Kullervo Hynynen

List of Publications by Year in Descending Order

245 papers	20,246 citations	78 h-index	138 g-index
291 ext. papers	23,726 ext. citations	6.2 avg, IF	7.15 L-index

#	Paper	IF	Citations
245	Neutrophil Recruitment and Leukocyte Response Following Focused Ultrasound and Microbubble Mediated Blood-Brain Barrier Treatments. *Focus (American Psychiatric Publishing)*, **2022**, 20, 100-116	1.1	
244	High-pressure Low-frequency Lateral Mode Phased-array Transducer System for the Treatment of Deep Vein Thrombosis: an in vitro study.. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2022**, PP,	3.2	1
243	Targeted Nanoparticle for Co-delivery of HER2 siRNA and a Taxane to Mirror the Standard Treatment of HER2+ Breast Cancer: Efficacy in Breast Tumor and Brain Metastasis.. *Small*, **2022**, e2107550	11	4
242	Biophysical and Clinical Perspectives on Blood-Brain Barrier Permeability Enhancement by Ultrasound and Microbubbles for Targeted Drug Delivery. *AAPS Advances in the Pharmaceutical Sciences Series*, **2022**, 577-605	0.5	
241	Novel Treatment Approaches for Brain Tumour from a Blood-Brain Barrier Perspective. *Handbook of Experimental Pharmacology*, **2021**, 1	3.2	1
240	An Ultrasound-Guided Hemispherical Phased Array for Microbubble-Mediated Ultrasound Therapy. *IEEE Transactions on Biomedical Engineering*, **2021**, PP,	5	1
239	MR-guided focused ultrasound enhances delivery of trastuzumab to Her2-positive brain metastases. *Science Translational Medicine*, **2021**, 13, eabj4011	17.5	19
238	Transgene distribution and immune response after ultrasound delivery of rAAV9 and PHP.B to the brain in a mouse model of amyloidosis. *Molecular Therapy - Methods and Clinical Development*, **2021**, 23, 390-405	6.4	1
237	Therapeutic Agent Delivery Across the Blood-Brain Barrier Using Focused Ultrasound. *Annual Review of Biomedical Engineering*, **2021**, 23, 89-113	12	9
236	Ultrasound-sensitive nanodroplets achieve targeted neuromodulation. *Journal of Controlled Release*, **2021**, 332, 30-39	11.7	8
235	The mechanical potential of ultrasound on nervous tissue. *Journal of the Acoustical Society of America*, **2021**, 149, R11	2.2	
234	Comparing rapid short-pulse to tone burst sonication sequences for focused ultrasound and microbubble-mediated blood-brain barrier permeability enhancement. *Journal of Controlled Release*, **2021**, 329, 696-705	11.7	1
233	MRI-guided focused ultrasound enhances drug delivery in experimental diffuse intrinsic pontine glioma. *Journal of Controlled Release*, **2021**, 330, 1034-1045	11.7	10
232	Applications of focused ultrasound in the brain: from thermoablation to drug delivery. *Nature Reviews Neurology*, **2021**, 17, 7-22	15	49
231	Neutrophil recruitment and leukocyte response following focused ultrasound and microbubble mediated blood-brain barrier treatments. *Theranostics*, **2021**, 11, 1655-1671	12.1	14
230	Role of perivascular and meningeal macrophages in outcome following experimental subarachnoid hemorrhage. *Journal of Cerebral Blood Flow and Metabolism*, **2021**, 41, 1842-1857	7.3	6
229	Implementation of a Skull-Conformal Phased Array for Transcranial Focused Ultrasound Therapy. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 3457-3468	5	2

228	A High-Frequency Phased Array System for Transcranial Ultrasound Delivery in Small Animals. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2021**, 68, 127-135	3.2	0
227	Vasculotide restores the blood-brain barrier after focused ultrasound-induced permeability in a mouse model of Alzheimer's disease. *International Journal of Medical Sciences*, **2021**, 18, 482-493	3.7	6
226	Focused ultrasound neuromodulation. *International Review of Neurobiology*, **2021**, 159, 221-240	4.4	1
225	Sub-millimetre precision of drug delivery in the brain from ultrasound-triggered nanodroplets. *Journal of Controlled Release*, **2021**, 338, 731-741	11.7	0
224	Systemic AAV6-synapsin-GFP administration results in lower liver biodistribution, compared to AAV1&2 and AAV9, with neuronal expression following ultrasound-mediated brain delivery. *Scientific Reports*, **2021**, 11, 1934	4.9	3
223	Thermal Therapy With a Fully Electronically Steerable HIFU Phased Array Using Ultrasound Guidance and Local Harmonic Motion Monitoring. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 1854-1862	5	5
222	Microbubble formulation influences inflammatory response to focused ultrasound exposure in the brain. *Scientific Reports*, **2020**, 10, 21534	4.9	6
221	Simultaneous Intravital Optical and Acoustic Monitoring of Ultrasound-Triggered Nanobubble Generation and Extravasation. *Nano Letters*, **2020**, 20, 4512-4519	11.5	14
220	Ultrasound-Responsive Cavitation Nuclei for Therapy and Drug Delivery. *Ultrasound in Medicine and Biology*, **2020**, 46, 1296-1325	3.5	75
219	Focused ultrasound as a novel strategy for noninvasive gene delivery to retinal Müller glia. *Theranostics*, **2020**, 10, 2982-2999	12.1	7
218	Ultrasound-Guided Focused Ultrasound Treatment for Painful Bone Metastases: A Pilot Study. *Ultrasound in Medicine and Biology*, **2020**, 46, 1455-1463	3.5	1
217	Localized anesthesia of a specific brain region using ultrasound-responsive barbiturate nanodroplets. *Theranostics*, **2020**, 10, 2849-2858	12.1	11
216	Investigating the effects of dexamethasone on blood-brain barrier permeability and inflammatory response following focused ultrasound and microbubble exposure. *Theranostics*, **2020**, 10, 1604-1618	12.1	21
215	Super-resolution Ultrasound Imaging. *Ultrasound in Medicine and Biology*, **2020**, 46, 865-891	3.5	83
214	Focused Ultrasound and Microbubbles-Mediated Drug Delivery to Brain Tumor. *Pharmaceutics*, **2020**, 13,	6.4	21
213	DDEL-01. ENHANCING DRUG DELIVERY WITH MRgFUS FOR DIFFUSE INTRINSIC PONTINE GLIOMA MODEL. *Neuro-Oncology*, **2020**, 22, iii283-iii283	1	78
212	Thermal therapy monitoring using elastography **2020**, 135-155		1
211	Ultrafast three-dimensional microbubble imaging predicts tissue damage volume distributions during nonthermal brain ablation. *Theranostics*, **2020**, 10, 7211-7230	12.1	12

210	Clinically approved IVIg delivered to the hippocampus with focused ultrasound promotes neurogenesis in a model of Alzheimer's disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 32691-32700	11.5	17
209	High-Power Phased-Array Transducer Module for the Construction of a System for the Treatment of Deep Vein Thrombosis. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2020**, 67, 2710-2716	3.2	2
208	Novel fractionated ultrashort thermal exposures with MRI-guided focused ultrasound for treating tumors with thermosensitive drugs. *Science Advances*, **2020**, 6,	14.3	11
207	Echo-Focusing in Transcranial Focused Ultrasound Thalamotomy for Essential Tremor: A Feasibility Study. *Movement Disorders*, **2020**, 35, 2327-2333	7	8
206	Transcranial Photoacoustic Detection of Blood-Brain Barrier Disruption Following Focused Ultrasound-Mediated Nanoparticle Delivery. *Molecular Imaging and Biology*, **2020**, 22, 324-334	3.8	9
205	Perfusion fixation methods for preclinical biodistribution studies: A comparative assessment using automated image processing. *Methods and Applications in Fluorescence*, **2020**,	3.1	2
204	Glymphatics Visualization after Focused Ultrasound-Induced Blood-Brain Barrier Opening in Humans. *Annals of Neurology*, **2019**, 86, 975-980	9.4	55
203	Blood-Brain Barrier Opening in Primary Brain Tumors with Non-invasive MR-Guided Focused Ultrasound: A Clinical Safety and Feasibility Study. *Scientific Reports*, **2019**, 9, 321	4.9	233
202	MRI-Guided Focused Ultrasound for Targeted Delivery of rAAV to the Brain. *Methods in Molecular Biology*, **2019**, 1950, 177-197	1.4	20
201	Safety and efficacy of focused ultrasound induced blood-brain barrier opening, an integrative review of animal and human studies. *Journal of Controlled Release*, **2019**, 309, 25-36	11.7	40
200	MR-guided Focused Ultrasound Facilitates Sonodynamic Therapy with 5-Aminolevulinic Acid in a Rat Glioma Model. *Scientific Reports*, **2019**, 9, 10465	4.9	21
199	Resting state functional connectivity changes after MR-guided focused ultrasound mediated blood-brain barrier opening in patients with Alzheimer's disease. *NeuroImage*, **2019**, 200, 275-280	7.9	29
198	Numerical Simulations of the Nonlinear Interaction of a Bubble Cloud and a High Intensity Focused Ultrasound Field. *Acoustics*, **2019**, 1, 825-836	2	3
197	Tractography-based targeting of the ventral intermediate nucleus: accuracy and clinical utility in MRgFUS thalamotomy. *Journal of Neurosurgery*, **2019**, 1-8	3.2	16
196	Strategy to enhance transgene expression in proximity of amyloid plaques in a mouse model of Alzheimer's disease. *Theranostics*, **2019**, 9, 8127-8137	12.1	13
195	First-in-human trial of blood-brain barrier opening in amyotrophic lateral sclerosis using MR-guided focused ultrasound. *Nature Communications*, **2019**, 10, 4373	17.4	160
194	Increasing BBB Permeability via Focused Ultrasound: Current Methods in Preclinical Research. *Neuromethods*, **2019**, 267-297	0.4	3
193	Enhancing Checkpoint Inhibitor Therapy with Ultrasound Stimulated Microbubbles. *Ultrasound in Medicine and Biology*, **2019**, 45, 500-512	3.5	27

192	Evaluating the safety profile of focused ultrasound and microbubble-mediated treatments to increase blood-brain barrier permeability. *Expert Opinion on Drug Delivery*, **2019**, 16, 129-142	8	34
191	Advances in acoustic monitoring and control of focused ultrasound-mediated increases in blood-brain barrier permeability. *British Journal of Radiology*, **2019**, 92, 20180601	3.4	19
190	The relevance of skull density ratio in selecting candidates for transcranial MR-guided focused ultrasound. *Journal of Neurosurgery*, **2019**, 132, 1785-1791	3.2	36
189	Antidepressant effects of focused ultrasound induced blood-brain-barrier opening. *Behavioural Brain Research*, **2018**, 342, 57-61	3.4	13
188	Investigating the efficacy of a combination A□targeted treatment in a mouse model of Alzheimer's disease. *Brain Research*, **2018**, 1678, 138-145	3.7	21
187	Three-dimensional transcranial microbubble imaging for guiding volumetric ultrasound-mediated blood-brain barrier opening. *Theranostics*, **2018**, 8, 2909-2926	12.1	75
186	Ultrasound and Microbubble-Mediated Blood-Brain Barrier Disruption for Targeted Delivery of Therapeutics to the□Brain. *Methods in Molecular Biology*, **2018**, 1831, 111-119	1.4	4
185	Blood-brain barrier opening in Alzheimer's disease using MR-guided focused ultrasound. *Nature Communications*, **2018**, 9, 2336	17.4	368
184	Angiogenic response of rat hippocampal vasculature to focused ultrasound-mediated increases in blood-brain barrier permeability. *Scientific Reports*, **2018**, 8, 12178	4.9	20
183	Noninvasive delivery of an □synuclein gene silencing vector with magnetic resonance-guided focused ultrasound. *Movement Disorders*, **2018**, 33, 1567-1579	7	37
182	Time course of focused ultrasound effects on □amyloid plaque pathology in the TgCRND8 mouse model of Alzheimer's disease. *Scientific Reports*, **2018**, 8, 14061	4.9	29
181	Microbubble-assisted MRI-guided focused ultrasound for hyperthermia at reduced power levels. *International Journal of Hyperthermia*, **2018**, 35, 599-611	3.7	8
180	Hyperthermia-induced drug delivery in humans. *Nature Biomedical Engineering*, **2018**, 2, 637-639	19	10
179	Reply to Kovacs .: Concerning acute inflammatory response following focused ultrasound and microbubbles in the brain. *Theranostics*, **2018**, 8, 2249-2250	12.1	21
178	Focused ultrasound thalamotomy location determines clinical benefits in patients with essential tremor. *Brain*, **2018**, 141, 3405-3414	11.2	84
177	An MR-based quantitative intraventricular hemorrhage porcine model for MR-guided focused ultrasound thrombolysis. *Childls Nervous System*, **2018**, 34, 1643-1650	1.7	6
176	The reduction in treatment efficiency at high acoustic powers during MR-guided transcranial focused ultrasound thalamotomy for Essential Tremor. *Medical Physics*, **2018**, 45, 2925-2936	4.4	26
175	Brainstem blood brain barrier disruption using focused ultrasound: A demonstration of feasibility and enhanced doxorubicin delivery. *Journal of Controlled Release*, **2018**, 281, 29-41	11.7	58

174	Preliminary Investigation of Focused Ultrasound-Facilitated Drug Delivery for the Treatment of Leptomeningeal Metastases. *Scientific Reports*, **2018**, 8, 9013	4.9	20
173	Noninvasive and targeted delivery of therapeutics to the brain using focused ultrasound. *Neuropharmacology*, **2017**, 120, 20-37	5.5	75
172	To heat or not to heat: Challenges with clinical translation of thermosensitive liposomes. *Journal of Controlled Release*, **2017**, 249, 63-73	11.7	108
171	Blood-Brain Barrier Closure Time After Controlled Ultrasound-Induced Opening Is Independent of Opening Volume. *Journal of Ultrasound in Medicine*, **2017**, 36, 475-483	2.9	43
170	Focused ultrasound as a novel strategy for Alzheimer disease therapeutics. *Annals of Neurology*, **2017**, 81, 611-617	9.4	19
169	Acute effects of focused ultrasound-induced increases in blood-brain barrier permeability on rat microvascular transcriptome. *Scientific Reports*, **2017**, 7, 45657	4.9	67
168	Acute Inflammatory Response Following Increased Blood-Brain Barrier Permeability Induced by Focused Ultrasound is Dependent on Microbubble Dose. *Theranostics*, **2017**, 7, 3989-4000	12.1	119
167	Focused Ultrasound Hyperthermia Mediated Drug Delivery Using Thermosensitive Liposomes and Visualized With Two-Photon Microscopy. *Theranostics*, **2017**, 7, 2718-2731	12.1	46
166	Investigation of the Safety of Focused Ultrasound-Induced Blood-Brain Barrier Opening in a Natural Canine Model of Aging. *Theranostics*, **2017**, 7, 3573-3584	12.1	44
165	SCDT-51. INITIAL EXPERIENCE OF BLOOD-BRAIN BARRIER OPENING FOR CHEMOTHERAPEUTIC-DRUG DELIVERY TO BRAIN TUMOURS BY MR-GUIDED FOCUSED ULTRASOUND. *Neuro-Oncology*, **2017**, 19, vi275-vi275	1	5
164	Urinary cytokines/chemokines after magnetic resonance-guided high intensity focused ultrasound for palliative treatment of painful bone metastases. *Annals of Palliative Medicine*, **2017**, 6, 36-54	1.7	3
163	Design of patient-specific focused ultrasound arrays for non-invasive brain therapy with increased trans-skull transmission and steering range. *Physics in Medicine and Biology*, **2017**, 62, L9-L19	3.8	16
162	A computerized tablet system for evaluating treatment of essential tremor by magnetic resonance guided focused ultrasound. *BMC Neurology*, **2017**, 17, 74	3.1	2
161	Magnetic Resonance-Guided High-Intensity-Focused Ultrasound for Palliation of Painful Skeletal Metastases: A Pilot Study. *Technology in Cancer Research and Treatment*, **2017**, 16, 570-576	2.7	17
160	Opening the Blood-Brain Barrier with MR Imaging-guided Focused Ultrasound: Preclinical Testing on a Trans-Human Skull Porcine Model. *Radiology*, **2017**, 282, 123-130	20.5	65
159	MRI-guided Focused Ultrasound Thalamotomy for Patients with Medically-refractory Essential Tremor. *Journal of Visualized Experiments*, **2017**,	1.6	8
158	A Randomized Trial of Focused Ultrasound Thalamotomy for Essential Tremor. *New England Journal of Medicine*, **2016**, 375, 730-9	59.2	522
157	Image-guided ultrasound phased arrays are a disruptive technology for non-invasive therapy. *Physics in Medicine and Biology*, **2016**, 61, R206-48	3.8	65

156	A multi-frequency sparse hemispherical ultrasound phased array for microbubble-mediated transcranial therapy and simultaneous cavitation mapping. *Physics in Medicine and Biology*, **2016**, 61, 8476-8501	3.8	43
155	Early treatment of HER2-amplified brain tumors with targeted NK-92 cells and focused ultrasound improves survival. *Neuro-Oncology*, **2016**, 18, 974-81	1	73
154	Microbubble-Assisted Ultrasound for Drug Delivery in the Brain and Central Nervous System. *Advances in Experimental Medicine and Biology*, **2016**, 880, 293-308	3.6	32
153	Combined Therapeutic and Monitoring Ultrasonic Catheter for Cardiac Ablation Therapies. *Ultrasound in Medicine and Biology*, **2016**, 42, 196-207	3.5	2
152	Focused Ultrasound-Induced Neurogenesis Requires an Increase in Blood-Brain Barrier Permeability. *PLoS ONE*, **2016**, 11, e0159892	3.7	40
151	Registration of human skull computed tomography data to an ultrasound treatment space using a sparse high frequency ultrasound hemispherical array. *Medical Physics*, **2016**, 43, 5063	4.4	4
150	Ultrasound-mediated drug delivery. *Physics Today*, **2016**, 69, 30-36	0.9	4
149	Magnetic resonance-guided high-intensity focused ultrasound combined with radiotherapy for palliation of head and neck cancer-a pilot study. *Journal of Therapeutic Ultrasound*, **2016**, 4, 12		10
148	Emerging non-cancer applications of therapeutic ultrasound. *International Journal of Hyperthermia*, **2015**, 31, 310-8	3.7	12
147	Frequency considerations for deep ablation with high-intensity focused ultrasound: A simulation study. *Medical Physics*, **2015**, 42, 4896-10	4.4	12
146	Experimental demonstration of passive acoustic imaging in the human skull cavity using CT-based aberration corrections. *Medical Physics*, **2015**, 42, 4385-400	4.4	45
145	Quantitative MRI in a non-surgical model of cervical spinal cord injury. *NMR in Biomedicine*, **2015**, 28, 925-36	4.4	13
144	Focused ultrasound-mediated drug delivery through the blood-brain barrier. *Expert Review of Neurotherapeutics*, **2015**, 15, 477-91	4.3	129
143	Hyperthermia-mediated doxorubicin release from thermosensitive liposomes using MR-HIFU: therapeutic effect in rabbit Vx2 tumours. *International Journal of Hyperthermia*, **2015**, 31, 118-33	3.7	66
142	Microbubbles and blood-brain barrier opening: a numerical study on acoustic emissions and wall stress predictions. *IEEE Transactions on Biomedical Engineering*, **2015**, 62, 1293-304	5	36
141	Three-dimensional transcranial ultrasound imaging of microbubble clouds using a sparse hemispherical array. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 1285-94	5	84
140	Analysis of focused ultrasound-induced blood-brain barrier permeability in a mouse model of Alzheimer's disease using two-photon microscopy. *Journal of Controlled Release*, **2014**, 192, 243-8	11.7	54
139	A non-surgical model of cervical spinal cord injury induced with focused ultrasound and microbubbles. *Journal of Neuroscience Methods*, **2014**, 235, 92-100	3	14

138	High-intensity focused ultrasound sonothrombolysis: the use of perfluorocarbon droplets to achieve clot lysis at reduced acoustic power. *Ultrasound in Medicine and Biology*, **2014**, 40, 2151-61	3.5	36
137	Drug delivery across the blood-brain barrier using focused ultrasound. *Expert Opinion on Drug Delivery*, **2014**, 11, 711-21	8	55
136	Intracranial applications of magnetic resonance-guided focused ultrasound. *Neurotherapeutics*, **2014**, 11, 593-605	6.4	43
135	Focused ultrasound delivery of Raman nanoparticles across the blood-brain barrier: potential for targeting experimental brain tumors. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2014**, 10, 1075-87	6	64
134	Stimulation of hippocampal neurogenesis by transcranial focused ultrasound and microbubbles in adult mice. *Brain Stimulation*, **2014**, 7, 304-7	5.1	97
133	Alzheimer disease in a mouse model: MR imaging-guided focused ultrasound targeted to the hippocampus opens the blood-brain barrier and improves pathologic abnormalities and behavior. *Radiology*, **2014**, 273, 736-45	20.5	166
132	Simulation study of the effects of near- and far-field heating during focused ultrasound uterine fibroid ablation using an electronically focused phased array: A theoretical analysis of patient safety. *Medical Physics*, **2014**, 41, 072902	4.4	17
131	Interactions between ultrasound stimulated microbubbles and fibrin clots. *Applied Physics Letters*, **2013**, 103, 053701	3.4	27
130	Transcranial passive acoustic mapping with hemispherical sparse arrays using CT-based skull-specific aberration corrections: a simulation study. *Physics in Medicine and Biology*, **2013**, 58, 4981-5005	3.8	67
129	Focused ultrasound delivers targeted immune cells to metastatic brain tumors. *Cancer Research*, **2013**, 73, 1892-9	10.1	137
128	Drug delivery to the brain by focused ultrasound induced blood-brain barrier disruption: quantitative evaluation of enhanced permeability of cerebral vasculature using two-photon microscopy. *Journal of Controlled Release*, **2013**, 172, 274-280	11.7	86
127	Transducer design and characterization for dorsal-based ultrasound exposure and two-photon imaging of in vivo blood-brain barrier disruption in a rat model. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2013**, 60, 1376-85	3.2	8
126	Creating brain lesions with low-intensity focused ultrasound with microbubbles: a rat study at half a megahertz. *Ultrasound in Medicine and Biology*, **2013**, 39, 1420-8	3.5	20
125	Noninvasive and targeted drug delivery to the brain using focused ultrasound. *ACS Chemical Neuroscience*, **2013**, 4, 519-26	5.7	82
124	MR-guided focused ultrasound thalamotomy for essential tremor: a proof-of-concept study. *Lancet Neurology, The*, **2013**, 12, 462-8	24.1	401
123	Amyloid-β plaque reduction, endogenous antibody delivery and glial activation by brain-targeted, transcranial focused ultrasound. *Experimental Neurology*, **2013**, 248, 16-29	5.7	190
122	Investigation of standing-wave formation in a human skull for a clinical prototype of a large-aperture, transcranial MR-guided focused ultrasound (MRgFUS) phased array: an experimental and simulation study. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 435-44	5	51
121	Enhanced drug delivery in rabbit VX2 tumours using thermosensitive liposomes and MRI-controlled focused ultrasound hyperthermia. *International Journal of Hyperthermia*, **2012**, 28, 776-87	3.7	58

120	Improved anti-tumor effect of liposomal doxorubicin after targeted blood-brain barrier disruption by MRI-guided focused ultrasound in rat glioma. *Ultrasound in Medicine and Biology*, **2012**, 38, 1716-25	3.5	199
119	Large improvement of the electrical impedance of imaging and high-intensity focused ultrasound (HIFU) phased arrays using multilayer piezoelectric ceramics coupled in lateral mode. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2012**, 59, 1584-95	3.2	12
118	Focused ultrasound for targeted delivery of siRNA and efficient knockdown of Htt expression. *Journal of Controlled Release*, **2012**, 163, 125-9	11.7	81
117	Enhanced delivery of gold nanoparticles with therapeutic potential into the brain using MRI-guided focused ultrasound. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2012**, 8, 1133-42	6	89
116	Targeted delivery of self-complementary adeno-associated virus serotype 9 to the brain, using magnetic resonance imaging-guided focused ultrasound. *Human Gene Therapy*, **2012**, 23, 1144-55	4.8	123
115	Ultrasound enhanced drug delivery to the brain and central nervous system. *International Journal of Hyperthermia*, **2012**, 28, 386-96	3.7	51
114	High-intensity focused ultrasound (HIFU) for dissolution of clots in a rabbit model of embolic stroke. *PLoS ONE*, **2012**, 7, e42311	3.7	62
113	Cavitation monitoring and passive beamforming using a hemispherical random sparse array **2012**,		2
112	Investigating the interaction between acoustically stimulated microbubbles and fibrin clots **2012**,		6
111	Blood-brain barrier: real-time feedback-controlled focused ultrasound disruption by using an acoustic emissions-based controller. *Radiology*, **2012**, 263, 96-106	20.5	241
110	Focused ultrasound disruption of the blood-brain barrier: a new frontier for therapeutic delivery in molecular neurooncology. *Neurosurgical Focus*, **2012**, 32, E3	4.2	92
109	The use of two-photon microscopy to study the biological effects of focused ultrasound on the brain **2012**,		6
108	In vitro and in vivo high-intensity focused ultrasound thrombolysis. *Investigative Radiology*, **2012**, 47, 217-25	10.1	82
107	Simulations and measurements of transcranial low-frequency ultrasound therapy: skull-base heating and effective area of treatment. *Physics in Medicine and Biology*, **2011**, 56, 4661-83	3.8	51
106	Ultrasound insertion loss of rat parietal bone appears to be proportional to animal mass at submegahertz frequencies. *Ultrasound in Medicine and Biology*, **2011**, 37, 1930-7	3.5	63
105	Targeted delivery of neural stem cells to the brain using MRI-guided focused ultrasound to disrupt the blood-brain barrier. *PLoS ONE*, **2011**, 6, e27877	3.7	183
104	An Investigation of High Intensity Focused Ultrasound Thrombolysis **2011**,		3
103	Focused-ultrasound disruption of the blood-brain barrier using closely-timed short pulses: influence of sonication parameters and injection rate. *Ultrasound in Medicine and Biology*, **2011**, 37, 587-94	3.5	89

102	Two-photon fluorescence microscopy study of cerebrovascular dynamics in ultrasound-induced blood-brain barrier opening. *Journal of Cerebral Blood Flow and Metabolism*, **2011**, 31, 1852-62	7.3	88
101	MRIgHIFU: a tool for image-guided therapeutics. *Journal of Magnetic Resonance Imaging*, **2011**, 34, 482-93	3.6	54
100	Multi-frequency characterization of the speed of sound and attenuation coefficient for longitudinal transmission of freshly excised human skulls. *Physics in Medicine and Biology*, **2011**, 56, 219-50	3.8	154
99	Focused ultrasound surgery in oncology: overview and principles. *Radiology*, **2011**, 259, 39-56	20.5	172
98	MR-guided focused ultrasound for brain ablation and blood-brain barrier disruption. *Methods in Molecular Biology*, **2011**, 711, 579-93	1.4	19
97	Antibodies targeted to the brain with image-guided focused ultrasound reduces amyloid-beta plaque load in the TgCRND8 mouse model of Alzheimer's disease. *PLoS ONE*, **2010**, 5, e10549	3.7	253
96	Hyperthermia classic commentary: 'A scanned, focused, multiple transducer ultrasonic system for localised hyperthermia treatments', by K. Hynynen, R. Roemer, D. Anhalt, et al., International Journal of Hyperthermia 1987;3:21-35. *International Journal of Hyperthermia*, **2010**, 26, 12-5	3.7	2
95	Study of Parameters Affecting the Level of Ultrasound Exposure with In Vitro Set-Ups **2010**,		1
94	The impact of standing wave effects on transcranial focused ultrasound disruption of the blood-brain barrier in a rat model. *Physics in Medicine and Biology*, **2010**, 55, 5251-67	3.8	93
93	Influence of exposure time and pressure amplitude on blood-brain-barrier opening using transcranial ultrasound exposures. *ACS Chemical Neuroscience*, **2010**, 1, 391-398	5.7	63
92	Design and construction of a passive receiver array for monitoring transcranial focused ultrasound therapy **2010**,		1
91	Transcranial magnetic resonance imaging- guided focused ultrasound surgery of brain tumors: initial findings in 3 patients. *Neurosurgery*, **2010**, 66, 323-32; discussion 332	3.2	421
90	Feasibility of using lateral mode coupling method for a large scale ultrasound phased array for noninvasive transcranial therapy. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 124-33	5	38
89	A PVDF receiver for ultrasound monitoring of transcranial focused ultrasound therapy. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 2286-94	5	48
88	Focused ultrasound-mediated bbb disruption is associated with an increase in activation of AKT: experimental study in rats. *BMC Neurology*, **2010**, 10, 114	3.1	57
87	MRI-guided focused ultrasound treatments. *Ultrasonics*, **2010**, 50, 221-9	3.5	157
86	Contrast agent kinetics in the rabbit brain during exposure to therapeutic ultrasound. *Ultrasound in Medicine and Biology*, **2010**, 36, 916-24	3.5	39
85	MR acoustic radiation force imaging: in vivo comparison to ultrasound motion tracking. *Medical Physics*, **2009**, 36, 2016-20	4.4	19

84	Comparison of acoustic power calibration methods for therapeutic ultrasound transducers using PVDF membrane hydrophone, heterodyne laser vibrometery and radiation force measurements **2009**,		1
83	Focused Ultrasound Surgery Control Using Local Harmonic Motion: VX2 Tumor Study **2009**,		1
82	Feasibility of Transient Image-guided Blood-Spinal Cord Barrier Disruption **2009**,		13
81	Ultrasound Delivery of an Anti-A Therapeutic Agent to the Brain in a Mouse Model of Alzheimer Disease **2009**,		1
80	Impact of Focused Ultrasound-enhanced Drug Delivery on Survival in Rats with Glioma **2009**,		8
79	In vivo monitoring of focused ultrasound surgery using local harmonic motion. *Ultrasound in Medicine and Biology*, **2009**, 35, 65-78	3.5	41
78	Macromolecular delivery across the blood-brain barrier. *Methods in Molecular Biology*, **2009**, 480, 175-85	1.4	16
77	Nanoparticle-loaded perfluorocarbon droplets for imaging and therapy **2009**,		9
76	Lateral mode coupling to reduce the electrical impedance of small elements required for high power ultrasound therapy phased arrays. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2009**, 56, 557-64	3.2	9
75	An MRI-compatible system for focused ultrasound experiments in small animal models. *Medical Physics*, **2009**, 36, 1867-74	4.4	71
74	Uterine leiomyomas: MR imaging-guided focused ultrasound surgery--imaging predictors of success. *Radiology*, **2008**, 249, 187-94	20.5	130
73	Antivascular effects of pulsed low intensity ultrasound and microbubbles in mouse tumors **2008**,		5
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