cmdc.201700210. PMID: 0.
15. Lv X, Feng L, Ai C, Hou J, Wang P, Zou L, Cheng J, Ge G, Cui J, Yang L. A Practical and High-Affinity Fluorescent Probe for Uridine Diphosphate Glucuronosyltransferase 1A1: A Good Surrogate for Bilirubin. *Journal of Medicinal Chemistry*. 2017 Nov 10;60.0(23.0):9664-9675. doi: 10.1021/acs.jmedchem.7b01097. PMID: 0.
16. Baranyai Z, Tircsó G, Rösch F. The Use of the Macrocyclic Chelator DOTA in Radiochemical Separations. *European Journal of Inorganic Chemistry*. 2019 Oct 30;2020.0(1.0):36-56. doi: 10.1002/ejic.201900706.
17. Bernsen MR, van Straten M, Kotek G, Warnert EAH, Haack J, Ruggiero A, Wielopolski PA, Krestin GP. Computed Tomography and Magnetic Resonance Imaging. *Recent results in cancer research/Recent Results in Cancer Research*. 2020 Jan 1;:31-110. doi: 10.1007/978-3-030-42618-7_2.
18. Botár R, Molnár E, Trencsényi G, Kiss J, Kálmán FK, Tircsó G. Stable and Inert Mn(II)-Based and pH-Responsive Contrast Agents. *Journal of the American Chemical Society*. 2020 Jan 13;142.0(4.0):1662-1666. doi: 10.1021/jacs.9b09407. PMID: 0.
19. Du J, Li W, Tan H. Three-layer medical image fusion with tensor-based features. *Information Sciences*. 2020 Mar 21;525.0:93-108. doi: 10.1016/j.ins.2020.03.051.
20. Stasiuk GJ. Metal Complexes as T1 MRI Contrast Agents. *Elsevier eBooks*. 2020 Apr 27;:741-770. doi: 10.1016/b978-0-12-409547-2.14931-5.
21. Hermann P, Kotek J, Kubí■ek V. Ten-Membered Rings or Lager With One or More Nitrogen Atoms. *Elsevier eBooks*. 2021 Sep 23;:591-683. doi: 10.1016/b978-0-12-818655-8.00128-1.
22. Meng Q, Wu M, Shang Z, Zhang Z, Zhang R. Responsive gadolinium(III) complex-based small molecule magnetic resonance imaging probes: Design, mechanism and application. *Coordination Chemistry Reviews*. 2022 Jan 25;457.0:214398. doi: 10.1016/j.ccr.2021.214398.
23. Calatrava■Pérez E, Surender E, Truman LK, Máille GMÓ, Henwood AF, Scanlan EM, Gunnlaugsson T. Targeting Supramolecular Imaging Agents for a Wide Range of Applications. *Royal Society of Chemistry eBooks*. 2022 Apr 1;:1-42. doi: 10.1039/9781782624028-00001.
24. Shen X, Yan P, Liang G. Development of Macrocyclic Mn(II)–Bispyridine Complexes as pH■Responsive Magnetic Resonance Imaging Contrast Agents. *European Journal of Inorganic Chemistry*. 2023 Feb 21;26.0(12.0). doi: 10.1002/ejic.202200786.
25. Wang L, Wang L, Sun X, Fu L, Wang X, Wang X, Chen L, Huang Y. Detection of uridine diphosphate glucuronosyltransferase 1A1 for pancreatic cancer imaging and treatment via a “turn-on” fluorescent probe. *The Analyst*. 2024 Jan 1;149.0(10.0):2877-2886. doi: 10.1039/d4an00035h. PMID: 0.
26. Yue P, Nagendraraj T, Wang G, Jin Z, Angelovski G. The role of responsive MRI probes in the past and the future of molecular imaging. *Chemical Science*. 2024 Jan 1;15.0(48.0):20122-20154. doi: 10.1039/d4sc04849k. PMID: 0.
27. Kitos AA, Castañeda R, Comeau ZJ, Mavragani N, Calvert ND, Kirby A, Martínez■Santiesteban FM, Pallister PJ, Scholl TJ, Murugesu M, Shuhendler AJ, Brusso JL. Cluster-based redox-responsive super-atomic MRI contrast agents. *Chem*. 2024 Oct 21;11.0(3.0):102330. doi: 10.1016/j.chempr.2024.09.029.
28. Liu M, Gao J, Zhang Y, Zhou X, Wang Y, Wu L, Tian Z, Tang J. Recent advances in bioresponsive macrocyclic gadolinium(iii) complexes for MR imaging and therapy. *Dalton Transactions*. 2025 Jan 1;54.0(17.0):6741-6777. doi: 10.1039/d5dt00191a. PMID: 0.

Publication

Mezzanotte L, Aswendt M, Tennstaedt A, Hoeben RC, Hoehn M, Löwik CW. Evaluating reporter genes of different luciferases for optimized in vivo bioluminescence imaging of transplanted neural stem cells in the brain. *Contrast Media & Molecular Imaging*. 2013 Nov 1;8(6):505-513. doi: 10.1002/cmmi.1549. PMID: 24375906.



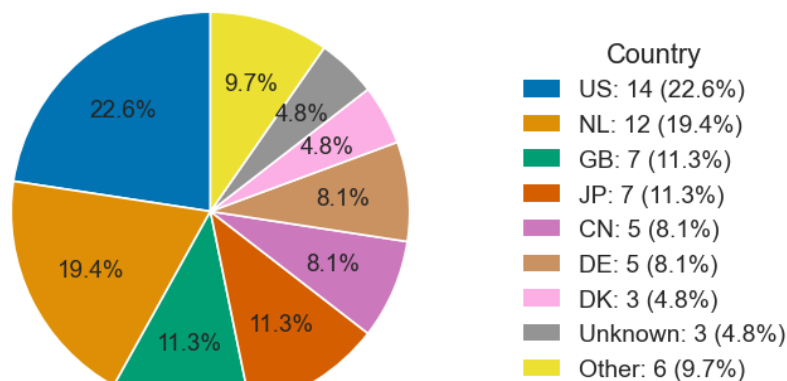
Citation summary

Total citations: **62**

Average/year: **4.43**

Period: 2013-2026

Citations by country



Cited by

1. Lyons SK. Bioluminescence Imaging. *Encyclopedia of Cancer*. 2014 Jan 1;:1-6. doi: 10.1007/978-3-642-27841-9_640-3.
2. van Zaane F, van Driel PBAA, Gamm UA, Snoeks TJ, de Bruijn HS, Heuvel AVDPD, Löwik CW, Sterenborg HJCM, Amelink A, Robinson DJ. Microscopic analysis of the localization of two chlorin-based photosensitizers in OSC19 tumors in the mouse oral cavity. *Lasers in Surgery and Medicine*. 2014 Jan 16;46.0(3.0):224-234. doi: 10.1002/lsm.22220. PMID: 0.
3. van Zaane F, Gamm UA, van Driel PBAA, Snoeks TJ, de Bruijn HS, Heuvel AVDPD, Sterenborg HJCM, Löwik CW, Amelink A, Robinson DJ. Intrinsic photosensitizer fluorescence measured using multi-diameter single-fiber spectroscopy in vivo. *Journal of Biomedical Optics*. 2014 Jan 29;19.0(1.0):015010. doi: 10.1117/1.jbo.19.1.015010. PMID: 0.
4. Birkner E, Berglund K, Klein ME, Augustine GJ, Hochgeschwender U. Non-invasive activation of optogenetic actuators. *Proceedings of SPIE, the International Society for Optical Engineering/Proceedings of SPIE*. 2014 Mar 5;8928.0. doi: 10.1117/12.2044157. PMID: 0.
5. Yasunaga M, Nakajima Y, Ohmiya Y. Dual-color bioluminescence imaging assay using green- and red-emitting beetle luciferases at subcellular resolution. *Analytical and Bioanalytical Chemistry*. 2014 Jul 11;406.0(23.0):5735-5742. doi: 10.1007/s00216-014-7981-7. PMID: 0.
6. Adams ST, Miller SC. Beyond D-luciferin: expanding the scope of bioluminescence imaging in vivo. *Current Opinion in Chemical Biology*. 2014 Aug 1;21.0:112-120. doi: 10.1016/j.cbpa.2014.07.003. PMID: 0.
7. Aswendt M, Adamczak J, Tennstaedt A. A review of novel optical imaging strategies of the stroke pathology and stem cell therapy in stroke. *Frontiers in Cellular Neuroscience*. 2014 Aug 14;8.0:226. doi: 10.3389/fncel.2014.00226. PMID: 0.
8. Kim JE, Kalimuthu S, Ahn B. In Vivo Cell Tracking with Bioluminescence Imaging. *Nuclear Medicine and Molecular Imaging*. 2014 Nov 26;49.0(1.0):3-10. doi: 10.1007/s13139-014-0309-x. PMID: 0.

9. Cevenini L, Calabretta MM, Calabria D, Roda A, Michelini E. Luciferase Genes as Reporter Reactions: How to Use Them in Molecular Biology?. *Advances in biochemical engineering, biotechnology*. 2015 Jan 1;154.0:3-17. doi: 10.1007/10_2015_325. PMID: 0.
10. Tennstaedt A, Aswendt M, Adamczak J, Collienne U, Selt M, Schneider G, Henn N, Schaefer C, Lagouge M, Wiedermann D, Kloppenburg P, Hoehn M. Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. *Biomaterials*. 2015 Jan 12;44.0:143-154. doi: 10.1016/j.biomaterials.2014.12.038. PMID: 0.
11. De Niz M, Helm S, Horstmann S, Annoura T, del Portillo HA, Khan SM, Heussler VT. In Vivo and In Vitro Characterization of a Plasmodium Liver Stage-Specific Promoter. *PLoS ONE*. 2015 Apr 15;10.0(4.0):e0123473. doi: 10.1371/journal.pone.0123473. PMID: 0.
12. Falk S, Al-Dihaissy T, Mezzanotte L, Heegaard A. Sex-difference affects disease progression in the MRMT-1 model of cancer-induced bone pain. *F1000Research*. 2015 Jul 31;4.0:445. doi: 10.12688/f1000research.6827.1. PMID: 0.
13. Falk S, Al-Dihaissy T, Mezzanotte L, Heegaard A. Effect of sex in the MRMT-1 model of cancer-induced bone pain. *F1000Research*. 2015 Sep 18;4.0:445. doi: 10.12688/f1000research.6827.2.
14. Coutant EP, Janin YL. Synthetic Routes to Coelenterazine and Other Imidazo[1,2-a]pyrazine-Based Luciferins: Essential Tools for Bioluminescence-Based Investigations. *Chemistry - A European Journal*. 2015 Sep 25;21.0(48.0):17158-17171. doi: 10.1002/chem.201501531. PMID: 0.
15. Schaub FX, Reza MS, Flaveny CA, Li W, Musicant AM, Hoxha S, Guo M, Cleveland JL, Amelio AL. Fluorophore-NanoLuc BRET Reporters Enable Sensitive In Vivo Optical Imaging and Flow Cytometry for Monitoring Tumorigenesis. *Cancer Research*. 2015 Sep 30;75.0(23.0):5023-5033. doi: 10.1158/0008-5472.can-14-3538. PMID: 0.
16. Falk S, Al-Dihaissy T, Mezzanotte L, Heegaard A. Effect of sex in the MRMT-1 model of cancer-induced bone pain. *F1000Research*. 2015 Nov 16;4.0:445. doi: 10.12688/f1000research.6827.3.
17. Aelvoet S, Pascual-Brazo J, Libbrecht S, Reumers V, Gijssbers R, Haute CVD, Baekelandt V. Long-Term Fate Mapping Using Conditional Lentiviral Vectors Reveals a Continuous Contribution of Radial Glia-Like Cells to Adult Hippocampal Neurogenesis in Mice. *PLoS ONE*. 2015 Nov 23;10.0(11.0):e0143772. doi: 10.1371/journal.pone.0143772. PMID: 0.
18. Yuan M, Ma X, Jiang T, Zhang C, Chen H, Gao Y, Yang X, Du L, Li M. A novel coelenterate luciferin-based luminescent probe for selective and sensitive detection of thiophenols. *Organic & Biomolecular Chemistry*. 2016 Jan 1;14.0(43.0):10267-10274. doi: 10.1039/c6ob02038k. PMID: 0.
19. Kersemans V. Imaging of Cell Trafficking and Cell Tissue Homing. *Imaging in medical diagnosis and therapy*. 2016 Feb 4;:509-525. doi: 10.1201/b19052-37.
20. Tung JK, Berglund K, Gutekunst C, Hochgeschwender U, Gross RE. Bioluminescence imaging in live cells and animals. *Neurophotonics*. 2016 Apr 5;3.0(2.0):1. doi: 10.1117/1.nph.3.2.025001. PMID: 0.
21. Chu J, Oh Y, Sens A, Ataie N, Dana H, Macklin JJ, Laviv T, Welf ES, Dean KM, Zhang F, Kim B, Tang CT, Hu M, Baird MA, Davidson MW, Kay MA, Fiolka R, Yasuda R, Kim DS, Ng HL, Lin MZ. A bright cyan-excitable orange fluorescent protein facilitates dual-emission microscopy and enhances bioluminescence imaging in vivo. *Nature Biotechnology*. 2016 May 30;34.0(7.0):760-767. doi: 10.1038/nbt.3550. PMID: 0.
22. Schomann T, Mezzanotte L, Lourens IM, de Groot JC, Frijns JHM, Huisman MA. Lentiviral transduction and subsequent loading with nanoparticles do not affect cell viability and proliferation in hair-follicle-bulge-derived stem cells in vitro. *Contrast Media & Molecular Imaging*. 2016 Nov 1;11.0(6.0):550-560. doi: 10.1002/cmmi.1717. PMID: 0.
23. Yuan M, Ma X, Jiang T, Gao Y, Cui Y, Zhang C, Yang X, Huang Y, Du L, Yampolsky IV, Li M. Prolonged bioluminescence imaging in living cells and mice using novel pro-substrates for Renilla luciferase. *Organic & Biomolecular Chemistry*. 2017 Jan 1;15.0(48.0):10238-10244. doi: 10.1039/c7ob01656e. PMID: 0.
24. Lyons SK. Bioluminescence Imaging. *Encyclopedia of Cancer*. 2017 Jan 1;:502-507. doi: 10.1007/978-3-662-46875-3_640.
25. Rose L, Bulte JWM. Cell Tracking and Transplant Imaging. *Small Animal Imaging*. 2017 Jan 1;:593-603. doi: 10.1007/978-3-319-42202-2_23.
26. Mata Á, Azevedo HS, Botto L, Gavara N, Su L. New Bioengineering Breakthroughs and Enabling Tools in Regenerative Medicine. *Current Stem Cell Reports*. 2017 May 3;3.0(2.0):83-97. doi: 10.1007/s40778-017-0081-9. PMID: 0.
27. Suzuki K, Nagai T. Recent progress in expanding the chemiluminescent toolbox for bioimaging. *Current Opinion in Biotechnology*. 2017 May 5;48.0:135-141. doi: 10.1016/j.copbio.2017.04.001. PMID: 0.
28. Jurgielewicz P, Harmsen S, Wei E, Bachmann MH, Ting R, Aras Ö. New imaging probes to track cell fate: reporter genes in stem cell research. *Cellular and Molecular Life Sciences*. 2017 Jul 3;74.0(24.0):4455-4469. doi: 10.1007/s00018-017-2584-z. PMID: 0.
29. Branchini BR, Southworth TL, Fontaine DM, Kohrt D, Welcome FS, Florentine CM, Henricks ER, DeBartolo DB, Michelini E, Cevenini L, Roda A, Grossel MJ. Red-emitting chimeric firefly luciferase for in vivo imaging in low ATP cellular environments. *Analytical Biochemistry*. 2017 Jul 4;534.0:36-39. doi: 10.1016/j.ab.2017.07.001. PMID: 0.
30. Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
31. Comenge J, Sharkey J, Fragueiro O, Wilm B, Brust M, Murray P, Lévy R, Plagge A. Multimodal cell tracking from systemic administration to tumour growth by combining gold nanorods and reporter genes. *bioRxiv (Cold Spring Harbor Laboratory)*. 2017 Oct 19;. doi: 10.1101/199836.
32. Schomann T, Mezzanotte L, de Groot JC, Rivolta MN, Hendriks SH, Frijns JHM, Huisman MA. Neuronal differentiation of hair-follicle-bulge-derived stem cells co-cultured with mouse cochlear modiolus explants. *PLoS ONE*. 2017 Oct 30;12.0(10.0):e0187183. doi: 10.1371/journal.pone.0187183. PMID: 0.
33. Mezzanotte L, Ilijas JD, Que I, Chan A, Kaijzel EL, Hoeben RC, Löwik CW. Optimized Longitudinal Monitoring of Stem Cell Grafts in Mouse Brain Using a Novel Bioluminescent/Near Infrared Fluorescent Fusion Reporter. *Cell Transplantation*. 2017 Dec 1;26.0(12.0):1878-1889. doi: 10.1177/0963689717739718. PMID: 0.

34. Li R, Liang J, He Y, Qin J, He H, Lee S, Pang Z, Wang J. Sustained Release of Immunosuppressant by Nanoparticle-anchoring Hydrogel Scaffold Improved the Survival of Transplanted Stem Cells and Tissue Regeneration. *Theranostics*. 2017 Dec 27;8.0(4.0):878-893. doi: 10.7150/thno.22072. PMID: 0.
35. Heo H, Jo J, Jung JI, Han Y, Lee S, Kim SR, Kwon S, Kim K, Hwang BJ, Kee Y, Lee BD, Kang D, Her S. Improved dynamic monitoring of transcriptional activity during longitudinal analysis in the mouse brain. *Biology Open*. 2018 Jan 1;8.0(1.0). doi: 10.1242/bio.037168. PMID: 0.
36. Hall MP, Woodrooffe CC, Wood MG, Que I, Root MV, Ridwan Y, Shi C, Kirkland TA, Encell LP, Wood KV, Löwik CW, Mezzanotte L. Click beetle luciferase mutant and near infrared naphthyl-luciferins for improved bioluminescence imaging. *Nature Communications*. 2018 Jan 3;9.0(1.0):132. doi: 10.1038/s41467-017-02542-9. PMID: 0.
37. Iwano S, Sugiyama M, Hama H, Watakabe A, Hasegawa N, Kuchimaru T, Tanaka KZ, Takahashi M, Ishida Y, Hata J, Shimozono S, Namiki K, Fukano T, Kiyama M, Okano H, Kizaka-Kondoh S, McHugh TJ, Yamamori T, Hioki H, Maki S, Miyawaki A. Single-cell bioluminescence imaging of deep tissue in freely moving animals. *Science*. 2018 Feb 22;359.0(6378.0):935-939. doi: 10.1126/science.aag1067. PMID: 0.
38. Zhang B, Yan W, Zhu Y, Yang W, Le W, Chen B, Zhu R, Cheng L. Nanomaterials in Neural Stem Cell Mediated Regenerative Medicine: Imaging and Treatment of Neurological Diseases. *Advanced Materials*. 2018 Mar 15;30.0(17.0):e1705694. doi: 10.1002/adma.201705694. PMID: 0.
39. Comenge J, Sharkey J, Fragueiro O, Wilm B, Brust M, Murray P, Lévy R, Plagge A. Multimodal cell tracking from systemic administration to tumour growth by combining gold nanorods and reporter genes. *eLife*. 2018 Jun 26;7.0. doi: 10.7554/elife.33140. PMID: 0.
40. Ashraf S, Taylor A, Sharkey J, Barrow M, Murray P, Wilm B, Poptani H, Rosseinsky MJ, Adams DJ, Lévy R. In vivo fate of free and encapsulated iron oxide nanoparticles after injection of labelled stem cells. *bioRxiv (Cold Spring Harbor Laboratory)*. 2018 Jul 20;. doi: 10.1101/366518.
41. Ashraf S, Taylor A, Sharkey J, Barrow M, Murray P, Wilm B, Poptani H, Rosseinsky MJ, Adams DJ, Lévy R. In vivo fate of free and encapsulated iron oxide nanoparticles after injection of labelled stem cells. *Nanoscale Advances*. 2018 Sep 25;1.0(1.0):367-377. doi: 10.1039/c8na00098k. PMID: 0.
42. Kleinovink JW, Mezzanotte L, Zambito G, Franssen MF, Cruz LJ, Verbeek JS, Chan A, Ossendorp F, Löwik CW. A Dual-Color Bioluminescence Reporter Mouse for Simultaneous in vivo Imaging of T Cell Localization and Function. *Frontiers in Immunology*. 2019 Jan 8;9.0:3097. doi: 10.3389/fimmu.2018.03097. PMID: 0.
43. Schomann T, Mezzanotte L, de Groot JC, Löwik CW, Frijns JHM, Huisman MA. Imaging Bioluminescent Exogenous Stem Cells in the Intact Guinea Pig Cochlea. *The Anatomical Record*. 2019 Jan 12;303.0(3.0):427-440. doi: 10.1002/ar.24068. PMID: 0.
44. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
45. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
46. Nomura N, Nishihara R, Nakajima T, Kim SB, Iwasawa N, Hiruta Y, Nishiyama S, Sato M, Citterio D, Suzuki K. Biothiol-Activatable Bioluminescent Coelenterazine Derivative for Molecular Imaging in Vitro and in Vivo. *Analytical Chemistry*. 2019 Jul 11;91.0(15.0):9546-9553. doi: 10.1021/acs.analchem.9b00694. PMID: 0.
47. Serganova I, Blasberg RG. Molecular Imaging with Reporter Genes: Has Its Promise Been Delivered?. *Journal of Nuclear Medicine*. 2019 Dec 1;60.0(12.0):1665-1681. doi: 10.2967/jnumed.118.220004. PMID: 0.
48. Schomann T, Ilias JD, Que I, Li Y, Suidgeest E, Cruz LJ, Frijns JHM, Chan A, Löwik C, Huisman MA, Mezzanotte L. Multimodal imaging of hair follicle bulge-derived stem cells in a mouse model of traumatic brain injury. *Cell and Tissue Research*. 2020 Feb 8;381.0(1.0):55-69. doi: 10.1007/s00441-020-03173-1. PMID: 0.
49. Zambito G, Gaspar N, Ridwan Y, Hall MP, Shi C, Kirkland TA, Encell LP, Löwik CW, Mezzanotte L. Evaluating Brightness and Spectral Properties of Click Beetle and Firefly Luciferases Using Luciferin Analogues: Identification of Preferred Pairs of Luciferase and Substrate for In Vivo Bioluminescence Imaging. *Molecular Imaging and Biology*. 2020 Sep 14;22.0(6.0):1523-1531. doi: 10.1007/s11307-020-01523-7. PMID: 0.
50. Kim SB, Paulmurugan R. Bioluminescent Imaging Systems for Assay Developments. *Analytical Sciences*. 2020 Sep 17;37.0(2.0):233-247. doi: 10.2116/analsci.20r003. PMID: 0.
51. Dimond A, Van de Pette M, Fisher AG. Illuminating Epigenetics and Inheritance in the Immune System with Bioluminescence. *Trends in Immunology*. 2020 Oct 6;41.0(11.0):994-1005. doi: 10.1016/j.it.2020.09.001. PMID: 0.
52. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.
53. Serkova NJ, Glunde K, Haney CR, Farhoud M, De Lille A, Redente EF, Simberg D, Westerly D, Griffin L, Mason RP. Preclinical Applications of Multi-Platform Imaging in Animal Models of Cancer. *Cancer Research*. 2020 Dec 1;81.0(5.0):1189-1200. doi: 10.1158/0008-5472.can-20-0373. PMID: 0.
54. Zambito G, Mezzanotte L. Near-infrared bioluminescence imaging of two cell populations in living mice. *STAR Protocols*. 2021 Jul 7;2.0(3.0):100662. doi: 10.1016/j.xpro.2021.100662. PMID: 0.
55. Bajgain P, Chavez AGT, Balasubramanian K, Fleckenstein L, Lulla P, Heslop HE, Vera JF, Leen AM. Secreted Fas Decoys Enhance the Antitumor Activity of Engineered and Bystander T Cells in Fas Ligand-Expressing Solid Tumors. *Cancer Immunology Research*. 2022 Sep 19;10.0(11.0):1370-1385. doi: 10.1158/2326-6066.cir-22-0115. PMID: 0.
56. Nakashiba T, Ogoh K, Iwano S, Sugiyama T, Mizuno-Iijima S, Nakashima K, Mizuno S, Sugiyama F, Yoshiki A, Miyawaki A, Abe K. Development of two mouse strains conditionally expressing bright luciferases with distinct emission spectra as new tools for in vivo

imaging. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Apr 29;. doi: 10.1101/2023.04.28.538499.

57. Gleneadie HJ, Dimond A, Fisher AG. Harnessing bioluminescence for drug discovery and epigenetic research. *Frontiers in Drug Discovery*. 2023 Sep 5;3.0. doi: 10.3389/fddsv.2023.1249507.

58. Nakashiba T, Ogoh K, Iwano S, Sugiyama T, Mizuno ■ijima S, Nakashima K, Mizuno S, Sugiyama F, Yoshiki A, Miyawaki A, Abe K. Development of two mouse strains conditionally expressing bright luciferases with distinct emission spectra as new tools for in vivo imaging. *Lab Animal*. 2023 Sep 7;52.0(10.0):247-257. doi: 10.1038/s41684-023-01238-6. PMID: 0.

59. Kim SB, Furuta T. Bioluminescence from the bright and dark sides. *Frontiers in Chemical Biology*. 2024 Aug 19;3.0. doi: 10.3389/fchbi.2024.1459397.

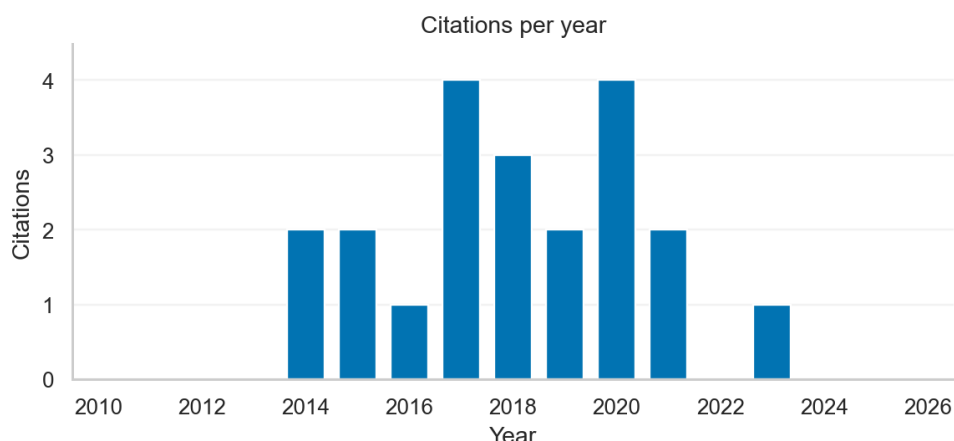
60. Wang C, Chen Q, Yang Z, Zhang C, Song M, Xing X, Ma W, Chen C, Zhang L, Gong M, Zhang K, Yuan Z, Liu Z, Zhang J. A Triple ■ Fusion Protein Probe for Multimodal Imaging of Neural Lineage Cells In Vitro and After Transplantation in Brain. *Advanced Functional Materials*. 2025 May 22;35.0(44.0). doi: 10.1002/adfm.202422870.

61. Cambiaso E, Motais B, Tieland RG, Pleijte C, Cuenca M, Peperzak V. 3D bioluminescence imaging assays for measuring in vitro CAR T cell cytotoxicity. *Methods in cell biology*. 2026 Jan 1;209.0:123-139. doi: 10.1016/bs.mcb.2026.04.006. PMID: 0.

62. Tieland RG, Pleijte C, Rockx-Brouwer D, Motais B, Cambiaso E, Cuenca M, Peperzak V. Measuring tumor cell killing using in vivo bioluminescence imaging. *Methods in cell biology*. 2026 Jan 1;. doi: 10.1016/bs.mcb.2026.05.024.

Publication

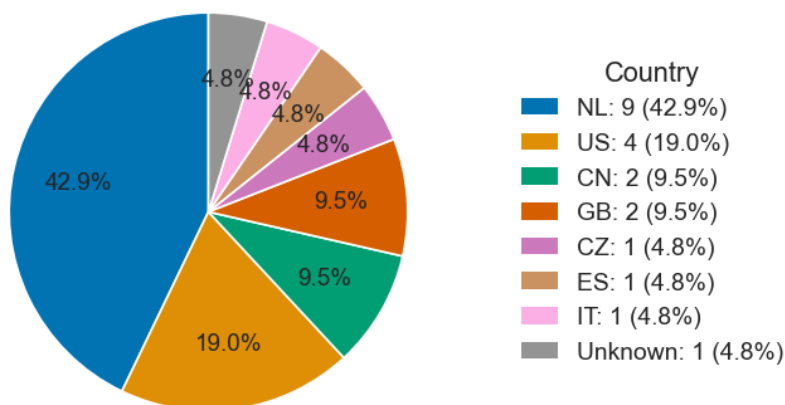
Srinivas M, Boehm ■ Sturm P, Aswendt M, Pracht E, Figdor CG, de Vries IJ, Hoehn M. In vivo 19F MRI for Cell Tracking. *Journal of Visualized Experiments*. 2013 Nov 25;(81):e50802. doi: 10.3791/50802. PMID: 24299964.



Citation summary

Total citations: **21**
Average/year: **1.50**
Period: 2013-2026
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(2025): **1.06**
SJR 2025: **0.409** (Q2)

Citations by country



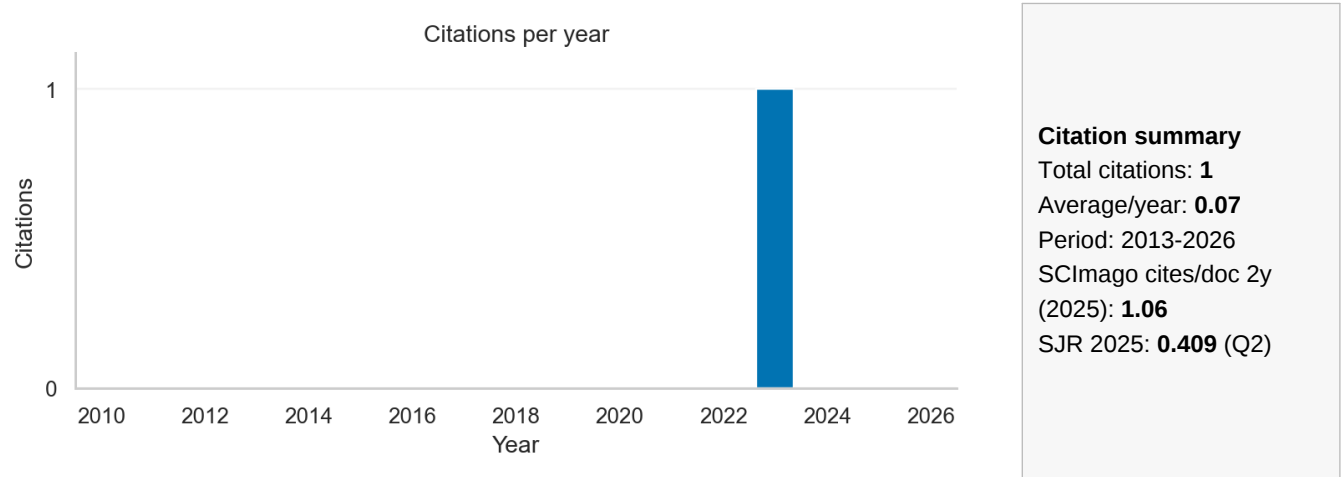
Cited by

- Liu Z, Li Z. Molecular Imaging in Tracking Tumor-Specific Cytotoxic T Lymphocytes (CTLs). *Theranostics*. 2014 Jan 1;4(10.0):990-1001. doi: 10.7150/thno.9268. PMID: 0.
- Bartusik ■ Aebisher D, Aebisher D. 19F applications in drug development and imaging – a review. *Biomedicine & Pharmacotherapy*. 2014 Jul 1;68(6.0):813-817. doi: 10.1016/j.biopha.2014.07.012. PMID: 0.
- Bernsen MR, Guenoun J, van Tiel ST, Krestin GP, Mc E. NANOPARTICLES FOR DIAGNOSTIC IMAGING AND RADIOTHERAPY SPECIAL FEATURE: REVIEW ARTICLE Nanoparticles and clinically applicable cell tracking. 2015 Jan 1;.
- Bernsen MR, Guenoun J, van Tiel ST, Krestin GP. Nanoparticles and clinically applicable cell tracking. *British Journal of Radiology*. 2015 Aug 7;88(1054.0):20150375. doi: 10.1259/bjr.20150375. PMID: 0.
- Constantinides C, Maguire ML, Stork L, Swider E, Srinivas M, Carr CA, Schneider JE. Temporal accumulation and localization of isoflurane in the C57BL/6 mouse and assessment of its potential contamination in 19F MRI with perfluoro ■ crown ■ ether ■ labeled cardiac progenitor cells at 9.4 Tesla. *Journal of Magnetic Resonance Imaging*. 2016 Dec 19;45(6.0):1659-1667. doi: 10.1002/jmri.25564. PMID: 0.
- Zheng Y, Huang J, Zhu T, Li R, Wang Z, Ma F, Zhu J. Stem Cell Tracking Technologies for Neurological Regenerative Medicine Purposes. *Stem Cells International*. 2017 Jan 1;2017:1-9. doi: 10.1155/2017/2934149. PMID: 0.
- Mastrogiacono S, Dou W, Koshkina O, Boerman OC, Jansen JA, Heerschap A, Srinivas M, Walboomers XF. Perfluorocarbon/Gold Loading for Noninvasive in Vivo Assessment of Bone Fillers Using 19F Magnetic Resonance Imaging and Computed Tomography. *ACS Applied Materials & Interfaces*. 2017 Jun 21;9(27.0):22149-22159. doi: 10.1021/acsami.7b04075. PMID: 0.
- Kadyk LC, DeWitt N, Gomperts BN. Proceedings: Regenerative Medicine for Lung Diseases: A CIRM Workshop Report. *Stem Cells Translational Medicine*. 2017 Aug 9;6(10.0):1823-1828. doi: 10.1002/sctm.17-0047. PMID: 0.

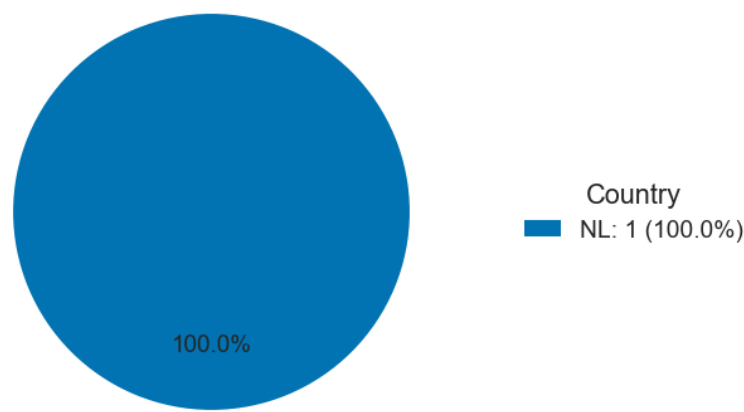
9. Scarfe L, Brillant N, Kumar JD, Ali N, Alrumayh A, Amali MO, Barbellion S, Jones V, Niemeijer M, Potdevin S, Roussignol G, Vaganov A, Barbaric I, Barrow M, Burton NC, Connell J, Dazzi F, Edsbagge J, French N, Holder JC, Hutchinson C, Jones D, Kalber TL, Lovatt C, Lythgoe MF, Patel S, Patrick PS, Piner J, Reinhardt J, Ricci E, Sidaway JE, Stacey G, Lewis PJS, Sullivan GJ, Taylor A, Wilm B, Poptani H, Murray P, Goldring CE, Park BK. Preclinical imaging methods for assessing the safety and efficacy of regenerative medicine therapies. *npj Regenerative Medicine*. 2017 Oct 11;2(1.0):28. doi: 10.1038/s41536-017-0029-9. PMID: 0.
10. Swider E, Daoudi K, Staal AHJ, Koshkina O, van Riessen NK, van Dinther E, de Vries IJM, de Korte CL, Srinivas M. Clinically-Applicable Perfluorocarbon-Loaded Nanoparticles For In vivo Photoacoustic, 19F Magnetic Resonance And Fluorescent Imaging. *Nanotheranostics*. 2018 Jan 1;2(3.0):258-268. doi: 10.7150/ntno.26208. PMID: 0.
11. Swider E, Koshkina O, Tel J, Cruz LJ, de Vries IJM, Srinivas M. Customizing poly(lactic-co-glycolic acid) particles for biomedical applications. *Acta Biomaterialia*. 2018 Apr 10;73:38-51. doi: 10.1016/j.actbio.2018.04.006. PMID: 0.
12. Gálisová A, Herynek V, Swider E, Sticová E, Pátíková A, Košinová L, Kříž J, Hájek M, Srinivas M, Jiráček D. A Trimodal Imaging Platform for Tracking Viable Transplanted Pancreatic Islets In Vivo: F-19 MR, Fluorescence, and Bioluminescence Imaging. *Molecular Imaging and Biology*. 2018 Aug 30;21(3.0):454-464. doi: 10.1007/s11307-018-1270-3. PMID: 0.
13. Kerkorian M, Fruhwirth GO, Srinivas M, Figdor CG, Heskamp S, Witney TH, Aarntzen EH. Imaging of T-cells and their responses during anti-cancer immunotherapy. *Theranostics*. 2019 Jan 1;9(25.0):7924-7947. doi: 10.7150/thno.37924. PMID: 0.
14. Fernández-Susavila H, Bugallo-Casal A, Castillo J, Campos F. Adult Stem Cells and Induced Pluripotent Stem Cells for Stroke Treatment. *Frontiers in Neurology*. 2019 Aug 28;10:908. doi: 10.3389/fneur.2019.00908. PMID: 0.
15. Ottoboni L, von Wunster B, Martino G. Therapeutic Plasticity of Neural Stem Cells. *Frontiers in Neurology*. 2020 Mar 20;11:148. doi: 10.3389/fneur.2020.00148. PMID: 0.
16. Iafrate M, Fruhwirth GO. How Non-invasive in vivo Cell Tracking Supports the Development and Translation of Cancer Immunotherapies. *Frontiers in Physiology*. 2020 Apr 3;11:154. doi: 10.3389/fphys.2020.00154. PMID: 0.
17. Staal AHJ, Becker K, Tagit O, van Riessen NK, Koshkina O, Veltien A, Bouvain P, Cortenbach KR, Scheenen TWJ, Flögel U, Temme S, Srinivas M. In vivo clearance of 19F MRI imaging nanocarriers is strongly influenced by nanoparticle ultrastructure. *Biomaterials*. 2020 Aug 12;261:120307. doi: 10.1016/j.biomaterials.2020.120307. PMID: 0.
18. Zheng L, Wang Y, Yang B, Zhang B, Wu Y. Islet Transplantation Imaging in vivo. *Diabetes Metabolic Syndrome and Obesity*. 2020 Sep 1;Volume 13:3301-3311. doi: 10.2147/dmso.s263253. PMID: 0.
19. Xiao Z, Puré E. Imaging of T-cell Responses in the Context of Cancer Immunotherapy. *Cancer Immunology Research*. 2021 May 1;9(5.0):490-502. doi: 10.1158/2326-6066.cir-20-0678. PMID: 0.
20. Staal AHJ, Veltien A, Srinivas M, Scheenen TWJ. 19F MRI Imaging Strategies to Reduce Isoflurane Artifacts in In Vivo Images. *Molecular Imaging and Biology*. 2021 Oct 20;24(1.0):71-81. doi: 10.1007/s11307-021-01653-6. PMID: 0.
21. Maxouri O, Bodalal Z, Daal MRR, Rostami S, Rodriguez I, Akkari L, Srinivas M, Bernards R, Beets-Tan RGH. How to 19F MRI: applications, technique, and getting started. *BJR|Open*. 2023 Sep 25;5(1.0):20230019. doi: 10.1259/bjro.20230019. PMID: 0.

Publication

Srinivas M, Boehm■Sturm P, Aswendt M, Pracht E, Figdor CG, de Vries IJ, Hoehn M. In vivo 19F MRI for Cell Tracking. *Journal of Visualized Experiments*. 2013 Nov 25;(81). doi: 10.3791/50802-v.



Citations by country

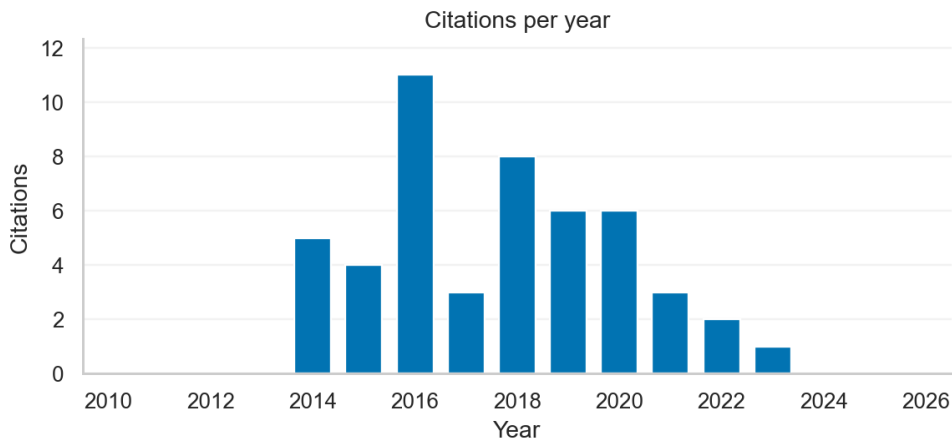


Cited by

1. Maxouri O, Bodalal Z, Daal MRR, Rostami S, Rodriguez I, Akkari L, Srinivas M, Bernards R, Beets■Tan RGH. How to 19F MRI: applications, technique, and getting started. *BJR|Open*. 2023 Sep 25;5(1):20230019. doi: 10.1259/bjro.20230019. PMID: 37953866.

Publication

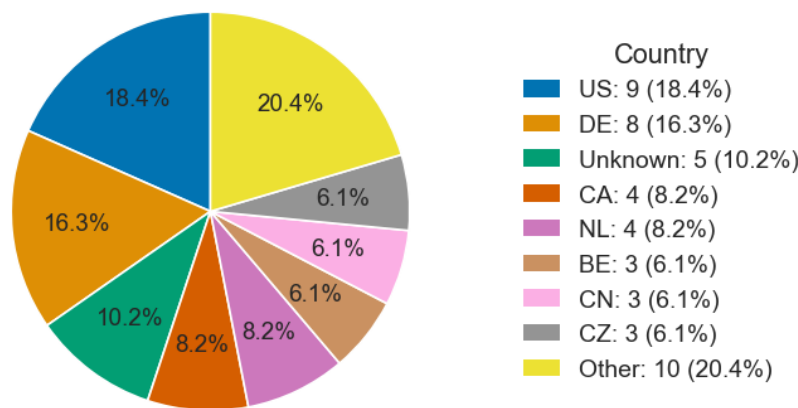
Boehm■Sturm P, Aswendt M, Minassian A, Michalk S, Mengler L, Adamczak J, Mezzanotte L, Löwik CW, Hoehn M. A multi-modality platform to image stem cell graft survival in the naïve and stroke-damaged mouse brain. *Biomaterials*. 2013 Dec 16;35(7):2218-2226. doi: 10.1016/j.biomaterials.2013.11.085. PMID: 24355489.



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Citations by country



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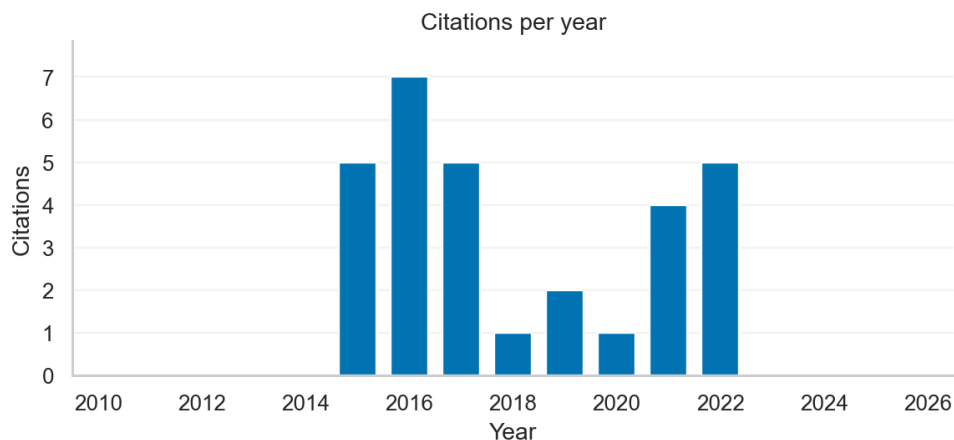
1. Praet J, Santermans E, Daans J, Le Blon D, Hoornaert C, Goossens H, Hens N, Van der Linden A, Berneman Z, Ponsaerts P. Early Inflammatory Responses following Cell Grafting in the CNS Trigger Activation of the Subventricular Zone: A Proposed Model of Sequential Cellular Events. *Cell Transplantation*. 2014 Jul 15;24(8.0):1481-1492. doi: 10.3727/096368914x682800. PMID: 0.
2. Aswendt M, Adamczak J, Tennstaedt A. A review of novel optical imaging strategies of the stroke pathology and stem cell therapy in stroke. *Frontiers in Cellular Neuroscience*. 2014 Aug 14;8:226. doi: 10.3389/fncel.2014.00226. PMID: 0.
3. Duffy BA, Weitz AJ, Lee JH. In vivo imaging of transplanted stem cells in the central nervous system. *Current Opinion in Genetics & Development*. 2014 Oct 1;28:83-88. doi: 10.1016/j.gde.2014.09.007. PMID: 0.
4. Lee JM, Ryu JH, Kim EA, Jo S, Kim B, Lee H, Im G. Adhesive barrier/directional controlled release for cartilage repair by endogenous progenitor cell recruitment. *Biomaterials*. 2014 Nov 22;39:173-181. doi: 10.1016/j.biomaterials.2014.11.006. PMID: 0.
5. Mahoney R. Characterization and in vivo Tracking of transplanted Oligodendrocyte Progenitor Cells in the Injured Rat Spinal Cord. *University of Minnesota Digital Conservancy (University of Minnesota)*. 2014 Dec 1;.
6. Tennstaedt A, Aswendt M, Adamczak J, Collienne U, Selt M, Schneider G, Henn N, Schaefer C, Lagouge M, Wiedermann D, Kloppenburg P, Hoehn M. Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. *Biomaterials*. 2015 Jan 12;44:143-154. doi: 10.1016/j.biomaterials.2014.12.038. PMID: 0.
7. Gaudet JM, Ribot EJ, Chen Y, Gilbert KM, Foster PJ. Tracking the Fate of Stem Cell Implants with Fluorine-19 MRI. *PLoS ONE*. 2015 Mar 13;10(3.0):e0118544. doi: 10.1371/journal.pone.0118544. PMID: 0.
8. Jab■o■ska A, Drela K, Stanaszek L, Janowski M, Zalewska T, ■ukomska B. Short-Lived Human Umbilical Cord-Blood-Derived Neural Stem Cells Influence the Endogenous Secretome and Increase the Number of Endogenous Neural Progenitors in a Rat Model of Lacunar Stroke. *Molecular Neurobiology*. 2015 Nov 25;53(9.0):6413-6425. doi: 10.1007/s12035-015-9530-6. PMID: 0.

9. Tennstaedt A, Mastropietro A, Nelles M, Beyrau A, Hoehn M. In Vivo Fate Imaging of Intracerebral Stem Cell Grafts in Mouse Brain. *PLoS ONE*. 2015 Dec 7;10(12.0):e0144262. doi: 10.1371/journal.pone.0144262. PMID: 0.
10. Martín A, Ramos Cabrer P, Planas AM. Noninvasive Brain Imaging in Small Animal Stroke Models: MRI, PET, and SPECT. *Neuromethods*. 2016 Jan 1;:147-186. doi: 10.1007/978-1-4939-5620-3_11.
11. Hu G, Tang J, Bai X, Xu S, Wang L. Superfluorinated copper sulfide nanoprobes for simultaneous ¹⁹F magnetic resonance imaging and photothermal ablation. *Nano Research*. 2016 Apr 8;9(6.0):1630-1638. doi: 10.1007/s12274-016-1057-2.
12. Qian C, Li P, Jiao Y, Yao H, Chen Y, Yang J, Ding J, Yang X, Teng G. Precise Characterization of the Penumbra Revealed by MRI: A Modified Photothrombotic Stroke Model Study. *PLoS ONE*. 2016 Apr 19;11(4.0):e0153756. doi: 10.1371/journal.pone.0153756. PMID: 0.
13. Selt M, Tennstaedt A, Beyrau A, Nelles M, Schneider G, Löwik CW, Hoehn M. In Vivo Non-Invasive Tracking of Macrophage Recruitment to Experimental Stroke. *PLoS ONE*. 2016 Jun 24;11(6.0):e0156626. doi: 10.1371/journal.pone.0156626. PMID: 0.
14. Modo M. Gaining Mechanistic Insights into Cell Therapy Using Magnetic Resonance Imaging. *Current Stem Cell Reports*. 2016 Jul 7;2(3.0):221-227. doi: 10.1007/s40778-016-0059-z.
15. Gervois P, Wolfs E, Ratajczak J, Dillen Y, Vangansewinkel T, Hilken P, Bronckaers A, Lambrichts I, Struys T. Stem Cell-Based Therapies for Ischemic Stroke: Preclinical Results and the Potential of Imaging-Assisted Evaluation of Donor Cell Fate and Mechanisms of Brain Regeneration. *Medicinal Research Reviews*. 2016 Jul 21;36(6.0):1080-1126. doi: 10.1002/med.21400. PMID: 0.
16. Gaudet JM, Hamilton AM, Chen Y, Fox MS, Foster PJ. Application of dual¹⁹F and iron cellular MRI agents to track the infiltration of immune cells to the site of a rejected stem cell transplant. *Magnetic Resonance in Medicine*. 2016 Sep 9;78(2.0):713-720. doi: 10.1002/mrm.26400. PMID: 0.
17. Makela AV, Murrell DH, Parkins KM, Kara J, Gaudet JM, Foster PJ. Cellular Imaging With MRI. *Topics in Magnetic Resonance Imaging*. 2016 Sep 30;25(5.0):177-186. doi: 10.1097/rmr.000000000000101. PMID: 0.
18. Aswendt M, Boehm Sturm P, Hoehn M. Chapter 10 Neural Stem Cells. *Pan Stanford Publishing eBooks*. 2016 Oct 21;:283-310. doi: 10.1201/9781315364605-11.
19. Temme S, Grapentin C, Güden-Silber T, Flögel U. Chapter 4 Active Targeting of Perfluorocarbon Nanoemulsions. *Pan Stanford Publishing eBooks*. 2016 Oct 21;:103-140. doi: 10.1201/9781315364605-5.
20. Swider E, Srinivas M. Spinning to a Different Beat: ¹⁹F Agents for "Hot-Spot" Cellular MR Imaging. *Design and Applications of Nanoparticles in Biomedical Imaging*. 2016 Nov 26;:153-170. doi: 10.1007/978-3-319-42169-8_7.
21. Shin SH, Park SH, Kang SH, Kim SW, Kim MS, Kim D. Fluorine-¹⁹ Magnetic Resonance Imaging and Positron Emission Tomography of Tumor-Associated Macrophages and Tumor Metabolism. *Contrast Media & Molecular Imaging*. 2017 Jan 1;2017:1-8. doi: 10.1155/2017/4896310. PMID: 0.
22. Vogel SN, Aswendt M, Nelles M, Henn N, Schneider G, Hoehn M. Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jun 9;12(3.0):784-793. doi: 10.1002/term.2497. PMID: 0.
23. Muhammad G, Xu J, Bulte JWM, Jablonska A, Walczak P, Janowski M. Transplanted adipose-derived stem cells can be short-lived yet accelerate healing of acid-burn skin wounds: a multimodal imaging study. *Scientific Reports*. 2017 Jun 29;7(1.0):4644. doi: 10.1038/s41598-017-04484-0. PMID: 0.
24. Moonshi SS, Zhang C, Peng H, Puttick S, Rose S, Fisk NM, Bhakoo K, Stringer BW, Qiao GG, Gurr PA, Whittaker AK. A unique ¹⁹F MRI agent for the tracking of non phagocytic cells in vivo. *Nanoscale*. 2018 Jan 1;10(17.0):8226-8239. doi: 10.1039/c8nr00703a. PMID: 0.
25. Hall MP, Woodroffe CC, Wood MG, Que I, Root MV, Ridwan Y, Shi C, Kirkland TA, Encell LP, Wood KV, Löwik CW, Mezzanotte L. Click beetle luciferase mutant and near infrared naphthyl-luciferins for improved bioluminescence imaging. *Nature Communications*. 2018 Jan 3;9(1.0):132. doi: 10.1038/s41467-017-02542-9. PMID: 0.
26. Hébert JM, Vijn J. Cell Replacement to Reverse Brain Aging: Challenges, Pitfalls, and Opportunities. *Trends in Neurosciences*. 2018 Mar 18;41(5.0):267-279. doi: 10.1016/j.tins.2018.02.008. PMID: 0.
27. Liang S, Louchami K, Holvoet B, Verbeke R, Deroose CM, Manshian BB, Soenen SJ, Lentacker I, Himmelreich U. Tri-modal In vivo Imaging of Pancreatic Islets Transplanted Subcutaneously in Mice. *Molecular Imaging and Biology*. 2018 Apr 18;20(6.0):940-951. doi: 10.1007/s11307-018-1192-0. PMID: 0.
28. Gálisová A, Herynek V, Swider E, Sticová E, Pátíková A, Košinová L, Kříž J, Hájek M, Srinivas M, Jiráček D. A Trimodal Imaging Platform for Tracking Viable Transplanted Pancreatic Islets In Vivo: F-¹⁹ MR, Fluorescence, and Bioluminescence Imaging. *Molecular Imaging and Biology*. 2018 Aug 30;21(3.0):454-464. doi: 10.1007/s11307-018-1270-3. PMID: 0.
29. Bose RJ, Mattrey RF. Accomplishments and challenges in stem cell imaging in vivo. *Drug Discovery Today*. 2018 Oct 17;24(2.0):492-504. doi: 10.1016/j.drudis.2018.10.007. PMID: 0.
30. Khalil AA, Mueller S, Foddiss M, Mosch L, Lips J, Przesdzin I, Temme S, Flögel U, Dirnagl U, Boehm Sturm P. Longitudinal ¹⁹F magnetic resonance imaging of brain oxygenation in a mouse model of vascular cognitive impairment using a cryogenic radiofrequency coil. *Magnetic Resonance Materials in Physics Biology and Medicine*. 2018 Nov 12;32(1.0):105-114. doi: 10.1007/s10334-018-0712-x. PMID: 0.
31. Jiráček D, Gálisová A, Kolouchová K, Babuka D, Hrubý M. Fluorine polymer probes for magnetic resonance imaging: quo vadis?. *Magnetic Resonance Materials in Physics Biology and Medicine*. 2018 Nov 29;32(1.0):173-185. doi: 10.1007/s10334-018-0724-6. PMID: 0.
32. Krekorian M, Fruhwirth GO, Srinivas M, Figdor CG, Heskamp S, Witney TH, Aarntzen EH. Imaging of T-cells and their responses during anti-cancer immunotherapy. *Theranostics*. 2019 Jan 1;9(25.0):7924-7947. doi: 10.7150/thno.37924. PMID: 0.
33. Vogel SN, Schäfer C, Heß S, Foltz Donahue K, Nelles M, Minassian A, Schwarz MK, Kukat C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37:101429. doi: 10.1016/j.scr.2019.101429. PMID: 0.

34. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
35. Pongrac IM, Radmilović MD, Ahmed LB, Mlinarić H, Regul J, Škokić S, Babić M, Horák D, Hoehn M, Gajović S. D-mannose-Coating of Maghemite Nanoparticles Improved Labeling of Neural Stem Cells and Allowed Their Visualization by ex vivo MRI after Transplantation in the Mouse Brain. *Cell Transplantation*. 2019 May 1;28(5.0):553-567. doi: 10.1177/0963689719834304. PMID: 0.
36. Fernández-Susavila H, Bugallo-Casal A, Castillo J, Campos F. Adult Stem Cells and Induced Pluripotent Stem Cells for Stroke Treatment. *Frontiers in Neurology*. 2019 Aug 28;10:908. doi: 10.3389/fneur.2019.00908. PMID: 0.
37. Weir N. Developing a neural implant to enable controlled alterations to brain architecture. *Nottingham Trent University's Institutional Repository (Nottingham Trent Repository)*. 2019 Dec 1;.
38. Ganesh MG. Grafting purified cortical pericytes into mouse motor cortex. *Otago University Research Archive (University of Otago)*. 2020 Jan 1;.
39. Schomann T, Iljas JD, Que I, Li Y, Suidgeest E, Cruz LJ, Frijns JHM, Chan A, Löwik C, Huisman MA, Mezzanotte L. Multimodal imaging of hair follicle bulge-derived stem cells in a mouse model of traumatic brain injury. *Cell and Tissue Research*. 2020 Feb 8;381(1.0):55-69. doi: 10.1007/s00441-020-03173-1. PMID: 0.
40. Kolouchová K, Jiráček D, Groborz O, Sedláček O, Ziśkowska N, Vít M, Sticová E, Gálisová A, Švec P, Trousil J, Hájek M, Hrubý M. Implant-forming polymeric 19F MRI-tracer with tunable dissolution. *Journal of Controlled Release*. 2020 Jul 27;327:50-60. doi: 10.1016/j.jconrel.2020.07.026. PMID: 0.
41. Staal AHJ, Becker K, Tagit O, van Riessen NK, Koshkina O, Veltien A, Bouvain P, Cortenbach KR, Scheenen TWJ, Flögel U, Temme S, Srinivas M. In vivo clearance of 19F MRI imaging nanocarriers is strongly influenced by nanoparticle ultrastructure. *Biomaterials*. 2020 Aug 12;261:120307. doi: 10.1016/j.biomaterials.2020.120307. PMID: 0.
42. Wu L, Liu F, Liu S, Xu X, Liu Z, Sun X. Perfluorocarbons-Based 19F Magnetic Resonance Imaging in Biomedicine. *International Journal of Nanomedicine*. 2020 Oct 1;Volume 15:7377-7395. doi: 10.2147/ijn.s255084. PMID: 0.
43. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.
44. Modo M. 19F Magnetic Resonance Imaging and Spectroscopy in Neuroscience. *Neuroscience*. 2021 Mar 23;474:37-50. doi: 10.1016/j.neuroscience.2021.03.016. PMID: 0.
45. Xiao Z, Puré E. Imaging of T-cell Responses in the Context of Cancer Immunotherapy. *Cancer Immunology Research*. 2021 May 1;9(5.0):490-502. doi: 10.1158/2326-6066.cir-20-0678. PMID: 0.
46. Moonshi SS, Wu Y, Ta HT. Visualizing stem cells in vivo using magnetic resonance imaging. *Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology*. 2021 Oct 15;14(2.0):e1760. doi: 10.1002/wnan.1760. PMID: 0.
47. Shaikh S. Molecular Imaging and Stem Cell Imaging. *Advances in Imaging*. 2022 Jan 1;:237-256. doi: 10.1007/978-981-16-9535-3_20.
48. Akbar MA, Martin AR, Pfyffer D, Cadotte DW, Kurpad SN, Freund P, Fehlings MG. Advanced imaging for spinal cord injury. *Elsevier eBooks*. 2022 Jan 1;:105-124. doi: 10.1016/b978-0-12-819835-3.00028-9.
49. Kakaei N, Amirian R, Azadi M, Mohammadi G, Izadi Z. Perfluorocarbons: A perspective of theranostic applications and challenges. *Frontiers in Bioengineering and Biotechnology*. 2023 Aug 3;11:1115254. doi: 10.3389/fbioe.2023.1115254. PMID: 0.

Publication

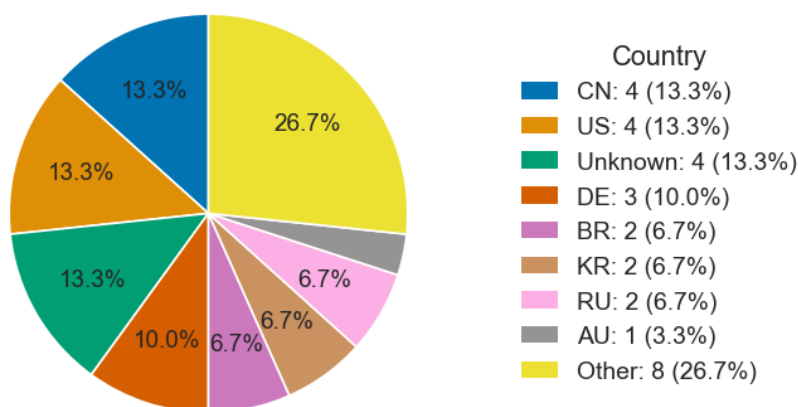
Aswendt M, Adamczak J, Tennstaedt A. A review of novel optical imaging strategies of the stroke pathology and stem cell therapy in stroke. *Frontiers in Cellular Neuroscience*. 2014 Aug 14;8:226. doi: 10.3389/fncel.2014.00226. PMID: 25177269.



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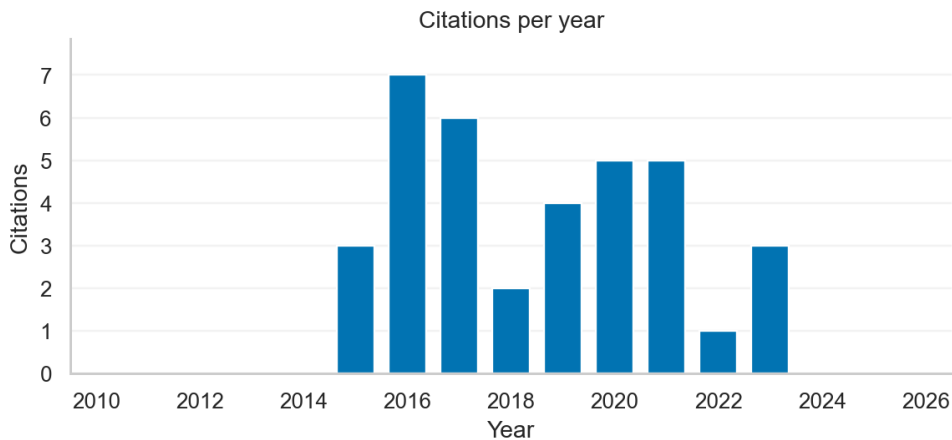
Cited by

1. Gavins FNE, Smith HK. Cell Tracking Technologies for Acute Ischemic Brain Injury. *Journal of Cerebral Blood Flow & Metabolism*. 2015 May 13;35.0(7.0):1090-1099. doi: 10.1038/jcbfm.2015.93. PMID: 0.
2. Thompson IJ. Manipulation of antigen presenting cells to enhance host immune responses to bacterial infection. *Spiral (Imperial College London)*. 2015 Jun 1;. doi: 10.25560/40916.
3. Doeppner TR, Hermann DM. Editorial: Stem cells and progenitor cells in ischemic stroke—fashion or future?. *Frontiers in Cellular Neuroscience*. 2015 Aug 25;9.0:334. doi: 10.3389/fncel.2015.00334. PMID: 0.
4. Jendelová P, Kubinová Š, Sandvig I, Erceg S, Sandvig A, Syková E. Current developments in cell- and biomaterial-based approaches for stroke repair. *Expert Opinion on Biological Therapy*. 2015 Sep 30;16.0(1.0):43-56. doi: 10.1517/14712598.2016.1094457. PMID: 0.
5. Tennstaedt A, Mastropietro A, Nelles M, Beyrau A, Hoehn M. In Vivo Fate Imaging of Intracerebral Stem Cell Grafts in Mouse Brain. *PLoS ONE*. 2015 Dec 7;10.0(12.0):e0144262. doi: 10.1371/journal.pone.0144262. PMID: 0.
6. Kaskova ZM, Tsarkova AS, Yampolsky IV. 1001 lights: luciferins, luciferases, their mechanisms of action and applications in chemical analysis, biology and medicine. *Chemical Society Reviews*. 2016 Jan 1;45.0(21.0):6048-6077. doi: 10.1039/c6cs00296j. PMID: 0.
7. Cao J, Zhou M. In Vivo Fluorescence Reflectance Imaging with Subcutaneous Mouse Tumor Models. *Methods in molecular biology*. 2016 Jan 1;1444.0:27-35. doi: 10.1007/978-1-4939-3721-9_3. PMID: 0.
8. Lewis MA. Optical Imaging. *Imaging in medical diagnosis and therapy*. 2016 Feb 4;:141-163. doi: 10.1201/b19052-14.
9. Nierode GJ, Kwon PS, Dordick JS, Kwon S. Cell-Based Assay Design for High-Content Screening of Drug Candidates. *Journal of Microbiology and Biotechnology*. 2016 Feb 28;26.0(2.0):213-225. doi: 10.4014/jmb.1508.08007. PMID: 0.

10. Gao X, Wang Y, Hou H, Lyu Y, Wang H, Yao L, Zhang J, Cao F, Wang Y. In vivo bioluminescence imaging of hyperglycemia exacerbating stem cells on choroidal neovascularization in mice. *International Journal of Ophthalmology*. 2016 Apr 18;9.0(4.0):519-27. doi: 10.18240/ijo.2016.04.07. PMID: 0.
11. Aswendt M, Boehm M, Sturm P, Hoehn M. Chapter 10 Neural Stem Cells. *Pan Stanford Publishing eBooks*. 2016 Oct 21;:283-310. doi: 10.1201/9781315364605-11.
12. Han H, Zhang W, Yuan L, Yan J, Wang W, Shi C, Li Y. Imaging and Tracking Transplanted Bone Marrow Stem Cells After Stroke. *Bone marrow stem cell therapy for stroke*. 2016 Dec 14;:311-332. doi: 10.1007/978-981-10-2929-5_14.
13. Boitet M, Grailhe R. Reporter Expression and Tissue Depth Quantification Using Bright and Broad-Range Spectrum Bioluminescence Probes. *Biosensors Journal*. 2017 Jan 1;6.0(2.0). doi: 10.4172/2090-4967.1000148.
14. Jurgielewicz P, Harmsen S, Wei E, Bachmann MH, Ting R, Aras Ö. New imaging probes to track cell fate: reporter genes in stem cell research. *Cellular and Molecular Life Sciences*. 2017 Jul 3;74.0(24.0):4455-4469. doi: 10.1007/s00018-017-2584-z. PMID: 0.
15. Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
16. Chandrasekharan P, Yang C. Nanobiomaterials for Molecular Imaging. *Nanobiomaterials*. 2017 Dec 1;:259-279. doi: 10.1002/9783527698646.ch11.
17. Mezzanotte L, Ilias JD, Que I, Chan A, Kaijzel EL, Hoeben RC, Löwik CW. Optimized Longitudinal Monitoring of Stem Cell Grafts in Mouse Brain Using a Novel Bioluminescent/Near Infrared Fluorescent Fusion Reporter. *Cell Transplantation*. 2017 Dec 1;26.0(12.0):1878-1889. doi: 10.1177/0963689717739718. PMID: 0.
18. Kaur A. In Cellulo Studies. *Springer theses*. 2018 Jan 1;:129-147. doi: 10.1007/978-3-319-73405-7_6.
19. da Silva HR, Mamani JB, Nucci MP, Nucci LP, Kondo AT, Fantacini DMC, de Souza LEB, Picanço M, Castro V, Covas DT, Kutner JM, Oliveira FA, Hamerschlag N, Gamarra LF. Triple-modal imaging of stem-cells labeled with multimodal nanoparticles, applied in a stroke model. *World Journal of Stem Cells*. 2019 Feb 26;11.0(2.0):100-123. doi: 10.4252/wjsc.v11.i2.100. PMID: 0.
20. Sarmiento RM, Vasconcelos FF, Filho PPR, Wu W, de Albuquerque VHC. Automatic Neuroimage Processing and Analysis in Stroke—A Systematic Review. *IEEE Reviews in Biomedical Engineering*. 2019 Aug 23;13.0:130-155. doi: 10.1109/rbme.2019.2934500. PMID: 0.
21. Mukhtar R, Fazal MU, Saleem M, Saleem S. Role of low-level laser therapy in post-herpetic neuralgia: a pilot study. *Lasers in Medical Science*. 2020 Jan 31;35.0(8.0):1759-1764. doi: 10.1007/s10103-020-02969-5. PMID: 0.
22. Kim JH, Kim SY, Kim B, Lee S, Hoon S, Lee D, Lee HJ. Prospects of Therapeutic Target and Directions for Ischemic Stroke. *Pharmaceuticals*. 2021 Apr 1;14.0(4.0):321. doi: 10.3390/ph14040321. PMID: 0.
23. Rizvi SFA, Zhang H. Emerging trends of receptor-mediated tumor targeting peptides: A review with perspective from molecular imaging modalities. *European Journal of Medicinal Chemistry*. 2021 May 15;221.0:113538. doi: 10.1016/j.ejmech.2021.113538. PMID: 0.
24. Moradpour S, Aliaghaei A, Bigdeli M. Effect of Sertoli Cell Transplant and Rapamycin Pretreatment on Middle Cerebral Artery Occlusion-Induced Brain Ischemia in a Rat Model. *Experimental and Clinical Transplantation*. 2021 Nov 1;19.0(11.0):1204-1211. doi: 10.6002/ect.2021.0198. PMID: 0.
25. Parvez S, Kaushik M, Ali M, Alam MM, Ali J, Tabassum H, Kaushik P. Dodging blood brain barrier with “nano” warriors: Novel strategy against ischemic stroke. *Theranostics*. 2021 Dec 15;12.0(2.0):689-719. doi: 10.7150/thno.64806. PMID: 0.
26. Wang Y, Yu C, Li Y, Bao H, Li X, Fan H, Huang J, Zhang Z. In vivo MRI tracking and therapeutic efficacy of transplanted mesenchymal stem cells labeled with ferrimagnetic vortex iron oxide nanorings for liver fibrosis repair. *Nanoscale*. 2022 Jan 1;14.0(13.0):5227-5238. doi: 10.1039/d1nr08544a. PMID: 0.
27. Nowak B, Andrzejewska A, Rogujski P, Zawadzki M, Walczak P, Dorobek M, Lukomska B, Janowski M. Imaging of Stem Cell Therapy for Stroke and Beyond. *Regenerative Therapies in Ischemic Stroke Recovery*. 2022 Jan 1;:137-156. doi: 10.1007/978-981-16-8562-0_6.
28. Oh SS, Kim Y, Lee YB, Bae SK, Kim JS, An S, Choi J. Optical Modalities for Research, Diagnosis, and Treatment of Stroke and the Consequent Brain Injuries. *Applied Sciences*. 2022 Feb 11;12.0(4.0):1891. doi: 10.3390/app12041891.
29. Pochechuev MS, Bilan DS, Fedotov IV, Kelmanson IV, Solotenko MA, Kotova DA, Ivanova AD, Kostyuk AI, Raevskii RI, Lanin A, Fedotov AB, Belousov VV. Real-time fiber-optic recording of acute ischemic stroke signatures. *Journal of Biophotonics*. 2022 Jun 3;15.0(10.0):e202200050. doi: 10.1002/jbio.202200050. PMID: 0.
30. Lin C, Liu T, Reyes CJQ. In Vivo Fluorescence Imaging. *Encyclopedia of Analytical Chemistry*. 2022 Sep 26;:1-29. doi: 10.1002/9780470027318.a9777.

Publication

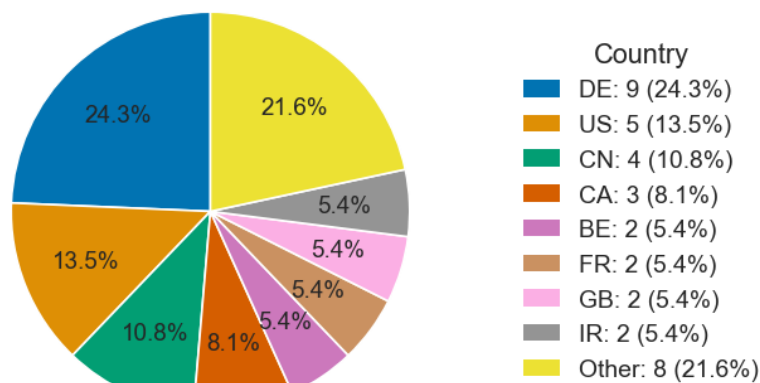
Keuters MH, Aswendt M, Tennstaedt A, Wiedermann D, Pikhovych A, Rotthues S, Fink GR, Schroeter M, Hoehn M, Rueger MA. Transcranial direct current stimulation promotes the mobility of engrafted NSCs in the rat brain. *NMR in Biomedicine*. 2014 Dec 17;28(2):231-239. doi: 10.1002/nbm.3244. PMID: 25521600.



Citation summary

Total citations: **37**
Average/year: **2.85**
Period: 2014-2026
SCImago cites/doc 2y
(2025): **3.13**
SJR 2025: **0.822** (Q1)

Citations by country



Cited by

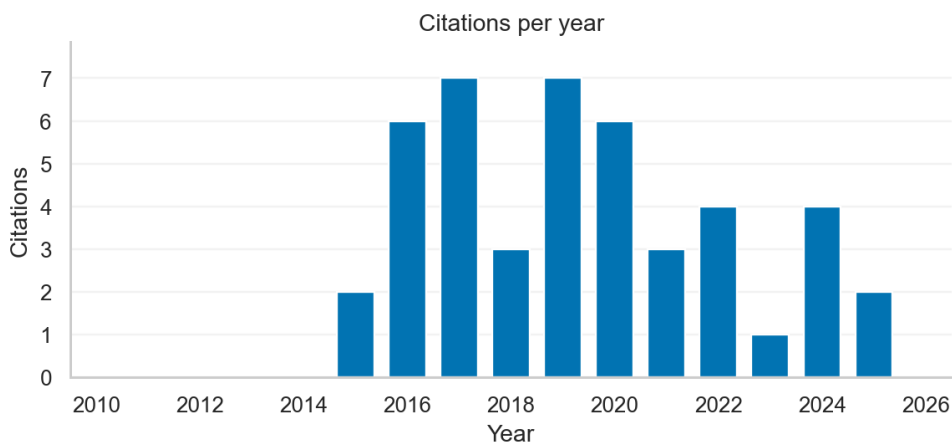
1. Pikhovych A, Walter HL, Mahabir E, Fink GR, Graf R, Schroeter M, Rueger MA. Transcranial direct current stimulation in the male mouse to promote recovery after stroke. *Laboratory Animals*. 2015.0 Oct 6.0;50(3.0):212-216. doi: 10.1177/0023677215610708. PMID: 0.
2. Huang YH, Li Y, Chen J, Zhou H, Tan S. Electrical Stimulation Elicits Neural Stem Cells Activation: New Perspectives in CNS Repair. *Frontiers in Human Neuroscience*. 2015.0 Oct 19.0;9:586. doi: 10.3389/fnhum.2015.00586. PMID: 0.
3. Chalah MA, Riachi N, Ahdab R, Créange A, Lefaucheur J, Ayache SS. Fatigue in Multiple Sclerosis: Neural Correlates and the Role of Non-Invasive Brain Stimulation. *Frontiers in Cellular Neuroscience*. 2015.0 Nov 30.0;9:460. doi: 10.3389/fncel.2015.00460. PMID: 0.
4. Schönfeldt L. Neurostimulation to treat brain injury?. *Data Archiving and Networked Services (DANS)*. 2016.0 Jan 1.0;. doi: 10.26481/dis.20160610ls.
5. Pikhovych A, Stolberg NP, Flitsch LJ, Walter HL, Graf R, Fink GR, Schroeter M, Rueger MA. Transcranial Direct Current Stimulation Modulates Neurogenesis and Microglia Activation in the Mouse Brain. *Stem Cells International*. 2016.0 Jan 1.0;2016(1.0):2715196. doi: 10.1155/2016/2715196. PMID: 0.
6. Braun R, Klein R, Walter HL, Ohren M, Freudenmacher L, Getachew K, Ladwig A, Luelling J, Neumaier B, Endepols H, Graf R, Hoehn M, Fink GR, Schroeter M, Rueger MA. Transcranial direct current stimulation accelerates recovery of function, induces neurogenesis and recruits oligodendrocyte precursors in a rat model of stroke. *Experimental Neurology*. 2016.0 Feb 27.0;279:127-136. doi: 10.1016/j.expneurol.2016.02.018. PMID: 0.
7. Shen C, Cheng W, Yu P, Wang L, Zhou L, Zeng L, Yang Q. Resveratrol pretreatment attenuates injury and promotes proliferation of neural stem cells following oxygen-glucose deprivation/reoxygenation by upregulating the expression of Nrf2, HO-1 and NQO1 in vitro. *Molecular Medicine Reports*. 2016.0 Aug 24.0;14(4.0):3646-3654. doi: 10.3892/mmr.2016.5670. PMID: 0.

8. Finnegan J, Ye H. Cell Therapy for Spinal Cord Injury Informed by Electromagnetic Waves. *Regenerative Medicine*. 2016.0 Sep 6.0;11(7.0):675-691. doi: 10.2217/rme-2016-0019. PMID: 0.
9. Cirillo G, Di Pino G, Capone F, Ranieri F, Florio L, Todisco V, Tedeschi G, Funke K, Di Lazzaro V. Neurobiological after-effects of non-invasive brain stimulation. *Brain stimulation*. 2016.0 Nov 17.0;10(1.0):1-18. doi: 10.1016/j.brs.2016.11.009. PMID: 0.
10. Lefaucheur J. A comprehensive database of published tDCS clinical trials (2005–2016). *Neurophysiologie Clinique*. 2016.0 Nov 17.0;46(6.0):319-398. doi: 10.1016/j.neucli.2016.10.002. PMID: 0.
11. Iwasa SN, Babona-Pilipos R, Morshead CM. Environmental Factors That Influence Stem Cell Migration: An “Electric Field”. *Stem Cells International*. 2017.0 Jan 1.0;2017:1-9. doi: 10.1155/2017/4276927. PMID: 0.
12. Schönfeld L, Jahanshahi A, Lemmens E, Bauwens M, Heschem S, Schipper S, Lagièr M, Hendrix S, Temel Y. Motor cortex stimulation does not lead to functional recovery after experimental cortical injury in rats. *Restorative Neurology and Neuroscience*. 2017.0 May 9.0;35(3.0):295-305. doi: 10.3233/rnn-160703. PMID: 0.
13. Antal A, Alekseichuk I, Bikson M, Brockmöller J, Brunoni AR, Chen R, Cohen LG, Douthwaite G, Ellrich J, Flöel A, Fregni F, George MS, Hamilton RH, Hauelsen J, Herrmann CS, Hummel FC, Lefaucheur J, Liebetanz D, Loo C, McCaig C, Miniussi C, Miranda PC, Moliadze V, Nitsche MA, Nowak R, Padberg F, Pascual-Leone Á, Poppendieck W, Priori A, Rossi S, Rossini PM, Rothwell JC, Rueger MA, Ruffini G, Schellhorn K, Siebner H, Ugawa Y, Wexler A, Ziemann U, Hallett M, Paulus W. Low intensity transcranial electric stimulation: Safety, ethical, legal regulatory and application guidelines. *Clinical Neurophysiology*. 2017.0 Jun 20.0;128(9.0):1774-1809. doi: 10.1016/j.clinph.2017.06.001. PMID: 0.
14. Winkler C, Reis J, Hoffmann N, Gellner A, Munkel C, Curado MR, Furlanetti L, García J, Döbrösy MD, Fritsch B. Anodal Transcranial Direct Current Stimulation Enhances Survival and Integration of Dopaminergic Cell Transplants in a Rat Parkinson Model. *eNeuro*. 2017.0 Sep 1.0;4(5.0):ENEURO.0063-17.2017. doi: 10.1523/eneuro.0063-17.2017. PMID: 0.
15. Tahts V, Kaski D. Parkinson's disease treatments: focus on transcranial direct current stimulation (tDCS). *Journal of Parkinsonism and Restless Legs Syndrome*. 2017.0 Oct 1.0;Volume 7:55-70. doi: 10.2147/jprls.s128146.
16. Rabenstein M, Rueger MA. Mobilization of Endogenous Neural Stem Cells to Promote Regeneration After Stroke. *Springer series in translational stroke research*. 2017.0 Nov 5.0;:101-112. doi: 10.1007/978-3-319-66679-2_5.
17. Broeder S, Heremans E, Pereira MP, Nackaerts E, Meesen R, Verheyden G, Nieuwboer A. Does transcranial direct current stimulation during writing alleviate upper limb freezing in people with Parkinson's disease? A pilot study. *Human Movement Science*. 2018.0 Feb 28.0;65:142-153. doi: 10.1016/j.humov.2018.02.012. PMID: 0.
18. Sánchez-León CA, Ammann C, Medina JF, Márquez-Ruiz J. Using Animal Models to Improve the Design and Application of Transcranial Electrical Stimulation in Humans. *Current Behavioral Neuroscience Reports*. 2018.0 Apr 25.0;5(2.0):125-135. doi: 10.1007/s40473-018-0149-6. PMID: 0.
19. ■ ■. Advances in Research of Repetitive Transcranial Magnetic Stimulation for Post-Stroke Depression. *Asian Case Reports in Vascular Medicine*. 2019.0 Jan 1.0;07(3.0):50-56. doi: 10.12677/acrv.2019.73009.
20. Dillen Y, Kemps H, Gervois P, Wolfs E, Bronckaers A. Adult Neurogenesis in the Subventricular Zone and Its Regulation After Ischemic Stroke: Implications for Therapeutic Approaches. *Translational Stroke Research*. 2019.0 Jul 15.0;11(1.0):60-79. doi: 10.1007/s12975-019-00717-8. PMID: 0.
21. Rabenstein M, Unverricht-Yeboah M, Keuters MH, Pikhovych A, Hucklenbroich J, Vay SU, Blaschke S, Ladwig A, Walter HL, Beiderbeck M, Fink GR, Schroeter M, Kriehuber R, Rueger MA. Transcranial Current Stimulation Alters the Expression of Immune-Mediating Genes. *Frontiers in Cellular Neuroscience*. 2019.0 Oct 25.0;13:461. doi: 10.3389/fncel.2019.00461. PMID: 0.
22. Morya E, Monte-Silva K, Bikson M, Esmaeilpour Z, Biazoli CE, Fonseca A, Bocci T, Farzan F, Chatterjee R, Hausdorff JM, Machado DGDS, Brunoni AR, Mezger E, Moscaleski LA, Pegado R, Sato JR, Caetano MS, Sá KN, Tanaka C, Li L, Baptista AF, Okano AH. Beyond the target area: an integrative view of tDCS-induced motor cortex modulation in patients and athletes. *Journal of NeuroEngineering and Rehabilitation*. 2019.0 Nov 15.0;16(1.0):141. doi: 10.1186/s12984-019-0581-1. PMID: 0.
23. Thibaut A, Shie VL, Ryan CM, Zafonte R, Ohrtman EA, Schneider JC, Fregni F. A review of burn symptoms and potential novel neural targets for non-invasive brain stimulation for treatment of burn sequelae. *Burns*. 2020.0 Jun 20.0;47(3.0):525-537. doi: 10.1016/j.burns.2020.06.005. PMID: 0.
24. Ahuja CS, Mothe AJ, Khazaei MR, Badhiwala JH, Gilbert E, van der Kooy D, Morshead CM, Tator CH, Fehlings MG. The leading edge: Emerging neuroprotective and neuroregenerative cell-based therapies for spinal cord injury. *Stem Cells Translational Medicine*. 2020.0 Jul 21.0;9(12.0):1509-1530. doi: 10.1002/sctm.19-0135. PMID: 0.
25. Latchoumane CV, Barany DA, Karumbaiah L, Singh T. Neurostimulation and Reach-to-Grasp Function Recovery Following Acquired Brain Injury: Insight From Pre-clinical Rodent Models and Human Applications. *Frontiers in Neurology*. 2020.0 Jul 21.0;11:835. doi: 10.3389/fneur.2020.00835. PMID: 0.
26. Yiu HHP, Chari DM. How Can Nanoparticles Help Neural Cell Transplantation Therapy?. *Nanomedicine*. 2020.0 Aug 13.0;15(22.0):2103-2106. doi: 10.2217/nnm-2020-0279. PMID: 0.
27. Xia Y, Khalid W, Yin Z, Huang G, Bikson M, Fu BM. Modulation of solute diffusivity in brain tissue as a novel mechanism of transcranial direct current stimulation (tDCS). *Scientific Reports*. 2020.0 Oct 28.0;10(1.0):18488. doi: 10.1038/s41598-020-75460-4. PMID: 0.
28. Yuan T, Dong Y, Zhang L, Qi J, Yao C, Wang Y, Chai R, Liu Y, So K. Neuromodulation-Based Stem Cell Therapy in Brain Repair: Recent Advances and Future Perspectives. *Neuroscience Bulletin*. 2021.0 Apr 19.0;37(5.0):735-745. doi: 10.1007/s12264-021-00667-y. PMID: 0.
29. Kubelt C, Molkewehrum H, Lucius R, Synowitz M, Held-Feindt J, Helmers A. Influence of Simulated Deep Brain Stimulation on the Expression of Inflammatory Mediators by Human Central Nervous System Cells In Vitro. *NeuroMolecular Medicine*. 2021.0 Jul 3.0;24(2.0):169-182. doi: 10.1007/s12017-021-08674-y. PMID: 0.

30. Sprugnoli G, Rossi S, Rotenberg A, Pascual ■ Leone Á, El ■ Fakhri G, Golby AJ, Santarnecchi E. Personalised, image-guided, noninvasive brain stimulation in gliomas: Rationale, challenges and opportunities. *EBioMedicine*. 2021.0 Aug 1.0;70:103514. doi: 10.1016/j.ebiom.2021.103514. PMID: 0.
31. Bierman ■ Duquette RD, Safarians G, Huang J, Rajput B, Chen JY, Wang ZZ, Seidlits SK. Engineering Tissues of the Central Nervous System: Interfacing Conductive Biomaterials with Neural Stem/Progenitor Cells. *Advanced Healthcare Materials*. 2021.0 Nov 22.0;11(7.0):e2101577. doi: 10.1002/adhm.202101577. PMID: 0.
32. Song H, Yang R, Lai R, Guo J, Li K, Ni B, Liu Y. Application of a simple device for “attracting” and “trapping” glioma cells in situ. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021.0 Dec 23.0;. doi: 10.1101/2021.12.21.473650.
33. Mojaverrostami S, Khadivi F, Zarini D, Mohammadi A. Combination effects of mesenchymal stem cells transplantation and anodal transcranial direct current stimulation on a cuprizone-induced mouse model of multiple sclerosis. *Journal of Molecular Histology*. 2022.0 Aug 10.0;53(5.0):817-831. doi: 10.1007/s10735-022-10092-8. PMID: 0.
34. Wandrey JD, Kastelik J, Fritzsche T, Denke C, Schäfer M, Tafelski S. Supplementing transcranial direct current stimulation to local infiltration series for refractory neuropathic cranioccephalic pain: A randomized controlled pilot trial. *Frontiers in Neurology*. 2023.0 Mar 1.0;14:1069434. doi: 10.3389/fneur.2023.1069434. PMID: 0.
35. Hosseini SM, Borys B, Karimi ■ Abdolrezaee S. Neural stem cell therapies for spinal cord injury repair: an update on recent preclinical and clinical advances. *Brain*. 2023.0 Nov 15.0;147(3.0):766-793. doi: 10.1093/brain/awad392. PMID: 0.
36. Zarifkar AH, Zarifkar AH, Zarifkar A, Zarifkar A, Safaei S. Different paradigms of transcranial electrical stimulation induce structural changes in the CA1 region of the hippocampus in a rat model of Alzheimer's disease. *Neuroscience Letters*. 2023.0 Nov 22.0;818:137570. doi: 10.1016/j.neulet.2023.137570. PMID: 0.
37. Untitled. *Research Publications (Maastricht University)*.

Publication

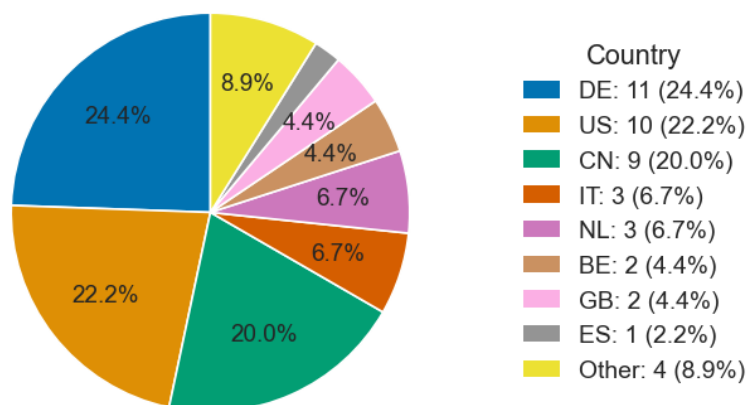
Tennstaedt A, Aswendt M, Adamczak J, Collienne U, Selt M, Schneider G, Henn N, Schaefer C, Lagouge M, Wiedermann D, Kloppenburg P, Hoehn M. Human neural stem cell intracerebral grafts show spontaneous early neuronal differentiation after several weeks. *Biomaterials*. 2015 Jan 12;44:143-154. doi: 10.1016/j.biomaterials.2014.12.038. PMID: 25617134.



Citation summary

Total citations: **45**
Average/year: **3.75**
Period: 2015-2026
SCImago cites/doc 2y (2025): **14.1**
SJR 2025: **2.85** (Q1)

Citations by country



Cited by

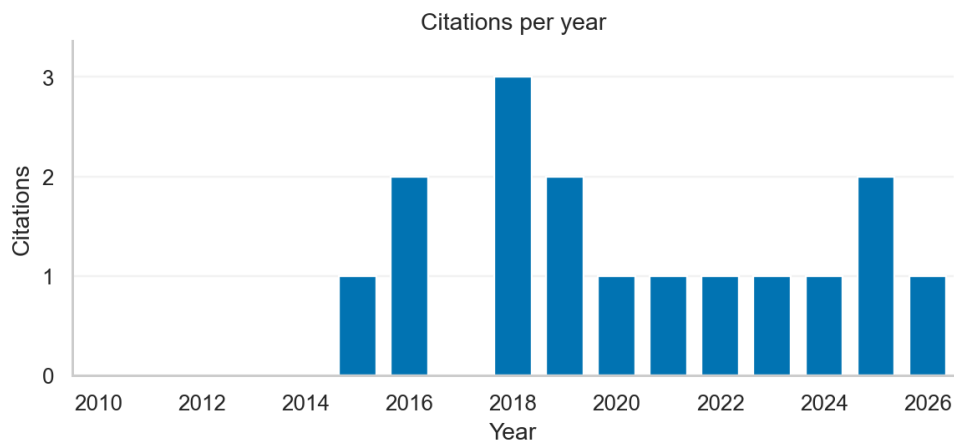
- Aswendt M, Henn N, Michalk S, Schneider G, Steiner M, Bissa U, Dose C, Hoehn M. Novel Bimodal Iron Oxide Particles for Efficient Tracking of Human Neural Stem Cells in Vivo. *Nanomedicine*. 2015 Aug 1;10.0(16.0):2499-2512. doi: 10.2217/nnm.15.94. PMID: 0.
- Tennstaedt A, Mastropietro A, Nelles M, Beyrau A, Hoehn M. In Vivo Fate Imaging of Intracerebral Stem Cell Grafts in Mouse Brain. *PLoS ONE*. 2015 Dec 7;10.0(12.0):e0144262. doi: 10.1371/journal.pone.0144262. PMID: 0.
- Lois T. One Step at a Time, Stem Cell Therapy for Traumatic Brain Injury Needs Two More Breakthroughs. 2016 Jan 1;.
- Medda X, Mertens L, Versweyveld S, Diels A, Barnham L, Bretteville A, Buist A, Verheyen A, Royaux I, Ebneith A, Cabrera A, Socorro A. Development of a Scalable, High-Throughput-Compatible Assay to Detect Tau Aggregates Using iPSC-Derived Cortical Neurons Maintained in a Three-Dimensional Culture Format. *SLAS DISCOVERY*. 2016 Mar 17;21.0(8.0):804-815. doi: 10.1177/1087057116638029. PMID: 0.
- Yang C, Tian R, Liu T, Liu G. MRI Reporter Genes for Noninvasive Molecular Imaging. *Molecules*. 2016 May 18;21.0(5.0):580. doi: 10.3390/molecules21050580. PMID: 0.
- Shokrollahi N, Shahbazzadeh D, Bagheri KP, Habibi A, Anbouhi M, Jahanian N, Najafabadi A, Behdani M. A Model to Study the Phenotypic Changes of Insect Cell Transfection by Copepod Super Green Fluorescent Protein (cop-GFP) in Baculovirus Expression System. *PubMed*. 2016 Jul 1;20.0(3.0):182-6. doi: 10.7508/ibj.2016.03.008. PMID: 0.
- Arulmoli J, Wright HJ, Phan DTT, Sheth U, Que R, Botten GA, Keating M, Botvinick EL, Pathak MM, Zarembinski TI, Yanni DS, Razorenova OV, Hughes CC, Flanagan LA. Combination scaffolds of salmon fibrin, hyaluronic acid, and laminin for human neural stem cell and vascular tissue engineering. *Acta Biomaterialia*. 2016 Jul 28;43.0:122-138. doi: 10.1016/j.actbio.2016.07.043. PMID: 0.

8. Ortuño■Lizarán I, Vilariño■Feltre G, Martínez■Ramos C, Pradas MM, Vallés■Lluch A. Influence of synthesis parameters on hyaluronic acid hydrogels intended as nerve conduits. *Biofabrication*. 2016 Oct 24;8.0(4.0):045011. doi: 10.1088/1758-5090/8/4/045011. PMID: 0.
9. Tao Z, Gao P, Yan Y, Li H, Song J, Yang J. Osthole Enhances the Therapeutic Efficiency of Stem Cell Transplantation in Neuroendoscopy Caused Traumatic Brain Injury. *Biological and Pharmaceutical Bulletin*. 2017 Jan 1;40.0(7.0):1043-1054. doi: 10.1248/bpb.b17-00072. PMID: 0.
10. Spurlock MS, Ahmed AI, Rivera KN, Yokobori S, Lee SW, Sam PN, Shear DA, Hefferan MP, Hazel TG, Johe K, Gajavelli S, Tortella FC, Bullock R. Amelioration of Penetrating Ballistic-Like Brain Injury Induced Cognitive Deficits after Neuronal Differentiation of Transplanted Human Neural Stem Cells. *Journal of Neurotrauma*. 2017 Mar 1;34.0(11.0):1981-1995. doi: 10.1089/neu.2016.4602. PMID: 0.
11. Vogel SN, Aswendt M, Nelles M, Henn N, Schneider G, Hoehn M. Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jun 9;12.0(3.0):784-793. doi: 10.1002/term.2497. PMID: 0.
12. Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
13. Scarfe L, Brillant N, Kumar JD, Ali N, Alrumayh A, Amali MO, Barbellion S, Jones V, Niemeijer M, Potdevin S, Roussignol G, Vaganov A, Barbaric I, Barrow M, Burton NC, Connell J, Dazzi F, Edsavage J, French N, Holder JC, Hutchinson C, Jones D, Kalber TL, Lovatt C, Lythgoe MF, Patel S, Patrick PS, Piner J, Reinhardt J, Ricci E, Sidaway JE, Stacey G, Lewis PJS, Sullivan GJ, Taylor A, Wilm B, Poptani H, Murray P, Goldring CE, Park BK. Preclinical imaging methods for assessing the safety and efficacy of regenerative medicine therapies. *npj Regenerative Medicine*. 2017 Oct 11;2.0(1.0):28. doi: 10.1038/s41536-017-0029-9. PMID: 0.
14. Schomann T, Mezzanotte L, de Groot JC, Rivolta MN, Hendriks SH, Frijns JHM, Huisman MA. Neuronal differentiation of hair-follicle-bulge-derived stem cells co-cultured with mouse cochlear modiolus explants. *PLoS ONE*. 2017 Oct 30;12.0(10.0):e0187183. doi: 10.1371/journal.pone.0187183. PMID: 0.
15. Mezzanotte L, Ilias JD, Que I, Chan A, Kaijzel EL, Hoebe RC, Löwik CW. Optimized Longitudinal Monitoring of Stem Cell Grafts in Mouse Brain Using a Novel Bioluminescent/Near Infrared Fluorescent Fusion Reporter. *Cell Transplantation*. 2017 Dec 1;26.0(12.0):1878-1889. doi: 10.1177/0963689717739718. PMID: 0.
16. Green C, Minassian A, Vogel SN, Diedenhofen M, Beyrau A, Wiedermann D, Hoehn M. Sensorimotor Functional and Structural Networks after Intracerebral Stem Cell Grafts in the Ischemic Mouse Brain. *Journal of Neuroscience*. 2018 Jan 10;38.0(7.0):1648-1661. doi: 10.1523/jneurosci.2715-17.2018. PMID: 0.
17. Lin G, He X, Liang F, Guo Y, Sunnassee G, Chen J, Cao X, Chen Y, Pan G, Pei Z, Tan S. Transplanted human neural precursor cells integrate into the host neural circuit and ameliorate neurological deficits in a mouse model of traumatic brain injury. *Neuroscience Letters*. 2018 Mar 1;674.0:11-17. doi: 10.1016/j.neulet.2018.02.064. PMID: 0.
18. Collmann FM, Pijnenburg R, Schneider G, Schäfer C, Folz■Donahue K, Kukut C, Hoehn M. Imaging Reporter Strategy to Monitor Gene Activation of Microglia Polarisation States under Stimulation. *Journal of Neuroimmune Pharmacology*. 2018 May 22;13.0(3.0):371-382. doi: 10.1007/s11481-018-9789-2. PMID: 0.
19. Crane A, Voth J, Shen FX, Low WC. Concise Review: Human-Animal Neurological Chimeras: Humanized Animals or Human Cells in an Animal?. *Stem Cells*. 2019 Jan 10;37.0(4.0):444-452. doi: 10.1002/stem.2971. PMID: 0.
20. Kassai A, Mahavadi A, Clavijo A, Caliz D, Lee SW, Ahmed AI, Yokobori S, Hu Z, Spurlock MS, Wasserman JM, Rivera KN, Nodal S, Powell HR, Di L, Torres R, Leung LY, Rubiano AM, Bullock R, Gajavelli S. Enduring Neuroprotective Effect of Subacute Neural Stem Cell Transplantation After Penetrating TBI. *Frontiers in Neurology*. 2019 Jan 17;9.0:1097. doi: 10.3389/fneur.2018.01097. PMID: 0.
21. Vogel SN, Schäfer C, Heß S, Folz■Donahue K, Nelles M, Minassian A, Schwarz MK, Kukut C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37.0:101429. doi: 10.1016/j.scr.2019.101429. PMID: 0.
22. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
23. Pongrac IM, Radmilovic■ MD, Ahmed LB, Mlinari■ H, Regul J, Škoki■ S, Babi■ M, Horák D, Hoehn M, Gajovi■ S. D-mannose-Coating of Maghemite Nanoparticles Improved Labeling of Neural Stem Cells and Allowed Their Visualization by ex vivo MRI after Transplantation in the Mouse Brain. *Cell Transplantation*. 2019 May 1;28.0(5.0):553-567. doi: 10.1177/0963689719834304. PMID: 0.
24. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
25. Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.
26. Schomann T, Ilias JD, Que I, Li Y, Suidgeest E, Cruz LJ, Frijns JHM, Chan A, Löwik C, Huisman MA, Mezzanotte L. Multimodal imaging of hair follicle bulge-derived stem cells in a mouse model of traumatic brain injury. *Cell and Tissue Research*. 2020 Feb 8;381.0(1.0):55-69. doi: 10.1007/s00441-020-03173-1. PMID: 0.
27. Boese AC, Eckert A, Hamblin MH, Lee J. Human neural stem cells improve early stage stroke outcome in delayed tissue plasminogen activator-treated aged stroke brains. *Experimental Neurology*. 2020 Mar 5;329.0:113275. doi: 10.1016/j.expneurol.2020.113275. PMID: 0.
28. Minassian A, Green C, Diedenhofen M, Vogel SN, Heß S, Stoeber M, Radmilovic■ MD, Wiedermann D, Kloppenburg P, Hoehn M. Human Neural Stem Cell Induced Functional Network Stabilization After Cortical Stroke: A Longitudinal Resting-State fMRI Study in Mice. *Frontiers in Cellular Neuroscience*. 2020 Apr 7;14.0:86. doi: 10.3389/fncel.2020.00086. PMID: 0.
29. Mousavinejad M, Skidmore S, Barone FG, Tyers P, Pisupati V, Poptani H, Plagge A, Barker RA, Murray P, Taylor A, Hill CJ. Assessing Human Embryonic Stem Cell-Derived Dopaminergic Neuron Progenitor Transplants Using Non-invasive Imaging Techniques. *Molecular Imaging and Biology*. 2020 May 6;22.0(5.0):1244-1254. doi: 10.1007/s11307-020-01499-4. PMID: 0.

30. Pottmeier P, Doszyn O, Peuckert C, Jazin E. Increased Expression of Y-Encoded Demethylases During Differentiation of Human Male Neural Stem Cells. *Stem Cells and Development*. 2020 Oct 12;29.0(23.0):1497-1509. doi: 10.1089/scd.2020.0138. PMID: 0.
31. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.
32. Huang D, Cao Y, Yang X, Liu Y, Zhang Y, Li C, Chen G, Wang Q. A Nanoformulation-Mediated Multifunctional Stem Cell Therapy with Improved Beta-Amyloid Clearance and Neural Regeneration for Alzheimer's Disease. *Advanced Materials*. 2021 Feb 24;33.0(13.0):e2006357. doi: 10.1002/adma.202006357. PMID: 0.
33. Hamblin MH, Murad R, Yin J, Vallim G, Lee J. Modulation of gene expression on a transcriptome-wide level following human neural stem cell transplantation in aged mouse stroke brains. *Experimental Neurology*. 2021 Nov 6;347.0:113913. doi: 10.1016/j.expneurol.2021.113913. PMID: 0.
34. Liu T, Li Z, Li X, Zhao R, Wei X, Wang Z, Xin X. In vivo visualization of murine melanoma cells B16-derived exosomes through magnetic resonance imaging. *Biochimica et Biophysica Acta (BBA) - General Subjects*. 2021 Nov 22;1866.0(2.0):130062. doi: 10.1016/j.bbagen.2021.130062. PMID: 0.
35. O'Donnell JC, Swanson RL, Wofford KL, Grovola MR, Purvis EM, Petrov D, Cullen DK. Emerging Approaches for Regenerative Rehabilitation Following Traumatic Brain Injury. *Physiology in health and disease*. 2022 Jan 1;:409-459. doi: 10.1007/978-3-030-95884-8_13.
36. Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.
37. Cai J, He X, Zhou Y, Mu T, Liao Y, Jiang L, Qin Y. Magnetic resonance imaging focused on the ferritin heavy chain 1 reporter gene detects neuronal differentiation in stem cells. *Neural Regeneration Research*. 2022 Oct 14;18.0(7.0):1563. doi: 10.4103/1673-5374.358608. PMID: 0.
38. Fan H, Duan H, Hao P, Gao Y, Zhao W, Hao F, Li X, Yang Z. Cellular regeneration treatments for traumatic brain injury. *Medicine in Novel Technology and Devices*. 2022 Oct 19;16.0:100182. doi: 10.1016/j.medntd.2022.100182.
39. Chen J, Li D, Li H, Zhu K, Shi L, Fu X. Cell membrane-targeting NIR fluorescent probes with large Stokes shifts for ultralong-term transplanted neural stem cell tracking. *Frontiers in Bioengineering and Biotechnology*. 2023 Feb 9;11.0:1139668. doi: 10.3389/fbioe.2023.1139668. PMID: 0.
40. Merighi F, De Vincentiis S, Onorati M, Raffa V. Long-term mouse spinal cord organotypic slice culture as a platform for validating cell transplantation in spinal cord injury. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Jan 29;. doi: 10.1101/2024.01.29.577615.
41. Merighi F, De Vincentiis S, Onorati M, Raffa V. Long-term Mouse Spinal Cord Organotypic Slice Culture as a Platform for Validating Cell Transplantation in Spinal Cord Injury. *Journal of Visualized Experiments*. 2024 Apr 12;(206.0). doi: 10.3791/66704. PMID: 0.
42. Merighi F, De Vincentiis S, Onorati M, Raffa V. JoVE Video Dataset. 2024 Apr 13;. doi: 10.3791/66704-v.
43. Gyimesi M, Oikari LE, Yu C, Sutherland HG, Nyholt DR, Griffiths LR, van Wijnen AJ, Okolicsanyi RK, Haupt LM. CpG methylation changes in human mesenchymal and neural stem cells in response to in vitro niche modifications. *Biochimie*. 2024 Apr 17;223.0:147-157. doi: 10.1016/j.biochi.2024.04.007. PMID: 0.
44. Han C, Chen S, Shi Z, Guan X, Zou W, Liu J. An innovative treatment for hypoxic-ischemic encephalopathy: Silk fibroin nanomaterials improve neural stem cell axon formation and facilitate cognitive improvement. *Neural Regeneration Research*. 2025 Jun 19;21.0(7.0):3017-3025. doi: 10.4103/nrr.nrr-d-24-01178. PMID: 0.
45. McMillan N, McMillan A, Kiliaan PC, Yahya T, Thakkar R, Weiner H, Smirnakis SM, Yavagal DR, Izzy S. Stem cell-mediated recovery in stroke: partnering with the immune system. *Nature reviews. Neuroscience*. 2025 Nov 13;27.0(1.0):23-43. doi: 10.1038/s41583-025-00985-4. PMID: 0.

Publication

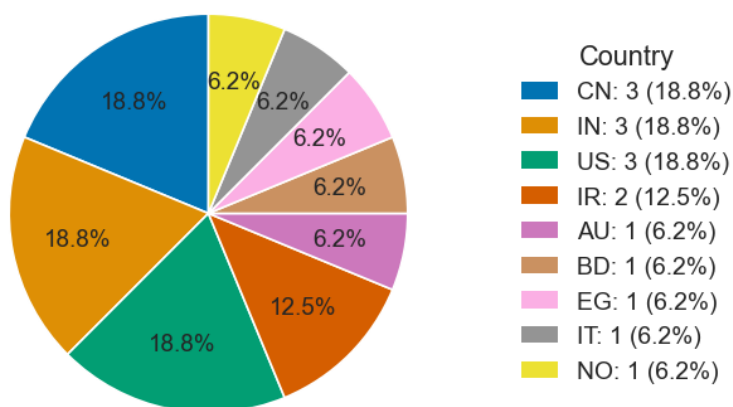
Aswendt M, Henn N, Michalk S, Schneider G, Steiner M, Bissa U, Dose C, Hoehn M. Novel Bimodal Iron Oxide Particles for Efficient Tracking of Human Neural Stem Cells in Vivo. *Nanomedicine*. 2015 Aug 1;10(16):2499-2512. doi: 10.2217/nnm.15.94. PMID: 26296195.



Citation summary

Total citations: **16**
Average/year: **1.33**
Period: 2015-2026
SCImago cites/doc 2y
(2025): **3.96**
SJR 2025: **0.681** (Q1)

Citations by country



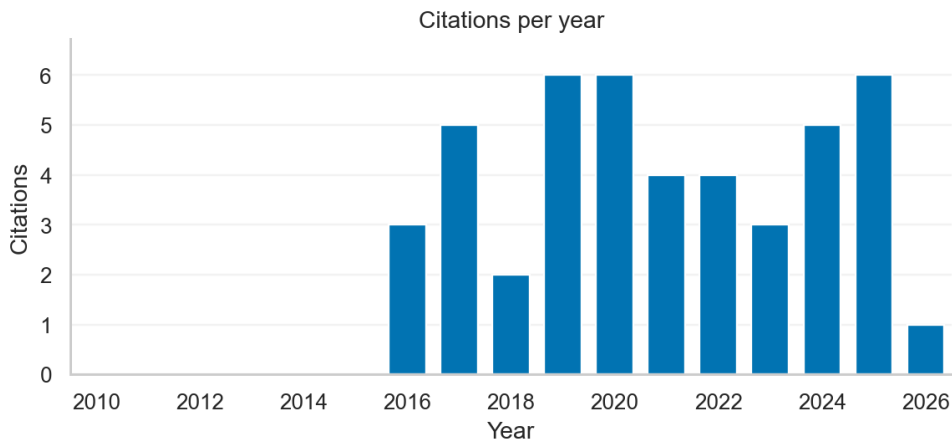
Cited by

- Pandey PK, Sharma A, Gupta U. Blood brain barrier: An overview on strategies in drug delivery, realistic in vitro modeling and in vivo tracking. *Tissue Barriers*. 2015 Dec 15;4.0(1.0):e1129476. doi: 10.1080/21688370.2015.1129476. PMID: 0.
- Madhavan L, Umashankar A, Corenblum MJ, Ray S, Yoshimaru ES, Trouard TP, Valdez M. Effects of the iron oxide nanoparticle Molday ION Rhodamine B on the viability and regenerative function of neural stem cells: relevance to clinical translation. *International Journal of Nanomedicine*. 2016 Apr 1;11.0:1731. doi: 10.2147/ijn.s102006. PMID: 0.
- Chen D, Monteiro R, Riviere NA, Zhang LW. Intracellular imaging of quantum dots, gold, and iron oxide nanoparticles with associated endocytic pathways. *Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology*. 2016 Jul 15;9.0(2.0). doi: 10.1002/wnan.1419. PMID: 0.
- Pham BTT, Colvin EK, Pham NT, Kim BJ, Fuller E, Moon E, Barbey R, Yuen S, Rickman B, Bryce NS, Bickley S, Tanudji M, Jones SK, Howell VM, Hawke BS. Biodistribution and Clearance of Stable Superparamagnetic Maghemite Iron Oxide Nanoparticles in Mice Following Intraperitoneal Administration. *International Journal of Molecular Sciences*. 2018 Jan 10;19.0(1.0):205. doi: 10.3390/ijms19010205. PMID: 0.
- Deng S, Li Y, Zhao G. Imaging Gliomas with Nanoparticle-Labeled Stem Cells. *Chinese Medical Journal*. 2018 Mar 8;131.0(6.0):721-730. doi: 10.4103/0366-6999.226900. PMID: 0.
- Zhang B, Yan W, Zhu Y, Yang W, Le W, Chen B, Zhu R, Cheng L. Nanomaterials in Neural Stem Cell-Mediated Regenerative Medicine: Imaging and Treatment of Neurological Diseases. *Advanced Materials*. 2018 Mar 15;30.0(17.0):e1705694. doi: 10.1002/adma.201705694. PMID: 0.
- Mallett CL, Shuboni M, Mulligan DD, Shapiro EM. Tracking Neural Progenitor Cell Migration in the Rodent Brain Using Magnetic Resonance Imaging. *Frontiers in Neuroscience*. 2019 Jan 11;12.0:995. doi: 10.3389/fnins.2018.00995. PMID: 0.

8. Glover JC, Aswendt M, Boulland J, Lojk J, Stamenkovi S, Anjus PR, Fiori F, Hoehn M, Mitre D, Pavlin M, Cavalli S, Frati C, Quaini F, (BIONECA) OBOTECA1. In vivo Cell Tracking Using Non-invasive Imaging of Iron Oxide-Based Particles with Particular Relevance for Stem Cell-Based Treatments of Neurological and Cardiac Disease. *Molecular Imaging and Biology*. 2019 Dec 4;22.0(6.0):1469-1488. doi: 10.1007/s11307-019-01440-4. PMID: 0.
9. Asil SM, Ahlawat J, Barroso GG, Narayan M. Application of Nanotechnology in Stem-Cell-Based Therapy of Neurodegenerative Diseases. *Applied Sciences*. 2020 Jul 15;10.0(14.0):4852. doi: 10.3390/app10144852.
10. D'Urso O, Drago F. Pharmacological significance of extra-oral taste receptors. *European Journal of Pharmacology*. 2021 Sep 5;910.0:174480. doi: 10.1016/j.ejphar.2021.174480. PMID: 0.
11. Soleymani-Goloujeh M, Hosseini S, Eslaminejad MB. Advanced Nanotechnology Approaches as Emerging Tools in Cellular-Based Technologies. *Advances in experimental medicine and biology*. 2022 Jan 1;1409.0:127-144. doi: 10.1007/5584_2022_725. PMID: 0.
12. Alizadeh R, Asghari A, Taghizadeh Hesary F, Moradi S, Farhadi M, Mehdizadeh M, Simorgh S, Nourazarian A, Shademan B, Susanabadi A, Kamrava SK. Intranasal delivery of stem cells labeled by nanoparticles in neurodegenerative disorders: Challenges and opportunities. *Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology*. 2023 Jul 6;15.0(6.0):e1915. doi: 10.1002/wnan.1915. PMID: 0.
13. Sharma M, Gupta T, Gupta N, Rawat R, Badoniya N, Pandey E, Sharma S. Targeted Therapy for Neurological Disorders Using Nanomaterial-Based Drug Delivery Vehicle. *Smart nanomaterials technology*. 2024 Jan 1;143-170. doi: 10.1007/978-981-97-0308-1_7.
14. Begh MZA, Zehravi M, Bhuiyan MMR, Molla M, Raman K, Emran TB, Ullah H, Ahmad I, Osman H, Khandaker MU. Recent advances in stem cell approaches to neurodegeneration: A comprehensive review with mechanistic insight. *Pathology - Research and Practice*. 2025 May 14;271.0:156013. doi: 10.1016/j.prp.2025.156013. PMID: 0.
15. Shahrukh M, Jiba U, Khan MA, Amin S, Ahmad FJ, Hasan N. Nanotechnology-driven approaches for the management of Huntington's disease. *Journal of Drug Delivery Science and Technology*. 2025 Jul 23;113.0:107318. doi: 10.1016/j.jddst.2025.107318.
16. Senousy MA, Eid AH, Zaki MB, Abdelmawla MA, Ghaiaid HR, El-Shiekh RA, Ahmed S, Khalifa HO. An integrative neuropharmacological review of Huntington's disease challenges and the role of novel formulations in addressing pharmacological pharmaceutical limitations. *Frontiers in Pharmacology*. 2026 May 7;17.0:1794983. doi: 10.3389/fphar.2026.1794983. PMID: 0.

Publication

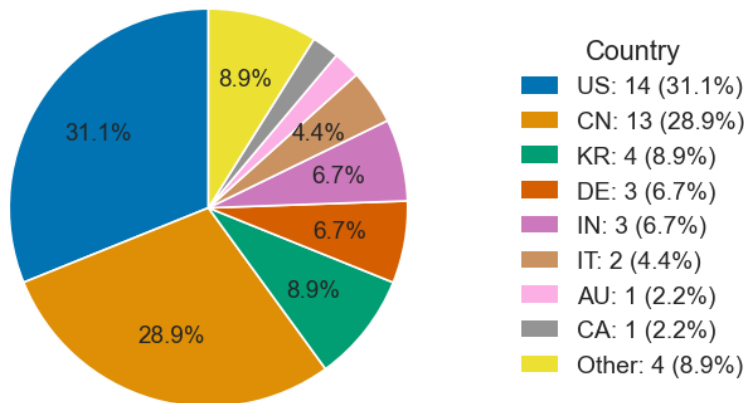
Cheng M, Aswendt M, Steinberg GK. Optogenetic Approaches to Target Specific Neural Circuits in Post-stroke Recovery. *Neurotherapeutics*. 2015 Dec 23;13(2):325-340. doi: 10.1007/s13311-015-0411-5. PMID: 26701667.



Citation summary

Total citations: **45**
Average/year: **3.75**
Period: 2015-2026
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(2025): **7.11**
SJR 2025: **2.38** (Q1)

Citations by country



Cited by

1. Adewole DO, Serruya MD, Harris JP, Burrell JC, Petrov D, Chen HI, Wolf JA, Cullen DK. The Evolution of Neuroprosthetic Interfaces. *Critical Reviews in Biomedical Engineering*. 2016 Jan 1;44.0(1-02):123-152. doi: 10.1615/critrevbiomedeng.2016017198. PMID: 0.
2. Carmel JB, Willis DE. Neural Circuits Catch Fire. *Neurotherapeutics*. 2016 Mar 18;13.0(2):261-263. doi: 10.1007/s13311-016-0428-4. PMID: 0.
3. Pendharkar AV, Lévy S, Ho AL, Sussman ES, Cheng M, Steinberg GK. Optogenetic modulation in stroke recovery. *Neurosurgical FOCUS*. 2016 May 1;40.0(5):E6. doi: 10.3171/2016.2.focus163. PMID: 0.
4. Mahmoudi P, Veladi H, Pakdel F. Optogenetics, Tools and Applications in Neurobiology. *Journal of Medical Signals & Sensors*. 2017 Jan 1;7.0(2):71. doi: 10.4103/2228-7477.205506. PMID: 0.
5. Boddington L, Reynolds JNJ. Targeting interhemispheric inhibition with neuromodulation to enhance stroke rehabilitation. *Brain stimulation*. 2017 Jan 11;10.0(2):214-222. doi: 10.1016/j.brs.2017.01.006. PMID: 0.
6. Shin SS, Pelled G. Novel Neuromodulation Techniques to Assess Interhemispheric Communication in Neural Injury and Neurodegenerative Diseases. *Frontiers in Neural Circuits*. 2017 Mar 8;11.0:15. doi: 10.3389/fncir.2017.00015. PMID: 0.
7. Shah A, Ishizaka S, Cheng M, Wang EH, Bautista AR, Lévy S, Smerin D, Sun G, Steinberg GK. Optogenetic neuronal stimulation of the lateral cerebellar nucleus promotes persistent functional recovery after stroke. *Scientific Reports*. 2017 Jun 1;7.0(1):46612. doi: 10.1038/srep46612. PMID: 0.
8. Tennant KA, Taylor SL, White ER, Brown CE. Optogenetic rewiring of thalamocortical circuits to restore function in the stroke injured brain. *Nature Communications*. 2017 Jun 23;8.0(1):15879. doi: 10.1038/ncomms15879. PMID: 0.
9. Aswendt M, Green C, Hoehn M. Plastic Network Changes During Brain Disease. *Handbook of behavioral neuroscience*. 2018 Jan 1;:415-424. doi: 10.1016/b978-0-12-812028-6.00022-7.

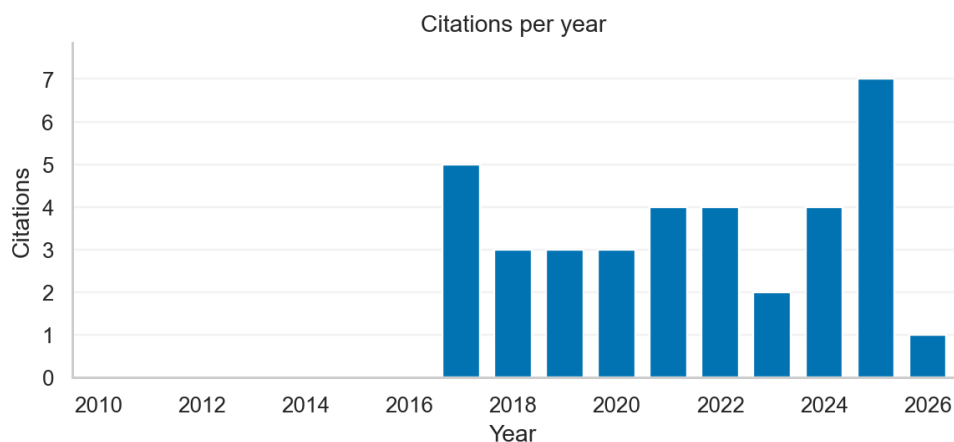
10. Bo B, Li Y, Li W, Wang Y, Tong S. Optogenetic Excitation of Ipsilesional Sensorimotor Neurons is Protective in Acute Ischemic Stroke: A Laser Speckle Imaging Study. *IEEE Transactions on Biomedical Engineering*. 2018 Oct 4;66.0(5):1372-1379. doi: 10.1109/tbme.2018.2872965. PMID: 0.
11. Somuncu O, Berns HM, Sanchez JG. New Pioneers of Optogenetics in Neuroscience. *Advances in experimental medicine and biology*. 2019 Jan 1;1288.0:47-60. doi: 10.1007/5584_2019_473. PMID: 0.
12. Kunze T, Hauelsen J, Knösche TR. Emergence of cognitive priming and structure building from the hierarchical interaction of canonical microcircuit models. *Biological Cybernetics*. 2019 Feb 14;113.0(3):273-291. doi: 10.1007/s00422-019-00792-y. PMID: 0.
13. Lu C, Wu X, Ma H, Wang Q, Wang Y, Luo Y, Li C, Xu H. Optogenetic Stimulation Enhanced Neuronal Plasticities in Motor Recovery after Ischemic Stroke. *Neural Plasticity*. 2019 Mar 14;2019.0:1-9. doi: 10.1155/2019/5271573. PMID: 0.
14. Lechtenberg KJ, Meyer ST, Doyle JB, Peterson TC, Buckwalter MS. Augmented β 2-adrenergic signaling dampens the neuroinflammatory response following ischemic stroke and increases stroke size. *Journal of Neuroinflammation*. 2019 May 28;16.0(1):112. doi: 10.1186/s12974-019-1506-4. PMID: 0.
15. Zhang Q, Hu D, He F, Li C, Qi GJ, Cai H, Li TX, Ming J, Zhang P, Chen X, Tian B. Locus coeruleus-CA1 projections are involved in chronic depressive stress-induced hippocampal vulnerability to transient global ischaemia. *Nature Communications*. 2019 Jul 3;10.0(1):2942. doi: 10.1038/s41467-019-10795-9. PMID: 0.
16. Montagni E, Resta F, Mascaro ALA, Pavone FS. Optogenetics in Brain Research: From a Strategy to Investigate Physiological Function to a Therapeutic Tool. *Photonics*. 2019 Aug 20;6.0(3):92. doi: 10.3390/photonics6030092.
17. Conti E, Mascaro ALA, Scaglione A, de Vito G, Calugi F, Pasquini M, Pizzorusso T, Micera S, Pavone FS. Restoration of motor-evoked cortical activity is a distinguishing feature of the most effective rehabilitation therapy after stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Mar 6; doi: 10.1101/2020.03.05.974972.
18. Bo B, Li Y, Li W, Wang Y, Tong S. Optogenetic translocation of protons out of penumbral neurons is protective in a rodent model of focal cerebral ischemia. *Brain stimulation*. 2020 Mar 19;13.0(3):881-890. doi: 10.1016/j.brs.2020.03.008. PMID: 0.
19. Peterson TC, Lechtenberg KJ, Piening B, Lucas TA, Wei E, Cha▀▀b H, Dowdell AK, Snyder M, Buckwalter MS. Obesity Drives Delayed Infarct Expansion, Inflammation, and Distinct Gene Networks in a Mouse Stroke Model. *Translational Stroke Research*. 2020 Jun 25;12.0(2):331-346. doi: 10.1007/s12975-020-00826-9. PMID: 0.
20. Bo B, Li Y, Li W, Wang Y, Tong S. Neurovascular Coupling Impairment in Acute Ischemic Stroke by Optogenetics and Optical Brain Imaging. *PubMed*. 2020 Jul 1;2020.0:3727-3730. doi: 10.1109/embc44109.2020.9176641. PMID: 0.
21. Su F, Xu W. Enhancing Brain Plasticity to Promote Stroke Recovery. *Frontiers in Neurology*. 2020 Oct 30;11.0:554089. doi: 10.3389/fneur.2020.554089. PMID: 0.
22. Zeiger W, Marosi M, Saggi S, Noble N, Samad I, Portera▀▀Cailliau C. Plasticity after cortical stroke involves potentiating responses of pre-existing circuits but not functional remapping to new circuits. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Nov 10; doi: 10.1101/2020.11.09.375840.
23. Zeiger W, Marosi M, Saggi S, Noble N, Samad I, Portera▀▀Cailliau C. Barrel cortex plasticity after photothrombotic stroke involves potentiating responses of pre-existing circuits but not functional remapping to new circuits. *Nature Communications*. 2021 Jun 25;12.0(1):3972. doi: 10.1038/s41467-021-24211-8. PMID: 0.
24. Vahdat S, Pendharkar AV, Chiang T, Harvey S, Uchino H, Cao Z, Kim A, Choy M, Chen H, Lee HJ, Cheng M, Lee JH, Steinberg GK. Brain-wide neural dynamics of poststroke recovery induced by optogenetic stimulation. *Science Advances*. 2021 Aug 11;7.0(33). doi: 10.1126/sciadv.abd9465. PMID: 0.
25. Conti E, Scaglione A, de Vito G, Calugi F, Pasquini M, Pizzorusso T, Micera S, Mascaro ALA, Pavone FS. Combining Optogenetic Stimulation and Motor Training Improves Functional Recovery and Perilesional Cortical Activity. *Neurorehabilitation and neural repair*. 2021 Nov 11;36.0(2):107-118. doi: 10.1177/15459683211056656. PMID: 0.
26. Cassidy JM, Mark JI, Cramer SC. Functional connectivity drives stroke recovery: shifting the paradigm from correlation to causation. *Brain*. 2021 Dec 17;145.0(4):1211-1228. doi: 10.1093/brain/awab469. PMID: 0.
27. Duan Y, Hua X, Zheng M, Wu J, Xing X, Li Y, Xu J. Corticocortical paired associative stimulation for treating motor dysfunction after stroke: study protocol for a randomised sham-controlled double-blind clinical trial. *BMJ Open*. 2022 Jan 1;12.0(1):e053991. doi: 10.1136/bmjopen-2021-053991. PMID: 0.
28. Choy CS, Cloherty SL, Pirogova E, Fang Q. Virtual Reality Assisted Motor Imagery for Early Post-Stroke Recovery: A Review. *IEEE Reviews in Biomedical Engineering*. 2022 Apr 5;16.0:487-498. doi: 10.1109/rbme.2022.3165062. PMID: 0.
29. Geng Y, Li Z, Zhu J, Du C, Yuan F, Cai X, Ali A, Yang J, Tang C, Cong Z, Ma C. Advances in Optogenetics Applications for Central Nervous System Injuries. *Journal of Neurotrauma*. 2022 Oct 28;40.0(13-14):1297-1316. doi: 10.1089/neu.2022.0290. PMID: 0.
30. Yang C, Zhang T, Huang K, Xiong M, Liu H, Wang P, Zhang Y. Increased both cortical activation and functional connectivity after transcranial direct current stimulation in patients with post-stroke: A functional near-infrared spectroscopy study. *Frontiers in Psychiatry*. 2022 Dec 7;13.0:1046849. doi: 10.3389/fpsyt.2022.1046849. PMID: 0.
31. Hyung S, Park J, Jung K. Application of optogenetic glial cells to neuron–glial communication. *Frontiers in Cellular Neuroscience*. 2023 Oct 5;17.0:1249043. doi: 10.3389/fncel.2023.1249043. PMID: 0.
32. Prescott K, Münch AE, Brahms E, Weigel MK, Inoue K, Buckwalter MS, Liddelow SA, Peterson TC. Blocking Formation of Neurotoxic Reactive Astrocytes is Beneficial Following Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Oct 16; doi: 10.1101/2023.10.11.561918. PMID: 0.
33. Kim H, Kim RG, Cho J, Park J, Kim YR, Lee M. Neuron-type-specific optogenetic stimulation for differential stroke recovery in chronic capsular infarct. *Research Square*. 2023 Nov 30; doi: 10.21203/rs.3.rs-3509434/v1.
34. Prescott K, Münch AE, Brahms E, Weigel MK, Inoue K, Buckwalter MS, Liddelow SA, Peterson TC. Blocking of microglia-astrocyte proinflammatory signaling is beneficial following stroke. *Frontiers in Molecular Neuroscience*. 2024 Jan 4;16.0:1305949. doi:

10.3389/fnmol.2023.1305949. PMID: 0.

- 35.** Cho M, Han J, Suh J, Kim JJ, Ryu JR, Min IS, Sang M, Lim S, Kim TS, Kim K, Kang K, Hwang K, Kim K, Hong E, Nam M, Kim J, Song YM, Lee GJ, Cho I, Yu KJ. Fully bioresorbable hybrid opto-electronic neural implant system for simultaneous electrophysiological recording and optogenetic stimulation. *Nature Communications*. 2024 Mar 6;15.0(1):2000. doi: 10.1038/s41467-024-45803-0. PMID: 0.
- 36.** Li S, Xing X, Hua X, Zhang Y, Wu J, Shan C, Wang H, Zheng M, Xu J. Electroacupuncture modulates abnormal brain connectivity after ischemia reperfusion injury in rats: A graph theory-based approach. *Brain and Behavior*. 2024 May 1;14.0(5):e3504. doi: 10.1002/brb3.3504. PMID: 0.
- 37.** Kim RG, Cho J, Park J, Kim YR, Lee MC, Kim H. Neuron type-specific optogenetic stimulation for differential stroke recovery in chronic capsular infarct. *Experimental & Molecular Medicine*. 2024 Jun 2;56.0(6):1439-1449. doi: 10.1038/s12276-024-01253-8. PMID: 0.
- 38.** Kale MB, Wankhede NL, Bishoyi AK, Ballal S, Kalia R, Arya R, Kumar S, Khalid M, Gulati M, Umare MD, Taksande BG, Upaganlawar AB, Umekar M, Kopalli SR, Fareed M, Koppula S. Emerging biophysical techniques for probing synaptic transmission in neurodegenerative disorders. *Neuroscience*. 2024 Nov 26;565.0:63-79. doi: 10.1016/j.neuroscience.2024.11.055. PMID: 0.
- 39.** Sun H, Wang H, Wu C, Liu G, He M, Zhang H, Hou F, Liao H. Enhancing Neuron Activity Promotes Functional Recovery by Inhibiting Microglia-Mediated Synapse Elimination After Stroke. *Stroke*. 2025 Jan 8;56.0(2):505-516. doi: 10.1161/strokeaha.124.049265. PMID: 0.
- 40.** Mannel A, Khunt D, Agrawal V, Schelling K, Calderón E, la Fougère C, Vega SC. Optimizing stroke lesion segmentation: A dual-approach using Gaussian mixture models and nnU-Net. *Computers in Biology and Medicine*. 2025 May 2;192.0(Pt A):110221. doi: 10.1016/j.compbiomed.2025.110221. PMID: 0.
- 41.** Singh A, Dhalayat K, Dhobale SV, Ghosh B, Datta A, Borah A, Bhattacharya P. Unravelling the brain resilience following stroke: From injury to rewiring of the brain through pathway activation, drug targets, and therapeutic interventions. *Ageing Research Reviews*. 2025 May 21;109.0:102780. doi: 10.1016/j.arr.2025.102780. PMID: 0.
- 42.** Li K, Liang H, Qiu J, Zhang X, Cai B, Wang D, Zhang D, Lin B, Han H, Yang G, Zhu Z. Reveal the mechanism of brain function with fluorescence microscopy at single-cell resolution: from neural decoding to encoding. *Journal of NeuroEngineering and Rehabilitation*. 2025 May 27;22.0(1):118. doi: 10.1186/s12984-025-01655-3. PMID: 0.
- 43.** Trisal A, Singh AK. CLARITY in Alzheimer's Research: Merging Tissue Transparency with Next-Gen Neurotechnologies. *Journal of Neuroscience Methods*. 2025 Aug 13;423.0:110554. doi: 10.1016/j.jneumeth.2025.110554. PMID: 0.
- 44.** Chu C, Chen Z, Liang C, Wu P, Guo W, Chen B, Huang C, Li S, Chang C, Liang Y, Kan S, Lo Y, Huang W, Chen Y, Chen S. A Closed-Loop-Capable Neural Interface Platform for Deep Brain Modulation via Integrated Non-Viral Gene Delivery, NIR Optogenetics, and Electrophysiological Recording. *Advanced Science*. 2025 Nov 19;13.0(7):e15060. doi: 10.1002/adv.202515060. PMID: 0.
- 45.** Wang A, Li J, Liu H, Yue D. Physiological Regulatory Mechanisms of Neurovascular Coupling and the Role of Its Dysfunction in Neurological Diseases. *Journal of Integrative Neuroscience*. 2026 Feb 26;25.0(2):42796. doi: 10.31083/jin42796. PMID: 0.

Publication

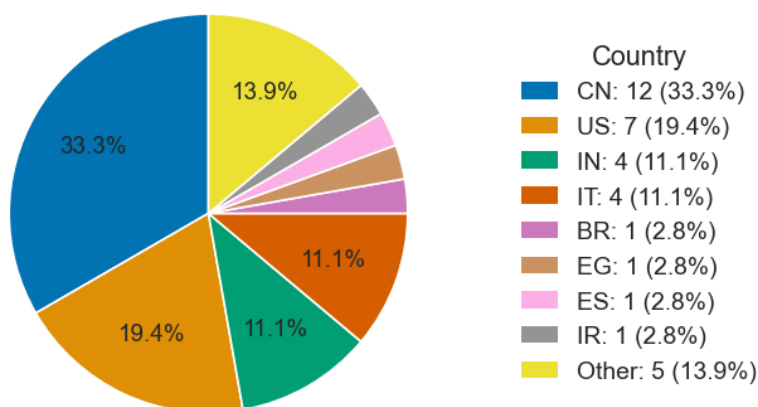
Cruz LJ, Que I, Aswendt M, Chan A, Hoehn M, Löwik CW. Targeted nanoparticles for the non-invasive detection of traumatic brain injury by optical imaging and fluorine magnetic resonance imaging. *Nano Research*. 2016 Apr 14;9(5):1276-1289. doi: 10.1007/s12274-016-1023-z.



Citation summary

Total citations: **36**
Average/year: **3.27**
Period: 2016-2026
SCImago cites/doc 2y (2025): **9.09**
SJR 2025: **1.98** (Q1)

Citations by country



Cited by

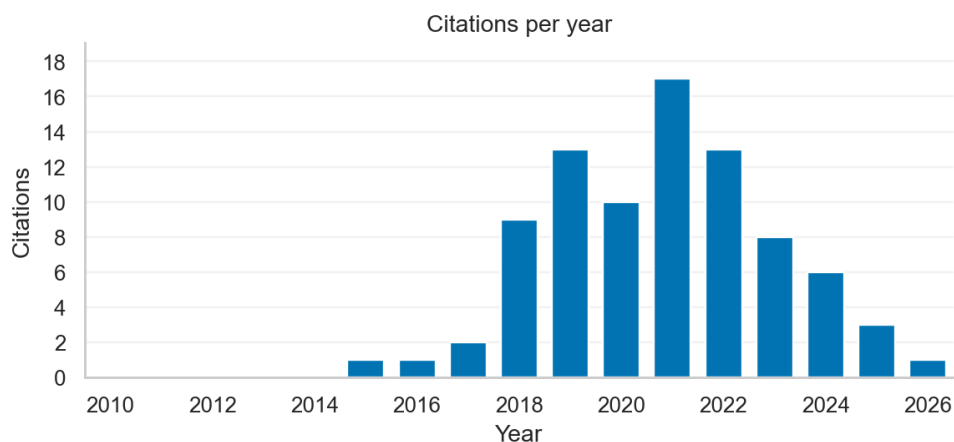
- Hong G, Antaris AL, Dai H. Near-infrared fluorophores for biomedical imaging. *Nature Biomedical Engineering*. 2017 Jan 10;1.0(1.0). doi: 10.1038/s41551-016-0010.
- Ping Z, Liu T, Xu H, Meng Y, Li W, Xu X, Zhang L. Construction of highly stable selenium nanoparticles embedded in hollow nanofibers of polysaccharide and their antitumor activities. *Nano Research*. 2017 May 27;10.0(11.0):3775-3789. doi: 10.1007/s12274-017-1590-7.
- Kumar A, Tan A, Wong J, Spagnoli JC, Lam JM, Blevins B, Natasha G, Thorne L, Ashkan K, Xie J, Liu H. Nanotechnology for Neuroscience: Promising Approaches for Diagnostics, Therapeutics and Brain Activity Mapping. *Advanced Functional Materials*. 2017 Aug 14;27.0(39.0). doi: 10.1002/adfm.201700489. PMID: 0.
- Da Silva CG, Peters GJ, Ossendorp F, Cruz LJ. The potential of multi-compound nanoparticles to bypass drug resistance in cancer. *Cancer Chemotherapy and Pharmacology*. 2017 Sep 8;80.0(5.0):881-894. doi: 10.1007/s00280-017-3427-1. PMID: 0.
- Bharadwaj VN, Nguyen DT, Kodibagkar VD, Stabenfeldt SE. Nanoparticle-Based Therapeutics for Brain Injury. *Advanced Healthcare Materials*. 2017 Oct 16;7.0(1.0). doi: 10.1002/adhm.201700668. PMID: 0.
- Yang Q, Hu Z, Zhu S, Ma R, Ma H, Ma Z, Wan H, Zhu T, Jiang Z, Liu W, Jiao L, Sun H, Liang Y, Dai H. Donor Engineering for NIR-II Molecular Fluorophores with Enhanced Fluorescent Performance. *Journal of the American Chemical Society*. 2018 Jan 16;140.0(5.0):1715-1724. doi: 10.1021/jacs.7b10334. PMID: 0.
- Bharadwaj VN, Rowe RK, Harrison JL, Wu C, Anderson T, Lifshitz J, Adelson PD, Kodibagkar VD, Stabenfeldt SE. Blood-brain barrier disruption dictates nanoparticle accumulation following experimental brain injury. *Nanomedicine Nanotechnology Biology and Medicine*. 2018 Jun 19;14.0(7.0):2155-2166. doi: 10.1016/j.nano.2018.06.004. PMID: 0.
- Wang H, Mu X, Jiang Y, Liang Y, Zhang X, Ming D. Brain imaging with near-infrared fluorophores. *Coordination Chemistry Reviews*. 2018 Nov 20;380.0:550-571. doi: 10.1016/j.ccr.2018.11.003.

9. Zhang D, Gao M, Jin Q, Ni Y, Zhang J. Updated developments on molecular imaging and therapeutic strategies directed against necrosis. *Acta Pharmaceutica Sinica B*. 2019 Feb 13;9.0(3.0):455-468. doi: 10.1016/j.apsb.2019.02.002. PMID: 0.
10. Gaglio SC, De Rosa C, Piccinelli F, Romeo A, Perduca M. Complexes of rare earth ions embedded in poly(lactic-co-glycolic acid) (PLGA) nanoparticles: Characterization and spectroscopic study. *Optical Materials*. 2019 May 31;94.0:249-256. doi: 10.1016/j.optmat.2019.05.034.
11. Bony BA, Kievit FM. A Role for Nanoparticles in Treating Traumatic Brain Injury. *Pharmaceutics*. 2019 Sep 13;11.0(9.0):473. doi: 10.3390/pharmaceutics11090473. PMID: 0.
12. Zhang D, Jin Q, Jiang C, Gao M, Ni Y, Zhang J. Imaging Cell Death: Focus on Early Evaluation of Tumor Response to Therapy. *Bioconjugate Chemistry*. 2020 Mar 9;31.0(4.0):1025-1051. doi: 10.1021/acs.bioconjchem.0c00119. PMID: 0.
13. Farzin A, Etesami SA, Quint J, Memi A, Tamayol A. Magnetic Nanoparticles in Cancer Therapy and Diagnosis. *Advanced Healthcare Materials*. 2020 Mar 20;9.0(9.0):e1901058. doi: 10.1002/adhm.201901058. PMID: 0.
14. Sim TM, Dinesh T, Dheen ST, Bay B, Srinivasan DK. Nanoparticle-Based Technology Approaches to the Management of Neurological Disorders. *International Journal of Molecular Sciences*. 2020 Aug 23;21.0(17.0):6070. doi: 10.3390/ijms21176070. PMID: 0.
15. Khanam N, Nath D. Traumatic brain injury: Future application of nanomedicine. *GSC Advanced Research and Reviews*. 2021 Feb 25;6.0(2.0):020-027. doi: 10.30574/gscarr.2021.6.2.0019.
16. Ovejero JG, Wang E, Veintemillas-Verdaguer S, Morales MDP, Sorolla A. Nanoparticles for Neural Applications. *Engineering Biomaterials for Neural Applications*. 2021 Aug 3;:149-184. doi: 10.1007/978-3-030-81400-7_7.
17. Zhang C, Yan K, Fu C, Peng H, Hawker CJ, Whittaker AK. Biological Utility of Fluorinated Compounds: from Materials Design to Molecular Imaging, Therapeutics and Environmental Remediation. *Chemical Reviews*. 2021 Oct 5;122.0(1.0):167-208. doi: 10.1021/acs.chemrev.1c00632. PMID: 0.
18. Joseph JM, Gigliobianco MR, Firouzabadi BM, Censi R, Di Martino P. Nanotechnology as a Versatile Tool for 19F-MRI Agent's Formulation: A Glimpse into the Use of Perfluorinated and Fluorinated Compounds in Nanoparticles. *Preprints.org*. 2021 Dec 8; . doi: 10.20944/preprints202112.0124.v1.
19. Hatipoglu MK, Süt PA. Synthesis and Biological Use of Nanomaterials. *Topics in applied physics*. 2022 Jan 1;:793-858. doi: 10.1007/978-3-030-93460-6_29.
20. Miller HA, Kievit FM. Theranostic Nanomaterials for Brain Injury. *Engineering Biomaterials for Neural Applications*. 2022 Jan 1;:307-350. doi: 10.1007/978-3-031-11409-0_8.
21. Joseph JM, Gigliobianco MR, Firouzabadi BM, Censi R, Di Martino P. Nanotechnology as a Versatile Tool for 19F-MRI Agent's Formulation: A Glimpse into the Use of Perfluorinated and Fluorinated Compounds in Nanoparticles. *Pharmaceutics*. 2022 Feb 9;14.0(2.0):382. doi: 10.3390/pharmaceutics14020382. PMID: 0.
22. Roffo F, Ponsiglione AM, Netti PA, Torino E. coupled Hydrodynamic Flow Focusing (cHFF) to Engineer Lipid-Polymer Nanoparticles (LiPoNs) for Multimodal Imaging and Theranostic Applications. *Biomedicines*. 2022 Feb 14;10.0(2.0):438. doi: 10.3390/biomedicines10020438. PMID: 0.
23. Bakhshandeh B, Jahanafrooz Z, Haghighi DM, Rahmani-Kukia N, Abbasi A, Pourramezanali A. Recent Trends in the Application of Materials for Cancer Therapy and Diagnosis. *Interaction of Nanomaterials With Living Cells*. 2023 Jan 1;:305-364. doi: 10.1007/978-981-99-2119-5_12.
24. Silva DF, Melo ALP, Uchôa AFC, Pereira GMA, Alves ÁEF, Vasconcellos MC, Júnior FHX, Passos MF. Biomedical Approach of Nanotechnology and Biological Risks: A Mini-Review. *International Journal of Molecular Sciences*. 2023 Nov 24;24.0(23.0):16719. doi: 10.3390/ijms242316719. PMID: 0.
25. Kumar R. Treatment of Traumatic Brain Injury: Nanotherapeutics. *Journal of Clinical Haematology*. 2024 Jan 1;5.0(1.0):1-3. doi: 10.33696/haematology.5.056.
26. Abdel-Mottaleb MM, Pellequer Y, Abd-Allah H, El-Gogary RI, Nasr M. A futuristic insight into functionalized magnetic nanosystems for diagnostic tools and devices: From lab to commercial applications. *Elsevier eBooks*. 2024 Jan 1;:745-766. doi: 10.1016/b978-0-443-19012-4.00016-3.
27. Iqbal J, Courville E, Kazim SF, Kogan M, Schmidt MH, Bowers CA. Role of nanotechnology in neurosurgery: A review of recent advances and their applications. *World Neurosurgery X*. 2024 Feb 24;22.0:100298. doi: 10.1016/j.wnsx.2024.100298. PMID: 0.
28. Wang X, Ding Q, Groleau RR, Wu L, Mao Y, Che F, Kotova O, Scanlan EM, Lewis SE, Li P, Tang B, James TD, Gunnlaugsson T. Fluorescent Probes for Disease Diagnosis. *Chemical Reviews*. 2024 May 17;124.0(11.0):7106-7164. doi: 10.1021/acs.chemrev.3c00776. PMID: 0.
29. Thangaleela S, Wang C, Revathi S, Sivamaruthi BS, Chaiyasut C. Nanoparticle-Based Imaging Techniques in Neurological Disorders. *Nanotechnology in the life sciences*. 2025 Jan 1;:43-107. doi: 10.1007/978-3-031-80185-3_3.
30. Singh MP, Waseem A, Kumar V, Prakash R, Siddiqui AJ, Prakash A, Raza SS. A Novel Drug Delivery System Utilizing Nanoparticles to Treat Neurological Disorders. *Smart nanomaterials technology*. 2025 Jan 1;:413-430. doi: 10.1007/978-981-96-2112-5_16.
31. Zhang P, Ran Y, Han L, Yao L, Tian W, Sun X, Jiao M, Jing L, Luo X. Nanomaterial technologies for precision diagnosis and treatment of brain hemorrhage. *Biomaterials*. 2025 Mar 19;321.0:123269. doi: 10.1016/j.biomaterials.2025.123269. PMID: 0.
32. Chen Z, Yu Y, Deng L, Wen L, Han Y, Zhao X, Huo L, Ru J, Gong Q, Wang Y, Zhang H, Song G, Liang C. Trianthracene Derivative Based Nanoparticles for in vivo Afterglow Imaging of Traumatic Brain Injury. *Chinese Journal of Chemistry*. 2025 Apr 11;43.0(14.0):1619-1626. doi: 10.1002/cjoc.70001.
33. Chi W, He Y, Chen S, Guo L, Yuan Y, Li R, Liu R, Zhou D, Du J, Xu T, Yu Y. Advances in research on biomaterials and stem cell/exosome-based strategies in the treatment of traumatic brain injury. *Acta Pharmaceutica Sinica B*. 2025 May 21;15.0(7.0):3511-3544. doi: 10.1016/j.apsb.2025.05.010. PMID: 0.

- 34.** Ye J, Wang D, Wang Z, Cao M, Shen Y, Yu B, Cong H. Recent advances in NIR small molecule activable probes for imaging and therapy. *Coordination Chemistry Reviews*. 2025 Jul 1;543.0:216904. doi: 10.1016/j.ccr.2025.216904.
- 35.** Mukherjee S, Madamsetty VS, Reddy R, Pradhan L, Yenurkar D, Manna S, Banerjee D. Imaging, Diagnostics, and Theranostics Applications of Nanocrystals. *Synthesis lectures on biomedical engineering*. 2025 Oct 22;;113-137. doi: 10.1007/978-3-032-04133-3_6.
- 36.** Deng L, Xiang J, Zeng X, Li Z, Chen Z, Zhang C, He H, Ye T, Gong Q, Song G, Liang C. A Ratiometric Afterglow Luminescence Probe for in Vivo Imaging of Neuroinflammation in Traumatic Brain Injury. *Analytical Chemistry*. 2026 Mar 4;98.0(10.0):7877-7887. doi: 10.1021/acs.analchem.6c00591. PMID: 0.

Publication

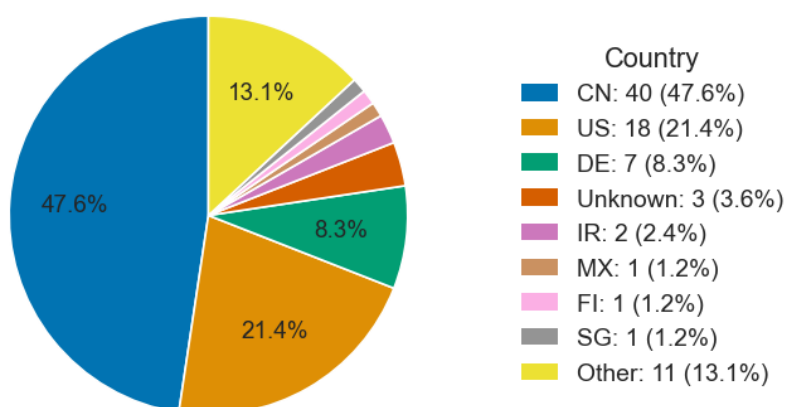
Taj SH, Kho W, Aswendt M, Collmann FM, Green C, Adamczak J, Tennstaedt A, Hoehn M. Dynamic Modulation of Microglia/Macrophage Polarization by miR-124 after Focal Cerebral Ischemia. *Journal of Neuroimmune Pharmacology*. 2016 Aug 18;11(4):733-748. doi: 10.1007/s11481-016-9700-y. PMID: 27539642.



Citation summary

Total citations: **84**
Average/year: **7.64**
Period: 2016-2026
SCImago cites/doc 2y (2025): **6.07**
SJR 2025: **1.46** (Q1)

Citations by country



Cited by

1. Anrather J, Iadecola C, Hallenbeck JM. Inflammation and Immune Response. *Stroke*. 2015 Aug 27;:129-140.e5. doi: 10.1016/b978-0-323-29544-4.00010-4.
2. Yu A, Zhang T, Duan H, Pan Y, Zhang X, Yang G, Wang J, Deng Y, Yang Z. MiR-124 contributes to M2 polarization of microglia and confers brain inflammatory protection via the C/EBP- α pathway in intracerebral hemorrhage. *Immunology Letters*. 2016 Dec 23;182.0:1-11. doi: 10.1016/j.imlet.2016.12.003. PMID: 0.
3. Yi S, Shi W, Wang H, Ma C, Zhang X, Wang S, Cong B, Li Y. Endoplasmic Reticulum Stress PERK-ATF4-CHOP Pathway Is Associated with Hypothalamic Neuronal Injury in Different Durations of Stress in Rats. *Frontiers in Neuroscience*. 2017 Mar 24;11.0:152. doi: 10.3389/fnins.2017.00152. PMID: 0.
4. Amici SA, Dong J, Guerau de Arellano M. Molecular Mechanisms Modulating the Phenotype of Macrophages and Microglia. *Frontiers in Immunology*. 2017 Nov 10;8.0:1520. doi: 10.3389/fimmu.2017.01520. PMID: 0.
5. Dukhinova M, Kopeikina E, Ponomarev ED. Usage of Multiparameter Flow Cytometry to Study Microglia and Macrophage Heterogeneity in the Central Nervous System During Neuroinflammation and Neurodegeneration. *Methods in molecular biology*. 2018 Jan 1;1745.0:167-177. doi: 10.1007/978-1-4939-7680-5_10. PMID: 0.
6. Saraiva C, Talhada D, Rai A, Ferreira R, Ferreira L, Bernardino L, Ruscher K. MicroRNA-124-loaded nanoparticles increase survival and neuronal differentiation of neural stem cells in vitro but do not contribute to stroke outcome in vivo. *PLoS ONE*. 2018 Mar 1;13.0(3.0):e0193609. doi: 10.1371/journal.pone.0193609. PMID: 0.
7. Wen M, Ye J, Han Y, Huang L, Yang H, Jiang W, Chen S, Zhong W, Zeng H, Li DY. Hypertonic saline regulates microglial M2 polarization via miR-200b/KLF4 in cerebral edema treatment. *Biochemical and Biophysical Research Communications*. 2018 Mar 27;499.0(2.0):345-353. doi: 10.1016/j.bbrc.2018.03.161. PMID: 0.

8. Collmann FM, Pijnenburg R, Schneider G, Schäfer C, Folz■Donahue K, Kukat C, Hoehn M. Imaging Reporter Strategy to Monitor Gene Activation of Microglia Polarisation States under Stimulation. *Journal of Neuroimmune Pharmacology*. 2018 May 22;13.0(3.0):371-382. doi: 10.1007/s11481-018-9789-2. PMID: 0.
9. Taj SH, Le Blon D, Hoornaert C, Daans J, Quarta A, Praet J, Van der Linden A, Ponsaerts P, Hoehn M. Targeted intracerebral delivery of the anti-inflammatory cytokine IL13 promotes alternative activation of both microglia and macrophages after stroke. *Journal of Neuroinflammation*. 2018 Jun 4;15.0(1.0):174. doi: 10.1186/s12974-018-1212-7. PMID: 0.
10. Wu C, Sinha B, Li Y, Benowitz LI, Chen Q, Zhang Z, Patel NJ, Aziz■Sultan MA, Chiocca A, Wang X. Monogenic, Polygenic, and MicroRNA Markers for Ischemic Stroke. *Molecular Neurobiology*. 2018 Jun 8;56.0(2.0):1330-1343. doi: 10.1007/s12035-018-1055-3. PMID: 0.
11. Yu W, Lv Z, Zhang L, Gao Z, Chen X, Yang X, Zhong M. RETRACTED: Astragaloside IV reduces the hypoxia-induced injury in PC-12 cells by inhibiting expression of miR-124. *Biomedicine & Pharmacotherapy*. 2018 Jul 12;106.0:419-425. doi: 10.1016/j.biopha.2018.06.127. PMID: 0.
12. Cheray M, Joseph B. Epigenetics Control Microglia Plasticity. *Frontiers in Cellular Neuroscience*. 2018 Aug 3;12.0:243. doi: 10.3389/fncel.2018.00243. PMID: 0.
13. Tsuyama J, Nakamura A, Ooboshi H, Yoshimura A, Shichita T. Pivotal role of innate myeloid cells in cerebral post-ischemic sterile inflammation. *Seminars in Immunopathology*. 2018 Sep 11;40.0(6.0):523-538. doi: 10.1007/s00281-018-0707-8. PMID: 0.
14. Zhong W, Huang Q, Zeng L, Hu Z, Tang X. Caveolin-1 and MLRs: A potential target for neuronal growth and neuroplasticity after ischemic stroke. *International Journal of Medical Sciences*. 2019 Jan 1;16.0(11.0):1492-1503. doi: 10.7150/ijms.35158. PMID: 0.
15. Gandy KAO, Zhang J, Nagarkatti P, Nagarkatti M. Resveratrol (3, 5, 4'-Trihydroxy-trans-Stilbene) Attenuates a Mouse Model of Multiple Sclerosis by Altering the miR-124/Sphingosine Kinase 1 Axis in Encephalitogenic T Cells in the Brain. *Journal of Neuroimmune Pharmacology*. 2019 Apr 2;14.0(3.0):462-477. doi: 10.1007/s11481-019-09842-5. PMID: 0.
16. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
17. Kim T, Valera E, Desplats P. Alterations in Striatal microRNA-mRNA Networks Contribute to Neuroinflammation in Multiple System Atrophy. *Molecular Neurobiology*. 2019 Apr 9;56.0(10.0):7003-7021. doi: 10.1007/s12035-019-1577-3. PMID: 0.
18. Fang M, Zhong L, Jin X, Cui R, Yang W, Gao S, Lv J, Li B, Liu T. Effect of Inflammation on the Process of Stroke Rehabilitation and Poststroke Depression. *Frontiers in Psychiatry*. 2019 Apr 11;10.0:184. doi: 10.3389/fpsy.2019.00184. PMID: 0.
19. Slota JA, Booth SA. MicroRNAs in Neuroinflammation: Implications in Disease Pathogenesis, Biomarker Discovery and Therapeutic Applications. *Non-Coding RNA*. 2019 Apr 24;5.0(2.0):35. doi: 10.3390/ncrna5020035. PMID: 0.
20. Guo Y, Hong W, Wang X, Zhang P, Körner H, Tu J, Wei W. MicroRNAs in Microglia: How do MicroRNAs Affect Activation, Inflammation, Polarization of Microglia and Mediate the Interaction Between Microglia and Glioma?. *Frontiers in Molecular Neuroscience*. 2019 May 10;12.0:125. doi: 10.3389/fnmol.2019.00125. PMID: 0.
21. Collmann FM, Pijnenburg R, Hamzei-Taj S, Minassian A, Folz■Donahue K, Kukat C, Aswendt M, Hoehn M. Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. *Frontiers in Immunology*. 2019 Jun 4;10.0:1236. doi: 10.3389/fimmu.2019.01236. PMID: 0.
22. Chen Y, Sun J, Chen W, Wu G, Wang Y, Zhu K, Wang J. miR-124/VAMP3 is a novel therapeutic target for mitigation of surgical trauma-induced microglial activation. *Signal Transduction and Targeted Therapy*. 2019 Aug 15;4.0(1.0):27. doi: 10.1038/s41392-019-0061-x. PMID: 0.
23. MacKenzie SM, Van Kralingen J, Martin H, Davies E. MicroRNAs in Aldosterone Production and Action. *IntechOpen eBooks*. 2019 Sep 25;. doi: 10.5772/intechopen.87226.
24. Wang S, Shi W, Zhang G, Zhang X, Ma C, Zhao K, Cong B, Li Y. Endoplasmic Reticulum Stress-Mediated Basolateral Amygdala GABAergic Neuron Injury Is Associated With Stress-Induced Mental Disorders in Rats. *Frontiers in Cellular Neuroscience*. 2019 Nov 14;13.0:511. doi: 10.3389/fncel.2019.00511. PMID: 0.
25. Ye Y, Jin T, Zhang XD, Zeng Z, Ye B, Wang J, Zhong Y, Xiong X, Gu L. Meisoindigo Protects Against Focal Cerebral Ischemia-Reperfusion Injury by Inhibiting NLRP3 Inflammasome Activation and Regulating Microglia/Macrophage Polarization via TLR4/NF-κB Signaling Pathway. *Frontiers in Cellular Neuroscience*. 2019 Dec 16;13.0:553. doi: 10.3389/fncel.2019.00553. PMID: 0.
26. Liu X, Feng Z, Du L, Huang Y, Ge J, Deng Y, Mei Z. The Potential Role of MicroRNA-124 in Cerebral Ischemia Injury. *International Journal of Molecular Sciences*. 2019 Dec 23;21.0(1.0):120. doi: 10.3390/ijms21010120. PMID: 0.
27. Berdasco C, Vega MD, Rosato■Siri MV, Goldstein J. Environmental Cues Modulate Microglial Cell Behavior Upon Shiga Toxin 2 From Enterohemorrhagic *Escherichia coli* Exposure. *Frontiers in Cellular and Infection Microbiology*. 2020 Jan 8;9.0:442. doi: 10.3389/fcimb.2019.00442. PMID: 0.
28. Jiang C, Wu W, Deng Y, Ge J. Modulators of microglia activation and polarization in ischemic stroke (Review). *Molecular Medicine Reports*. 2020 Feb 26;21.0(5.0):2006-2018. doi: 10.3892/mmr.2020.11003. PMID: 0.
29. Yu Q, Chopp M, Chen J. Emerging role of microRNAs in ischemic stroke with comorbidities. *Experimental Neurology*. 2020 Jun 16;331.0:113382. doi: 10.1016/j.expneurol.2020.113382. PMID: 0.
30. Ehtesham N, Mosallaei M, Karimzadeh MR, Moradikazerouni H, Sharifi M. microRNAs: key modulators of disease-modifying therapies in multiple sclerosis. *International Reviews of Immunology*. 2020 Jun 18;39.0(6.0):264-279. doi: 10.1080/08830185.2020.1779712. PMID: 0.
31. Ko■osowska N, Gotkiewicz M, Dhungana H, Giudice L, Giugno R, Box D, Huuskonen MT, Korhonen P, Scoyni F, Kanninen KM, Ylä■Herttua S, Turunen TA, Turunen MP, Ko■st■naho J, Malm T. Intracerebral overexpression of miR-669c is protective in mouse ischemic stroke model by targeting MyD88 and inducing alternative microglial/macrophage activation. *Journal of Neuroinflammation*. 2020 Jun 19;17.0(1.0):194. doi: 10.1186/s12974-020-01870-w. PMID: 0.

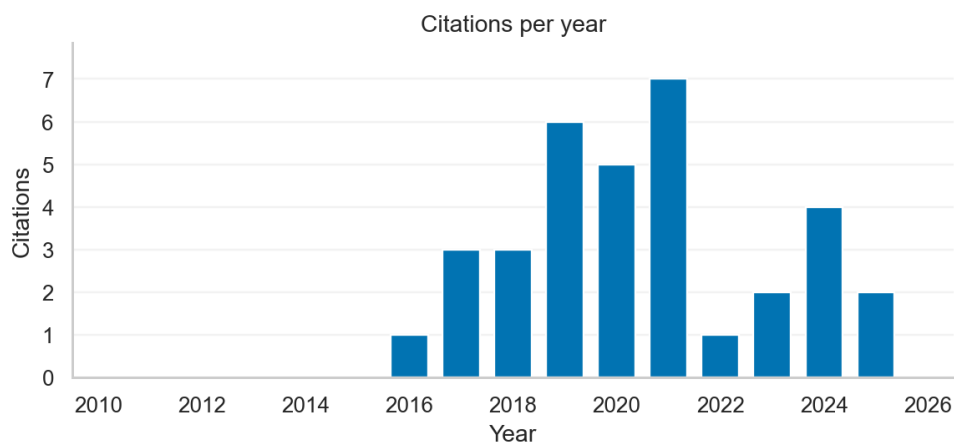
32. Zhao Y, Yang J, Li C, Zhou G, Wan H, Wan H, Ding Z, Wan H, Wan H, Zhou H. Role of the neurovascular unit in the process of cerebral ischemic injury. *Pharmacological Research*. 2020 Jul 30;160.0:105103. doi: 10.1016/j.phrs.2020.105103. PMID: 0.
33. Han D, Liu H, Gao Y. The role of peripheral monocytes and macrophages in ischemic stroke. *Neurological Sciences*. 2020 Oct 3;41.0(12.0):3589-3607. doi: 10.1007/s10072-020-04777-9. PMID: 0.
34. Lyu J, Jiang X, Leak RK, Shi Y, Hu X, Chen J. Microglial Responses to Brain Injury and Disease: Functional Diversity and New Opportunities. *Translational Stroke Research*. 2020 Oct 31;12.0(3.0):474-495. doi: 10.1007/s12975-020-00857-2. PMID: 0.
35. Pei H, Peng Q, Guo S, Gu Y, Sun T, D X, Jiang Y, Xie J, Zhang L, Zhu Z. MiR-367 alleviates inflammatory injury of microglia by promoting M2 polarization via targeting CEBPA. *In Vitro Cellular & Developmental Biology - Animal*. 2020 Nov 4;56.0(10.0):878-887. doi: 10.1007/s11626-020-00519-5. PMID: 0.
36. Blaschke S, Demir S, König A, Abraham J, Vay SU, Rabenstein M, Olschewski DN, Hoffmann C, Hoffmann M, Hersch N, Merkel R, Hoffmann B, Schroeter M, Fink GR, Rueger MA. Substrate Elasticity Exerts Functional Effects on Primary Microglia. *Frontiers in Cellular Neuroscience*. 2020 Nov 5;14.0:590500. doi: 10.3389/fncel.2020.590500. PMID: 0.
37. Lian L, Zhang Y, Liu L, Yang L, Cai Y, Zhang J, Xu S. Neuroinflammation in Ischemic Stroke: Focus on MicroRNA-mediated Polarization of Microglia. *Frontiers in Molecular Neuroscience*. 2021 Jan 7;13.0:612439. doi: 10.3389/fnmol.2020.612439. PMID: 0.
38. Zhang H, Xu S, Chi F, Li G, Zhou Y, Li C, Wang A. Remifentanyl Protects PC-12 Cells From OGD Damage by Up-Regulating miR-124. *Research Square*. 2021 Jan 14; . doi: 10.21203/rs.3.rs-143379/v1.
39. Spellicy S, Scheulin KM, Baker EW, Jurgielewicz BJ, Kinder HA, Waters ES, Grimes JA, Stice SL, West FD. Semi-Automated Cell and Tissue Analyses Reveal Regionally Specific Morphological Alterations of Immune and Neural Cells in a Porcine Middle Cerebral Artery Occlusion Model of Stroke. *Frontiers in Cellular Neuroscience*. 2021 Jan 22;14.0:600441. doi: 10.3389/fncel.2020.600441. PMID: 0.
40. Lyu J, Di Xie, Bhatia TN, Leak RK, Hu X, Jiang X. Microglial/Macrophage polarization and function in brain injury and repair after stroke. *CNS Neuroscience & Therapeutics*. 2021 Mar 1;27.0(5.0):515-527. doi: 10.1111/cns.13620. PMID: 0.
41. Chavda V, Madhwani K. Coding and non-coding nucleotides': The future of stroke gene therapeutics. *Genomics*. 2021 Mar 5;113.0(3.0):1291-1307. doi: 10.1016/j.ygeno.2021.03.003. PMID: 0.
42. Shen P, Chen Y, Luo S, Fan Z, Wang J, Chang J, Deng J. Applications of biomaterials for immunosuppression in tissue repair and regeneration. *Acta Biomaterialia*. 2021 Mar 18;126.0:31-44. doi: 10.1016/j.actbio.2021.03.019. PMID: 0.
43. Yang D, Yang L, Cai J, Hu X, Li H, Zhang X, Zhang X, Chen X, Dong H, Nie H, Li Y. A sweet spot for macrophages: Focusing on polarization. *Pharmacological Research*. 2021 Mar 24;167.0:105576. doi: 10.1016/j.phrs.2021.105576. PMID: 0.
44. Cohen D, Mashiach R, Houben L, Gálisová A, Addadi Y, Kain D, Lubart A, Blinder P, Allouche■Arnon H, Bar■Shir A. Glyconanofluorides as Immunotracers with a Tunable Core Composition for Sensitive Hotspot Magnetic Resonance Imaging of Inflammatory Activity. *ACS Nano*. 2021 Apr 19;15.0(4.0):7563-7574. doi: 10.1021/acsnano.1c01040. PMID: 0.
45. Xu J, Zheng Y, Wang L, Liu Y, Wang X, Li Y, Chi G. miR-124: A Promising Therapeutic Target for Central Nervous System Injuries and Diseases. *Cellular and Molecular Neurobiology*. 2021 Apr 22;42.0(7.0):2031-2053. doi: 10.1007/s10571-021-01091-6. PMID: 0.
46. García■Bonilla L, Iadecola C, Anrather J. Inflammation and Immune Response. *Stroke*. 2021 Apr 24; .117-128.e5. doi: 10.1016/b978-0-323-69424-7.00010-7.
47. Amato S, Arnold A. Modeling Microglia Activation and Inflammation-Based Neuroprotectant Strategies During Ischemic Stroke. *Bulletin of Mathematical Biology*. 2021 May 12;83.0(6.0):72. doi: 10.1007/s11538-021-00905-4. PMID: 0.
48. Zheng Q, Zhao Y, Su Y, Cao B, Yang J, Xing Q. Serum Extracellular Vesicle-Derived miR-124-3p as a Diagnostic and Predictive Marker for Early-Stage Acute Ischemic Stroke. *Frontiers in Molecular Biosciences*. 2021 Jul 1;8.0:685088. doi: 10.3389/fmolb.2021.685088. PMID: 0.
49. Kashif H, Shah D, Sukumari■Ramesh S. Dysregulation of microRNA and Intracerebral Hemorrhage: Roles in Neuroinflammation. *International Journal of Molecular Sciences*. 2021 Jul 29;22.0(15.0):8115. doi: 10.3390/ijms22158115. PMID: 0.
50. Qiu M, Xu E, Zhan L. Epigenetic Regulations of Microglia/Macrophage Polarization in Ischemic Stroke. *Frontiers in Molecular Neuroscience*. 2021 Oct 11;14.0:697416. doi: 10.3389/fnmol.2021.697416. PMID: 0.
51. Wang S, Liu X, Shi W, Qian Q, Zhang G, Li Y, Cong B, Zuo M. Mechanism of Chronic Stress-Induced Glutamatergic Neuronal Damage in the Basolateral Amygdaloid Nucleus. *Analytical Cellular Pathology*. 2021 Nov 23;2021.0:1-14. doi: 10.1155/2021/8388527. PMID: 0.
52. Wei Z, Luo L, Hu S, Tian R, Liu Z. KDM2B overexpression prevents myocardial ischemia■reperfusion injury in rats through regulating inflammatory response via the TLR4/NF■kB p65 axis. *Experimental and Therapeutic Medicine*. 2021 Dec 17;23.0(2.0):154. doi: 10.3892/etm.2021.11077. PMID: 0.
53. Jurc■u A, Simion A. Neuroinflammation in Cerebral Ischemia and Ischemia/Reperfusion Injuries: From Pathophysiology to Therapeutic Strategies. *International Journal of Molecular Sciences*. 2021 Dec 21;23.0(1.0):14. doi: 10.3390/ijms23010014. PMID: 0.
54. Chao Y, Wang F, Wang Y, Han B. Correlation analysis of miRNA-124, miRNA-210 with brain injury and inflammatory response in patients with craniocerebral injury. *PubMed*. 2022 Jan 1;14.0(1.0):285-294. PMID: 0.
55. Torrente D, Su EJ, Schielke GP, Warnock M, Stevenson TK, Mann K, Vivien D, Lawrence DA. Tissue Plasminogen Activator Interaction with NMDAR1 Promotes Dopaminergic Neuron Degeneration in a Model of A-Synuclein-Mediated Neurotoxicity. *SSRN Electronic Journal*. 2022 Jan 1; . doi: 10.2139/ssrn.4059525.
56. Fullerton JL, Cosgrove CC, Rooney RA, Work LM. Extracellular vesicles and their microRNA cargo in ischaemic stroke. *The Journal of Physiology*. 2022 Apr 14;601.0(22.0):4907-4921. doi: 10.1113/jp282050. PMID: 0.
57. Oh SS, Lee YB, Jeon JS, An S, Choi J. Preliminary Study on Safety Assessment of 10 Hz Transcranial Alternating Current Stimulation in Rat Brain. *Applied Sciences*. 2022 May 24;12.0(11.0):5299. doi: 10.3390/app12115299.

58. Torrente D, Su EJ, Schielke GP, Warnock M, Mann K, Lawrence DA. Opposing effects of β -2 and β -1 adrenergic receptor signaling on neuroinflammation and dopaminergic neuron survival in α -synuclein-mediated neurotoxicity. *Research Square*. 2022 Jun 22;. doi: 10.21203/rs.3.rs-1766396/v1.
59. Zhou H, Yang X, Yu J, Xu J, Zhang R, Zhang T, Wang X, Ma J. Reference gene identification for normalisation of RT-qPCR analysis in plasma samples of the rat middle cerebral artery occlusion model. *Veterinary Medicine and Science*. 2022 Jul 27;8.0(5.0):2076-2085. doi: 10.1002/vms3.879. PMID: 0.
60. Wang Y, Leak RK, Cao G. Microglia-mediated neuroinflammation and neuroplasticity after stroke. *Frontiers in Cellular Neuroscience*. 2022 Aug 16;16.0:980722. doi: 10.3389/fncel.2022.980722. PMID: 0.
61. Wang J, Chen X, Sun L, Chen X, Li H, Xiong B, Wang H. [Long noncoding RNA ZEB1-AS1 aggravates cerebral ischemia/reperfusion injury in rats through the HMGB1/TLR-4 signaling axis]. *PubMed*. 2022 Aug 20;42.0(8.0):1134-1142. doi: 10.12122/j.issn.1673-4254.2022.08.04. PMID: 0.
62. Lee CY, Chooi WH, Ng S, Chew SY. Modulating neuroinflammation through molecular, cellular and biomaterial-based approaches to treat spinal cord injury. *Bioengineering & Translational Medicine*. 2022 Aug 31;8.0(2.0):e10389. doi: 10.1002/btm2.10389. PMID: 0.
63. Mo Y, Xu W, Fu K, Chen H, Wen J, Huang Q, Guo F, Mo L, Yan J. The dual function of microglial polarization and its treatment targets in ischemic stroke. *Frontiers in Neurology*. 2022 Sep 23;13.0:921705. doi: 10.3389/fneur.2022.921705. PMID: 0.
64. Sun A, Blecharz-Lang KG, Maiecki A, Meybohm P, Nowacka-Chmielewska M, Burek M. Role of microRNAs in the regulation of blood-brain barrier function in ischemic stroke and under hypoxic conditions in vitro. *Frontiers in Drug Delivery*. 2022 Nov 1;2.0. doi: 10.3389/fddev.2022.1027098.
65. Huang J, Chen D, Lin X, Lin X, Yang C, Lin X, Lin X. miRNA-124 alleviated memory impairment induced by d-galactose rapidly in male rats via microglia polarization. *Hippocampus*. 2022 Dec 21;33.0(2.0):96-111. doi: 10.1002/hipo.23491. PMID: 0.
66. Dong X, Luo S, Hu D, Cao R, Wang Q, Meng Z, Feng Z, Zhou W, Song W. Gallic acid inhibits neuroinflammation and reduces neonatal hypoxic-ischemic brain damages. *Frontiers in Pediatrics*. 2022 Dec 22;10.0:973256. doi: 10.3389/fped.2022.973256. PMID: 0.
67. Martínez-Hernández MI, Acosta-Saavedra LC, Hernández-Kelly LC, Loaeza-Loaeza J, Ortega A. Microglial Activation in Metal Neurotoxicity: Impact in Neurodegenerative Diseases. *BioMed Research International*. 2023 Jan 1;2023.0(1.0):7389508. doi: 10.1155/2023/7389508. PMID: 0.
68. Torrente D, Su EJ, Schielke GP, Warnock M, Mann K, Lawrence DA. Opposing effects of β -2 and β -1 adrenergic receptor signaling on neuroinflammation and dopaminergic neuron survival in α -synuclein-mediated neurotoxicity. *Journal of Neuroinflammation*. 2023 Mar 2;20.0(1.0):56. doi: 10.1186/s12974-023-02748-3. PMID: 0.
69. Gao Y, Fang C, Wang J, Ye Y, Li Y, Xu Q, Kang X, Gu L. Neuroinflammatory Biomarkers in the Brain, Cerebrospinal Fluid, and Blood After Ischemic Stroke. *Molecular Neurobiology*. 2023 May 31;60.0(9.0):5117-5136. doi: 10.1007/s12035-023-03399-4. PMID: 0.
70. Dordoe C, Huang W, Bwalya C, Wang X, Shen B, Wang H, Wang J, Ye S, Wang P, Xiaoyan B, Li X, Lin L. The role of microglial activation on ischemic stroke: Modulation by fibroblast growth factors. *Cytokine & Growth Factor Reviews*. 2023 Jul 31;74.0:122-133. doi: 10.1016/j.cytogfr.2023.07.005. PMID: 0.
71. Ziegler JN, Tian C. Engineered Extracellular Vesicles: Emerging Therapeutic Strategies for Translational Applications. *International Journal of Molecular Sciences*. 2023 Oct 15;24.0(20.0):15206. doi: 10.3390/ijms242015206. PMID: 0.
72. Khayati S, Dehnavi S, Sadeghi M, Afshari JT, Esmaeili S, Mohammadi M. The potential role of miRNA in regulating macrophage polarization. *Heliyon*. 2023 Oct 31;9.0(11.0):e21615. doi: 10.1016/j.heliyon.2023.e21615. PMID: 0.
73. Quan H, Zhang R. Microglia dynamic response and phenotype heterogeneity in neural regeneration following hypoxic-ischemic brain injury. *Frontiers in Immunology*. 2023 Nov 29;14.0:1320271. doi: 10.3389/fimmu.2023.1320271. PMID: 0.
74. Deng X, Zeng Y, Ding D. MiR-30c-5p-Targeted Regulation of GNAI2 Improves Neural Function Injury and Inflammation in Cerebral Ischemia-Reperfusion Injury. *Applied Biochemistry and Biotechnology*. 2023 Dec 28;196.0(8.0):5235-5248. doi: 10.1007/s12010-023-04802-5. PMID: 0.
75. McGurran H, Kumbol V, Krüger C, Wallach T, Lehnardt S. miR-154-5p Is a Novel Endogenous Ligand for TLR7 Inducing Microglial Activation and Neuronal Injury. *Cells*. 2024 Feb 26;13.0(5.0):407. doi: 10.3390/cells13050407. PMID: 0.
76. Kim K, Hong EP, Lee Y, McLean ZL, Elezi E, Lee R, Kwak S, McAllister B, Massey TH, Lobanov SV, Holmans P, Orth M, Ciosi M, Monckton DG, Long JD, Lucente D, Wheeler VC, MacDonald ME, Gusella JF, Lee J. Posttranscriptional regulation of FAN1 by miR-124-3p at rs3512 underlies onset-delaying genetic modification in Huntington's disease. *Proceedings of the National Academy of Sciences*. 2024 Apr 12;121.0(16.0):e2322924121. doi: 10.1073/pnas.2322924121. PMID: 0.
77. Yang Y, Liu R, Sun Y, Wu B, He B, Jia Y, Yan T. Schisandrin B restores M1/M2 balance through miR-124 in lipopolysaccharide-induced BV2 cells. *Journal of Pharmacy and Pharmacology*. 2024 Jul 18;76.0(10.0):1352-1361. doi: 10.1093/jpp/rgae079. PMID: 0.
78. Yang M, Wang K, Liu B, Shen Y, Liu G. Hypoxic-Ischemic Encephalopathy: Pathogenesis and Promising Therapies. *Molecular Neurobiology*. 2024 Jul 29;62.0(2.0):2105-2122. doi: 10.1007/s12035-024-04398-9. PMID: 0.
79. Singh S, Chen CC, Kim S, Singh A, Singh G. Role of Extracellular vesicle microRNAs and RNA binding proteins on glioblastoma dynamics and therapeutics development. *Extracellular Vesicle*. 2024 Sep 10;4.0:100049. doi: 10.1016/j.vesic.2024.100049.
80. Shi Y, Yang Y, Liu J, Zheng J. Avicularin Treatment Ameliorates Ischemic Stroke Damage by Regulating Microglia Polarization and its Exosomes via the NLRP3 Pathway. *Journal of Integrative Neuroscience*. 2024 Oct 30;23.0(11.0):196. doi: 10.31083/j.jin2311196. PMID: 0.
81. Breßer M, Siemens KD, Schneider L, Lunnebach JE, Leven P, Glowka TR, Oberländer K, De Domenico E, Schultze JL, Schmidt J, Kalff JC, Schneider A, Wehner S, Schneider R. Macrophage-induced enteric neurodegeneration leads to motility impairment during gut inflammation. *EMBO Molecular Medicine*. 2025 Jan 6;17.0(2.0):301-335. doi: 10.1038/s44321-024-00189-w. PMID: 0.

- 82.** Torrente D, Su EJ, Citalán■Madrid AF, Schielke GP, Magaoay D, Warnock M, Stevenson TK, Mann K, Lesept F, Delétage N, Blanc M, Norris EH, Vivien D, Lawrence DA. The interaction of tPA with NMDAR1 drives neuroinflammation and neurodegeneration in α -synuclein-mediated neurotoxicity. *Journal of Neuroinflammation*. 2025 Jan 14;22.0(1.0):8. doi: 10.1186/s12974-025-03336-3. PMID: 0.
- 83.** Zeng H, Liu X, Liu P, Jia S, Wei G, Chen G, Zhao L. Exercise's protective role in chronic obstructive pulmonary disease via modulation of M1 macrophage phenotype through the miR-124-3p/ERN1 axis. *Science Progress*. 2025 Jul 1;108.0(3.0):368504251360892. doi: 10.1177/00368504251360892. PMID: 0.
- 84.** Cong J, Cong J, Wang L, Wang Y, Xin H, Xin H, Cong L, Cong L, Zhang G, Zhu W, Cong B, Shi W. Cardiac and brain pathological alterations with potential biomarker screening in stress-related fatalities. *Journal of Forensic and Legal Medicine*. 2026 Apr 16;120.0:103132. doi: 10.1016/j.jflm.2026.103132. PMID: 0.

Publication

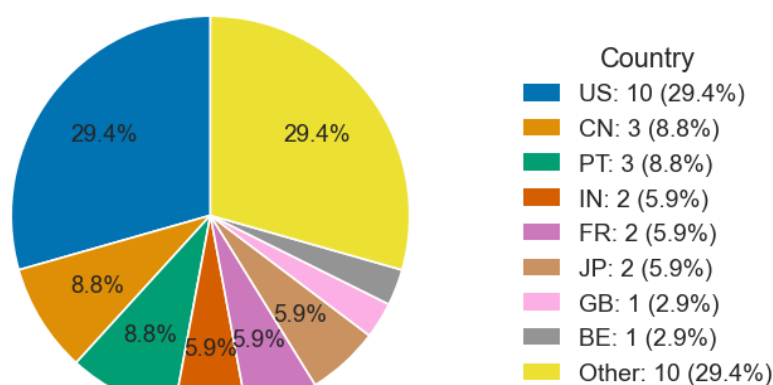
Aswendt M, Schwarz MK, Abdelmoula WM, Dijkstra J, Dedeurwaerdere S. Whole-Brain Microscopy Meets In Vivo Neuroimaging: Techniques, Benefits, and Limitations. *Molecular Imaging and Biology*. 2016 Sep 2;19(1):1-9. doi: 10.1007/s11307-016-0988-z. PMID: 27590493.



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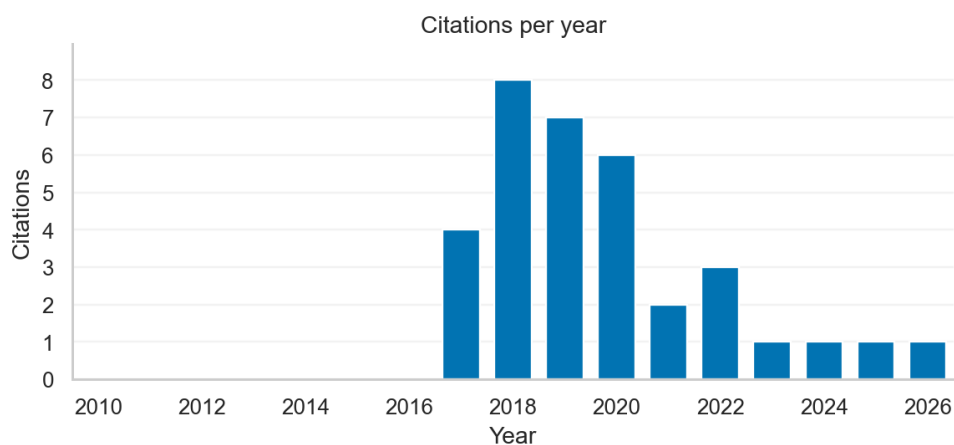
- Laviña B. Brain Vascular Imaging Techniques. *International Journal of Molecular Sciences*. 2016 Dec 30;18.0(1.0):70. doi: 10.3390/ijms18010070. PMID: 0.
- Jones EE, Quiason C, Dale S, Shahidi-Latham S. Feasibility Assessment of a MALDI FTICR Imaging Approach for the 3D Reconstruction of a Mouse Lung. *Journal of the American Society for Mass Spectrometry*. 2017 Apr 11;28.0(8.0):1709-1715. doi: 10.1007/s13361-017-1658-3. PMID: 0.
- Leuze C, Aswendt M, Ferenczi E, Liu CW, Hsueh B, Goubran M, Tian Q, Steinberg GK, Zeineh M, Deisseroth K, McNab JA. The separate effects of lipids and proteins on brain MRI contrast revealed through tissue clearing. *NeuroImage*. 2017 Apr 12;156.0:412-422. doi: 10.1016/j.neuroimage.2017.04.021. PMID: 0.
- Henein MY. Atherosclerosis and Vascular Imaging 2016. *Directory of Open access Books (OAPEN Foundation)*. 2017 Jun 16;. doi: 10.3390/books978-3-03842-433-8.
- Lindsey BW, Douek AM, Loosli F, Kaslin J. A Whole Brain Staining, Embedding, and Clearing Pipeline for Adult Zebrafish to Visualize Cell Proliferation and Morphology in 3-Dimensions. *Frontiers in Neuroscience*. 2018 Jan 17;11.0:750. doi: 10.3389/fnins.2017.00750. PMID: 0.
- Carter LM, Poty S, Sharma SK, Lewis JS. Preclinical optimization of antibody-based radiopharmaceuticals for cancer imaging and radionuclide therapy—Model, vector, and radionuclide selection. *Journal of Labelled Compounds and Radiopharmaceuticals*. 2018 Feb 7;61.0(9.0):611-635. doi: 10.1002/jlcr.3612. PMID: 0.
- Xue J, Liu Y, Ji T, Zhao A, Liang Y, Deng H, Wang Q, Zhang Y, Yang L, Yang A. Comparison between technetium-99m methoxyisobutylisonitrile scintigraphy and ultrasound in the diagnosis of parathyroid adenoma and parathyroid hyperplasia. *Nuclear Medicine Communications*. 2018 Sep 26;39.0(12.0):1129-1137. doi: 10.1097/mnm.0000000000000921. PMID: 0.

8. Oliveira L, Tuchin VV. Tissue Optics. *SpringerBriefs in physics*. 2019 Jan 1;:1-15. doi: 10.1007/978-3-030-33055-2_1.
9. Wykes RC, Khoo HM, Caciagli L, Blumenfeld H, Golshani P, Kapur J, Stern JM, Bernasconi A, Dedeurwaerdere S, Bernasconi N. WONOEP appraisal: Network concept from an imaging perspective. *Epilepsia*. 2019 Jun 9;60.0(7.0):1293-1305. doi: 10.1111/epi.16067. PMID: 0.
10. Fogli B, Corthout N, Kerstens A, Bosse F, Klimaschewski L, Munck S, Schweigreiter R. Imaging axon regeneration within synthetic nerve conduits. *Scientific Reports*. 2019 Jul 12;9.0(1.0):10095. doi: 10.1038/s41598-019-46579-w. PMID: 0.
11. Carneiro I, Carvalho S, Henrique R, Oliveira L, Tuchin VV. Moving tissue spectral window to the deep■ultraviolet via optical clearing. *Journal of Biophotonics*. 2019 Aug 29;12.0(12.0):e201900181. doi: 10.1002/jbio.201900181. PMID: 0.
12. Foster DS, Nguyen A, Chinta M, Salhotra A, Jones RE, Mascharak S, Titan AL, Ransom RC, da Silva OL, Foley E, Briger E, Longaker MT. A Clearing Technique to Enhance Endogenous Fluorophores in Skin and Soft Tissue. *Scientific Reports*. 2019 Oct 31;9.0(1.0):15791. doi: 10.1038/s41598-019-50359-x. PMID: 0.
13. Gupta CN, Turner JA, Calhoun VD. Source-based morphometry: a decade of covarying structural brain patterns. *Brain Structure and Function*. 2019 Nov 7;224.0(9.0):3031-3044. doi: 10.1007/s00429-019-01969-8. PMID: 0.
14. Porter DD, Morton PD. Clearing techniques for visualizing the nervous system in development, injury, and disease. *Journal of Neuroscience Methods*. 2020 Jan 13;334.0:108594. doi: 10.1016/j.jneumeth.2020.108594. PMID: 0.
15. Carbó■Carreté M, Cañete■Massé C, Peró M, Guàrdia■Olmos J. Using fMRI to Assess Brain Activity in People With Down Syndrome: A Systematic Review. *Frontiers in Human Neuroscience*. 2020 Apr 27;14.0:147. doi: 10.3389/fnhum.2020.00147. PMID: 0.
16. Czéh B, Simon M. Benefits of animal models to understand the pathophysiology of depressive disorders. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*. 2020 Jul 28;106.0:110049. doi: 10.1016/j.pnpbp.2020.110049. PMID: 0.
17. Mart■■nez-Lorenzana G, Gamal■Eltrabily M, Tello-García IA, Martínez■Torres A, Becerra-González M, González■Hernández A, Condés■Lara M. CLARITY with neuronal tracing and immunofluorescence to study the somatosensory system in rats. *Journal of Neuroscience Methods*. 2020 Dec 24;350.0:109048. doi: 10.1016/j.jneumeth.2020.109048. PMID: 0.
18. Leuze C, Goubran M, Barakovi■ M, Aswendt M, Tian Q, Hsueh B, Crow A, Weber EMM, Steinberg GK, Zeineh M, Plowey ED, Daducci A, Innocenti GM, Thiran J, Deisseroth K, McNab JA. Comparison of diffusion MRI and CLARITY fiber orientation estimates in both gray and white matter regions of human and primate brain. *NeuroImage*. 2020 Dec 29;228.0:117692. doi: 10.1016/j.neuroimage.2020.117692. PMID: 0.
19. Amar SK, Anand U, Verma A. Cerebrovascular Imaging in a Rodent Stroke Model. *Models and Techniques in Stroke Biology*. 2021 Jan 1;:97-105. doi: 10.1007/978-981-33-6679-4_7.
20. Gomes N, Tuchin VV, Oliveira L. Refractive Index Matching Efficiency in Colorectal Mucosa Treated With Glycerol. *IEEE Journal of Selected Topics in Quantum Electronics*. 2021 Jan 13;27.0(4.0):1-8. doi: 10.1109/jstqe.2021.3050208.
21. Zheng F, Zhou J, Ouyang Z, Zhang J, Wang X, Muyldermans S, Van Ginderachter JA, Devoogdt N, Wen Y, Schoonooghe S, Raes G. Development and Characterization of Nanobodies Targeting the Kupffer Cell. *Frontiers in Immunology*. 2021 Feb 22;12.0:641819. doi: 10.3389/fimmu.2021.641819. PMID: 0.
22. Chourrout M, Rositi H, Ong E, Hubert V, Paccalet A, Foucault L, Autret A, Fayard B, Olivier C, Bolbos R, Peyrin F, Da Silva CC, Meyronet D, Raineteau O, Elleaume H, Brun E, Chauveau F, Wiart M. Brain virtual histology with X-ray phase-contrast tomography Part I: whole-brain myelin mapping in white-matter injury models. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Mar 25;. doi: 10.1101/2021.03.24.436852.
23. McDonald MW, Jeffers MS, Filadelfi M, Vicencio A, Heidenreich G, Wu J, Silasi G. Localizing Microemboli within the Rodent Brain through Block-Face Imaging and Atlas Registration. *eNeuro*. 2021 Jul 1;8.0(4.0):ENEURO.0216-21.2021. doi: 10.1523/eneuro.0216-21.2021. PMID: 0.
24. Lu W, Pei Z, Hu W, Tan C, Tong X, Feng Y, Sun X. Recent progress in optical clearing of eye tissues. *Experimental Eye Research*. 2021 Oct 15;212.0:108796. doi: 10.1016/j.exer.2021.108796. PMID: 0.
25. Chourrout M, Rositi H, Ong E, Hubert V, Paccalet A, Foucault L, Autret A, Fayard B, Olivier C, Bolbos R, Peyrin F, Crola-da-Silva C, Meyronet D, Raineteau O, Elleaume H, Brun E, Chauveau F, Wiart M. Brain virtual histology with X-ray phase-contrast tomography Part I: whole-brain myelin mapping in white-matter injury models. *Biomedical Optics Express*. 2021 Nov 5;13.0(3.0):1620. doi: 10.1364/boe.438832. PMID: 0.
26. Son J, Park SJ, Ha T, Lee S, Cho H, Choi J. Electrophysiological Monitoring of Neurochemical-Based Neural Signal Transmission in a Human Brain–Spinal Cord Assembloid. *ACS Sensors*. 2022 Jan 19;7.0(2.0):409-414. doi: 10.1021/acssensors.1c02279. PMID: 0.
27. Naqvi SMZA, Zhang Y, Tahir MN, Ullah Z, Ahmed S, Wu J, Raghavan V, Abdulraheem MI, Ping J, Hu X, Hu J, Hu J. Advanced strategies of the in-vivo plant hormone detection. *TrAC Trends in Analytical Chemistry*. 2023 Jul 7;166.0:117186. doi: 10.1016/j.trac.2023.117186.
28. Yamada H, Makino S, Okunaga I, Miyake T, Yamamoto-Nonaka K, Trejo JAO, Tominaga T, Empitu MA, Kadariswantiningsih IN, Kerever A, Komiya A, Ichikawa T, Arikawa■Hirasawa E, Yanagita M, Asanuma K. Beyond 2D: A scalable and highly sensitive method for a comprehensive 3D analysis of kidney biopsy tissue. *PNAS Nexus*. 2023 Dec 21;3.0(1.0):pgad433. doi: 10.1093/pnasnexus/pgad433. PMID: 0.
29. Mi X, Chen A, Duarte D, Carey EM, Taylor CR, Braaker PN, Bright M, Almeida R, Lim J, Ruetten VMS, Zheng W, Wang M, Reitman ME, Wang Y, Poskanzer KE, Lyons DA, Nimmerjahn A, Ahrens MB, Yu G. Fast, Accurate, and Versatile Data Analysis Platform for the Quantification of Molecular Spatiotemporal Signals. *SSRN Electronic Journal*. 2024 Jan 1;. doi: 10.2139/ssrn.4856507.
30. Silva PHI, Pépin M, Figurek A, Gutiérrez■Jiménez E, Bobot M, Iervolino A, Mattace■Raso F, Hoorn EJ, Bailey MA, Hénaut L, Nielsen R, Frische S, Trepiccione F, Hafez G, Altunkaynak H, Endlich N, Unwin RJ, Capasso G, Peši■ V, Massy ZA, Wagner CA. Animal models to study cognitive impairment of chronic kidney disease. *American Journal of Physiology-Renal Physiology*. 2024 Apr 18;326.0(6.0):F894-F916. doi: 10.1152/ajprenal.00338.2023. PMID: 0.

- 31.** Mi X, Chen A, Duarte D, Carey EM, Taylor CR, Braaker PN, Bright M, Almeida R, Lim J, Ruetten VMS, Zheng W, Wang M, Reitman ME, Wang Y, Poskanzer KE, Lyons DA, Nimmerjahn A, Ahrens MB, Yu G. Fast, Accurate, and Versatile Data Analysis Platform for the Quantification of Molecular Spatiotemporal Signals. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 May 5;. doi: 10.1101/2024.05.02.592259. PMID: 0.
- 32.** Fay MG, Lang PJ, Denu DS, O'Connor N, Haydock BW, Blaisdell JO, Roussel N, Wilson AL, Aronson SR, Angstman PJ, Gong C, Butola T, Devinsky O, Basu J, Tomer R, Glaser JR. ClearScope: a fully integrated light sheet theta microscope for sub-cellular resolution imaging without lateral size constraints. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Aug 19;. doi: 10.1101/2024.08.15.608141. PMID: 0.
- 33.** Ahmad I, Kushwaha P, Usmani S, Tiwari A. Polymeric Micelles: Revolutionizing Cancer Therapeutics for Enhanced Efficacy. *BioNanoScience*. 2025 Jan 16;15.0(1.0). doi: 10.1007/s12668-025-01803-y.
- 34.** Mi X, Chen A, Duarte D, Carey EM, Taylor CR, Braaker PN, Bright M, Almeida R, Lim J, Ruetten VMS, Wang Y, Wang M, Zhang W, Zheng W, Reitman ME, Huang Y, Wang X, Li L, Deng H, Shi S, Poskanzer KE, Lyons DA, Nimmerjahn A, Ahrens MB, Yu G. Fast, accurate, and versatile data analysis platform for the quantification of molecular spatiotemporal signals. *Cell*. 2025 Apr 8;188.0(10.0):2794-2809.e21. doi: 10.1016/j.cell.2025.03.012. PMID: 0.

Publication

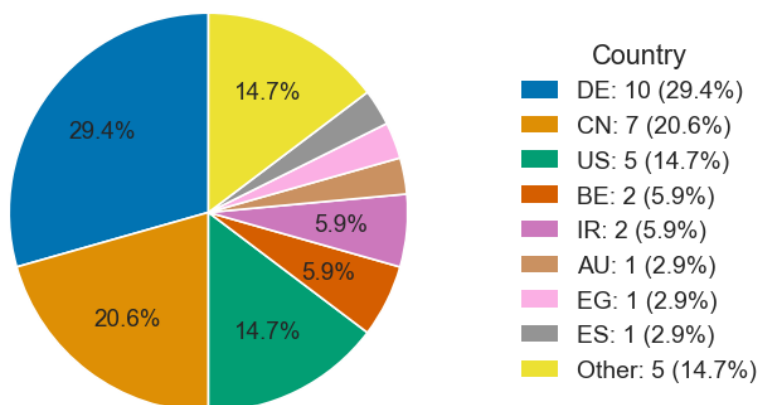
Adamczak J, Aswendt M, Kreutzer C, Rotheneichner P, Riou A, Selt M, Beyrau A, Uhlenkücken U, Diedenhofen M, Nelles M, Aigner L, Couillard Després S, Hoehn M. Neurogenesis upregulation on the healthy hemisphere after stroke enhances compensation for age-dependent decrease of basal neurogenesis. *Neurobiology of Disease*. 2016 Dec 20;99:47-57. doi: 10.1016/j.nbd.2016.12.015. PMID: 28007584.



Citation summary

Total citations: **34**
Average/year: **3.09**
Period: 2016-2026
SCImago cites/doc 2y (2025): **6.07**
SJR 2025: **2.16** (Q1)

Citations by country



Cited by

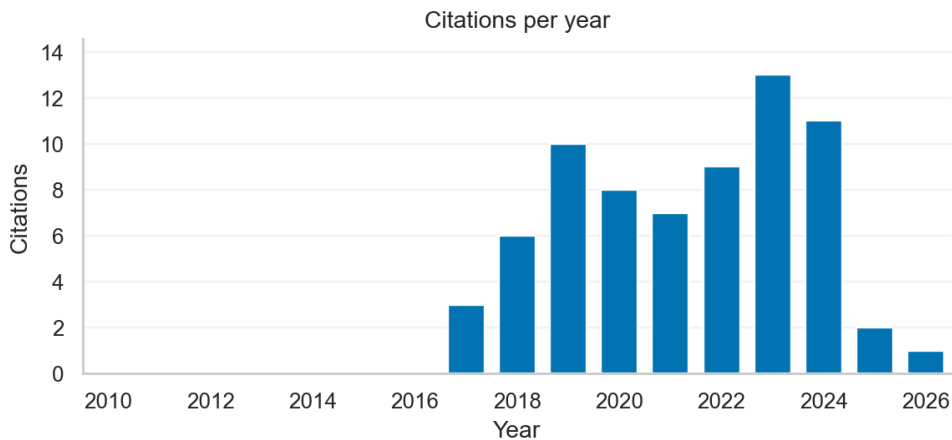
- Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
- Sun Y, Sun X, Qu H, Zhao S, Xiao T, Zhao C. Neuroplasticity and behavioral effects of fluoxetine after experimental stroke. *Restorative Neurology and Neuroscience*. 2017 Aug 24;35.0(5.0):457-468. doi: 10.3233/rnn-170725. PMID: 0.
- Rabenstein M, Rueger MA. Mobilization of Endogenous Neural Stem Cells to Promote Regeneration After Stroke. *Springer series in translational stroke research*. 2017 Nov 5;:101-112. doi: 10.1007/978-3-319-66679-2_5.
- Alawieh A, Langley F, Tomlinson S. The Inflammatory Response and Its Effect on Rehabilitation-Induced Repair Processes After Stroke. *Springer series in translational stroke research*. 2017 Nov 6;:509-520. doi: 10.1007/978-3-319-66679-2_25.
- Green C, Minassian A, Vogel SN, Diedenhofen M, Beyrau A, Wiedermann D, Hoehn M. Sensorimotor Functional and Structural Networks after Intracerebral Stem Cell Grafts in the Ischemic Mouse Brain. *Journal of Neuroscience*. 2018 Jan 10;38.0(7.0):1648-1661. doi: 10.1523/jneurosci.2715-17.2018. PMID: 0.
- Popa Wagner A, Glavan D, Olaru A, Olaru D, Mărgăritescu OC, Tica OS, Surugiu R, Sandu RE. Present Status and Future Challenges of New Therapeutic Targets in Preclinical Models of Stroke in Aged Animals with/without Comorbidities. *International Journal of Molecular Sciences*. 2018 Jan 25;19.0(2.0):356. doi: 10.3390/ijms19020356. PMID: 0.
- Yang X, Geng K, Zhang Y, Zhang J, Yang K, Shao J, Xia W. Sirt3 deficiency impairs neurovascular recovery in ischemic stroke. *CNS Neuroscience & Therapeutics*. 2018 May 18;24.0(9.0):775-783. doi: 10.1111/cns.12853. PMID: 0.

8. Rogall R, Rabenstein M, Vay SU, Bach A, Pikhovych A, Baermann J, Hoehn M, Couillard■Després S, Fink GR, Schroeter M, Rueger MA. Bioluminescence imaging visualizes osteopontin-induced neurogenesis and neuroblast migration in the mouse brain after stroke. *Stem Cell Research & Therapy*. 2018 Jul 4;9.0(1.0):182. doi: 10.1186/s13287-018-0927-9. PMID: 0.
9. Paniagua■Torija B, Norenberg MD, Arévalo■Martín Á, Carballosa-Gautam MM, Campos■Martín Y, Molina■Holgado E, García■Ovejero D. Cells in the adult human spinal cord ependymal region do not proliferate after injury. *The Journal of Pathology*. 2018 Aug 8;246.0(4.0):415-421. doi: 10.1002/path.5151. PMID: 0.
10. Zuo Y, Wang J, Enkhjargal B, Doycheva D, Yan X, Zhang JH, Liu F. Neurogenesis changes and the fate of progenitor cells after subarachnoid hemorrhage in rats. *Experimental Neurology*. 2018 Oct 23;311.0:274-284. doi: 10.1016/j.expneurol.2018.10.011. PMID: 0.
11. Vargas■Saturno L, Ayala■Grosso CA. Adaptive neurogenesis in the cerebral cortex and contralateral subventricular zone induced by unilateral cortical devascularization: Possible modulation by dopamine neurotransmission. *European Journal of Neuroscience*. 2018 Nov 7;48.0(12.0):3514-3533. doi: 10.1111/ejn.14260. PMID: 0.
12. Anckaerts C, Blockx I, Summer P, Michael J, Hamaide J, Kreutzer C, Boutin H, Couillard■Després S, Verhoye M, Van der Linden A. Early functional connectivity deficits and progressive microstructural alterations in the TgF344-AD rat model of Alzheimer's Disease: A longitudinal MRI study. *Neurobiology of Disease*. 2018 Nov 13;124.0:93-107. doi: 10.1016/j.nbd.2018.11.010. PMID: 0.
13. Vogel SN, Schäfer C, Heß S, Folz■Donahue K, Nelles M, Minassian A, Schwarz MK, Kukat C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37.0:101429. doi: 10.1016/j.scr.2019.101429. PMID: 0.
14. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
15. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
16. Collmann FM, Pijnenburg R, Hamzei-Taj S, Minassian A, Folz■Donahue K, Kukat C, Aswendt M, Hoehn M. Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. *Frontiers in Immunology*. 2019 Jun 4;10.0:1236. doi: 10.3389/fimmu.2019.01236. PMID: 0.
17. Williamson MR, Jones TA, Drew MR. Functions of subventricular zone neural precursor cells in stroke recovery. *Behavioural Brain Research*. 2019 Sep 4;376.0:112209. doi: 10.1016/j.bbr.2019.112209. PMID: 0.
18. Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.
19. Glover JC, Aswendt M, Boulland J, Lojk J, Stamenkovi■ S, An■jus PR, Fiori F, Hoehn M, Mitre■i■ D, Pavlin M, Cavalli S, Frati C, Quaini F, (BIONECA) OBOTECA1. In vivo Cell Tracking Using Non-invasive Imaging of Iron Oxide-Based Particles with Particular Relevance for Stem Cell-Based Treatments of Neurological and Cardiac Disease. *Molecular Imaging and Biology*. 2019 Dec 4;22.0(6.0):1469-1488. doi: 10.1007/s11307-019-01440-4. PMID: 0.
20. Trout AL, Kahle M, Roberts J, Marcelo A, de Hoog L, Boychuk JA, Grupke S, Berretta A, Gowing EK, Boychuk CR, Gorman AA, Edwards DN, Rutkai I, Biose IJ, Ishibashi■Ueda H, Ihara M, Smith BN, Clarkson AN, Bix G. Perlecan Domain-V Enhances Neurogenic Brain Repair After Stroke in Mice. *Translational Stroke Research*. 2020 Apr 7;12.0(1.0):72-86. doi: 10.1007/s12975-020-00800-5. PMID: 0.
21. Vanhunsel S, Beckers A, Moons L. Designing neuroreparative strategies using aged regenerating animal models. *Ageing Research Reviews*. 2020 May 31;62.0:101086. doi: 10.1016/j.arr.2020.101086. PMID: 0.
22. B■■eanu TA, Grigore M, Pinosanu L, Slevin M, Hermann DM, G■van D, Popa■Wagner A. Electric Stimulation of Neurogenesis Improves Behavioral Recovery After Focal Ischemia in Aged Rats. *Frontiers in Neuroscience*. 2020 Jul 9;14.0:732. doi: 10.3389/fnins.2020.00732. PMID: 0.
23. Ni G, Liang C, Wang J, Duan C, Wang P, Wang Y. Astragaloside IV improves neurobehavior and promotes hippocampal neurogenesis in MCAO rats through BDNF-TrkB signaling pathway. *Biomedicine & Pharmacotherapy*. 2020 Jul 16;130.0:110353. doi: 10.1016/j.biopha.2020.110353. PMID: 0.
24. Candelario■Jalil E, Paul S. Impact of aging and comorbidities on ischemic stroke outcomes in preclinical animal models: A translational perspective. *Experimental Neurology*. 2020 Oct 6;335.0:113494. doi: 10.1016/j.expneurol.2020.113494. PMID: 0.
25. Khodanovich M, ■■■■■■ ■■, Anan'ina T, Kudabaeva M, Pishchelko AO, Krutenkova EP, Nemirovich-Danchenko N, ■■■■■■ ■■, Tumentceva Y, Haute CVD, Gijssbers R, Daniëls V, Thiry I, Pershina AG, Shadrina MM, Naumova A. Tissue-Specific Ferritin- and GFP-Based Genetic Vectors Visualize Neurons by MRI in the Intact and Post-Ischemic Rat Brain. *International Journal of Molecular Sciences*. 2020 Nov 25;21.0(23.0):8951. doi: 10.3390/ijms21238951. PMID: 0.
26. Xu J, Zheng Y, Wang L, Liu Y, Wang X, Li Y, Chi G. miR-124: A Promising Therapeutic Target for Central Nervous System Injuries and Diseases. *Cellular and Molecular Neurobiology*. 2021 Apr 22;42.0(7.0):2031-2053. doi: 10.1007/s10571-021-01091-6. PMID: 0.
27. Zagahary WA, Elansary MM, Shouman DN, Abdelrahim AA, Abu■Zied KM, Sakr TM. Can nanotechnology overcome challenges facing stem cell therapy? A review. *Journal of Drug Delivery Science and Technology*. 2021 Sep 29;66.0:102883. doi: 10.1016/j.jddst.2021.102883.
28. Oh B, Santhanam S, Azadian M, Swaminathan V, Lee AG, McConnell KW, Levinson A, Song S, Patel J, Gardner EE, George P. Electrical modulation of transplanted stem cells improves functional recovery in a rodent model of stroke. *Nature Communications*. 2022 Mar 15;13.0(1.0):1366. doi: 10.1038/s41467-022-29017-w. PMID: 0.
29. Shabani Z, Zangbar HS, Nasrolahi A. Cerebral dopamine neurotrophic factor increases proliferation, Migration and differentiation of subventricular zone neuroblasts in photothrombotic stroke model of mouse. *Journal of Stroke and Cerebrovascular Diseases*. 2022 Sep 15;31.0(11.0):106725. doi: 10.1016/j.jstrokecerebrovasdis.2022.106725. PMID: 0.

- 30.** Damavandi AR, Mirmosayyeb O, Ebrahimi N, Zalpoor H, Khalilian P, Yahiazadeh S, Eskandari N, Rahdar A, Kumar PS, Pandey S. Advances in nanotechnology versus stem cell therapy for the theranostics of multiple sclerosis disease. *Applied Nanoscience*. 2022 Dec 5;13.0(6.0):4043-4073. doi: 10.1007/s13204-022-02698-x.
- 31.** Rao J, Li H, Zhang H, Xiang X, Ding X, Li L, Geng F, Qi H. *Periplaneta Americana* (L.) extract activates the ERK/CREB/BDNF pathway to promote post-stroke neuroregeneration and recovery of neurological functions in rats. *Journal of Ethnopharmacology*. 2023 Nov 11;321.0:117400. doi: 10.1016/j.jep.2023.117400. PMID: 0.
- 32.** Ding Y, Jie K, Liu X, Shao B. Astragaloside IV plays a neuroprotective role by promoting PPAR γ in cerebral ischemia-reperfusion rats. *Behavioural Brain Research*. 2024 Sep 27;476.0:115267. doi: 10.1016/j.bbr.2024.115267. PMID: 0.
- 33.** Nakanishi T, Matsumaru D, Ishida K. Advances in Bioluminescence Imaging for Assessment of Developmental Neurotoxicity. *BPB Reports*. 2025 Jan 1;8.0(6.0):176-181. doi: 10.1248/bpbreports.8.6_176.
- 34.** Hartung T, Freyer D, Zemella A, Radbruch H, Weiner J, El-Din JJ, Meisel A, Priller J. Non-hematopoietic erythropoietin splice variant is produced in the diseased human brain and confers neuroprotection. *Frontiers in Cellular Neuroscience*. 2026 Jan 12;19.0:1677505. doi: 10.3389/fncel.2025.1677505. PMID: 0.

Publication

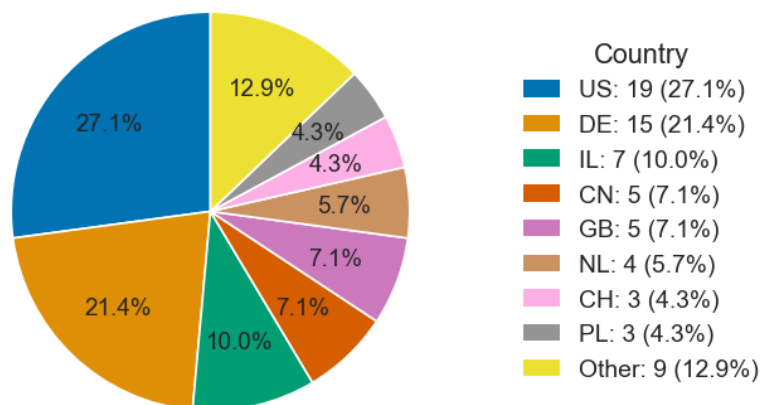
Leuze C, Aswendt M, Ferenczi E, Liu CW, Hsueh B, Goubran M, Tian Q, Steinberg GK, Zeineh M, Deisseroth K, McNab JA. The separate effects of lipids and proteins on brain MRI contrast revealed through tissue clearing. *NeuroImage*. 2017 Apr 12;156:412-422. doi: 10.1016/j.neuroimage.2017.04.021. PMID: 28411157.



Citation summary

Total citations: **70**
Average/year: **7.00**
Period: 2017-2026
SCImago cites/doc 2y
(2025): **5.31**
SJR 2025: **1.93** (Q1)

Citations by country



Cited by

1. Song H. Application of CLARITY to Investigate the 3D Architecture of 14-3-3 Zeta Protein in AD. *International Journal of Biomedical Science and Engineering*. 2017 Jan 1;5.0(6.0):68. doi: 10.11648/j.ijbse.20170506.12.
2. Qing-qin W. Bring CLARITY to Temporal Lobe Epilepsy: 3D Visualization of p-Tau(Ser262) and 14-3-3 Zeta. *International Journal of Biomedical Science and Engineering*. 2017 Jan 1;5.0(6.0):63. doi: 10.11648/j.ijbse.20170506.11.
3. Morawski M, Kirilina E, Scherf N, Jäger C, Reimann K, Trampel R, Gavrilidis F, Geyer S, Biedermann B, Arendt T, Weiskopf N. Developing 3D microscopy with CLARITY on human brain tissue: Towards a tool for informing and validating MRI-based histology. *NeuroImage*. 2017 Nov 28;182.0:417-428. doi: 10.1016/j.neuroimage.2017.11.060. PMID: 0.
4. Edwards L, Kirilina E, Mohammadi S, Weiskopf N. Microstructural imaging of human neocortex in vivo. *NeuroImage*. 2018 Mar 26;182.0:184-206. doi: 10.1016/j.neuroimage.2018.02.055. PMID: 0.
5. Gradinaru V, Treweek JB, Overton KW, Deisseroth K. Hydrogel-Tissue Chemistry: Principles and Applications. *Annual Review of Biophysics*. 2018 May 20;47.0(1.0):355-376. doi: 10.1146/annurev-biophys-070317-032905. PMID: 0.
6. Roebroek A, Miller KL, Aggarwal M. Ex vivo diffusion MRI of the human brain: Technical challenges and recent advances. *NMR in Biomedicine*. 2018 Jun 4;32.0(4.0):e3941. doi: 10.1002/nbm.3941. PMID: 0.
7. Shtangel O, Mezer A. A Phantom System Designed to Assess the Effects of Membrane Lipids on Water Proton Relaxation. *bioRxiv (Cold Spring Harbor Laboratory)*. 2018 Aug 9;. doi: 10.1101/387845.
8. Tyson AL, Akhtar AM, Andrae LC. Optimisation and validation of hydrogel-based brain tissue clearing shows uniform expansion across anatomical regions and spatial scales. *bioRxiv (Cold Spring Harbor Laboratory)*. 2018 Sep 21;. doi: 10.1101/423848.

9. Kwon D, Pfefferbaum A, Sullivan EV, Pohl KM. Regional growth trajectories of cortical myelination in adolescents and young adults: longitudinal validation and functional correlates. *Brain Imaging and Behavior*. 2018 Nov 8;14.0(1.0):242-266. doi: 10.1007/s11682-018-9980-3. PMID: 0.
10. Kenkhuis B, Jonkman LE, Bulk M, Buijs M, Boon BD, Bouwman FH, Geurts JJ, van de Berg WDJ, van der Weerd L. 7T MRI allows detection of disturbed cortical lamination of the medial temporal lobe in patients with Alzheimer's disease. *NeuroImage Clinical*. 2019 Jan 1;21.0:101665. doi: 10.1016/j.nicl.2019.101665. PMID: 0.
11. Baek K, Jung S, Lee J, Min E, Jung W, Cho H. Quantitative assessment of regional variation in tissue clearing efficiency using optical coherence tomography (OCT) and magnetic resonance imaging (MRI): A feasibility study. *Scientific Reports*. 2019 Feb 27;9.0(1.0):2923. doi: 10.1038/s41598-019-39634-z. PMID: 0.
12. Turner R. Myelin and Modeling: Bootstrapping Cortical Microcircuits. *Frontiers in Neural Circuits*. 2019 May 8;13.0:34. doi: 10.3389/fncir.2019.00034. PMID: 0.
13. Williamson NH, Ravin R, Benjamini D, Merkle H, Falgairolle M, O'Donovan MJ, Blivis D, Ide D, Cai TX, Ghorashi NS, Bai R, Basser PJ. Magnetic resonance measurements of cellular and sub-cellular membrane structures in live and fixed neural tissue. *bioRxiv (Cold Spring Harbor Laboratory)*. 2019 Jul 7;. doi: 10.1101/694661.
14. Matryba P, Kaczmarek L, Go■■■b J. Advances in Ex Situ Tissue Optical Clearing. *Laser & Photonics Review*. 2019 Jul 15;13.0(8.0). doi: 10.1002/lpor.201800292.
15. Filo S, Shtangel O, Salamon N, Kol A, Weisinger B, Shifman S, Mezer A. Disentangling molecular alterations from water-content changes in the aging human brain using quantitative MRI. *Nature Communications*. 2019 Jul 30;10.0(1.0):3403. doi: 10.1038/s41467-019-11319-1. PMID: 0.
16. Tyson AL, Akhtar AM, Andreae LC. Optimisation and validation of hydrogel-based brain tissue clearing shows uniform expansion across anatomical regions and spatial scales. *Scientific Reports*. 2019 Aug 19;9.0(1.0):12084. doi: 10.1038/s41598-019-48460-2. PMID: 0.
17. Schyboll F, Jaekel U, Petruccione F, Neeb H. Dipolar induced spin-lattice relaxation in the myelin sheath: A molecular dynamics study. *Scientific Reports*. 2019 Oct 15;9.0(1.0):14813. doi: 10.1038/s41598-019-51003-4. PMID: 0.
18. Goubran M, Leuze C, Hsueh B, Aswendt M, Li Y, Tian Q, Cheng M, Crow A, Steinberg GK, McNab JA, Deisseroth K, Zeineh M. Multimodal image registration and connectivity analysis for integration of connectomic data from microscopy to MRI. *Nature Communications*. 2019 Dec 3;10.0(1.0):5504. doi: 10.1038/s41467-019-13374-0. PMID: 0.
19. Williamson NH, Ravin R, Benjamini D, Merkle H, Falgairolle M, O'Donovan MJ, Blivis D, Ide D, Cai TX, Ghorashi NS, Bai R, Basser PJ. Magnetic resonance measurements of cellular and sub-cellular membrane structures in live and fixed neural tissue. *eLife*. 2019 Dec 12;8.0. doi: 10.7554/elife.51101. PMID: 0.
20. MacKay AL, Laule C. Relaxometry: Applications in the Brain. *Advances in magnetic resonance technology and applications*. 2020 Jan 1;:149-184. doi: 10.1016/b978-0-12-817057-1.00009-3.
21. Shtangel O, Mezer A. A phantom system for assessing the effects of membrane lipids on water proton relaxation. *NMR in Biomedicine*. 2020 Jan 3;33.0(4.0):e4209. doi: 10.1002/nbm.4209. PMID: 0.
22. Weinberger DR, Radulescu E. Structural Magnetic Resonance Imaging All Over Again. *JAMA Psychiatry*. 2020 Jul 22;78.0(1.0):11. doi: 10.1001/jamapsychiatry.2020.1941. PMID: 0.
23. MacNiven KH, Leong JK, Knutson B. Medial forebrain bundle structure is linked to human impulsivity. *Science Advances*. 2020 Sep 16;6.0(38.0). doi: 10.1126/sciadv.aba4788. PMID: 0.
24. Lee S, Kim KW, Initiative FTADN. Associations between texture of T1■weighted magnetic resonance imaging and radiographic pathologies in Alzheimer's disease. *European Journal of Neurology*. 2020 Oct 24;28.0(3.0):735-744. doi: 10.1111/ene.14609. PMID: 0.
25. Lee K, Lai HM, Soerensen MH, Hui ES, Wan■San V, Cho WC, Ho Y, Chang RC. Optimised tissue clearing minimises distortion and destruction during tissue delipidation. *Neuropathology and Applied Neurobiology*. 2020 Oct 27;47.0(3.0):441-453. doi: 10.1111/nan.12673. PMID: 0.
26. Leong JK, Ho TC, Colich NL, Sisk LM, Knutson B, Gotlib IH. White-matter tract connecting anterior insula to nucleus accumbens predicts greater future motivation in adolescents. *Developmental Cognitive Neuroscience*. 2020 Nov 10;47.0:100881. doi: 10.1016/j.dcn.2020.100881. PMID: 0.
27. Leuze C, Goubran M, Barakovi■ M, Aswendt M, Tian Q, Hsueh B, Crow A, Weber EMM, Steinberg GK, Zeineh M, Plowey ED, Daducci A, Innocenti GM, Thiran J, Deisseroth K, McNab JA. Comparison of diffusion MRI and CLARITY fiber orientation estimates in both gray and white matter regions of human and primate brain. *NeuroImage*. 2020 Dec 29;228.0:117692. doi: 10.1016/j.neuroimage.2020.117692. PMID: 0.
28. Panchuelo RMS, Mougou O, Turner R, Francis S. Quantitative T1 mapping using multi-slice multi-shot inversion recovery EPI. *NeuroImage*. 2021 Mar 26;234.0:117976. doi: 10.1016/j.neuroimage.2021.117976. PMID: 0.
29. Yendiki A, Aggarwal M, Axer M, Howard A, van Walsum AVC, Haber SN. Post mortem mapping of connectional anatomy for the validation of diffusion MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Apr 19;. doi: 10.1101/2021.04.16.440223.
30. Weiskopf N, Edwards L, Helms G, Mohammadi S, Kirilina E. Quantitative magnetic resonance imaging of brain anatomy and in vivo histology. *Nature Reviews Physics*. 2021 Jun 28;3.0(8.0):570-588. doi: 10.1038/s42254-021-00326-1.
31. Bojko B, Bogusiewicz J, Burlikowska K, ■uczynowski K, Jaroch K, Birska M, Furtak J, Harat M, Pawliszyn J. SPME Probes: A Novel Chemical Biopsy Tool for Spatially Resolved Profiling of Human Brain Tissue in vivo. *Research Square*. 2021 Jul 7;. doi: 10.21203/rs.3.rs-668958/v1.
32. Oz S, Saar G, Olszakier S, Heinrich R, Kompanets M, Berlin S. Tissue expansion of 'cleared' whole brains reduces contrast in ex vivo MRI. *Research Square*. 2021 Sep 14;. doi: 10.21203/rs.3.rs-877945/v1.

33. Bogusiewicz J, Burlikowska K, Muczykowski K, Jaroch K, Birski M, Furtak J, Harat M, Pawliszyn J, Bojko B. New chemical biopsy tool for spatially resolved profiling of human brain tissue in vivo. *Scientific Reports*. 2021 Sep 30;11.0(1.0):19522. doi: 10.1038/s41598-021-98973-y. PMID: 0.
34. Güllban ÖF, Bollmann S, Huber L, Wagstyl K, Goebel R, Poser BA, Kay K, Ivanov D. Mesoscopic in vivo human T2* dataset acquired using quantitative MRI at 7 Tesla. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Nov 25;. doi: 10.1101/2021.11.25.470023.
35. Yendiki A, Aggarwal M, Axer M, Howard A, van Walsum AVC, Haber SN. Post mortem mapping of connectional anatomy for the validation of diffusion MRI. *NeuroImage*. 2022 Mar 25;256.0:119146. doi: 10.1016/j.neuroimage.2022.119146. PMID: 0.
36. Haenelt D, Trampel R, Nasr S, Polimeni JR, Tootell RBH, Sereno MI, Pine K, Edwards L, Helbling S, Weiskopf N. High resolution quantitative and functional MRI indicate lower myelination of thin and thick stripes in human secondary visual cortex. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Apr 29;. doi: 10.1101/2022.04.28.489865.
37. Liu J, Liu Z, Wei Y, Zhang Y, Womer FY, Duan J, Wei S, Wu F, Kong L, Jiang X, Zhang L, Tang Y, Zhang X, Wang F. Combinatorial panel with endophenotypes from multilevel information of diffusion tensor imaging and lipid profile as predictors for depression. *Australian & New Zealand Journal of Psychiatry*. 2022 May 27;56.0(9.0):1187-1198. doi: 10.1177/00048674211031477. PMID: 0.
38. Tisdall L, MacNiven KH, Padula CB, Leong JK, Knutson B. Brain tract structure predicts relapse to stimulant drug use. *Proceedings of the National Academy of Sciences*. 2022 Jun 21;119.0(26.0):e2116703119. doi: 10.1073/pnas.2116703119. PMID: 0.
39. Perens J, Salinas CG, Roostalu U, Skytte JL, Gundlach C, Hecksher Sørensen J, Dahl AB, Dyrby TB. Multimodal 3D mouse brain atlas framework with skull-derived coordinate system. *Research Square*. 2022 Jul 21;. doi: 10.21203/rs.3.rs-1832101/v1.
40. Kauppinen RA, Thotland J, Pisharady PK, Lenglet C, Garwood M. White matter microstructure and longitudinal relaxation time anisotropy in human brain at 3 and 7 T. *NMR in Biomedicine*. 2022 Aug 22;36.0(1.0):e4815. doi: 10.1002/nbm.4815. PMID: 0.
41. Paquola C, Hong S. The Potential of Myelin-Sensitive Imaging: Redefining Spatiotemporal Patterns of Myeloarchitecture. *Biological Psychiatry*. 2022 Sep 9;93.0(5.0):442-454. doi: 10.1016/j.biopsych.2022.08.031. PMID: 0.
42. Menzel M, Gräßel D, Rajković I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Oct 4;. doi: 10.1101/2022.10.04.509781.
43. Güllban ÖF, Bollmann S, Huber L, Wagstyl K, Goebel R, Poser BA, Kay K, Ivanov D. Mesoscopic in vivo human T2* dataset acquired using quantitative MRI at 7 Tesla. *NeuroImage*. 2022 Nov 11;264.0:119733. doi: 10.1016/j.neuroimage.2022.119733. PMID: 0.
44. Haenelt D, Trampel R, Nasr S, Polimeni JR, Tootell RBH, Sereno MI, Pine K, Edwards L, Helbling S, Weiskopf N. High-resolution quantitative and functional MRI indicate lower myelination of thin and thick stripes in human secondary visual cortex. *eLife*. 2023 Feb 9;12.0. doi: 10.7554/elife.78756. PMID: 0.
45. Perens J, Salinas CG, Roostalu U, Skytte JL, Gundlach C, Hecksher Sørensen J, Dahl AB, Dyrby TB. Multimodal 3D Mouse Brain Atlas Framework with the Skull-Derived Coordinate System. *Neuroinformatics*. 2023 Feb 21;21.0(2.0):269-286. doi: 10.1007/s12021-023-09623-9. PMID: 0.
46. Duan J, Gong X, Womer FY, Sun K, Tang L, Liu J, Zheng J, Zhu Y, Tang Y, Zhang X, Wang F. Neurodevelopmental trajectories, polygenic risk, and lipometabolism in vulnerability and resilience to schizophrenia. *BMC Psychiatry*. 2023 Mar 9;23.0(1.0):153. doi: 10.1186/s12888-023-04597-z. PMID: 0.
47. Williamson NH, Witherspoon VJ, Cai TX, Ravin R, Horkay F, Bassar PJ. Low-field, high-gradient NMR shows diffusion contrast consistent with localization or motional averaging of water near surfaces. *Magnetic Resonance Letters*. 2023 Apr 8;3.0(2.0):90-107. doi: 10.1016/j.mrl.2023.03.009. PMID: 0.
48. Donadieu M, Lee NJ, Gaitán MI, Ha S, Luciano NJ, Roy S, Ineichen BV, Leibovitch E, Yen CC, Pham DL, Silva AC, Johnson M, Jacobson S, Sati P, Reich DS. In vivo MRI is sensitive to remyelination in a nonhuman primate model of multiple sclerosis. *eLife*. 2023 Apr 21;12.0. doi: 10.7554/elife.73786. PMID: 0.
49. Thankarajan E, Oz S, Saady A, Kulbitski K, Kompanets MO, Eisen MS, Berlin S. SNAP-Tag Targeted MRI-Fluorescent Multimodal Probes. *ChemBioChem*. 2023 Apr 24;24.0(16.0):e202300172. doi: 10.1002/cbic.202300172. PMID: 0.
50. Menzel M, Gräßel D, Rajković I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *eLife*. 2023 May 11;12.0. doi: 10.7554/elife.84024. PMID: 0.
51. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.
52. Kruggel F, Solodkin A. Analyzing the cortical fine structure as revealed by ex vivo anatomical MRI. *The Journal of Comparative Neurology*. 2023 Jul 31;531.0(18.0):2146-2161. doi: 10.1002/cne.25532. PMID: 0.
53. Schulz J, Brandl F, Grothe MJ, Kirschner M, Kaiser S, Schmidt A, Borgwardt S, Priller J, Sorg C, Avram M. Basal-Forebrain Cholinergic Nuclei Alterations are Associated With Medication and Cognitive Deficits Across the Schizophrenia Spectrum. *Schizophrenia Bulletin*. 2023 Aug 22;49.0(6.0):1530-1541. doi: 10.1093/schbul/sbad118. PMID: 0.
54. Johnson JTE, Mafano MO, Manninen E, Ross TJ, Yang Y, Laun FB, Martin J, Topgaard D, Benjamini D. In vivo disentanglement of diffusion frequency-dependence, tensor shape, and relaxation using multidimensional MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Oct 10;. doi: 10.1101/2023.10.10.561702. PMID: 0.
55. Tisdall L, MacNiven KH, Leong JK, Frey R, Rieskamp J, Hertwig R, Knutson B, Mata R. Structure of connections to the nucleus accumbens link to specific but not general measures of human risk preference. *MPG.PuRe (Max Planck Society)*. 2023 Oct 31;. doi: 10.31219/osf.io/ab4vr.
56. Oz S, Saar G, Olszakier S, Heinrich R, Kompanets MO, Berlin S. Datasets assessing lipid-content in optically cleared brains. *Data in Brief*. 2023 Nov 30;52.0:109795. doi: 10.1016/j.dib.2023.109795. PMID: 0.
57. Tisdall L, MacNiven KH, Leong JK, Frey R, Rieskamp J, Hertwig R, Knutson B, Mata R. Structural projections to the nucleus accumbens link to impulsive components of human risk preference. *Imaging Neuroscience*. 2024 Jan 1;2.0:1-15. doi:

10.1162/imag_a_00344. PMID: 0.

58. Aumiller M, Arazar A, Sroka R, Dietrich O, Rühm A. Investigations on correlations between changes of optical tissue properties and NMR relaxation times. *Photodiagnosis and Photodynamic Therapy*. 2024 Jan 10;45.0:103968. doi: 10.1016/j.pdpdt.2024.103968. PMID: 0.

59. Yablonskiy DA, Sukstanskii AL. Quantum dipole interactions and transient hydrogen bond orientation order in cells, cellular membranes and myelin sheath: Implications for MRI signal relaxation, anisotropy, and T1 magnetic field dependence. *Magnetic Resonance in Medicine*. 2024 Jan 19;91.0(6.0):2597-2611. doi: 10.1002/mrm.29996. PMID: 0.

60. Shanshool AS, Ziaee S, Ansari MA, Tuchin VV. Advances in the transport of laser radiation to the brain with optical clearing: From simulation to reality. *Progress in Quantum Electronics*. 2024 Feb 24;94.0:100506. doi: 10.1016/j.pquantelec.2024.100506.

61. Magdoo KN, Avram A, Witzel T, Huang SY, Basser PJ. Water Diffusion in the Live Human Brain is Gaussian at the Mesoscale. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Apr 14;. doi: 10.1101/2024.04.10.588939. PMID: 0.

62. Oz S, Saar G, Olszakier S, Heinrich R, Kompanets MO, Berlin S. Revealing the MRI Contrast in Optically Cleared Brains. *Advanced Science*. 2024 Apr 22;11.0(22.0):e2400316. doi: 10.1002/advs.202400316. PMID: 0.

63. Johnson JTE, ■rfano■lu MO, Manninen E, Ross TJ, Yang Y, Laun FB, Martin J, Topgaard D, Benjamini D. In vivo disentanglement of diffusion frequency■dependence, tensor shape, and relaxation using multidimensional MRI. *Human Brain Mapping*. 2024 May 1;45.0(7.0):e26697. doi: 10.1002/hbm.26697. PMID: 0.

64. Radunsky D, Solomon C, Stern N, Blumenfeld■Katzir T, Filo S, Mezer A, Karsa A, Shmueli K, Soustelle L, Duhamel G, Girard OM, Kepler G, Shrot S, Hoffmann C, Ben■Eliezer N. A comprehensive protocol for quantitative magnetic resonance imaging of the brain at 3 Tesla. *PLoS ONE*. 2024 May 31;19.0(5.0):e0297244. doi: 10.1371/journal.pone.0297244. PMID: 0.

65. Helbling S, Meyer S, Weiskopf N. Myelin-informed forward models for M/EEG source reconstruction. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Jul 2;. doi: 10.1101/2024.06.30.601378.

66. Autio JA, Uematsu A, Ikeda T, Ose T, Hou Y, Magrou L, Kimura I, Ohno M, Murata K, Coalson T, Kennedy H, Glasser MF, Van Essen DC, Hayashi T. Charting cortical-layer specific area boundaries using Gibbs' ringing attenuated T1w/T2w-FLAIR myelin MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Sep 28;. doi: 10.1101/2024.09.27.615294. PMID: 0.

67. Willett MR, Codd SL, Seymour JD, Kirkland CM. Relaxation-weighted MRI analysis of biofilm EPS: Differentiating biopolymers, cells, and water. *Biofilm*. 2024 Oct 25;8.0:100235. doi: 10.1016/j.biofilm.2024.100235. PMID: 0.

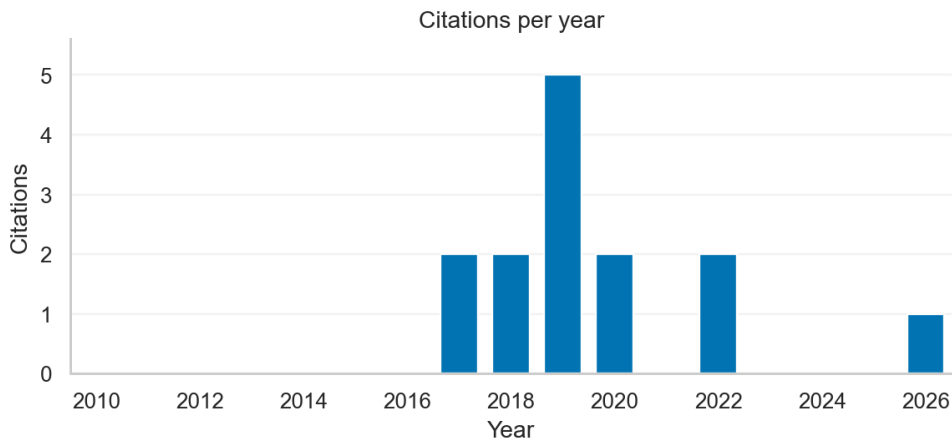
68. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 28;. doi: 10.1101/2025.03.27.644898.

69. Di Zheng, Li Y, Kashif MF, Piscopo L, De Vittorio M, Pisanello F. Nanomaterial■Integrated Fiber Neural Probes for Deep Brain Monitoring and Modulation: Challenges and Opportunities. *Advanced Functional Materials*. 2025 Sep 13;36.0(11.0). doi: 10.1002/adfm.202517054.

70. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *Neural Regeneration Research*. 2026 Feb 28;21.0(10.0):4945-4953. doi: 10.4103/nrr.nrr-d-25-00491. PMID: 0.

Publication

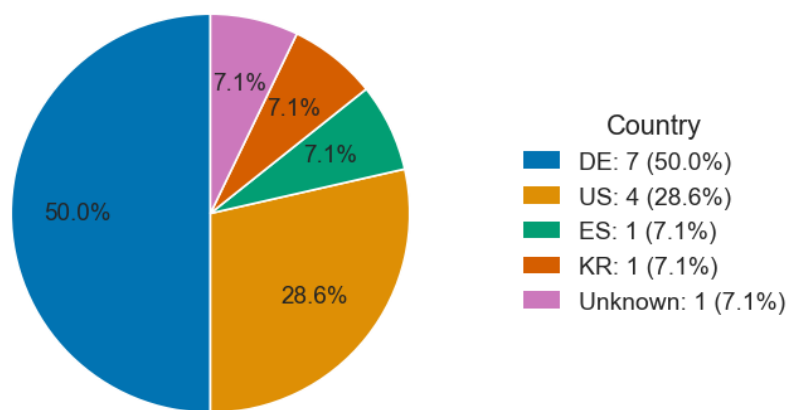
Vogel SN, Aswendt M, Nelles M, Henn N, Schneider G, Hoehn M. Initial graft size and not the innate immune response limit survival of engrafted neural stem cells. *Journal of Tissue Engineering and Regenerative Medicine*. 2017 Jun 9;12(3):784-793. doi: 10.1002/term.2497. PMID: 28599089.



Citation summary

Total citations: **14**
Average/year: **1.40**
Period: 2017-2026
SCImago cites/doc 2y
(2025): **1.76**
SJR 2025: **0.62** (Q2)

Citations by country



Cited by

1. Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8.0(41.0):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 0.
2. Untitled. *Oncotarget*. 2017 Sep 19;8.0(41.0). doi: 10.18632/oncotarget.v8i41.
3. Yun S, Shin T, Lee J, Cho MH, Kim I, Kim J, Jung K, Lee I, Cheon J, Park KI. Design of Magnetically Labeled Cells (Mag-Cells) for in Vivo Control of Stem Cell Migration and Differentiation. *Nano Letters*. 2018 Feb 2;18.0(2.0):838-845. doi: 10.1021/acs.nanolett.7b04089. PMID: 0.
4. Zenchak JR, Palmateer B, Dorka N, Brown TM, Wagner L, Medendorp WE, Petersen ED, Prakash M, Hochgeschwender U. Bioluminescence-driven optogenetic activation of transplanted neural precursor cells improves motor deficits in a Parkinson's disease mouse model. *Journal of Neuroscience Research*. 2018 Mar 25;98.0(3.0):458-468. doi: 10.1002/jnr.24237. PMID: 0.
5. Vogel SN, Schäfer C, Heß S, Folz Donahue K, Nelles M, Minassian A, Schwarz MK, Kukut C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37.0:101429. doi: 10.1016/j.scr.2019.101429. PMID: 0.
6. Green C, Minassian A, Vogel SN, Diedenhofen M, Wiedermann D, Hoehn M. Persistent Quantitative Vitality of Stem Cell Graft Is Necessary for Stabilization of Functional Brain Networks After Stroke. *Frontiers in Neurology*. 2019 Apr 5;10.0:335. doi: 10.3389/fneur.2019.00335. PMID: 0.
7. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
8. Collmann FM, Pijnenburg R, Hamzei-Taj S, Minassian A, Folz Donahue K, Kukut C, Aswendt M, Hoehn M. Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. *Frontiers in Immunology*. 2019 Jun 4;10.0:1236. doi:

10.3389/fimmu.2019.01236. PMID: 0.

9. Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.

10. Minassian A, Green C, Diedenhofen M, Vogel SN, Heß S, Stoeber M, Radmilovi MD, Wiedermann D, Kloppenburg P, Hoehn M. Human Neural Stem Cell Induced Functional Network Stabilization After Cortical Stroke: A Longitudinal Resting-State fMRI Study in Mice. *Frontiers in Cellular Neuroscience*. 2020 Apr 7;14.0:86. doi: 10.3389/fncel.2020.00086. PMID: 0.

11. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.

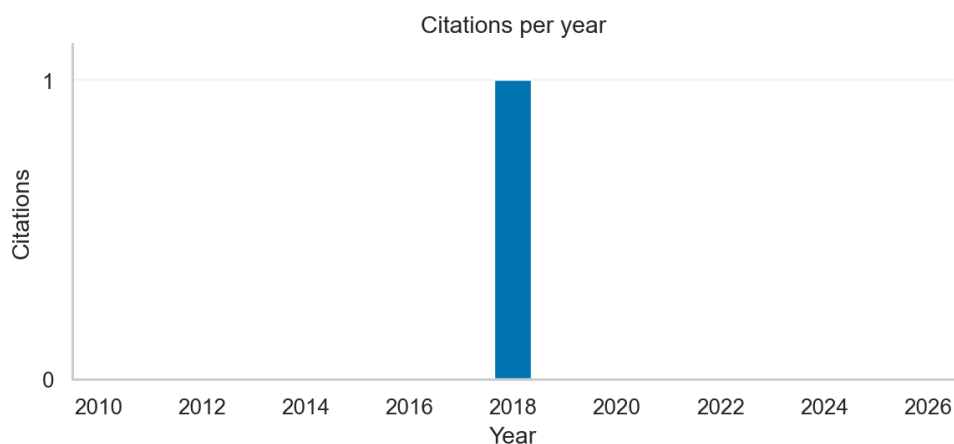
12. Weber R, Bodenmann C, Uhr D, Zürcher KJ, Wanner D, Generali M, Nitsch RM, Rust R, Tackenberg C. Intracerebral Transplantation and In Vivo Bioluminescence Tracking of Human Neural Progenitor Cells in the Mouse Brain. *Journal of Visualized Experiments*. 2022 Jan 27;(179.0). doi: 10.3791/63102. PMID: 0.

13. Weber R, Bodenmann C, Uhr D, Zürcher KJ, Wanner D, Generali M, Nitsch RM, Rust R, Tackenberg C. Intracerebral Transplantation and In Vivo Bioluminescence Tracking of Human Neural Progenitor Cells in the Mouse Brain. *Journal of Visualized Experiments*. 2022 Jan 27;(179.0). doi: 10.3791/63102-v.

14. Pardo Rodríguez B, Manero-Roig I, Salvador-Moya J, Basanta-Torres R, Martín-Aragón D, Hernández Sánchez S, Luzuriaga J, Martín A, Lampin-Saint-Amaux A, Lanore F, Unda F, Ibarretxe G, Pineda JR. Human dental pulp stem cells grafted into C57BL/6J hippocampus differentiate towards immature neuronal like cells displaying action potential firing activity. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Jun 22;. doi: 10.64898/2026.06.16.732586.

Publication

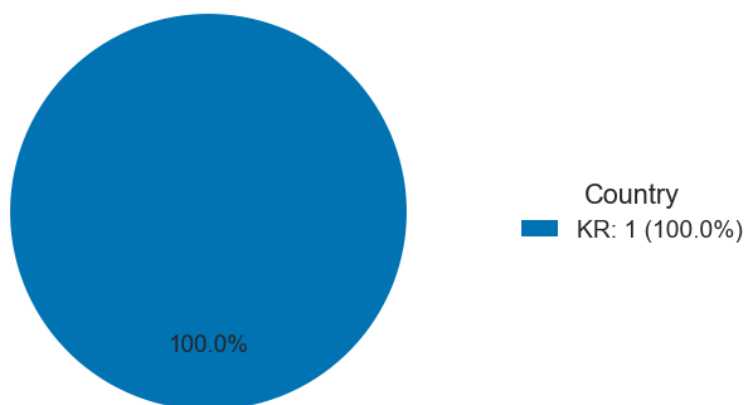
Aswendt M, Collmann FM, Hoehn M. Neurobiological insights from bioluminescence imaging. *Oncotarget*. 2017 Aug 13;8(41):69198-69199. doi: 10.18632/oncotarget.20302. PMID: 29050195.



Citation summary

Total citations: **1**
Average/year: **0.10**
Period: 2017-2026
SCImago cites/doc 2y
(2025): **1.89**
SJR 2025: **0.828** (Q2)

Citations by country

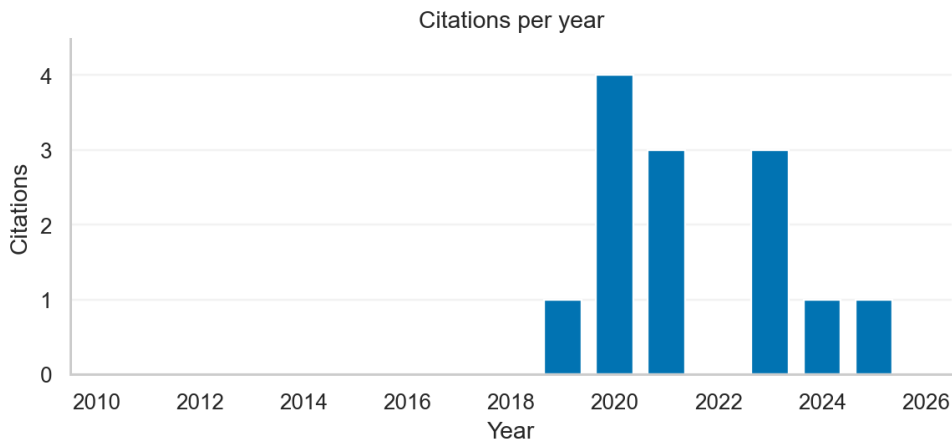


Cited by

1. Heo H, Jo J, Jung JI, Han Y, Lee S, Kim SR, Kwon S, Kim K, Hwang BJ, Kee Y, Lee BD, Kang D, Her S. Improved dynamic monitoring of transcriptional activity during longitudinal analysis in the mouse brain. *Biology Open*. 2018 Jan 1;8(1). doi: 10.1242/bio.037168. PMID: 30341106.

Publication

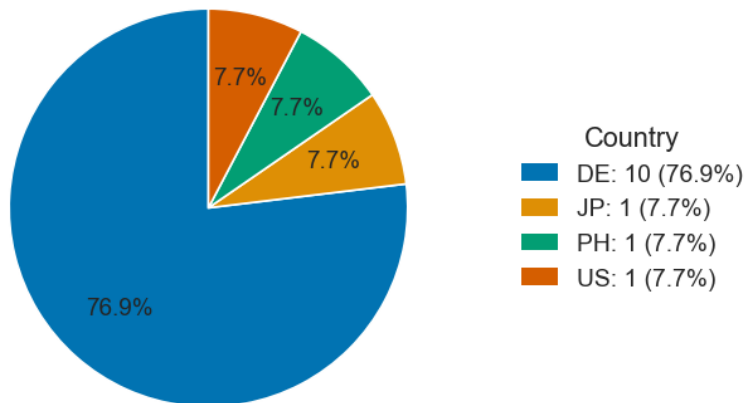
Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Cloud-based relational database for multimodal animal data. *Database*. 2018 Jan 1;2018. doi: 10.1093/database/bay124. PMID: 30576483.



Citation summary

Total citations: **13**
Average/year: **1.44**
Period: 2018-2026
SCImago cites/doc 2y (2025): **2.33**
SJR 2025: **0.943** (Q1)

Citations by country



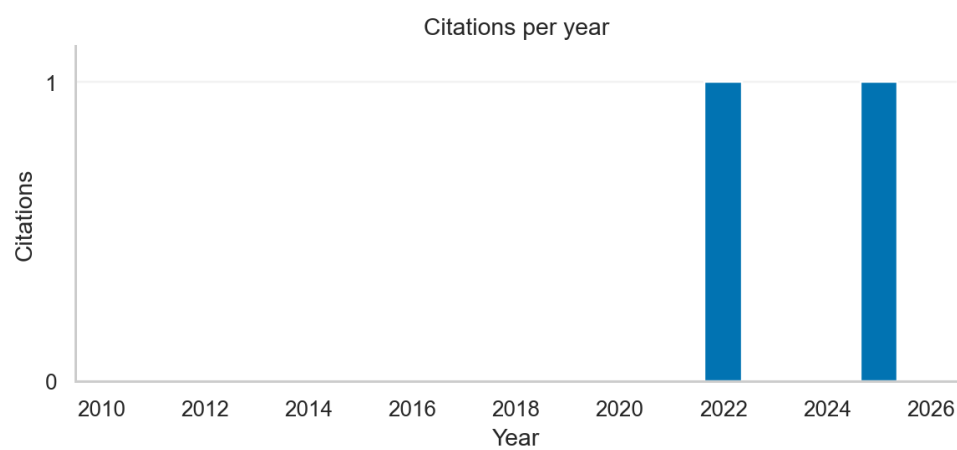
Cited by

1. Pallast N, Diedenhofen M, Blaschke S, Wieters F, Wiedermann D, Hoehn M, Fink GR, Aswendt M. Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). *Frontiers in Neuroinformatics*. 2019 Jun 4;13:0:42. doi: 10.3389/fninf.2019.00042. PMID: 0.
2. Renschen A, Matsunaga A, Oksenberg JR, Santaniello A, Didonna A. TopoDB: a novel multifunctional management system for laboratory animal colonies. *Database*. 2020 Jan 1;2020:0. doi: 10.1093/database/baaa098. PMID: 0.
3. Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12.0(1.0):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 0.
4. Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Graph theoretical quantification of white matter reorganization after cortical stroke in mice. *NeuroImage*. 2020 May 4;217:0:116873. doi: 10.1016/j.neuroimage.2020.116873. PMID: 0.
5. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16.0(7.0):1423. doi: 10.4103/1673-5374.301004. PMID: 0.
6. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive Astrocytes Prevent Maladaptive Plasticity after Ischemic Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jun 17;. doi: 10.1101/2021.06.16.448657.
7. Picker TS. Digitalization in Laboratories of the Pharmaceutical Industry. *Methods and principles in medicinal chemistry*. 2021 Sep 24;:397-420. doi: 10.1002/9783527823048.ch8.
8. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. *Progress in Neurobiology*. 2021 Dec 15;209:0:102199. doi: 10.1016/j.pneurobio.2021.102199. PMID: 0.

9. Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14.0(2.0):454. doi: 10.3390/genes14020454. PMID: 0.
10. Kalantari A, Szczepanik M, Heunis S, Mönch C, Hanke M, Wächtler T, Aswendt M. How to establish and maintain a multimodal animal research dataset using DataLad. *Scientific Data*. 2023 Jun 5;10.0(1.0):357. doi: 10.1038/s41597-023-02242-8. PMID: 0.
11. Ohta T, Hananoe A, Fukushima■Nomura A, Ashizaki K, Sekita A, Seita J, Kawakami E, Sakurada K, Amagai M, Koseki H, Kawasaki H. Best practices for multimodal clinical data management and integration: An atopic dermatitis research case. *Allergology International*. 2023 Dec 14;73.0(2.0):255-263. doi: 10.1016/j.alit.2023.11.006. PMID: 0.
12. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.
13. Andres PRO, Repalam MCR. Provincial animal health monitoring system and geospatial analysis in the Province of Laguna. *AIP conference proceedings*. 2025 Jan 1;3287.0:030001. doi: 10.1063/5.0262098.

Publication

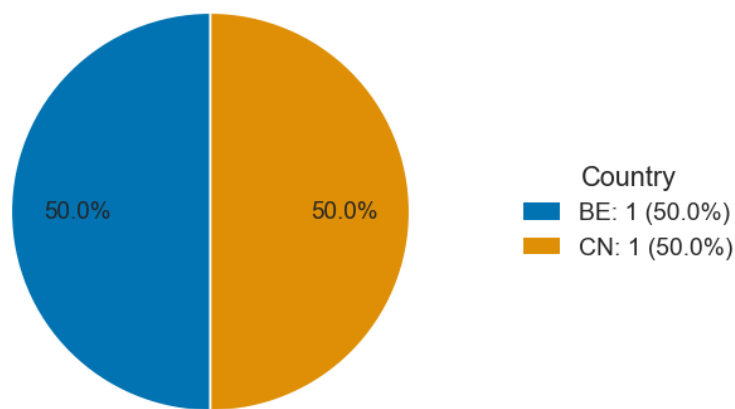
Aswendt M, Green C, Hoehn M. Plastic Network Changes During Brain Disease. *Handbook of behavioral neuroscience*. 2018 Jan 1;:415-424. doi: 10.1016/b978-0-12-812028-6.00022-7.



Citation summary

Total citations: **2**
Average/year: **0.22**
Period: 2018-2026
SCImago cites/doc 2y (2025): **0**
SJR 2025: **0.133** (Q4)

Citations by country



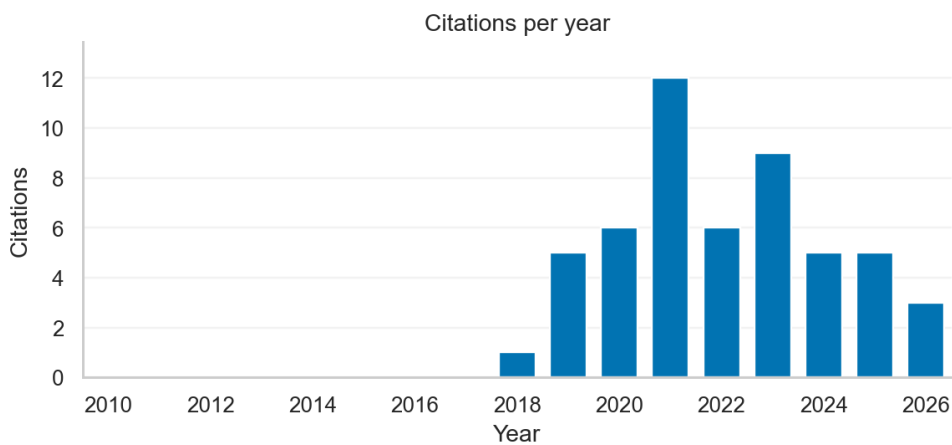
Cited by

1. Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.

2. Li N, He N, Li M, Xu L. From neural decoding to design intervention: A systematic review of human emotional responses to architectural spaces through neuroimaging techniques. *Wellbeing Space and Society*. 2025 Oct 4;9:100305. doi: 10.1016/j.wss.2025.100305.

Publication

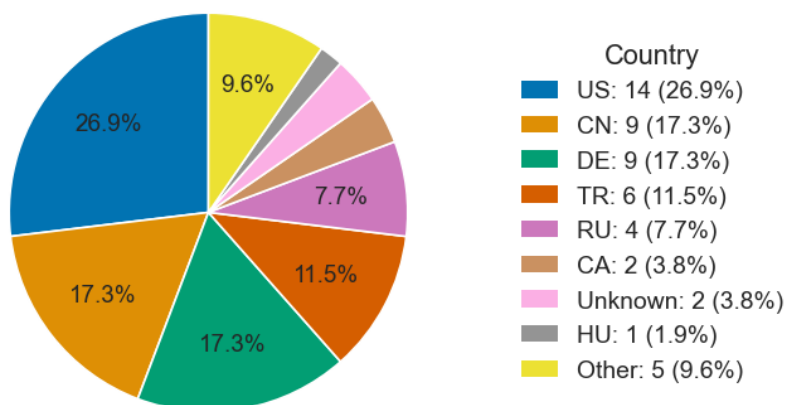
Ito M, Aswendt M, Lee AG, Ishizaka S, Cao Z, Wang EH, Lévy S, Smerin D, McNab JA, Zeineh M, Leuze C, Goubran M, Cheng M, Steinberg GK. RNA-Sequencing Analysis Revealed a Distinct Motor Cortex Transcriptome in Spontaneously Recovered Mice After Stroke. *Stroke*. 2018 Sep 1;49(9):2191-2199. doi: 10.1161/strokeaha.118.021508. PMID: 30354987.



Citation summary

Total citations: **52**
Average/year: **5.78**
Period: 2018-2026
SCImago cites/doc 2y
(2025): **6.75**
SJR 2025: **2.86** (Q1)

Citations by country



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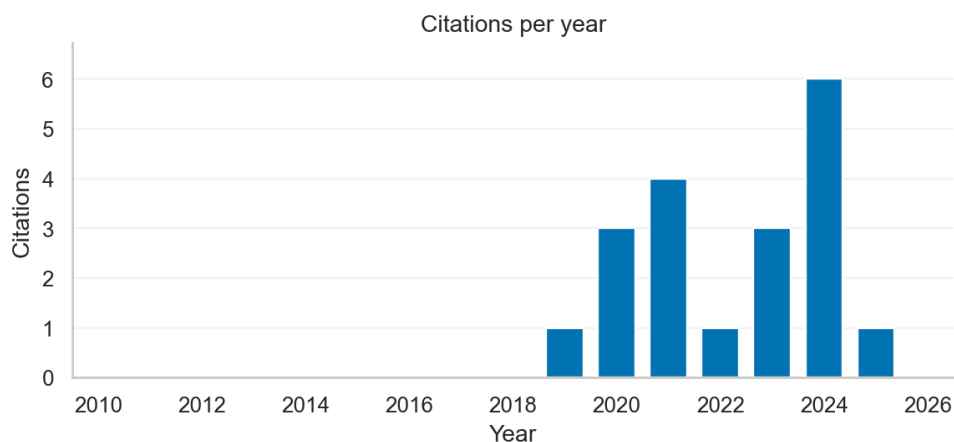
1. Talan J. At the Bench-Stroke Recovery. *Neurology Today*. 2018 Oct 4;18.0(19.0). doi: 10.1097/01.nt.0000547369.27412.7b.
2. Pallast N, Diedenhofen M, Blaschke S, Wieters F, Wiedermann D, Hoehn M, Fink GR, Aswendt M. Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). *Frontiers in Neuroinformatics*. 2019 Jun 4;13.0:42. doi: 10.3389/fninf.2019.00042. PMID: 0.
3. Love CJ, Selim M, Spector M, Lo EH. Biomaterials for Stroke Therapy. *Stroke*. 2019 Jun 10;50.0(8.0):2278-2284. doi: 10.1161/strokeaha.118.023721. PMID: 0.
4. Pallast N, Wieters F, Fink GR, Aswendt M. Atlas-based imaging data analysis tool for quantitative mouse brain histology (AIDAhisto). *Journal of Neuroscience Methods*. 2019 Aug 12;326.0:108394. doi: 10.1016/j.jneumeth.2019.108394. PMID: 0.
5. Goubran M, Leuze C, Hsueh B, Aswendt M, Li Y, Tian Q, Cheng M, Crow A, Steinberg GK, McNab JA, Deisseroth K, Zeineh M. Multimodal image registration and connectivity analysis for integration of connectomic data from microscopy to MRI. *Nature Communications*. 2019 Dec 3;10.0(1.0):5504. doi: 10.1038/s41467-019-13374-0. PMID: 0.
6. Choi I, Yun JH, Kim J, Kim HY, Choi D, Lee J. Sequential Transcriptome Changes in the Penumbra after Ischemic Stroke. *International Journal of Molecular Sciences*. 2019 Dec 16;20.0(24.0):6349. doi: 10.3390/ijms20246349. PMID: 0.
7. Xiao C, Yang Y, Li W, Liu M, Zhang S, Wang Y, Du G. Dynamic Alterations of Brain Injury, Functional Recovery, and Metabolites Profile after Cerebral Ischemia/Reperfusion in Rats Contributes to Potential Biomarkers. *Journal of Molecular Neuroscience*. 2020 Jan 6;70.0(5.0):667-676. doi: 10.1007/s12031-019-01474-x. PMID: 0.

8. Livingston J, Lee T, Daniele E, Phillips C, Krassikova A, Enbar T, Kortebi I, Bang KA, Dhillon B, Ibragimov OS, Sachewsky N, Morshead CM, Faiz M. Direct reprogramming of astrocytes to neurons leads to functional recovery after stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Feb 3;. doi: 10.1101/2020.02.02.929091.
9. Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12.0(1.0):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 0.
10. Li J, Pan L, Godoy M, Pembroke WG, Rexach JE, Condro M, Alvarado AG, Harteni M, Chen Y, Stiles L, Chen A, Wanner IB, Yang X, Goldman SA, Geschwind DH, Kornblum HI, Zhang Y. Conservation and divergence of vulnerability and responses to stressors between human and mouse astrocytes. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Apr 18;. doi: 10.1101/2020.04.17.044222.
11. Xing Y, Bai Y. A Review of Exercise-Induced Neuroplasticity in Ischemic Stroke: Pathology and Mechanisms. *Molecular Neurobiology*. 2020 Jul 20;57.0(10.0):4218-4231. doi: 10.1007/s12035-020-02021-1. PMID: 0.
12. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16.0(7.0):1423. doi: 10.4103/1673-5374.301004. PMID: 0.
13. Cao Z, Harvey S, Chiang T, Foltz A, Lee AG, Cheng M, Steinberg GK. Unique Subtype of Microglia in Degenerative Thalamus After Cortical Stroke. *Stroke*. 2021 Jan 8;52.0(2.0):687-698. doi: 10.1161/strokeaha.120.032402. PMID: 0.
14. Beker MÇ, Çağlayan AB, Altunay S, Özbay E, Ateş N, Keleştemur T, Çağlayan B, Kilic U, Doepfner TR, Hermann DM, Kılıç E. Phosphodiesterase 10A is a critical target for neuroprotection in a mouse model of ischemic stroke. *Research Square*. 2021 Apr 29;. doi: 10.21203/rs.3.rs-469225/v1.
15. Beker MÇ, Çağlayan AB, Altunay S, Özbay E, Ateş N, Keleştemur T, Çağlayan B, Kilic U, Doepfner TR, Hermann DM, Kılıç E. Phosphodiesterase 10A is a critical target for neuroprotection in a mouse model of ischemic stroke. *Research Square*. 2021 May 10;. doi: 10.21203/rs.3.rs-469225/v2.
16. Beker MÇ, Çağlayan AB, Altunay S, Özbay E, Ateş N, Keleştemur T, Çağlayan B, Kilic U, Doepfner TR, Hermann DM, Kılıç E. Phosphodiesterase 10A is a critical target for neuroprotection in a mouse model of ischemic stroke. *Research Square*. 2021 May 17;. doi: 10.21203/rs.3.rs-469225/v3.
17. Hsu CG, Fazal F, Rahman A, Berk BC, Chen Y. Phosphodiesterase 10A Is a Key Mediator of Lung Inflammation. *The Journal of Immunology*. 2021 Jun 1;206.0(12.0):3010-3020. doi: 10.4049/jimmunol.2001026. PMID: 0.
18. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive Astrocytes Prevent Maladaptive Plasticity after Ischemic Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jun 17;. doi: 10.1101/2021.06.16.448657.
19. Li J, Pan L, Pembroke WG, Rexach JE, Godoy M, Condro M, Alvarado AG, Harteni M, Chen Y, Stiles L, Chen A, Wanner IB, Yang X, Goldman SA, Geschwind DH, Kornblum HI, Zhang Y. Conservation and divergence of vulnerability and responses to stressors between human and mouse astrocytes. *Nature Communications*. 2021 Jun 25;12.0(1.0):3958. doi: 10.1038/s41467-021-24232-3. PMID: 0.
20. Ischemic Stroke and Sleep: The Linking Genetic Factors. *Cardiology and Therapy*. 2021 Jun 30;10.0(2.0):349-375. doi: 10.1007/s40119-021-00231-9. PMID: 0.
21. Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24.0(10.0):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
22. Beker MÇ, Çağlayan AB, Altunay S, Özbay E, Ateş N, Keleştemur T, Çağlayan B, Kılıç Ü, Doepfner TR, Hermann DM, Kılıç E. Phosphodiesterase 10A is a Critical Target for Neuroprotection in a Mouse Model of Ischemic Stroke. *Molecular Neurobiology*. 2021 Nov 4;59.0(1.0):574-589. doi: 10.1007/s12035-021-02621-5. PMID: 0.
23. Kerr AL. Contralateral plasticity following constraint-induced movement therapy benefits outcome: contributions of the intact hemisphere to functional recovery. *Reviews in the Neurosciences*. 2021 Nov 11;33.0(3.0):269-283. doi: 10.1515/revneuro-2021-0085. PMID: 0.
24. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. *Progress in Neurobiology*. 2021 Dec 15;209.0:102199. doi: 10.1016/j.pneurobio.2021.102199. PMID: 0.
25. Chen Y, Wang K, Cai J, Li Y, Yu H, Wu Q, Meng W, Wang H, Yin C, Wu J, Huang M, Li R, Guan D. Detecting Key Functional Components Group and Speculating the Potential Mechanism of Xiao-Xu-Ming Decoction in Treating Stroke. *Frontiers in Cell and Developmental Biology*. 2022 May 12;10.0:753425. doi: 10.3389/fcell.2022.753425. PMID: 0.
26. Király B, Hangya B. Navigating the Statistical Minefield of Model Selection and Clustering in Neuroscience. *eNeuro*. 2022 Jul 1;9.0(4.0):ENEURO.0066-22.2022. doi: 10.1523/eneuro.0066-22.2022. PMID: 0.
27. Luo F, Wang J, Zhang Z, You Z, Bedolla A, Okwubido-Williams FV, Huang LF, Silver J, Luo Y. Inhibition of CSPG receptor PTP σ promotes migration of newly born neuroblasts, axonal sprouting, and recovery from stroke. *Cell Reports*. 2022 Jul 1;40.0(4.0):111137. doi: 10.1016/j.celrep.2022.111137. PMID: 0.
28. Higo N. Motor Cortex Plasticity During Functional Recovery Following Brain Damage. *Journal of Robotics and Mechatronics*. 2022 Aug 19;34.0(4.0):700-709. doi: 10.20965/jrm.2022.p0700.
29. Beker MÇ, Pence ME, Yagmur S, Çağlayan B, Çağlayan A, Kılıç Ü, Yelkenci HE, Altıntaş MÖ, Çağlayan AB, Doepfner TR, Hermann DM, Kılıç E. Phosphodiesterase 10A deactivation induces long-term neurological recovery, Peri-infarct remodeling and pyramidal tract plasticity after transient focal cerebral ischemia in mice. *Experimental Neurology*. 2022 Sep 5;358.0:114221. doi: 10.1016/j.expneurol.2022.114221. PMID: 0.
30. Yamaguchi S, Yoshida M, Horie N, Satoh K, Fukuda Y, Ishizaka S, Ogawa K, Morofuji Y, Hiu T, Izumo T, Kawakami S, Nishida N, Matsuo T. Stem Cell Therapy for Acute/Subacute Ischemic Stroke with a Focus on Intraarterial Stem Cell Transplantation: From Basic Research to Clinical Trials. *Bioengineering*. 2022 Dec 27;10.0(1.0):33. doi: 10.3390/bioengineering10010033. PMID: 0.

31. Zhang Y, Zhang Y, Shen L, Xie J, Li L, Li B, Li B, Bai Y, Yao H, Zhang S, Han B. Pushen capsule treatment promotes functional recovery after ischemic stroke. *Phytomedicine*. 2023 Jan 11;111.0:154664. doi: 10.1016/j.phymed.2023.154664. PMID: 0.
32. Filippenkov IB, Remizova JA, Denisova A, Stavchansky V, Golovina KD, Gubsky L, Limborska SA, Dergunova LV. Differential gene expression in the contralateral hemisphere of the rat brain after focal ischemia. *Scientific Reports*. 2023 Jan 11;13.0(1.0):573. doi: 10.1038/s41598-023-27663-8. PMID: 0.
33. Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14.0(2.0):454. doi: 10.3390/genes14020454. PMID: 0.
34. Schädlich IS, Winzer R, Stabernack J, Tolosa E, Magnus T, Rissiek B. The role of the ATP-adenosine axis in ischemic stroke. *Seminars in Immunopathology*. 2023 Mar 14;45.0(3.0):347-365. doi: 10.1007/s00281-023-00987-3. PMID: 0.
35. Dergunova LV, Filippenkov IB, Limborska SA, Myasoedov NF. Neuroprotective Peptides and New Strategies for Ischemic Stroke Drug Discoveries. *Genes*. 2023 Apr 22;14.0(5.0):953. doi: 10.3390/genes14050953. PMID: 0.
36. Sun X, Yao Z, Chen L, Huang J, Dong S. Metabolic reprogramming regulates microglial polarization and its role in cerebral ischemia reperfusion. *Fundamental and Clinical Pharmacology*. 2023 Jun 20;37.0(6.0):1065-1078. doi: 10.1111/fcp.12928. PMID: 0.
37. Adhikari Y, Ma C, Chai Z, Jin X. Preventing development of post-stroke hyperexcitability by optogenetic or pharmacological stimulation of cortical excitatory activity. *Neurobiology of Disease*. 2023 Jul 17;184.0:106233. doi: 10.1016/j.nbd.2023.106233. PMID: 0.
38. Thapa K, Khan H, Grewal AK, Kanojia N, Kaur G, Sood P, Singh TG. Insights into the Therapeutic Potential of Phytoconstituents as an Epigenetic Modulators in Diabetic Nephropathy. *Current Pharmacology Reports*. 2023 Oct 26;9.0(6.0):404-426. doi: 10.1007/s40495-023-00345-9.
39. Gong Y, Liu Z, Zhou P, Li J, Miao Y. Biomimetic nanocarriers harnessing microbial metabolites usher the path for brain disease therapy. *Nano TransMed*. 2023 Dec 1;2.0(4.0):100020. doi: 10.1016/j.ntm.2023.100020.
40. Gong L, Liang J, Xie L, Zhang Z, Mei Z, Zhang W. Metabolic Reprogramming in Gliocyte Post-cerebral Ischemia/Reperfusion: From Pathophysiology to Therapeutic Potential. *Current Neuropharmacology*. 2024 Feb 6;22.0(10.0):1672-1696. doi: 10.2174/1570159x22666240131121032. PMID: 0.
41. Livingston J, Lee TT, Enbar T, Daniele E, Phillips C, Krassikova A, Bang KA, Kortebe I, Donville B, Ibragimov OS, Sachewsky N, Casasbuenas DL, Olfat A, Morshead CM. Ectopic Expression of Neurod1 Is Sufficient for Functional Recovery following a Sensory–Motor Cortical Stroke. *Biomedicines*. 2024 Mar 15;12.0(3.0):663. doi: 10.3390/biomedicines12030663. PMID: 0.
42. Rust R, Nih LR, Liberale L, Yin H, Amki ME, Ong LK, Zlokovič BV. Brain repair mechanisms after cell therapy for stroke. *Brain*. 2024 Jun 25;147.0(10.0):3286-3305. doi: 10.1093/brain/awae204. PMID: 0.
43. Lyu T, Qiu X, Wang Y, Wang Y, Zhang L, Dai Y, Wang X, Zhao S, Xiang M, Cui L, Cheng S, Liu Y, Gu H, Jiang Y, Meng X, Wang Y, Wang Y, Zhao X, Wang X, Li Q, Wang M, Jiang Y, Xu Z, Huang X, Li H, Wang Y, Wang Y, Li Z. DNMT3A dysfunction promotes neuroinflammation and exacerbates acute ischemic stroke. *MedComm*. 2024 Jul 1;5.0(7.0):e652. doi: 10.1002/mco.2.652. PMID: 0.
44. Beker MÇ, Altıntaş MÖ, Dogan E, Bayraktarolu Ç, Balaban B, Ozpinar A, Mengün N, Altunay S, Kılıç E. Inhibition of phosphodiesterase 10A mitigates neuronal injury by modulating apoptotic pathways in cold-induced traumatic brain injury. *Molecular and Cellular Neuroscience*. 2024 Oct 20;131.0:103977. doi: 10.1016/j.mcn.2024.103977. PMID: 0.
45. Filippenkov IB, Shpetko YY, Stavchansky V, Denisova A, Yuzhakov VV, Gubsky L, Limborska SA, Dergunova LV. Differentially Expressed Genes in Rat Brain Regions with Different Degrees of Ischemic Damage. *International Journal of Molecular Sciences*. 2025 Mar 6;26.0(5.0):2347. doi: 10.3390/ijms26052347. PMID: 0.
46. Berk BC, Chávez CL, Hsu CG. PDE10A Inhibition Reduces NLRP3 Activation and Pyroptosis in Sepsis and Nerve Injury. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 17;. doi: 10.1101/2025.03.17.643692.
47. Berk BC, Chávez CL, Hsu CG. PDE10A Inhibition Reduces NLRP3 Activation and Pyroptosis in Sepsis and Nerve Injury. *International Journal of Molecular Sciences*. 2025 May 8;26.0(10.0):4498. doi: 10.3390/ijms26104498. PMID: 0.
48. Vicente B, Ponce I, Gutiérrez MS, Castro EAS, Tovar Romo LB. Neuroprotective Proteins in Hypoxia-stressed Astrocyte-Derived Extracellular Vesicles. *Current Neuropharmacology*. 2025 Jun 24;23.0(14.0):1962-1978. doi: 10.2174/011570159x359837250611052037. PMID: 0.
49. Chen H, Frank JA, Tan C, Lee AG, Kopchock R, Chiang T, Kim A, Galvan M, Fraser JF, Dornbos D, Nour HA, Millson N, Tomlinson S, McCullough LD, Pennypacker KR, Cheng M, Bliss T, Steinberg GK. Luminal Vascular Dysfunction Drives Rapid Blood Brain Barrier Injury in Hyperglycemic Stroke: Key Roles for Luminal Glycocalyx and Complement. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Jun 30;. doi: 10.1101/2025.06.26.661858. PMID: 0.
50. Betz D, Alers V, Kenwood M, Zuurbier KR, Coimbra R, Rhoton P, Plautz EJ, Douglas PM, Ramirez DMO, Stowe A, Goldberg M. Shared Transcriptomic Signatures in Perilesional and Contralesional Cortex. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Feb 4;. doi: 10.64898/2026.02.02.703306. PMID: 0.
51. Dong X, Zhang J, Xu G, Zhu J, Wan H, He Y. Dopamine receptors: Potential therapeutic targets for ischemia-reperfusion injury: A review. *International Journal of Biological Macromolecules*. 2026 Mar 10;354.0:151328. doi: 10.1016/j.ijbiomac.2026.151328. PMID: 0.
52. Tampé JF, Monni E, Shen Y, Palma-Tortosa S, Brogårdh E, Lindgren A, Kokaia Z. Time-dependent changes in monocyte subsets and gene expression patterns are associated with long-term recovery in patients with ischemic stroke. *Research Square*. 2026 Mar 16;. doi: 10.21203/rs.3.rs-8980124/v1. PMID: 0.

Publication

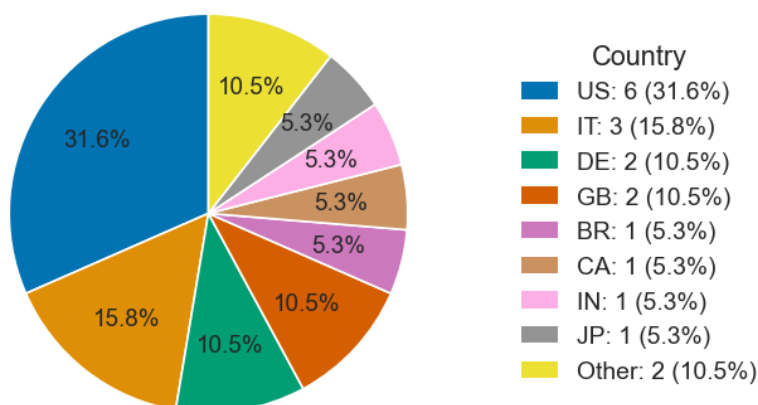
Vogel SN, Schäfer C, Heß S, Folz■Donahue K, Nelles M, Minassian A, Schwarz MK, Kukat C, Ehrlich M, Zaehres H, Kloppenburg P, Hoehn M, Aswendt M. The in vivo timeline of differentiation of engrafted human neural progenitor cells. *Stem Cell Research*. 2019 Mar 25;37:101429. doi: 10.1016/j.scr.2019.101429. PMID: 30933718.



Citation summary

Total citations: **19**
Average/year: **2.38**
Period: 2019-2026
SCImago cites/doc 2y (2025): **0.63**
SJR 2025: **0.333** (Q3)

Citations by country



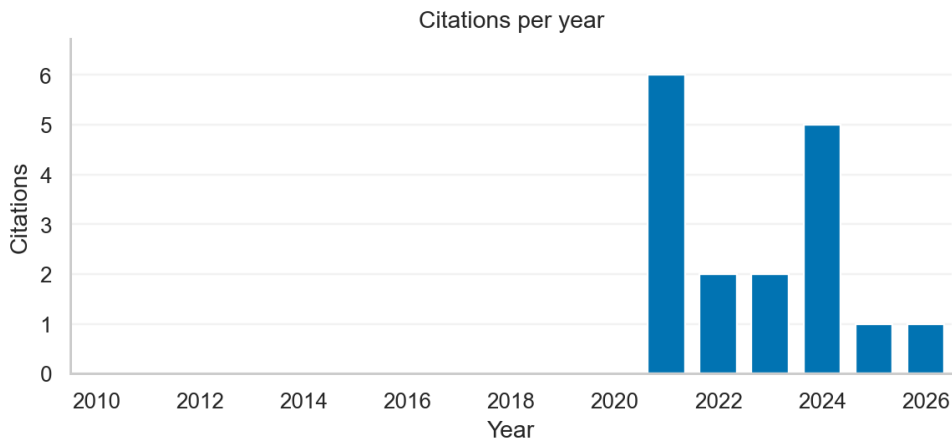
Cited by

- Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.
- Minassian A, Green C, Diedenhofen M, Vogel SN, Heß S, Stoeber M, Radmilovi■ MD, Wiedermann D, Kloppenburg P, Hoehn M. Human Neural Stem Cell Induced Functional Network Stabilization After Cortical Stroke: A Longitudinal Resting-State fMRI Study in Mice. *Frontiers in Cellular Neuroscience*. 2020 Apr 7;14.0:86. doi: 10.3389/fncel.2020.00086. PMID: 0.
- Yamashita N, Morita M, Yokota H, Mimori■Kiyosue Y. Digital Spindle: A New Way to Explore Mitotic Functions by Whole Cell Data Collection and a Computational Approach. *Cells*. 2020 May 19;9.0(5.0):1255. doi: 10.3390/cells9051255. PMID: 0.
- Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.
- Palma-Tortosa S, Martín BC, Kokaia Z, Tornero D. Neuronal Replacement in Stem Cell Therapy for Stroke: Filling the Gap. *Frontiers in Cell and Developmental Biology*. 2021 Apr 6;9.0:662636. doi: 10.3389/fcell.2021.662636. PMID: 0.
- Galichet C, Clayton R, Lovell■Badge R. Novel Tools and Investigative Approaches for the Study of Oligodendrocyte Precursor Cells (NG2-Glia) in CNS Development and Disease. *Frontiers in Cellular Neuroscience*. 2021 Apr 29;15.0:673132. doi: 10.3389/fncel.2021.673132. PMID: 0.
- Salwa, Kumar L. Engrafted stem cell therapy for Alzheimer's disease: A promising treatment strategy with clinical outcome. *Journal of Controlled Release*. 2021 Sep 9;338.0:837-857. doi: 10.1016/j.jconrel.2021.09.007. PMID: 0.
- Portillo■Lara R, Goding J, Green RA. Adaptive biomimicry: design of neural interfaces with enhanced biointegration. *Current Opinion in Biotechnology*. 2021 Oct 26;72.0:62-68. doi: 10.1016/j.copbio.2021.10.004. PMID: 0.

9. Paranjape N, Lin YT, Flores-Ramirez Q, Sarin V, Johnson A, Chu J, Paredes MF, Wiita AP. A CRISPR-engineered Isogenic Model Reveals Altered Neuronal Phenotypes of the 22q11.2 A-B Syndromic Deletion. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Jun 24;. doi: 10.1101/2022.06.22.497212.
10. Paranjape N, Lin YT, Flores-Ramirez Q, Sarin V, Johnson A, Chu J, Paredes MF, Wiita AP. A CRISPR-engineered isogenic model of the 22q11.2 A-B syndromic deletion. *Scientific Reports*. 2023 May 11;13.0(1.0):7689. doi: 10.1038/s41598-023-34325-2. PMID: 0.
11. Maalouf K, Vaine CA, Frederick DM, Yoshinaga A, Obuchi W, Mahjoun S, Nieland L, Ali JA, Bragg DC, Breakefield XO, Breyne K. Tracking human neurologic disease status in mouse brain/plasma using reporter-tagged, EV-associated biomarkers. *Molecular Therapy*. 2023 May 17;31.0(7.0):2206-2219. doi: 10.1016/j.ymthe.2023.05.011. PMID: 0.
12. Kwokdinata C, Ramanujam V, Chen J, Oliveira PF, Nai MH, Chooi WH, Lim CT, Ng S, David L, Chew SY. Encapsulation of Human Spinal Cord Progenitor Cells in Hyaluronan-Gelatin Hydrogel for Spinal Cord Injury Treatment. *ACS Applied Materials & Interfaces*. 2023 Sep 26;15.0(44.0):50679-50692. doi: 10.1021/acsami.3c07419. PMID: 0.
13. Merighi F, De Vincentiis S, Onorati M, Raffa V. Long-term mouse spinal cord organotypic slice culture as a platform for validating cell transplantation in spinal cord injury. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Jan 29;. doi: 10.1101/2024.01.29.577615.
14. Merighi F, De Vincentiis S, Onorati M, Raffa V. Long-term Mouse Spinal Cord Organotypic Slice Culture as a Platform for Validating Cell Transplantation in Spinal Cord Injury. *Journal of Visualized Experiments*. 2024 Apr 12;(206.0). doi: 10.3791/66704. PMID: 0.
15. Merighi F, De Vincentiis S, Onorati M, Raffa V. JoVE Video Dataset. 2024 Apr 13;. doi: 10.3791/66704-v.
16. Jin L, Tai Y, Nam J. Piezoelectric silk fibroin nanofibers: Structural optimization to enhance piezoelectricity and biostability for neural tissue engineering. *Nano Energy*. 2024 Oct 17;132.0:110367. doi: 10.1016/j.nanoen.2024.110367.
17. Calhoun C, Kan S, Stover AE, Harb J, Monuki ES, Wang R, Schwartz PH. Human iPSC-derived neural stem cells engraft and improve pathophysiology of MPS I mice. *Molecular Therapy — Methods & Clinical Development*. 2024 Nov 5;32.0(4.0):101367. doi: 10.1016/j.omtm.2024.101367. PMID: 0.
18. da Costa NMM, Caetano HIP, Aguiar LM, Parisi L, Ghezzi B, Elviri L, Zuardi LR, de Oliveira PT, Palioto DB. The Influence of Physiological Blood Clot on Osteoblastic Cell Response to a Chitosan-Based 3D Scaffold—A Pilot Investigation. *Biomimetics*. 2024 Dec 21;9.0(12.0):782. doi: 10.3390/biomimetics9120782. PMID: 0.
19. Rodrigue B, Sajish M, Salmaso N, Aguilar Valles A. Orchestrating Neural Development Through mRNA Translation Regulation. *Journal of Neurochemistry*. 2025 Jun 1;169.0(6.0):e70128. doi: 10.1111/jnc.70128. PMID: 0.

Publication

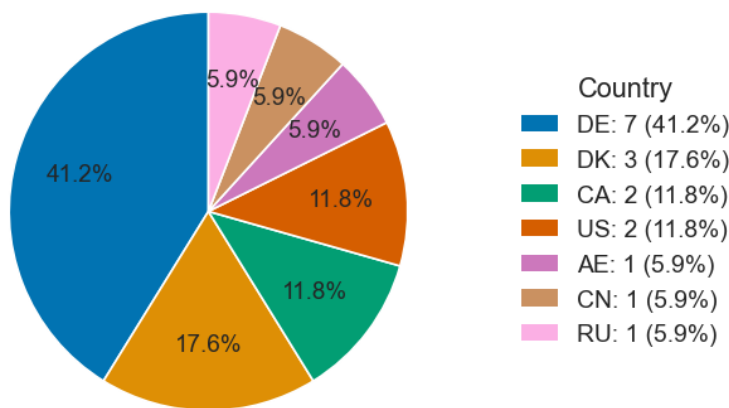
Apetz N, Kordys E, Simon M, Mang B, Aswendt M, Wiedermann D, Neumaier B, Drzezga A, Timmermann L, Endepols H. Effects of subthalamic deep brain stimulation on striatal metabolic connectivity in a rat hemiparkinsonian model. *Disease Models & Mechanisms*. 2019 May 1;12(5). doi: 10.1242/dmm.039065. PMID: 31064773.



Citation summary

Total citations: **17**
Average/year: **2.12**
Period: 2019-2026
SCImago cites/doc 2y
(2025): **2.61**
SJR 2025: **1.31** (Q1)

Citations by country



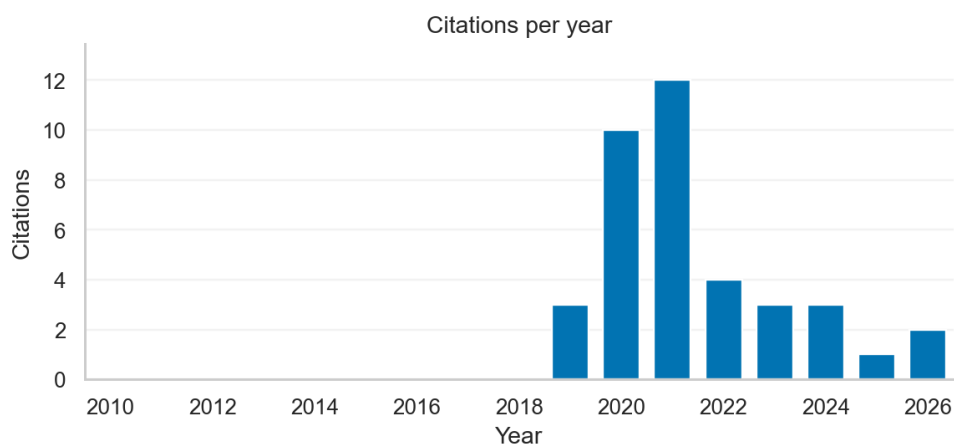
Cited by

1. Casado-Sainz A, Gudmundsen F, Bærentzen SL, Lange D, Ringsted A, Martinez-Tajada I, Medina S, Lee H, Svarer C, Keller SH, Schain M, Kjærby C, Fisher PM, Cumming P, Palner M. Dorsal striatal dopamine induces fronto-cortical hypoactivity and implies reduced anxiety and compulsive behaviors in rats. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Feb 11;. doi: 10.1101/2021.02.11.430770.
2. Apetz N, Paralakar K, Neumaier B, Drzezga A, Wiedermann D, Iyer R, Munns G, Scott ER, Timmermann L, Endepols H. Towards chronic deep brain stimulation in freely moving hemiparkinsonian rats: applicability and functionality of a fully implantable stimulation system. *Journal of Neural Engineering*. 2021 Feb 19;18.0(3.0):036018. doi: 10.1088/1741-2552/abe806. PMID: 0.
3. Miterko LN, Lin T, Zhou J, van der Heijden ME, Beckinghausen J, White JJ, Sillitoe RV. Neuromodulation of the cerebellum rescues movement in a mouse model of ataxia. *Nature Communications*. 2021 Feb 26;12.0(1.0):1295. doi: 10.1038/s41467-021-21417-8. PMID: 0.
4. Casado-Sainz A, Gudmundsen F, Bærentzen SL, Lange D, Ringsted A, Martinez-Tejada I, Medina S, Lee H, Svarer C, Keller SH, Schain M, Kjærby C, Fisher PM, Cumming P, Palner M. Dorsal striatal dopamine induces fronto-cortical hypoactivity and attenuates anxiety and compulsive behaviors in rats. *Neuropsychopharmacology*. 2021 Nov 1;47.0(2.0):454-464. doi: 10.1038/s41386-021-01207-y. PMID: 0.
5. Knörr S, Musacchio T, Paulat R, Matthies C, Endres H, Wenger N, Harms C, Ip CW. Experimental deep brain stimulation in rodent models of movement disorders. *Experimental Neurology*. 2021 Nov 15;348.0:113926. doi: 10.1016/j.expneurol.2021.113926. PMID: 0.
6. Endepols H, Zlatopolskiy BD, Zischler J, Alavinejad N, Apetz N, Vus S, Drzezga A, Neumaier B. Imaging of cerebral tryptophan metabolism using 7-[18F]FTrp-PET in a unilateral Parkinsonian rat model. *NeuroImage*. 2021 Dec 20;247.0:118842. doi: 10.1016/j.neuroimage.2021.118842. PMID: 0.

7. Andree A, Li N, Butenko K, Kober M, Chen JZ, Higuchi T, Fauser M, Storch A, Ip CW, Kühn AA, Horn A, van Rienen U. Deep brain stimulation electrode modeling in rats. *Experimental Neurology*. 2022 Jan 10;350.0:113978. doi: 10.1016/j.expneurol.2022.113978. PMID: 0.
8. Ruiz MCM, Guimarães RP, Mortari MR. Parkinson's disease rodent models: Are they suitable for DBS research?. *Journal of Neuroscience Methods*. 2022 Aug 5;380.0:109687. doi: 10.1016/j.jneumeth.2022.109687. PMID: 0.
9. Real CC, Binda KH, Thomsen MB, Lillethorup TP, Brooks DJ, Landau AM. Selecting the Best Animal Model of Parkinson's Disease for Your ResearchPurpose: Insight from in vivo PET Imaging Studies. *Current Neuropharmacology*. 2023 Feb 17;21.0(5.0):1241-1272. doi: 10.2174/1570159x21666230216101659. PMID: 0.
10. Endepols H, Anglada■Huguet M, Mandelkow■ E, Neumaier B, Mandelkow E, Drzezga A. Fragmentation of functional resting state brain networks in a transgenic mouse model of tau pathology: A metabolic connectivity study using [18F]FDG-PET. *Experimental Neurology*. 2023 Dec 3;372.0:114632. doi: 10.1016/j.expneurol.2023.114632. PMID: 0.
11. Zhang KK, Matin R, Gorodetsky C, Ibrahim GM, Gouveia FV. Systematic review of rodent studies of deep brain stimulation for the treatment of neurological, developmental and neuropsychiatric disorders. *Translational Psychiatry*. 2024 Apr 11;14.0(1.0):186. doi: 10.1038/s41398-023-02727-5. PMID: 0.
12. Wu Z, Ren Z, Gao R, Sun K, Sun F, Liu T, Zheng S, Wang W, Zhang G. Impact of subthalamic nucleus deep brain stimulation at different frequencies on neurogenesis in a rat model of Parkinson's disease. *Heliyon*. 2024 May 1;10.0(10.0):e30730. doi: 10.1016/j.heliyon.2024.e30730. PMID: 0.
13. Williams DR. Why so slow? Models of parkinsonian bradykinesia. *Nature reviews. Neuroscience*. 2024 Jun 27;25.0(8.0):573-586. doi: 10.1038/s41583-024-00830-0. PMID: 0.
14. Endepols H, Apetz N, Vieth L, Lesser C, Schulte-Holtey L, Neumaier B, Drzezga A. Cerebellar Metabolic Connectivity during Treadmill Walking before and after Unilateral Dopamine Depletion in Rats. *International Journal of Molecular Sciences*. 2024 Aug 7;25.0(16.0):8617. doi: 10.3390/ijms25168617. PMID: 0.
15. Grottemeyer A, Petschner T, Peach RL, Hoehl D, Knauer T, Thomas U, Endres H, Blum R, Sendtner M, Volkmann J, Ip CW. Standardized wireless deep brain stimulation system for mice. *npj Parkinson s Disease*. 2024 Aug 14;10.0(1.0):153. doi: 10.1038/s41531-024-00767-2. PMID: 0.
16. Miterko LN, Peacoe LE, Duraine L, Zuo Z, Sillitoe RV. Cerebellar deep brain stimulation rescues Purkinje cell mitochondrial density in a genetic mouse model of cerebellar ataxia. *Brain Research Bulletin*. 2025 Dec 24;234.0:111704. doi: 10.1016/j.brainresbull.2025.111704. PMID: 0.
17. Campos ACP, Pagano RL, Hamani C. Neurorestorative and neuroimmune effects of deep brain stimulation. *Elsevier eBooks*. 2026 Jan 1;:55-73. doi: 10.1016/b978-0-323-99742-3.00003-5.

Publication

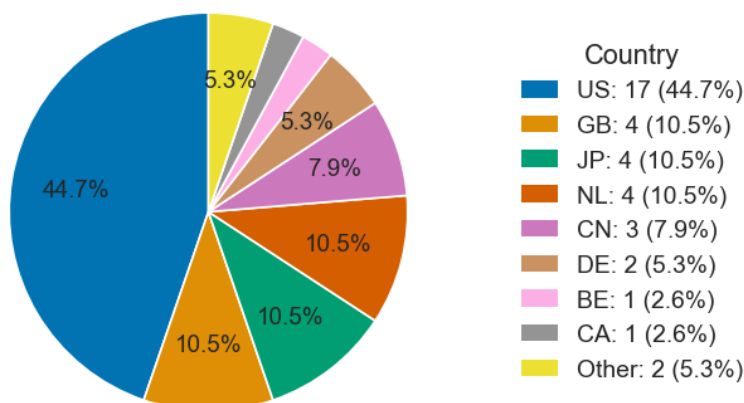
Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6(02):1. doi: 10.1117/1.nph.6.2.025006. PMID: 31093514.



Citation summary

Total citations: **38**
Average/year: **4.75**
Period: 2019-2026
SCImago cites/doc 2y (2025): **3.47**
SJR 2025: **1.1** (Q1)

Citations by country



Cited by

- Collmann FM, Pijnenburg R, Hamzei-Taj S, Minassian A, Folz M, Donahue K, Kukut C, Aswendt M, Hoehn M. Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. *Frontiers in Immunology*. 2019 Jun 4;10.0:1236. doi: 10.3389/fimmu.2019.01236. PMID: 0.
- Pyon WS, Gray DT, Barnes CA. An Alternative to Dye-Based Approaches to Remove Background Autofluorescence From Primate Brain Tissue. *Frontiers in Neuroanatomy*. 2019 Jul 18;13.0:73. doi: 10.3389/fnana.2019.00073. PMID: 0.
- Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15.0(1.0):61. doi: 10.4103/1673-5374.264449. PMID: 0.
- Xia Y, Bao H, Huang J, Li X, Yu C, Zhang Z, Wang H. Near-infrared-persistent luminescence/bioluminescence imaging tracking of transplanted mesenchymal stem cells in pulmonary fibrosis. *Biomaterials Science*. 2020 Jan 1;8.0(11.0):3095-3105. doi: 10.1039/d0bm00063a. PMID: 0.
- Ashmore M, Harris C, Iafrate M, Saleem A, Fruhwirth GO. Non-invasive Reporter Gene Imaging of Cell Therapies, including T Cells and Stem Cells. *Molecular Therapy*. 2020 Mar 20;28.0(6.0):1392-1416. doi: 10.1016/j.ymthe.2020.03.016. PMID: 0.
- Harward SC, Southwell DG. Interneuron transplantation: a prospective surgical therapy for medically refractory epilepsy. *Neurosurgical FOCUS*. 2020 Apr 1;48.0(4.0):E18. doi: 10.3171/2020.2.focus19955. PMID: 0.
- Iafrate M, Fruhwirth GO. How Non-invasive in vivo Cell Tracking Supports the Development and Translation of Cancer Immunotherapies. *Frontiers in Physiology*. 2020 Apr 3;11.0:154. doi: 10.3389/fphys.2020.00154. PMID: 0.
- Raikwar SP, Thangavel R, Ahmed ME, Selvakumar GP, Kempuraj D, Wu K, Khan O, Bazley K, Bussinger B, Kukulka K, Zaheer S, Iyer SS, Govindarajan R, Burton C, James D, Zaheer A. Real-Time Noninvasive Bioluminescence, Ultrasound and Photoacoustic Imaging in NFκB-RE-Luc Transgenic Mice Reveal Glia Maturation Factor-Mediated Immediate and Sustained Spatio-Temporal Activation of NFκB Signaling Post-Traumatic Brain Injury in a Gender-Specific Manner. *Cellular and Molecular Neurobiology*. 2020 Aug

12;41.0(8.0):1687-1706. doi: 10.1007/s10571-020-00937-9. PMID: 0.

9. Endo M, Ozawa T. Advanced Bioluminescence System for In Vivo Imaging with Brighter and Red-Shifted Light Emission. *International Journal of Molecular Sciences*. 2020 Sep 7;21.0(18.0):6538. doi: 10.3390/ijms21186538. PMID: 0.

10. Zambito G, Gaspar N, Ridwan Y, Hall MP, Shi C, Kirkland TA, Encell LP, Löwik CW, Mezzanotte L. Evaluating Brightness and Spectral Properties of Click Beetle and Firefly Luciferases Using Luciferin Analogues: Identification of Preferred Pairings of Luciferase and Substrate for In Vivo Bioluminescence Imaging. *Molecular Imaging and Biology*. 2020 Sep 14;22.0(6.0):1523-1531. doi: 10.1007/s11307-020-01523-7. PMID: 0.

11. Dimond A, Van de Pette M, Fisher AG. Illuminating Epigenetics and Inheritance in the Immune System with Bioluminescence. *Trends in Immunology*. 2020 Oct 6;41.0(11.0):994-1005. doi: 10.1016/j.it.2020.09.001. PMID: 0.

12. Madsen SD, Giler MK, Bunnell BA, O'Connor KC. Illuminating the Regenerative Properties of Stem Cells In Vivo with Bioluminescence Imaging. *Biotechnology Journal*. 2020 Oct 22;16.0(3.0):e2000248. doi: 10.1002/biot.202000248. PMID: 0.

13. Zambito G, Hall MP, Wood MG, Gaspar N, Ridwan Y, Stellari F, Shi C, Kirkland TA, Encell LP, Löwik C, Mezzanotte L. Red-shifted click beetle luciferase mutant expands the multicolor bioluminescent palette for deep tissue imaging. *iScience*. 2020 Dec 26;24.0(1.0):101986. doi: 10.1016/j.isci.2020.101986. PMID: 0.

14. Yao Z, Caldwell DR, Love A, Kolbaba■Kartchner B, Mills JH, Schnermann MJ, Prescher JA. Coumarin luciferins and mutant luciferases for robust multi-component bioluminescence imaging. *Chemical Science*. 2021 Jan 1;12.0(35.0):11684-11691. doi: 10.1039/d1sc03114g. PMID: 0.

15. Saito■Moriya R, Nakayama J, Kamiya G, Kitada N, Obata R, Maki S, Aoyama H. How to Select Firefly Luciferin Analogues for In Vivo Imaging. *International Journal of Molecular Sciences*. 2021 Feb 12;22.0(4.0):1848. doi: 10.3390/ijms22041848. PMID: 0.

16. Williams SJ, Hwang CS, Prescher JA. Orthogonal Bioluminescent Probes from Disubstituted Luciferins. *Biochemistry*. 2021 Feb 18;60.0(8.0):563-572. doi: 10.1021/acs.biochem.0c00894. PMID: 0.

17. Yawata S, Noda K, Shimomura A, Kuroda A. Mutant Firefly Luciferase Enzymes Resistant to the Inhibition by Sodium Chloride. *Research Square*. 2021 Feb 26;. doi: 10.21203/rs.3.rs-243105/v1.

18. Rathbun CM, Ionkina AA, Yao Z, Jones KA, Porterfield W, Prescher JA. Rapid Multicomponent Bioluminescence Imaging via Substrate Unmixing. *ACS Chemical Biology*. 2021 Mar 17;16.0(4.0):682-690. doi: 10.1021/acscchembio.0c00959. PMID: 0.

19. Zambito G, Chawda C, Mezzanotte L. Emerging tools for bioluminescence imaging. *Current Opinion in Chemical Biology*. 2021 Mar 23;63.0:86-94. doi: 10.1016/j.cbpa.2021.02.005. PMID: 0.

20. Yawata S, Noda K, Shimomura A, Kuroda A. Mutant firefly luciferase enzymes resistant to the inhibition by sodium chloride. *Biotechnology Letters*. 2021 May 4;43.0(8.0):1585-1594. doi: 10.1007/s10529-021-03109-x. PMID: 0.

21. Yao Z, Caldwell DF, Love A, Kolbaba■Kartchner B, Mills J, Schnermann MJ, Prescher JA. Coumarin Luciferins and Mutant Luciferases for Robust Multicomponent Bioluminescence Imaging. *ChemRxiv*. 2021 May 9;. doi: 10.26434/chemrxiv.14544630.v1.

22. Yao Z, Caldwell DF, Love A, Kolbaba■Kartchner B, Mills J, Schnermann MJ, Prescher JA. Coumarin Luciferins and Mutant Luciferases for Robust Multicomponent Bioluminescence Imaging. *ChemRxiv*. 2021 May 10;. doi: 10.26434/chemrxiv.14544630.

23. Zambito G, Mezzanotte L. Near-infrared bioluminescence imaging of two cell populations in living mice. *STAR Protocols*. 2021 Jul 7;2.0(3.0):100662. doi: 10.1016/j.xpro.2021.100662. PMID: 0.

24. Kim I, Park J, Kim B, Hwang K, Song B. Recent advances in stem cell therapy for neurodegenerative disease: Three dimensional tracing and its emerging use. *World Journal of Stem Cells*. 2021 Sep 18;13.0(9.0):1215-1230. doi: 10.4252/wjsc.v13.i9.1215. PMID: 0.

25. Liu S, Su Y, Lin MZ, Ronald JA. Brightening up Biology: Advances in Luciferase Systems for in Vivo Imaging. *ACS Chemical Biology*. 2021 Nov 15;16.0(12.0):2707-2718. doi: 10.1021/acscchembio.1c00549. PMID: 0.

26. Li X, Yu C, Bao H, Chen Z, Liu X, Huang J, Zhang Z. CT/bioluminescence dual-modal imaging tracking of stem cells labeled with Au@PEI@PEG nanotracers and RfLuc in nintedanib-assisted pulmonary fibrosis therapy. *Nanomedicine Nanotechnology Biology and Medicine*. 2022 Jan 13;41.0:102517. doi: 10.1016/j.nano.2022.102517. PMID: 0.

27. Rai H, Gupta S, Kumar S, Yang J, Singh SK, Ran C, Modi G. Near-Infrared Fluorescent Probes as Imaging and Theranostic Modalities for Amyloid-Beta and Tau Aggregates in Alzheimer's Disease. *Journal of Medicinal Chemistry*. 2022 Jun 27;65.0(13.0):8550-8595. doi: 10.1021/acs.jmedchem.1c01619. PMID: 0.

28. Hesemans E, Buttiens K, Manshian BB, Soenen SJ. The Role of Optical Imaging in Translational Nanomedicine. *Journal of Functional Biomaterials*. 2022 Aug 31;13.0(3.0):137. doi: 10.3390/jfb13030137. PMID: 0.

29. Brennan CK, Yao Z, Ionkina AA, Rathbun CM, Sathishkumar B, Prescher JA. Multiplexed bioluminescence imaging with a substrate unmixing platform. *Cell chemical biology*. 2022 Oct 24;29.0(11.0):1649-1660.e4. doi: 10.1016/j.chembiol.2022.10.004. PMID: 0.

30. Jiang Y, Shi X, Tang C, Wang F. Beyond luciferase-luciferin system: Modification, improved imaging and biomedical application. *Coordination Chemistry Reviews*. 2023 Jan 31;481.0:215045. doi: 10.1016/j.ccr.2023.215045.

31. Navarro MX, Brennan CK, Love A, Prescher JA. Caged luciferins enable rapid multicomponent bioluminescence imaging. *Photochemistry and Photobiology*. 2023 May 31;100.0(1.0):67-74. doi: 10.1111/php.13814. PMID: 0.

32. Silvagnoli AD, Taylor KA, Slaviero AN, Petersen ED. A Method for Optimizing Imaging Parameters to Record Neuronal and Cellular Activity at Depth with Bioluminescence. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Nov 1;. doi: 10.1101/2023.10.29.564606.

33. Townsend KM, Prescher JA. Recent advances in bioluminescent probes for neurobiology. *Neurophotonics*. 2024 Feb 22;11.0(2.0):024204. doi: 10.1117/1.nph.11.2.024204. PMID: 0.

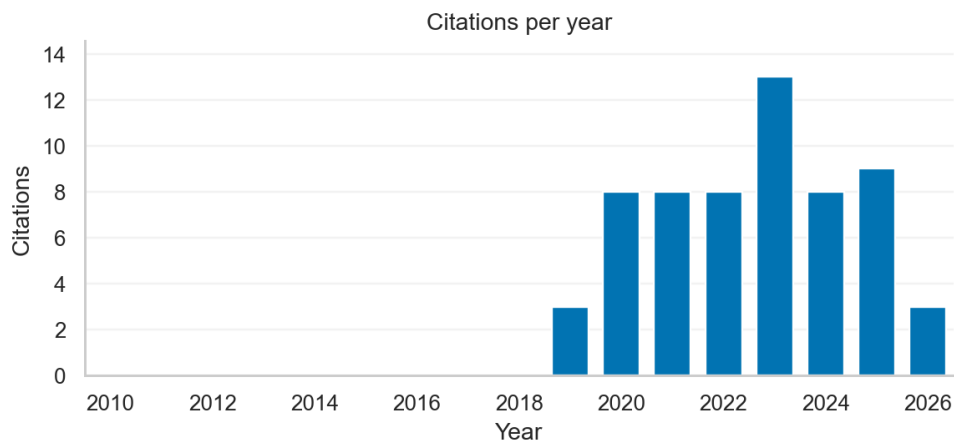
34. Silvagnoli AD, Taylor KA, Slaviero AN, Petersen ED. Method for optimizing imaging parameters to record neuronal and cellular activity at depth with bioluminescence. *Neurophotonics*. 2024 Mar 28;11.0(2.0):024206. doi: 10.1117/1.nph.11.2.024206. PMID: 0.

35. Bettini A, Patrick PS, Day RM, Stuckey DJ. CT■Visible Microspheres Enable Whole■Body In Vivo Tracking of Injectable Tissue Engineering Scaffolds. *Advanced Healthcare Materials*. 2024 Apr 28;13.0(17.0):e2303588. doi: 10.1002/adhm.202303588. PMID: 0.

36. Esimbekova EN, Kratasyuk VA, Rozanova NA, Lonshakova-Mukina VI, Torgashina IG, Komleva YK, Saridis MR, Korsakova SA, Yurchenko SO, ■■■■■■■■ ■■■. Current and prospective trends in the application of bioluminescent analysis in experimental brain studies. *Talanta*. 2025 Jun 24;296.0:128510. doi: 10.1016/j.talanta.2025.128510. PMID: 0.
37. Taylor KA, Covell J, Pinderi Z, Galvin H, Onge BS, Petersen ED. Neurotransmitter Sensor-Driven Neuromodulation. *BioLuminescent OptoGenetics*. 2026 Jan 1;:103-113. doi: 10.1007/978-3-032-18121-3_7.
38. Chatterton M, Dubey O, VanDusen A, Robinette E, Abel JD, Stewart A, Rossignol J, Bakke J, Petersen ED. Bioluminescent Kinase Sensors (BlinKS) as Optogenetic Integrators. *BioLuminescent OptoGenetics*. 2026 Jan 1;:143-155. doi: 10.1007/978-3-032-18121-3_10.

Publication

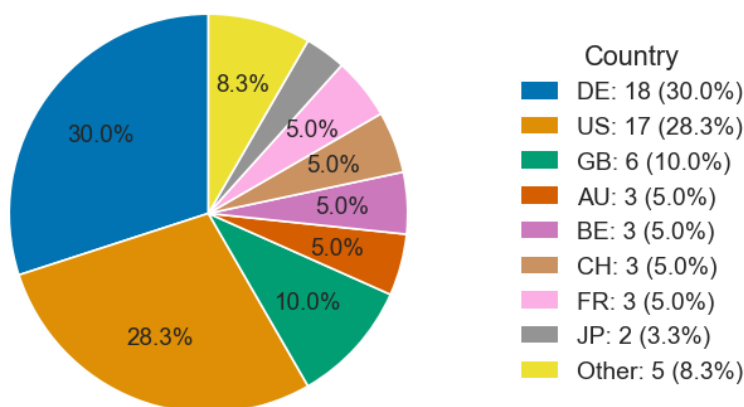
Pallast N, Diedenhofen M, Blaschke S, Wieters F, Wiedermann D, Hoehn M, Fink GR, Aswendt M. Processing Pipeline for Atlas-Based Imaging Data Analysis of Structural and Functional Mouse Brain MRI (AIDAmri). *Frontiers in Neuroinformatics*. 2019 Jun 4;13:42. doi: 10.3389/fninf.2019.00042. PMID: 31231202.



Citation summary

Total citations: **60**
Average/year: **7.50**
Period: 2019-2026
SCImago cites/doc 2y (2025): **2.8**
SJR 2025: **0.783** (Q2)

Citations by country



Cited by

- Krämer J, Brück W, Zipp F, Cerina M, Groppa S, Meuth SG. Imaging in mice and men: Pathophysiological insights into multiple sclerosis from conventional and advanced MRI techniques. *Progress in Neurobiology*. 2019 Jul 30;182.0:101663. doi: 10.1016/j.pneurobio.2019.101663. PMID: 0.
- Pallast N, Wieters F, Fink GR, Aswendt M. Atlas-based imaging data analysis tool for quantitative mouse brain histology (AIDAhisto). *Journal of Neuroscience Methods*. 2019 Aug 12;326.0:108394. doi: 10.1016/j.jneumeth.2019.108394. PMID: 0.
- Chon U, Vanselow DJ, Cheng KC, Kim Y. Enhanced and unified anatomical labeling for a common mouse brain atlas. *Nature Communications*. 2019 Nov 7;10.0(1):5067. doi: 10.1038/s41467-019-13057-w. PMID: 0.
- Takata N, Sato N, Komaki Y, Okano H, Tanaka KF. Flexible annotation atlas of the mouse brain: combining and dividing brain structures of the Allen Brain Atlas while maintaining anatomical hierarchy. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Feb 19;. doi: 10.1101/2020.02.17.953547.
- Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12.0(1):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 0.
- Wang Q, Ding S, Li Y, Royall J, Feng D, Lesnar P, Graddis N, Naeemi M, Facer BA, Ho A, Dolbeare T, Blanchard B, Dee N, Wakeman W, Hirokawa KE, Szafer A, Sunkin SM, Oh SW, Bernard A, Phillips JW, Hawrylycz M, Koch C, Zeng H, Harris JA, Ng L. The Allen Mouse Brain Common Coordinate Framework: A 3D Reference Atlas. *Cell*. 2020 May 1;181.0(4):936-953.e20. doi: 10.1016/j.cell.2020.04.007. PMID: 0.
- Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Graph theoretical quantification of white matter reorganization after cortical stroke in mice. *NeuroImage*. 2020 May 4;217.0:116873. doi: 10.1016/j.neuroimage.2020.116873. PMID: 0.

8. Célestine M, Nadkarni NA, Garin CM, Bougacha S, Dhénain M. Sammba-MRI: A Library for Processing Small-Mammal Brain MRI Data in Python. *Frontiers in Neuroinformatics*. 2020 May 28;14:0:24. doi: 10.3389/fninf.2020.00024. PMID: 0.
9. Young DM, Duhn C, Gilson MC, Nojima M, Yuruk D, Kumar A, Yu W, Sanders S. Whole-Brain Image Analysis and Anatomical Atlas 3D Generation Using MagellanMapper. *Current Protocols in Neuroscience*. 2020 Sep 27;94:0(1):e104. doi: 10.1002/cpns.104. PMID: 0.
10. Scarpelli M, Healey DR, Mehta S, Kodibagkar VD, Quarles C. A practical method for multimodal registration and assessment of whole-brain disease burden using PET, MRI, and optical imaging. *Scientific Reports*. 2020 Oct 14;10:0(1):17324. doi: 10.1038/s41598-020-74459-1. PMID: 0.
11. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16:0(7):1423. doi: 10.4103/1673-5374.301004. PMID: 0.
12. Takata N, Sato N, Komaki Y, Okano H, Tanaka KF. Flexible annotation atlas of the mouse brain: combining and dividing brain structures of the Allen Brain Atlas while maintaining anatomical hierarchy. *Scientific Reports*. 2021 Mar 18;11:0(1):6234. doi: 10.1038/s41598-021-85807-0. PMID: 0.
13. Brunner C, Grillet M, Urban A, Roska B, Montaldo G, Macé É. Whole-brain functional ultrasound imaging in awake head-fixed mice. *Nature Protocols*. 2021 Jun 4;16:0(7):3547-3571. doi: 10.1038/s41596-021-00548-8. PMID: 0.
14. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive Astrocytes Prevent Maladaptive Plasticity after Ischemic Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jun 17;: doi: 10.1101/2021.06.16.448657.
15. Blaschke S, Hensel L, Minassian A, Vlachakis S, Tscherpel C, Vay SU, Rabenstein M, Schroeter M, Fink GR, Hoehn M, Grefkes C, Rueger MA. Translating Functional Connectivity After Stroke: Functional Magnetic Resonance Imaging Detects Comparable Network Changes in Mice and Humans. *Stroke*. 2021 Jul 20;52:0(9):2948-2960. doi: 10.1161/strokeaha.120.032511. PMID: 0.
16. Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24:0(10):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
17. Gurdon B, Kaczorowski CC. Pursuit of precision medicine: Systems biology approaches in Alzheimer's disease mouse models. *Neurobiology of Disease*. 2021 Nov 9;161:0:105558. doi: 10.1016/j.nbd.2021.105558. PMID: 0.
18. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. *Progress in Neurobiology*. 2021 Dec 15;209:0:102199. doi: 10.1016/j.pneurobio.2021.102199. PMID: 0.
19. Im S, Suh J, Shim J, Baek H. Deterministic Tractography Analysis of Rat Brain Using SIGMA Atlas in 9.4T MRI. *Brain Sciences*. 2021 Dec 18;11:0(12):1656. doi: 10.3390/brainsci11121656. PMID: 0.
20. Zahr NM, Zhao Q, Goodcase R, Pfefferbaum A. Systemic Administration of the TLR7/8 Agonist Resiquimod (R848) to Mice Is Associated with Transient, In Vivo-Detectable Brain Swelling. *Biology*. 2022 Feb 10;11:0(2):274. doi: 10.3390/biology11020274. PMID: 0.
21. Uselman TW, Medina CS, Gray HB, Jacobs RE, Bearer EL. Longitudinal manganese-enhanced magnetic resonance imaging of neural projections and activity. *NMR in Biomedicine*. 2022 Mar 6;35:0(6):e4675. doi: 10.1002/nbm.4675. PMID: 0.
22. Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253:0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
23. Carey H, Pegios M, Martin L, Saleeba C, Turner A, Everett NA, Puchades M, Bjaalie JG, McMullan S. DeepSlice: rapid fully automatic registration of mouse brain imaging to a volumetric atlas. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Apr 30;: doi: 10.1101/2022.04.28.489953.
24. Piekarski DJ, Zahr NM, Zhao Q, Sullivan EV, Pfefferbaum A. Alcohol's effects on the mouse brain are modulated by age and sex. *Addiction Biology*. 2022 Jul 12;27:0(5):e13209. doi: 10.1111/adb.13209. PMID: 0.
25. Heller C, Kimmig AS, Kubicki M, Derntl B, Kikinis Z. Imaging the human brain on oral contraceptives: A review of structural imaging methods and implications for future research goals. *Frontiers in Neuroendocrinology*. 2022 Aug 20;67:0:101031. doi: 10.1016/j.yfrne.2022.101031. PMID: 0.
26. Yamasaki E, Thakore P, Ali S, Solano AS, Wang X, Gao X, Labelle-Dumais C, Chaumeil MM, Gould DB, Earley S. Impaired intracellular Ca²⁺ signaling contributes to age-related cerebral small vessel disease in Col4a1 mutant mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Aug 26;: doi: 10.1101/2022.08.24.505186.
27. Renton A, Dao T, Abbott DF, Amos JT, Bollmann S, Bollmann S, Botting A, Campbell MEJ, Chang J, Civier O, Close T, Eckstein K, Egan GF, Evas S, Flandin G, Garner K, Garrido MI, Ghosh S, Grignard M, Hannan AJ, Huber L, Hughes M, Johnstone T, Kaczmarzyk J, Kasper L, Kuhlmann L, Lou K, Lyons P, Mantilla-Ramos Y, Mattingley JB, Morris J, Narayanan A, Pestilli F, Puce A, Ribeiro FL, Rogasch NC, Rorden C, Schira MM, Shaw TB, Slade B, Spitz G, Stewart A, Sullivan RP, White D, Ye X, Zhu JD, Narayanan A, Bollmann S, Bollmann S. Neurodesk: An accessible, flexible, and portable data analysis environment for reproducible neuroimaging. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Dec 23;: doi: 10.1101/2022.12.23.521691.
28. Marques FC, Wehrle E, Müller R. Correlative Multimodal Imaging for Multiscale Analysis of Complex Biological Systems: Validation Methods and Performance Analysis. *Reference series in biomedical engineering*. 2023 Jan 1;:1-36. doi: 10.1007/978-3-030-85569-7_17-1.
29. Götz J, Wieters F, Fritz VJ, Käsger O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14:0(2):454. doi: 10.3390/genes14020454. PMID: 0.
30. Bollmann S, Renton A, Dao T, Johnstone T, Civier O, Sullivan RP, White D, Lyons P, Slade B, Abbott DF, Amos JT, Bollmann S, Botting A, Campbell MEJ, Chang J, Close T, Eckstein K, Egan GF, Evas S, Flandin G, Garner K, Garrido MI, Ghosh S, Grignard M, Hannan AJ, Huber L, Kaczmarzyk J, Kasper L, Kuhlmann L, Lou K, Mantilla-Ramos Y, Mattingley JB, Morris J, Narayanan A, Pestilli F, Puce A, Ribeiro FL, Rogasch NC, Rorden C, Schira MM, Shaw TB, Sowman PF, Spitz G, Stewart A, Ye X, Zhu JD, Hughes M, Narayanan A. Neurodesk: An accessible, flexible, and portable data analysis environment for reproducible neuroimaging. *Research*

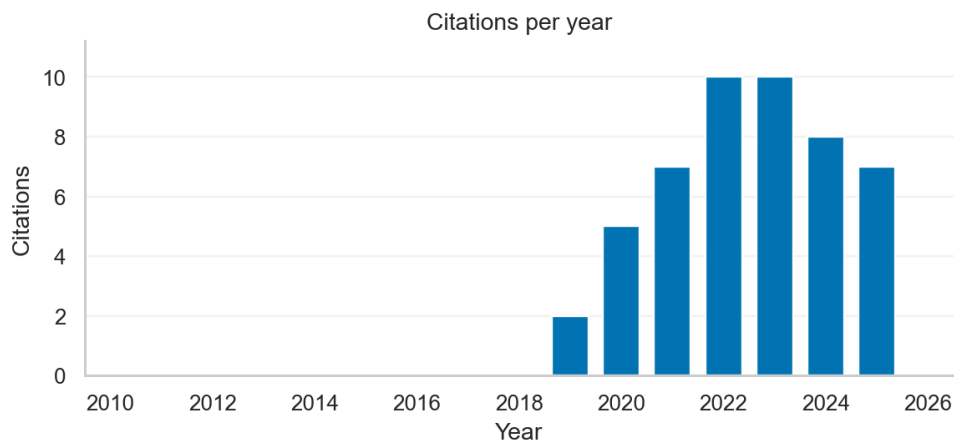
Square. 2023 Mar 13;. doi: 10.21203/rs.3.rs-2649734/v1. PMID: 0.

31. Kalantari A, Szczepanik M, Heunis S, Mönch C, Hanke M, Wächter T, Aswendt M. How to establish and maintain a multimodal animal research dataset using DataLad. *Scientific Data*. 2023 Jun 5;10.0(1):357. doi: 10.1038/s41597-023-02242-8. PMID: 0.
32. Ostrova IV, Babkina AS, Lyubomudrov MA, Grechko AV, ■■■■■■■■ ■■■. Photochemically Induced Thrombosis as a Model of Ischemic Stroke. *General Reanimatology*. 2023 Jun 24;19.0(3):54-65. doi: 10.15360/1813-9779-2023-3-54-65.
33. Blaschke S, Vlachakis S, Pallast N, Walter HL, Volz LJ, Wiedermann D, Fink GR, Hoehn M, Aswendt M, Schroeter M, Rueger MA. Transcranial Direct Current Stimulation Reverses Stroke-Induced Network Alterations in Mice. *Stroke*. 2023 Jun 28;54.0(8):2145-2155. doi: 10.1161/strokeaha.123.042808. PMID: 0.
34. Llambrich S, Tieleman B, Salién E, Atzori M, Wouters K, Van Bulck V, Platt M, Vanherp L, Fernandez NG, de la Fuente LG, Poptani H, Verlinden L, Himmelreich U, Croitor A, Attanasio C, Callaerts■Vegh Z, Gsell W, Martínez■Abadías N, Velde GV. Pleiotropic effects of trisomy and pharmacologic modulation on structural, functional, molecular, and genetic systems in a Down syndrome mouse model. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Aug 1;. doi: 10.1101/2023.07.31.551282.
35. Xu N, Zhang LY, Larson S, Li Z, Anumba N, Daley L, Pan W, Chuang K, Keilholz S. Rodent Whole-Brain fMRI Data Preprocessing Toolbox. *Aperture Neuro*. 2023 Aug 9;3.0. doi: 10.52294/001c.85075. PMID: 0.
36. Uselman TW, Jacobs RE, Bearer EL. Reconfiguration of brain-wide neural activity after early life adversity. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Sep 10;. doi: 10.1101/2023.09.10.557058. PMID: 0.
37. Llambrich S, Tieleman B, Salién E, Atzori M, Wouters K, Van Bulck V, Platt M, Vanherp L, Fernandez NG, de la Fuente LG, Poptani H, Verlinden L, Himmelreich U, Croitor A, Attanasio C, Callaerts■Vegh Z, Gsell W, Martínez■Abadías N, Velde GV. Pleiotropic effects of trisomy and pharmacologic modulation on structural, functional, molecular, and genetic systems in a Down syndrome mouse model. *eLife*. 2023 Oct 6;. doi: 10.7554/elife.89763.1.
38. Llambrich S, Tieleman B, Salién E, Atzori M, Wouters K, Van Bulck V, Platt M, Vanherp L, Fernandez NG, de la Fuente LG, Poptani H, Verlinden L, Himmelreich U, Croitor A, Attanasio C, Callaerts■Vegh Z, Gsell W, Martínez■Abadías N, Velde GV. Pleiotropic effects of trisomy and pharmacologic modulation on structural, functional, molecular, and genetic systems in a Down syndrome mouse model. *eLife*. 2023 Oct 6;12.0. doi: 10.7554/elife.89763. PMID: 0.
39. Yamasaki E, Thakore P, Ali S, Solano AS, Wang X, Gao X, Labelle■Dumais C, Chaumeil MM, Gould DB, Earley S. Impaired intracellular Ca²⁺ signaling contributes to age-related cerebral small vessel disease in Col4a1 mutant mice. *Science Signaling*. 2023 Nov 14;16.0(811):eadi3966. doi: 10.1126/scisignal.adi3966. PMID: 0.
40. Aljuraysi S, Platt M, Pulix M, Poptani H, Plagge A. Microcephaly with a disproportionate hippocampal reduction, stem cell loss and neuronal lipid droplet symptoms in Trappc9 KO mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Nov 20;. doi: 10.1101/2023.11.20.567859.
41. Kalantari A, Shahbazi M, Schneider M, Raikes AC, Frazão VV, Bhatrai A, Carnevale L, Diao Y, Franx BAA, Gammaraccio F, Goncalves L, Lee S, van Leeuwen EM, Michalek A, Mueller S, Olvera AR, Padró D, Selim MK, van der Toorn A, Varriano F, Vrooman RM, Wenk P, Albers HE, Boehm■Sturm P, Budinger E, Canals S, De Santis S, Brinton RD, Dijkhuizen RM, Eixarch E, Forloni G, Grandjean J, Hekmatyar K, Jacobs RE, Jelescu I, Kurniawan ND, Lembo G, Longo DL, Maria NSS, Micotti E, Muñoz■Moreno E, Ramos■Cabrer P, Reichardt W, Sòria G, Ielacqua GD, Aswendt M. Automated quality control of small animal MR neuroimaging data. *Imaging Neuroscience*. 2024 Jan 1;2.0:1-23. doi: 10.1162/imag_a_00317. PMID: 0.
42. Renton A, Dao T, Johnstone T, Civier O, Sullivan RP, White D, Lyons P, Slade B, Abbott DF, Amos JT, Bollmann S, Bollmann S, Botting A, Campbell MEJ, Chang J, Close T, Dörig M, Eckstein K, Egan GF, Evas S, Flandin G, Garner K, Garrido MI, Ghosh S, Grignard M, Halchenko YO, Hannan AJ, Heinsfeld AS, Huber L, Hughes M, Kaczmarzyk J, Kasper L, Kuhlmann L, Lou K, Mantilla-Ramos Y, Mattingley JB, Meier ML, Morris J, Narayanan A, Pestilli F, Puce A, Ribeiro FL, Rogasch NC, Rorden C, Schira MM, Shaw TB, Sowman PF, Spitz G, Stewart A, Ye X, Zhu JD, Narayanan A, Bollmann S, Bollmann S. Neurodesk: an accessible, flexible and portable data analysis environment for reproducible neuroimaging. *Nature Methods*. 2024 Jan 8;21.0(5):804-808. doi: 10.1038/s41592-023-02145-x. PMID: 0.
43. Aljuraysi S, Platt M, Pulix M, Poptani H, Plagge A. Microcephaly with a disproportionate hippocampal reduction, stem cell loss and neuronal lipid droplet symptoms in Trappc9 KO mice. *Neurobiology of Disease*. 2024 Feb 6;192.0:106431. doi: 10.1016/j.nbd.2024.106431. PMID: 0.
44. Llambrich S, Tieleman B, Salién E, Atzori M, Wouters K, Van Bulck V, Platt M, Vanherp L, Fernandez NG, de la Fuente LG, Poptani H, Verlinden L, Himmelreich U, Croitor A, Attanasio C, Callaerts■Vegh Z, Gsell W, Martínez■Abadías N, Velde GV. Pleiotropic effects of trisomy and pharmacologic modulation on structural, functional, molecular, and genetic systems in a Down syndrome mouse model. *eLife*. 2024 Feb 15;. doi: 10.7554/elife.89763.2.
45. Llambrich S, Tieleman B, Salién E, Atzori M, Wouters K, Van Bulck V, Platt M, Vanherp L, Fernandez NG, de la Fuente LG, Poptani H, Verlinden L, Himmelreich U, Croitor A, Attanasio C, Callaerts■Vegh Z, Gsell W, Martínez■Abadías N, Velde GV. Pleiotropic effects of trisomy and pharmacologic modulation on structural, functional, molecular, and genetic systems in a Down syndrome mouse model. *eLife*. 2024 Mar 18;12.0. doi: 10.7554/elife.89763.3.
46. Wendlandt TA, Wenk P, Henschke JU, Michalek A, Noesselt T, Pakan JM, Budinger E. Neural networks representing temporal expectation in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Apr 26;. doi: 10.1101/2024.04.25.589683.
47. Tustison NJ, Chen M, Kronman FN, Duda J, Gamlin C, Tustison MG, Kunst M, Dalley R, Sorensen SA, Wang Q, Ng L, Kim Y, Gee JC. The ANTSX Ecosystem for Mapping the Mouse Brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 May 1;. doi: 10.1101/2024.05.01.592056. PMID: 0.
48. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.
49. Marques FC, Wehrle E, Müller R. Correlative Multimodal Imaging for Multiscale Analysis of Complex Biological Systems: Validation Methods and Performance Analysis. *Reference series in biomedical engineering*. 2025 Jan 1;.387-422. doi: 10.1007/978-3-031-91544-4_17.

50. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 28;. doi: 10.1101/2025.03.27.644898.
51. Lee J, Prag HA, Chary K, Abe J, Uno S, Sorby-Adams A, Yu CS, Sauchanka O, Mottahedin A, Kaggie J, Gallagher FA, Murphy MP, Krieg T. Local arterial administration of acidified malonate as an adjunct therapy to mechanical thrombectomy in ischaemic stroke. *Cardiovascular Research*. 2025 Jun 27;122.0(Supplement_1):1407-1418. doi: 10.1093/cvr/cvaf118. PMID: 0.
52. González-Alday R, Ferreiro AL, Arias■Ramos N, Lizarbe B, López■Larrubia P. Resomapper: A Versatile Pipeline for Multiparametric MRI Processing. A Demonstrative Application in Mouse Brain Imaging. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Aug 24;. doi: 10.1101/2025.08.20.671222.
53. Uselman TW, Jacobs RE, Bearer EL. Reconfiguration of brain-wide neural activity after early life adversity. *Proceedings of the National Academy of Sciences*. 2025 Oct 17;122.0(42):e2506140122. doi: 10.1073/pnas.2506140122. PMID: 0.
54. Doelemeyer A, Vaishampayan S, Zurbrugg S, Morvan F, Locatelli G, Shimshek DR, Beckmann N. Deep learning-driven MRI for accurate brain volumetry in murine models of neurodegenerative diseases. *Frontiers in Neuroscience*. 2025 Nov 3;19.0:1632169. doi: 10.3389/fnins.2025.1632169. PMID: 0.
55. Gao X, Wang X, Labelle■Dumais C, Gould DB, Chaumeil MM. Multimodal neuroimaging of Col4a1-mutant mouse models of Gould syndrome. *Frontiers in Neuroscience*. 2025 Nov 12;19.0:1639871. doi: 10.3389/fnins.2025.1639871. PMID: 0.
56. Tustison NJ, Chen M, Kronman FN, Duda J, Gamlin C, Tustison MG, Kunst M, Dalley R, Sorensen SA, Wang Q, Ng L, Kim Y, Gee JC. The ANTsX ecosystem for mapping the mouse brain. *Nature Communications*. 2025 Nov 22;16.0(1):11548. doi: 10.1038/s41467-025-66741-5. PMID: 0.
57. Blaschke S, Backes H, Vlachakis S, Rautenberg N, Demir S, Wiedermann D, Aswendt M, Fink GR, Schroeter M, Rueger MA. Subacute cathodal transcranial direct current stimulation rescues secondary thalamic neurodegeneration after cortical stroke in mice. *Experimental Neurology*. 2025 Dec 23;398.0:115604. doi: 10.1016/j.expneurol.2025.115604. PMID: 0.
58. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *Neural Regeneration Research*. 2026 Feb 28;21.0(10):4945-4953. doi: 10.4103/nrr.nrr-d-25-00491. PMID: 0.
59. Shilikbay T, Nawaz A, Sun M, Doon M, Olmo I, Cumbie L, Benson J, Ibrahim B, Tsai N, Llano D, Goense J, Gritton H, Ceman S. Reduced MOV10 reveals novel functional cortical connections in an increased fear response. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 May 19;. doi: 10.64898/2026.05.18.725995. PMID: 0.
60. Kamouh ME, Spajer M, Singhabahu R, Marolany AJ, Sailor KA, Mouton L, Doukhi D, Koundal S, Metcalfe T, Langui D, Grine A, Boyé K, Leser FS, Ninnemann J, Gottschalk J, Sadeghi C, Han X, Boisserand LSB, Akbar D, Van Wassenhove J, Ruze A, Nasri A, Bourrienne M, Buscher E, Hong Y, Mazighi M, Lledo P, Benveniste H, Santin M, Eichmann A, Lehericy S, Thomas J, Lenck S. Cerebral venous blood flow regulates intracerebral pressure and brain clearance via meningeal lymphatic vessels. *Nature Neuroscience*. 2026 Jul 22;. doi: 10.1038/s41593-026-02358-1. PMID: 0.

Publication

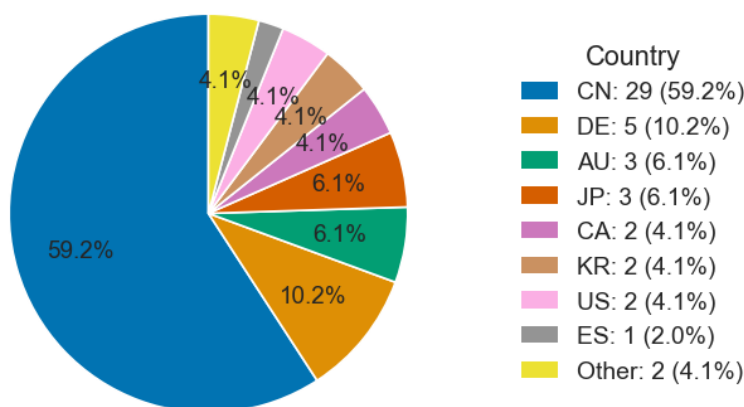
Collmann FM, Pijnenburg R, Hamzei-Taj S, Minassian A, Folz■Donahue K, Kukat C, Aswendt M, Hoehn M. Individual in vivo Profiles of Microglia Polarization After Stroke, Represented by the Genes iNOS and Ym1. *Frontiers in Immunology*. 2019 Jun 4;10:1236. doi: 10.3389/fimmu.2019.01236. PMID: 31214190.



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Citations by country



Cited by

- Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6(02):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.
- Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15(1):61. doi: 10.4103/1673-5374.264449. PMID: 0.
- Jiang C, Wu W, Deng Y, Ge J. Modulators of microglia activation and polarization in ischemic stroke (Review). *Molecular Medicine Reports*. 2020 Feb 26;21(5):2006-2018. doi: 10.3892/mmr.2020.11003. PMID: 0.
- Ulbrich F, Goebel U, Scheid S, Spassov S, Schallner N, Wollborn J, Buerkle H. Argon reduces microglial activation and inflammatory cytokine expression in retinal ischemia/reperfusion injury. *Neural Regeneration Research*. 2020 Aug 10;16(1):192. doi: 10.4103/1673-5374.290098. PMID: 0.
- Al-Khishman NU, Qi Q, Roseborough AD, Levit A, Allman BL, Anazodo U, Fox MS, Whitehead SN, Thiessen JD. TSPO PET detects acute neuroinflammation but not diffuse chronically activated MHCII microglia in the rat. *EJNMMI Research*. 2020 Sep 29;10(1):113. doi: 10.1186/s13550-020-00699-x. PMID: 0.
- Wieters F, Lucas CW, Gruhn M, Büschges A, Fink GR, Aswendt M. Introduction to spasticity and related mouse models. *Experimental Neurology*. 2020 Sep 29;335:113491. doi: 10.1016/j.expneurol.2020.113491. PMID: 0.
- Gamdzyk M, Doycheva D, Kang R, Tang H, Travis ZD, Tang J, Zhang JH. GW0742 activates miR■17■5p and inhibits TXNIP/NLRP3■mediated inflammation after hypoxic■ischemic injury in rats and in PC12 cells. *Journal of Cellular and Molecular Medicine*. 2020 Oct 9;24(21):12318-12330. doi: 10.1111/jcmm.15698. PMID: 0.
- Lin X, Zhan J, Jiang J, Ren Y. Upregulation of Neuronal Cyldromatosis Expression is Essential for Electroacupuncture-Mediated Alleviation of Neuroinflammatory Injury by Regulating Microglial Polarization in Rats Subjected to Focal Cerebral Ischemia/Reperfusion.

Journal of Inflammation Research. 2021 May 1;Volume 14:2061-2078. doi: 10.2147/jir.s307841. PMID: 0.

9. Jiang Q, Zhang Z, Sun Y, Zhang W, Tao S, Zhao L, Chen L. miR-24 protects against ischemia-induced brain damage in rats via regulating microglia polarization by targeting Clcn3. *Neuroscience Letters*. 2021 May 29;759:135998. doi: 10.1016/j.neulet.2021.135998. PMID: 0.

10. Dong R, Huang R, Wang J, Liu H, Xu Z. Effects of Microglial Activation and Polarization on Brain Injury After Stroke. *Frontiers in Neurology*. 2021 Jul 1;12:620948. doi: 10.3389/fneur.2021.620948. PMID: 0.

11. Hardeland R. Melatonin and Microglia. *International Journal of Molecular Sciences*. 2021 Aug 2;22(15):8296. doi: 10.3390/ijms22158296. PMID: 0.

12. Liao L, Qian Z, Li X, Yang D, Lei B, Li H, Hong X. Disrupting RhoA activity by blocking Arhgef3 expression mitigates microglia-induced neuroinflammation post spinal cord contusion. *Journal of Neuroimmunology*. 2021 Aug 8;359:577688. doi: 10.1016/j.jneuroim.2021.577688. PMID: 0.

13. Saeed K, Jo MH, Park JS, Alam SI, Khan I, Ahmad R, Khan A, Ullah R, Kim MO. 17 β -Estradiol Abrogates Oxidative Stress and Neuroinflammation after Cortical Stab Wound Injury. *Antioxidants*. 2021 Oct 25;10(11):1682. doi: 10.3390/antiox10111682. PMID: 0.

14. Jin N, Sha W, Gao L. Shaping the Microglia in Retinal Degenerative Diseases Using Stem Cell Therapy: Practice and Prospects. *Frontiers in Cell and Developmental Biology*. 2021 Dec 13;9:741368. doi: 10.3389/fcell.2021.741368. PMID: 0.

15. Qiu M, Zong J, He Q, Liu Y, Wan Y, Li M, Zhou Y, Wu J, Hu B. Cell Heterogeneity Uncovered by Single-Cell RNA Sequencing Offers Potential Therapeutic Targets for Ischemic Stroke. *Aging and Disease*. 2022 Jan 1;13(5):1436. doi: 10.14336/ad.2022.0212. PMID: 0.

16. Shimada A, Murata M, Aoyagi S, Asano H, Obara A, Hasegawa■Ishii S. Delayed microglial activation associated with the resolution of neuroinflammation in a mouse model of sublethal endotoxemia-induced systemic inflammation. *Toxicology Reports*. 2022 Jan 1;9:1380-1390. doi: 10.1016/j.toxrep.2022.06.015. PMID: 0.

17. Sen MK, Mahns DA, Coorssen JR, Shortland P. The roles of microglia and astrocytes in phagocytosis and myelination: Insights from the cuprizone model of multiple sclerosis. *Glia*. 2022 Feb 2;70(7):1215-1250. doi: 10.1002/glia.24148. PMID: 0.

18. Li T, Xu T, Zhao J, Gao H, Xie W. Depletion of iNOS-positive inflammatory cells decelerates neuronal degeneration and alleviates cerebral ischemic damage by suppressing the inflammatory response. *Free Radical Biology and Medicine*. 2022 Feb 9;181:209-220. doi: 10.1016/j.freeradbiomed.2022.02.008. PMID: 0.

19. Pan L, Sze YH, Yang M, Tang J, Zhao S, Yi I, To CH, Lam C, Chen DF, Cho K, Wai C. Baicalein—A Potent Pro-Homeostatic Regulator of Microglia in Retinal Ischemic Injury. *Frontiers in Immunology*. 2022 Feb 21;13:837497. doi: 10.3389/fimmu.2022.837497. PMID: 0.

20. Wang Y, Wang Y, Chen W, Zhou J, Wang Y, Wang Y, Wang H, Wang Y, Wang Y. Nitrate Metabolism and Ischemic Cerebrovascular Disease: A Narrative Review. *Frontiers in Neurology*. 2022 Mar 3;13:735181. doi: 10.3389/fneur.2022.735181. PMID: 0.

21. Shin HJ, Lee KY, Kang JW, Choi SG, Kim DW, Yi YY. Perampanel Reduces Brain Damage via Induction of M2 Microglia in a Neonatal Rat Stroke Model. *International Journal of Nanomedicine*. 2022 Jun 1;Volume 17:2791-2804. doi: 10.2147/ijn.s361377. PMID: 0.

22. Wang S, Fu X, Duan R, Wei B, Cao H, E Y, Chen S, Zhang Y, Jiang T. The Alzheimer's disease-associated gene TREML2 modulates inflammation by regulating microglia polarization and NLRP3 inflammasome activation. *Neural Regeneration Research*. 2022 Jun 2;18(2):434-438. doi: 10.4103/1673-5374.346468. PMID: 0.

23. Kang Q, Li L, Pang Y, Zhu W, Meng L. An update on Ym1 and its immunoregulatory role in diseases. *Frontiers in Immunology*. 2022 Jul 28;13:891220. doi: 10.3389/fimmu.2022.891220. PMID: 0.

24. Mo Y, Xu W, Fu K, Chen H, Wen J, Huang Q, Guo F, Mo L, Yan J. The dual function of microglial polarization and its treatment targets in ischemic stroke. *Frontiers in Neurology*. 2022 Sep 23;13:921705. doi: 10.3389/fneur.2022.921705. PMID: 0.

25. Hu X, Fukui Y, Tian F, Bian Z, Yu H, Morihara R, Hu X, Bian Y, Sun H, Takemoto M, Nakano Y, Yunoki T, Abe K, Yamashita T. Neuroprotective effects of carnosine in a mice stroke model concerning oxidative stress and inflammatory response. *Journal of the Neurological Sciences*. 2023 Mar 3;447:120608. doi: 10.1016/j.jns.2023.120608. PMID: 0.

26. Okawa K, Tabata E, Kida Y, Uno K, Suzuki H, Kamaya M, Bauer P, Oyama F. Irreversible evolutionary loss of chitin■degrading ability in the chitinase■like protein Ym1 under positive selection in rodents. *Protein Science*. 2023 Mar 8;32(4):e4620. doi: 10.1002/pro.4620. PMID: 0.

27. Fu X, Chen S, Lian H, Deng Y, Duan R, Zhang Y, Jiang T. The TREM2 H157Y Variant Influences Microglial Phagocytosis, Polarization, and Inflammatory Cytokine Release. *Brain Sciences*. 2023 Apr 9;13(4):642. doi: 10.3390/brainsci13040642. PMID: 0.

28. Guo M, Cao Q, Xia S, Cao X, Chen J, Qian Y, Bao X, Xu Y. A newly-synthesized compound CP-07 alleviates microglia-mediated neuroinflammation and ischemic brain injury via inhibiting STAT3 phosphorylation. *Journal of Translational Internal Medicine*. 2023 Jun 1;11(2):156-168. doi: 10.2478/jtim-2023-0090. PMID: 0.

29. Sun X, Yao Z, Chen L, Huang J, Dong S. Metabolic reprogramming regulates microglial polarization and its role in cerebral ischemia reperfusion. *Fundamental and Clinical Pharmacology*. 2023 Jun 20;37(6):1065-1078. doi: 10.1111/fcp.12928. PMID: 0.

30. Ma Z, Wu Y, Xu J, Cao H, Du M, Jiang H, Qiu F. Sodium Tanshinone IIA Sulfonate Ameliorates Oxygen-glucose Deprivation/Reoxygenation-induced Neuronal Injury via Protection of Mitochondria and Promotion of Autophagy. *Neurochemical Research*. 2023 Jul 12;48(11):3378-3390. doi: 10.1007/s11064-023-03985-x. PMID: 0.

31. Meleady L, Towriss M, Kim J, Bacarac V, Dang V, Rowland ME, Ciernia AV. Histone deacetylase 3 regulates microglial function through histone deacetylation. *Epigenetics*. 2023 Jul 28;18(1):2241008. doi: 10.1080/15592294.2023.2241008. PMID: 0.

32. Zhou C, Li J, Zheng C, Zhou X, Chen C, Qiu S, LIU W, Hua L. Neuroprotective effects of Jie-du-huo-xue decoction on microglia pyroptosis after cerebral ischemia and reperfusion—From the perspective of glial-vascular unit. *Journal of Ethnopharmacology*. 2023 Aug 1;318(Pt B):116990. doi: 10.1016/j.jep.2023.116990. PMID: 0.

33. Au NPB, Wu T, Kumar G, Jin Y, Li YYT, Chan SL, Lai JHC, Chan KKY, Yu K, Wang X, Eddie CH. Low-dose ionizing radiation promotes motor recovery and brain rewiring by resolving inflammatory response after brain injury and stroke. *Brain Behavior and*

Immunity. 2023 Sep 27;115:43-63. doi: 10.1016/j.bbi.2023.09.015. PMID: 0.

34. He X, Gou X, Fan D, Yang J, Yang J, Fu X, Luo Y, Yang T. Repurposing TAK875 as a novel STAT3 inhibitor for treating inflammatory bowel disease. *Biochemical Pharmacology*. 2023 Dec 2;219:115957. doi: 10.1016/j.bcp.2023.115957. PMID: 0.

35. Planas AM. Role of microglia in stroke. *Glia*. 2024 Jan 4;72(6):1016-1053. doi: 10.1002/glia.24501. PMID: 0.

36. Niu X, Zhang Z, Zhou Q, Wuethrich A, Lobb RJ, Trau M. Analysis of secreted small extracellular vesicles from activated human microglial cell lines reveals distinct pro- and anti-inflammatory proteomic profiles. *PROTEOMICS*. 2024 Feb 11;24(11):e2300094. doi: 10.1002/pmic.202300094. PMID: 0.

37. Yang L, Li Q, Wang K, Liu H, Yang X, Xu Y, Chen Y, Teng J, Gong Z, Jia Y. Blocking cerebral lymphatic system reduces central and peripheral inflammatory response in ischemic stroke. *Brain Research*. 2024 Feb 23;1831:148825. doi: 10.1016/j.brainres.2024.148825. PMID: 0.

38. An Z, He Q, Jiang L, Wang Y, Zhang Y, Sun Y, Wang M, Yang S, Huang L, Li H, Hao Y, Liang X, Wang S. A One-Stone-Two-Birds Strategy of Targeting Microbubbles with "Dual" Anti-Inflammatory and Blood-Brain Barrier "Switch" Function for Ischemic Stroke Treatment. *ACS Biomaterials Science & Engineering*. 2024 Feb 29;10(3):1774-1787. doi: 10.1021/acsbiomaterials.3c01561. PMID: 0.

39. Fu T, Wang G, Li Y, Xu Z, Wang C, Zhang R, Ma Q, Ma Y, Guo Y, Guo Y, Dai X, Guo Y, Guo Y. Mobilizing endogenous neuroprotection: the mechanism of the protective effect of acupuncture on the brain after stroke. *Frontiers in Neuroscience*. 2024 Apr 25;18:1181670. doi: 10.3389/fnins.2024.1181670. PMID: 0.

40. Shui X, Chen J, Fu Z, Zhu H, Tao H, Li Z. Microglia in Ischemic Stroke: Pathogenesis Insights and Therapeutic Challenges. *Journal of Inflammation Research*. 2024 May 1;Volume 17:3335-3352. doi: 10.2147/jir.s461795. PMID: 0.

41. Lu W, Wang Y, Wen J. The Roles of RhoA/ROCK/NF- κ B Pathway in Microglia Polarization Following Ischemic Stroke. *Journal of Neuroimmune Pharmacology*. 2024 May 16;19(1):19. doi: 10.1007/s11481-024-10118-w. PMID: 0.

42. Xiao R, Huang X, Gao S, Duan J, Zhang Y, Zhang M, Zhang M. Microglia in retinal diseases: From pathogenesis towards therapeutic strategies. *Biochemical Pharmacology*. 2024 Sep 20;230(Pt 1):116550. doi: 10.1016/j.bcp.2024.116550. PMID: 0.

43. Wang X, Rong C, Leng W, Niu P, He Z, Wang G, Qi X, Zhao D, Li J. Effect and mechanism of Dichloroacetate in the treatment of stroke and the resolution strategy for side effect. *European journal of medical research*. 2025 Mar 3;30(1):148. doi: 10.1186/s40001-025-02399-5. PMID: 0.

44. Meng D, Su Q, Su Q, Jin M, Jin M, Liu W, Yang S, Su Z. ETV5 improves ischemic stroke by targeting HACE1/Nrf2 axis to inhibit microglia M1 polarization and neuron pyroptosis. *Biochemical Pharmacology*. 2025 Jun 23;240:117057. doi: 10.1016/j.bcp.2025.117057. PMID: 0.

45. Lai C, He W, Yang H, Lai J, Huang S. Electroacupuncture improved depressive behaviors and synaptic plasticity of post-stroke depressed mice via inhibiting the JNK signaling pathway. *Neurological Research*. 2025 Jun 25;48(1):12-27. doi: 10.1080/01616412.2025.2520017. PMID: 0.

46. Guo Y, Shang Y, Yao J, Bi X. Role and Mechanism of Microglia in White Matter Injury Recovery in Ischemic Stroke. *Immunity Inflammation and Disease*. 2025 Aug 1;13(8):e70226. doi: 10.1002/iid3.70226. PMID: 0.

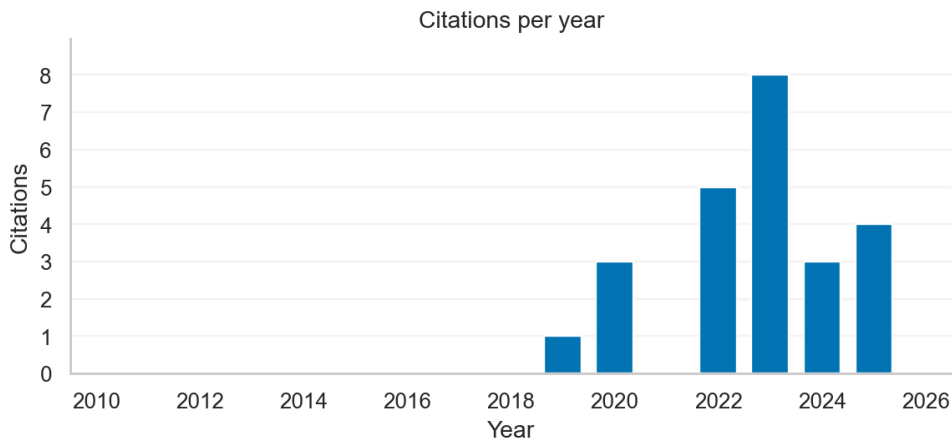
47. Wang H, Yiqiang Z, Cai J, Guo J. Immune-mediated blood-brain barrier disruption after ischemic stroke: mechanisms and therapeutic targets. *Frontiers in Immunology*. 2025 Dec 10;16:1716041. doi: 10.3389/fimmu.2025.1716041. PMID: 0.

48. Chen J, Wang H, Su Y, Ho Y, Liang C, Lee Y, Chu T, Lin Y, Wu C. HDAC1 dysregulation promotes pro-inflammatory microglial activation and aggravates post-stroke neuroinflammation. *Annals of Medicine*. 2025 Dec 12;57(1):2597624. doi: 10.1080/07853890.2025.2597624. PMID: 0.

49. Mahmoudi N, Harvey A, Moriarty N, Mahmoudi M, Tong W, Goris T, Reynolds N, Ahmed NY, Dehorter N, Lisowski L, Parish CL, Williams RR, Nisbet DR. Spatially precise neuron formation via hydrogel mediated modulation of the host astrocyte response. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Dec 22;. doi: 10.64898/2025.12.20.695501.

Publication

Pallast N, Wieters F, Fink GR, Aswendt M. Atlas-based imaging data analysis tool for quantitative mouse brain histology (AIDAhisto). *Journal of Neuroscience Methods*. 2019 Aug 12;326:108394. doi: 10.1016/j.jneumeth.2019.108394. PMID: 31415844.



Citation summary

Total citations: **24**

Average/year: **3.00**

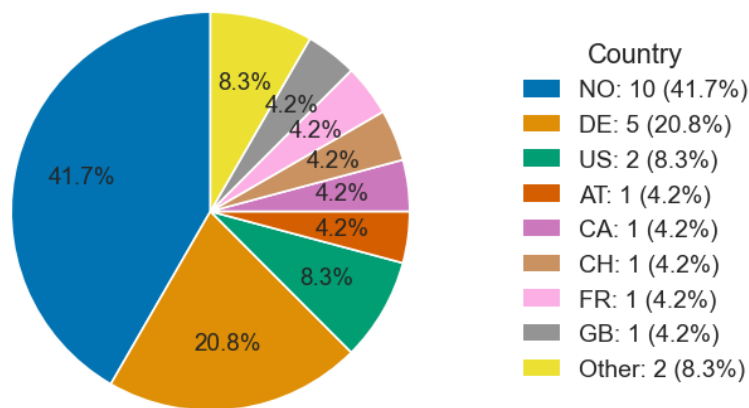
Period: 2019-2026

SCImago cites/doc 2y

(2025): **2.93**

SJR 2025: **0.788** (Q2)

Citations by country



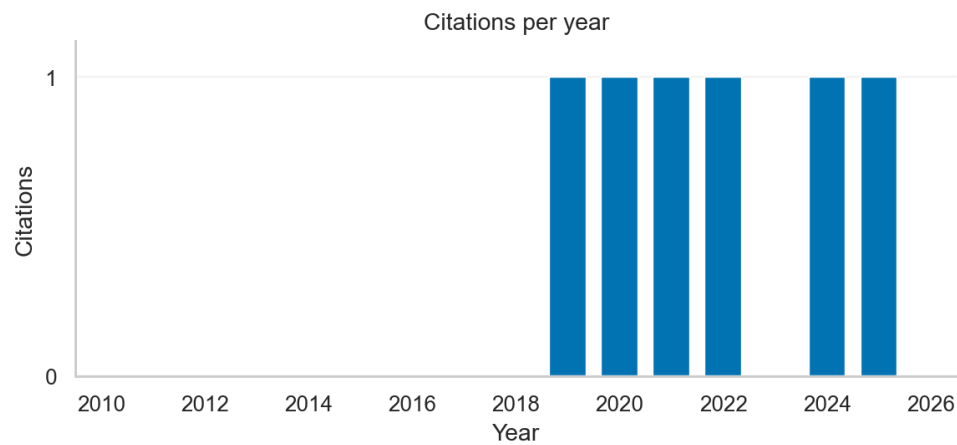
Cited by

1. Yates SC, Groeneboom NE, Coello C, Lichtenthaler SF, Kuhn P, Demuth H, Hartlage R, Rübsamen M, Roßner S, Leergaard TB, Kreshuk A, Puchades M, Bjaalie JG. QUINT: Workflow for Quantification and Spatial Analysis of Features in Histological Images From Rodent Brain. *Frontiers in Neuroinformatics*. 2019 Dec 3;13:0:75. doi: 10.3389/fninf.2019.00075. PMID: 0.
2. Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12.0(1.0):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 0.
3. Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Graph theoretical quantification of white matter reorganization after cortical stroke in mice. *NeuroImage*. 2020 May 4;217.0:116873. doi: 10.1016/j.neuroimage.2020.116873. PMID: 0.
4. Groeneboom NE, Yates SC, Puchades M, Bjaalie JG. Nutil: A Pre- and Post-processing Toolbox for Histological Rodent Brain Section Images. *Frontiers in Neuroinformatics*. 2020 Aug 21;14.0:37. doi: 10.3389/fninf.2020.00037. PMID: 0.
5. Vercio LL, Green RM, Robertson S, Guo S, Dauter A, Marchini M, Vidal R, García M, Zhao X, Mahika A, Marcucio R, Hallgrímsson B, Forkert ND. Segmentation of Tissues and Proliferating Cells in Light-Sheet Microscopy Images of Mouse Embryos Using Convolutional Neural Networks. *IEEE Access*. 2022 Jan 1;10.0:105084-105100. doi: 10.1109/access.2022.3210542. PMID: 0.
6. Damigos G, Zacharaki EI, Zerva N, Pavlopoulos A, Chatzikyrkou K, Koumenti A, Moustakas K, Pantos C, Mourouzis I, Lourdopoulos A. Machine learning based analysis of stroke lesions on mouse tissue sections. *Journal of Cerebral Blood Flow & Metabolism*. 2022 Feb 25;42.0(8.0):1463-1477. doi: 10.1177/0271678x221083387. PMID: 0.
7. Lauridsen K, Ly A, Prévost ED, McNulty C, McGovern DJ, Tay JW, Dragavon J, Root DH. A Semi-Automated Workflow for Brain Slice Histology Alignment, Registration, and Cell Quantification (SHARCQ). *eNeuro*. 2022 Mar 1;9.0(2.0):ENEURO.0483-21.2022. doi: 10.1523/eneuro.0483-21.2022. PMID: 0.

8. Bokiniec P, Whitmire CJ, Leva TM, Poulet JF. Brain-wide connectivity map of mouse thermosensory cortices. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Jul 2;. doi: 10.1101/2022.06.29.498101.
9. Bokiniec P, Whitmire CJ, Leva TM, Poulet JF. Brain-wide connectivity map of mouse thermosensory cortices. *Cerebral Cortex*. 2022 Sep 15;33.0(8.0):4870-4885. doi: 10.1093/cercor/bhac386. PMID: 0.
10. Kleven H, Gillespie T, Zehl L, Dickscheid T, Bjaalie JG, Martone ME, Leergaard TB. AtOM, an ontology model for standardizing use of brain atlases in tools, workflows, and data infrastructures. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Jan 23;. doi: 10.1101/2023.01.22.525049.
11. Kleven H, Bjerke IE, Clascá F, Groenewegen HJ, Bjaalie JG, Leergaard TB. Waxholm Space atlas of the rat brain: A 3D atlas supporting data analysis and integration. *Research Square*. 2023 Feb 7;. doi: 10.21203/rs.3.rs-2466303/v1.
12. Kleven H, Reiten I, Blixhavn CH, Schlegel U, Øvsthus M, Papp EA, Puchades M, Bjaalie JG, Leergaard TB, Bjerke IE. A neuroscientist's guide to using murine brain atlases for efficient analysis and transparent reporting. *Frontiers in Neuroinformatics*. 2023 Mar 9;17.0:1154080. doi: 10.3389/fninf.2023.1154080. PMID: 0.
13. Ostrova IV, Babkina AS, Lyubomudrov MA, Grechko AV, ■■■■■■■■ ■■■. Photochemically Induced Thrombosis as a Model of Ischemic Stroke. *General Reanimatology*. 2023 Jun 24;19.0(3.0):54-65. doi: 10.15360/1813-9779-2023-3-54-65.
14. Sadeghi M, Ramos-Prats A, Neto PC, Castaldi F, Crowley D, Matulewicz P, Paradiso E, Freysinger W, Ferraguti F, Goebel G. Localization and Registration of 2D Histological Mouse Brain Images in 3D Atlas Space. *Neuroinformatics*. 2023 Jun 26;21.0(3.0):615-630. doi: 10.1007/s12021-023-09632-8. PMID: 0.
15. Kleven H, Gillespie T, Zehl L, Dickscheid T, Bjaalie JG, Martone ME, Leergaard TB. AtOM, an ontology model to standardize use of brain atlases in tools, workflows, and data infrastructures. *Scientific Data*. 2023 Jul 26;10.0(1.0):486. doi: 10.1038/s41597-023-02389-4. PMID: 0.
16. Bjerke IE, Yates SC, Carey H, Bjaalie JG, Leergaard TB. Scaling up cell-counting efforts in neuroscience through semi-automated methods. *iScience*. 2023 Aug 7;26.0(9.0):107562. doi: 10.1016/j.isci.2023.107562. PMID: 0.
17. Kleven H, Bjerke IE, Clascá F, Groenewegen HJ, Bjaalie JG, Leergaard TB. Waxholm Space atlas of the rat brain: a 3D atlas supporting data analysis and integration. *Nature Methods*. 2023 Oct 2;20.0(11.0):1822-1829. doi: 10.1038/s41592-023-02034-3. PMID: 0.
18. Piluso S, Souedet N, Jan C, Hérard A, Clouchoux C, Delzescaux T. giRAff: an automated atlas segmentation tool adapted to single histological slices. *Frontiers in Neuroscience*. 2024 Jan 11;17.0:1230814. doi: 10.3389/fnins.2023.1230814. PMID: 0.
19. Chie JAKC, Persohn SC, Miner EW, Burton CP, Salama P, Territo PR. Total Variation Based 2D Image Registration of Post-Mortem Mouse Brain Images. *2024 IEEE International Symposium on Biomedical Imaging (ISBI)*. 2024 May 27;:1-4. doi: 10.1109/isbi56570.2024.10635196.
20. Müller B. On the cusp of x-ray tomographic mapping of the human brain and its 10¹¹ cells. *Desy Publications Database (Deutsches Elektronen-Synchrotron DESY)*. 2024 Nov 25;:501. doi: 10.1117/12.3032298.
21. Puchades M, Yates SC, Csucs G, Carey H, Balkir A, Leergaard TB, Bjaalie JG. Software and pipelines for registration and analyses of rodent brain image data in reference atlas space. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Apr 28;. doi: 10.1101/2025.04.25.650563.
22. Puchades M, Yates SC, Csucs G, Carey H, Balkir A, Leergaard TB, Bjaalie JG. Software and pipelines for registration and analyses of rodent brain image data in reference atlas space. *Frontiers in Neuroinformatics*. 2025 Sep 24;19.0:1629388. doi: 10.3389/fninf.2025.1629388. PMID: 0.
23. Blaschke S, Backes H, Vlachakis S, Rautenberg N, Demir S, Wiedermann D, Aswendt M, Fink GR, Schroeter M, Rueger MA. Subacute cathodal transcranial direct current stimulation rescues secondary thalamic neurodegeneration after cortical stroke in mice. *Experimental Neurology*. 2025 Dec 23;398.0:115604. doi: 10.1016/j.expneurol.2025.115604. PMID: 0.
24. N■stase A, Yip PK, Uff CE, O'Meara I, Barjat H. A computational workflow for microscopy-guided ion identification in clinical mass spectrometry imaging datasets. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Dec 25;. doi: 10.64898/2025.12.25.694368.

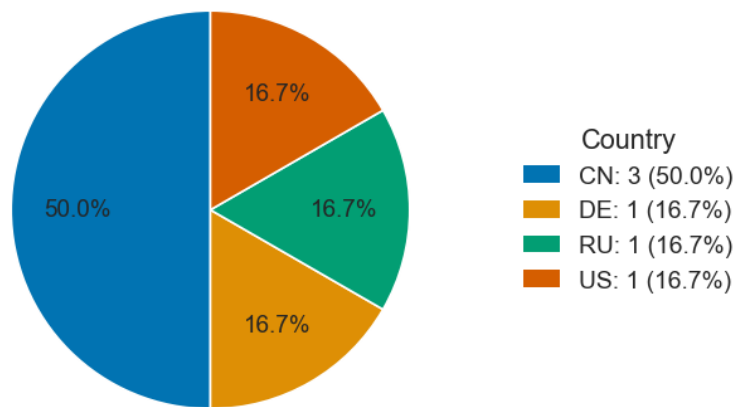
Publication

Aswendt M, Vogel SN, Hoehn M. In vivo bioluminescence imaging to elucidate stem cell graft differentiation. *Neural Regeneration Research*. 2019 Sep 16;15(1):61. doi: 10.4103/1673-5374.264449. PMID: 31535647.



Citation summary
Total citations: **6**
Average/year: **0.75**
Period: 2019-2026
SCImago cites/doc 2y (2025): **5.98**
SJR 2025: **1.43** (Q1)

Citations by country



Cited by

1. Aswendt M, Vogel SN, Schäfer C, Jathoul AP, Pulé M, Hoehn M. Quantitative in vivo dual-color bioluminescence imaging in the mouse brain. *Neurophotonics*. 2019 May 7;6.0(2.0):1. doi: 10.1117/1.nph.6.2.025006. PMID: 0.

2. Xia Y, Bao H, Huang J, Li X, Yu C, Zhang Z, Wang H. Near-infrared-persistent luminescence/bioluminescence imaging tracking of transplanted mesenchymal stem cells in pulmonary fibrosis. *Biomaterials Science*. 2020 Jan 1;8.0(11.0):3095-3105. doi: 10.1039/d0bm00063a. PMID: 0.

3. Hu X, Li Z, Zhang D, Yang Y, Fu S, Zhang Z, Yang R, Xiong K. A systematic summary of survival and death signalling during the life of hair follicle stem cells. *Stem Cell Research & Therapy*. 2021 Aug 11;12.0(1.0):453. doi: 10.1186/s13287-021-02527-y. PMID: 0.

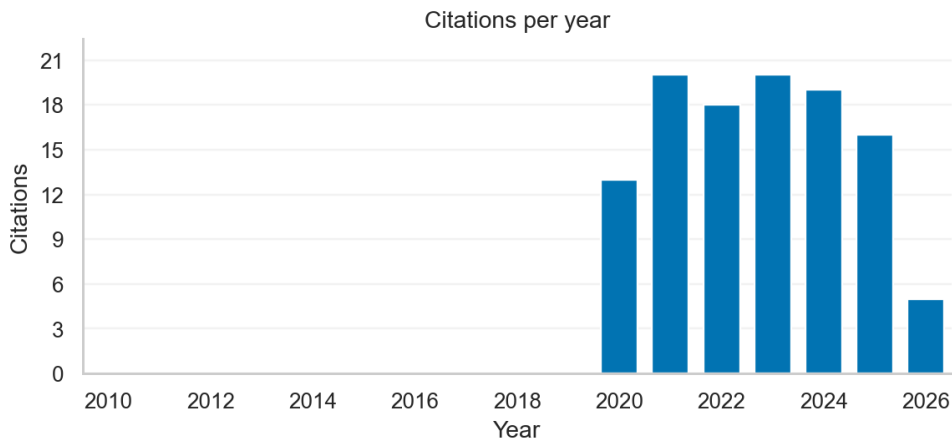
4. Li X, Yu C, Bao H, Chen Z, Liu X, Huang J, Zhang Z. CT/bioluminescence dual-modal imaging tracking of stem cells labeled with Au@PEI@PEG nanotracers and RfLuc in nintedanib-assisted pulmonary fibrosis therapy. *Nanomedicine Nanotechnology Biology and Medicine*. 2022 Jan 13;41.0:102517. doi: 10.1016/j.nano.2022.102517. PMID: 0.

5. Modo M, Didwischus N, Kisel A. An overview of noninvasive imaging strategies in neural engineering. *Elsevier eBooks*. 2024 Sep 20;;301-350. doi: 10.1016/b978-0-323-95730-4.00001-9.

6. Esimbekova EN, Kratasyuk VA, Rozanova NA, Lonshakova-Mukina VI, Torgashina IG, Komleva YK, Saridis MR, Korsakova SA, Yurchenko SO, ■■■■■■■■■■. Current and prospective trends in the application of bioluminescent analysis in experimental brain studies. *Talanta*. 2025 Jun 24;296.0:128510. doi: 10.1016/j.talanta.2025.128510. PMID: 0.

Publication

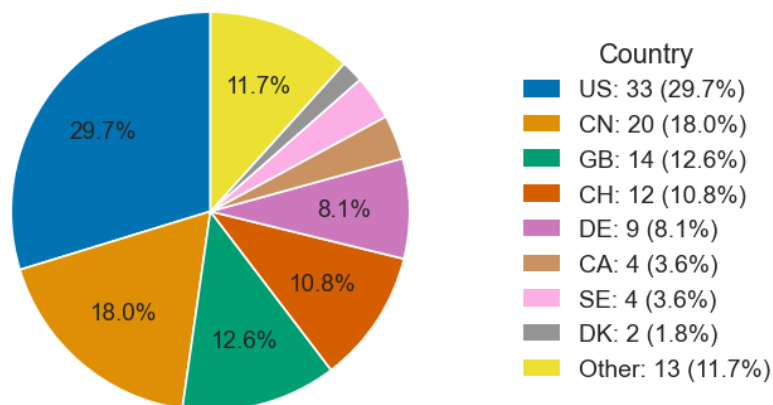
Goubran M, Leuze C, Hsueh B, Aswendt M, Li Y, Tian Q, Cheng M, Crow A, Steinberg GK, McNab JA, Deisseroth K, Zeineh M. Multimodal image registration and connectivity analysis for integration of connectomic data from microscopy to MRI. *Nature Communications*. 2019 Dec 3;10(1):5504. doi: 10.1038/s41467-019-13374-0. PMID: 31796741.



Citation summary

Total citations: **111**
 Average/year: **13.88**
 Period: 2019-2026
 SCImago cites/doc 2y
 (2025): **16.6**
 SJR 2025: **4.9 (Q1)**

Citations by country



Cited by

- Wehrli PM, Michno W, Guérard L, Fernández-Rodríguez J, Bergh A, Blennow K, Zetterberg H, Hanrieder J. Spatial Chemometrics and Comprehensive Chemical Imaging based Molecular Histopathology Delineates Anatomical Heterogeneity at Single Pixel Resolution. *ChemRxiv*. 2020 Feb 5;. doi: 10.26434/chemrxiv.11800209.v1.
- Mancini M, Casamitjana A, Peter L, Robinson E, Crampsie S, Thomas DL, Holton JL, Jaunmuktane Z, Iglesias JE. A multimodal computational pipeline for 3D histology of the human brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Feb 11;. doi: 10.1101/2020.02.10.941948.
- Claudi F, Tyson AL, Petrucco L, Margrie TW, Portugues R, Branco T. Brainrender : a python-based software for visualizing anatomically registered data. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Feb 25;. doi: 10.1101/2020.02.23.961748.
- Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12.0(1):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 0.
- Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Graph theoretical quantification of white matter reorganization after cortical stroke in mice. *NeuroImage*. 2020 May 4;217.0:116873. doi: 10.1016/j.neuroimage.2020.116873. PMID: 0.
- Hahn JD, Swanson LW, Bowman I, Foster NN, Zingg B, Bienkowski MS, Hintiryan H, Dong H. An open access mouse brain flatmap and upgraded rat and human brain flatmaps based on current reference atlases. *The Journal of Comparative Neurology*. 2020 Jun 8;529.0(3):576-594. doi: 10.1002/cne.24966. PMID: 0.
- Wang X, Zeng W, Yang X, Fang C, Han Y, Fei P. Bi-channel Image Registration and Deep-learning Segmentation (BIRDS) for efficient, versatile 3D mapping of mouse brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2020 Jul 2;. doi: 10.1101/2020.06.30.181255.

8. Mancini M, Casamitjana A, Peter L, Robinson E, Crampsie S, Thomas DL, Holton JL, Jaunmuktane Z, Iglesias JE. A multimodal computational pipeline for 3D histology of the human brain. *Scientific Reports*. 2020 Aug 14;10.0(1):13839. doi: 10.1038/s41598-020-69163-z. PMID: 0.
9. Xu W, Lin J, Gao M, Chen Y, Cao J, Pu J, Huang L, Zhao J, Qian K. Rapid Computer-Aided Diagnosis of Stroke by Serum Metabolic Fingerprint Based Multi-Modal Recognition. *Advanced Science*. 2020 Sep 23;7.0(21):2002021. doi: 10.1002/advs.202002021. PMID: 0.
10. Scarpelli M, Healey DR, Mehta S, Kodibagkar VD, Quarles C. A practical method for multimodal registration and assessment of whole-brain disease burden using PET, MRI, and optical imaging. *Scientific Reports*. 2020 Oct 14;10.0(1):17324. doi: 10.1038/s41598-020-74459-1. PMID: 0.
11. Moldovanu S, Topora LP, Biswas A, Moraru L. Combining Sparse and Dense Features to Improve Multi-Modal Registration for Brain DTI Images. *Entropy*. 2020 Nov 14;22.0(11):1299. doi: 10.3390/e22111299. PMID: 0.
12. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16.0(7):1423. doi: 10.4103/1673-5374.301004. PMID: 0.
13. García-Saldivar P, Garimella A, Garza Villarreal EA, Salcido FAM, Concha L, Merchant H. PREEMACS: Pipeline for preprocessing and extraction of the macaque brain surface. *NeuroImage*. 2020 Dec 24;227.0:117671. doi: 10.1016/j.neuroimage.2020.117671. PMID: 0.
14. Xhima K, McMahon D, Ntiri EE, Goubbran M, Hynynen K, Aubert I. Intravenous and Non-invasive Drug Delivery to the Mouse Basal Forebrain Using MRI-guided Focused Ultrasound. *BIO-PROTOCOL*. 2021 Jan 1;11.0(12):e4056. doi: 10.21769/bioprotoc.4056. PMID: 0.
15. Wang X, Zeng W, Yang X, Zhang Y, Fang C, Zeng S, Han Y, Fei P. Bi-channel image registration and deep-learning segmentation (BIRDS) for efficient, versatile 3D mapping of mouse brain. *eLife*. 2021 Jan 18;10.0. doi: 10.7554/elife.63455. PMID: 0.
16. Chandrashekar V, Tward DJ, Crowley D, Crow A, Wright MA, Hsueh B, Gore F, Machado TA, Branch A, Rosenblum JS, Deisseroth K, Vogelstein JT. CloudReg: Automatic Terabyte-Scale Cross-Modal Brain Volume Registration. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jan 27;. doi: 10.1101/2021.01.26.428355.
17. Tyson AL, Margrie TW. Mesoscale microscopy for micromammals: image analysis tools for understanding the rodent brain. *arXiv (Cornell University)*. 2021 Feb 23;. doi: 10.48550/arxiv.2102.11812.
18. Takata N, Sato N, Komaki Y, Okano H, Tanaka KF. Flexible annotation atlas of the mouse brain: combining and dividing brain structures of the Allen Brain Atlas while maintaining anatomical hierarchy. *Scientific Reports*. 2021 Mar 18;11.0(1):6234. doi: 10.1038/s41598-021-85807-0. PMID: 0.
19. Claudi F, Tyson AL, Petrucco L, Margrie TW, Portugues R, Branco T. Visualizing anatomically registered data with brainrender. *eLife*. 2021 Mar 19;10.0. doi: 10.7554/elife.65751. PMID: 0.
20. Peng H, Qu L, Li Y, Xie P, Liu L, Wang Y, Wu J, Liu Y, Wang T, Li L, Guo K, Wan W, Ouyang L, Xiong F, Zheng Y, Xu F, Hui G, Dong H, Luo Q, Bi G, Hawrylycz M, Zeng H. Cross-Modality Coherent Registration of Whole Mouse Brains. *Research Square*. 2021 Mar 30;. doi: 10.21203/rs.3.rs-321118/v1.
21. Cabeen RP, Toga AW, Allman JM. Frontoinsular cortical microstructure is linked to life satisfaction in young adulthood. *Brain Imaging and Behavior*. 2021 Apr 6;15.0(6):2775-2789. doi: 10.1007/s11682-021-00467-y. PMID: 0.
22. Liu B, Hu Y, Ma G, Xiao Y, Zhang B, Liang Y, Zhong P, Zeng X, Lin Z, Kong H, Wu G, Du Z, Fang Y, Huang M, Wang L, Yang X, Yu H. Reduced Retinal Microvascular Perfusion in Patients With Stroke Detected by Optical Coherence Tomography Angiography. *Frontiers in Aging Neuroscience*. 2021 Apr 13;13.0:628336. doi: 10.3389/fnagi.2021.628336. PMID: 0.
23. Malovani C, Friedman N, Ben-Eliezer N, Tavor I. Tissue Probability Based Registration of Diffusion-Weighted Magnetic Resonance Imaging. *Journal of Magnetic Resonance Imaging*. 2021 Apr 24;54.0(4):1066-1076. doi: 10.1002/jmri.27654. PMID: 0.
24. Tyson AL, Vélez-Fort M, Rousseau CV, Cossell L, Tsitoura C, Obenhaus HA, Claudi F, Lenzi SC, Branco T, Margrie TW. Tools for accurate post hoc determination of marker location within whole-brain microscopy images. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 May 23;. doi: 10.1101/2021.05.21.445133.
25. Tyson AL, Rousseau CV, Niedworok CJ, Keshavarzi S, Tsitoura C, Cossell L, Strom M, Margrie TW. A deep learning algorithm for 3D cell detection in whole mouse brain image datasets. *PLoS Computational Biology*. 2021 May 28;17.0(5):e1009074. doi: 10.1371/journal.pcbi.1009074. PMID: 0.
26. Yang JY, Yeh C, Poupon C, Calamante F. Diffusion MRI tractography for neurosurgery: the basics, current state, technical reliability and challenges. *Physics in Medicine and Biology*. 2021 Jun 22;66.0(15):15TR01. doi: 10.1088/1361-6560/ac0d90. PMID: 0.
27. Tyson AL, Margrie TW. Mesoscale microscopy and image analysis tools for understanding the brain. *Progress in Biophysics and Molecular Biology*. 2021 Jul 1;168.0:81-93. doi: 10.1016/j.pbiomolbio.2021.06.013. PMID: 0.
28. Chandrashekar V, Tward DJ, Crowley D, Crow A, Wright MA, Hsueh B, Gore F, Machado TA, Branch A, Rosenblum JS, Deisseroth K, Vogelstein JT. CloudReg: automatic terabyte-scale cross-modal brain volume registration. *Nature Methods*. 2021 Jul 12;18.0(8):845-846. doi: 10.1038/s41592-021-01218-z. PMID: 0.
29. Giampetraglia M, Weigelin B. Recent advances in intravital microscopy for preclinical research. *Current Opinion in Chemical Biology*. 2021 Jul 15;63.0:200-208. doi: 10.1016/j.cbpa.2021.05.010. PMID: 0.
30. Oz S, Saar G, Olszakier S, Heinrich R, Kompanets M, Berlin S. Tissue expansion of 'cleared' whole brains reduces contrast in ex vivo MRI. *Research Square*. 2021 Sep 14;. doi: 10.21203/rs.3.rs-877945/v1.
31. Hoffmann M, Billot B, Greve DN, Iglesias JE, Fischl B, Dalca AV. SynthMorph: Learning Contrast-Invariant Registration Without Acquired Images. *IEEE Transactions on Medical Imaging*. 2021 Sep 29;41.0(3):543-558. doi: 10.1109/tmi.2021.3116879. PMID: 0.
32. Shafique A, Babaie M, Sajadi MSS, Batten AJ, Skdar S, Tizhoosh HR. Automatic Multi-Stain Registration of Whole Slide Images in Histopathology. 2021 43rd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC). 2021 Nov 1;2021.0:3622-3625. doi: 10.1109/embc46164.2021.9629970. PMID: 0.
33. Qu L, Li Y, Xie P, Liu L, Wang Y, Wu J, Liu Y, Wang T, Li L, Guo K, Wan W, Ouyang L, Xiong F, Kolstad AC, Wu Z, Xu F, Zheng Y, Gong H, Luo Q, Bi G, Dong H, Hawrylycz M, Zeng H, Peng H. Cross-modal coherent registration of whole mouse brains. *Nature Methods*.

2021 Dec 9;19.0(1):111-118. doi: 10.1038/s41592-021-01334-w. PMID: 0.

34. Ruthig P, Schönwiesner M. Common principles in the lateralization of auditory cortex structure and function for vocal communication in primates and rodents. *European Journal of Neuroscience*. 2022 Jan 4;55.0(3):827-845. doi: 10.1111/ejn.15590. PMID: 0.
35. Tran MQ, Do T, Tran HQ, Tjiputra E, Tran QD, Nguyen A. Light-Weight Deformable Registration Using Adversarial Learning With Distilling Knowledge. *IEEE Transactions on Medical Imaging*. 2022 Jan 6;41.0(6):1443-1453. doi: 10.1109/tmi.2022.3141013. PMID: 0.
36. Newmaster KT, Kronman FA, Wu Y, Kim Y. Seeing the Forest and Its Trees Together: Implementing 3D Light Microscopy Pipelines for Cell Type Mapping in the Mouse Brain. *Frontiers in Neuroanatomy*. 2022 Jan 14;15.0:787601. doi: 10.3389/fnana.2021.787601. PMID: 0.
37. Johnson GA, Tian Y, Cofer GP, Cook JC, Gee JC, Hall AW, Hornburg KJ, Qi Y, Yeh F, Wang N, White L, Williams RW. HiDiver: A Suite of Methods to Merge Magnetic Resonance Histology, Light Sheet Microscopy, and Complete Brain Delineations. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Feb 10;. doi: 10.1101/2022.02.10.479607.
38. Mittal S, Kim J, Bhargava R. Statistical Considerations and Tools to Improve Histopathologic Protocols with Spectroscopic Imaging. *Applied Spectroscopy*. 2022 Mar 16;76.0(4):428-438. doi: 10.1177/00037028211066327. PMID: 0.
39. Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253.0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
40. Schmitt O, Eipert P, Ruß F, Beier J, Kadir K, Horn AKE. The brainstem connectome database. *Scientific Data*. 2022 Apr 12;9.0(1):168. doi: 10.1038/s41597-022-01219-3. PMID: 0.
41. Huang R, Zhou X, Chen G, Su L, Liu Z, Zhou P, Weng J, Min Y. Advances of functional nanomaterials for magnetic resonance imaging and biomedical engineering applications. *Wiley Interdisciplinary Reviews Nanomedicine and Nanobiotechnology*. 2022 Apr 20;14.0(4):e1800. doi: 10.1002/wnan.1800. PMID: 0.
42. Stouffer K, Witter MP, Tward DJ, Miller MI. Projective LDDMM: Mapping Molecular Digital Pathology with Tissue MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Apr 24;. doi: 10.1101/2022.04.22.489163.
43. Dong Y, Li C, Zhang Y, Li P, Qi FZ. Exascale image processing for next-generation beamlines in advanced light sources. *Nature Reviews Physics*. 2022 May 18;4.0(7):427-428. doi: 10.1038/s42254-022-00465-z.
44. Monte B, Constantinou S, Koundal S, Lee H, Dai F, Gursky ZH, Van Nostrand WE, Darbinyan A, Zlokovic BV, Wardlaw JM, Benveniste H. Characterization of perivascular space pathology in a rat model of cerebral small vessel disease by in vivo magnetic resonance imaging. *Journal of Cerebral Blood Flow & Metabolism*. 2022 Jun 8;42.0(10):1813-1826. doi: 10.1177/0271678x221105668. PMID: 0.
45. Tian Y, Cook JJ, Johnson GA. Restoring morphology of light sheet microscopy data based on magnetic resonance histology. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Jul 14;. doi: 10.1101/2022.07.12.499779.
46. Perens J, Salinas CG, Roostalu U, Skytte JL, Gundlach C, Hecksher Sørensen J, Dahl AB, Dyrby TB. Multimodal 3D mouse brain atlas framework with skull-derived coordinate system. *Research Square*. 2022 Jul 21;. doi: 10.21203/rs.3.rs-1832101/v1.
47. Li Y, Wu J, Lu D, Xu C, Zheng Y, Peng H, Qu L. mBrainAligner-Web: a web server for cross-modal coherent registration of whole mouse brains. *Bioinformatics*. 2022 Aug 11;38.0(19):4654-4655. doi: 10.1093/bioinformatics/btac549. PMID: 0.
48. Sun R, Wu J, Miao Y, Ouyang L, Qu L. Progressive 3D biomedical image registration network based on deep self-calibration. *Frontiers in Neuroinformatics*. 2022 Sep 21;16.0:932879. doi: 10.3389/fninf.2022.932879. PMID: 0.
49. Menzel M, Gräßel D, Rajković I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Oct 4;. doi: 10.1101/2022.10.04.509781.
50. Ren J, Li Z, Shang Z, Liu J, Zhen H, Zhu E, Zhong S, Sturgess RN, Zhou Y, Hu X, Wu Y, Lin R. D-LMBmap: A fully automated deep learning pipeline for whole-brain profiling of neural circuitry. *Research Square*. 2022 Oct 28;. doi: 10.21203/rs.3.rs-2188055/v1.
51. Stouffer K, Witter MP, Tward DJ, Miller MI. Projective diffeomorphic mapping of molecular digital pathology with tissue MRI. *Communications Engineering*. 2022 Dec 13;1.0(1). doi: 10.1038/s44172-022-00044-1. PMID: 0.
52. Ciarrusta J, Arichi T. Neurobiology and the connectome. *Elsevier eBooks*. 2023 Jan 1;:3-23. doi: 10.1016/b978-0-323-85280-7.00012-9.
53. Marques FC, Wehrle E, Müller R. Correlative Multimodal Imaging for Multiscale Analysis of Complex Biological Systems: Validation Methods and Performance Analysis. *Reference series in biomedical engineering*. 2023 Jan 1;:1-36. doi: 10.1007/978-3-030-85569-7_17-1.
54. Tian Y, Cook JJ, Johnson GA. Restoring morphology of light sheet microscopy data based on magnetic resonance histology. *Frontiers in Neuroscience*. 2023 Jan 4;16.0:1011895. doi: 10.3389/fnins.2022.1011895. PMID: 0.
55. Rijsketic DR, Casey AB, Barbosa DAN, Zhang X, Hietamies TM, Ramirez-Ovalle G, Pomrenze MB, Halpern CH, Williams LM, Malenka RC, Heifets BD. UNRAVELing the synergistic effects of psilocybin and environment on brain-wide immediate early gene expression in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Feb 21;. doi: 10.1101/2023.02.19.528997. PMID: 0.
56. Perens J, Salinas CG, Roostalu U, Skytte JL, Gundlach C, Hecksher Sørensen J, Dahl AB, Dyrby TB. Multimodal 3D Mouse Brain Atlas Framework with the Skull-Derived Coordinate System. *Neuroinformatics*. 2023 Feb 21;21.0(2):269-286. doi: 10.1007/s12021-023-09623-9. PMID: 0.
57. Hsueh B, Chen R, Jo Y, Tang DD, Raffiee M, Kim YS, Inoue M, Randles S, Ramakrishnan C, Patel S, Kim DK, Liu TX, Kim SH, Tan L, Mortazavi L, Cordero A, Shi J, Zhao M, Ho T, Crow A, Yoo AW, Raja C, Evans KE, Bernstein D, Zeineh M, Goubran M, Deisseroth K. Cardiogenic control of affective behavioural state. *Nature*. 2023 Mar 1;615.0(7951):292-299. doi: 10.1038/s41586-023-05748-8. PMID: 0.
58. Wehrli PM, Ge J, Michno W, Koutarapu S, Dreos A, Jha D, Zetterberg H, Blennow K, Hanrieder J. Correlative Chemical Imaging and Spatial Chemometrics Delineate Alzheimer Plaque Heterogeneity at High Spatial Resolution. *JACS Au*. 2023 Mar 7;3.0(3):762-774. doi: 10.1021/jacsau.2c00492. PMID: 0.

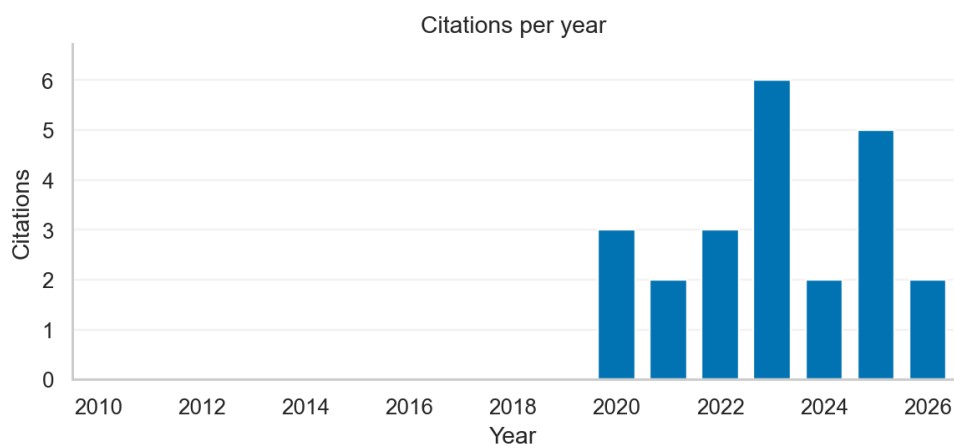
59. Duarte FT, Ramosaj M, Hasanovic E, Regio S, Sipion M, Rey M, Déglon N. Semi-automated workflows to quantify AAV transduction in various brain areas and predict gene editing outcome for neurological disorders. *Molecular Therapy — Methods & Clinical Development*. 2023 Mar 27;29.0:254-270. doi: 10.1016/j.omtm.2023.03.013. PMID: 0.
60. Johnson GA, Tian Y, Ashbrook DG, Cofer GP, Cook JJ, Gee JC, Hall AW, Hornburg KJ, Kaczorowski CC, Qi Y, Yeh F, Wang N, White L, Williams RW. Merged magnetic resonance and light sheet microscopy of the whole mouse brain. *Proceedings of the National Academy of Sciences*. 2023 Apr 17;120.0(17):e2218617120. doi: 10.1073/pnas.2218617120. PMID: 0.
61. Menzel M, Gräßel D, Rajković I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *eLife*. 2023 May 11;12.0. doi: 10.7554/elife.84024. PMID: 0.
62. Liang Z, Zhang J. Mouse brain MR super-resolution using a deep learning network trained with optical imaging data. *Frontiers in Radiology*. 2023 May 15;3.0:1155866. doi: 10.3389/fradi.2023.1155866. PMID: 0.
63. Rijsketic DR, Casey AB, Barbosa DAN, Zhang X, Hietamies TM, Ramirez-Ovalle G, Pomrenze MB, Halpern CH, Williams LM, Malenka RC, Heifets BD. UNRAVELing the synergistic effects of psilocybin and environment on brain-wide immediate early gene expression in mice. *Neuropsychopharmacology*. 2023 May 29;48.0(12):1798-1807. doi: 10.1038/s41386-023-01613-4. PMID: 0.
64. Abe P, Lavalley A, Morassut I, Klingler E, Santinha AJ, Platt RJ, Jabaudon D. Developmental molecular controls over arealization of descending cortical motor pathways. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Jun 30;. doi: 10.1101/2023.06.29.546438.
65. Feng HT, Zhao Y, Li Y, Qi X, Shen S, Zhou S. Multi-Armed Anti-CD40-Mediated Dual Drug Delivery System Based on Mesoporous Silica/Au Nanorod Nanocomposites for Multimodality Imaging and Combination Therapy. *ACS Applied Nano Materials*. 2023 Jul 17;6.0(14):13001-13012. doi: 10.1021/acsanm.3c01722.
66. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.
67. Jabaudon D, Abe P, Lavalley A, Morassut I, Klingler E, Santinha AJ, Platt RJ. Developmental molecular controls over arealization of descending cortical motor pathways. *Research Square*. 2023 Jul 24;. doi: 10.21203/rs.3.rs-3166328/v1.
68. Li X, Zhang Y, Liu Y, Li P, Hu H, Wang L, He P, Dong Y, Zhang C. A high-throughput big-data orchestration and processing system for the High Energy Photon Source. *Journal of Synchrotron Radiation*. 2023 Sep 1;30.0(6):1086-1091. doi: 10.1107/s1600577523006951. PMID: 0.
69. Li Z, Shang Z, Liu J, Zhen H, Zhu E, Zhong S, Sturgess RN, Zhou Y, Hu X, Zhao X, Wu Y, Li P, Lin R, Ren J. D-LMBmap: a fully automated deep-learning pipeline for whole-brain profiling of neural circuitry. *Nature Methods*. 2023 Sep 28;20.0(10):1593-1604. doi: 10.1038/s41592-023-01998-6. PMID: 0.
70. Tang W, Li Z, Li Z, Zou Y, Liao J, Li B. A multimodal pipeline for image correction and registration of mass spectrometry imaging with microscopy. *Analytica Chimica Acta*. 2023 Oct 27;1283.0:341969. doi: 10.1016/j.aca.2023.341969. PMID: 0.
71. Bao L, Luo Z, Zhu X, Xu Y. Automated identification of protein expression intensity and classification of protein cellular locations in mouse brain regions from immunofluorescence images. *Medical & Biological Engineering & Computing*. 2023 Dec 27;62.0(4):1105-1119. doi: 10.1007/s11517-023-02985-x. PMID: 0.
72. Luo N, Shi W, Yang Z, Song M, Jiang T. Multimodal Fusion of Brain Imaging Data: Methods and Applications. *Machine Intelligence Research*. 2024 Jan 15;21.0(1):136-152. doi: 10.1007/s11633-023-1442-8.
73. Silveira ACC, Antunes ASLM, Athié MCP, da Silva BF, Santos JVRD, Canateli C, Fontoura MA, Pinto A, Pimentel Silva LR, Avansini SH, de Carvalho M. Between neurons and networks: investigating mesoscale brain connectivity in neurological and psychiatric disorders. *Frontiers in Neuroscience*. 2024 Feb 20;18.0:1340345. doi: 10.3389/fnins.2024.1340345. PMID: 0.
74. Ma X, Xing YL, Zhai R, Du Y, Yan H. Development and advancements in rodent MRI-based brain atlases. *Heliyon*. 2024 Mar 1;10.0(6):e27421. doi: 10.1016/j.heliyon.2024.e27421. PMID: 0.
75. Koukalova L, Chmelová M, Amlerova Z, Vargová L. Out of the core: the impact of focal ischemia in regions beyond the penumbra. *Frontiers in Cellular Neuroscience*. 2024 Mar 5;18.0:1336886. doi: 10.3389/fncel.2024.1336886. PMID: 0.
76. Willekens SMA, Morini F, Mediavilla T, Nilsson E, Orädd G, Hahn M, Chotiwan N, Visa M, Berggren P, Ilegems E, Överby AK, Ahlgren U, Marcellino D. An MR-based brain template and atlas for optical projection tomography and light sheet fluorescence microscopy in neuroscience. *Frontiers in Neuroscience*. 2024 Mar 27;18.0:1328815. doi: 10.3389/fnins.2024.1328815. PMID: 0.
77. Mansour H, Azrak R, Cook JJ, Hornburg KJ, Qi Y, Tian Y, Williams RW, Yeh F, White L, Johnson GA. An Open Resource: MR and light sheet microscopy stereotaxic atlas of the mouse brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Mar 31;. doi: 10.1101/2024.03.28.587246. PMID: 0.
78. Tustison NJ, Chen M, Kronman FN, Duda J, Gamlin C, Tustison MG, Kunst M, Dalley R, Sorensen SA, Wang Q, Ng L, Kim Y, Gee JC. The ANTsX Ecosystem for Mapping the Mouse Brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 May 1;. doi: 10.1101/2024.05.01.592056. PMID: 0.
79. Choi YK, Feng L, Jeong W, Kim J. Connecto-informatics at the mesoscale: current advances in image processing and analysis for mapping the brain connectivity. *Brain Informatics*. 2024 Jun 4;11.0(1):15. doi: 10.1186/s40708-024-00228-9. PMID: 0.
80. Otomo K, Omura T, Nozawa Y, Edwards SJ, Sato Y, Saito Y, Yagishita S, Uchida H, Watakabe Y, Naitou K, Yanai R, Sahara N, Takagi S, Katayama R, Iwata Y, Shiokawa T, Hayakawa Y, Otsuka K, Watanabe Takano H, Haneda Y, Fukuhara S, Fujiwara M, Nii T, Meno C, Takeshita N, Yashiro K, Rocabado JMR, Kaku M, Yamada T, Oishi Y, Koike H, Cheng Y, Sekine K, Koga J, Sugiyama K, Kimura K, Karube F, Kim H, Manabe I, Nemoto T, Tainaka K, Hamada A, Brismar H, Susaki EA. descSPIM: an affordable and easy-to-build light-sheet microscope optimized for tissue clearing techniques. *Nature Communications*. 2024 Jun 12;15.0(1):4941. doi: 10.1038/s41467-024-49131-1. PMID: 0.
81. Ali LM, Yim AK, Gerbi E, Nguyen T, Tu N, Ikede FP, Sampaleanu R, Grigore D, Waligorski J, Kremitzki C, Yuan L, Dong W, Mitra RD, Milbrandt J, Buchser W. Biophysical Simulation Enables Multi-Scale Segmentation and Atlas Mapping for Top-Down Spatial Omics of the Nervous System. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Aug 3;. doi: 10.1101/2024.08.02.605366.

82. Chiaruttini N, Castoldi C, Reque LM, Camarena-Delgado C, Bianco B, Gräff J, Seitz A, Silva BA. ABBA, a novel tool for whole-brain mapping, reveals brain-wide differences in immediate early genes induction following learning. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Sep 6;. doi: 10.1101/2024.09.06.611625.
83. Abe P, Lavalley A, Morassut I, Santinha AJ, Roig■Puiggros S, Javed A, Klingler E, Baumann N, Prados J, Platt RJ, Jabaudon D. Molecular programs guiding arealization of descending cortical pathways. *Nature*. 2024 Sep 11;634.0(8034):644-651. doi: 10.1038/s41586-024-07895-y. PMID: 0.
84. Zhu J, Liu X, Liu Z, Deng Y, Xu J, Liu K, Zhang R, Meng X, Fei P, Yu T, Zhu D. SOLID: minimizing tissue distortion for brain-wide profiling of diverse architectures. *Nature Communications*. 2024 Sep 27;15.0(1):8303. doi: 10.1038/s41467-024-52560-7. PMID: 0.
85. Santoro M, Lam R, Blumenfeld SE, Tan W, Ciari P, Chu EK, Saw NL, Rijsketic DR, Lin JS, Heifets BD, Shamloo M. Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice. *Research Square*. 2024 Oct 16;. doi: 10.21203/rs.3.rs-5206046/v1. PMID: 0.
86. Evans AK, Park HH, Woods CE, Lam R, Rijsketic DR, Xu C, Chu EK, Ciari P, Blumenfeld SE, Vidano L, Saw NL, Heifets BD, Shamloo M. Impact of noradrenergic inhibition on neuroinflammation and pathophysiology in mouse models of Alzheimer's disease. *Research Square*. 2024 Oct 30;. doi: 10.21203/rs.3.rs-5328229/v1. PMID: 0.
87. Piluso S, Verasztó C, Carey H, Delattre É, L'Yvonnet T, Colnot É, Romani A, Bjaalie JG, Markram H, Keller D. An extended and improved CCFv3 annotation and Nissl atlas of the entire mouse brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Nov 8;. doi: 10.1101/2024.11.06.622212.
88. Cho N, Squair JW, Aureli V, James ND, Bole-Feysot L, Dewany I, Hankov N, Baud L, Leonhartsberger A, Sveistyte K, Skinnider MA, Gautier M, Laskaratos A, Galan K, Goubran M, Ravier J, Merlos F, Batti L, Pagès S, Bérard N, Interling N, Varescon C, Watrin A, Duguet L, Carda S, Bartholdi K, Hutson TH, Kathe C, Hodara M, Anderson MA, Draganski B, Demesmaeker R, Asboth L, Barraud Q, Bloch J, Courtine G. Hypothalamic deep brain stimulation augments walking after spinal cord injury. *Nature Medicine*. 2024 Dec 1;30.0(12):3676-3686. doi: 10.1038/s41591-024-03306-x. PMID: 0.
89. Evans AK, Park HH, Woods CE, Lam R, Rijsketic DR, Xu C, Chu EK, Ciari P, Blumenfeld SE, Vidano L, Saw NL, Heifets BD, Shamloo M. Impact of noradrenergic inhibition on neuroinflammation and pathophysiology in mouse models of Alzheimer's disease. *Journal of Neuroinflammation*. 2024 Dec 18;21.0(1):322. doi: 10.1186/s12974-024-03306-1. PMID: 0.
90. Jiang P, Wu S, Qin W, Xie Y. Complex Large-Deformation Multimodality Image Registration Network for Image-Guided Radiotherapy of Cervical Cancer. *Bioengineering*. 2024 Dec 23;11.0(12):1304. doi: 10.3390/bioengineering11121304. PMID: 0.
91. Piluso S, Verasztó C, Carey H, Delattre É, L'Yvonnet T, Colnot É, Romani A, Bjaalie JG, Markram H, Keller D. An extended and improved CCFv3 annotation and Nissl atlas of the entire mouse brain. *Imaging Neuroscience*. 2025 Jan 1;3.0. doi: 10.1162/imag_a_00565. PMID: 0.
92. Marques FC, Wehrle E, Müller R. Correlative Multimodal Imaging for Multiscale Analysis of Complex Biological Systems: Validation Methods and Performance Analysis. *Reference series in biomedical engineering*. 2025 Jan 1;:387-422. doi: 10.1007/978-3-031-91544-4_17.
93. Aggarwal M. Preclinical and ex vivo tractography: Techniques and applications at high field. *Elsevier eBooks*. 2025 Jan 1;:653-667. doi: 10.1016/b978-0-12-818894-1.00025-2.
94. Chau G, Weber EMM, Batra A, Ni L, Zeineh M, Chaudhari A, Adeli E, Knowles JK, McNab JA. Non-parametric prediction of brain MRI microstructure using transfer learning. *Imaging Neuroscience*. 2025 Jan 1;3.0. doi: 10.1162/imag_a_00548. PMID: 0.
95. Han X, Chen J, Zhao Y, Kang R, Wei Y, Zhou S. Dual antibody-guided drug delivery systems using MOF-PQDs nanocomposites for precise tumor diagnosis and combination therapy. *Chemical Engineering Journal*. 2025 Jan 5;505.0:159275. doi: 10.1016/j.cej.2025.159275.
96. Attarpour A, Osmann J, Rinaldi A, Qi T, Lal N, Patel S, Rozak M, Yu F, Cho N, Squair JW, McLaurin J, Raffiee M, Deisseroth K, Courtine G, Ye L, Stefanovic B, Goubran M. A deep learning pipeline for three-dimensional brain-wide mapping of local neuronal ensembles in teravoxel light-sheet microscopy. *Nature Methods*. 2025 Jan 27;22.0(3):600-611. doi: 10.1038/s41592-024-02583-1. PMID: 0.
97. Santoro M, Lam R, Blumenfeld SE, Tan W, Ciari P, Chu EK, Saw NL, Rijsketic DR, Lin JS, Heifets BD, Shamloo M. Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice. *npj Parkinson's Disease*. 2025 Feb 11;11.0(1):28. doi: 10.1038/s41531-025-00872-w. PMID: 0.
98. Shamim MS, Faridi AR, Masood F. Analysis of Emerging Trends and Challenges in Multimodal Data. *2025 12th International Conference on Computing for Sustainable Global Development (INDIACom)*. 2025 Apr 2;:1-7. doi: 10.23919/indiacom66777.2025.11115680.
99. Marques FC, Mathavan N, Ohs N, Goenczoel C, Kendall JJ, Singh AK, Yilmaz D, Günther D, Kuhn G, Schulte FA, Wehrle E, Müller R. Spatial μProBe: a correlative multimodal imaging approach for spatial profiling of biological micro-environments. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Apr 26;. doi: 10.1101/2025.04.23.650252.
100. Mansour H, Azrak R, Cook JJ, Hornburg KJ, Qi Y, Tian Y, Williams RW, Yeh F, White L, Johnson GA. The Duke Mouse Brain Atlas: MRI and light sheet microscopy stereotaxic atlas of the mouse brain. *Science Advances*. 2025 May 1;11.0(18):eadq8089. doi: 10.1126/sciadv.adq8089. PMID: 0.
101. Chiaruttini N, Castoldi C, Reque LM, Camarena-Delgado C, Bianco B, Gräff J, Seitz A, Silva BA. ABBA+BraiAn, an integrated suite for whole-brain mapping, reveals brain-wide differences in immediate-early genes induction upon learning. *Cell Reports*. 2025 Jun 23;44.0(7):115876. doi: 10.1016/j.celrep.2025.115876. PMID: 0.
102. Elhaminia B, Alsalemi A, Nasir ES, Jahanifar M, Awan R, Young LS, Rajpoot N, Minhas F, Raza SEA. From traditional to deep learning approaches in whole slide image registration: A methodological review. *Journal of Pathology Informatics*. 2025 Sep 17;19.0:100512. doi: 10.1016/j.jpi.2025.100512. PMID: 0.
103. Suliman M, Williams LZJ, Fawaz A, Robinson EC. Unsupervised multimodal surface registration with geometric deep learning. *Medical Image Analysis*. 2025 Oct 4;107.0(Pt B):103821. doi: 10.1016/j.media.2025.103821. PMID: 0.

- 104.** Attarpour A, Raffiee M, Xu T, Osmann J, Patel S, Yu F, Au B, Clappison A, Biparva M, Zhu R, Crow A, Gharagoz BE, Rozak M, Aubert I, McLaurin J, Deisseroth K, Stefanovic B, Goubran M. Quantitative profiling of whole-brain connectomes at single-axon resolution using deep learning and high-resolution light sheet microscopy. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Nov 16;. doi: 10.1101/2025.11.14.688340. PMID: 0.
- 105.** Ali LM, Yim AK, Gerbi E, Nguyen T, Tu N, Ikede F, Sampaleanu R, Grigore D, Waligorski J, Kremitzki C, Yuan L, Dong W, Mitra RD, Milbrandt J, Buchser W. Biophysical simulation enables segmentation and nervous system atlas mapping for image first spatial omics. *npj Systems Biology and Applications*. 2025 Dec 14;12.0(1):3. doi: 10.1038/s41540-025-00627-6. PMID: 0.
- 106.** Pang Z, Leung VH, Wang CC, Attarpour A, Rinaldi A, Shen H, Moya-Garzon MD, Sigua LH, Rammel C, Selke A, Glynn C, Yender M, Xu S, Moslehi JJ, Wu P, Long JZ, Goubran M, Cravatt BF, Ye L. Mapping cellular targets of covalent cancer drugs in the entire mammalian body. *Cell*. 2025 Dec 22;189.0(3):725-738.e15. doi: 10.1016/j.cell.2025.11.030. PMID: 0.
- 107.** Jung F, Cao X, Heymans L, Carlén M. DMC-BrainMap is an open-source, end-to-end tool for multi-feature brain mapping in different species. *Cell Reports Methods*. 2026 Feb 1;6.0(2):101302. doi: 10.1016/j.crmeth.2026.101302. PMID: 0.
- 108.** Vihma H, James L, Nourie HC, Smith AL, Liang S, Friar CA, Vulli T, Xing L, Cowley DO, Burette AC, Philpot BD. A dual-reporter mouse for therapeutic discovery in Angelman syndrome. *JCI Insight*. 2026 Feb 3;11.0(5). doi: 10.1172/jci.insight.197028. PMID: 0.
- 109.** Wu C, Gao Y, Huang G, Ma X. Dual-branch Bayesian adversarial learning for multi-view clustering. *Knowledge-Based Systems*. 2026 Apr 6;342.0:115942. doi: 10.1016/j.knosys.2026.115942.
- 110.** Fan P, Ruan Y, HU K, Wang H, Ye J, Wang S, Yuan R, Yang G, Liu F, He W, Li G, Yan X, CHU S, Zhang Z, Chen N. Ginsenoside Rg1 alleviates post-ischemic stroke neuroinflammation by inhibiting CKLF1-mediated suppression of dead/dying neuron clearance. *Acta Pharmaceutica Sinica B*. 2026 Apr 9;16.0(6):3632-3654. doi: 10.1016/j.apsb.2026.04.003. PMID: 0.
- 111.** Zhu S, Dinsdale NK, Jbabdi S, Miller K, Howard A. Microscopy-informed structural connectivity mapping in the in vivo human brain via domain adaptation. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Jun 18;. doi: 10.64898/2026.06.14.732211. PMID: 0.

Publication

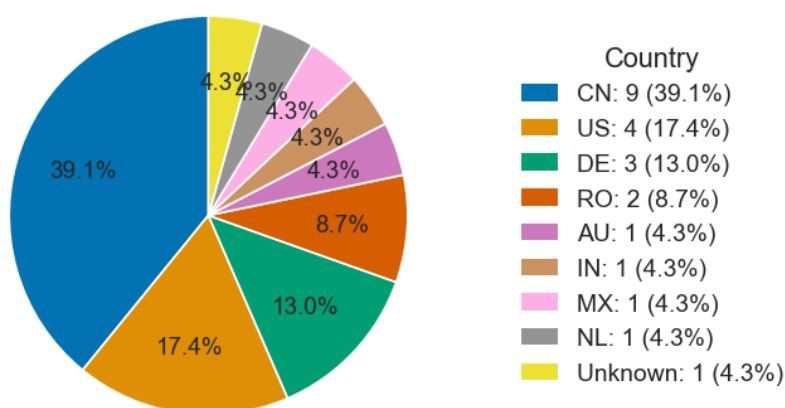
Glover JC, Aswendt M, Boulland J, Lojk J, Stamenković S, Anđus PR, Fiori F, Hoehn M, Mitrešić D, Pavlin M, Cavalli S, Frati C, Quaini F, (BIONECA) OBOTECA1. In vivo Cell Tracking Using Non-invasive Imaging of Iron Oxide-Based Particles with Particular Relevance for Stem Cell-Based Treatments of Neurological and Cardiac Disease. *Molecular Imaging and Biology*. 2019 Dec 4;22(6):1469-1488. doi: 10.1007/s11307-019-01440-4. PMID: 31802361.



Citation summary

Total citations: **23**
Average/year: **2.88**
Period: 2019-2026
SCImago cites/doc 2y (2025): **2.79**
SJR 2025: **0.74** (Q2)

Citations by country



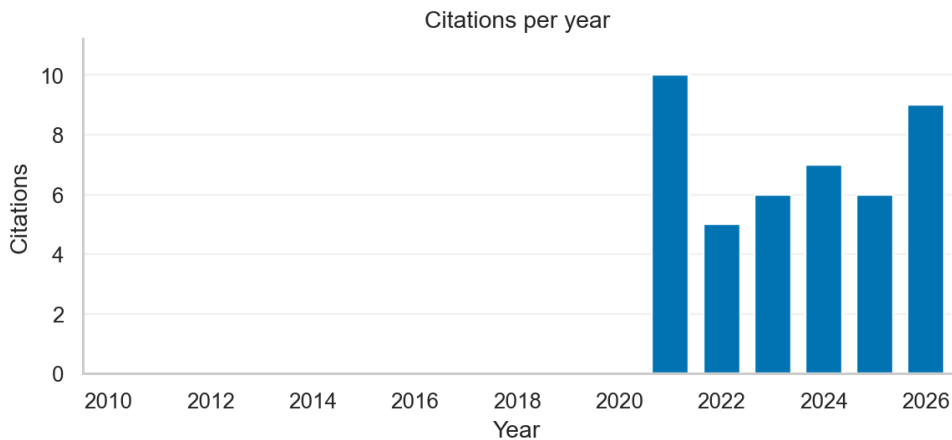
Cited by

- Schäfer R, Schwab M, Siegel G, von Ameln-Mayerhofer A, Buadze M, Lourhmati A, Wendel H, Kluba T, Krueger MA, Calaminus C, Scheer E, Dominici M, Grisendi G, Doeppner TR, Schlechter J, Finzel AK, Gross D, Klaffschenkel RA, Gehring FK, Spohn G, Kretschmer A, Bieback K, Krämer-Albers E, Barth K, Eckert A, Elser S, Schmehl J, Claussen CD, Seifried E, Hermann DM, Northoff H, Danielyan L. Modulating endothelial adhesion and migration impacts stem cell therapies efficacy. *EBioMedicine*. 2020 Sep 14;60:102987. doi: 10.1016/j.ebiom.2020.102987. PMID: 0.
- Yang X, Tian D, He W, Lv W, Fan J, Li H, Jin W, Meng X. Cellular and molecular imaging for stem cell tracking in neurological diseases. *Stroke and Vascular Neurology*. 2020 Oct 29;6(1.0):121-127. doi: 10.1136/svn-2020-000408. PMID: 0.
- Braidy N, Wen W, Bongers A, Sachdev PS. Applications of magnetic particle imaging in the dementias. *Current Opinion in Psychiatry*. 2020 Nov 13;34(2.0):186-192. doi: 10.1097/ycp.0000000000000668. PMID: 0.
- Nekolla SG, Saraste A, Sager HB, Makowski MR, Schwaiger M. Congestive Heart Failure. *Molecular Imaging*. 2021 Jan 1;:1167-1191. doi: 10.1016/b978-0-12-816386-3.00050-8.
- Rowe SP, Pomper MG. Molecular imaging in oncology: Current impact and future directions. *CA A Cancer Journal for Clinicians*. 2021 Dec 13;72(4.0):333-352. doi: 10.3322/caac.21713. PMID: 0.
- Gong Z, He Y, Zhou M, Xin H, Pan M, Fiaz M, Liu H, Yan F. Ultrasound imaging tracking of mesenchymal stem cells intracellularly labeled with biosynthetic gas vesicles for treatment of rheumatoid arthritis. *Theranostics*. 2022 Jan 1;12(5.0):2370-2382. doi: 10.7150/thno.66905. PMID: 0.
- Shaikh S. Molecular Imaging and Stem Cell Imaging. *Advances in Imaging*. 2022 Jan 1;:237-256. doi: 10.1007/978-981-16-9535-3_20.

8. Oberländer J, Ayerbe R, Cabellos J, Marques RDC, Li B, Günday-Türeli N, Türeli E, Ofir R, Shalom EI, Mailänder V. Higher Loading of Gold Nanoparticles in PAD Mesenchymal-like Stromal Cells Leads to a Decreased Exocytosis. *Cells*. 2022 Jul 28;11(15.0):2323. doi: 10.3390/cells11152323. PMID: 0.
9. L■bu■c■ L, Herea D, Chiriac H, Lupu N. Magnetic sensors for regenerative medicine. *Elsevier eBooks*. 2023 Jan 1;:401-433. doi: 10.1016/b978-0-12-823294-1.00012-9.
10. Iron imaging in neuroinflammation. *Advances in magnetic resonance technology and applications*. 2023 Jan 1;:51-78. doi: 10.1016/b978-0-323-91771-1.00013-7.
11. Herea D, L■bu■c■ L, Lupu N, Chiriac H. Magnetic particles for drug delivery. *Elsevier eBooks*. 2023 Jan 1;:259-304. doi: 10.1016/b978-0-12-823294-1.00002-6.
12. Yan X, Li S, Yan H, Yu C, Liu F. IONPs-Based Medical Imaging in Cancer Care: Moving Beyond Traditional Diagnosis and Therapeutic Assessment. *International Journal of Nanomedicine*. 2023 Mar 31;Volume 18:1741-1763. doi: 10.2147/ijn.s399047. PMID: 0.
13. Channa GM, Hassan D, Zeeshan M, Ruiz-Pulido G, Ebrahimi N, Mobashar A, Pourmadadi M, Rahdar A, Sargazi S, Fathi■karkan S, Medina DI, Díez■Pascual AM. Advances in nanotechnology versus stem cell therapy for the theranostics of Huntington's disease. *Journal of Drug Delivery Science and Technology*. 2023 Jul 19;87:104774. doi: 10.1016/j.jddst.2023.104774.
14. Zhao W, Li C, Chang J, Zhou H, Wang D, Sun J, Liu T, Peng H, Wang Q, Li Y, Whittaker AK. Advances and prospects of RAFT polymerization-derived nanomaterials in MRI-assisted biomedical applications. *Progress in Polymer Science*. 2023 Sep 18;146:101739. doi: 10.1016/j.progpolymsci.2023.101739.
15. Nigam S, Gjellaj E, Wang R, Wei G, Wang P. Machine Learning and Deep Learning Applications in Magnetic Particle Imaging. *Journal of Magnetic Resonance Imaging*. 2024 Feb 15;61(1.0):42-51. doi: 10.1002/jmri.29294. PMID: 0.
16. Xue R, Liu Z, Liu L, Sun S, Gong Z. Ultrasound Imaging of Macrophages Intracellularly Labelled with Biosynthetic Gas Vesicles. *Molecular Imaging and Biology*. 2024 Aug 28;26(5.0):761-767. doi: 10.1007/s11307-024-01946-6. PMID: 0.
17. de la Cruz KI, Zhang R, Ma X. MRI Tracking of MPIO-Labeled Amniotic Fluid-Derived Stem Cells on an Acellular Nerve Graft in a Rat Model. *Methods in molecular biology*. 2025 Jan 1; . doi: 10.1007/7651_2025_686. PMID: 0.
18. Smeets L, Sengun E, Trayford C, van Cranenbroek B, de Jonge MI, Dallaglio K, Hütten MC, Schoberer M, Ophelders DRMG, Wolfs TGAM, van der Molen RG, van Rijjt S. Gold Mesoporous Silica-Coated Nanoparticles for Quantifying and Qualifying Mesenchymal Stem Cell Distribution; a Proof-of-Concept Study in Large Animals. *ACS Applied Bio Materials*. 2025 Feb 3;8(2.0):1511-1523. doi: 10.1021/acsabm.4c01714. PMID: 0.
19. Ma X, Henry K, Healy KM, Luo TD, Smith TL, Li Z. In Vivo Tracking of Amniotic Fluid Derived Stem Cells on Acellular Nerve Graft. *The Journal Of Hand Surgery*. 2025 Mar 22;51(1.0):103.e1-103.e8. doi: 10.1016/j.jhsa.2025.02.012. PMID: 0.
20. Li X, Qin S, Liao X, Yang L, Liu A. Magnetic nanoparticles influence the biological function of mesenchymal stem cells. *Scientific Reports*. 2025 Jul 30;15(1.0):27862. doi: 10.1038/s41598-025-13083-3. PMID: 0.
21. Xia C, Wang J, Bu R, Hu X. Ultrasonically targeted destruction of SDF1 nanobubbles carrying mesenchymal stem cells improves renal tubulointerstitial fibrosis. *International Journal of Pharmaceutics*. 2025 Dec 29;690:126542. doi: 10.1016/j.ijpharm.2025.126542. PMID: 0.
22. Zhang P, Lin Z, Cheng X, Zhao X, Tang H, Jiao M, Jing L, Luo X. Advancing traumatic brain injury diagnosis through nanomaterial-based imaging technologies. *Nano Today*. 2026 Mar 21;69:103028. doi: 10.1016/j.nantod.2026.103028.
23. Sun Z, Zhao J, Li J, Ma X, Wang Z, Wang Y, Y L, Bai Y, Wei D, Jiang W. Biomaterial platforms for enhanced stem cell therapy in ischemic stroke. *Biomaterials*. 2026 Jul 11;336:124427. doi: 10.1016/j.biomaterials.2026.124427. PMID: 0.

Publication

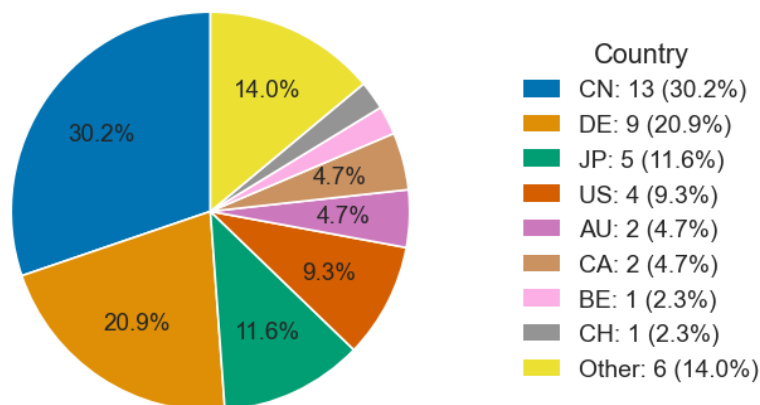
Aswendt M, Pallast N, Wieters F, Baues M, Hoehn M, Fink GR. Lesion Size- and Location-Dependent Recruitment of Contralateral Thalamus and Motor Cortex Facilitates Recovery after Stroke in Mice. *Translational Stroke Research*. 2020 Mar 12;12(1):87-97. doi: 10.1007/s12975-020-00802-3. PMID: 32166716.



Citation summary

Total citations: **43**
Average/year: **6.14**
Period: 2020-2026
SCImago cites/doc 2y
(2025): **4.62**
SJR 2025: **1.39** (Q1)

Citations by country



Cited by

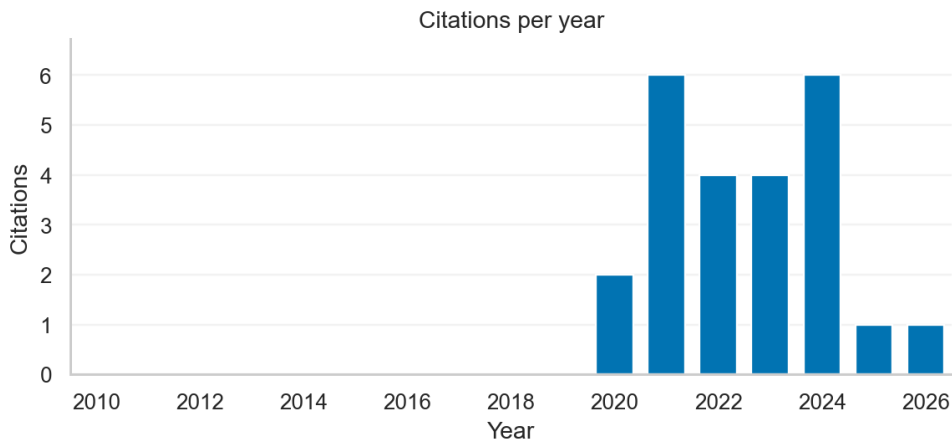
1. Li Z, Gao H, Zeng P, Jia Y, Kong X, Xu K, Bai R. Secondary Degeneration of White Matter After Focal Sensorimotor Cortical Ischemic Stroke in Rats. *Frontiers in Neuroscience*. 2021 Jan 18;14.0:611696. doi: 10.3389/fnins.2020.611696. PMID: 0.
2. Rosenthal ZP, Raut RV, Bowen RM, Snyder AZ, Culver JP, Raichle ME, Lee J. Peripheral sensory stimulation elicits global slow waves by recruiting somatosensory cortex bilaterally. *Proceedings of the National Academy of Sciences*. 2021 Feb 17;118.0(8.0). doi: 10.1073/pnas.2021252118. PMID: 0.
3. Gao H, Sun M, Li M, Wang C, Yu C, Wang Y, Xu K. Force Decoding of Caudal Forelimb Area and Rostral Forelimb Area in Chronic Stroke Rats. *IEEE Transactions on Biomedical Engineering*. 2021 Mar 4;68.0(10.0):3078-3086. doi: 10.1109/tbme.2021.3063903. PMID: 0.
4. Sanchez■Bezanilla S, Hood RJ, Collins■Praino LE, Turner RJ, Walker FR, Nilsson M, Ong LK. More than motor impairment: A spatiotemporal analysis of cognitive impairment and associated neuropathological changes following cortical photothrombotic stroke. *Journal of Cerebral Blood Flow & Metabolism*. 2021 Mar 28;41.0(9.0):2439-2455. doi: 10.1177/0271678x211005877. PMID: 0.
5. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive Astrocytes Prevent Maladaptive Plasticity after Ischemic Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jun 17;. doi: 10.1101/2021.06.16.448657.
6. Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24.0(10.0):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
7. Kaneko H, Namihira M, Yamamoto S, Numata N, Hyodo K. Oral administration of cyclic glycyl-proline facilitates task learning in a rat stroke model. *Behavioural Brain Research*. 2021 Sep 10;417.0:113561. doi: 10.1016/j.bbr.2021.113561. PMID: 0.

8. Sato T, Nakamura Y, Takeda A, Ueno M. Lesion Area in the Cerebral Cortex Determines the Patterns of Axon Rewiring of Motor and Sensory Corticospinal Tracts After Stroke. *Frontiers in Neuroscience*. 2021 Oct 11;15.0:737034. doi: 10.3389/fnins.2021.737034. PMID: 0.
9. Kerr AL. Contralesional plasticity following constraint-induced movement therapy benefits outcome: contributions of the intact hemisphere to functional recovery. *Reviews in the Neurosciences*. 2021 Nov 11;33.0(3.0):269-283. doi: 10.1515/revneuro-2021-0085. PMID: 0.
10. Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. *Progress in Neurobiology*. 2021 Dec 15;209.0:102199. doi: 10.1016/j.pneurobio.2021.102199. PMID: 0.
11. Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.
12. Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253.0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
13. Hara S, Hori M, Kamagata K, Andica C, Inaji M, Tanaka Y, Aoki S, Nariai T, Maehara T. Increased parenchymal free water may be decreased by revascularization surgery in patients with moyamoya disease. *Research Square*. 2022 Mar 24;. doi: 10.21203/rs.3.rs-1439004/v1.
14. Fang S, Li L, Weng S, Guo Y, Zhong Z, Fan X, Jiang T, Wang Y. Contralesional Sensorimotor Network Participates in Motor Functional Compensation in Glioma Patients. *Frontiers in Oncology*. 2022 Apr 22;12.0:882313. doi: 10.3389/fonc.2022.882313. PMID: 0.
15. Wang J, Liu Z, Ren H, Chen X, Wang J, Cai H, Wei L, Tian H, Wang J, Wang L. A novel aged mouse model of recurrent intracerebral hemorrhage in the bilateral striatum. *Neural Regeneration Research*. 2022 Jun 2;18.0(2.0):344-349. doi: 10.4103/1673-5374.346459. PMID: 0.
16. Yu-qin M, Yu Y, Gao W, Hong Y, Shen X. Cerebral Hemodynamic Changes during Unaffected Handgrip Exercises in Stroke Patients: An fNIRS Study. *Brain Sciences*. 2023 Jan 13;13.0(1.0):141. doi: 10.3390/brainsci13010141. PMID: 0.
17. Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14.0(2.0):454. doi: 10.3390/genes14020454. PMID: 0.
18. Stokowska A, Aswendt M, Žucha D, Lohmann S, Wieters F, Suárez J, Atkins AL, Yi-xian L, Miteva MA, Lewin J, Wiedermann D, Diedenhofen M, Naluai ÁT, Abaffy P, Valihrach L, Kubista M, Hoehn M, Pekny M, Pekna M. Complement C3a treatment accelerates recovery after stroke via modulation of astrocyte reactivity and cortical connectivity. *Journal of Clinical Investigation*. 2023 Mar 30;133.0(10.0). doi: 10.1172/jci162253. PMID: 0.
19. Hara S, Hori M, Kamagata K, ANDICA C, Inaji M, Tanaka Y, Aoki S, Nariai T, Maehara T. Increased Parenchymal Free Water May Be Decreased by Revascularization Surgery in Patients with Moyamoya Disease. *Magnetic Resonance in Medical Sciences*. 2023 Apr 17;23.0(4.0):405-416. doi: 10.2463/mrms.mp.2022-0146. PMID: 0.
20. Ostrova IV, Babkina AS, Lyubomudrov MA, Grechko AV, ■■■■■■■■ ■■■. Photochemically Induced Thrombosis as a Model of Ischemic Stroke. *General Reanimatology*. 2023 Jun 24;19.0(3.0):54-65. doi: 10.15360/1813-9779-2023-3-54-65.
21. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.
22. Weber R, Bernardoni D, Rentsch NH, Buil BA, Halliday S, Augath M, Razansky D, Tackenberg C, Rust R. A toolkit for stroke infarct volume estimation in rodents. *NeuroImage*. 2024 Jan 21;287.0:120518. doi: 10.1016/j.neuroimage.2024.120518. PMID: 0.
23. Cai G, Xu J, Zhang C, Jiang J, Chen G, Chen J, Liu Q, Xu G, Lan Y. Identifying biomarkers related to motor function in chronic stroke: A fNIRS and TMS study. *CNS Neuroscience & Therapeutics*. 2024 Jul 1;30.0(7.0):e14889. doi: 10.1111/cns.14889. PMID: 0.
24. Goto T, Tsurugizawa T, Komaki Y, Takashima I, Iwaki S, Kunori N. Clemastine enhances exercise-induced motor improvement in hypoxic ischemic rats. *Brain Research*. 2024 Oct 1;1846.0:149257. doi: 10.1016/j.brainres.2024.149257. PMID: 0.
25. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.
26. Guo J, Zhang H, Liu J, Wang C, Cao C, Cheng J, Yu C, Qin W. Thalamic functional dysconnectivity in patients with left-hemisphere chronic capsular and pontine stroke. *Frontiers in Neuroscience*. 2024 Oct 15;18.0:1451307. doi: 10.3389/fnins.2024.1451307. PMID: 0.
27. Jones TA, Nemchek V, Fracassi M. Experience■driven competition in neural reorganization after stroke. *The Journal of Physiology*. 2024 Oct 30;603.0(3.0):737-757. doi: 10.1113/jp285565. PMID: 0.
28. Niu B, Wu H, Li Y, Klugah■Brown B, Hanna GP, Yao Y, Jing J, Baig TI, Xia Y, Yao D, Biswal BB. Topological functional network analysis of cortical blood flow in hyperacute ischemic rats. *Brain Structure and Function*. 2024 Dec 26;230.0(1.0):20. doi: 10.1007/s00429-024-02864-7. PMID: 0.
29. Zhang H, Zhao J, Fan L, Gao C, Li F, Liu J, Bai C, Li X, Li B, Zhang T. Somatosensory■Thalamic Functional Dysconnectivity Associated With Poststroke Motor Function Rehabilitation: A Resting■State fMRI Study. *Brain and Behavior*. 2025 Feb 1;15.0(2.0):e70321. doi: 10.1002/brb3.70321. PMID: 0.
30. Stuckey SM, Hood RJ, Ong LK, Bilecki IM, Collins■Praino LE, Turner RJ. Unravelling the nexus of stroke and dementia: Deciphering the role of secondary neurodegeneration in orchestrating cognitive decline. *Neuroprotection/Neuroprotection (Chichester, England. Print)*. 2025 Feb 25;3.0(1.0):5-28. doi: 10.1002/nep3.74. PMID: 0.
31. Jin C, Dai H, Dai D, Zhang J. A Freely Moving Photothrombotic Stroke Model Reveals Sustained Dysfunction of GABAergic Neuron in Contralesional Cortex Using Miniaturized Two-Photon Microscopy. *Translational Stroke Research*. 2025 Mar 10;16.0(5.0):1631-1643. doi: 10.1007/s12975-025-01336-2. PMID: 0.

32. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 28;. doi: 10.1101/2025.03.27.644898.
33. Tóth R, Szabó N, Törteli A, Kovács N, Horváth I, Szigeti K, Máthé D, Kincses ZT, Menyhárt Á, Farkas E. The paradoxical relationship of sensorimotor deficit and lesion volume in acute ischemic stroke. *Journal of Neuropathology & Experimental Neurology*. 2025 Apr 24;84.0(9.0):771-779. doi: 10.1093/jnen/nlaf046. PMID: 0.
34. Chary P, Rehmani S, Davidson S, Li X, Chen S, Silasi G. Hemodynamic and electrophysiological progression of the Rose Bengal photothrombotic stroke model in mice: vasoactive properties of Rose Bengal, tissue heating, wavelength optimization, and sex differences in lesion volume. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Sep 24;. doi: 10.1101/2025.09.22.677889.
35. Pan W, Shie M, Yan W, Chang Y, Iao HM, Liu H, Tran N, Lee I, Lien H, Hsu R, Chu L, Hu S. Gut-to-brain nanoantenna-mediated in situ wireless charging activation across the brain barrier and neural regeneration. *Advanced Composites and Hybrid Materials*. 2026 Jan 21;9.0(1.0). doi: 10.1007/s42114-026-01617-w.
36. Betz D, Alers V, Kenwood M, Zuurbier KR, Coimbra R, Rhoton P, Plautz EJ, Douglas PM, Ramirez DMO, Stowe A, Goldberg M. Shared Transcriptomic Signatures in Perilesional and Contralesional Cortex. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Feb 4;. doi: 10.64898/2026.02.02.703306. PMID: 0.
37. Chary P, Rehmani S, Davidson S, Li X, Chen SX, Silasi G. Hemodynamic and Electrophysiological Progression of the Rose Bengal Photothrombotic Stroke Model in Mice. *Journal of Neuroscience*. 2026 Feb 11;46.0(12.0):e1818252026. doi: 10.1523/jneurosci.1818-25.2026. PMID: 0.
38. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *Neural Regeneration Research*. 2026 Feb 28;21.0(10.0):4945-4953. doi: 10.4103/nrr.nrr-d-25-00491. PMID: 0.
39. Feng J, Li P, Fang W, Li Q, Meng Y, Ren H, Chen W, Guan C, Qiao Z, Shen Y, Wang L, Xu W. Peripheral nerve pathway reconnections promote the reorganization of central motor representations. *Science China Life Sciences*. 2026 Mar 9;69.0(7.0):2376-2389. doi: 10.1007/s11427-025-3205-6. PMID: 0.
40. Pini L, Salvalaggio A, Corbetta M. Considering biological limitations of lesion network mapping. *Nature Neuroscience*. 2026 May 20;. doi: 10.1038/s41593-026-02319-8. PMID: 0.
41. Balakrishnan R, Alam TRG, Mckeown B, Souter N, Karapanagiotidis T, Smallwood J, Krieger-Redwood K, Jefferies E. Lesion-Gradient Mapping in Semantic Aphasia: Comparisons of Observed and Simulated Effects of Stroke on Connectivity Gradients. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Jun 13;. doi: 10.64898/2026.06.12.731654.
42. Wan H, Fu Y, Zhang S, Zhang G, Li Y, Zhu W, Wang Y. Association of Iron and Myelin Alterations in the Contralesional Dentate Nucleus and Thalamus With Functional Outcome in Acute Ischemic Stroke: A Susceptibility Source Separation Study. *Journal of Magnetic Resonance Imaging*. 2026 Jul 2;:jmri.70431. doi: 10.1002/jmri.70431. PMID: 0.
43. ■■■■, Wu X. From fragmented neurotechnologies to closed-loop brain health systems: integrating artificial intelligence, digital health, digital twins, and advanced materials for brain disorders. *Frontiers in Bioengineering and Biotechnology*. 2026 Aug 7;14.0. doi: 10.3389/fbioe.2026.1904561.

Publication

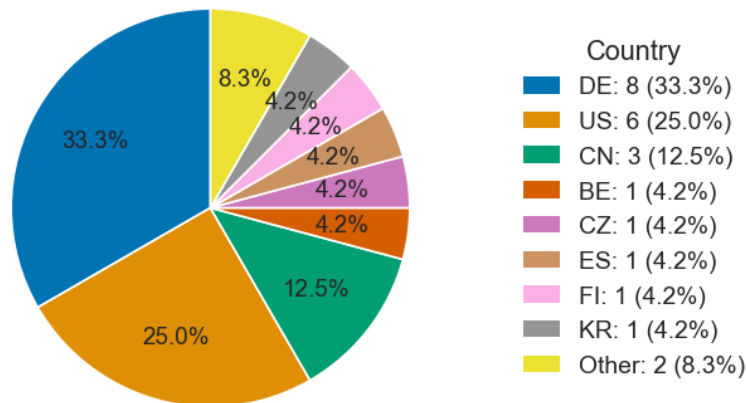
Pallast N, Wieters F, Nill M, Fink GR, Aswendt M. Graph theoretical quantification of white matter reorganization after cortical stroke in mice. *NeuroImage*. 2020 May 4;217:116873. doi: 10.1016/j.neuroimage.2020.116873. PMID: 32380139.



Citation summary

Total citations: **24**
Average/year: **3.43**
Period: 2020-2026
SCImago cites/doc 2y
(2025): **5.31**
SJR 2025: **1.93** (Q1)

Citations by country



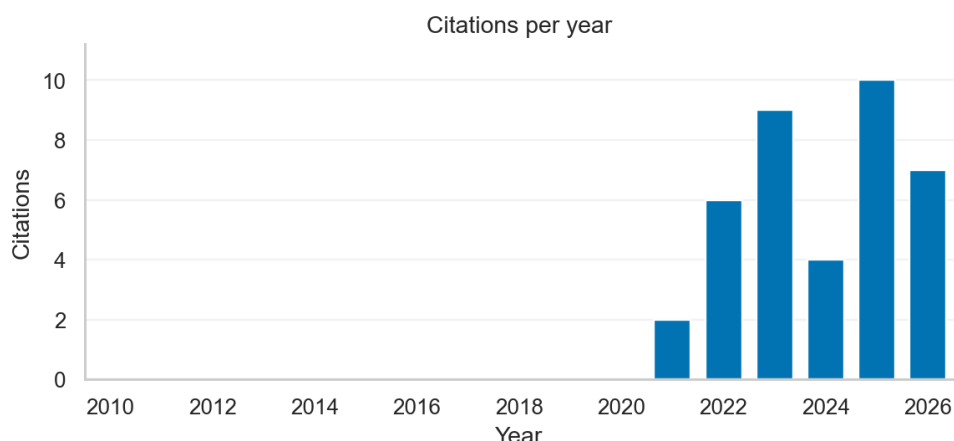
Cited by

1. White JD, Arefin TM, Pugliese A, Lee CH, Gassen J, Zhang J, Kaffman A. Early life stress causes sex-specific changes in adult fronto-limbic connectivity that differentially drive learning. *eLife*. 2020 Dec 1;9.0. doi: 10.7554/elife.58301. PMID: 0.
2. Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16.0(7.0):1423. doi: 10.4103/1673-5374.301004. PMID: 0.
3. Arefin T, Lee C, White J, Zhang J, Kaffman A. Macroscopic Structural and Connectome Mapping of the Mouse Brain Using Diffusion Magnetic Resonance Imaging. *BIO-PROTOCOL*. 2021 Jan 1;11.0(22.0):e4221. doi: 10.21769/bioprotoc.4221. PMID: 0.
4. Li Z, Gao H, Zeng P, Jia Y, Kong X, Xu K, Bai R. Secondary Degeneration of White Matter After Focal Sensorimotor Cortical Ischemic Stroke in Rats. *Frontiers in Neuroscience*. 2021 Jan 18;14.0:611696. doi: 10.3389/fnins.2020.611696. PMID: 0.
5. González MV, Pérez-Álvarez MJ. A 3R-Tau-mediated mechanism in oligodendrocytes: could it be the key for neuroprotection after stroke?. *Neural Regeneration Research*. 2021 Apr 23;16.0(12.0):2401-2402. doi: 10.4103/1673-5374.313027. PMID: 0.
6. Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24.0(10.0):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
7. Medaglia JD, Erickson B, Pustina D, Kelkar A, DeMarco AT, Dickens JV, Turkeltaub PE. Simulated attack reveals how lesions affect network properties in post-stroke aphasia. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Nov 4;. doi: 10.1101/2021.11.01.466833.
8. Im S, Suh J, Shim J, Baek H. Deterministic Tractography Analysis of Rat Brain Using SIGMA Atlas in 9.4T MRI. *Brain Sciences*. 2021 Dec 18;11.0(12.0):1656. doi: 10.3390/brainsci11121656. PMID: 0.
9. Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.

10. Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253.0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
11. Medaglia JD, Erickson B, Pustina D, Kelkar A, DeMarco AT, Dickens JV, Turkeltaub PE. Simulated Attack Reveals How Lesions Affect Network Properties in Poststroke Aphasia. *Journal of Neuroscience*. 2022 May 11;42.0(24.0):4913-4926. doi: 10.1523/jneurosci.1163-21.2022. PMID: 0.
12. Schlemm E, Jensen M, Kuceyeski A, Jamison K, Ingwersen T, Mayer C, Königsberg A, Boutitie F, Ebinger M, Endres M, Fiebach JB, Fiehler J, Galinovi I, Lemmens R, Muir KW, Nighoghossian N, Pedraza S, Puig J, Simonsen CZ, Thijs V, Wouters A, Gerloff C, Thomalla G, Cheng B. Early effect of thrombolysis on structural brain network organisation after anterior circulation stroke in the randomized WAKE-UP trial. *Human Brain Mapping*. 2022 Sep 14;43.0(16.0):5053-5065. doi: 10.1002/hbm.26073. PMID: 0.
13. Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14.0(2.0):454. doi: 10.3390/genes14020454. PMID: 0.
14. Boboc IK, Rotaru-Zvileanu AD, Călina D, Albu CV, Călin B, Turcu-tiolic A. A Preclinical Systematic Review and Meta-Analysis of Behavior Testing in Mice Models of Ischemic Stroke. *Life*. 2023 Feb 17;13.0(2.0):567. doi: 10.3390/life13020567. PMID: 0.
15. Stokowska A, Aswendt M, Žucha D, Lohmann S, Wieters F, Suárez J, Atkins AL, Yi-xian L, Miteva MA, Lewin J, Wiedermann D, Diedenhofen M, Naluai ÁT, Abaffy P, Valihrach L, Kubista M, Hoehn M, Pekny M, Pekna M. Complement C3a treatment accelerates recovery after stroke via modulation of astrocyte reactivity and cortical connectivity. *Journal of Clinical Investigation*. 2023 Mar 30;133.0(10.0). doi: 10.1172/jci162253. PMID: 0.
16. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.
17. Latifi S, Carmichael ST. The emergence of multiscale connectomics-based approaches in stroke recovery. *Trends in Neurosciences*. 2024 Feb 23;47.0(4.0):303-318. doi: 10.1016/j.tins.2024.01.003. PMID: 0.
18. Koukalova L, Chmelová M, Amlerova Z, Vargová L. Out of the core: the impact of focal ischemia in regions beyond the penumbra. *Frontiers in Cellular Neuroscience*. 2024 Mar 5;18.0:1336886. doi: 10.3389/fncel.2024.1336886. PMID: 0.
19. Islam R, White JD, Arefin TM, Mehta S, Liu X, Polis B, Giuliano L, Ahmed S, Bowers CA, Zhang J, Kaffman A. Early adversity causes sex-specific deficits in perforant pathway connectivity and contextual memory in adolescent mice. *Biology of Sex Differences*. 2024 May 7;15.0(1.0):39. doi: 10.1186/s13293-024-00616-0. PMID: 0.
20. Wang L, Yang Z, Fudo S, Prasanna X, Yan Z, Vihinen H, Chen Y, Zhao Y, He X, Bu Q, Li H, Zhao Y, Jiang L, Qin F, Dai Y, Zhang N, Qin M, Kuang W, Zhao Y, Jokitalo E, Vattulainen I, Kajander T, Zhao H, Cen X. Membrane remodeling by FAM92A1 during brain development regulates neuronal morphology, synaptic function, and cognition. *Nature Communications*. 2024 Jul 23;15.0(1.0):6209. doi: 10.1038/s41467-024-50565-w. PMID: 0.
21. Chen M, Wang Y, Li Z. Disrupted white matter structural networks in patients with acute ischemic stroke in the right basal ganglia. *Neuroscience*. 2024 Sep 26;568.0:68-75. doi: 10.1016/j.neuroscience.2024.08.003. PMID: 0.
22. Niu B, Wu H, Li Y, Klugah-Brown B, Hanna GP, Yao Y, Jing J, Baig TI, Xia Y, Yao D, Biswal BB. Topological functional network analysis of cortical blood flow in hyperacute ischemic rats. *Brain Structure and Function*. 2024 Dec 26;230.0(1.0):20. doi: 10.1007/s00429-024-02864-7. PMID: 0.
23. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 28;. doi: 10.1101/2025.03.27.644898.
24. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *Neural Regeneration Research*. 2026 Feb 28;21.0(10.0):4945-4953. doi: 10.4103/nrr.nrr-d-25-00491. PMID: 0.

Publication

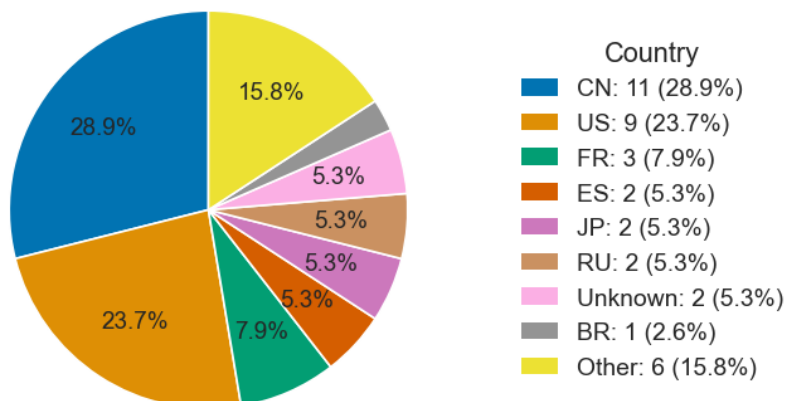
Wieters F, Lucas CW, Gruhn M, Büschges A, Fink GR, Aswendt M. Introduction to spasticity and related mouse models. *Experimental Neurology*. 2020 Sep 29;335:113491. doi: 10.1016/j.expneurol.2020.113491. PMID: 33007294.



Citation summary

Total citations: **38**
Average/year: **5.43**
Period: 2020-2026
SCImago cites/doc 2y
(2025): **5.03**
SJR 2025: **1.39** (Q1)

Citations by country



Cited by

- Chen L, Li W, Cheng S, Liang S, Huang M, Lei T, Hu X, Liang Z, Zheng H. Correlation of N30 somatosensory evoked potentials with spasticity and neurological function after stroke: A cross-sectional study. *Journal of Rehabilitation Medicine*. 2021 Jan 1;53:0(9):jrm00223. doi: 10.2340/16501977-2867. PMID: 0.
- Shunenkov DA, Loginov AA, Bosenko SA, Saveliev OG, Kovaleva NY, Vorobiev AV, Lebedev AS, Kanarskii M. Present problem of neurorerehabilitology: methods for quantitative assessment of pathological increased muscle tone. *Medical and Social Expert Evaluation and Rehabilitation*. 2021 Dec 1;24:0(3):23-34. doi: 10.17816/mser83089.
- Iwasawa E, Brown FN, Shula C, Kahn F, Lee SH, Berta T, Ladle DR, Campbell K, Mangano FT, Goto J. The Anti-Inflammatory Agent Bindarit Attenuates the Impairment of Neural Development through Suppression of Microglial Activation in a Neonatal Hydrocephalus Mouse Model. *Journal of Neuroscience*. 2022 Jan 6;42:0(9):1820-1844. doi: 10.1523/jneurosci.1160-21.2021. PMID: 0.
- Mei J, Yang X, Li J, Zhang L, Zhang J, Wang Y, Su K, Gao J, Guo J, Li R. Effects of Functional Acupuncture on Upper Limb Spasticity After Ischemic Stroke: A Protocol for a Randomized Controlled Parallel Clinical Trial. *Frontiers in Neurology*. 2022 May 18;13:0:835408. doi: 10.3389/fneur.2022.835408. PMID: 0.
- Hörner M, Groh J, Klein D, Ilg W, Schöls L, Santos SD, Bergmann A, Klebe S, Cauhape M, Branchu J, Hachimi KHE, Stévanin G, Darios F, Martini R. CNS-associated T-lymphocytes in a mouse model of Hereditary Spastic Paraplegia type 11 (SPG11) are therapeutic targets for established immunomodulators. *Experimental Neurology*. 2022 May 20;355:0:114119. doi: 10.1016/j.expneurol.2022.114119. PMID: 0.
- Bhagwani A, Chopra M, Kumar H. Spinal Cord Injury Provoked Neuropathic Pain and Spasticity, and Their GABAergic Connection. *Neurospine*. 2022 Sep 29;19:0(3):646-668. doi: 10.14245/ns.2244368.184. PMID: 0.
- García MF, Nossa S, Jimenez-Ramirez JD, Romero-Barreto C, Mendoza Pulido C. Terminal Nerve Entry Points Locations to Muscles of the Thigh for Selective Peripheral Neurectomy in the Adult Population: A Cadaveric Study. *Research Square*. 2022 Oct 17;. doi:

8. García MF, Nossa S, Jimenez-Ramírez JD, Romero-Barreto C, Mendoza-Pulido C. Terminal nerve entry points' locations to muscles of the thigh for selective peripheral neurectomy in the adult population: a cadaveric study. *Surgical and Radiologic Anatomy*. 2022 Dec 16;45.0(1):3-9. doi: 10.1007/s00276-022-03047-x. PMID: 0.

9. ■■■■■■ ■■■, Pizov NA, Mareev M. Post-stroke pain and rehabilitation (case report). *Russian Medical Inquiry*. 2023 Jan 1;7.0(10):672-679. doi: 10.32364/2587-6821-2023-7-10-10.

10. Jia J, Gong S, Zhang A, Jiang L, Yao Y. Stiffening of the gluteal muscle increased the intramuscular stress: An in-silico implication of deep tissue injury. *Heliyon*. 2023 Feb 1;9.0(2):e13459. doi: 10.1016/j.heliyon.2023.e13459. PMID: 0.

11. Yu J, Li Y, Yang L, Li Y, Zhang S, Yang S. The highest region of muscle spindle abundance should be the optimal target of botulinum toxin A injection to block muscle spasms in rats. *Frontiers in Neurology*. 2023 Feb 23;14.0:1061849. doi: 10.3389/fneur.2023.1061849. PMID: 0.

12. de Lima MSN, Paz CCDSC, Ribeiro TG, Fachin■Martins E. Assessment of Passive Upper Limb Stiffness and Its Function in Post-Stroke Individuals Wearing an Inertial Sensor during the Pendulum Test. *Sensors*. 2023 Mar 27;23.0(7):3487. doi: 10.3390/s23073487. PMID: 0.

13. Zhang Z, Jiedan MU, Liangxiao MA, Wenyan YU, Tianyi S, Xu Q, Tian Y, Yidan Z, Wang J. Waggle needling Yanglingquan (GB34) enhances cerebral blood flow and ameliorates condition of spastic paresis in rats with middle cerebral artery occlusion induced by surgical nylon suture. *PubMed*. 2023 Jun 1;43.0(3):514-522. doi: 10.19852/j.cnki.jtcm.20230328.001. PMID: 0.

14. Blaschke S, Vlachakis S, Pallast N, Walter HL, Volz LJ, Wiedermann D, Fink GR, Hoehn M, Aswendt M, Schroeter M, Rueger MA. Transcranial Direct Current Stimulation Reverses Stroke-Induced Network Alterations in Mice. *Stroke*. 2023 Jun 28;54.0(8):2145-2155. doi: 10.1161/strokeaha.123.042808. PMID: 0.

15. Yokota K, Kawano O, Sakai H, Morishita Y, Masuda M, Hayashi T, Kubota K, Ideta R, Ariji Y, Koga R, Murai S, Ifuku R, Uemura M, Katoh H, Nakashima Y, Maeda T. Predicting the Progression of Spasticity in the Early Phase of Spinal Cord Injury: A Prospective Cohort Study. *Journal of Neurotrauma*. 2023 Sep 29;41.0(9-10):1122-1132. doi: 10.1089/neu.2023.0191. PMID: 0.

16. Iwasawa E, Brown FN, Shula C, Kahn F, Lee SH, Berta T, Ladle DR, Campbell K, Mangano FT, Goto J. The Anti-Inflammatory Agent Bindarit Attenuates the Impairment of Neural Development through Suppression of Microglial Activation in a Neonatal Hydrocephalus Mouse Model. *CORE Scholar (Wright State University)*. 2023 Oct 24;.

17. Benson CA, Olson K, Patwa S, Kauer SD, King J, Waxman SG, Tan AM. Conditional Astrocyte Rac1KO Attenuates Hyperreflexia after Spinal Cord Injury. *Journal of Neuroscience*. 2023 Nov 14;44.0(1):e1670222023. doi: 10.1523/jneurosci.1670-22.2023. PMID: 0.

18. Ivanchenko O, Melnikova O, Lukina HM, Mikaelyan GR. ROSPECTS FOR THE USE OF H-REFLEXOMETRY IN THE STUDY OF HUMAN MOTOR FUNCTION. ■■■■■■■■ ■■■■■■■■■■ ■■■■■■■■■■■■■■■■■■■■■■ ■■■■■■■■■■. 2024 Mar 28;(1):6-16. doi: 10.11603/1811-2471.2024.v.i1.14522.

19. Wang S, Qiu L, Zhou Q, Chen C, Wu J. Serotonin syndrome caused by escitalopram in Parkinson's disease psychosis: a case report. *BMC Geriatrics*. 2024 Sep 18;24.0(1):769. doi: 10.1186/s12877-024-05371-w. PMID: 0.

20. Barbay T, Pecchi É, Franco JJR, Ivanov A, Brocard F, Rouach N, Bos R. Functional contribution of astrocytic Kir4.1 channels to spasticity after spinal cord injury. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.617793.

21. Marand LA, Roohi■Azizi M, Dehkordi SN. The relationship between trunk function and spasticity in people with multiple sclerosis. *Journal of Bodywork and Movement Therapies*. 2024 Dec 12;42.0:162-166. doi: 10.1016/j.jbmt.2024.12.003. PMID: 0.

22. Yan J, Luo Q, Chen Z, Wang Z, Guo X, Xie Q, Oetomo D, Tan Y, Niu CM. Spike-Based Neuromorphic Model of Spasticity for Generation of Affected Neural Activity. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 2025 Jan 1;33.0:1360-1371. doi: 10.1109/tnsre.2025.3557044. PMID: 0.

23. Goltash S, Khodr R, Bui TV, Laliberté AM. An optogenetic mouse model of hindlimb spasticity after spinal cord injury. *Experimental Neurology*. 2025 Jan 23;386.0:115157. doi: 10.1016/j.expneurol.2025.115157. PMID: 0.

24. Barbay T, Pecchi É, Ramírez■Franco J, Ivanov A, Brocard F, Rouach N, Bos R. Functional contribution of astrocytic Kir4.1 channels to spasticity after spinal cord injury. *Brain*. 2025 May 6;148.0(10):3576-3591. doi: 10.1093/brain/awaf147. PMID: 0.

25. Othman AM, Abdallah OY, Elnaggar YS. Topical hyalubilosomes of dantrolene sodium as muscle targeted nanocarrier for muscle spasms: fabrication, ex-vivo permeation and behavioral animal model. *Pharmaceutical Development and Technology*. 2025 May 15;30.0(5):590-603. doi: 10.1080/10837450.2025.2504999. PMID: 0.

26. Wang Z, Liu Q, Li D, Wei L, Chu E, Bao Y, Liu Z, Jin L, Chen X, Zhao K. Clinical efficacy observation of repetitive magnetic stimulation for treating upper limb spasticity after stroke. *Scientific Reports*. 2025 May 21;15.0(1):17722. doi: 10.1038/s41598-025-02443-8. PMID: 0.

27. Hanasaki T, Hanaki K, Sako Y, Uchiyama Y, Lee-Hotta S. Effect of continuous Ia fibre activity suppression on hyperreflexia-related spasticity and maladaptive synaptic connections in the spinal cord after injury. *Scientific Reports*. 2025 Jul 3;15.0(1):23764. doi: 10.1038/s41598-025-09397-x. PMID: 0.

28. Zhang Z, Ma L, Mu J, Mu J, Chen M, Qian X, Zhang Q, Ma L, Ma L. Acupuncture waggle needling alleviates spastic movement disorder in post-stroke rats via GLT-1 activation to modulate Glu/GABA-Gln cycle. *Physiology & Behavior*. 2025 Aug 7;301.0:115059. doi: 10.1016/j.physbeh.2025.115059. PMID: 0.

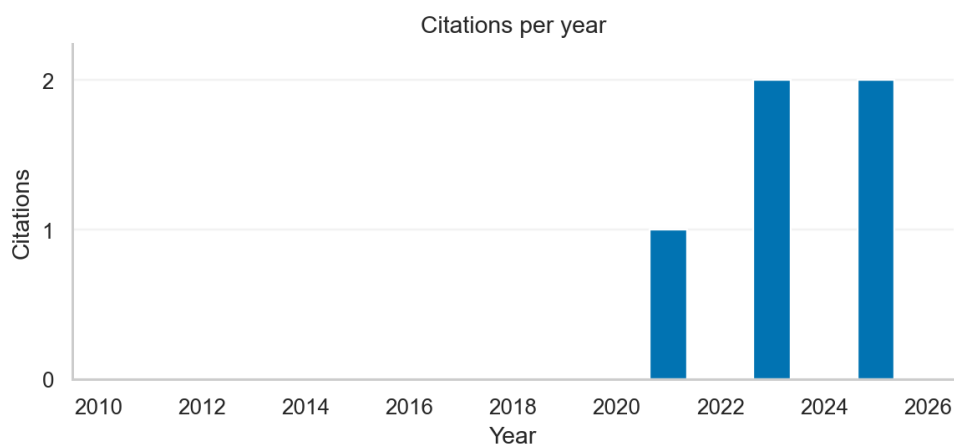
29. Charalampopoulou A, Taga A, Rust K, Luciani EG, Marshall K, Montgomery E, MANSINGHKA A, Singh R, Zhao Y, O'Keefe CM, Wang T, Venkatesan A, Habela CW, Maragakis NJ. Development of a Human iPSC-Derived "Corticospinal Tract-on-a-Chip" for Neurodegenerative Disease Research. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Sep 25;. doi: 10.1101/2025.09.24.678092. PMID: 0.

30. Sahaidak V, Rybachuk O, Melikov ZK, Medvediev V. Effect of implantation of a PHPMA hydrogel containing human mesenchymal stromal cells of different origins on motor function recovery in rats with spinal cord injury. *Cell and Organ Transplantation*. 2025 Nov 30;13.0(2). doi: 10.22494/cot.v13-2.186.

31. He JN, Ma LN, Ma L, Zhuang Y, Wen J, Ma L, Ma L, Xiu J, Chen M. Acupuncture Modulates NMDAR-PP1/Calpain1-KCC2 Pathway to Ameliorate Spinal Hyperexcitability and Spastic Hemiplegia Induced by Ischemic Stroke. *Journal of Integrative Neuroscience*. 2025 Dec 26;24.0(12):46980. doi: 10.31083/jin46980. PMID: 0.
32. Kauer SD, Effraim PR, Bangalore L, Sg W, Tan AW. Dendritic spine dysgenesis in spinal cord injury: A structural contributor to pain and spasticity. *Experimental Neurology*. 2026 Feb 5;399.0:115679. doi: 10.1016/j.expneurol.2026.115679. PMID: 0.
33. Kaul S, Liu L, Candelario-Jalil E, Vahdat S. Ischemic injury to primary motor and premotor cortices is linked to hyperreflexia in mice. *Neurobiology of Disease*. 2026 Mar 14;222.0:107354. doi: 10.1016/j.nbd.2026.107354. PMID: 0.
34. Crugeiras-Sampedro M, Zas-Veiga L, Piñeiro-Ramil M, Pazos-Perez A, López-López V, Jorge-Mora AA, Alonso-Pérez A, Gómez R. Baclofen Promotes Osteochondrogenic Commitment of Mesenchymal Stem Cells: Implications for Heterotopic Ossification Risk. *International Journal of Molecular Sciences*. 2026 Mar 19;27.0(6):2783. doi: 10.3390/ijms27062783. PMID: 0.
35. Sahaidak V, Medvediev VV. p[REDACTED]-hydrogel does not improve intensive autogenic recovery of motor function after lateral spinal cord fragment excision in adult rats. *Ukrainian Scientific Medical Youth Journal*. 2026 Mar 31;160.0(1):50-61. doi: 10.32345/usmyj.1(160).2026.50-61.
36. González-Mingorance L, Andreu-Caravaca L, Rubio-Arias JÁ. Effects of physical exercise on spasticity in people with multiple sclerosis: A systematic review. *Physiotherapy*. 2026 Apr 29;133.0:102334. doi: 10.1016/j.physio.2026.102334. PMID: 0.
37. Charalampopoulou A, Taga A, Rust K, Luciani E, Marshall K, Montgomery E, Mansinghka A, Singh R, Zhao Y, O'Keefe C, Wang T, Venkatesan A, Habela CW, Maragakis NJ. Development of a human iPSC-derived corticospinal tract-on-a-chip. *Cell Reports Methods*. 2026 May 19;6.0(7):101457. doi: 10.1016/j.crmeth.2026.101457. PMID: 0.
38. Sun T, Ma L, Ma L, Ma L, Ma L, Zhang Q, Qian X, Xiu J, Wang X. Spastic Hypertonia Following Middle Cerebral Artery Occlusion in Rats: Assessment of Behavioral, Electrophysiological, and Morphological Parameters in Dynamics. *Bulletin of Experimental Biology and Medicine*. 2026 Jul 29;. doi: 10.1007/s10517-026-06700-2. PMID: 0.

Publication

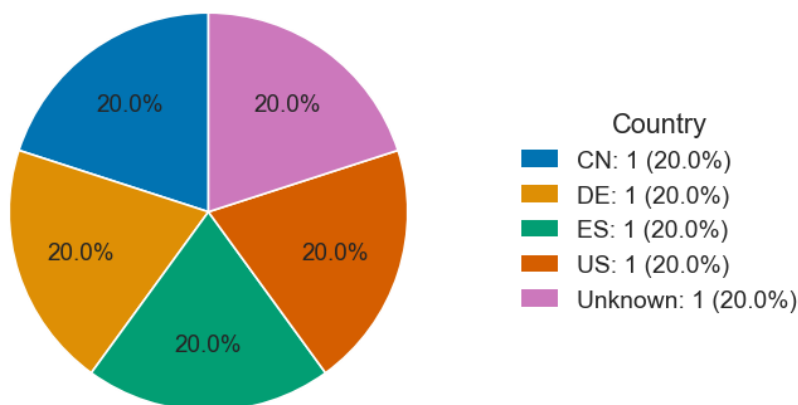
Aswendt M, Wieters F. Structural integrity and remodeling underlying functional recovery after stroke. *Neural Regeneration Research*. 2020 Dec 17;16(7):1423. doi: 10.4103/1673-5374.301004. PMID: 33318437.



Citation summary

Total citations: **5**
Average/year: **0.71**
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SJR 2025: **1.43** (Q1)

Citations by country

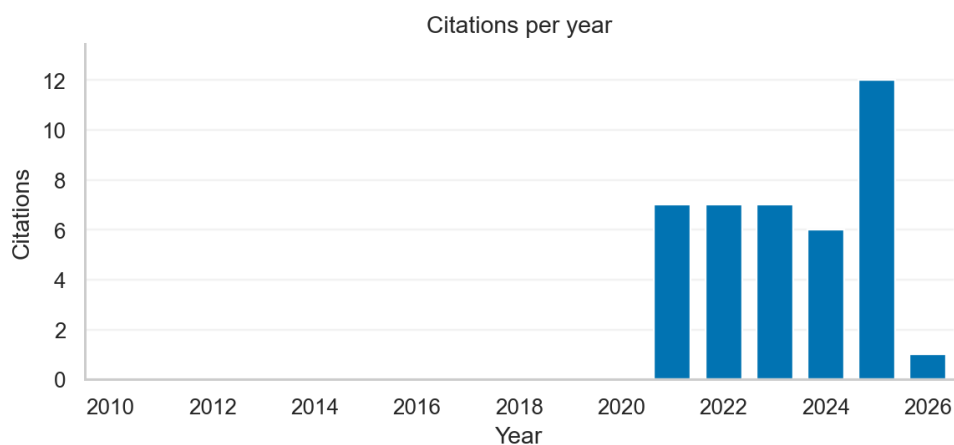


Cited by

1. Rogalewski A, Schäbitz W. Stroke recovery enhancing therapies: lessons from recent clinical trials. *Neural Regeneration Research*. 2021 Aug 29;17(4.0):717. doi: 10.4103/1673-5374.314287. PMID: 0.
2. Román EP, Cabrera■Martos I, Martín■Núñez J, Valenza-Peña G, Granados■Santiago M, Valenza MC. Effectiveness of self-management interventions during the peri-hospitalization period in patients with stroke: A systematic review and meta-analysis. *Clinical Rehabilitation*. 2023 Aug 7;38(1.0):34-46. doi: 10.1177/02692155231193563. PMID: 0.
3. Rogalewski A, Schäbitz WR. Therapien zur Verbesserung der Schlaganfall-Regeneration – Ergebnisse klinischer Studien im wissenschaftlichen Kontext. *Fortschritte der Neurologie · Psychiatrie*. 2023 Dec 1;91(12.0):516-522. doi: 10.1055/a-2181-1026. PMID: 0.
4. Zhong Y, Mi P, Qin X. Advances in the Application of rTMS in the Rehabilitation of Post-Stroke Swallowing Dysfunction. *Journal of Biosciences and Medicines*. 2025 Jan 1;13(5.0):231-240. doi: 10.4236/jbm.2025.135018.
5. Song J, Zeng J, Chen X, Wang J, Zhang Y, Gao Y, Wang R, Jiang N, Lin Y, Li R. Anti-neuroinflammatory agent rhein lysinate-based self-assembled injectable hydrogel loaded with ZL006 for promoting post-stroke functional recovery. *Biomaterials*. 2025 Jan 23;318:123124. doi: 10.1016/j.biomaterials.2025.123124. PMID: 0.

Publication

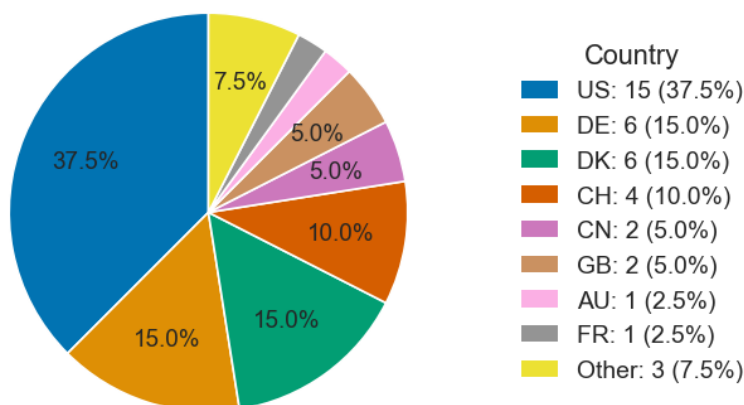
Leuze C, Goubran M, Barakovi M, Aswendt M, Tian Q, Hsueh B, Crow A, Weber EMM, Steinberg GK, Zeineh M, Plowey ED, Daducci A, Innocenti GM, Thiran J, Deisseroth K, McNab JA. Comparison of diffusion MRI and CLARITY fiber orientation estimates in both gray and white matter regions of human and primate brain. *NeuroImage*. 2020 Dec 29;228:117692. doi: 10.1016/j.neuroimage.2020.117692. PMID: 33385546.



Citation summary

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Citations by country



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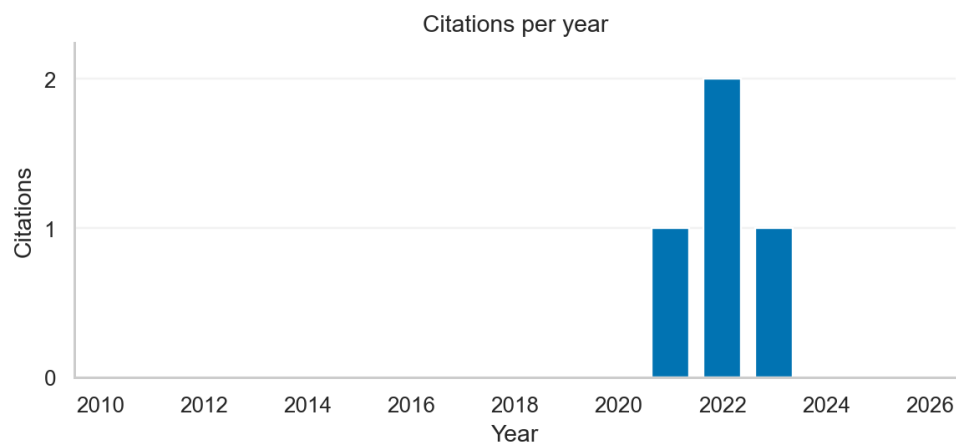
- Yendiki A, Aggarwal M, Axer M, Howard A, van Walsum AVC, Haber SN. Post mortem mapping of connectonal anatomy for the validation of diffusion MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Apr 19; doi: 10.1101/2021.04.16.440223.
- Georgiadis M, Schroeter A, Gao Z, Guizar Sicaireos M, Liebi M, Leuze C, McNab JA, Balolia A, Veraart J, Ades Aron B, Kim S, Shepherd TM, Lee CH, Walczak P, Chodankar S, DiGiacomo P, Dávid G, Augath M, Zerbi V, Sommer S, Rajkovi I, Weiß T, Bunk O, Yang L, Zhang J, Novikov DS, Zeineh M, Fieremans E, Rudin M. Nanostructure-specific X-ray tomography reveals myelin levels, integrity and axon orientations in mouse and human nervous tissue. *Nature Communications*. 2021 May 19;12.0(1.0):2941. doi: 10.1038/s41467-021-22719-7. PMID: 0.
- Yang JY, Yeh C, Poupon C, Calamante F. Diffusion MRI tractography for neurosurgery: the basics, current state, technical reliability and challenges. *Physics in Medicine and Biology*. 2021 Jun 22;66.0(15.0):15TR01. doi: 10.1088/1361-6560/ac0d90. PMID: 0.
- Grisot G, Haber SN, Yendiki A. Diffusion MRI and anatomic tracing in the same brain reveal common failure modes of tractography. *NeuroImage*. 2021 Jun 22;239.0:118300. doi: 10.1016/j.neuroimage.2021.118300. PMID: 0.
- Chourrout M, Rositi H, Ong E, Hubert V, Paccalet A, Foucault L, Autret A, Fayard B, Olivier C, Bolbos R, Peyrin F, Crola-da-Silva C, Meyronet D, Raineteau O, Elleaume H, Brun E, Chauveau F, Wiart M. Brain virtual histology with X-ray phase-contrast tomography Part I: whole-brain myelin mapping in white-matter injury models. *Biomedical Optics Express*. 2021 Nov 5;13.0(3.0):1620. doi: 10.1364/boe.438832. PMID: 0.
- Amunts K, Lippert T. Brain research challenges supercomputing. *Science*. 2021 Nov 25;374.0(6571.0):1054-1055. doi: 10.1126/science.abl8519. PMID: 0.

7. Rusch H, Brammerloh M, Stieler J, Sonntag M, Mohammadi S, Weiskopf N, Arendt T, Kirilina E, Morawski M. Finding the best clearing approach - Towards 3D wide-scale multimodal imaging of aged human brain tissue. *NeuroImage*. 2021 Dec 17;247.0:118832. doi: 10.1016/j.neuroimage.2021.118832. PMID: 0.
8. Song M, Yang Z, Jiang T. Multimodal Brain Imaging Fusion for the White-Matter Fiber Architecture in the Human Brain. *Neuroscience Bulletin*. 2022 Jan 31;38.0(5.0):561-564. doi: 10.1007/s12264-022-00822-z. PMID: 0.
9. Caspers S, Axer M, Gräßel D, Amunts K. Additional fiber orientations in the sagittal stratum—noise or anatomical fine structure?. *Brain Structure and Function*. 2022 Feb 3;227.0(4.0):1331-1345. doi: 10.1007/s00429-021-02439-w. PMID: 0.
10. Yendiki A, Aggarwal M, Axer M, Howard A, van Walsum AVC, Haber SN. Post mortem mapping of connectional anatomy for the validation of diffusion MRI. *NeuroImage*. 2022 Mar 25;256.0:119146. doi: 10.1016/j.neuroimage.2022.119146. PMID: 0.
11. Tisdall L, MacNiven KH, Padula CB, Leong JK, Knutson B. Brain tract structure predicts relapse to stimulant drug use. *Proceedings of the National Academy of Sciences*. 2022 Jun 21;119.0(26.0):e2116703119. doi: 10.1073/pnas.2116703119. PMID: 0.
12. Baxi M, Cetin■Karayumak S, Papadimitriou GN, Makris N, van der Kouwe A, Jenkins BG, Moore TL, Rosene DL, Kubicki M, Rath Y. Investigating the contribution of cytoarchitecture to diffusion MRI measures in gray matter using histology. *Frontiers in Neuroimaging*. 2022 Sep 13;1.0:947526. doi: 10.3389/fnimg.2022.947526. PMID: 0.
13. Schmitz D, Benning K, Schubert N, Minnerop M, Amunts K, Axer M. Fast data-driven computation and intuitive visualization of fiber orientation uncertainty in 3D-polarized light imaging. *Frontiers in Physics*. 2022 Sep 26;10.0. doi: 10.3389/fphy.2022.958364.
14. Menzel M, Gräßel D, Rajkovi■ I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Oct 4;. doi: 10.1101/2022.10.04.509781.
15. Zabri SH, Ahmad AH, Zakaria R, Abdullah AN, Mukhtar SF, Abdullah JM. Probabilistic Tractography Between Nucleus Accumbens and Other Reward-related Brain Areas in Malay Female Adolescents. *Malaysian Journal of Medicine and Health Sciences*. 2023 Mar 13;19.0(2.0):61-68. doi: 10.47836/mjmhs.19.2.11.
16. Menzel M, Gräßel D, Rajkovi■ I, Zeineh M, Georgiadis M. Using light and X-ray scattering to untangle complex neuronal orientations and validate diffusion MRI. *eLife*. 2023 May 11;12.0. doi: 10.7554/elife.84024. PMID: 0.
17. Barbosa DAN, Gattas S, Salgado JS, Kuijper FM, Wang A, Huang Y, Kakusa B, Leuze C, Luczak A, Rapp PE, Malenka RC, Hermes D, Miller KJ, Heifets BD, Bohon C, McNab JA, Halpern CH. An orexigenic subnetwork within the human hippocampus. *Nature*. 2023 Aug 30;621.0(7978.0):381-388. doi: 10.1038/s41586-023-06459-w. PMID: 0.
18. Blanke N, Chang S, Novoseltseva A, Wang H, Boas DA, Bigio IJ. Multiscale label-free imaging of myelin in human brain tissue with polarization-sensitive optical coherence tomography and birefringence microscopy. *Biomedical Optics Express*. 2023 Sep 7;14.0(11.0):5946. doi: 10.1364/boe.499354. PMID: 0.
19. Kjer HM, Andersson M, He Y, Pacureanu A, Daducci A, Pizzolato M, Salditt T, Robisch A, Eckermann M, Toepperwien M, Dahl AB, Elkjaer ML, Illés Z, Pfito M, Dahl VA, Dyrby TB. Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Oct 17;. doi: 10.1101/2023.10.16.562488.
20. Liu CJ, Ammon W, Jones RJ, Nolan J, Gong D, Maffei C, Edlow BL, Augustinack JC, Magnain C, Yendiki A, Villiger M, Fischl B, Wang H. Quantitative imaging of three-dimensional fiber orientation in the human brain via two illumination angles using polarization-sensitive optical coherence tomography. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Oct 23;. doi: 10.1101/2023.10.20.563298. PMID: 0.
21. Tisdall L, MacNiven KH, Leong JK, Frey R, Rieskamp J, Hertwig R, Knutson B, Mata R. Structure of connections to the nucleus accumbens link to specific but not general measures of human risk preference. *MPG.PuRe (Max Planck Society)*. 2023 Oct 31;. doi: 10.31219/osf.io/ab4vr.
22. Tisdall L, MacNiven KH, Leong JK, Frey R, Rieskamp J, Hertwig R, Knutson B, Mata R. Structural projections to the nucleus accumbens link to impulsive components of human risk preference. *Imaging Neuroscience*. 2024 Jan 1;2.0:1-15. doi: 10.1162/imag_a_00344. PMID: 0.
23. Kjer HM, Andersson M, He Y, Pacureanu A, Daducci A, Pizzolato M, Salditt T, Robisch A, Eckermann M, Toepperwien M, Dahl AB, Elkjaer ML, Illés Z, Pfito M, Dahl VA, Dyrby TB. Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. *eLife*. 2024 Apr 10;13.0. doi: 10.7554/elife.94917. PMID: 0.
24. Kjer HM, Andersson M, He Y, Pacureanu A, Daducci A, Pizzolato M, Salditt T, Robisch A, Eckermann M, Toepperwien M, Dahl AB, Elkjaer ML, Illés Z, Pfito M, Dahl VA, Dyrby TB. Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. *eLife*. 2024 Apr 10;. doi: 10.7554/elife.94917.1.
25. Kolluru C, Joseph N, Seckler JM, Fereidouni F, Levenson RM, Shoffstall AJ, Jenkins MW, Wilson DL. NerveTracker: a Python-based software toolkit for visualizing and tracking groups of nerve fibers in serial block-face microscopy with ultraviolet surface excitation images. *Journal of Biomedical Optics*. 2024 Jun 18;29.0(7.0):076501. doi: 10.1117/1.jbo.29.7.076501. PMID: 0.
26. Wang H, Ammon W, Jones RJ, Nolan J, Gong D, Maffei C, Edlow BL, Augustinack JC, Magnain C, Yendiki A, Villiger M, Fischl B, Liu CJ. Three-dimensional fiber orientation mapping of the human brain at micrometer resolution. *Research Square*. 2024 Aug 7;. doi: 10.21203/rs.3.rs-4725871/v1. PMID: 0.
27. Kjer HM, Andersson M, He Y, Pacureanu A, Daducci A, Pizzolato M, Salditt T, Robisch A, Eckermann M, Toepperwien M, Dahl AB, Elkjaer ML, Illés Z, Pfito M, Dahl VA, Dyrby TB. Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. *eLife*. 2024 Dec 20;. doi: 10.7554/elife.94917.2.
28. Schilling KG, Rheault F, Dyrby TB. Tractography validation part 3: Lessons learned through validation studies. *Elsevier eBooks*. 2025 Jan 1;:543-564. doi: 10.1016/b978-0-12-818894-1.00004-5.
29. Dyrby TB, Sarubbo S, Rheault F, Fieremans E, Anderson AW, Palombo M, Neher P, Rockland KS, Schilling KG. Tractography validation Part 2: The use of anatomical model systems and measures for validation. *Elsevier eBooks*. 2025 Jan 1;:511-542. doi: 10.1016/b978-0-12-818894-1.00020-3.
30. Aggarwal M. Preclinical and ex vivo tractography: Techniques and applications at high field. *Elsevier eBooks*. 2025 Jan 1;:653-667. doi: 10.1016/b978-0-12-818894-1.00025-2.

31. Chau G, Weber EMM, Batra A, Ni L, Zeineh M, Chaudhari A, Adeli E, Knowles JK, McNab JA. Non-parametric prediction of brain MRI microstructure using transfer learning. *Imaging Neuroscience*. 2025 Jan 1;3:0. doi: 10.1162/imag_a_00548. PMID: 0.
32. Stones R, Descoteaux M, Dell'Acqua F. From diffusion models to fiber orientations. *Elsevier eBooks*. 2025 Jan 1;:221-238. doi: 10.1016/b978-0-12-818894-1.00035-5.
33. Gray B, Smith AW, MacKenzie■Graham A, Shattuck DW, Tward DJ. Validation of Structure Tensor Analysis for Orientation Estimation in Brain Tissue Microscopy. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Jan 16; . doi: 10.1101/2025.01.16.633408. PMID: 0.
34. Schilling KG, Howard A, Grussu F, Ianu■ A, Hansen BB, Barrett R, Aggarwal M, Michielse S, Nasrallah F, Syeda W, Wang N, Veraart J, Roebroek A, Bagdasarian AF, Eichner C, Sepehrband F, Zimmermann J, Soustelle L, Bowman C, Tendler BC, Hertanu A, Jeurissen B, Verhoye M, Frydman L, van de Looij Y, Hike D, Dunn JF, Miller KL, Landman BA, Shemesh N, Anderson AW, McKinnon ET, Farquharson S, Dell'Acqua F, Pierpaoli C, Drobniak I, Leemans A, Harkins KD, Descoteaux M, Duan X, Huang H, Santin M, Grant SC, Obenaus A, Kim GS, Wu D, Le Bihan D, Blackband SJ, Ciobanu L, Fieremans E, Bai R, Leergaard TB, Zhang J, Dyrby TB, Johnson GA, Cohen■Adad J, Budde MD, Jelescu I. Considerations and recommendations from the ISMRM Diffusion Study Group for preclinical diffusion MRI : Part 3—Ex vivo imaging: Data processing, comparisons with microscopy, and tractography. *Magnetic Resonance in Medicine*. 2025 Feb 26;93.0(6.0):2561-2582. doi: 10.1002/mrm.30424. PMID: 0.
35. Kjer HM, Andersson M, He Y, Pacureanu A, Daducci A, Pizzolato M, Salditt T, Robisch A, Eckermann M, Töpperwien M, Dahl AB, Elkjaer ML, Illés Z, Pito M, Dahl VA, Dyrby TB. Bridging the 3D geometrical organisation of white matter pathways across anatomical length scales and species. *eLife*. 2025 Feb 28;13.0. doi: 10.7554/elife.94917.3.
36. Liu CJ, Ammon W, Jones RJ, Nolan J, Gong D, Maffei C, Blanke N, Edlow BL, Augustinack JC, Magnain C, Yendiki A, Villiger M, Fischl B, Wang H. Three-dimensional fiber orientation mapping of ex vivo human brain at micrometer resolution. *npj Imaging*. 2025 Apr 8;3.0(1.0):13. doi: 10.1038/s44303-025-00074-2. PMID: 0.
37. Gray B, Smith AW, MacKenzie■Graham A, Shattuck DW, Tward DJ. Validation of structure tensor analysis for orientation estimation in brain tissue microscopy. *Journal of Neuroscience Methods*. 2025 Jul 28;423.0:110539. doi: 10.1016/j.jneumeth.2025.110539. PMID: 0.
38. Trisal A, Singh AK. CLARITY in Alzheimer's Research: Merging Tissue Transparency with Next-Gen Neurotechnologies. *Journal of Neuroscience Methods*. 2025 Aug 13;423.0:110554. doi: 10.1016/j.jneumeth.2025.110554. PMID: 0.
39. Deng Y, Xu J, Yu T, Zhu D. Advances in tissue optical clearing for 3D imaging in large animal. *Frontiers of Optoelectronics*. 2025 Aug 18;18.0(1.0):18. doi: 10.1007/s12200-025-00162-6. PMID: 0.
40. Wanjau E, Chourrout M, Maffei C, Balbastre Y, Keenlyside A, Brunet J, Sharma A, Huang SY, Tafforeau P, Fischl B, Yendiki A, Lee P, Walsh C. Bridging the microstructural gap in human connectomics using hierarchical phase-contrast tomography as a reference for diffusion MRI in the human brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Apr 6; . doi: 10.64898/2026.04.02.715729. PMID: 0.

Publication

Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive Astrocytes Prevent Maladaptive Plasticity after Ischemic Stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2021 Jun 17;. doi: 10.1101/2021.06.16.448657.



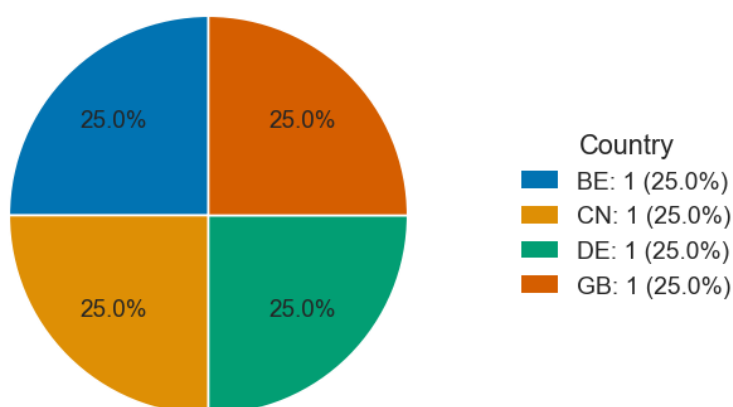
Citation summary

Total citations: **4**

Average/year: **0.67**

Period: 2021-2026

Citations by country

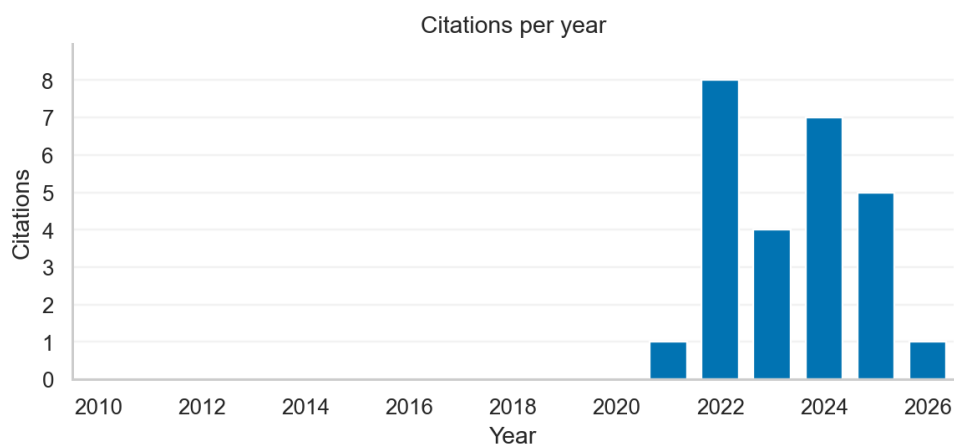


Cited by

1. Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24.0(10.0):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
2. Qiu M, Zong J, He Q, Liu Y, Wan Y, Li M, Zhou Y, Wu J, Hu B. Cell Heterogeneity Uncovered by Single-Cell RNA Sequencing Offers Potential Therapeutic Targets for Ischemic Stroke. *Aging and Disease*. 2022 Jan 1;13.0(5.0):1436. doi: 10.14336/ad.2022.0212. PMID: 0.
3. Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.
4. Verkhatsky A, Butt AM. Astroglial physiology. *Neuroglia*. 2023 Jan 1;:89-197. doi: 10.1016/b978-0-12-821565-4.00009-2.

Publication

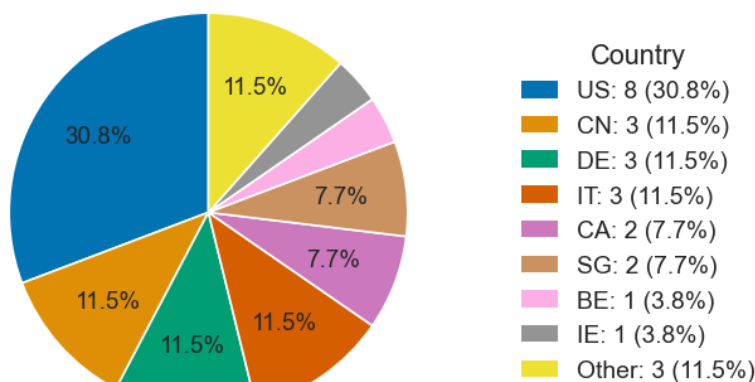
Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24(10):103095. doi: 10.1016/j.isci.2021.103095. PMID: 34622150.



Citation summary

Total citations: **26**
Average/year: **4.33**
Period: 2021-2026
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SJR 2025: **1.36** (Q1)

Citations by country



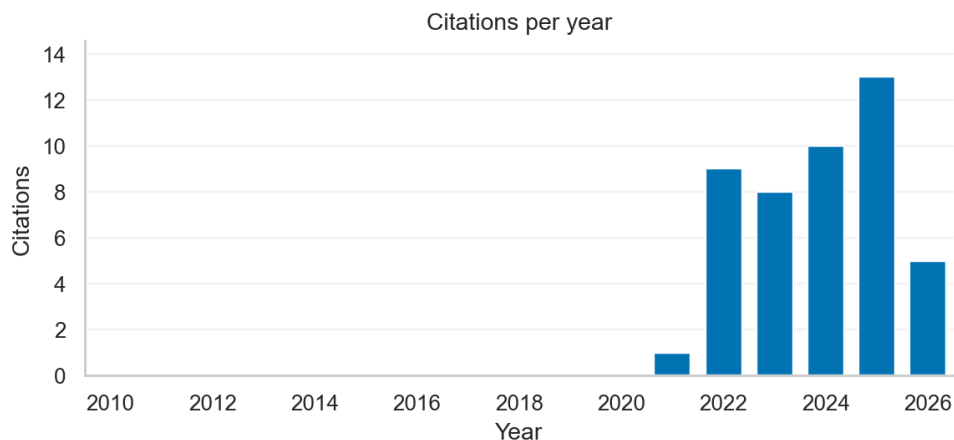
Cited by

- Kim J, Kim DW, Lee A, Mason M, Jouroukhin Y, Woo H, Yolken RH, Pletnikov MV. Homeostatic regulation of neuronal excitability by probiotics in male germ-free mice. *Journal of Neuroscience Research*. 2021 Dec 21;100.0(2.0):444-460. doi: 10.1002/jnr.24999. PMID: 0.
- Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.
- Darch H, McCafferty CP. Gut microbiome effects on neuronal excitability & activity: Implications for epilepsy. *Neurobiology of Disease*. 2022 Jan 13;165.0:105629. doi: 10.1016/j.nbd.2022.105629. PMID: 0.
- Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253.0:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 0.
- Sinha N, Joshi RB, Sandhu MRS, Netoff TI, Zaveri HP, Lehnertz K. Perspectives on Understanding Aberrant Brain Networks in Epilepsy. *Frontiers in Network Physiology*. 2022 Apr 5;2.0:868092. doi: 10.3389/fnetp.2022.868092. PMID: 0.
- Paeslack N, Mimmler M, Becker SI, Gao Z, Khuu MP, Mann A, Malinarich F, Regen T, Reinhardt C. Microbiota-derived tryptophan metabolites in vascular inflammation and cardiovascular disease. *Amino Acids*. 2022 Apr 22;54.0(10.0):1339-1356. doi: 10.1007/s00726-022-03161-5. PMID: 0.
- Carloni S, Rescigno M. Unveiling the gut-brain axis: structural and functional analogies between the gut and the choroid plexus vascular and immune barriers. *Seminars in Immunopathology*. 2022 Jul 21;44.0(6.0):869-882. doi: 10.1007/s00281-022-00955-3. PMID: 0.

8. Hoehn M, Aswendt M. Functional hyperconnectivity related to brain disease: maladaptive process or element of resilience?. *Neural Regeneration Research*. 2022 Nov 18;18.0(7.0):1489. doi: 10.4103/1673-5374.361541. PMID: 0.
9. Yeo XY, Chae WR, Lee HU, Bae H, Pettersson S, Grandjean J, Han W, Jung S. Maternal microbes and early brain development in mouse. *bioRxiv (Cold Spring Harbor Laboratory)*. 2022 Dec 20;. doi: 10.1101/2022.12.19.521137.
10. Iriah S. The neurological and behavioral effects of opioids. 2023 Jan 1;. doi: 10.17760/d20620617.
11. Pini L, Salvalaggio A, Wennberg A, Dimakou A, Matteoli M, Corbetta M. The pollutome-connectome axis: a putative mechanism to explain pollution effects on neurodegeneration. *Ageing Research Reviews*. 2023 Jan 28;86.0:101867. doi: 10.1016/j.arr.2023.101867. PMID: 0.
12. Yeo XY, Chae WR, Lee HU, Bae H, Pettersson S, Grandjean J, Han W, Jung S. Nuanced contribution of gut microbiome in the early brain development of mice. *Gut Microbes*. 2023 Nov 27;15.0(2.0):2283911. doi: 10.1080/19490976.2023.2283911. PMID: 0.
13. Liu L, Xiang M, Cai X, Wu B, Chen C, Cai N, Ao D. Multi-omics analyses of gut microbiota via 16S rRNA gene sequencing, LC-MS/MS and diffusion tensor imaging reveal aberrant microbiota-gut-brain axis in very low or extremely low birth weight infants with white matter injury. *BMC Microbiology*. 2023 Dec 6;23.0(1.0):387. doi: 10.1186/s12866-023-03103-5. PMID: 0.
14. Green M, Foster JA. Gut–brain communication through microbes. *Elsevier eBooks*. 2024 Jan 1;:29-66. doi: 10.1016/b978-0-323-90144-4.00002-1.
15. MAO Z, Zhang J, Guo L, WANG X, Zhu Z, Miao M. Therapeutic approaches targeting the gut microbiota in ischemic stroke: current advances and future directions. *Bioscience of Microbiota Food and Health*. 2024 Jan 1;43.0(4.0):321-328. doi: 10.12938/bmfh.2024-022. PMID: 0.
16. Drobyshevsky A, Synowiec S, Goussakov I, Fabres RB, Lü J, Caplan MS. Intestinal microbiota modulates neuroinflammatory response and brain injury after neonatal hypoxia-ischemia. *Gut Microbes*. 2024 Mar 27;16.0(1.0):2333808. doi: 10.1080/19490976.2024.2333808. PMID: 0.
17. Chen G, Du X, Cui J, Song J, Xiong M, Zeng X, Yang H, Xu K. Role of gut microbiota in ischemic stroke: A narrative review of human and animal studies. *Neuroprotection/Neuroprotection (Chichester, England. Print)*. 2024 May 16;2.0(2.0):120-136. doi: 10.1002/nep3.44. PMID: 0.
18. Thompson SL, Ellegood J, Bowdish DME, Lerch JP, Foster JA. Sex- and brain region-specific alterations in brain volume in germ-free mice. *iScience*. 2024 Nov 19;27.0(12.0):111429. doi: 10.1016/j.isci.2024.111429. PMID: 0.
19. Iriah S, Rodriguez N, Febo M, Morrisette M, Strandwitz P, Kulkarni P, Ferris CF. The microbiome's influence on the neurobiology of opioid addiction and brain connectivity. *Brain Research Bulletin*. 2024 Dec 6;220.0:111159. doi: 10.1016/j.brainresbull.2024.111159. PMID: 0.
20. Small SL. Precision neurology. *Ageing Research Reviews*. 2024 Dec 8;104.0:102632. doi: 10.1016/j.arr.2024.102632. PMID: 0.
21. Yener SMO. The Gut-Brain Connection: How Diet Influences Mental Health. *Nutritional neurosciences*. 2025 Jan 1;:117-140. doi: 10.1007/978-981-95-1414-4_5.
22. Carloni S, Strati F. The Gut Vascular Barrier: Linking the Intestinal Environment with Blood Circulation. ■The ■microbiomes of humans, animals, plants, and the environment. 2025 Jan 1;:57-74. doi: 10.1007/978-3-031-84065-4_4.
23. Dai J, Yang J, Han S, Li N, Wang S, Xia S, Kim H, Jun Y, Lee S, Kitagawa Y, Xie F, Yang L, Shen S, Chen L, Turner DP, Hodin RA, Martyn JAJ, Mao J, You Z. Deficiency of intestinal alkaline phosphatase affects behavior and microglia activity in mice. *Brain Behavior and Immunity*. 2025 Feb 19;126.0:297-310. doi: 10.1016/j.bbi.2025.02.006. PMID: 0.
24. Kolobaric A, Ladouceur CD, Morris A, Methé BA, Jašarević E, Bylsma LM. Adolescent girls at familial risk for depression with more advanced adrenarche have altered gut microbiota. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Aug 8;. doi: 10.1101/2025.08.07.669149.
25. Dimaoui A, Mekhlouf YE, Lamtai M, Ibouzine Dine L, Marzouki ZE, Touil T, Hessni AE, Mesfioui A. Early-life gut microbiota depletion leads to persistent CNS myelin impairment in adult Swiss albino mice. *Neuroscience and Behavioral Physiology*. 2025 Oct 1;55.0(8.0):1374-1384. doi: 10.1007/s11055-025-01893-x.
26. Lee S, Dubrof S, Ahmed I, Zhao Q, Callaway TR, Lourenço JM, Park HJ. Maternal docosahexaenoic acid supplementation shapes offspring gut microbiota to modulate the gut-brain axis in a sow-piglet model. *Frontiers in Nutrition*. 2026 Apr 13;13.0:1776896. doi: 10.3389/fnut.2026.1776896. PMID: 0.

Publication

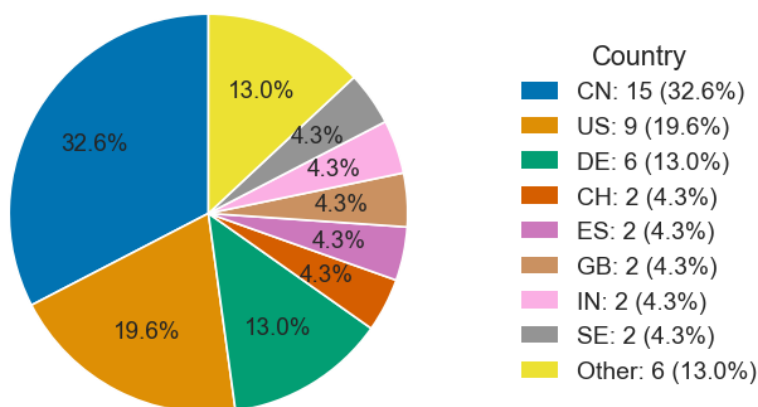
Aswendt M, Wilhelmsson U, Wieters F, Stokowska A, Schmitt FJ, Pallast N, de Pablo Y, Mohammed L, Hoehn M, Pekna M, Pekny M. Reactive astrocytes prevent maladaptive plasticity after ischemic stroke. *Progress in Neurobiology*. 2021 Dec 15;209:102199. doi: 10.1016/j.pneurobio.2021.102199. PMID: 34921928.



Citation summary

Total citations: **46**
Average/year: **7.67**
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SJR 2025: **2.4 (Q1)**

Citations by country



Cited by

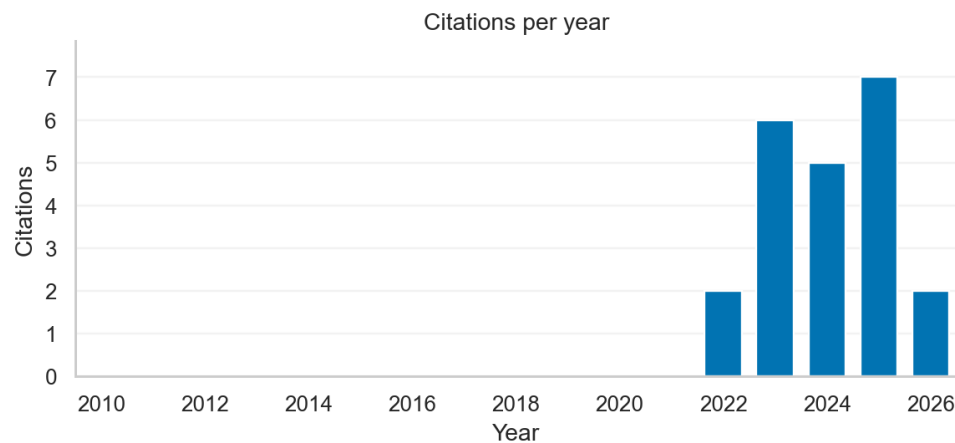
- Aswendt M, Green C, Sadler R, Llovera G, Dzikowski L, Heindl S, de Agüero MG, Diedenhofen M, Vogel SN, Wieters F, Wiedermann D, Liesz A, Hoehn M. The gut microbiota modulates brain network connectivity under physiological conditions and after acute brain ischemia. *iScience*. 2021 Sep 9;24.0(10):103095. doi: 10.1016/j.isci.2021.103095. PMID: 0.
- Qiu M, Zong J, He Q, Liu Y, Wan Y, Li M, Zhou Y, Wu J, Hu B. Cell Heterogeneity Uncovered by Single-Cell RNA Sequencing Offers Potential Therapeutic Targets for Ischemic Stroke. *Aging and Disease*. 2022 Jan 1;13.0(5):1436. doi: 10.14336/ad.2022.0212. PMID: 0.
- Van der Linden A, Hoehn M. Monitoring Neuronal Network Disturbances of Brain Diseases: A Preclinical MRI Approach in the Rodent Brain. *Frontiers in Cellular Neuroscience*. 2022 Jan 3;15.0:815552. doi: 10.3389/fncel.2021.815552. PMID: 0.
- Ridge KM, Eriksson J, Pekny M, Goldman RD. Roles of vimentin in health and disease. *Genes & Development*. 2022 Apr 1;36.0(7-8):391-407. doi: 10.1101/gad.349358.122. PMID: 0.
- Luo J. TGF- β as a Key Modulator of Astrocyte Reactivity. *Preprints.org*. 2022 Apr 20;. doi: 10.20944/preprints202204.0189.v1.
- Luo J. TGF- β as a Key Modulator of Astrocyte Reactivity: Disease Relevance and Therapeutic Implications. *Biomedicines*. 2022 May 23;10.0(5):1206. doi: 10.3390/biomedicines10051206. PMID: 0.
- Denecke KM, McBain CA, Hermes BG, Teertam SK, Farooqui M, Virumbrales-Muñoz M, Panackal J, Beebe DJ, Famakin B, Ayuso JM. Microfluidic Model to Evaluate Astrocyte Activation in Penumbra Region following Ischemic Stroke. *Cells*. 2022 Jul 31;11.0(15):2356. doi: 10.3390/cells11152356. PMID: 0.
- Pekna M, Siqin S, de Pablo Y, Stokowska A, Nalwai ÁT, Pekny M. Astrocyte Responses to Complement Peptide C3a are Highly Context-Dependent. *Neurochemical Research*. 2022 Sep 12;48.0(4):1233-1241. doi: 10.1007/s11064-022-03743-5. PMID: 0.

9. Wang T, Qiu X, Wu H, Chen K, Liu S, Li Y, He T, Zhao J. Vimentin as a potential target for diverse nervous system diseases. *Neural Regeneration Research*. 2022 Oct 27;18.0(5):969. doi: 10.4103/1673-5374.355744. PMID: 0.
10. Hoehn M, Aswendt M. Functional hyperconnectivity related to brain disease: maladaptive process or element of resilience?. *Neural Regeneration Research*. 2022 Nov 18;18.0(7):1489. doi: 10.4103/1673-5374.361541. PMID: 0.
11. Michór P, Renardson L, Boltze J. Neurorestorative Approaches for Ischemic Stroke - Challenges, Opportunities, and Recent Advances. *SSRN Electronic Journal*. 2023 Jan 1;. doi: 10.2139/ssrn.4635803.
12. Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14.0(2):454. doi: 10.3390/genes14020454. PMID: 0.
13. Stokowska A, Aswendt M, Žucha D, Lohmann S, Wieters F, Suárez J, Atkins AL, Yi-xian L, Miteva MA, Lewin J, Wiedermann D, Diedenhofen M, Naluai ÁT, Abaffy P, Valihrach L, Kubista M, Hoehn M, Pekny M, Pekna M. Complement C3a treatment accelerates recovery after stroke via modulation of astrocyte reactivity and cortical connectivity. *Journal of Clinical Investigation*. 2023 Mar 30;133.0(10). doi: 10.1172/jci162253. PMID: 0.
14. Tavares■Gomes AL, Teixeira-Silva B, Thomasi B, Trindade P, Espírito■Santo S, Faria■Melibeu ADC, Serfaty CA, Campello■Costa P. Retinotectal plasticity induced by monocular enucleation during the critical period is dependent of A2a adenosine receptor: A possible role of astrocytes. *Experimental Neurology*. 2023 Apr 26;365.0:114427. doi: 10.1016/j.expneurol.2023.114427. PMID: 0.
15. Thumu SCR, Jain M, Soman S, Das S, Verma V, Nandi A, Gutmann DH, Balaji J, Nair D, Clement JP, Marathe S, Ramanan N. SRF-deficient astrocytes provide neuroprotection in mouse models of excitotoxicity and neurodegeneration. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 May 17;. doi: 10.1101/2023.05.17.541074.
16. Collyer E, Blanco■Suárez E. Astrocytes in stroke-induced neurodegeneration: a timeline. *Frontiers in Molecular Medicine*. 2023 Sep 7;3.0:1240862. doi: 10.3389/fmmed.2023.1240862. PMID: 0.
17. Verkhatsky A, Butt AM, Li B, Illés P, Zorec R, Semyanov A, Tang Y, Sofroniew MV. Astrocytes in human central nervous system diseases: a frontier for new therapies. *Signal Transduction and Targeted Therapy*. 2023 Oct 13;8.0(1):396. doi: 10.1038/s41392-023-01628-9. PMID: 0.
18. Wang S, Tong S, Jin X, Li N, Dang P, Sui Y, Liu Y, Wang D. Single-cell RNA sequencing analysis of the retina under acute high intraocular pressure. *Neural Regeneration Research*. 2023 Nov 8;19.0(11):2522-2531. doi: 10.4103/1673-5374.389363. PMID: 0.
19. Boyle BR, Berghella A, Blanco■Suárez E. Astrocyte Regulation of Neuronal Function and Survival in Stroke Pathophysiology. *Advances in neurobiology*. 2024 Jan 1;39.0:233-267. doi: 10.1007/978-3-031-64839-7_10. PMID: 0.
20. Zou Y, Pei J, Wan C, Liu S, Hu B, Li Z, Tang Z. Mechanism of scutellarin inhibition of astrocyte activation to type A1 after ischemic stroke. *Journal of Stroke and Cerebrovascular Diseases*. 2024 Jan 13;33.0(3):107534. doi: 10.1016/j.jstrokecerebrovasdis.2023.107534. PMID: 0.
21. Thumu SCR, Jain M, Soman S, Das S, Verma V, Nandi A, Gutmann DH, Balaji J, Nair D, Clement JP, Marathe S, Ramanan N. SRF-deficient astrocytes provide neuroprotection in mouse models of excitotoxicity and neurodegeneration. *eLife*. 2024 Jan 30;13.0. doi: 10.7554/elife.95577. PMID: 0.
22. He L, Duan X, Li S, Zhang R, Dai X, Lu M. Unveiling the role of astrocytes in postoperative cognitive dysfunction. *Ageing Research Reviews*. 2024 Feb 5;95.0:102223. doi: 10.1016/j.arr.2024.102223. PMID: 0.
23. Sitovskaya D, Eremina AO, ■■■■■■■■■■ ■■■, Zabrodskaya YM. Changes in Immunoreactivity of Vimentin and GFAP in the Hippocampus of Patients with Drug-Resistant Epilepsy. *SciBase neurology*. 2024 Mar 28;2.0(1). doi: 10.52768/neurology/1012.
24. Michór P, Renardson L, Li S, Boltze J. Neurorestorative Approaches for Ischemic Stroke. *Neuroscience*. 2024 May 17;550.0:69-78. doi: 10.1016/j.neuroscience.2024.05.009. PMID: 0.
25. He J, Yuan R, Jiang Y, Peng Y, Ye J, Wang S, Li L, Ruan Y, Li P, Yan X, He W, Li G, Chu S, Zhang Z, Chen N. Esculetin facilitates post-stroke rehabilitation by inhibiting CKLF1-mediated neutrophil infiltration. *Acta Pharmacologica Sinica*. 2024 Aug 7;46.0(1):52-65. doi: 10.1038/s41401-024-01352-2. PMID: 0.
26. Yang D, Su J, Chen Y, Chen G. The NF-κB pathway: Key players in neurocognitive functions and related disorders. *European Journal of Pharmacology*. 2024 Oct 5;984.0:177038. doi: 10.1016/j.ejphar.2024.177038. PMID: 0.
27. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.
28. Chen W, Su G, Chai M, An Y, Song J, Zhang Z. Astroglial scar in ischemic stroke - focused on mechanism and treatment. *Experimental Neurology*. 2024 Dec 27;385.0:115131. doi: 10.1016/j.expneurol.2024.115131. PMID: 0.
29. Dark HE, Shafer AT, Cordon J, An Y, Lewis A, Moghekar A, Landman BA, Resnick SM, Walker KA. Association of Plasma Biomarkers of Alzheimer Disease and Neurodegeneration With Longitudinal Intra-Network Functional Brain Connectivity. *Neurology*. 2025 Jan 31;104.0(4):e210271. doi: 10.1212/wnl.0000000000210271. PMID: 0.
30. Li Y, Li X, Zhao Y, Chen H, Wang C, Wu A, Guo X, Huang Y, Wang Q, Hao L, Li X, Ji Y, Ban J, Wang G, Cao J, Pan Z. NAT10 inhibition alleviates astrocyte autophagy by impeding ac4C acetylation of Timp1 mRNA in ischemic stroke. *Acta Pharmaceutica Sinica B*. 2025 Mar 21;15.0(5):2575-2592. doi: 10.1016/j.apsb.2025.03.042. PMID: 0.
31. Zhang L, Wang J, Yan Y, Xiang L, Zhai X, Cai L, Sun Z, Pi M, Xiong Q, Zhou H, Gui Y, Wang X, Shu X, Xia Y. Vimentin Fragmentation and Its Role in Amyloid-Beta Plaque Deposition in Alzheimer's Disease. *International Journal of Molecular Sciences*. 2025 Mar 21;26.0(7):2857. doi: 10.3390/ijms26072857. PMID: 0.
32. Kim J, Trzebanski S, Shin S, Schori L, Friedman GRF, Ilani NC, Kadam A, Vicario R, Aust O, Bugaeva P, Pi■tek S, Ismajli LK, Hoffmann CJ, Scheller M, Boura■Halfon S, Kaushansky N, Golani O, Solomon A, Liu Z, Amann L, Böhm-Sturm P, Koch S, Wenger N, Ginhoux F, Prinz M, Avraham R, Harms C, Geissmann F, Müller■Tidow C, Uderhardt S, Milenkovi■ I, Shlush LI, Jung S. Clonal hematopoiesis-associated motoric deficits caused by monocyte-derived microglia accumulating in aging mice. *Cell Reports*. 2025 Apr 23;44.0(5):115609. doi: 10.1016/j.celrep.2025.115609. PMID: 0.

33. Zhu Z, Ma K, Yuan T, Li B, Liu L, Bai Y. Spinal cord injury repair: Mechanisms, applications, and prospects of hydrogel therapies. *APL Materials*. 2025 Jun 1;13.0(6). doi: 10.1063/5.0275183.
34. Fu Z, Hu Y, Wang Y, Liu Z, Li M, Guo Y, Hu Z, Lai X, Hu J, Liao Y, Cai C. Human induced neural progenitor cells generated from three-dimensional aggregate-based culture significantly improve post-stroke recovery in tMCAO mice. *Stem Cell Research & Therapy*. 2025 Jun 20;16.0(1):312. doi: 10.1186/s13287-025-04433-z. PMID: 0.
35. Zhao K, Huang Z. TIMP1 promotes microglia M2 polarization through MAPK pathway to ameliorate early brain injury after ischemia. *Hereditas*. 2025 Jul 2;162.0(1):119. doi: 10.1186/s41065-025-00491-8. PMID: 0.
36. Kálmán M. The relative withdrawal of GFAP—An essential component of brain evolution. *Frontiers in Neuroanatomy*. 2025 Jul 17;19.0:1607603. doi: 10.3389/fnana.2025.1607603. PMID: 0.
37. Luo X, Zhu Z, Zheng T, Li D, Wei Y, Yang H, Yu H, Han J, Wang Y, Wang L, Huang Z. Astrocytic YAP prevents the glutamate neurotoxicity by upregulation of EAAT2 expression and promotes the gain of stemness in astrocytes in ischemic stroke mice. *Cell Death and Disease*. 2025 Jul 30;16.0(1):577. doi: 10.1038/s41419-025-07806-7. PMID: 0.
38. Dykstra W, Matusova Z, Battaglia RA, Abaffy P, Goya-Iglesias N, Pérez-Sala D, Ahlenius H, Kubista M, Pasterkamp RJ, Li L, Chao J, Shi Y, Valihrach L, Pekny M, Hol EM. Mutations in GFAP Alter Early Lineage Commitment of Organoids. *Glia*. 2025 Jul 30;73.0(11):2167-2188. doi: 10.1002/glia.70049. PMID: 0.
39. Akhter N, Lambay A, Almotairi R, Hamadi A, Bhatia K, Ahmad S, Ducruet AF. The Complex Role of the Complement C3a Receptor (C3aR) in Cerebral Injury and Recovery Following Ischemic Stroke. *Cells*. 2025 Sep 15;14.0(18):1440. doi: 10.3390/cells14181440. PMID: 0.
40. Hou J, Klippel K, Bose P. Glutamate Excitotoxicity: A Key Secondary Injury Mechanism of Traumatic Brain Injury and Spinal Cord Injury. *Frontiers in Bioscience-Landmark*. 2025 Oct 31;30.0(10):38904. doi: 10.31083/fbl38904. PMID: 0.
41. Yan K, Newman AG, Lange PNAMJG, Müller S, Foddiss M, Koch S, Böhm-Sturm P, Mantwill M, Finke C, Deng P, Long M, Schmitz D, Tarabykin V. Nurr1 Orchestrates Claustrium Development and Functionality. *Advanced Science*. 2025 Dec 22;13.0(13):e08999. doi: 10.1002/advs.202508999. PMID: 0.
42. Beales CT, Eibauer M, de Pablo Y, Hansen SB, Lin N, Perng M, Pekny M, Medalia O. Interdigitating coiled-coil tetramers define the helical architecture of GFAP filaments in astrocytes. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Feb 24;. doi: 10.64898/2026.02.23.707361.
43. Ramírez-Expósito MJ, Cueto-Ureña C, Martínez-Martos JM. Neurotransmitter Systems in Alzheimer's Disease. *Current Issues in Molecular Biology*. 2026 Mar 22;48.0(3):334. doi: 10.3390/cimb48030334. PMID: 0.
44. Verkhatsky A, Lee CJ, Chun H, Göritz C, Harkany T, Lee J, Lee S, Lindskog M, Koh W, Mulder J, Nam M, Ottersen OP, Pekna M, Pekny M, Pkowska A, Ryu H, Sohn CH, Tretiakov EO, Untiet V, Viney TJ, Youn W, Yi C, Zorec R, Yun M, Cheong E, Nordberg A. Curing the brain: in search for new astrocyte-specific therapies. *Experimental & Molecular Medicine*. 2026 Apr 24;58.0(4):1086-1127. doi: 10.1038/s12276-026-01712-4. PMID: 0.
45. Liu X, Guo Y, Popa-Wagner A, Lämmermann I, Grillari J, Hermann DM. Cellular senescence in ischemic stroke: Cell-type specificity, temporal dynamics, and response to therapeutic interventions. *Ageing Research Reviews*. 2026 Jun 14;120.0:103206. doi: 10.1016/j.arr.2026.103206. PMID: 0.
46. Borsa M, Lenzi I, Obrist C, Rusterholz T, Bassetti CL, Adamantidis A, Gutierrez C. Optical Ministroke Reveals Dual-Role Frontal Thalamocortical Networks in Sleep Quality and Memory. *Stroke*. 2026 Jul 15;:STROKEAHA.126.056284. doi: 10.1161/strokeaha.126.056284. PMID: 0.

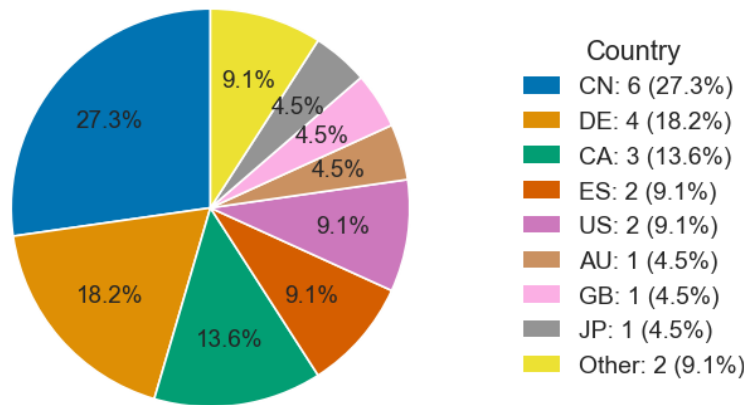
Publication

Scharwächter L, Schmitt FJ, Pallast N, Fink GR, Aswendt M. Network analysis of neuroimaging in mice. *NeuroImage*. 2022 Mar 17;253:119110. doi: 10.1016/j.neuroimage.2022.119110. PMID: 35311664.



Citation summary
Total citations: **22**
Average/year: **4.40**
Period: 2022-2026
SCImago cites/doc 2y (2025): **5.31**
SJR 2025: **1.93** (Q1)

Citations by country



Cited by

1. Sun Q, Hu Y, Deng S, Xiong Y, Huang Z. A visualization pipeline for in vivo two-photon volumetric astrocytic calcium imaging. *Journal of Biomedical Research*. 2022 Jan 1;36.0(5.0):358. doi: 10.7555/jbr.36.20220099. PMID: 0.

2. Hoehn M, Aswendt M. Functional hyperconnectivity related to brain disease: maladaptive process or element of resilience?. *Neural Regeneration Research*. 2022 Nov 18;18.0(7.0):1489. doi: 10.4103/1673-5374.361541. PMID: 0.

3. Wang H, Zhao H, Li C, Dong J, Zhao J, Yue H, Lai Y, Zhao L, Wang H, Zhang J, Xu X, Yao B, Zhou H, Nie B, Du X, Peng R. Disrupted Topological Organization of Brain Network in Rats with Spatial Memory Impairments Induced by Acute Microwave Radiation. *Brain Sciences*. 2023 Jun 28;13.0(7.0):1006. doi: 10.3390/brainsci13071006. PMID: 0.

4. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.

5. Lv K, Zhang C, Liu B, Yang A, Luan J, Hu P, Yao Z, Liu J, Ma G. Disruption of the white matter structural network in patients with hemifacial spasm and changes after microvascular decompression. *Research Square*. 2023 Aug 18;. doi: 10.21203/rs.3.rs-3259470/v1.

6. Stapleton MC, Koch S, Cortes DRE, Wyman S, Schwab K, Mueller S, McKennan C, BoehmSturm P, Wu Y. Apolipoprotein-E deficiency leads to brain network alteration characterized by diffusion MRI and graph theory. *Frontiers in Neuroscience*. 2023 Nov 21;17.0:1183312. doi: 10.3389/fnins.2023.1183312. PMID: 0.

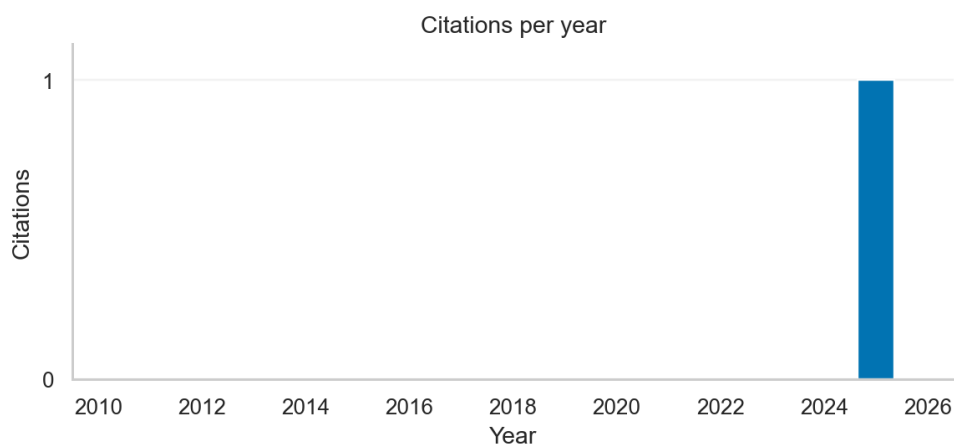
7. Sun D, Shaik NEK, Unnithan RR, French C. Hippocampal cognitive and relational map paradigms explored by multisensory encoding recording with wide-field calcium imaging. *iScience*. 2023 Nov 30;27.0(1.0):108603. doi: 10.1016/j.isci.2023.108603. PMID: 0.

8. Altahini S, Doering J, Kuchling J, Backhaus H, Kreye J, Guimaraes-Backhaus R, Finke C, Prüß H, Stroh A. Maternofetal transfer of human NMDAR-antibodies leads to cortical network defect in adolescence. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Dec 1;. doi: 10.1101/2023.11.30.569370.

9. Kimura I, Senoo A, Abo M. Changes in Structural Neural Networks in the Recovery Process of Motor Paralysis after Stroke. *Brain Sciences*. 2024 Feb 21;14.0(3.0):197. doi: 10.3390/brainsci14030197. PMID: 0.
10. Wang J, Jin S, Li J. Brain connectome from neuronal morphology. *Research Square*. 2024 Feb 27;. doi: 10.21203/rs.3.rs-3913903/v1.
11. Wendlandt TA, Wenk P, Henschke JU, Michalek A, Noesselt T, Pakan JM, Budinger E. Neural networks representing temporal expectation in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Apr 26;. doi: 10.1101/2024.04.25.589683.
12. Mellado S, Touahri N, Montagud-Romero S, Perpiñá-Clérigues C, García■García F, Moreno■Manzano V, Guerri C, Rodríguez-Arias M, Pascual M. Unveiling the role of miRNAs from MSC-EVs in neuroinflammation and behavioral impairments induced by chronic alcohol consumption. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 3;. doi: 10.1101/2024.10.03.616225.
13. Niu B, Wu H, Li Y, Klugah■Brown B, Hanna GP, Yao Y, Jing J, Baig TI, Xia Y, Yao D, Biswal BB. Topological functional network analysis of cortical blood flow in hyperacute ischemic rats. *Brain Structure and Function*. 2024 Dec 26;230.0(1.0):20. doi: 10.1007/s00429-024-02864-7. PMID: 0.
14. Hoang NT, Dilhani N, Walpola T, Kulathilake CD, Masahiro A, Senoo A. Age-Related Distinct Patterns of Global and Language Network Nodes in Fluent and Non-Fluent Aphasia: A Graph Theory Analysis of Diffusion Tensor Imaging Tractography. *Investigative Magnetic Resonance Imaging*. 2025 Jan 1;29.0(4.0):201. doi: 10.13104/imri.2025.0027.
15. Jin S, Li J, Wang J. Brain connectome from neuronal morphology. *Network Neuroscience*. 2025 Jan 1;9.0(3.0):913-937. doi: 10.1162/netn_a_00458. PMID: 0.
16. Lee BH, McGovern A, Lieblich SE, Mitchell SV, Yin J, Epp JR, Galea LA. Parity and APOEε4 genotype contribute distinct changes to functional connectivity across the middle-aged brain. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 7;. doi: 10.1101/2025.03.01.640999.
17. Da Wang, Li H, Zeng Y, Gao J, Xu M, Bo B, Pei M, Liang Z, Zhou N, Thompson GJ. Macroscopic cerebral energy efficiency corresponds to neuron reorganization in awake and anesthetized mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 11;. doi: 10.1101/2025.03.08.641356.
18. Mellado S, Touahri N, Montagud-Romero S, Perpiñá-Clérigues C, García■García F, Moreno■Manzano V, Guerri C, Rodríguez■Arias M, Pascual M. Role of miRNAs from mesenchymal stem cell-derived extracellular vesicles in neuroinflammation and behavioral impairments induced by chronic alcohol consumption in female mice. *Neural Regeneration Research*. 2025 Jun 19;21.0(6.0):2370-2379. doi: 10.4103/nrr.nrr-d-24-01260. PMID: 0.
19. Lee BH, McGovern AJ, Lieblich SE, Mitchell SV, Yin J, Epp JR, Galea LA. Sex-specific factors and APOEε4 genotype alter functional connectivity at middle age. *Psychoneuroendocrinology*. 2025 Oct 24;183.0:107655. doi: 10.1016/j.psyneuen.2025.107655. PMID: 0.
20. Fuentes■Mendoza JM, Fernanda-Castillo M, Valdez-Esqueda F, Garza■Boullosa R, Gama-Reyes EG, Arreola-Flores M, Concepción■Zavaleta MJ. Determining factors of neuroplasticity in patients with brain tumors: impact of connectome and artificial intelligence. A narrative review. *Expert Review of Anticancer Therapy*. 2025 Oct 31;26.0(2.0):179-189. doi: 10.1080/14737140.2025.2583399. PMID: 0.
21. West D, Coulson NW, Cortes DRE, Schwab KE, Becker-Szurszewski T, Hartwick S, Stapleton MC, Saladino GM, Lo CW, Patterson CM, Subramanian S, Rajan D, Wu YL. High-Definition Brain Network (HDBN) Delineation of CDKL5 Deficiency Disorder (CDD) in Genetically Engineered Mice. *Biomolecules*. 2026 Apr 28;16.0(5.0):652. doi: 10.3390/biom16050652. PMID: 0.
22. Yazdani Z, Bélanger E, Moreaud M, Llinares J, Allard A, Marquet P, Desrosiers P. Graph-based characterization of in vitro neuronal network maturation using machine learning and digital holographic microscopy. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Jun 23;. doi: 10.64898/2026.06.18.732973.

Publication

Wieters F, Gruhn M, Büschges A, Fink GR, Aswendt M. Terminal H-reflex Measurements in Mice. *Journal of Visualized Experiments*. 2022 Jun 16;(184). doi: 10.3791/63304-v.



Citation summary

Total citations: **1**

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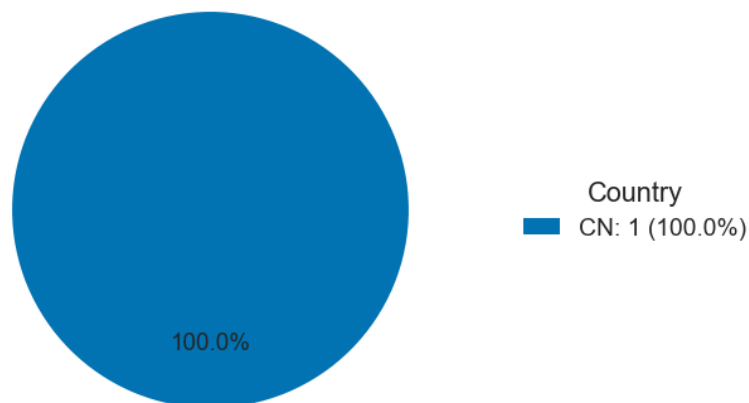
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Citations by country

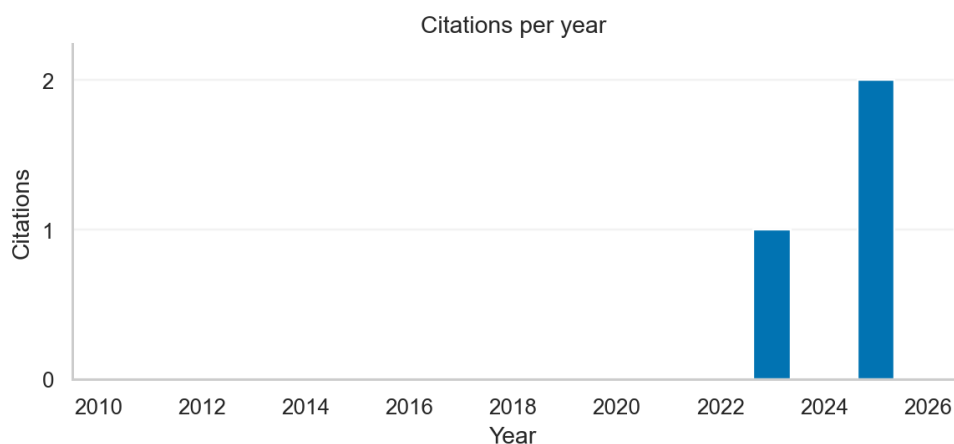


Cited by

1. Gong H, Zhang Z, Duan Z, Mao X, Wu Y, Rao J, Du X. Mechanisms of Different Motor Neurons in the Occurrence of Spasticity After Spinal Cord Injury: A Narrative Review. *International Journal of Molecular Sciences*. 2025 May 28;26(11):5162. doi: 10.3390/ijms26115162. PMID: 40507976.

Publication

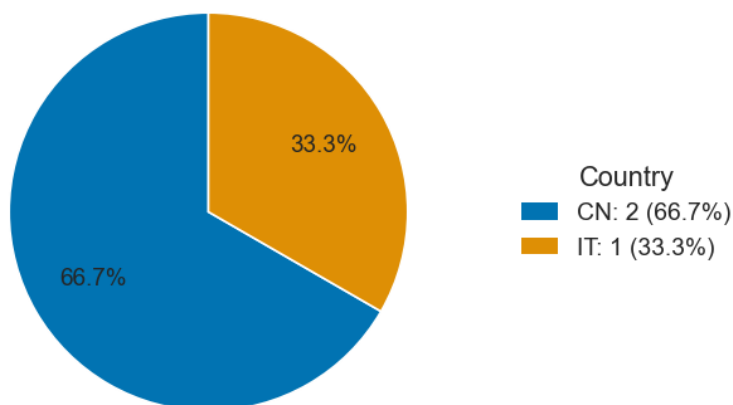
Wieters F, Gruhn M, Büschges A, Fink GR, Aswendt M. Terminal H-reflex Measurements in Mice. *Journal of Visualized Experiments*. 2022 Jun 16;(184). doi: 10.3791/63304. PMID: 35781283.



Citation summary

Total citations: **3**
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Citations by country

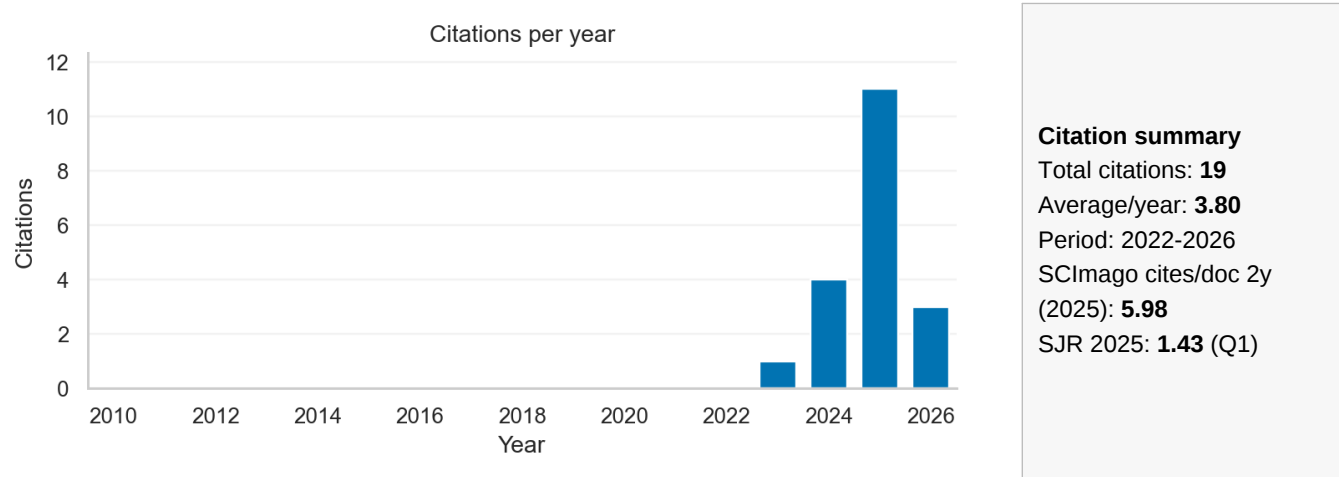


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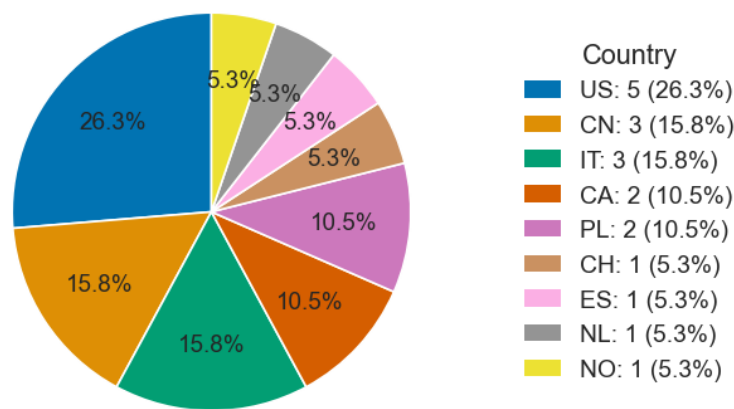
1. Marchioretti C, Zanetti G, Pirazzini M, Gherardi G, Nogara L, Andreotti R, Martini P, Marcucci L, Canato M, Nath SR, Zuccaro E, Chivet M, Mammucari C, Pacifici M, Raffaello A, Rizzuto R, Mattarei A, Desbats MA, Salviati L, Megighian A, Sorarú G, Pegoraro E, Belluzzi E, Pozzuoli A, Biz C, Ruggieri P, Romualdi C, Lieberman AP, Babu GJ, Sandri M, Blaauw B, Basso M, Pennuto M. Defective excitation-contraction coupling and mitochondrial respiration precede mitochondrial Ca²⁺ accumulation in spinobulbar muscular atrophy skeletal muscle. *Nature Communications*. 2023 Feb 6;14(1):602. doi: 10.1038/s41467-023-36185-w. PMID: 36746942.
2. Gong H, Zhang Z, Duan Z, Mao X, Wu Y, Rao J, Du X. Mechanisms of Different Motor Neurons in the Occurrence of Spasticity After Spinal Cord Injury: A Narrative Review. *International Journal of Molecular Sciences*. 2025 May 28;26(11):5162. doi: 10.3390/ijms26115162. PMID: 40507976.
3. Zhang Q, Wang J, Ma L, Ma L, Zhong J, Li F, Xu Q, Ma L, Ma L, Xiu J, Wang X. Motion-Style Scalp Acupuncture Ameliorates Post-Stroke Muscle Spasticity Through Cerebral Blood Flow Augmentation and 5-HT_{2A} Receptor-Mediated Spinal KCC2 Reactivation. *Brain and Behavior*. 2025 Nov 26;15(12):e71064. doi: 10.1002/brb3.71064. PMID: 41299887.

Publication

Hoehn M, Aswendt M. Functional hyperconnectivity related to brain disease: maladaptive process or element of resilience?. *Neural Regeneration Research*. 2022 Nov 18;18(7):1489. doi: 10.4103/1673-5374.361541. PMID: 36571347.



Citations by country



Cited by

1. Maas DA, Douw L. Multiscale network neuroscience in neuro-oncology: How tumors, brain networks, and behavior connect across scales. *Neuro-Oncology Practice*. 2023 Aug 22;10.0(6.0):506-517. doi: 10.1093/nop/npad044. PMID: 0.

2. Arrigoni A, Previtali M, Bosticardo S, Pezzetti G, Poloni S, Capelli S, Napolitano A, Remuzzi A, Zangari R, Lorini FL, Sessa M, Daducci A, Caroli A, Gerevini S. Brain microstructure and connectivity in COVID-19 patients with olfactory or cognitive impairment. *NeuroImage Clinical*. 2024 Jan 1;43.0:103631. doi: 10.1016/j.nicl.2024.103631. PMID: 0.

3. Chen J, Liu T, Shi H. End-stage renal disease accompanied by mild cognitive impairment: A study and analysis of trimodal brain network fusion. *PLoS ONE*. 2024 Jun 13;19.0(6.0):e0305079. doi: 10.1371/journal.pone.0305079. PMID: 0.

4. Griffith OW, Fornini R, Walter AE, Wilkes J, Bai X, Slobounov S. Comorbidity of concussion and depression alters brain functional connectivity in collegiate student-athletes. *Brain Research*. 2024 Aug 26;1845.0:149200. doi: 10.1016/j.brainres.2024.149200. PMID: 0.

5. Chrobak AA, Bielak S, Nowaczek D, Myrkowska A, Sobczak AM, Ffrowicz M, Bryll A, Marek T, Dudek D, Siwek M. Divergent pattern of functional connectivity within the dorsal attention network differentiates schizophrenia and bipolar disorder patients. *Frontiers in Psychiatry*. 2024 Sep 19;15.0:1474313. doi: 10.3389/fpsy.2024.1474313. PMID: 0.

6. Zhang P, Zhou Y, Ni H, Huang Z, Tang C, Zhuge Q, Dong L, Zhang J. Altered functional connectivity of brainstem ARAS nuclei unveils the mechanisms of disorders of consciousness in sTBI: an exploratory study. *NeuroImage Clinical*. 2025 Jan 1;46.0:103787. doi: 10.1016/j.nicl.2025.103787. PMID: 0.

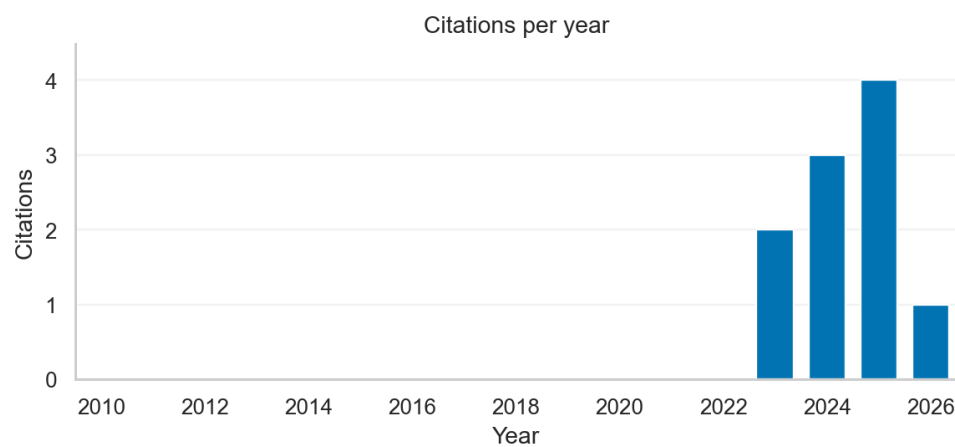
7. Garmendia J, Labayru G, Jiménez-Marín A, Villanúa J, Cortés JM, de Munáin AL, Sistiaga A. Hyperconnectivity in resting-state fMRI as a marker of disease severity in Myotonic Dystrophy Type 1. *Journal of Neuromuscular Diseases*. 2025 Jan 1;12.0(1.0):90-101. doi: 10.1177/22143602241307197. PMID: 0.

8. Martínez YE, Widmer M, Zimmermann J, Schönhammer JG, Luft AR, Jäncke L. Brain reorganization: altered functional connectivity in reward network after stroke. *NeuroImage Clinical*. 2025 Jan 1;48.0:103914. doi: 10.1016/j.nicl.2025.103914. PMID: 0.

9. Dark HE, Shafer AT, Cordon J, An Y, Lewis A, Moghekar A, Landman BA, Resnick SM, Walker KA. Association of Plasma Biomarkers of Alzheimer Disease and Neurodegeneration With Longitudinal Intra-Network Functional Brain Connectivity. *Neurology*. 2025 Jan 31;104.0(4.0):e210271. doi: 10.1212/wnl.0000000000210271. PMID: 0.
10. Goldbeck SM, Costa DVDS, Yang SE, Whitt CC, Tora AE, Warren CA, Shin JH. Clostridioides difficile Infection in Aged Mice Decreases Memory Function, Which Can Be Protected with Alanyl-Glutamine Supplementation. *Journal of Nutrition*. 2025 Apr 11;155.0(6.0):1700-1709. doi: 10.1016/j.tjnut.2025.03.032. PMID: 0.
11. Fiskum V, Winter H, Hjelm N, Christiansen N, Sandvig A, Sandvig I. Microscale dysfunction and mesoscale compensation in degenerating neuronal networks. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Jun 8;10.0(3.0):594-612. doi: 10.1101/2025.06.06.657602. PMID: 0.
12. Tremblay C, Pastor Bernier A, Rheault F, Daneault V, Ayral V, Filiatrault M, Desaulniers L, Vo A, Gagnon J, Postuma RB, Dušek P, Mareš S, Varga Z, Klein J, Hu MT, Lehericy S, Arnulf I, Dodet P, Vidailhet M, Corvol J, Group IS, Rahayel S. Altered Network Efficiency in Isolated REM Sleep Behaviour Disorder: A Multicentric Study. *medRxiv*. 2025 Jul 10;. doi: 10.1101/2025.07.08.25331130.
13. Tremblay C, Pastor Bernier A, Rheault F, Daneault V, Ayral V, Filiatrault M, Desaulniers L, Vo A, Gagnon J, Postuma RB, Dušek P, Mareš S, Varga Z, Klein J, Hu MT, Lehericy S, Arnulf I, Dodet P, Vidailhet M, Corvol J, Group FTIS, Rahayel S. Altered network efficiency in isolated REM sleep behavior disorder: A multicentric study. *Alzheimer's & Dementia*. 2025 Aug 1;21.0(8.0):e70574. doi: 10.1002/alz.70574. PMID: 0.
14. Malan NS, Baillet S, Tankha P, Roy M, Gopalakrishnan R. Altered cortical alpha modulations and connectivity in complex regional pain syndrome. *Journal of Pain*. 2025 Nov 8;39.0:105595. doi: 10.1016/j.jpain.2025.105595. PMID: 0.
15. Krukow P, Kopiński-Posiej N, Pablo VG, Rodríguez-González V, Gómez C, Poza J. Altered task-related brain network dynamics and performance consistency in a non-clinical group burdened with childhood trauma. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*. 2025 Dec 1;143.0:111571. doi: 10.1016/j.pnpbp.2025.111571. PMID: 0.
16. Pini L, Imbimbo BP, Griffo A, Allali G, Pomara N. Targeting brain connectivity in Alzheimer's disease with repurposed drugs. *Ageing Research Reviews*. 2025 Dec 19;114.0:103001. doi: 10.1016/j.arr.2025.103001. PMID: 0.
17. Yang F, Liao W, Duan Y. Alterations of white matter connectivity in alopecia areata patients. *Brain Imaging and Behavior*. 2026 Mar 6;20.0(2.0). doi: 10.1007/s11682-026-01123-z. PMID: 0.
18. Sastre-Yagüe D, Malerba SB, Rocchi F, Gini S, Mancini G, Stuefer A, Coletta L, Noei S, Markicevic M, Alvino FG, Zerbi V, Galbusera A, Mariani JC, Panzeri S, Gozzi A. Cortical excitability inversely modulates fMRI connectivity via low-frequency neuronal coupling. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Mar 14;. doi: 10.64898/2026.03.12.710517.
19. Spruyt L, Mlinarić T, Dusart N, Reinartz M, Van Hulle MM, Sunaert S, Van Laere K, Dupont P, Vandenberghe R. The electrophysiological basis of resting-state fMRI hyperconnectivity in early Alzheimer's disease. *Alzheimer's Research & Therapy*. 2026 Apr 6;18.0(1.0). doi: 10.1186/s13195-026-02003-w. PMID: 0.

Publication

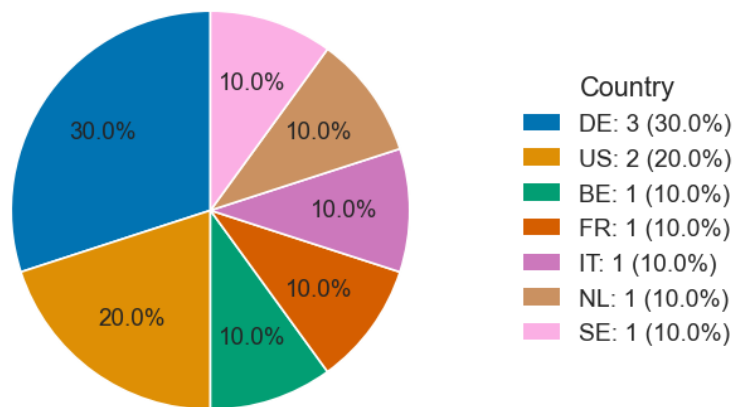
Tavares A, Mezzanotte L, McDougald W, Bernsen MR, Vanhove C, Aswendt M, Ielacqua GD, Gremse F, Moran CM, Warnock G, Kuntner C, Huisman MC. Community Survey Results Show that Standardisation of Preclinical Imaging Techniques Remains a Challenge. *Molecular Imaging and Biology*. 2022 Dec 8;25(3):560-568. doi: 10.1007/s11307-022-01790-6. PMID: 36482032.



Citation summary

Total citations: **10**
Average/year: **2.00**
Period: 2022-2026
SCImago cites/doc 2y (2025): **2.79**
SJR 2025: **0.74** (Q2)

Citations by country



Cited by

1. Gaudio H, Padmanabhan V, Landis WJ, Silva LEV, Slovis J, Starr J, Weeks MK, Widmann NJ, Forti RM, Laurent GH, Ranieri NR, Mi F, Degani R, Hallowell T, Delso N, Calkins H, Dobrzynski C, Haddad S, Kao S, Hwang M, Shi L, Baker WB, Tsui F, Morgan RW, Kilbaugh TJ, Ko TS. A Template for Translational Bioinformatics: Facilitating Multimodal Data Analyses in Preclinical Models of Neurological Injury. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Jul 19;. doi: 10.1101/2023.07.17.547582. PMID: 0.

2. Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17.0:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 0.

3. Kalantari A, Shahbazi M, Schneider M, Raikes AC, Frazão VV, Bhatrai A, Carnevale L, Diao Y, Franx BAA, Gammaraccio F, Goncalves L, Lee S, van Leeuwen EM, Michalek A, Mueller S, Olvera AR, Padró D, Selim MK, van der Toorn A, Varriano F, Vrooman RM, Wenk P, Albers HE, Boehm■ Sturm P, Budinger E, Canals S, De Santis S, Brinton RD, Dijkhuizen RM, Eixarch E, Forloni G, Grandjean J, Hekmatyar K, Jacobs RE, Jelescu I, Kurniawan ND, Lembo G, Longo DL, Maria NSS, Micotti E, Muñoz■ Moreno E, Ramos■ Cabrer P, Reichardt W, Sòria G, Ielacqua GD, Aswendt M. Automated quality control of small animal MR neuroimaging data. *Imaging Neuroscience*. 2024 Jan 1;2.0:1-23. doi: 10.1162/imag_a_00317. PMID: 0.

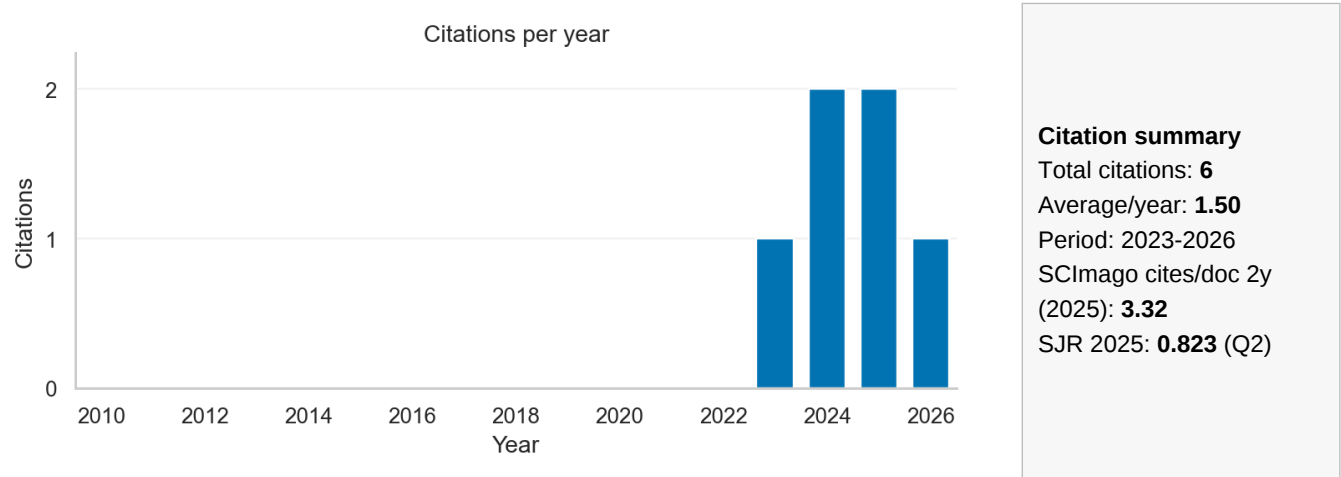
4. Vanhove C, Koole M, Costa PF, Schottelius M, Mannheim JG, Kuntner C, Warnock G, McDougald W, Tavares A, Bernsen MR. Preclinical SPECT and PET: Joint EANM and ESMI procedure guideline for implementing an efficient quality control programme. *European Journal of Nuclear Medicine and Molecular Imaging*. 2024 Jul 15;51.0(13):3822-3839. doi: 10.1007/s00259-024-06824-5. PMID: 0.

5. Gaudio H, Padmanabhan V, Landis WP, Silva LEV, Slovis J, Starr J, Weeks MK, Widmann NJ, Forti RM, Laurent GH, Ranieri NR, Mi F, Degani R, Hallowell T, Delso N, Calkins H, Dobrzynski C, Haddad S, Kao S, Hwang M, Shi L, Baker WB, Tsui F, Morgan RW, Kilbaugh

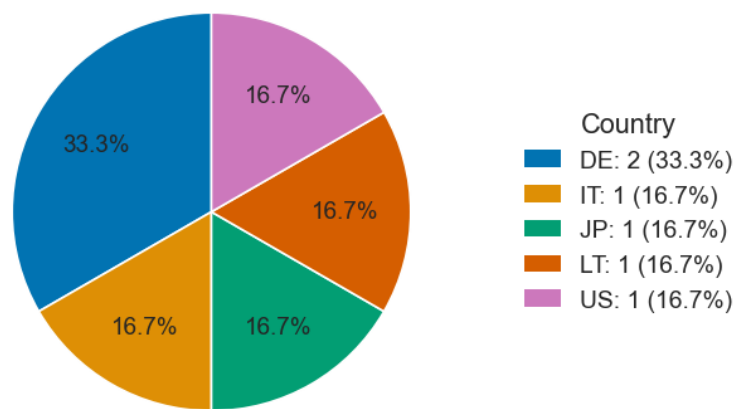
- TJ, Ko TS. A novel translational bioinformatics framework for facilitating multimodal data analyses in preclinical models of neurological injury. *Scientific Reports*. 2024 Dec 28;14.0(1):30710. doi: 10.1038/s41598-024-79973-0. PMID: 0.
6. Pirozzi MA, Prinster A. Strategies for Standardization in Hybrid Imaging. *Nuclear Medicine Hybrid Imaging for Radiographers & Technologists*. 2025 Jan 1;:133-146. doi: 10.1007/978-3-031-86228-1_11.
7. Deyhle RT, Bernhardsson C, Olsson L, Sydoff M. Development of a method for evaluation of absorbed doses in preclinical in vivo μ CT. *Radiation Protection Dosimetry*. 2025 Mar 18;201.0(13-14):868-876. doi: 10.1093/rpd/ncaf023. PMID: 0.
8. Mannheim JG, Lan W, Conti M, Siedler F, Krueger MA, Herfert K, la Fougère C, Schmidt F. Feasibility of in vivo small animal imaging using a clinical total-body PET/CT system. *EJNMMI Physics*. 2025 Jul 23;12.0(1):71. doi: 10.1186/s40658-025-00782-z. PMID: 0.
9. Keizers B, Stroet MCM, Ali M, Floru S, Saliën J, Mezzanotte L, Delikatny EJ, Gibbs SL, Giuliani S, Gioux S, Ingelberts H, Kruijff S, Ntziachristos V, LaRochelle EPM, Rogalla S, Rosenthal EL, Samkoe KS, Tichauer KM, Vahrmeijer AL, Witjes MJH, Voskuil FJ, Gorpas D, Hernot S, van der Zaag PJ. Reflect: reporting guidelines for preclinical, translational and clinical fluorescence molecular imaging studies. *npj Imaging*. 2025 Nov 25;3.0(1):62. doi: 10.1038/s44303-025-00125-8. PMID: 0.
10. Petit-Demoulière B, Huzard D. Data welfare is animal welfare: Building a WellFAIR research ecosystem. *Neuroscience Applied*. 2026 Jan 1;5.0:106998. doi: 10.1016/j.nsa.2026.106998. PMID: 0.

Publication

Götz J, Wieters F, Fritz VJ, Käsgen O, Kalantari A, Fink GR, Aswendt M. Temporal and Spatial Gene Expression Profile of Stroke Recovery Genes in Mice. *Genes*. 2023 Feb 9;14(2):454. doi: 10.3390/genes14020454. PMID: 36833381.



Citations by country



Cited by

1. Cimmino G, Conte S, Palumbo D, Sperlongano S, Torella M, Della Corte A, Golino P. The Novel Role of Noncoding RNAs in Modulating Platelet Function: Implications in Activation and Aggregation. *International Journal of Molecular Sciences*. 2023 Apr 21;24.0(8.0):7650. doi: 10.3390/ijms24087650. PMID: 0.

2. Valan■■ien■■ J, Melaika K, Šliachtenko A, Šiauryt■■ K, Ekkert A, Jatužis D. Stroke genetics and how it Informs novel drug discovery. *Expert Opinion on Drug Discovery*. 2024 Mar 4;19.0(5.0):553-564. doi: 10.1080/17460441.2024.2324916. PMID: 0.

3. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.

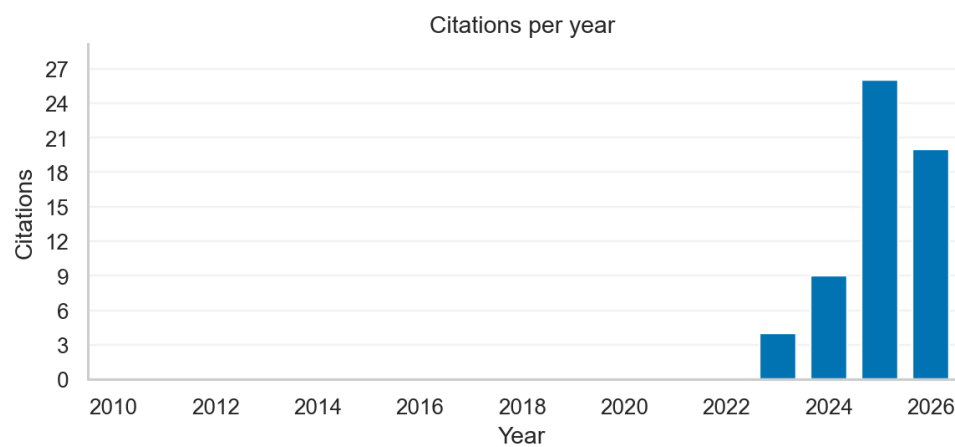
4. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *Experimental Neurology*. 2025 Feb 4;386.0:115180. doi: 10.1016/j.expneurol.2025.115180. PMID: 0.

5. Irisa K, Shichita T. Neural repair mechanisms after ischemic stroke. *Inflammation and Regeneration*. 2025 Mar 17;45.0(1.0):7. doi: 10.1186/s41232-025-00372-7. PMID: 0.

6. Betz D, Alers V, Kenwood M, Zuurbier KR, Coimbra R, Rhoton P, Plautz EJ, Douglas PM, Ramirez DMO, Stowe A, Goldberg M. Shared Transcriptomic Signatures in Perilesional and Contralesional Cortex. *bioRxiv (Cold Spring Harbor Laboratory)*. 2026 Feb 4;. doi: 10.64898/2026.02.02.703306. PMID: 0.

Publication

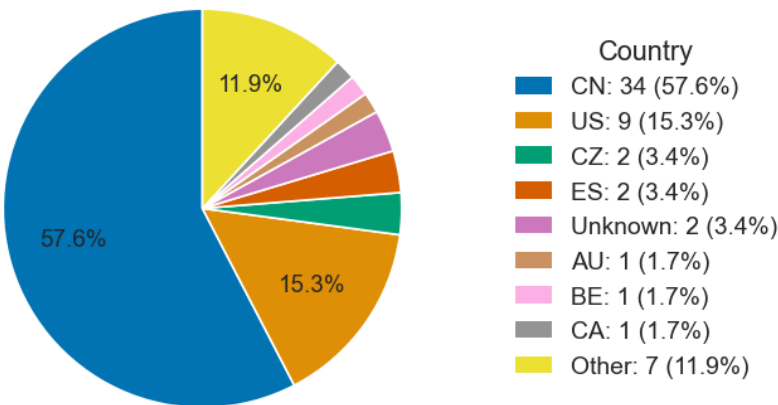
Stokowska A, Aswendt M, Žucha D, Lohmann S, Wieters F, Suárez J, Atkins AL, Yi-xian L, Miteva MA, Lewin J, Wiedermann D, Diedenhofen M, Naluai ĀT, Abaffy P, Valihrach L, Kubista M, Hoehn M, Pekny M, Pekna M. Complement C3a treatment accelerates recovery after stroke via modulation of astrocyte reactivity and cortical connectivity. *Journal of Clinical Investigation*. 2023 Mar 30;133(10). doi: 10.1172/jci162253. PMID: 36995772.



Citation summary

Total citations: **59**
Average/year: **14.75**
Period: 2023-2026
SCImago cites/doc 2y
(2025): **9.84**
SJR 2025: **4.81** (Q1)

Citations by country



Cited by

1. Mastellos DC, Hajishengallis G, Lambris JD. A guide to complement biology, pathology and therapeutic opportunity. *Nature reviews Immunology*. 2023 Sep 5;24.0(2):118-141. doi: 10.1038/s41577-023-00926-1. PMID: 0.
2. Petr V, Thurman JM. The role of complement in kidney disease. *Nature Reviews Nephrology*. 2023 Sep 21;19.0(12):771-787. doi: 10.1038/s41581-023-00766-1. PMID: 0.
3. Phan NV, Rathbun EM, Ouyang Y, Carmichael ST, Segura T. Biology-driven material design for ischaemic stroke repair. *Nature Reviews Bioengineering*. 2023 Oct 27;2.0(1):44-63. doi: 10.1038/s44222-023-00117-6.
4. Scharitz ND, Aroor A, Li Y, Pinzón-Hoyos N, Brewster AL. Mice deficient in complement C3 are protected against recognition memory deficits and astrogliosis induced by status epilepticus. *Frontiers in Molecular Neuroscience*. 2023 Nov 14;16.0:1265944. doi: 10.3389/fnmol.2023.1265944. PMID: 0.
5. Liu H, Jiang M, Chen Z, Li C, Yin X, Zhang X, Wu M. The Role of the Complement System in Synaptic Pruning after Stroke. *Aging and Disease*. 2024 Jan 1;16.0(3):0. doi: 10.14336/ad.2024.0373. PMID: 0.
6. Yang L, Wu J, Zhang F, Zhang L, Zhang X, Zhou J, Pang J, Xie B, Xie H, Jiang Y, Peng J. Microglia aggravate white matter injury via C3/C3aR pathway after experimental subarachnoid hemorrhage. *Experimental Neurology*. 2024 Jun 10;379.0:114853. doi: 10.1016/j.expneurol.2024.114853. PMID: 0.
7. Liu R, Yu Y, Ge Q, Feng R, Zhong G, Luo L, Han Z, Wang T, Huang C, Xue J, Huang Z. Genistein-3'-sodium sulfonate promotes brain functional rehabilitation in ischemic stroke rats by regulating astrocytes polarization through NF-κB signaling pathway. *Chemico-Biological Interactions*. 2024 Jul 25;400.0:111159. doi: 10.1016/j.cbi.2024.111159. PMID: 0.

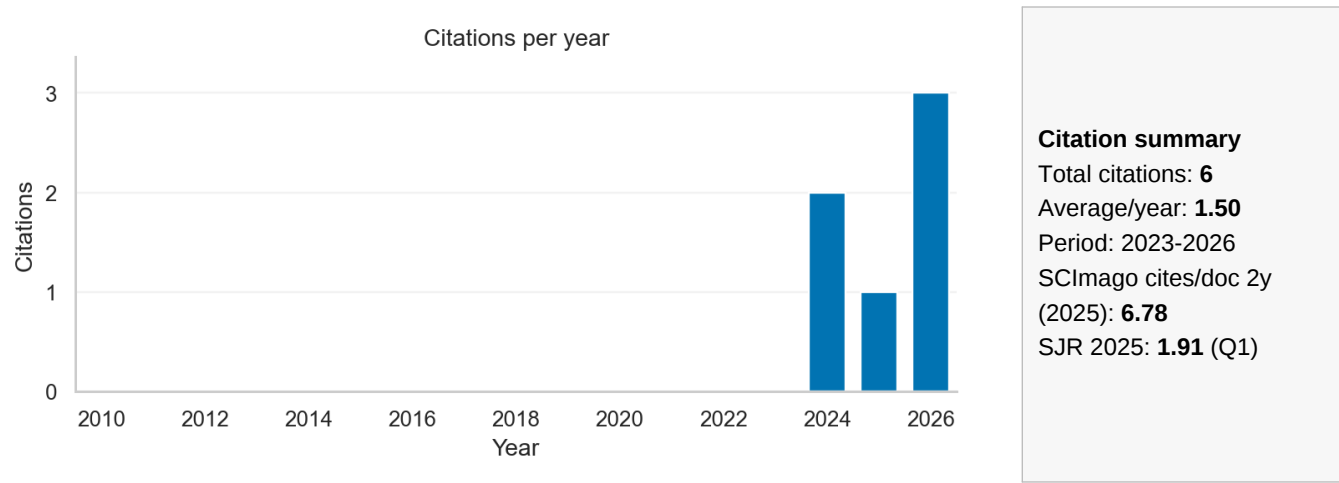
8. Castillo-González J, Vargas-Rodríguez P, Serrano JI, Cuenca-Martagón A, Forte-Lago I, Price M, Buscemi L, Hirt L, Ruiz JL, González-Rey E. Lack of cortistatin drives neuroimmune and vascular dysfunction in brain ischemia. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Sep 14;. doi: 10.1101/2024.09.11.611691.
9. Zhang Y, Zhu Z, Li Z, Feng J, Long J, Deng Y, Ahmed W, Khan AA, Huang S, Fu Q, Chen L. Sbn1 mediates cell–cell communication between neural stem cells and microglia through small extracellular vesicles. *Cell & Bioscience*. 2024 Sep 29;14.0(1):125. doi: 10.1186/s13578-024-01296-4. PMID: 0.
10. References. *Elsevier eBooks*. 2024 Nov 8;:471-578. doi: 10.1016/b978-0-443-23565-8.09996-8.
11. Anisman H, Hayley S, Kusnecov A. Illness Comorbidities in Relation to Inflammatory Processes. *Elsevier eBooks*. 2024 Nov 8;:443-469. doi: 10.1016/b978-0-443-23565-8.00003-x.
12. Jia Y, Song Y, Xue H, Li X, Zhang Y, Fan S, Xu Y, Ding Z, Qiu Y, Wu Z, Zhao P. Sevoflurane postconditioning mitigates neuronal hypoxic-ischemic injury via regulating reactive astrocytic STAT3 protein modification. *Chemico-Biological Interactions*. 2024 Nov 12;405.0:111308. doi: 10.1016/j.cbi.2024.111308. PMID: 0.
13. Magnusen AF, Pandey MK. Complement System and Adhesion Molecule Skirmishes in Fabry Disease: Insights into Pathogenesis and Disease Mechanisms. *International Journal of Molecular Sciences*. 2024 Nov 14;25.0(22):12252. doi: 10.3390/ijms252212252. PMID: 0.
14. Marchetti V, Tureňková J, Křiška J, Heňmanová Z, Anděrová M. Studying the Role of Astrocytes in Ischemic Acute Brain Slices. *Glial Engineering and Glial Interfaces*. 2025 Jan 1;:77-109. doi: 10.1007/978-3-031-94215-0_3.
15. Wang C, Meng Y, Zhu Y. Human Umbilical Cord Mesenchymal Stem Cells Alleviate White Matter Injury in Preterm Rats by Modulating Complement C3-Mediated Microglial Polarization. *SSRN Electronic Journal*. 2025 Jan 1;. doi: 10.2139/ssrn.5132844.
16. Liang Q, Wang Y, Li Z. Comprehensive bioinformatics analysis identifies metabolic and immune-related diagnostic biomarkers shared between diabetes and COPD using multi-omics and machine learning. *Frontiers in Endocrinology*. 2025 Jan 8;15.0:1475958. doi: 10.3389/fendo.2024.1475958. PMID: 0.
17. Wang D, Huang W, Shi J, Liu F, Jiang W, Chen K, Zhang S, Li X, Li L. FGF21, a modulator of astrocyte reactivity, protects against ischemic brain injury through anti-inflammatory and neurotrophic pathways. *Acta Pharmacologica Sinica*. 2025 Feb 28;46.0(7):1834-1851. doi: 10.1038/s41401-024-01462-x. PMID: 0.
18. Xiong S, Sun M, Zhang Y, Kong P, Gan L, Gao L, Xu K, Wu H, Zhu D, Lin Y, Li R, Luo C. Astrocytic BEST1 can serve as a target for functional recovery after ischemic stroke. *Molecular Therapy*. 2025 Mar 20;33.0(7):3209-3230. doi: 10.1016/j.ymthe.2025.03.022. PMID: 0.
19. Tenner AJ, Petrisko TJ. Knowing the enemy: strategic targeting of complement to treat Alzheimer disease. *Nature Reviews Neurology*. 2025 Mar 24;21.0(5):250-264. doi: 10.1038/s41582-025-01073-y. PMID: 0.
20. Li D, Huo X, Shen L, Qian M, Wang J, Mao S, Chen W, Li R, Zhu T, Zhang B, Liu K, Wu F, Bai Y. Astrocyte heterogeneity in ischemic stroke: Molecular mechanisms and therapeutic targets. *Neurobiology of Disease*. 2025 Mar 25;209.0:106885. doi: 10.1016/j.nbd.2025.106885. PMID: 0.
21. Garton T, Smith MD, Kesharwani A, Gharagozloo M, Oh S, Na CH, Absinta M, Reich DS, Zack DJ, Calabresi PA. Myeloid lineage C3 induces reactive gliosis and neuronal stress during CNS inflammation. *Nature Communications*. 2025 Apr 11;16.0(1):3481. doi: 10.1038/s41467-025-58708-3. PMID: 0.
22. Mu Y, Yang X, Feng Y, Zhang L, Xu J, Li M, Wu R, Li S, He X, Zuo Z, Hu X. Physical exercise promotes white matter repair after ischemic stroke. *Neural Regeneration Research*. 2025 Apr 29;21.0(6):2397-2406. doi: 10.4103/nrr.nrr-d-24-00861. PMID: 0.
23. Berkowitz S, Goldberg Z, Golderman V, Dori A, Maggio N, Devaux J, ShavitStein E. Complement C3a and C5a Receptors Are Presented in Mouse Sciatic and Human Sural Nerves and Selectively Modulate the Neuronal Function of LargeCaliber Fibers in Mice. *Journal of Neurochemistry*. 2025 Jun 1;169.0(6):e70129. doi: 10.1111/jnc.70129. PMID: 0.
24. Zhong J, Peng Y, Zhang L, Xiao B, Zhang M. Astrocyte Lipid Droplet Dynamics Orchestrate Neurological Disorders and Therapeutic Horizons. *Small Science*. 2025 Jun 8;5.0(9):2500152. doi: 10.1002/ssmc.202500152. PMID: 0.
25. Zelek WM, Tenner AJ. Complement therapeutics in neurodegenerative diseases. *Immunobiology*. 2025 Jun 16;230.0(4):153089. doi: 10.1016/j.imbio.2025.153089. PMID: 0.
26. Li XX, Woodruff TM. The complement system: Biology, pathology, and therapeutic interventions. *Pharmacological Reviews*. 2025 Jun 26;77.0(5):100079. doi: 10.1016/j.pharmr.2025.100079. PMID: 0.
27. Chen H, Frank JA, Tan C, Lee AG, Kopchok R, Chiang T, Kim A, Galvan M, Fraser JF, Dornbos D, Nour HA, Millson N, Tomlinson S, McCullough LD, Pennypacker KR, Cheng M, Bliss T, Steinberg GK. Luminal Vascular Dysfunction Drives Rapid Blood Brain Barrier Injury in Hyperglycemic Stroke: Key Roles for Luminal Glycocalyx and Complement. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Jun 30;. doi: 10.1101/2025.06.26.661858. PMID: 0.
28. Xu B, Bai Y, Liu Z, Li J, Chen K, Yan Z, Wang Y, Xu J, Wang H, Wang H, Shi F, Wang J, Wang H, Wang H. Harnessing patient-derived antibodies-induced microglial complement 1q expression: Novel therapy for anti-NMDAR encephalitis. *Molecular Therapy*. 2025 Aug 6;33.0(11):5721-5740. doi: 10.1016/j.ymthe.2025.08.001. PMID: 0.
29. Pang N, Liu Y, Yu S, Li Y, Shi K. CircFGFR2 induces astrocyte pyroptosis to promote ischemic stroke. *Neuroscience*. 2025 Aug 19;584.0:356-366. doi: 10.1016/j.neuroscience.2025.08.030. PMID: 0.
30. Sun W, Wang J, Yao Z, Pan F, Gan Z, Yang Y, Lü J, Zhou L, Xu G. Causal effects of lung function and COPD on functional outcome following ischemic stroke: a univariable and multivariable Mendelian randomization study. *medRxiv*. 2025 Sep 5;. doi: 10.1101/2025.09.03.25335062.
31. Akhter N, Lambay A, Almotairi R, Hamadi A, Bhatia K, Ahmad S, Ducruet AF. The Complex Role of the Complement C3a Receptor (C3aR) in Cerebral Injury and Recovery Following Ischemic Stroke. *Cells*. 2025 Sep 15;14.0(18):1440. doi: 10.3390/cells14181440. PMID: 0.

32. Gleichman AJ, Kawaguchi R, Rathbun EM, Sofroniew MV, Carmichael ST. Regionally mapped astrocytic responses to cortical and white matter stroke show differential roles in astrocyte-induced vascular remodeling. *Neuron*. 2025 Oct 10;113.0(24):4178-4198.e9. doi: 10.1016/j.neuron.2025.09.023. PMID: 0.
33. Zhong X, Li Y, Xie Y, Jiang H, Liu Z, Dong W, Wang H, Zeng H. Complement C3/C3a-CCL9 feedback loop orchestrates inflammatory crosstalk to accelerate aortic dissection. *Biochemical Pharmacology*. 2025 Oct 13;243.0(Pt 1):117421. doi: 10.1016/j.bcp.2025.117421. PMID: 0.
34. Zhang S, Yuan M, Zhou J, Yuan Z, Wang L, Gong C, Lü H, Cheng X, Wang X, He Q, Hu L, Wang B, He C, Fang Y, Lin S, Zi W, He Y, Zhao C, Zheng H, Niu J, Mei F, Sun B, Xie Q, Yang Q. BST2 expression at astrocyte borders promotes microglial recruitment via the C3/C3aR signaling. *Neuron*. 2025 Oct 24;114.0(1):67-85.e8. doi: 10.1016/j.neuron.2025.09.038. PMID: 0.
35. Li Y, Zeng H, Zhong X. Complement C3 in panvascular disease: a central integrator of immune signaling and vascular remodeling. *Clinical Science*. 2025 Nov 1;139.0(21):1373-1403. doi: 10.1042/cs20257865. PMID: 0.
36. Xu L, Wang X, Xu H, Chen S, Jiang W, Li H, Afridi SK, Wang Y, Luo W, Yang H, Tang C, Qiu W. Targeting C3aR/STAT3 signaling attenuates neuroinflammation and reverses neurological impairment in Neuromyelitis optica. *Fundamental Research*. 2025 Nov 1;.: doi: 10.1016/j.fmre.2025.11.001.
37. Park J, Riew T. Nanoparticle-Mediated Nose-to-Brain Delivery for Ischemic Stroke Therapy: Preclinical Insights. *Pharmaceutics*. 2025 Nov 9;17.0(11):1447. doi: 10.3390/pharmaceutics17111447. PMID: 0.
38. Hamer D, Butorac A, Petrincic D, Berecki M, Mendes VM, Manadas B, Kelava V, Hackenberger BK, Glasnovi A, Lovri M, Gajovi S, Radmilovi MD. Proteomic Analysis of Mouse Cerebral Cortex Following Experimental Ischemic Stroke: Identifying Novel Biomarkers of Damage and Repair. *Cellular and Molecular Neurobiology*. 2025 Dec 4;46.0(1):8. doi: 10.1007/s10571-025-01645-y. PMID: 0.
39. Wang Y, Wang D, Li D, Ma Y. The role of astrocytes in ischemic stroke - mechanisms, functions and treatment. *Frontiers in Cell and Developmental Biology*. 2025 Dec 10;13.0:1700564. doi: 10.3389/fcell.2025.1700564. PMID: 0.
40. Bo X, Wang M, Liu Y, Zhong Y. The Role of the C3a-C3aR Pathway in Diseases: Latest Research Advances. *Mediators of Inflammation*. 2026 Jan 1;2026.0(1):e1754881. doi: 10.1155/mi/1754881. PMID: 0.
41. Rao DP, Hammad AK, Al-Hetty HRAK, Kareem AK, Hjazzi A, Ahmad I, Abbas Z, albaz RY, Mustafa YF, Abdulmoaty MAZ. Targeting Reactive Astrocytes with Flavonoids to Alleviate Neuroinflammation and Promote Synaptic Function. *Molecular Neurobiology*. 2026 Jan 1;63.0(1):414. doi: 10.1007/s12035-026-05670-w. PMID: 0.
42. Sun L, Wang YL, Liu Y, Chang X, Mao X, Wu X, Chu M, Niu H, Shi M, Guo D, Zhu Z, Zhao J. Associations of Serum Complement Biomarkers With Adverse Clinical Outcomes Among Patients With Ischemic Stroke. *Journal of the American Heart Association*. 2026 Jan 14;15.0(2):e046136. doi: 10.1161/jaha.125.046136. PMID: 0.
43. Bracke L, Delaere J, Haspelslagh E, De Winter K, Driege Y, Bilgraer R, Delahaye T, Hack CE, Van de Walle I. Development of an anti-rat complement C2 antibody that improves renal outcome in a rat kidney transplant model. *Frontiers in Immunology*. 2026 Jan 15;16.0:1668376. doi: 10.3389/fimmu.2025.1668376. PMID: 0.
44. Gao S, Su R, Gao J, Zhang G, Xu Z, Han B, Ying Z, Zhang Z, Zhang J, Liu W. Fujian Tablets promote corticospinal tract remodeling and improve motor function in MCAO rats by regulating BDNF shearing enzyme-mediated proBDNF/mBDNF balance. *Journal of Ethnopharmacology*. 2026 Jan 17;361.0:121235. doi: 10.1016/j.jep.2026.121235. PMID: 0.
45. Suleiman N, Sanusi F, Bulama I, Saidu UF, Idris Y, Bilbis LS. Neuroinflammatory mechanisms in ischemic stroke and phytotherapeutic interventions for enhanced recovery: A review. *American Journal of Pharmacotherapy and Pharmaceutical Sciences*. 2026 Jan 21;5.0:2. doi: 10.25259/ajpps_2026_002.
46. Gaudet AD, Fonken LK. Phagocytosis and neuroinflammation: orchestrating central nervous system homeostasis, repair, and the resolution of inflammation. *Trends in Neurosciences*. 2026 Mar 1;49.0(3):198-216. doi: 10.1016/j.tins.2026.01.002. PMID: 0.
47. Shang Y, Kuang B, Zheng J, Du Y, Shang T, Luo B, Sun Y, Zheng L, Zhang B, Liu L, Zou W. The Interaction of Neutrophil Extracellular Traps and Complement in Intracerebral Hemorrhage. *Cellular and Molecular Neurobiology*. 2026 Mar 19;46.0(1). doi: 10.1007/s10571-026-01675-0. PMID: 0.
48. Zou A, You H, Xiao J. The immunothrombosis pathway linking pulmonary disease to stroke and neurodegeneration: mechanisms and therapeutic implications. *Frontiers in Pharmacology*. 2026 Mar 31;17.0:1811794. doi: 10.3389/fphar.2026.1811794. PMID: 0.
49. Hua J, Chen D, Sun Y, Liu Z, Fang X, Sun H, Chen L, Zhang L, Cao Y, Zhang L, Chen Q. Structural-functional connectivity coupling in motor-brain networks following acute ischemic stroke. *Journal of NeuroEngineering and Rehabilitation*. 2026 Apr 7;23.0(1). doi: 10.1186/s12984-026-01981-0. PMID: 0.
50. Chen X, Li K, Liu S, Zhao J, Tiwari S, Zeng F, ZHAO Y, Zhang P, Tang H, Zhao H, Kettenmann H, Xiang X, Zhu X. Trem2 exacerbates ischemic brain injury through Gpnmb in a photothrombotic stroke model. *Proceedings of the National Academy of Sciences*. 2026 Apr 14;123.0(16):e2523148123. doi: 10.1073/pnas.2523148123. PMID: 0.
51. Verkhatsky A, Lee CJ, Chun H, Göritz C, Harkany T, Lee J, Lee S, Lindskog M, Koh W, Mulder J, Nam M, Ottersen OP, Pekna M, Pekny M, Pkowska A, Ryu H, Sohn CH, Tretiakov EO, Untiet V, Viney TJ, Youn W, Yi C, Zorec R, Yun M, Cheong E, Nordberg A. Curing the brain: in search for new astrocyte-specific therapies. *Experimental & Molecular Medicine*. 2026 Apr 24;58.0(4):1086-1127. doi: 10.1038/s12276-026-01712-4. PMID: 0.
52. (8449) SL, Suo L, Chen H, Wang Q, Mao D, Cai Y, Qin B. C3a targets the Hippo-YAP signaling pathway to promote Müller cells glial-mesenchymal transition in a high-glucose in vitro model. *European journal of medical research*. 2026 Apr 29;31.0(1). doi: 10.1186/s40001-026-04304-0.
53. Zhu S, Zhong S, Lin XP, Zhao C, Li Y. Emerging Roles of Adenosine Metabolism in Astrocytes During Brain Injury. *CNS Neuroscience & Therapeutics*. 2026 May 1;32.0(5):e70889. doi: 10.1002/cns.70889. PMID: 0.
54. Song Q, Zhao M, Sun W, Xie Q, Zhang Y, Tang W, Li M. Electroacupuncture Promotes Synaptic Recovery After Cerebral Ischemia-Reperfusion by Activating SIRT1 to Inhibit the NF-κB Pathway and Regulate Astrocyte Phenotypic Transformation. *Neurochemical Research*. 2026 May 18;51.0(3). doi: 10.1007/s11064-026-04775-x. PMID: 0.

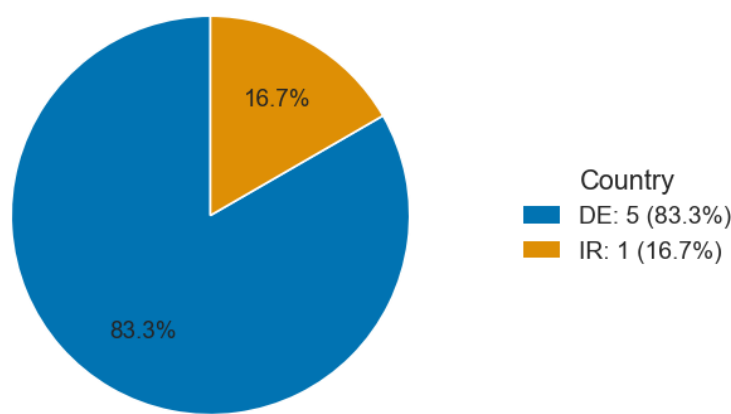
55. Castillo-González J, Vargas-Rodríguez P, Serrano I, Cuenca-Martagón A, Forte■Lago I, Price M, Buscemi L, Hirt L, Ruiz JL, González■Rey E. Lack of cortistatin drives neuroimmune and vascular dysfunction in brain ischemia. *Journal of Biomedical Science*. 2026 Jun 20;33.0(1). doi: 10.1186/s12929-026-01271-w. PMID: 0.
56. Yin Q, Chen S, Yang D, Li R, Hang H, Xu C, Wang X, Li J, Zhao J, Wang J, Chen J, Sun P, Zhang T, Hu Q, Xu J, Xue L, Liu C, Huang S, Zhao H, Wang Y. IL7R depletion mitigates neuroinflammation and ischemic stroke via AKT dephosphorylation dependent LCP1 suppression in mice. *Neurotherapeutics*. 2026 Jul 1;23.0(4):e00966. doi: 10.1016/j.neurot.2026.e00966. PMID: 0.
57. Zhang Y, Pu J, Shen Z, Zhang Y, Liu J, Di Zhang, Deng K, Yao Y. Global Trends and Evolving Frontiers in Intranasal Delivery for CNS Diseases (2000–2025): A Bibliometric Analysis and Systematic Review. *World Neurosurgery*. 2026 Jul 2;212.0:125172. doi: 10.1016/j.wneu.2026.125172. PMID: 0.
58. Huang P, Jiang S, Chen Z, Liu N, Li H, Wang A, Luo L, Huang W, Chen S, Deng Y. Complement C3a induces synaptic elimination in the hippocampus and neurobehavioral deficits in later life of septic neonatal rats triggered by lipopolysaccharide. *Free Radical Biology and Medicine*. 2026 Jul 2;254.0:579-594. doi: 10.1016/j.freeradbiomed.2026.07.003. PMID: 0.
59. Zhang Y, Xia Y, Chen Z, Hou S, Li J, Pang M, Wang Y. C3aR inhibition alleviates cerebral ischemia-reperfusion injury via STING-mediated ferroptosis through SLC7A11/GPX4. *iScience*. 2026 Jul 31;29.0(8):116982. doi: 10.1016/j.isci.2026.116982. PMID: 0.

Publication

Kalantari A, Szczepanik M, Heunis S, Mönch C, Hanke M, Wächtler T, Aswendt M. How to establish and maintain a multimodal animal research dataset using DataLad. *Scientific Data*. 2023 Jun 5;10(1):357. doi: 10.1038/s41597-023-02242-8. PMID: 37277500.



Citations by country



Cited by

1. Kalantari A, Shahbazi M, Schneider M, Raikes AC, Frazão VV, Bhattarai A, Carnevale L, Diao Y, Franx BAA, Gammaraccio F, Goncalves L, Lee S, van Leeuwen EM, Michalek A, Mueller S, Olvera AR, Padró D, Selim MK, van der Toorn A, Varriano F, Vrooman RM, Wenk P, Albers HE, Boehm■Sturm P, Budinger E, Canals S, De Santis S, Brinton RD, Dijkhuizen RM, Eixarch E, Forloni G, Grandjean J, Hekmatyar K, Jacobs RE, Jelescu I, Kurniawan ND, Lembo G, Longo DL, Maria NSS, Micotti E, Muñoz■Moreno E, Ramos■Cabrer P, Reichardt W, Sòria G, Ielacqua GD, Aswendt M. Automated quality control of small animal MR neuroimaging data. *Imaging Neuroscience*. 2024 Jan 1;2.0:1-23. doi: 10.1162/imag_a_00317. PMID: 0.

2. Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Oct 12;. doi: 10.1101/2024.10.11.614428.

3. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *bioRxiv (Cold Spring Harbor Laboratory)*. 2025 Mar 28;. doi: 10.1101/2025.03.27.644898.

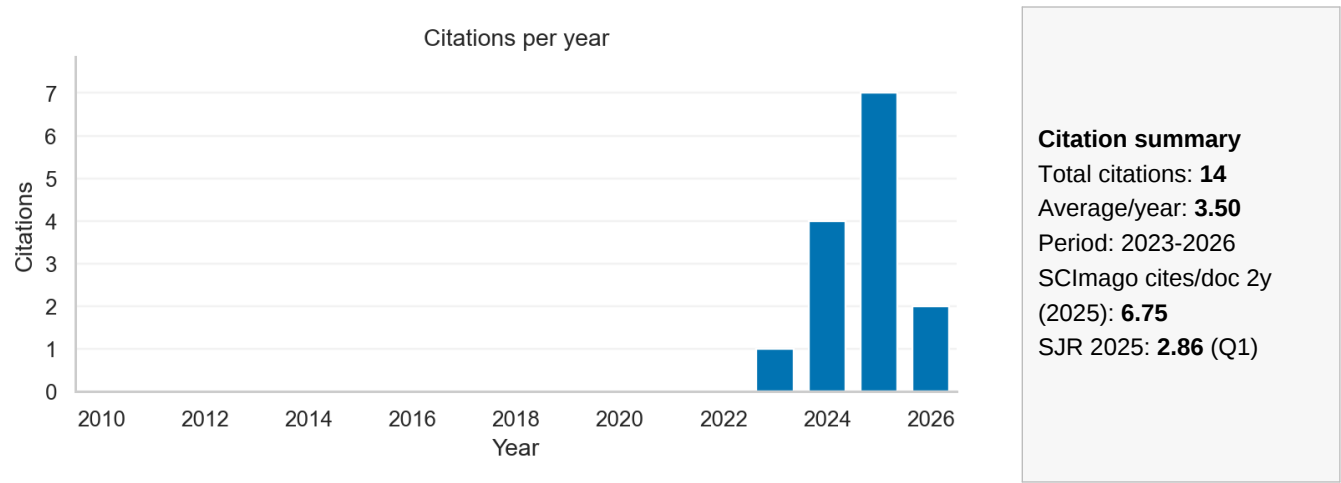
4. Mirhosseini SM, Naseri H, Siahlou B, Arasi MP, Eslami SM, Safaei AA. FAIR m-BIDS: Advancing brain data utilization through multimodal and FAIR principles. *Scientific Data*. 2026 Feb 27;13.0(1.0). doi: 10.1038/s41597-026-06790-7. PMID: 0.

5. Mahani FSN, Kalantari A, Diedenhofen M, Green C, Wiedermann D, Fink GR, Hoehn M, Aswendt M. Dynamic structural connectivity changes in cortical and cortico-striatal strokes in mice. *Neural Regeneration Research*. 2026 Feb 28;21.0(10.0):4945-4953. doi: 10.4103/nrr.nrr-d-25-00491. PMID: 0.

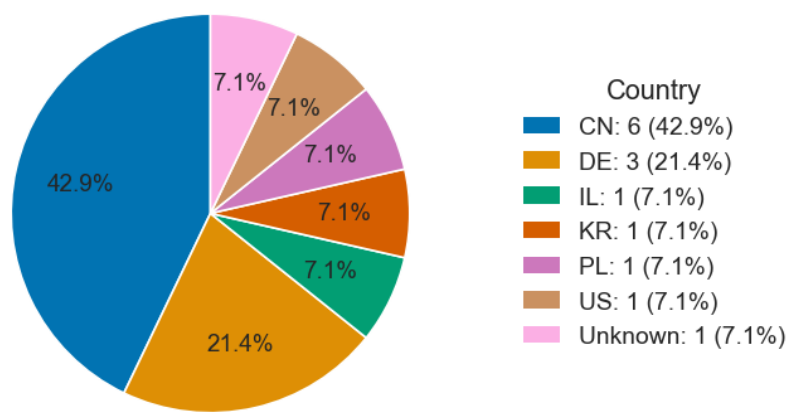
6. Elwes M, Jaberansary M, Tang FK, Aswendt M, Beyan O, Kutafina E. TrainTracks - federated learning for reproducible research on sensitive medical data. *BMC Medical Informatics and Decision Making*. 2026 May 21;26.0(1.0). doi: 10.1186/s12911-026-03553-7. PMID: 0.

Publication

Blaschke S, Vlachakis S, Pallast N, Walter HL, Volz LJ, Wiedermann D, Fink GR, Hoehn M, Aswendt M, Schroeter M, Rueger MA. Transcranial Direct Current Stimulation Reverses Stroke-Induced Network Alterations in Mice. *Stroke*. 2023 Jun 28;54(8):2145-2155. doi: 10.1161/strokeaha.123.042808. PMID: 37377015.



Citations by country



Cited by

1. Raghavan P. Top-Down and Bottom-Up Mechanisms of Motor Recovery Poststroke. *Physical Medicine and Rehabilitation Clinics of North America*. 2023 Aug 30;35(2.0):235-257. doi: 10.1016/j.pmr.2023.07.006. PMID: 0.

2. Markowska A, Tarnacka B. Molecular Changes in the Ischemic Brain as Non-Invasive Brain Stimulation Targets—TMS and tDCS Mechanisms, Therapeutic Challenges, and Combination Therapies. *Biomedicines*. 2024 Jul 13;12(7.0):1560. doi: 10.3390/biomedicines12071560. PMID: 0.

3. Kong X, Lyu W, Lin X, Feng H, Xu L, Li C, Sun X, Lin C, Li J, Wei P. Transcranial direct current stimulation enhances the protective effect of isoflurane preconditioning on cerebral ischemia/reperfusion injury: A new mechanism associated with the nuclear protein Akirin2. *CNS Neuroscience & Therapeutics*. 2024 Sep 1;30(9.0):e70033. doi: 10.1111/cns.70033. PMID: 0.

4. Hensel L, Eickhoff SB, Grefkes C. Funktionelle Magnetresonanztomografie – Update. *Klinische Neurophysiologie*. 2024 Dec 1;55(4.0):236-246. doi: 10.1055/a-1974-6535.

5. Niu B, Wu H, Li Y, Klugah Brown B, Hanna GP, Yao Y, Jing J, Baig TI, Xia Y, Yao D, Biswal BB. Topological functional network analysis of cortical blood flow in hyperacute ischemic rats. *Brain Structure and Function*. 2024 Dec 26;230(1.0):20. doi: 10.1007/s00429-024-02864-7. PMID: 0.

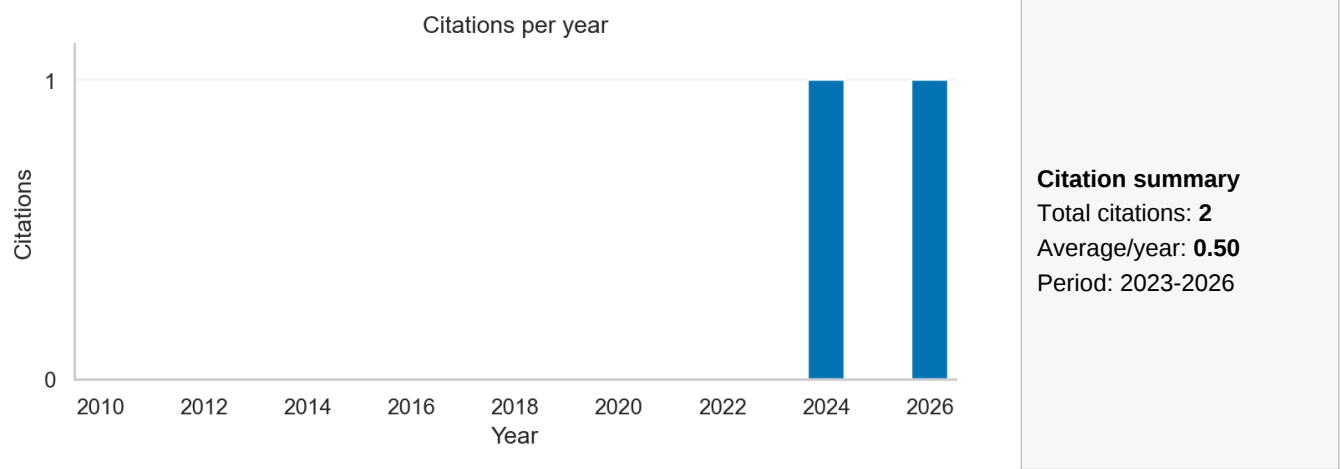
6. Yan W, Lin Y, Chen Y, Wang Y, Wang J, Zhang M. Enhancing Neuroplasticity for Post-Stroke Motor Recovery: Mechanisms, Models, and Neurotechnology. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 2025 Jan 1;33:1156-1168. doi: 10.1109/tnsre.2025.3551753. PMID: 0.

7. Chen Z, Huang X, Xia N, Gu M, Xu J, Lu M, Chen H, Xiong C, Chen Y. Next-Generation Neurotechnologies Inspired by Motor Primitive Model for Restoring Human Natural Movement. *Research*. 2025 Jan 1;8:0942. doi: 10.34133/research.0942. PMID: 0.

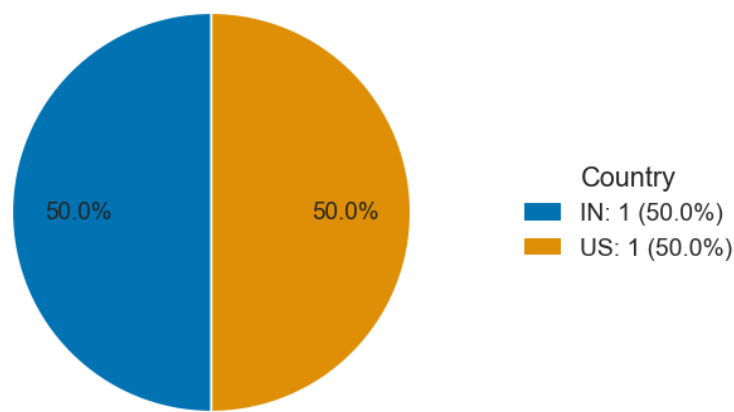
8. Agrawal B, Feuermann Y, Panov J, Kaphzan H. From Immediate Impact to Enduring Change: A Transcriptomic Comparison of tDCS's Temporal Effects and Its Long-Term Equivalence with TMS. *International Journal of Molecular Sciences*. 2025 Sep 4;26(17.0):8634. doi: 10.3390/ijms26178634. PMID: 0.
9. Liu Y, Lin W, Bai Z, Ge Y, Xiao Y, Zhu F, Zhang J, Wang B, Li Q, Gao L, Li Y, Shan C, Nagai J, Wu Y, Xu T, Gao Z. Lcn2 from neutrophil extracellular traps induces astrogliosis and post-stroke emotional disorders. *Neuron*. 2025 Oct 10;113(24.0):4199-4216.e8. doi: 10.1016/j.neuron.2025.09.018. PMID: 0.
10. Antal A, Bjeki J, Ganho-Ávila A, Alekseichuk I, Assecondi S, Bergmann TO, Bikson M, Brunelin J, Brunoni AR, Charvet L, Chen R, Kadosh RC, Diedrich L, D'Urso G, Ferrucci R, Filipovi SR, Fitzgerald PB, Flöel A, Fröhlich F, George MS, Hamilton RH, Haueisen J, Hallett M, Herrmann CS, Hummel FC, Jaberzadeh S, Langguth B, Lavidor M, Lefaucheur J, Miniussi C, Moliadze V, Nikander M, Nikolin S, Nitsche MA, Opitz A, O'Shea J, Padberg F, Plewnia C, Priori A, Ramasawmy P, Razza LB, Rossi S, Rothwell JC, Rueger MA, Ruffini G, Sack AT, Salvador R, Schellhorn K, Schuhmann T, Shirota Y, Siebner HR, Thielscher A, Ugawa Y, Uusitalo S, Wexler A, Paulus W, Vanderhasselt M, Van Waes V, Wessel MJ, Wischniewski M, Baeken C, Ziemann U. Low intensity transcranial electric stimulation: Safety, ethical, legal regulatory and application guidelines (2017–2025: An update) – endorsed by the European Society for Brain Stimulation (ESBS) and by the International Federation for Clinical Neurophysiology (IFCN). *Clinical Neurophysiology*. 2025 Nov 23;184:2111436. doi: 10.1016/j.clinph.2025.2111436. PMID: 0.
11. Rautenberg N, Blaschke S, Vlachakis S, Schroeter M, Fink GR, Rueger MA. Transcranial direct current stimulation (tDCS) in conscious mice: a refined method for repetitive applications without restraint. *Laboratory Animals*. 2025 Dec 14;60(2.0):157-170. doi: 10.1177/00236772251391978. PMID: 0.
12. Blaschke S, Backes H, Vlachakis S, Rautenberg N, Demir S, Wiedermann D, Aswendt M, Fink GR, Schroeter M, Rueger MA. Subacute cathodal transcranial direct current stimulation rescues secondary thalamic neurodegeneration after cortical stroke in mice. *Experimental Neurology*. 2025 Dec 23;398:115604. doi: 10.1016/j.expneurol.2025.115604. PMID: 0.
13. Lee HJ, Shin HK, Shin Y, Kim J, Choi BT. The Fundamental Mechanism of Transcranial Electrical Stimulation in Post-Stroke Rehabilitation. *Frontiers in Bioscience-Landmark*. 2026 Jan 21;31(1.0):46519. doi: 10.31083/fbl46519. PMID: 0.
14. Xing S, Yuan Y, Ren P, Chen Z, Fu Y. Combined transcranial electrical stimulation (tES) and cognitive training (CT) for cognitive impairment: Evidence from clinical applications and basic research. *Behavioural Brain Research*. 2026 Feb 2;504:116078. doi: 10.1016/j.bbr.2026.116078. PMID: 0.

Publication

Paß T, Ricke KM, Hofmann P, Chowdhury R, Nie Y, Chinnery PF, Endepols H, Neumaier B, Carvalho AF, Rigoux L, Steculorum SM, Prudent J, Riemer T, Aswendt M, Brachvogel B, Wiesner RJ. Preserved striatal innervation and motor function despite severe loss of nigral dopamine neurons following mitochondrial dysfunction induced by mtDNA mutations. *bioRxiv (Cold Spring Harbor Laboratory)*. 2023 Jul 8;. doi: 10.1101/2023.07.07.547791.



Citations by country



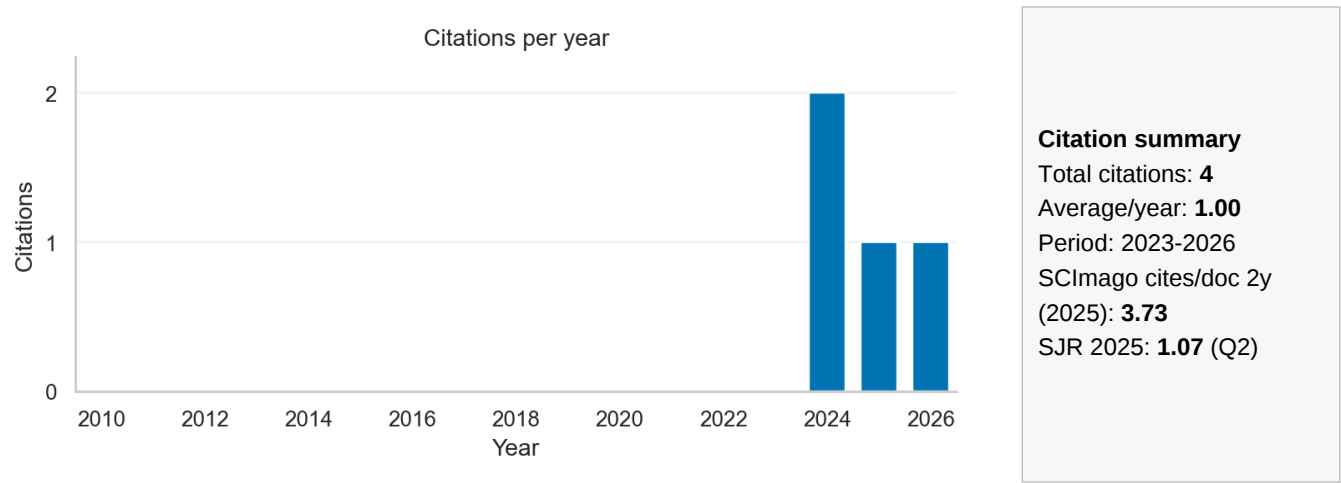
Cited by

1. Wright EC, Scott EM, Tian L. Applications of functional neurotransmitter release imaging with genetically encoded sensors in psychiatric research. *Neuropsychopharmacology*. 2024 Jun 28;50(1):269-273. doi: 10.1038/s41386-024-01903-5. PMID: 38942957.

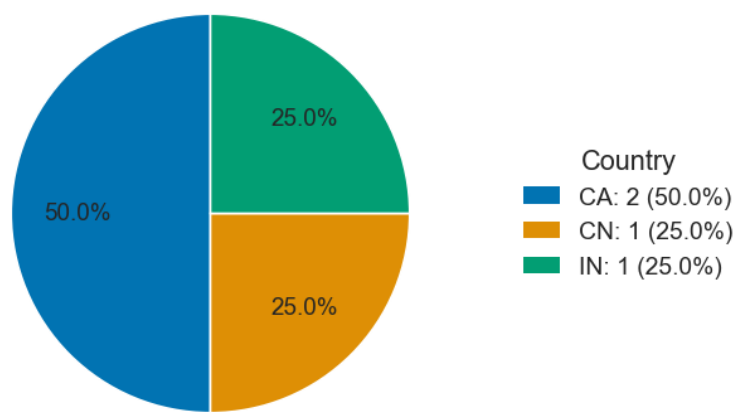
2. Dwivedi V, Thanekar R, Khare K, Taksande BG, Umekar M, Mangrulkar S. Mitochondrial dysfunction and cellular senescence in ageing sarcopenia with current insights and targeted strategies. *Molecular Biology Reports*. 2026 Feb 27;53(1). doi: 10.1007/s11033-026-11609-0. PMID: 41758483.

Publication

Mahani FSN, Kalantari A, Fink GR, Hoehn M, Aswendt M. A systematic review of the relationship between magnetic resonance imaging based resting-state and structural networks in the rodent brain. *Frontiers in Neuroscience*. 2023 Jul 24;17:1194630. doi: 10.3389/fnins.2023.1194630. PMID: 37554291.



Citations by country



Cited by

1. Gaudreault F, Desjardins M. Microvascular structure variability explains variance in fMRI functional connectivity. *bioRxiv (Cold Spring Harbor Laboratory)*. 2024 Mar 25;. doi: 10.1101/2024.03.22.585979.

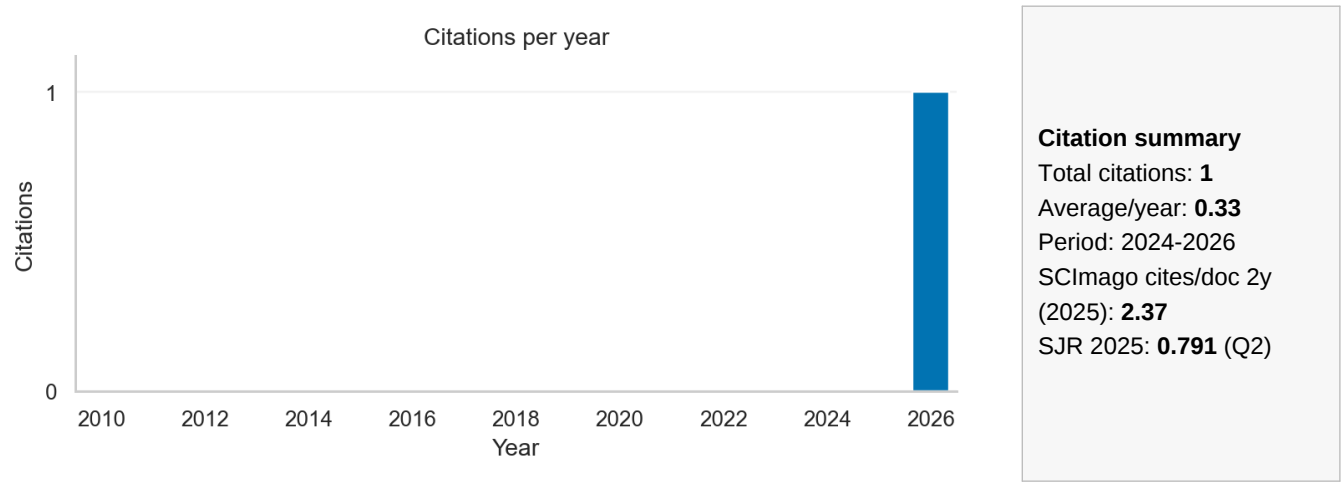
2. Prajapati S, Bhagawati R, Alam I, Jebakumari SA. Unraveling Disease-Specific Diffusion Patterns in Human Brain Using Diffusion Tensor Image Analysis. *Lecture notes in electrical engineering*. 2024 Oct 19;.14-20. doi: 10.1007/978-981-97-8043-3_3.

3. Gaudreault F, Desjardins M. Microvascular structure variability explains variance in fMRI functional connectivity. *Brain Structure and Function*. 2025 Feb 8;230.0(2.0):39. doi: 10.1007/s00429-025-02899-4. PMID: 0.

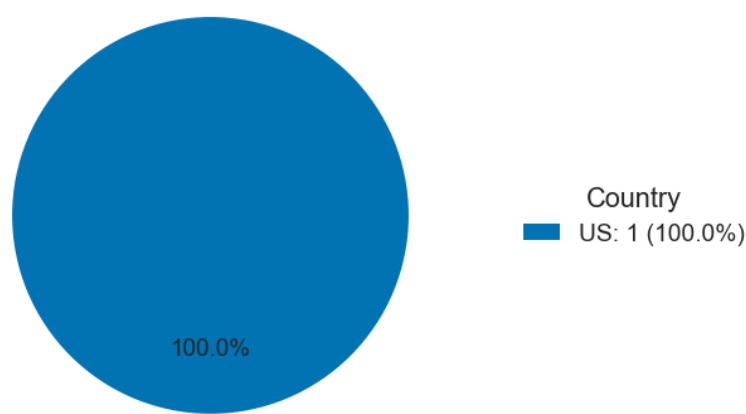
4. Han S, Liu Z, Fang J, Wen Z, Yuan X, Zhao F, Si T, Manyande A, Li B, Wang J, Tian X. Hypoactivity of the prelimbic cortex projecting to the lateral entorhinal cortex contributes to neuropathic pain-induced object recognition memory impairment in mice. *Neurotherapeutics*. 2026 Jan 1;23.0(1.0):e00842. doi: 10.1016/j.neurot.2026.e00842. PMID: 0.

Publication

Kalantari A, Shahbazi M, Schneider M, Raikes AC, Frazão VV, Bhattraï A, Carnevale L, Diao Y, Franx BAA, Gammaraccio F, Goncalves L, Lee S, van Leeuwen EM, Michalek A, Mueller S, Olvera AR, Padró D, Selim MK, van der Toorn A, Varriano F, Vrooman RM, Wenk P, Albers HE, Boehm■Sturm P, Budinger E, Canals S, De Santis S, Brinton RD, Dijkhuizen RM, Eixarch E, Forloni G, Grandjean J, Hekmatyar K, Jacobs RE, Jelescu I, Kurniawan ND, Lembo G, Longo DL, Maria NSS, Micotti E, Muñoz■Moreno E, Ramos■Cabrer P, Reichardt W, Sòria G, Ielacqua GD, Aswendt M. Automated quality control of small animal MR neuroimaging data. *Imaging Neuroscience*. 2024 Jan 1;2:1-23. doi: 10.1162/imag_a_00317. PMID: 40212822.



Citations by country

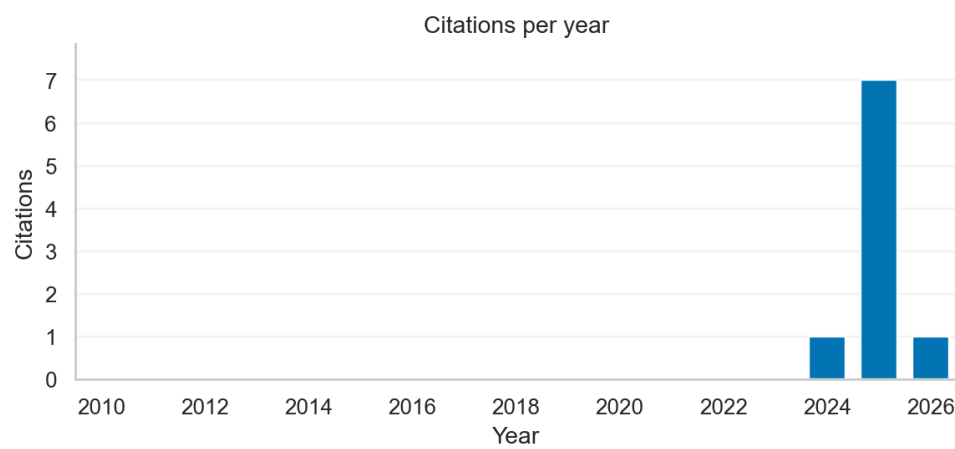


Cited by

1. Raikes AC, Bhattraï A, Wang T, Wiegand J, Brinton RD. Humanized APOE mouse brain volume increases over age irrespective of sex and APOE genotype: implications for translational validity to the human. *Frontiers in Neuroscience*. 2026 Jul 14;20:1843319. doi: 10.3389/fnins.2026.1843319. PMID: 41280128.

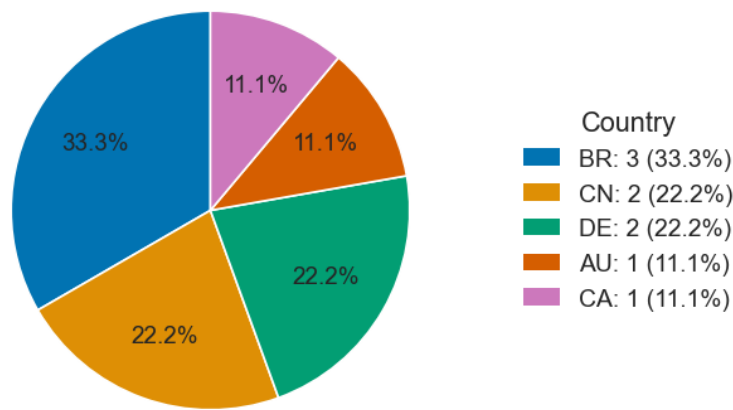
Publication

Paß T, Ricke KM, Hofmann P, Chowdhury R, Nie Y, Chinnery PF, Endepols H, Neumaier B, Carvalho AF, Rigoux L, Steculorum SM, Prudent J, Riemer T, Aswendt M, Liss B, Brachvogel B, Wiesner RJ. Preserved striatal innervation maintains motor function despite severe loss of nigral dopaminergic neurons. *Brain*. 2024 Apr 4;147(9):3189-3203. doi: 10.1093/brain/awae089. PMID: 38574200.



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Citations by country



Cited by

1. Bianchetti M, Ferreira AFF, Britto LR. Inhibition of neuroinflammation by GIBH-130 (AD-16) reduces neurodegeneration, motor deficits, and proinflammatory cytokines in a hemiparkinsonian model. *Frontiers in Neuroanatomy*. 2024 Dec 16;18.0:1511951. doi: 10.3389/fnana.2024.1511951. PMID: 0.

2. Trudeau L, Denis R. Anatomy of dopamine neuron projections: Axonal arbors, varicosities, and synapses. *Handbook of behavioral neuroscience*. 2025 Jan 1;:37-47. doi: 10.1016/b978-0-443-29867-7.00011-6.

3. Bulk J, Schmehr JN, Ackels T, Beleza RDO, Carvalho AF, Gouveia A, Rigoux L, Hellier V, Cremer AL, Backes H, Schaefer AT, Steculorum SM. A food-sensitive olfactory circuit drives anticipatory satiety. *Nature Metabolism*. 2025 Jun 11;7.0(6.0):1246-1265. doi: 10.1038/s42255-025-01301-1. PMID: 0.

4. Rocha GS, Freire MAM, Falcão D, Outeiro TF, Lima RR, Santos JRD. Neurodegeneration in Parkinson's disease: are we looking at the right spot?. *Molecular Brain*. 2025 Aug 1;18.0(1.0):68. doi: 10.1186/s13041-025-01218-6. PMID: 0.

5. Chen C, Zhao Y, Wang J, Pan D, Wang X, Xu Y, Yan J, Wang L, Yang X, Lu M, Liu G. Mitochondrial Dysfunction in Neurodegenerative Diseases. *MedComm*. 2025 Aug 27;6.0(9.0). doi: 10.1002/mco2.70326.

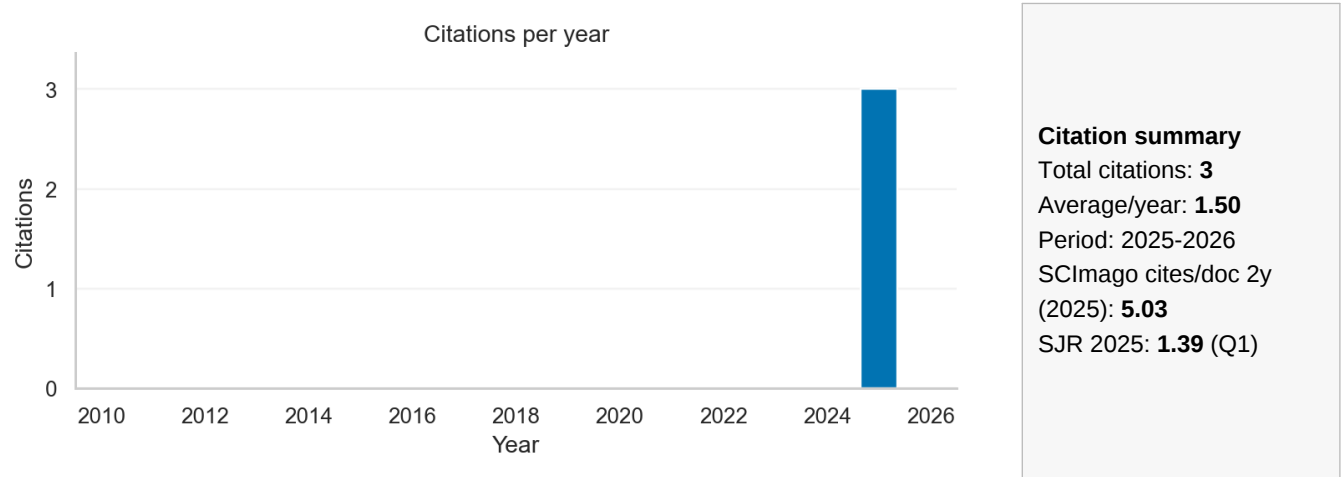
6. Tang C, Yang J, Lei X, Zhang M, Chen Y, Peng X, He D. Unraveling the complexity of neurodegeneration: heterogeneous damage patterns of locus coeruleus and substantia nigra in Alzheimer's disease. *Alzheimer's & Dementia*. 2025 Sep 1;21.0(9.0):e70605. doi: 10.1002/alz.70605. PMID: 0.

7. Freire MAM, Rocha GS, Lemos NAM, Lima RR, Bittar S, Jenkins LB, Falcão D, Steinbusch HW, Santos JRD. Insights into Parkinson's Disease Pathology Focusing on Glial Response and Apoptosis in a Classic Rat Model of Dopaminergic Degeneration. *Neuroglia*. 2025 Sep 18;6.0(3.0):36. doi: 10.3390/neuroglia6030036.

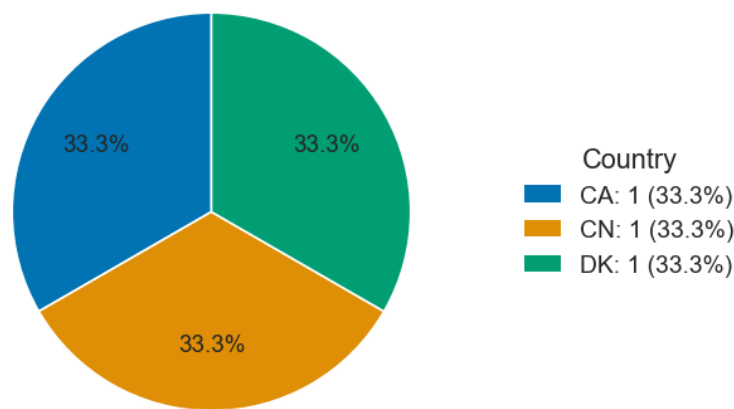
8. Reimon LC, Gouveia A, Carvalho AF, Schmeh JN, Mehdi ME, Moreira-Soto RD, Ardanaz CG, Bulk J, Rigoux L, Klemm P, Cremer AL, Dethloff F, Hinze Y, Backes H, Giavalisco P, Steculorum SM. Fat sensory cues in early life program central response to food and obesity. *Nature Metabolism*. 2025 Dec 1;7.0(12.0):2451-2473. doi: 10.1038/s42255-025-01405-8. PMID: 0.
9. Edwards S, Loipersberger C, Arthur E, Collins-Praino L, Corrigan F. Effects of pre-existing olfactory inflammation on Parkinson's disease related pathology following diffuse traumatic brain injury. *Experimental Neurology*. 2026 Jul 10;405.0:115915. doi: 10.1016/j.expneurol.2026.115915. PMID: 0.

Publication

Kalantari A, Hambrock C, Grefkes C, Fink GR, Aswendt M. Proportional recovery in mice with cortical stroke. *Experimental Neurology*. 2025 Feb 4;386:115180. doi: 10.1016/j.expneurol.2025.115180. PMID: 39914643.



Citations by country



Cited by

1. Van Sprengel M, BUTTERWORTH JS, Reeson P, Brown CE. Retrograde and anterograde trans-synaptic viral tracing of neuronal connections reveals local and distant effects of ischemic stroke on dendritic spines. *Journal of Cerebral Blood Flow & Metabolism*. 2025 May 25;45(10.0):1891-1904. doi: 10.1177/0271678x251345360. PMID: 40415372.

2. Haarslev C, Bradshaw K, Corradini S, Raffaele S, Fumagalli M, Buckwalter MS, Lambertsen KL. Harnessing anti-TNFR1 therapy has a limited impact on inflammation and motor function after stroke in obese male mice. *Brain Research*. 2025 Aug 18;1865:149888. doi: 10.1016/j.brainres.2025.149888. PMID: 40829684.

3. Cai Y, Duan C, Wen S, Ling Z, Huang G, Zou J, Zeng Q. Progression of cognitive and functional decline before and after stroke: evidence from four prospective cohort studies across 23 countries. *Journal of Neurology*. 2025 Nov 20;272(12.0):779. doi: 10.1007/s00415-025-13511-4. PMID: 41264137.