

Garnette R Sutherland

List of Publications by Year in descending order

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93
papers

4,015
citations

109137

35
h-index

123241

61
g-index

95
all docs

95
docs citations

95
times ranked

3433
citing authors

#	ARTICLE	IF	CITATIONS
1	Incidence and clinicopathological features of meningioma. <i>Journal of Neurosurgery</i> , 1989, 71, 665-672.	0.9	330
2	Postischemic hypothermia. <i>Molecular Neurobiology</i> , 1997, 14, 171-201.	1.9	269
3	A mobile high-field magnetic resonance system for neurosurgery. <i>Journal of Neurosurgery</i> , 1999, 91, 804-813.	0.9	234
4	High-Resolution ¹ H NMR spectroscopy studies of extracts of human cerebral neoplasms. <i>Magnetic Resonance in Medicine</i> , 1992, 24, 123-136.	1.9	211
5	¹ H MRS of high grade astrocytomas: Mobile lipid accumulation in necrotic tissue. <i>NMR in Biomedicine</i> , 1994, 7, 149-155.	1.6	211
6	The human brain utilizes lactate via the tricarboxylic acid cycle: a ¹³ C-labelled microdialysis and high-resolution nuclear magnetic resonance study. <i>Brain</i> , 2009, 132, 2839-2849.	3.7	180
7	Primary intracerebral hemorrhage. <i>Journal of Clinical Neuroscience</i> , 2006, 13, 511-517.	0.8	154
8	Surgical Robotics: A Review and Neurosurgical Prototype Development. <i>Neurosurgery</i> , 2004, 54, 525-537.	0.6	131
9	Advances in Mobile Intraoperative Magnetic Resonance Imaging. <i>Neurosurgery</i> , 2000, 47, 131-138.	0.6	107
10	Integrating an Image-Guided Robot with Intraoperative MRI. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2008, 27, 59-65.	1.1	98
11	AN IMAGE-GUIDED MAGNETIC RESONANCE-COMPATIBLE SURGICAL ROBOT. <i>Neurosurgery</i> , 2008, 62, 286-293.	0.6	94
12	The Evolution of neuroArm. <i>Neurosurgery</i> , 2013, 72, A27-A32.	0.6	93
13	Mobile lipids and metabolic heterogeneity of brain tumours as detectable by Ex Vivo ¹ H MR spectroscopy. <i>NMR in Biomedicine</i> , 1994, 7, 172-180.	1.6	86
14	Merging machines with microsurgery: clinical experience with neuroArm. <i>Journal of Neurosurgery</i> , 2013, 118, 521-529.	0.9	73
15	Hypothermia: depression of tricarboxylic acid cycle flux and evidence for pentose phosphate shunt upregulation. <i>Journal of Neurosurgery</i> , 1999, 90, 339-347.	0.9	70
16	NeuroArm: an MR compatible robot for microsurgery. <i>International Congress Series</i> , 2003, 1256, 504-508.	0.2	68
17	Evaluation of brain tumor vessels specific contrast agents for glioblastoma imaging. <i>Neuro-Oncology</i> , 2012, 14, 53-63.	0.6	66
18	Surgical Skill Assessment Using Motion Quality and Smoothness. <i>Journal of Surgical Education</i> , 2017, 74, 295-305.	1.2	66

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19	Advancing neurosurgery with image-guided robotics. <i>Journal of Neurosurgery</i> , 2009, 111, 1141-1149.	0.9	58
20	Robotics in the neurosurgical treatment of glioma. , 2015, 6, 1.		56
21	Human-Machine Interface for Robotic Surgery and Stereotaxy. <i>IEEE/ASME Transactions on Mechatronics</i> , 2008, 13, 355-361.	3.7	54
22	Application of intraoperative high-field magnetic resonance imaging in pediatric neurosurgery. <i>Journal of Neurosurgery: Pediatrics</i> , 2009, 4, 467-474.	0.8	53
23	Biological and methodological implications of prostaglandin involvement in mouse brain lipid peroxidation measurements. <i>Neurochemical Research</i> , 1989, 14, 217-220.	1.6	46
24	Intraoperative Assessment of Aneurysm Clipping Using Magnetic Resonance Angiography and Diffusion-weighted Imaging: Technical Case Report. <i>Neurosurgery</i> , 2002, 50, 893-898.	0.6	46
25	Optimizing Epilepsy Surgery with Intraoperative MR Imaging. <i>Epilepsia</i> , 2002, 43, 425-429.	2.6	46
26	Performance evaluation of haptic hand-controllers in a robot-assisted surgical system. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2015, 11, 486-501.	1.2	45
27	Towards Molecular Classification of Meningioma: Evolving Treatment and Diagnostic Paradigms. <i>World Neurosurgery</i> , 2018, 119, 366-373.	0.7	45
28	Lactate Storm Marks Cerebral Metabolism following Brain Trauma. <i>Journal of Biological Chemistry</i> , 2014, 289, 20200-20208.	1.6	44
29	Forces exerted during microneurosurgery: a cadaver study. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2014, 10, 251-256.	1.2	43
30	A Force-Sensing Bipolar Forceps to Quantify Tool-Tissue Interaction Forces in Microsurgery. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016, 21, 2365-2377.	3.7	42
31	Advances in Mobile Intraoperative Magnetic Resonance Imaging. <i>Neurosurgery</i> , 2000, 47, 131-138.	0.6	42
32	Truncation of the Krebs Cycle During Hypoglycemic Coma. <i>Medicinal Chemistry</i> , 2008, 4, 379-385.	0.7	40
33	Magnetic Resonance Imaging and 31P Magnetic Resonance Spectroscopy Study of the Effect of Temperature on Ischemic Brain Injury. <i>Canadian Journal of Neurological Sciences</i> , 1992, 19, 317-325.	0.3	37
34	¹ H NMR properties of N-acetylaspartylglutamate in extracts of nervous tissue of the rat. <i>NMR in Biomedicine</i> , 1992, 5, 43-47.	1.6	37
35	The Development of Robotics for Interventional MRI. <i>Neurosurgery Clinics of North America</i> , 2009, 20, 193-206.	0.8	37
36	Quantification of Forces During a Neurosurgical Procedure: A Pilot Study. <i>World Neurosurgery</i> , 2015, 84, 537-548.	0.7	35

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37	Forces of Tool-Tissue Interaction to Assess Surgical Skill Level. <i>JAMA Surgery</i> , 2018, 153, 234.	2.2	35
38	Intraoperative Magnetic Resonance Imaging for Skull Base Surgery. <i>Laryngoscope</i> , 2001, 111, 1570-1575.	1.1	34
39	Tumor-associated macrophage infiltration in meningioma. <i>Neuro-Oncology Advances</i> , 2019, 1, vdz018.	0.4	34
40	The engineering of an interventional MRI with a movable 1.5 Tesla magnet. <i>Journal of Magnetic Resonance Imaging</i> , 2001, 13, 78-86.	1.9	33
41	Identification of PD-L2, B7-H3 and CTLA-4 immune checkpoint proteins in genetic subtypes of meningioma. <i>Oncimmunology</i> , 2019, 8, e1512943.	2.1	31
42	Quantifying workspace and forces of surgical dissection during robot-assisted neurosurgery. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2016, 12, 528-537.	1.2	30
43	Intra-operative Robotics: NeuroArm. <i>Acta Neurochirurgica Supplementum</i> , 2011, 109, 231-236.	0.5	29
44	Utility of a Moveable 1.5 Tesla Intraoperative MR Imaging System. <i>Canadian Journal of Neurological Sciences</i> , 1999, 26, 313-316.	0.3	26
45	Epidemiology and Clinical Features of Vestibular Schwannoma in Manitoba, Canada. <i>Canadian Journal of Neurological Sciences</i> , 1993, 20, 126-130.	0.3	24
46	6-Aminonicotinamide inhibition of the pentose phosphate pathway in rat neocortex. <i>NeuroReport</i> , 2000, 11, 1845-1848.	0.6	19
47	Recombinant Factor VIIa plus Surgery for Intracerebral Hemorrhage. <i>Canadian Journal of Neurological Sciences</i> , 2008, 35, 567-572.	0.3	19
48	Molecular susceptibility weighted imaging of the glioma rim in a mouse model. <i>Journal of Neuroscience Methods</i> , 2014, 226, 132-138.	1.3	19
49	Controversy in the Management of Lenticulostriate Artery Dissecting Aneurysm: A Case Report and Review of the Literature. <i>World Neurosurgery</i> , 2014, 81, 441.e1-441.e7.	0.7	18
50	Platelet aggregation within cerebral arteriovenous malformations. <i>Journal of Neurosurgery</i> , 1988, 68, 198-204.	0.9	17
51	²³ Na Nuclear Magnetic Resonance Spectral Changes During and After Forebrain Ischemia in Hypoglycemic, Normoglycemic, and Hyperglycemic Rats. <i>Stroke</i> , 1996, 27, 957-964.	1.0	16
52	Vibrational Profiling of Brain Tumors and Cells. <i>Theranostics</i> , 2017, 7, 2417-2430.	4.6	15
53	A Moveable 3-Tesla Intraoperative Magnetic Resonance Imaging System. <i>Operative Neurosurgery</i> , 2011, 68, ons168-ons179.	0.4	14
54	Treatment of Glioma Using neuroArm Surgical System. <i>BioMed Research International</i> , 2016, 2016, 1-8.	0.9	14

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55	Tool-Tissue Interaction Forces in Brain Arteriovenous Malformation Surgery. <i>World Neurosurgery</i> , 2017, 102, 221-228.	0.7	14
56	Neurointerventional Robotics: Challenges and Opportunities. <i>Clinical Neuroradiology</i> , 2020, 30, 203-208.	1.0	14
57	Evaluation of haptic interfaces for simulation of drill vibration in virtual temporal bone surgery. <i>Computers in Biology and Medicine</i> , 2016, 78, 9-17.	3.9	13
58	Phosphate Energy Metabolism During Domoic Acid-Induced Seizures. <i>Epilepsia</i> , 1993, 34, 996-1002.	2.6	12
59	Unprecedented response to combination BRAF and MEK inhibitors in adult anaplastic ganglioglioma. <i>Journal of Neuro-Oncology</i> , 2018, 137, 667-669.	1.4	12
60	A data-driven performance dashboard for surgical dissection. <i>Scientific Reports</i> , 2021, 11, 15013.	1.6	12
61	Informatic Surgery: The Union of Surgeon and Machine. <i>World Neurosurgery</i> , 2010, 74, 118-120.	0.7	11
62	Surgical tool motion during conventional freehand and robot-assisted microsurgery conducted using neuroArm. <i>Advanced Robotics</i> , 2016, 30, 621-633.	1.1	11
63	Aneurysm clips. <i>Journal of Neurosurgery</i> , 2003, 98, 638-641.	0.9	10
64	Toward Robot-Assisted Neurosurgical Lasers. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 892-898.	2.5	10
65	Structural design of a microsurgery-specific haptic device: neuroArmPLUS prototype. <i>Mechatronics</i> , 2021, 73, 102481.	2.0	10
66	Quantifying force and positional frequency bands in neurosurgical tasks. <i>Journal of Robotic Surgery</i> , 2016, 10, 97-102.	1.0	9
67	Evaluation of haptic devices and end-users: Novel performance metrics in tele-robotic microsurgery. <i>International Journal of Medical Robotics and Computer Assisted Surgery</i> , 2020, 16, e2101.	1.2	9
68	Ceramic Aneurysm Clips. <i>Operative Neurosurgery</i> , 2008, 62, ONS400-ONS406.	0.4	8
69	Advancing Neurosurgery Through Translational Research. <i>Neurosurgery</i> , 2013, 72, A176-A181.	0.6	8
70	Identification of Disappearing Brain Lesions With Intraoperative Magnetic Resonance Imaging Prevents Surgery. <i>Neurosurgery</i> , 2010, 67, 1061-1065.	0.6	7
71	Supplementary Educational Models in Canadian Neurosurgery Residency Programs. <i>Canadian Journal of Neurological Sciences</i> , 2017, 44, 177-183.	0.3	7
72	Intra-operative MRI at 3.0 Tesla: A Moveable Magnet. <i>Acta Neurochirurgica Supplementum</i> , 2011, 109, 151-156.	0.5	7

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73	Effect of force feedback from each DOF on the motion accuracy of a surgical tool in performing a robot-assisted tracing task. , 2010, 2010, 2093-6.		5
74	Why Robots Entered Neurosurgery. Neuromethods, 2016, , 85-105.	0.2	5
75	Challenges in developing a magnetic resonanceâ€compatible haptic hand-controller for neurosurgical training. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2018, 232, 1148-1167.	1.0	5
76	Data analytics interrogates robotic surgical performance using a microsurgery-specific haptic device. Expert Review of Medical Devices, 2020, 17, 721-730.	1.4	5
77	Surgical performance in a virtual environment. On the Horizon, 2009, 17, 345-355.	1.0	4
78	Real-time measurement of tool-tissue interaction forces in neurosurgery: Quantification and analysis. , 2016, , .		4
79	Interhemispheric arachnoid cyst. , 2021, 12, 125.		4
80	Progress in Neurosurgical Robotics. , 2014, , 601-612.		4
81	Intraoperative Magnetic Resonance: An Inflection Point in Neurosurgery?. Techniques in Neurosurgery, 2002, 7, 246-251.	0.3	3
82	Intraoperative Magnetic Resonance Imaging Using a Mobile 1.5-Tesla Magnet. Techniques in Neurosurgery, 2002, 7, 299-307.	0.3	3
83	Neurorobotics: Driving the Paradigm Shift. World Neurosurgery, 2014, 81, 668.	0.7	3
84	Nonparametric bootstrap technique for calibrating surgical SmartForceps: theory and application. Expert Review of Medical Devices, 2017, 14, 833-843.	1.4	3
85	Improved transoral surgical tool design by CT measurements of the oral cavity and pharynx. Journal of Robotic Surgery, 2017, 11, 179-185.	1.0	2
86	Tool-Tissue Forces in Hemangioblastoma Surgery. World Neurosurgery, 2022, 160, e242-e249.	0.7	2
87	The Vision of Intraoperative Magnetic Resonance Imaging. Techniques in Neurosurgery, 2002, 7, 344-351.	0.3	1
88	Mobile intraoperative MRI in neurosurgery at 1.5 T. International Congress Series, 2003, 1256, 613-618.	0.2	1
89	AN INTEGRATED RADIO FREQUENCY PROBE AND CRANIAL CLAMP FOR INTRAOPERATIVE MAGNETIC RESONANCE IMAGING. Operative Neurosurgery, 2007, 60, E179-E180.	0.4	1
90	Technological Convergence in the Neurosurgical Operating Room. World Neurosurgery, 2010, 74, 107-108.	0.7	1

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91	Early Developments, Current Systems, and Future Directions. <i>Neuromethods</i> , 2021, , 193-227.	0.2	1
92	Intracerebral Hemorrhage: The Pot Continues to Be Stirred. <i>World Neurosurgery</i> , 2012, 77, 57-58.	0.7	0
93	Robotics for Image-Guided Neurosurgery. , 2015, , 475-497.		0