Alexandre Boutet

List of Publications by Year in descending order

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Version: 2024-02-01

89 papers

2,887 citations

279798 23 h-index 206112 48 g-index

91 all docs 91 docs citations

91 times ranked 2781 citing authors

| # | Article | IF | CITATIONS |
|----|---|--------------|-----------|
| 1 | Blood–brain barrier opening in Alzheimer's disease using MR-guided focused ultrasound. Nature Communications, 2018, 9, 2336. | 12.8 | 618 |
| 2 | Technology of deep brain stimulation: current status and future directions. Nature Reviews Neurology, 2021, 17, 75-87. | 10.1 | 341 |
| 3 | A unified connectomic target for deep brain stimulation in obsessive-compulsive disorder. Nature Communications, 2020, 11 , 3364. | 12.8 | 199 |
| 4 | Predicting optimal deep brain stimulation parameters for Parkinson's disease using functional MRI and machine learning. Nature Communications, 2021, 12, 3043. | 12.8 | 130 |
| 5 | Focused ultrasound thalamotomy location determines clinical benefits in patients with essential tremor. Brain, 2018, 141, 3405-3414. | 7.6 | 129 |
| 6 | A high-resolution in vivo magnetic resonance imaging atlas of the human hypothalamic region. Scientific Data, 2020, 7, 305. | 5. 3 | 87 |
| 7 | Probabilistic Mapping of Deep Brain Stimulation: Insights from 15 Years of Therapy. Annals of Neurology, 2021, 89, 426-443. | 5 . 3 | 68 |
| 8 | The relevance of skull density ratio in selecting candidates for transcranial MR-guided focused ultrasound. Journal of Neurosurgery, 2020, 132, 1785-1791. | 1.6 | 62 |
| 9 | Clinical trials for deep brain stimulation: Current state of affairs. Brain Stimulation, 2020, 13, 378-385. | 1.6 | 61 |
| 10 | Deep brain stimulation targets in epilepsy: Systematic review and metaâ€analysis of anterior and centromedian thalamic nuclei and hippocampus. Epilepsia, 2022, 63, 513-524. | 5.1 | 54 |
| 11 | Functional MRI Safety and Artifacts during Deep Brain Stimulation: Experience in 102 Patients. Radiology, 2019, 293, 174-183. | 7. 3 | 51 |
| 12 | Bilateral Focused Ultrasound Thalamotomy for Essential Tremor (<scp>BESTâ€FUS</scp> Phase 2 Trial). Movement Disorders, 2021, 36, 2653-2662. | 3.9 | 51 |
| 13 | Relationship between <scp>BDNF</scp> expression in major striatal afferents, striatum morphology and motor behavior in the <scp>R6/2</scp> mouse model of Huntington's disease. Genes, Brain and Behavior, 2013, 12, 108-124. | 2.2 | 43 |
| 14 | Inferior thalamic peduncle deep brain stimulation for treatment-refractory obsessive-compulsive disorder: A phase 1 pilot trial. Brain Stimulation, 2019, 12, 344-352. | 1.6 | 43 |
| 15 | Imaging alone versus microelectrode recording–guided targeting of the STN in patients with Parkinson's disease. Journal of Neurosurgery, 2019, 130, 1847-1852. | 1.6 | 41 |
| 16 | On the (Nonâ€)equivalency of monopolar and bipolar settings for deep brain stimulation fMRI studies of Parkinson's disease patients. Journal of Magnetic Resonance Imaging, 2019, 49, 1736-1749. | 3 . 4 | 40 |
| 17 | Improving Safety of MRI in Patients with Deep Brain Stimulation Devices. Radiology, 2020, 296, 250-262. | 7.3 | 40 |
| 18 | 3-Tesla MRI of deep brain stimulation patients: safety assessment of coils and pulse sequences. Journal of Neurosurgery, 2020, 132, 586-594. | 1.6 | 39 |

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| 19 | Kilohertz-frequency stimulation of the nervous system: A review of underlying mechanisms. Brain Stimulation, 2021, 14, 513-530. | 1.6 | 37 |
| 20 | Magnetic resonance–guided focused ultrasound thalamotomy for treatment of essential tremor: A 2â€year outcome study. Movement Disorders, 2018, 33, 1647-1650. | 3.9 | 36 |
| 21 | Multimodal MRI for MRgFUS in essential tremor: post-treatment radiological markers of clinical outcome. Journal of Neurology, Neurosurgery and Psychiatry, 2020, 91, 921-927. | 1.9 | 34 |
| 22 | Neuroimaging Technological Advancements for Targeting in Functional Neurosurgery. Current Neurology and Neuroscience Reports, 2019, 19, 42. | 4.2 | 29 |
| 23 | Deep brain stimulation of the brainstem. Brain, 2021, 144, 712-723. | 7.6 | 27 |
| 24 | Probing the circuitry of panic with deep brain stimulation: Connectomic analysis and review of the literature. Brain Stimulation, 2020, 13, 10-14. | 1.6 | 26 |
| 25 | A Deep Learning–Based Approach to Reduce Rescan and Recall Rates in Clinical MRI Examinations. American Journal of Neuroradiology, 2019, 40, 217-223. | 2.4 | 25 |
| 26 | Neuromodulation beyond neurostimulation for epilepsy: scope for focused ultrasound. Expert Review of Neurotherapeutics, 2019, 19, 937-943. | 2.8 | 23 |
| 27 | Network Basis of Seizures Induced by Deep Brain Stimulation: Literature Review and Connectivity Analysis. World Neurosurgery, 2019, 132, 314-320. | 1.3 | 23 |
| 28 | Brain structures and networks responsible for stimulationâ€induced memory flashbacks during forniceal deep brain stimulation for Alzheimer's disease. Alzheimer's and Dementia, 2021, 17, 777-787. | 0.8 | 23 |
| 29 | Potential optimization of focused ultrasound capsulotomy for obsessive compulsive disorder. Brain, 2021, 144, 3529-3540. | 7.6 | 23 |
| 30 | Probing responses to deep brain stimulation with functional magnetic resonance imaging. Brain Stimulation, 2022, 15, 683-694. | 1.6 | 22 |
| 31 | Lesion Network Localization of Seizure Freedom following MR-guided Laser Interstitial Thermal Ablation. Scientific Reports, 2019, 9, 18598. | 3.3 | 21 |
| 32 | Mapping the network underpinnings of central poststroke pain and analgesic neuromodulation. Pain, 2020, 161, 2805-2819. | 4.2 | 21 |
| 33 | Sign-specific stimulation †hot' and †cold' spots in Parkinson's disease validated with machine lear Brain Communications, 2021, 3, fcab027. | ning. | 20 |
| 34 | Deep Brain Stimulation of the Habenula: Systematic Review of the Literature and Clinical Trial Registries. Frontiers in Psychiatry, 2021, 12, 730931. | 2.6 | 20 |
| 35 | Tractography-based targeting of the ventral intermediate nucleus: accuracy and clinical utility in MRgFUS thalamotomy. Journal of Neurosurgery, 2020, 133, 1002-1009. | 1.6 | 20 |
| 36 | Structuro-functional surrogates of response to subcallosal cingulate deep brain stimulation for depression. Brain, 2022, 145, 362-377. | 7.6 | 17 |

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| 37 | Identification of neural networks preferentially engaged by epileptogenic mass lesions through lesion network mapping analysis. Scientific Reports, 2020, 10, 10989. | 3.3 | 16 |
| 38 | 3T MRI of rapid brain activity changes driven by subcallosal cingulate deep brain stimulation. Brain, 2022, 145, 2214-2226. | 7.6 | 16 |
| 39 | Magnetic Resonance-Guided Focused Ultrasound Thalamotomy to Treat Essential Tremor in Nonagenarians. Stereotactic and Functional Neurosurgery, 2020, 98, 182-186. | 1.5 | 14 |
| 40 | A literature review of magnetic resonance imaging sequence advancements in visualizing functional neurosurgery targets. Journal of Neurosurgery, 2021, 135, 1445-1458. | 1.6 | 14 |
| 41 | Mapping autonomic, mood and cognitive effects of hypothalamic region deep brain stimulation. Brain, 2021, 144, 2837-2851. | 7.6 | 14 |
| 42 | Neuromodulatory treatments for psychiatric disease: A comprehensive survey of the clinical trial landscape. Brain Stimulation, 2021, 14, 1393-1403. | 1.6 | 14 |
| 43 | Blood oxygen level-dependent (BOLD) response patterns with thalamic deep brain stimulation in patients with medically refractory epilepsy. Epilepsy and Behavior, 2021, 122, 108153. | 1.7 | 13 |
| 44 | Trends in Clinical Trials for Spinal Cord Stimulation. Stereotactic and Functional Neurosurgery, 2021, 99, 123-134. | 1.5 | 13 |
| 45 | Progressive Disorganization of Paranodal Junctions and Compact Myelin Due to Loss of DCC Expression by Oligodendrocytes. Journal of Neuroscience, 2014, 34, 9768-9778. | 3.6 | 12 |
| 46 | Subthalamic Nucleus Visualization on Routine Clinical Preoperative MRI Scans: A Retrospective Study of Clinical and Image Characteristics Predicting Its Visualization. Stereotactic and Functional Neurosurgery, 2018, 96, 120-126. | 1.5 | 12 |
| 47 | Endovascular deep brain stimulation: Investigating the relationship between vascular structures and deep brain stimulation targets. Brain Stimulation, 2020, 13, 1668-1677. | 1.6 | 12 |
| 48 | Acute low frequency dorsal subthalamic nucleus stimulation improves verbal fluency in Parkinson's disease. Brain Stimulation, 2021, 14, 754-760. | 1.6 | 12 |
| 49 | Aggressiveness after centromedian nucleus stimulation engages prefrontal thalamocortical circuitry. Brain Stimulation, 2020, 13, 357-359. | 1.6 | 11 |
| 50 | Mapping efficacious deep brain stimulation for pediatric dystonia. Journal of Neurosurgery: Pediatrics, 2021, 27, 346-356. | 1.3 | 10 |
| 51 | <scp>Singleâ€Trajectory Multipleâ€Target</scp> Deep Brain Stimulation for Parkinsonian Mobility and Cognition. Movement Disorders, 2022, 37, 635-640. | 3.9 | 10 |
| 52 | Deep brain stimulation for extreme behaviors associated with autism spectrum disorder converges on a common pathway: a systematic review and connectomic analysis. Journal of Neurosurgery, 2022, , 1-10. | 1.6 | 10 |
| 53 | Identifying the neural network for neuromodulation in epilepsy through connectomics and graphs. Brain Communications, 2022, 4, . | 3.3 | 10 |
| 54 | Long-term follow-up of deep brain stimulation for anorexia nervosa. Journal of Neurology, Neurosurgery and Psychiatry, 2021, 92, 1135-1136. | 1.9 | 9 |

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| 55 | Untapped Neuroimaging Tools for Neuro-Oncology: Connectomics and Spatial Transcriptomics. Cancers, 2022, 14, 464. | 3.7 | 9 |
| 56 | Management of Pisa syndrome with lateralized subthalamic stimulation. Journal of Neurology, 2018, 265, 2442-2444. | 3.6 | 8 |
| 57 | Theta Burst Deep Brain Stimulation in Movement Disorders. Movement Disorders Clinical Practice, 2021, 8, 282-285. | 1.5 | 8 |
| 58 | Habenular Involvement in Response to Subcallosal Cingulate Deep Brain Stimulation for Depression. Frontiers in Psychiatry, 2022, 13, 810777. | 2.6 | 7 |
| 59 | Lesion Network Mapping Analysis Identifies Potential Cause of Postoperative Depression in a Case of Cingulate Low-Grade Glioma. World Neurosurgery, 2020, 133, 278-282. | 1.3 | 6 |
| 60 | Surgical targeting of large hypothalamic hamartomas and seizure-freedom following MR-guided laser interstitial thermal therapy. Epilepsy and Behavior, 2021, 116, 107774. | 1.7 | 6 |
| 61 | Self-adjustment of deep brain stimulation delays optimization in Parkinson's disease. Brain Stimulation, 2021, 14, 676-681. | 1.6 | 6 |
| 62 | Flexible vs. standard subthalamic stimulation in Parkinson disease: A double-blind proof-of-concept cross-over trial. Parkinsonism and Related Disorders, 2021, 89, 93-97. | 2.2 | 6 |
| 63 | Safety assessment of spine MRI in deep brain stimulation patients. Journal of Neurosurgery: Spine, 2020, 32, 973-983. | 1.7 | 6 |
| 64 | Neuromodulation for Pain: A Comprehensive Survey and Systematic Review of Clinical Trials and Connectomic Analysis of Brain Targets. Stereotactic and Functional Neurosurgery, 2022, 100, 14-25. | 1.5 | 5 |
| 65 | Axial Impairment Following Deep Brain Stimulation in Parkinson's Disease: A Surgicogenomic Approach. Journal of Parkinson's Disease, 2022, 12, 117-128. | 2.8 | 5 |
| 66 | Normative connectomes and their use in DBS. , 2022, , 245-274. | | 5 |
| 67 | Lateralized Subthalamic Stimulation for Axial Dysfunction in Parkinson's Disease: A Randomized Trial. Movement Disorders, 2022, , . | 3.9 | 5 |
| 68 | Brain Structures and Networks Underlying Treatment Response to Deep Brain Stimulation Targeting the Inferior Thalamic Peduncle in Obsessive-Compulsive Disorder. Stereotactic and Functional Neurosurgery, 2022, 100, 236-243. | 1.5 | 5 |
| 69 | Behcet Disease Presenting With Cardiac and Pulmonary Masses. Canadian Journal of Cardiology, 2015, 31, 1204.e5-1204.e7. | 1.7 | 4 |
| 70 | Response: Deep brain stimulation targets in epilepsy: Systematic review and metaâ€analysis of anterior and centromedian thalamic nuclei and hippocampus. Epilepsia, 2022, 63, 1885-1886. | 5.1 | 4 |
| 71 | Lesions causing self-injurious behavior engage putative networks modulated by deep brain stimulation. Brain Stimulation, 2021, 14, 273-276. | 1.6 | 3 |
| 72 | Impact of Mesial Temporal Lobe Resection on Brain Structure in Medically Refractory Epilepsy. World Neurosurgery, 2021, 152, e652-e665. | 1.3 | 3 |

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| 73 | Modulation of CNS Functions by Deep Brain Stimulation: Insights Provided byÂMolecular Imaging. , 2021, , 1177-1244. | | 3 |
| 74 | A Functional Connectome of Parkinson's Disease Patients Prior to Deep Brain Stimulation: A Tool for Disease-Specific Connectivity Analyses. Frontiers in Neuroscience, 0, 16, . | 2.8 | 3 |
| 75 | An exploratory study into the influence of laterality and location of hippocampal sclerosis on seizure prognosis and global cortical thinning. Scientific Reports, 2021, 11, 4686. | 3.3 | 2 |
| 76 | Evolution of the Neurosurgeon's Role in Clinical Trials for Glioblastoma: A Systematic Overview of the Clinicaltrials.Gov Database. Neurosurgery, 2021, 89, 196-203. | 1.1 | 2 |
| 77 | Probabilistic characterisation of deep brain stimulation in patients with tardive syndromes. Journal of Neurology, Neurosurgery and Psychiatry, 2021, 92, 909-911. | 1.9 | 1 |
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| 79 | Focused Ultrasound Thalamotomy Sensory Side Effects Follow the Thalamic Structural Homunculus. Neurology: Clinical Practice, 2021, 11, e497-e503. | 1.6 | 1 |
| 80 | Dysgeusia induced and resolved by focused ultrasound thalamotomy: case report. Journal of Neurosurgery, 2022, 136, 215-220. | 1.6 | 1 |
| 81 | Letter: Unforeseen Hurdles Associated With Magnetic Resonance Imaging in Patients With Deep Brain Stimulation Devices. Neurosurgery, 2022, Publish Ahead of Print, . | 1.1 | 1 |
| 82 | Neuroanatomical Correlates of Response to Focused Ultrasound Thalamotomy in Essential Tremor. Neurosurgery, 2019, 66, 310-362. | 1.1 | 0 |
| 83 | Scanning Contraindicated Deep Brain Stimulator Patients on 3 Tesla MRI – A Single Centre Experience. Journal of Medical Imaging and Radiation Sciences, 2019, 50, S4. | 0.3 | 0 |
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| 85 | ACTR-27. EVOLUTION OF THE NEUROSURGEON'S ROLE IN CLINICAL TRIALS FOR GBM: A SYSTEMATIC OVERVIEW OF THE CLINICALTRIALS.GOV DATABASE. Neuro-Oncology, 2019, 21, vi18-vi19. | 1.2 | O |
| 86 | NIMG-25. LESION-NETWORK ANALYSIS TO IDENTIFY PREFERENTIALLY-ENGAGED NETWORKS IN EPILEPTOGENIC TUMORS. Neuro-Oncology, 2019, 21, vi166-vi167. | 1.2 | 0 |
| 87 | Global trends in chronic thromboembolic pulmonary hypertension clinical trials and dissemination of results. Pulmonary Circulation, 2021, 11 , 1 -8. | 1.7 | 0 |
| 88 | Focused Ultrasound Thalamotomy Sensory Side Effects Follow the Thalamic Structural Homunculus. Neurology: Clinical Practice, 2021, 11, e497-e503. | 1.6 | 0 |
| 89 | A Cautionary Tale of Magnetic Resonanceâ€Guided Focused Ultrasound Thalamotomyâ€Induced White Matter Lesions. Movement Disorders, 2022, 37, 1953-1955. | 3.9 | 0 |