

Title	Journal	Link	Publication date	References	Top Paper
In vivo imaging in experimental spinal cord injury – Techniques and trends	Brain and Spine		2022	Vanessa, Hubertus, Lea, Meyer, Laurens, Roofls, Lilly, Waldmann, Melina, Nieminen-Kelhä, Michael G., Fehlings, Peter, Vajkoczy	Yes
Early cerebrovascular and long-term neurological modifications ensue following juvenile mild traumatic brain injury in male mice	Neurobiology of Disease	https://doi.org/10.1016/j.nbd.2020.104952	2020	Aleksandra, Ichkova, Beatriz, Rodriguez-Grande, Emma, Zub, Amel, Saudi, Marie-Line, Fournier, Justine, Aussudre, Pierre, Sicard, André, Obenaus, Nicola, Marchi, Jerome, Badaut	Yes
Transcranial Photoacoustic Detection of Blood-Brain Barrier Disruption Following Focused Ultrasound-Mediated Nanoparticle Delivery	Molecular Imaging and Biology	http://link.springer.com/10.1007/s11307-019-01397-4	2020	Johann, Le Floc'h, Hoang D., Lu, Tristan L., Lim, Christine, Démoré, Robert K., Prud'homme, Kullervo, Hynynen, F. Stuart, Foster	Yes
Multimodal and multiscale optical imaging of nanomedicine delivery across the blood-brain barrier upon sonopermeation	Theranostics	http://www.thno.org/v10p1948.htm	2020	Jan-Niklas, May, Susanne K., Golombek, Maïke, Baues, Anshuman, Dasgupta, Natascha, Drude, Anne, Rix, Dirk, Rommel, Saskia, von Stillfried, Lia, Appold, Robert, Pola, Michal, Pechar, Louis, van Bloois, Gert, Storm, Alexander J. C., Kuehne, Felix, Gremse, Benjamin, Theek, Fabian, Kiessling, Twan, Lammers	Yes
Exploration of melanoma metastases in mice brains using endogenous contrast photoacoustic imaging	International Journal of Pharmaceutics	http://dx.doi.org/10.1016/j.ijpharm.2017.08.104	2017	Jonathan, Lavaud, Maxime, Henry, Jean Luc, Coll, Veronique, Josserand	Yes
Human Spinal Oligodendroglial Neural Progenitor Cells Enhance Pathophysiological Outcomes and Functional Recovery in a Clinically Relevant Cervical Spinal Cord Injury Rat Model	Stem cells translational medicine		2023	Katarzyna, Pieczonka, Hiroaki, Nakashima, Narihito, Nagoshi, Kazuya, Yokota, James, Hong, Anna, Badner, Jonathon C.T., Chio, Shinsuke, Shibata, Mohamad, Khazaei, Michael G., Fehlings	No
Neurovascular hypoxia trajectories assessed by photoacoustic imaging in a murine model of cardiac arrest and resuscitation	IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control		2023	John P., Salvas, Katherine A., Leyba, Luke E., Schepers, Nitchawat, Paiyabthroma, Craig J., Goergen, Pierre, Sicard	No
3D doppler ultrasound imaging of cerebral blood flow for assessment of neonatal hypoxic-ischemic brain injury in mice	PLoS ONE		2023	Guofang, Shen, Kayla, Sanchez, Shirley, Hu, Zhen, Zhao, Lubo, Zhang, Qingyi, Ma	No
16p11.2 haploinsufficiency reduces mitochondrial biogenesis in brain endothelial cells and alters brain metabolism in adult mice	Cell Reports		2023	Alexandria, Béland-Millar, Alexia, Kirby, Yen, Truong, Julie, Ouellette, Sozerko, Yandiev, Khalil, Bouyakdan, Chantal, Pileggi, Shama, Naz, Melissa, Yin, Micaël, Carrier, Pavel, Kotchetkov, Marie Kim, St-Pierre, Marie Eve, Tremblay, Julien, Courchet, Mary Ellen, Harper, Thierry, Alquier, Claude, Messier, Adam J., Shuhendler, Baptiste, Lacoste	No
Neurovascular hypoxia trajectories assessed by photoacoustic imaging in a murine model of cardiac arrest and resuscitation	IEEE Trans Ultrason Ferroelectr Freq Control		2023	John P. Salvas, Katherine A. Leyba, Luke E. Schepers, Nitchawat, Paiyabthroma, Craig J. Goergen, Pierre, Sicard	No
Severe intraventricular hemorrhage causes long-lasting structural damage in a preterm rabbit pup model	Pediatric Research		2022	Olga, Romantsik, Emily, Ross-Munro, Susanne, Grönlund, Bo, Holmqvist, Anders, Brinte, Erik, Gerdtsen, Suvi, Vallius, Matteo, Bruschettini, Xiaoyang, Wang, Bobbi, Fleiss, David, Ley	No
MnCO3@BSA-ICG nanoparticles as a magnetic resonance/photoacoustic dual-modal contrast agent for functional imaging of acute ischemic stroke	Biochemical and Biophysical Research Communications	https://doi.org/10.1016/j.bbrc.2022.04.143	2022	Guangrong, Song, Baorui, Zhang, Linyan, Song, Wenzhe, Li, Chuxuan, Liu, Leshan, Chen, Aihua, Liu	No

Title	Journal	Link	Publication date	References	Top Paper
Heterogeneous fates of simultaneously-born neurons in the cortical ventricular zone	Scientific Reports	https://doi.org/10.1038/s41598-022-09740-6	2022	Elia, Magrinelli, Natalia, Baumann, Robin Jan, Wagnener, Christelle, Glangetas, Camilla, Bellone, Denis, Jabaudon, Esther, Klingler	No
Hyperbaric Oxygen Therapy Associated with Ventricular-Subcutaneous Shunt Promotes Neuroprotection in Young Hydrocephalic Rats	Neuroscience		2022	Stephanya Covas, da Silva, Pâmella, da Silva Beggiora, Carlos Henrique Rocha, Catalão, Maurício, Dutra, Ivair, Matias Júnior, Marcelo Volpon, Santos, Hélio Rubens, Machado, Luiza, da Silva Lopes	No
Ultrasound-triggered microbubble destruction enhances the radiosensitivity of glioblastoma by inhibiting PGRMC1-mediated autophagy in vitro and in vivo	Military Medical Research		2022	Ying, He, Xun Hu, Dong, Qiong, Zhu, Ya Li, Xu, Ming Liang, Chen, Zheng, Liu	No
Neural labeling and manipulation by neonatal intraventricular viral injection in mice	STAR Protocols	https://doi.org/10.1016/j.xpro.2021.101081	2022	Mengzhe, Wang, Thomas, Misgeld, Monika S., Brill	No
High-frequency ultrasound-guided intrathecal injections in a young mouse model: Targeting the central nervous system in drug delivery	Journal of Neuroscience Methods	https://doi.org/10.1016/j.jneumeth.2022.109778	2023	Sun Eui, Choi, Anum, Rahman, Tiffany, Ayoub, Owen, Botelho, Gail, Lee, Lisa M., Gazdzinski, Anne L., Wheeler, Rosanna, Weksberg, Sharon L., Guger, Russell J., Schachar, Shinya, Ito, Johann, Hitzler, Brian J., Nieman	No
Brain Delivery of Curcumin Through Low-Intensity Ultrasound-Induced Blood – Brain Barrier Opening via Lipid-PLGA Nanobubbles	International journal of nanomedicine		2021	Yiran, Yan, Yan, Chen, Zhongxun, Liu, Feiyan, Cai, Wanting, Niu, Liming, Song	No
fractionated radiotherapy for high-grade gliomas				Guido, Frosina, Vincenzo, Fontana, Daniela, Verzola, Alessandra, Rosa, Gabriele, Gaggero, Giacomo, Garibotto, Stefano, Vagge, Simona, Pigozzi, Antonio, Daga	No
Crim1 and Kelch-like 14 exert complementary dual-directional developmental control over segmentally specific corticospinal axon projection targeting	Cell Reports	https://doi.org/10.1016/j.celrep.2021.109842	2021	Vibhu, Sahni, Yasuhiro, Itoh, Sara J., Shnider, Jeffrey D., Macklis	No
High-frequency ultrasound-guided intrathecal injections in a young mouse model: Targeting the central nervous system in drug delivery	Journal of Neuroscience Methods		2023	Sun Eui, Choi, Anum, Rahman, Tiffany, Ayoub, Owen, Botelho, Gail, Lee, Lisa M., Gazdzinski, Anne L., Wheeler, Rosanna, Weksberg, Sharon L., Guger, Russel J., Schachar, Shinya, Ito, Johann, Hitzler, Brian J., Nieman	No
Xenon Nanobubbles for the Image-Guided Preemptive Treatment of Acute Ischemic Stroke via Neuroprotection and Microcirculatory Restoration	ACS Applied Materials and Interfaces		2021	Juan, Jin, Mei, Li, Jing, Li, Bin, Li, Lei, Duan, Fang, Yang, Ning, Gu	No
A novel neuroinflammation-responsive hydrogel based on mimicking naked mole rat brain microenvironment retards neurovascular dysfunction and cognitive decline in Alzheimer's disease	Chemical Engineering Journal	https://doi.org/10.1016/j.cej.2021.133090	2021	Yufang, Zhao, Shupe, Qiao, Bosong, Zhang, Yue, Cao, Hui, Tian, Runze, Liu, Liuke, Sun, Cao, Wang, Liang, Li, Ruiqi, Wang, Yue, Chen, Xiaolu, Hou, Yongming, Li, Jin, Zhou, Liyi, Li, Weiming, Tian	No
Early Detection and Reversal of Cell Apoptosis Induced by Focused Ultrasound-Mediated Blood-Brain Barrier Opening	ACS Nano		2021	Jieqiong, Wang, Liting, Xie, Yu, Shi, Lijuan, Ao, Feiyan, Cai, Fei, Yan	No
Post-event application of neurotrophin protects against ischemic insult toward better outcomes in a murine model of subarachnoid hemorrhage	Biomedicines		2021	Tatsushi, Mutoh, Shuzo, Yamamoto, Takahiro, Moriya	No
Experimental Myocardial Infarction Elicits Time-Dependent Patterns of Vascular Hypoxia in Peripheral Organs and in the Brain	Frontiers in Cardiovascular Medicine	https://www.frontiersin.org/articles/10.3389/fcvm.2020.615507/full	2021	Hélène, David, Aurore, Ughetto, Philippe, Gaudard, Maëlle, Plaweck, Nitchawat, Paiyabhroma, Emma, Zub, Pascal, Colson, Sylvain, Richard, Nicola, Marchi, Pierre, Sicard	No

Title	Journal	Link	Publication date	References	Top Paper
Brain-targeted hypoxia-inducible factor stabilization reduces neonatal hypoxic-ischemic brain injury	Neurobiology of Disease	https://doi.org/10.1016/j.nbd.2020.105200	2021	Chia-Yi, Kuan, Hong-Ru, Chen, Ning, Gao, Yi-Min, Kuo, Ching-Wen, Chen, Dianer, Yang, Melissa M., Kinkaid, Erding, Hu, Yu-Yo, Sun	No
Harnessing the Secretome of Mesenchymal Stromal Cells for Traumatic Spinal Cord Injury: Multi-cell Comparison and Assessment of In Vivo Efficacy	Stem Cells and Development		2020	Reaz, Vawda, Anna, Badner, James, Hong, Mirriam, Mikhail, Rachel, Dragas, Kristiana, Xhima, Alejandro, Jose, Michael G, Fehlings	No
Ultrasound with microbubbles improves memory, ameliorates pathology and modulates hippocampal proteomic changes in a triple transgenic mouse model of Alzheimer's disease	Theranostics	https://www.thno.org/v10p11794.htm	2020	Yuanyuan, Shen, Lingchen, Hua, Chihkuang, Yeh, Liming, Shen, Ming, Ying, Zaijun, Zhang, Gongping, Liu, Shupeng, Li, Siping, Chen, Xin, Chen, Xifei, Yang	No
Engineering of SPECT/Photoacoustic Imaging/Antioxidative Stress Triple-Function Nanoprobe for Advanced Mesenchymal Stem Cell Therapy of Cerebral Ischemia	ACS Applied Materials & Interfaces	https://pubs.acs.org/doi/10.1021/acsami.0c10500	2020	Minghua, Yao, Xiaojing, Shi, Changjing, Zuo, Ming, Ma, Lu, Zhang, Hongbo, Zhang, Xin, Li, Guo-Yuan, Yang, Yaohui, Tang, Rong, Wu	No
In vivo photoacoustic guidance of stem cell injection and delivery for regenerative spinal cord therapies	Neurophotonics		2020	Kelsey P., Kubelick, Stanislav Y., Emelianov	No
Vascular contributions to 16p11.2 deletion autism syndrome modeled in mice	Nature Neuroscience	http://dx.doi.org/10.1038/s41593-020-0663-1	2020	Julie, Ouellette, Xavier, Toussay, Cesar H., Comin, Luciano da F., Costa, Mirabelle, Ho, Maria, Lacalle-Aurioles, Moises, Freitas-Andrade, Qing Yan, Liu, Sonia, Leclerc, Youlian, Pan, Ziyang, Liu, Jean-François, Thibodeau, Melissa, Yin, Micael, Carrier, Cameron J., Morse, Peter Van, Dyken, Christopher J., Bergin, Sylvain, Baillet, Christopher R., Kennedy, Marie-Ève, Tremblay, Yannick D., Benoit, William L., Stanford, Dylan, Burger, Duncan J., Stewart, Baptiste, Lacoste	No
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-	Cellular and Molecular Neurobiology	https://doi.org/10.1007/s10571-020-00937-9	2020	Sudhanshu P., Raikwar, Ramasamy, Thangavel, Mohammad Ejaz, Ahmed, Govindhasamy Pushpavathi, Selvakumar, Duraisamy, Kempuraj, Kristopher, Wu, Osaid, Khan, Kieran, Bazley, Bret, Bussinger, Klaudia, Kukulka, Smita, Zaheer, Shankar S., Iyer, Raghav, Govindarajan, Casey, Burton, Donald, James, Asgar, Zaheer	No
Cell Fate Potential of NG2 Progenitors	Scientific Reports		2020	Rebeca, Sánchez-González, Ana, Bribián, Laura, López-Mascaraque	No
Activatable Small-Molecule Photoacoustic Probes that Cross the Blood-Brain Barrier for Visualization of Copper(II) in Mice with Alzheimer's Disease	Angewandte Chemie International Edition	https://onlinelibrary.wiley.com/doi/abs/10.1002/anie.201904047	2019	Shichao, Wang, Zonghai, Sheng, Zhenguo, Yang, Dehong, Hu, Xiaojing, Long, Gang, Feng, Yubin, Liu, Zhen, Yuan, Jingjing, Zhang, Hairong, Zheng, Xuanjun, Zhang	No
Assessing therapeutic response non-invasively in a neonatal rat model of acute inflammatory white matter injury using high-field MRI	Brain, Behavior, and Immunity	https://doi.org/10.1016/j.bbi.2019.06.032	2019	Wyston C., Pierre, Luis, Akakpo, Irène, Londono, Philippe, Pouliot, Sylvain, Chemtob, Frédéric, Lesage, Gregory A., Lodygensky	No
Alteration of the brain methylation landscape following postnatal inflammatory injury in rat pups	The FASEB Journal	https://onlinelibrary.wiley.com/doi/abs/10.1096/fj.201901461R	2020	Wyston C., Pierre, Lisa-Marie, Legault, Irene, Londono, Serge, McGraw, Gregory A., Lodygensky	No

Title	Journal	Link	Publication date	References	Top Paper
Nanostructural Control Enables Optimized Photoacoustic-Fluorescence-Magnetic Resonance Multimodal Imaging and Photothermal Therapy of Brain Tumor	Advanced Functional Materials	https://onlinelibrary.wiley.com/doi/abs/10.1002/adfm.201907077	2020	Yukun, Duan, Dehong, Hu, Bing, Guo, Qi, Shi, Min, Wu, Shidang, Xu, Kenry, Xin, Liu, Jianwen, Jiang, Zonghai, Sheng, Hairong, Zheng, Bin, Liu	No
Non-invasive ultrasound detection of cerebrovascular changes in a mouse model of TBI	Journal of Neurotrauma	https://www.liebertpub.com/doi/10.1089/neu.2019.6872	2020	Joe, Steinman, Lindsay S., Cahill, Greg, Stortz, Christopher K., Macgowan, Bojana, Stefanovic, John G., Sled	No
Prussian blue nanocubes as a multimodal contrast agent for image-guided stem cell therapy of the spinal cord	Photoacoustics	https://doi.org/10.1016/j.pacs.2020.100166	2020	Kelsey P., Kubelick, Stanislav Y., Emelianov	No
In vivo photoacoustic imaging dynamically monitors the structural and functional changes of ischemic stroke at a very early stage	Theranostics	http://www.thno.org/v10p0816.htm	2020	Jing, Lv, Shi, Li, Jinde, Zhang, Fei, Duan, Zhiyou, Wu, Ronghe, Chen, Maomao, Chen, Shanshan, Huang, Haosong, Ma, Liming, Nie	No
Solid stress in brain tumours causes neuronal loss and neurological dysfunction and can be reversed by lithium	Nature Biomedical Engineering	http://dx.doi.org/10.1038/s41551-018-0334-7	2019	Giorgio, Seano, Hadi T., Nia, Kyrre E., Emblem, Meenal, Datta, Jun, Ren, Shanmugarajan, Krishnan, Jonas, Kloepper, Marco C., Pinho, William W., Ho, Mitrajit, Ghosh, Vasileios, Askoxylakis, Gino B., Ferraro, Lars, Riedemann, Elizabeth R., Gerstner, Tracy T., Batchelor, Patrick Y., Wen, Nancy U., Lin, Alan J., Grodzinsky, Dai, Fukumura, Peigen, Huang, James W., Baish, Timothy P., Padera, Lance L., Munn, Rakesh K., Jain	No
Early Intravenous Infusion of Mesenchymal Stromal Cells Exerts a Tissue Source Age-Dependent Beneficial Effect on Neurovascular Integrity and Neurobehavioral Recovery After Traumatic Cervical Spinal Cord Injury	STEM CELLS Translational Medicine	https://onlinelibrary.wiley.com/doi/abs/10.1002/sctm.18-0192	2019	Reaz, Vawda, Anna, Badner, James, Hong, Mirriam, Mikhail, Alam, Lakhani, Rachel, Dragas, Kristiana, Xhima, Tanya, Barretto, Clifford L., Librach, Michael G., Fehlings	No
Endogenous Interleukin-10 Deficiency Exacerbates Vascular Pathology in Traumatic Cervical Spinal Cord Injury	Journal of Neurotrauma	https://www.liebertpub.com/doi/10.1089/neu.2018.6081	2019	Anna, Badner, Pia M., Vidal, James, Hong, Justin, Hacker, Michael G., Fehlings	No
Photoacoustic imaging of gold nanorods in the brain delivered via microbubble-assisted focused ultrasound: a tool for in vivo molecular neuroimaging	Laser Physics Letters	http://iopscience.iop.org/1612-202X/16/2/025603	2019	Robin K, Hartman, Kristina A, Hallam, Eleanor M, Donnelly, Stanislav Y, Emelianov	No
Sonodynamic Therapy on Intracranial Glioblastoma Xenografts Using Sinoporphyrin Sodium Delivered by Ultrasound with Microbubbles	Annals of Biomedical Engineering	http://link.springer.com/10.1007/s10439-018-02141-9	2018	Zhaoke, Pi, Yongpeng, Huang, Yuanyuan, Shen, Xiaojun, Zeng, Yaxin, Hu, Tie, Chen, Chenyang, Li, Hao, Yu, Siping, Chen, Xin, Chen	No
Central action of rapamycin on early ischemic injury and related cardiac depression following experimental subarachnoid hemorrhage	Brain Research Bulletin	https://doi.org/10.1016/j.brainresbull.2018.11.015	2019	Shuzo, Yamamoto, Tatsushi, Mutoh, Kazumasu, Sasaki, Tomoko, Mutoh, Yasuyuki, Taki	No
Persistent reduction in sialylation of cerebral glycoproteins following postnatal inflammatory exposure	Journal of Neuroinflammation	https://jneuroinflammation.biomedcentral.com/articles/10.1186/s12974-018-1367-2	2018	Ekaterina P, Demina, Wiston C, Pierre, Annie L A, Nguyen, Irene, Londono, Bela, Reiz, Chunxia, Zou, Radhika, Chakraborty, Christopher W, Cairo, Alexey V, Pshezhetsky, Gregory A, Lodygensky	No
Platelet bio-nanobubbles as microvascular recanalization nanoformulation for acute ischemic stroke lesion theranostics	Theranostics	http://www.thno.org/v08p4870.htm	2018	Mingxi, Li, Yang, Liu, Jinpeng, Chen, Taotao, Liu, Zhuxiao, Gu, Jianqiong, Zhang, Xiaochun, Gu, Gaojun, Teng, Fang, Yang, Ning, Gu	No

Title	Journal	Link	Publication date	References	Top Paper
Touch and tactile neuropathic pain sensitivity are set by corticospinal projections	Nature	http://www.nature.com/articles/s41586-018-0515-2	2018	Yuan, Liu, Alban, Latremoliere, Xinjian, Li, Zicong, Zhang, Mengying, Chen, Xuhua, Wang, Chao, Fang, Junjie, Zhu, Chloé, Alexandre, Zhongyang, Gao, Bo, Chen, Xin, Ding, Jin-Yong, Zhou, Yiming, Zhang, Chinfai, Chen, Kuan Hong, Wang, Clifford J., Woolf, Zhigang, He	No
Laser-activated perfluorocarbon nanodroplets: a new tool for blood brain barrier opening	Biomedical Optics Express	https://www.osapublishing.org/abstract.cfm?URL=boe-9-9-4527	2018	Kristina A., Hallam, Eleanor M., Donnelly, Andrei B., Karpiouk, Robin K., Hartman, Stanislav Y., Emelianov	No
Preclinical Efficacy of Ado-trastuzumab Emtansine in the Brain Microenvironment	JNCI: Journal of the National Cancer Institute	https://academic.oup.com/jnci/article-lookup/doi/10.1093/jnci/djv313	2016	Vasileios, Askoxylakis, Gino B., Ferraro, David P., Kodack, Mark, Badeaux, Ram C., Shankaraiah, Giorgio, Seano, Jonas, Kloepper, Trupti, Vardam, John D., Martin, Kamila, Naxerova, Divya, Bezawada, Xiaolong, Qi, Martin K., Selig, Elena, Brachtel, Dan G., Duda, Peigen, Huang, Dai, Fukumura, Jeffrey A., Engelman, Rakesh K., Jain	No
A cerebellar window for intravital imaging of normal and disease states in mice	Nature Protocols	http://www.nature.com/doifinder/10.1038/nprot.2017.101	2017	Vasileios, Askoxylakis, Mark, Badeaux, Sylvie, Roberge, Ana, Batista, Ned, Kirkpatrick, Matija, Snuderl, Zohreh, Amoozgar, Giorgio, Seano, Gino B, Ferraro, Sampurna, Chatterjee, Lei, Xu, Dai, Fukumura, Dan G, Duda, Rakesh K, Jain	No
MicroRNA-378 enhances radiation response in ectopic and orthotopic implantation models of glioblastoma	Journal of Neuro-Oncology	http://link.springer.com/10.1007/s11060-017-2646-y	2018	Wende, Li, Yujiao, Liu, Weining, Yang, Xiaoxing, Han, Sen, Li, Hao, Liu, Leo E., Gerweck, Dai, Fukumura, Jay S., Loeffler, Burton B., Yang, Rakesh K., Jain, Peigen, Huang	No
Splenic involvement in umbilical cord matrix-derived mesenchymal stromal cell-mediated effects following traumatic spinal cord injury	Journal of Neuroinflammation	https://neuroinflammation.biomedcentral.com/articles/10.1186/s12974-018-1243-0	2018	Anna, Badner, Justin, Hacker, James, Hong, Miriam, Mikhail, Reaz, Vawda, Michael G, Fehlings	No
Immune response mediates cardiac dysfunction after traumatic brain injury	Journal of Neurotrauma	http://www.liebertpub.com/doi/10.1089/neu.2018.5766	2018	Qiang, Zhao, Tao, Yan, Linlin, Li, Michael, Chopp, Poornima, Venkat, Yu, Qian, Ran, Li, Ruixia, Wu, Wei, Li, Mei, Lu, Talan, Zhang, Jieli, Chen	No
Quantifying solid stress and elastic energy from excised or in situ tumors	Nature Protocols	http://www.nature.com/doifinder/10.1038/nprot.2018.020	2018	Hadi T, Nia, Meenal, Datta, Giorgio, Seano, Peigen, Huang, Lance L, Munn, Rakesh K, Jain	No
Highly Crystalline Multicolor Carbon Nanodots for Dual-Modal Imaging-Guided Photothermal Therapy of Glioma	ACS Applied Materials and Interfaces		2018	Min, Qian, Yilin, Du, Shanshan, Wang, Chengyi, Li, Huiling, Jiang, Wei, Shi, Jian, Chen, Yi, Wang, Ernst, Wagner, Rongqin, Huang	No
Abstract 3109: Ultrasound-mediated delivery and distribution of polymeric nanoparticles in the normal brain parenchyma and melanoma metastases	Cancer Chemistry	http://cancerres.aacrjournals.org/content/77/13_Supplement/3109%0Ahttp://ovidsp...	2017	Habib, Baghirov, Sofie, Snipstad, Einar, Sulheim, Sigrid, Berg, Rune, Hansen, Frits, Thorsen, Yrr, March, Catharina de Lange, Davies, Andreas, Åslund	No
Caveolin1 Identifies a Specific Subpopulation of Cerebral Cortex Callosal Projection Neurons (CPN) Including Dual Projecting Cortical Callosal/Frontal Projection Neurons (CPN/FPN)	Eneuro	http://eneuro.sfn.org/lookup/doi/10.1523/ENEURO.0234-17.2017	2018	Jessica L., MacDonald, Ryann M., Fame, Eva M., Gillis-Buck, Jeffrey D., Macklis	No

Title	Journal	Link	Publication date	References	Top Paper
Magnetic resonance and photoacoustic imaging of brain tumor mediated by mesenchymal stem cell labeled with multifunctional nanoparticle introduced via carotid artery injection	Nanotechnology	http://stacks.iop.org/0957-4484/29/i=16/a=165101?key=crossref.f2a10bd65d76d36a1...	2018	Yang, Qiao, Joy, Gumin, Christopher J, MacLellan, Feng, Gao, Richard, Bouchard, Frederick F, Lang, R Jason, Stafford, Marites P, Melancon	No
Optical clearing and fluorescence deep-tissue imaging for 3D quantitative analysis of the brain tumor microenvironment	Angiogenesis	http://link.springer.com/10.1007/s10456-017-9565-6	2017	Tonny, Lagerweij, Sophie A, Dusoswa, Adrian, Negrean, Esther M. L., Hendriks, Helga E., de Vries, Jeroen, Kole, Juan J., Garcia-Vallejo, Huibert D., Mansvelder, W. Peter, Vandertop, David P., Noske, Bakhos A., Tannous, René J. P., Musters, Yvette, van Kooyk, Pieter, Wesseling, Xi Wen, Zhao, Thomas, Wurdinger	No
MicroRNA-378 enhances radiation response in ectopic and orthotopic implantation models of glioblastoma	Journal of Neuro-Oncology	http://dx.doi.org/10.1007/s11060-017-2646-y	2017	Wende, Li, Yujiao, Liu, Weining, Yang, Xiaoxing, Han, Sen, Li, Hao, Liu, Leo E., Gerweck, Dai, Fukumura, Jay S., Loeffler, Burton B., Yang, Rakesh K, Jain, Peigen, Huang	No
Cerebellar Exposure to Cell-Free Hemoglobin Following Preterm Intraventricular Hemorrhage: Causal in Cerebellar Damage?	Translational Stroke Research		2017	Alex Adusei, Agyemang, Kristbjörg, Sveinsdóttir, Suvi, Vallius, Snjolaug, Sveinsdóttir, Matteo, Bruschetti, Olga, Romantsik, Ann, Hellström, Lois E.H., Smith, Lennart, Ohlsson, Bo, Holmqvist, Magnus, Gram, David, Ley	No
User-independent diffusion tensor imaging analysis pipelines in a rat model presenting ventriculomegalia: A comparison study	NMR in Biomedicine		2017	Luis, Akakpo, Wiston C, Pierre, Chen, Jin, Irène, Londono, Philippe, Pouliot, Gregory A, Lodygensky	No
Photoacoustic Imaging of Human Mesenchymal Stem Cells Labeled with Prussian Blue-Poly(L-lysine) Nanocomplexes	ACS Nano	http://pubs.acs.org/doi/abs/10.1021/acsnano.7b03519	2017	Taeho, Kim, Jeanne E, Lemaster, Fang, Chen, Jin, Li, Jesse V, Jokerst	No
The brain microenvironment mediates resistance in luminal breast cancer to PI3K inhibition through HER3 activation	Science Translational Medicine		2017	David P, Kodack, Vasileios, Askoxylakis, Gino B, Ferraro, Qing, Sheng, Mark, Badeaux, Shom, Goel, Xiaolong, Qi, Ram, Shankaraiah, Z Alexander, Cao, Rakesh R, Ramjiawan, Divya, Bezawada, Bhushankumar, Patel, Yongchul, Song, Carlotta, Costa, Kamila, Naxerova, Christina S.F., Wong, Jonas, Kloepper, Rita, Das, Angela, Tam, Jantima, Tanboon, Dan G, Duda, Ryan, Miller, Marni B, Siegel, Carey K, Anders, Melinda, Sanders, Monica V, Estrada, Robert, Schlege, Carlos L, Arteaga, Elena, Brachtel, Alan, Huang, Dai, Fukumura, Jeffrey A, Engelman, Rakesh K, Jain	No
Astrocyte heme oxygenase-1 reduces mortality and improves outcome after collagenase-induced intracerebral hemorrhage	Neurobiology of Disease	http://dx.doi.org/10.1016/j.nbd.2017.03.008	2017	Jing, Chen-Roetling, Pramod, Kamalopathy, Yang, Cao, Wei, Song, Hyman M., Schipper, Raymond F., Regan	No
High-Resolution Ultrasound in Research of Mouse Orthotopic Glioma and Ultrasound-Guided Cell Implant	Advances in Molecular Imaging	http://www.scirp.org/journal/doi.aspx?DOI=10.4236/ami.2011.12004	2011	Byung Kook, Kwak, Jean-Francois H., Geschwind, Pramod P., Rao, Shinichi, Ota, Romaric, Loffroy, MingDe, Lin, Shanmugasundaram, Ganapathy-Kanniappan, Rani, Kunjithapatham, Manon, Buijs, Labiq H., Syed, Eleni, Liapi, Vadappuram P., Chacko, Mustafa, Vali	No

Title	Journal	Link	Publication date	References	Top Paper
SPIO-conjugated, doxorubicin-loaded microbubbles for concurrent MRI and focused-ultrasound enhanced brain-tumor drug delivery	Biomaterials	http://dx.doi.org/10.1016/j.biomaterials.2013.01.099	2013	Ching-Hsiang, Fan, Chien-Yu, Ting, Han-Jung, Lin, Chung-Hsin, Wang, Hao-Li, Liu, Tzu-Chen, Yen, Chih-Kuang, Yeh	No
High-Frequency Ultrasound in the Evaluation of Cerebral Intraventricular Haemorrhage in Preterm Rabbit Pups	Ultrasound in Medicine and Biology		2012	Snjolaug, Sveinsdottir, Magnus, Cinthio, David, Ley	No
Ganglionic GFAP+ glial Gq-GPCR signaling enhances heart functions in vivo	JCI Insight	https://insight.jci.org/articles/view/90565	2017	Alison Xiaoqiao, Xie, Jakovin J., Lee, Ken D., McCarthy	No
Single-Cell Analysis of SMN Reveals Its Broader Role in Neuromuscular Disease	Cell Reports	http://linkinghub.elsevier.com/retrieve/pii/S2211124717300724	2017	Natalia, Rodriguez-Muela, Nadia K., Litterman, Erika M., Norabuena, Jesse L., Mull, Maria José, Galazo, Chicheng, Sun, Shi-Yan, Ng, Nina R., Makhortova, Andrew, White, Maureen M., Lynes, Wendy K., Chung, Lance S., Davidow, Jeffrey D., Macklis, Lee L., Rubin	No
Acute cardiac support with intravenous milrinone promotes recovery from early brain injury in a murine model of severe subarachnoid hemorrhage	Clinical and Experimental Pharmacology and Physiology	http://doi.wiley.com/10.1111/1440-1681.12718	2016	Tomoko, Mutoh, Tatsushi, Mutoh, Kazuhiro, Nakamura, Yukiko, Yamamoto, Yoshiharu, Tsuru, Hirokazu, Tsubone, Tatsuya, Ishikawa, Yasuyuki, Taki	No
Stellate cells drive maturation of the entorhinal-hippocampal circuit	Science	http://www.sciencemag.org/lookup/doi/10.1126/science.aai8178	2017	Flavio, Donato, R. Irene, Jacobsen, May-Britt, Moser, Edvard I., Moser	No
Challenging cardiac function post-spinal cord injury with dobutamine	Autonomic Neuroscience	http://linkinghub.elsevier.com/retrieve/pii/S1566070216302867	2016	Kathryn M., DeVea, Emily K., Martin, Nicholas T., King, Alice, Shum-Siu, Bradley B., Keller, Christopher R., West, David S.K., Magnuson	No
Use of high-frequency ultrasound to study the prenatal development of cranial neural tube defects and hydrocephalus in Gldc-deficient mice	Prenatal Diagnosis	http://www.ncbi.nlm.nih.gov/pubmed/28056489%0Ahttp://doi.wiley.com/10.1002/pd.5...	2017	Maria C., Autuori, Yun J., Pal, Daniel J., Stuckey, Dawn, Savery, Anna M., Marconi, Valentina, Massa, Mark F., Lythgoe, Andrew J., Copp, Anna L., David, Nicholas D.E., Greene	No
Use of high-frequency ultrasound to study the prenatal development of cranial neural tube defects and hydrocephalus in Gldc-deficient mice	Prenatal Diagnosis	http://www.ncbi.nlm.nih.gov/pubmed/28056489%0Ahttp://doi.wiley.com/10.1002/pd.5...	2017	Maria C., Autuori, Yun J., Pai, Daniel J., Stuckey, Dawn, Savery, Anna M., Marconi, Valentina, Massa, Mark F., Lythgoe, Andrew J., Copp, Anna L., David, Nicholas D.E., Greene	No
Fetal Alcohol Exposure Alters Blood Flow and Neurological Responses to Transient Cerebral Ischemia in Adult Mice	Alcoholism: Clinical and Experimental Research	http://doi.wiley.com/10.1111/acer.13277	2017	Shameena, Bake, Rachel, Gardner, Joseph D., Tingling, Rajesh C., Miranda, Farida, Sohrabji	No
Exploring Targeted Contrast-Enhanced Ultrasound to Detect Neural Inflammation: An Example of Standard Nomenclature	Journal of Diagnostic Medical Sonography	http://jdm.sagepub.com/cgi/doi/10.1177/8756479316665865	2016	K. R., Volz, K. D., Evans, C. D., Kanner, D. M., Basso	No
Myocardial Ischemia/Reperfusion impairs neurogenesis and hippocampal-dependent learning and memory	Brain, Behavior, and Immunity	http://dx.doi.org/10.1016/j.bbi.2016.09.001	2016	Kirsten S, Evonuk, Sumanth D, Prabhu, Martin E, Young, Tara M, DeSilva	No
Prophylactic Edaravone Prevents Transient Hypoxic-Ischemic Brain Injury	Stroke	http://stroke.ahajournals.org/lookup/doi/10.1161/STROKEAHA.115.009162	2015	Yu-yo, Sun, Yikun, Li, Bushra, Wali, Yuancheng, Li, Jolly, Lee, Andrew, Heinmiller, Koji, Abe, Donald G., Stein, Hui, Mao, Iqbal, Sayeed, Chia-Yi, Kuan	No
A Spinal Cord Window Chamber Model for In Vivo Longitudinal Multimodal Optical and Acoustic Imaging in a Murine Model	PLoS ONE	http://dx.plos.org/10.1371/journal.pone.0058081	2013	Sarah a., Figley, Yonghong, Chen, Azusa, Maeda, Leigh, Conroy, Jesse D., McMullen, Jason I., Silver, Shawn, Stapleton, Alex, Vitkin, Patricia, Lindsay, Kelly, Burrell, Gelareh, Zadeh, Michael G., Fehlings, Ralph S., DaCosta	No

Title	Journal	Link	Publication date	References	Top Paper
Imaging of an Inflammatory Injury in the Newborn Rat Brain with Photoacoustic Tomography	PLoS ONE	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3873292&tool=pmcentr...	2013	Edgar, Guevara, Romain, Berti, Irène, Londono, Ningshi, Xie, Pierre, Bellec, Frédéric, Lesage, G a, Lodygensky	No
Very High Resolution Ultrasound Imaging for Real-Time Quantitative Visualization of Vascular Disruption after Spinal Cord Injury	Journal of Neurotrauma	http://online.liebertpub.com/doi/abs/10.1089/neu.2013.3319	2014	Marc, Soubeyrand, Anna, Badner, Reaz, Vawda, Young Sun, Chung, Michael G., Fehlings	No
ROR Beta induces barrel-like neuronal clusters in the developing neocortex	Cerebral Cortex		2012	Denis, Jabaudon, Sara, J. Shnider, David, J. Tischfield, Maria, J. Galazo, Jeffrey D., MacKlis	No
Functional and anatomical evidence of cerebral tissue hypoxia in young sickle cell anemia mice	Journal of Cerebral Blood Flow & Metabolism	http://jcb.sagepub.com/lookup/doi/10.1177/0271678X16649194	2016	L. S., Cahill, L. M., Gazdzinski, A. K., Tsui, Y.-Q., Zhou, S., Portnoy, E., Liu, C. D., Mazer, G. M., Hare, A., Kassner, J. G., Sled	No
A New Acute Impact-Compression Lumbar Spinal Cord Injury Model in the Rodent	Journal of Neurotrauma	http://online.liebertpub.com/doi/10.1089/neu.2015.3937	2015	Gray, Moonen, Kajana, Satkunendrarajah, Jared T., Wilcox, Anna, Badner, Andrea, Mothe, Warren, Foltz, Michael G., Fehlings, Charles H., Tator	No
Quantitative correlational study of microbubble-enhanced ultrasound imaging and magnetic resonance imaging of glioma and early response to radiotherapy in a rat model	Medical Physics	http://scitation.aip.org/content/aapm/journal/medphys/42/8/10.1118/1.4926550	2015	Chen, Yang, Dong-Hoon, Lee, Antonella, Mangraviti, Lin, Su, Kai, Zhang, Yin, Zhang, Bin, Zhang, Wenxiao, Li, Betty, Tyler, John, Wong, Ken Kang-Hsin, Wang, Esteban, Velarde, Jinyuan, Zhou, Kai, Ding	No
Theranostic USPIO-Loaded Microbubbles for Mediating and Monitoring Blood-Brain Barrier Permeation.	Advanced functional materials	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=4340520&tool=pmcentr...	2015	Twan, Lammers, Patrick, Koczera, Stanley, Fokong, Felix, Gremse, Josef, Ehling, Michael, Vogt, Andrij, Pich, Gert, Storm, Marc, van Zandvoort, Fabian, Kiessling	No
In vivo imaging of cerebral hemodynamics using high-frequency micro-ultrasound.	Cold Spring Harbor protocols	http://www.ncbi.nlm.nih.gov/pubmed/20810642	2010	John, Sun, Liis, Lindvere, Martijn E, van Raaij, Adrienne, Dorr, Bojana, Stefanovic, F Stuart, Foster	No
Functional micro-ultrasound imaging of rodent cerebral hemodynamics.	NeuroImage	http://www.ncbi.nlm.nih.gov/pubmed/21704715	2011	Martijn E, van Raaij, Liis, Lindvere, Adrienne, Dorr, Jianfei, He, Bhupinder, Sahota, F Stuart, Foster, Bojana, Stefanovic	No
Mast Cell Targeting Hampers Prostate Adenocarcinoma Development but Promotes the Occurrence of Highly Malignant Neuroendocrine Cancers	Cancer Research	http://www.ncbi.nlm.nih.gov/pubmed/21896641	2011	Paola, Pittoni, Claudio, Tripodo, Silvia, Piconese, Giorgio, Mauri, Mariella, Parenza, Alice, Rigoni, Sabina, Sangaletti, Mario P, Colombo	No
Lmo4 and Clim1 Progressively Delineate Cortical Projection Neuron Subtypes during Development	Cerebral Cortex	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2693532&tool=pmcentr...	2009	Eiman, Azim, Sara J, Shnider, Gustav Y, Cederquist, U Shivraj, Sohur, Jeffrey D, Macklis	No
Origin and Molecular Specification of Globus Pallidus Neurons	Journal of Neuroscience	http://www.ncbi.nlm.nih.gov/pubmed/20181580	2010	S., Nobrega-Pereira, Diego, Gelman, Giorgia, Bartolini, Ramón, Pla, Alessandra, Pierani, O., Marin	No
Area-specific temporal control of corticospinal motor neuron differentiation by COUP-TFI	Proceedings of the National Academy of Sciences	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2840488&tool=pmcentr...	2010	Giulio Srubek, Tomassy, Elvira, De Leonibus, Denis, Jabaudon, Simona, Lodato, Christian, Alfano, Andrea, Mele, Jeffrey D, Macklis, Michèle, Studer	No
Lmo4 Establishes Rostral Motor Cortex Projection Neuron Subtype Diversity	Journal of Neuroscience	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3698850&tool=pmcentr...	2013	Gustav Y, Cederquist, Eiman, Azim, Sara J, Shnider, Hari, Padmanabhan, Jeffrey D, Macklis	No

Title	Journal	Link	Publication date	References	Top Paper
Preclinical Models for Neuroblastoma: Establishing a Baseline for Treatment	PLoS ONE	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3084749&tool=pmcentre...	2011	Tal, Teitz, Jennifer J, Stanke, Sara, Federico, Cori L, Bradley, Rachel, Brennan, Jiakun, Zhang, Melissa D, Johnson, Jan, Sedlacik, Madoka, Inoue, Ziwei M, Zhang, Sharon, Frase, Jerold E, Rehg, Claudia M, Hillenbrand, David, Finkelstein, Christopher, Calabrese, Michael a, Dyer, Jill M, Lahti	No
Selective Permeabilization of the Blood-Brain Barrier at Sites of Metastasis	JNCI Journal of the National Cancer Institute	http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3818170&tool=pmcentre...	2013	John J. Connell, Grégoire, Chatain, Bart, Cornelissen, Katherine a, Vallis, Alastair, Hamilton, Len, Seymour, Daniel C, Anthony, Nicola R, Sibson	No
Peripheral nervous system progenitors can be reprogrammed to produce myelinating oligodendrocytes and repair brain lesions.	The Journal of neuroscience : the official journal of the Society for Neuroscience	http://www.ncbi.nlm.nih.gov/pubmed/21525278	2011	Ellen, Binder, Marion, Rukavina, Hessameh, Hassani, Marlen, Weber, Hiroko, Nakatani, Tobias, Reiff, Carlos, Parras, Verdon, Taylor, Hermann, Rohrer	No
Neural progenitors of the postnatal and adult mouse forebrain retain the ability to self-replicate, form neurospheres, and undergo multipotent differentiation in vivo.	Stem cells (Dayton, Ohio)	http://www.ncbi.nlm.nih.gov/pubmed/19096037	2009	Bettina, Neumeister, Antje, Grabosch, Onur, Basak, Rolf, Kemler, Verdon, Taylor	No