

November 01, 2017	<a href="#">Exploration of melanoma metastases in mice brains using endogenous contrast photoacoustic imaging</a>	Photoacoustic imaging (PAI) provides real time non-invasive and contrast agent free monitoring of some endogenous compounds concentrations that provid
August 09, 2021	<a href="#">Post-event application of neurotrophin protects against ischemic insult toward better outcomes in a murine model of subarachnoid hemorrhage</a>	Early brain injury (EBI) is closely linked to the development of delayed cerebral ischemia and poor outcomes after aneurysmal subarachnoid hemorrhage
January 28, 2021	<a href="#">Experimental myocardial infarction elicits time-dependent patterns of vascular hypoxia in peripheral organs and in the brain</a>	Aims: Microvascular alterations occurring after myocardial infarction (MI) may represent a risk factor for multi-organ failure.
January 04, 2021	<a href="#">Brain-targeted hypoxia-inducible factor stabilization reduces neonatal hypoxic-ischemic brain injury</a>	Hypoxia-inducible factor-1 $\alpha$ (HIF1 $\alpha$ ) is a major regulator of cellular adaptation to hypoxia and oxidative stress, and recent advances of prolyl-4-hydro
November 03, 2020	<a href="#">Harnessing the Secretome of Mesenchymal Stromal Cells for Traumatic Spinal Cord Injury: Multi-cell Comparison and Assessment of In Vivo Efficacy</a>	Cell therapy offers significant promise for traumatic spinal cord injury (SCI), which despite many medical advances, has limited treatment strategies.
October 20, 2020	<a href="#">Ultrasound with microbubbles improves memory, ameliorates pathology and modulates hippocampal proteomic changes in a triple transgenic mouse model of Alzheimer's disease</a>	Alzheimer's disease (AD) is a progressive neurodegenerative disease manifested by cognitive impairment.
October 16, 2020	<a href="#">Engineering of SPECT/Photoacoustic Imaging/Antioxidative Stress Triple-Function Nanoprobe for Advanced Mesenchymal Stem Cell Therapy of Cerebral Ischemia</a>	The precise transplantation, long-term tracking, and maintenance of stem cells with maximizing therapeutic effect are significant challenges in stem c
September 09, 2020	<a href="#">In vivo photoacoustic guidance of stem cell injection and delivery for regenerative spinal cord therapies</a>	Significance: Stem cell therapies are of interest for treating a variety of neurodegenerative diseases and injuries of the spinal cord.
September 09, 2020	<a href="#">Vascular contributions to 16p11.2 deletion autism syndrome modeled in mice</a>	While the neuronal underpinnings of autism spectrum disorder (ASD) are being unraveled, vascular contributions to ASD remain elusive.
September 09, 2020	<a href="#">Real-Time Noninvasive Bioluminescence, Ultrasound and Photoacoustic Imaging in NF<math>\kappa</math>B-RE-Luc Transgenic Mice Reveal Glia Maturation Factor-Mediated Immediate and Sustained Spatio-Temporal Activation of NF<math>\kappa</math>B Signaling Post-Traumatic Brain Injury in a Gender-</a>	Neurotrauma especially traumatic brain injury (TBI) is the leading cause of death and disability worldwide.
July 01, 2020	<a href="#">Early cerebrovascular and long-term neurological modifications ensue following juvenile mild traumatic brain injury in male mice</a>	Clinical evidence suggests that a mild traumatic brain injury occurring at a juvenile age (jmTBI) may be sufficient to elicit pathophysiological modif
June 01, 2020	<a href="#">Prussian blue nanocubes as a multimodal contrast agent for image-guided stem cell therapy of the spinal cord</a>	Translation of stem cell therapies to treat injuries and diseases of the spinal cord is hindered by lack of real-time monitoring techniques to guide r
May 14, 2020	<a href="#">Nanostructural Control Enables Optimized Photoacoustic–Fluorescence–Magnetic Resonance Multimodal Imaging and Photothermal Therapy of Brain Tumor</a>	The performance of current multimodal imaging contrast agents is often constrained by the tunability of nanomaterial structural design.
January 01, 2020	<a href="#">Cell Fate Potential of NG2 Progenitors</a>	Determining the origin of different glial subtypes is crucial to understand glial heterogeneity, and to enhance our knowledge of glial and progenitor

January 01, 2020	<a href="#">In vivo photoacoustic imaging dynamically monitors the structural and functional changes of ischemic stroke at a very early stage</a>	Ischemic stroke (IS) is one of the leading causes of death and accounts for 85% of stroke cases.
January 01, 2020	<a href="#">Non-invasive ultrasound detection of cerebrovascular changes in a mouse model of TBI</a>	carotid arteries of mice exposed to a controlled cortical impact.
January 01, 2020	<a href="#">Alteration of the brain methylation landscape following postnatal inflammatory injury in rat pups</a>	Preterm infants are vulnerable to inflammation-induced white matter injury (WMI), which is associated with neurocognitive impairment and increased risk
January 01, 2020	<a href="#">Transcranial Photoacoustic Detection of Blood-Brain Barrier Disruption Following Focused Ultrasound-Mediated Nanoparticle Delivery</a>	Purpose: Blood-brain barrier disruption (BBBD) is of interest for treating neurodegenerative diseases and tumors by enhancing drug delivery.
October 01, 2019	<a href="#">Assessing therapeutic response non-invasively in a neonatal rat model of acute inflammatory white matter injury using high-field MRI</a>	Perinatal infection and inflammatory episodes in preterm infants are associated with diffuse white matter injury (WMI) and adverse neurological outcomes
January 01, 2019	<a href="#">Photoacoustic imaging of gold nanorods in the brain delivered via microbubble-assisted focused ultrasound: a tool for in vivo molecular neuroimaging</a>	The protective barriers of the CNS present challenges during the treatment and monitoring of diseases.
January 01, 2019	<a href="#">Central action of rapamycin on early ischemic injury and related cardiac depression following experimental subarachnoid hemorrhage</a>	Early brain injury and related cardiac consequences play a key role in the devastating outcomes after subarachnoid hemorrhage (SAH).
January 01, 2019	<a href="#">Activatable Small Molecule Photoacoustic Probes that Cross the Blood-Brain Barrier for Visualization of Copper(II) in Mice with Alzheimer's Disease</a>	Copper enrichment in the brain is highly related to Alzheimer's disease (AD) pathogenesis, but in vivo tracing of Cu <sup>2+</sup> in the brain by imaging techniques
December 05, 2018	<a href="#">Persistent reduction in sialylation of cerebral glycoproteins following postnatal inflammatory exposure</a>	Background: The extension of sepsis encompassing the preterm newborn's brain is often overlooked due to technical challenges in this highly vulnerable
December 03, 2018	<a href="#">Splenic involvement in umbilical cord matrix-derived mesenchymal stromal cell-mediated effects following traumatic spinal cord injury</a>	Background: The spleen plays an important role in erythrocyte turnover, adaptive immunity, antibody production, and the mobilization of monocytes/macrophages
October 12, 2018	<a href="#">Sonodynamic Therapy on Intracranial Glioblastoma Xenografts Using Sinoporphyrin Sodium Delivered by Ultrasound with Microbubbles</a>	—Sonodynamic therapy (SDT) is a promising noninvasive method for cancer treatment.
September 01, 2018	<a href="#">Laser-activated perfluorocarbon nanodroplets: a new tool for blood brain barrier opening</a>	A major obstacle in the monitoring and treatment of neurological diseases is the blood brain barrier (BBB), a semipermeable barrier that prevents the
July 31, 2018	<a href="#">Immune response mediates cardiac dysfunction after traumatic brain injury</a>	Cardiovascular complications are common after TBI and are associated with increased morbidity and mortality.
April 20, 2018	<a href="#">Magnetic resonance and photoacoustic imaging of brain tumor mediated by mesenchymal stem cell labeled with multifunctional nanoparticle introduced via carotid artery injection</a>	OBJECTIVE: To evaluate the feasibility of visualizing bone marrow-derived human mesenchymal stem cells (MSCs) labeled with a gold-coated magnetic resonance
April 20, 2018	<a href="#">Abstract 3109: Ultrasound-mediated delivery and distribution of polymeric nanoparticles in the normal brain parenchyma and melanoma metastases</a>	The blood-brain barrier (BBB) prevents the passage of nearly all drugs into the brain, hindering brain cancer treatment.

April 19, 2018	<a href="#">Quantifying solid stress and elastic energy from excised or in situ tumors</a>	Solid stress, distinct from both tissue stiffness and fluid pressure, is a mechanical stress that is often elevated in both murine and human tumors.
February 23, 2018	<a href="#">MicroRNA-378 enhances radiation response in ectopic and orthotopic implantation models of glioblastoma</a>	Glioblastoma multiforme (GBM) is the most common and highly malignant primary brain tumor, which is virtually incurable due to its therapeutic resistance.
January 01, 2018	<a href="#">Touch and tactile neuropathic pain sensitivity are set by corticospinal projections</a>	Current models of somatosensory perception emphasize transmission from primary sensory neurons to the spinal cord and on to the brain <sup>1–4</sup> .
January 01, 2018	<a href="#">Platelet bio-nanobubbles as microvascular recanalization nanoformulation for acute ischemic stroke lesion theranostics</a>	
January 01, 2018	<a href="#">Highly Crystalline Multicolor Carbon Nanodots for Dual-Modal Imaging-Guided Photothermal Therapy of Glioma</a>	Imaging-guided site-specific photothermal therapy (PTT) of glioma and other tumors in central nervous system presents a great challenge for the current
January 01, 2018	<a href="#">Caveolin1 Identifies a Specific Subpopulation of Cerebral Cortex Callosal Projection Neurons (CPN) Including Dual Projecting Cortical Callosal/Frontal Projection Neurons (CPN/FPN)</a>	The neocortex is composed of many distinct subtypes of neurons that must form precise subtype-specific connections to enable the cortex to perform com
October 05, 2017	<a href="#">A cerebellar window for intravital imaging of normal and disease states in mice</a>	The cerebellum is a prominent part of the vertebrate hindbrain that is critically involved in the regulation of important body functions such as movement
June 01, 2017	<a href="#">Astrocyte heme oxygenase-1 reduces mortality and improves outcome after collagenase-induced intracerebral hemorrhage</a>	Pharmacotherapies that increase CNS expression of heme oxygenase-1 (HO-1) and other antioxidant proteins have improved outcome in experimental models
February 28, 2017	<a href="#">Use of high-frequency ultrasound to study the prenatal development of cranial neural tube defects and hydrocephalus in Gldc -deficient mice</a>	OBJECTIVE We used non-invasive high frequency ultrasound (HFUS) imaging to investigate embryonic brain development in a mouse model for neural tube de
February 02, 2017	<a href="#">Stellate cells drive maturation of the entorhinal-hippocampal circuit</a>	The neural representation of space relies on a network of entorhinal-hippocampal cell types with firing patterns tuned to different abstract features
February 01, 2017	<a href="#">Single-Cell Analysis of SMN Reveals Its Broader Role in Neuromuscular Disease</a>	The mechanism underlying selective motor neuron (MN) death remains an essential question in the MN disease field.
January 26, 2017	<a href="#">Ganglionic GFAP+ glial Gq-GPCR signaling enhances heart functions in vivo</a>	The sympathetic nervous system (SNS) accelerates heart rate, increases cardiac contractility, and constricts resistance vessels.
January 01, 2016	<a href="#">Cerebellar Exposure to Cell-Free Hemoglobin Following Preterm Intraventricular Hemorrhage: Causal in Cerebellar Damage?</a>	Decreased cerebellar volume is associated with intraventricular hemorrhage (IVH) in very preterm infants and may be a principal component in neurodeve

January 01, 2016	<a href="#">User-independent diffusion tensor imaging analysis pipelines in a rat model presenting ventriculomegalia: A comparison study</a>	Automated analysis of diffusion tensor imaging (DTI) data is an appealing way to process large datasets in an unbiased manner.
January 01, 2016	<a href="#">The brain microenvironment mediates resistance in luminal breast cancer to PI3K inhibition through HER3 activation</a>	Although targeted therapies are often effective systemically, they fail to adequately control brain metastases.
January 01, 2016	<a href="#">Fetal Alcohol Exposure Alters Blood Flow and Neurological Responses to Transient Cerebral Ischemia in Adult Mice</a>	Background: Prenatal alcohol exposure (PAE) can result in physical and neurocognitive deficits that are collectively termed "fetal alcohol spectrum di
January 01, 2016	<a href="#">Photoacoustic Imaging of Human Mesenchymal Stem Cells Labeled with Prussian Blue–Poly(L-lysine) Nanocomplexes</a>	Acoustic imaging is affordable and accessible without ionizing radiation.
January 01, 2016	<a href="#">Optical clearing and fluorescence deep-tissue imaging for 3D quantitative analysis of the brain tumor microenvironment</a>	© 2017 The Author(s) Background: Three-dimensional visualization of the brain vasculature and its interactions with surrounding cells may shed light o
December 01, 2016	<a href="#">Acute cardiac support with intravenous milrinone promotes recovery from early brain injury in a murine model of severe subarachnoid hemorrhage</a>	Early brain injury/ischemia (EBI) is a serious complication early after subarachnoid hemorrhage (SAH) that contributes to development of delayed cereb
December 01, 2016	<a href="#">Challenging cardiac function post-spinal cord injury with dobutamine</a>	There is general consensus that spinal cord injuries (SCI) above T6 result in altered sympathetic control of the heart, which negatively influences car
September 01, 2016	<a href="#">Myocardial Ischemia/Reperfusion impairs neurogenesis and hippocampal-dependent learning and memory</a>	The incidence of cognitive impairment in cardiovascular disease (CVD) patients has increased, adversely impacting quality of life and imposing a signi
May 10, 2016	<a href="#">Functional and anatomical evidence of cerebral tissue hypoxia in young sickle cell anemia mice</a>	Cerebral ischemia is a significant source of morbidity in children with sickle cell anemia; however, the mechanism of injury is poorly understood.
February 01, 2016	<a href="#">Preclinical Efficacy of Ado-trastuzumab Emtansine in the Brain Microenvironment</a>	Background: Central nervous system (CNS) metastases represent a major problem in the treatment of human epidermal growth factor receptor 2 (HER2)–posi
January 01, 2015	<a href="#">Exploring Targeted Contrast-Enhanced Ultrasound to Detect Neural Inflammation: An Example of Standard Nomenclature</a>	Targeted contrast-enhanced ultrasound (TCEUS) is an innovative method of molecular imaging used for detection of inflammatory biomarkers in vivo.
July 01, 2015	<a href="#">Prophylactic Edaravone Prevents Transient Hypoxic-Ischemic Brain Injury</a>	Background and Purpose— Hypoperfusion-induced thrombosis is an important mechanism for postsurgery stroke and cognitive decline, but there are no per
January 07, 2015	<a href="#">Theranostic USPIO-Loaded Microbubbles for Mediating and Monitoring Blood-Brain Barrier Permeation.</a>	Efficient and safe drug delivery across the blood-brain barrier (BBB) remains to be one of the major challenges of biomedical and (nano-) pharmaceutical

January 01, 2015	<a href="#">A New Acute Impact-Compression Lumbar Spinal Cord Injury Model in the Rodent</a>	Traumatic injury to the lumbar spinal cord results in complex central and peripheral nervous tissue damage causing significant neurobehavioural defici
January 01, 2015	<a href="#">Quantitative correlational study of microbubble-enhanced ultrasound imaging and magnetic resonance imaging of glioma and early response to radiotherapy in a rat model</a>	Purpose: Radiotherapy remains a major treatment method for malignant tumors.
November 01, 2014	<a href="#">Very High Resolution Ultrasound Imaging for Real-Time Quantitative Visualization of Vascular Disruption after Spinal Cord Injury</a>	Spinal cord injury (SCI) is characterized by vascular disruption with intramedullary hemorrhage, alterations in blood- spinal cord barrier integrity,
June 17, 2014	<a href="#">Peripheral nervous system progenitors can be reprogrammed to produce myelinating oligodendrocytes and repair brain lesions.</a>	Neural crest stem cells (NCSCs) give rise to the neurons and glia of the peripheral nervous system (PNS).
December 26, 2013	<a href="#">Imaging of an Inflammatory Injury in the Newborn Rat Brain with Photoacoustic Tomography</a>	BACKGROUND: The precise assessment of cerebral saturation changes during an inflammatory injury in the developing brain, such as seen in periventricul
November 06, 2013	<a href="#">Selective Permeabilization of the Blood-Brain Barrier at Sites of Metastasis</a>	BACKGROUND: Effective chemotherapeutics for primary systemic tumors have limited access to brain metastases because of the blood-brain barrier (BBB).
May 01, 2013	<a href="#">SPIO-conjugated, doxorubicin-loaded microbubbles for concurrent MRI and focused-ultrasound enhanced brain-tumor drug delivery</a>	The blood-brain barrier (BBB) can be temporarily and locally opened by focused ultrasound (FUS) in the presence of circulating microbubbles (MBs).
April 10, 2013	<a href="#">Lmo4 Establishes Rostral Motor Cortex Projection Neuron Subtype Diversity</a>	The mammalian neocortex is parcellated into anatomically and functionally distinct areas.
March 14, 2013	<a href="#">A Spinal Cord Window Chamber Model for In Vivo Longitudinal Multimodal Optical and Acoustic Imaging in a Murine Model</a>	In vivo and direct imaging of the murine spinal cord and its vasculature using multimodal (optical and acoustic) imaging techniques could significantl
January 01, 2011	<a href="#">High-Frequency Ultrasound in the Evaluation of Cerebral Intraventricular Haemorrhage in Preterm Rabbit Pups</a>	Cerebral intraventricular haemorrhage (IVH) is the most common cause of severe neurologic impairment following preterm birth in human infants.
January 01, 2011	<a href="#">ROR Beta induces barrel-like neuronal clusters in the developing neocortex</a>	Neurons in layer IV of the rodent whisker somatosensory cortex are tangentially organized in periodic clusters called barrels, each of which is innerv
September 15, 2011	<a href="#">Mast Cell Targeting Hampers Prostate Adenocarcinoma Development but Promotes the Occurrence of Highly Malignant Neuroendocrine Cancers</a>	Mast cells (MC) are c-Kit-expressing cells, best known for their primary involvement in allergic reactions, but recently reappraised as important play
September 01, 2011	<a href="#">Functional micro-ultrasound imaging of rodent cerebral hemodynamics.</a>	Healthy cerebral microcirculation is crucial to neuronal functioning.
April 29, 2011	<a href="#">Preclinical Models for Neuroblastoma: Establishing a Baseline for Treatment</a>	BACKGROUND: Preclinical models of pediatric cancers are essential for testing new chemotherapeutic combinations for clinical trials.



January 01, 2010	<a href="#">High-Resolution Ultrasound in Research of Mouse Orthotopic Glioma and Ultrasound-Guided Cell Implant</a>	The purpose is to evaluate the feasibility of imaging mouse brain with high resolution ultrasound (HiRes US), and generation of mouse brain tumor (gli
September 01, 2010	<a href="#">In vivo imaging of cerebral hemodynamics using high-frequency micro-ultrasound.</a>	Assessment of cerebral vascular response is important in neuroscience research.
February 24, 2010	<a href="#">Origin and Molecular Specification of Globus Pallidus Neurons</a>	The mechanisms controlling the assembly of brain nuclei are poorly understood.
February 23, 2010	<a href="#">Area-specific temporal control of corticospinal motor neuron differentiation by COUP-TF1</a>	Transcription factors with gradients of expression in neocortical progenitors give rise to distinct motor and sensory cortical areas by controlling th
July 01, 2009	<a href="#">Lmo4 and Clm1 Progressively Delineate Cortical Projection Neuron Subtypes during Development</a>	Molecular controls over the development of the exceptional neuronal subtype diversity of the cerebral cortex are now beginning to be identified.
March 01, 2009	<a href="#">Neural progenitors of the postnatal and adult mouse forebrain retain the ability to self-replicate, form neurospheres, and undergo multipotent differentiation in vivo.</a>	Somatic stem cells are reservoirs to replace lost cells or damaged tissue.