David E Vaillancourt

List of Publications by Year in descending order

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Version: 2024-02-01

94 papers	4,566 citations	94269 37 h-index	114278 63 g-index
95 all docs	95 docs citations	95 times ranked	5080 citing authors

#	Article	IF	Citations
1	Changing complexity in human behavior and physiology through aging and disease. Neurobiology of Aging, 2002, 23, 1-11.	1.5	432
2	Intermittency in the Control of Continuous Force Production. Journal of Neurophysiology, 2000, 84, 1708-1718.	0.9	291
3	Longitudinal changes in free-water within the substantia nigra of Parkinsonâ€™s disease. Brain, 2015, 138, 2322-2331.	3.7	177
4	Free-water imaging in Parkinsonâ€™s disease and atypical parkinsonism. Brain, 2016, 139, 495-508.	3.7	165
5	Exercise improves cognition in Parkinson's disease: The PRET-PD randomized, clinical trial. Movement Disorders, 2015, 30, 1657-1663.	2.2	143
6	Progression marker of Parkinsonâ€™s disease: a 4-year multi-site imaging study. Brain, 2017, 140, 2183-2192.	3.7	139
7	Increased free water in the substantia nigra of Parkinson's disease: a single-site and multi-site study. Neurobiology of Aging, 2015, 36, 1097-1104.	1.5	133
8	Dopamine overdose hypothesis: Evidence and clinical implications. Movement Disorders, 2013, 28, 1920-1929.	2.2	129
9	Finding useful biomarkers for Parkinsonâ€™s disease. Science Translational Medicine, 2018, 10, .	5.8	125
10	Feedforward and Feedback Motor Control Abnormalities Implicate Cerebellar Dysfunctions in Autism Spectrum Disorder. Journal of Neuroscience, 2015, 35, 2015-2025.	1.7	123
11	Regularity of force tremor in Parkinson's disease. Clinical Neurophysiology, 2001, 112, 1594-1603.	0.7	105
12	A Template and Probabilistic Atlas of the Human Sensorimotor Tracts using Diffusion MRI. Cerebral Cortex, 2018, 28, 1685-1699.	1.6	101
13	Intermittent Visuomotor Processing in the Human Cerebellum, Parietal Cortex, and Premotor Cortex. Journal of Neurophysiology, 2006, 95, 922-931.	0.9	98
14	Intermittency in the visual control of force in Parkinson's disease. Experimental Brain Research, 2001, 138, 118-127.	0.7	94
15	The role of highâ€field magnetic resonance imaging in parkinsonian disorders: Pushing the boundaries forward. Movement Disorders, 2017, 32, 510-525.	2.2	92
16	The NINDS Parkinson's disease biomarkers program. Movement Disorders, 2016, 31, 915-923.	2.2	83
17	Beta-band activity and connectivity in sensorimotor and parietal cortex are important for accurate motor performance. NeuroImage, 2017, 144, 164-173.	2.1	73
18	Development and validation of the automated imaging differentiation in parkinsonism (AID-P): a multicentre machine learning study. The Lancet Digital Health, 2019, 1, e222-e231.	5.9	73

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19	Visual angle is the critical variable mediating gain-related effects in manual control. Experimental Brain Research, 2006, 173, 742-750.	0.7	72
20	Individuals with autism spectrum disorder show abnormalities during initial and subsequent phases of precision gripping. Journal of Neurophysiology, 2015, 113, 1989-2001.	0.9	71
21	A widespread visually-sensitive functional network relates to symptoms in essential tremor. Brain, 2018, 141, 472-485.	3.7	71
22	Neurite orientation dispersion and density imaging (NODDI) and freeâ€water imaging in Parkinsonism. Human Brain Mapping, 2019, 40, 5094-5107.	1.9	71
23	Emerging Neuroimaging Biomarkers Across Disease Stage in Parkinson Disease. JAMA Neurology, 2021, 78, 1262.	4.5	70
24	Selective Regions of the Visuomotor System Are Related to Gain-Induced Changes in Force Error. Journal of Neurophysiology, 2010, 103, 2114-2123.	0.9	69
25	Functional Brain Activity Relates to 0â€“3 and 3â€“8 Hz Force Oscillations in Essential Tremor. Cerebral Cortex, 2015, 25, 4191-4202.	1.6	67
26	Imaging of Motor Cortex Physiology in Parkinson's Disease. Movement Disorders, 2018, 33, 1688-1699.	2.2	63
27	Free water improves detection of changes in the substantia nigra in parkinsonism: A multisite study. Movement Disorders, 2017, 32, 1457-1464.	2.2	60
28	Repetitive Transcranial Magnetic Stimulation (rTMS) Therapy in Parkinson Disease: A Metaâ€Analysis. PM and R, 2016, 8, 356-366.	0.9	58
29	Network-level connectivity is a critical feature distinguishing dystonic tremor and essential tremor. Brain, 2019, 142, 1644-1659.	3.7	56
30	Distinct patterns of brain activity in progressive supranuclear palsy and Parkinson's disease. Movement Disorders, 2015, 30, 1248-1258.	2.2	52
31	Functional activity of the sensorimotor cortex and cerebellum relates to cervical dystonia symptoms. Human Brain Mapping, 2017, 38, 4563-4573.	1.9	49
32	Parkinson's disease biomarkers: perspective from the NINDS Parkinson's Disease Biomarkers Program. Biomarkers in Medicine, 2017, 11, 451-473.	0.6	49
33	Knowledge gaps and research recommendations for essential tremor. Parkinsonism and Related Disorders, 2016, 33, 27-35.	1.1	46
34	Functional MRI of disease progression in Parkinson disease and atypical parkinsonian syndromes. Neurology, 2016, 87, 709-717.	1.5	45
35	Subthalamic nucleusâ€"sensorimotor cortex functional connectivity in de novo and moderate Parkinson's disease. Neurobiology of Aging, 2015, 36, 462-469.	1.5	43
36	Multimodal dopaminergic and free-water imaging in Parkinson's disease. Parkinsonism and Related Disorders, 2019, 62, 10-15.	1.1	42

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37	Progressive resistance exercise restores some properties of the triphasic EMG pattern and improves bradykinesia: the PRET-PD randomized clinical trial. Journal of Neurophysiology, 2016, 116, 2298-2311.	0.9	39
38	Automated MRI Classification in Progressive Supranuclear Palsy: A Large International Cohort Study. Movement Disorders, 2020, 35, 976-983.	2.2	38
39	Beta-band oscillations in the supplementary motor cortex are modulated by levodopa and associated with functional activity in the basal ganglia. NeuroImage: Clinical, 2018, 19, 559-571.	1.4	37
40	Subliminal gait initiation deficits in rapid eye movement sleep behavior disorder: A harbinger of freezing of gait?. Movement Disorders, 2016, 31, 1711-1719.	2.2	36
41	Free-water imaging of the hippocampus is a sensitive marker of Alzheimer's disease. NeuroImage: Clinical, 2019, 24, 101985.	1.4	35
42	Effects of Visual and Auditory Feedback on Sensorimotor Circuits in the Basal Ganglia. Journal of Neurophysiology, 2008, 99, 3042-3051.	0.9	34
43	Neurite orientation dispersion and density imaging reveals white matter and hippocampal microstructure changes produced by Interleukin-6 in the TgCRND8 mouse model of amyloidosis. NeuroImage, 2019, 202, 116138.	2.1	34
44	3D Cortical electrophysiology of ballistic upper limb movement in humans. NeuroImage, 2015, 115, 30-41.	2.1	33
45	Freeâ€water and BOLD imaging changes in Parkinson's disease patients chronically treated with a MAOâ€B inhibitor. Human Brain Mapping, 2016, 37, 2894-2903.	1.9	31
46	Diffusion magnetic resonance imaging-derived free water detects neurodegenerative pattern induced by interferon-Î³. Brain Structure and Function, 2020, 225, 427-439.	1.2	31
47	In vivo imaging reveals impaired connectivity across cortical and subcortical networks in a mouse model of DYT1 dystonia. Neurobiology of Disease, 2016, 95, 35-45.	2.1	29
48	Development of a transcallosal tractography template and its application to dementia. NeuroImage, 2019, 200, 302-312.	2.1	28
49	A Nonlinear Regression Technique for Manifold Valued Data with Applications to Medical Image Analysis. , 2016, , .		26
50	The effects of unilateral versus bilateral subthalamic nucleus deep brain stimulation on prosaccades and antisaccades in Parkinsonâ€™s disease. Experimental Brain Research, 2017, 235, 615-626.	0.7	25
51	Depressive Symptoms are Frequent in Atypical Parkinsonian Disorders. Movement Disorders Clinical Practice, 2017, 4, 191-197.	0.8	24
52	Parkinson's disease diffusion MRI is not affected by acute antiparkinsonian medication. NeuroImage: Clinical, 2017, 14, 417-421.	1.4	23
53	The Future of Brain Imaging in Parkinsonâ€™s Disease. Journal of Parkinson's Disease, 2018, 8, S47-S51.	1.5	23
54	Decreased number of striatal cholinergic interneurons and motor deficits in dopamine receptor 2-expressing-cell-specific Dyt1 conditional knockout mice. Neurobiology of Disease, 2020, 134, 104638.	2.1	23

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55	A New MRI Measure to Early Differentiate Progressive Supranuclear Palsy From De Novo Parkinson's Disease in Clinical Practice: An International Study. Movement Disorders, 2021, 36, 681-689.	2.2	22
56	Discriminating features of gait performance in progressive supranuclear palsy. Parkinsonism and Related Disorders, 2015, 21, 888-893.	1.1	21
57	Longitudinal Progression Markers of Parkinsonâ€™s Disease: Current View on Structural Imaging. Current Neurology and Neuroscience Reports, 2018, 18, 83.	2.0	21
58	Cortical and subcortical alterations associated with precision visuomotor behavior in individuals with autism spectrum disorder. Journal of Neurophysiology, 2019, 122, 1330-1341.	0.9	20
59	Forebrain knock-out of torsinA reduces striatal free-water and impairs whole-brain functional connectivity in a symptomatic mouse model of DYT1 dystonia. Neurobiology of Disease, 2017, 106, 124-132.	2.1	19
60	Cortical dynamics within and between parietal and motor cortex in essential tremor. Movement Disorders, 2019, 34, 95-104.	2.2	18
61	Genetic markers of dopaminergic transmission predict performance for older males but not females. Neurobiology of Aging, 2018, 66, 180.e11-180.e21.	1.5	17
62	Development and Validation of Automated <scp>Magnetic Resonance</scp> Parkinsonism Index 2.0 to Distinguish <scp>Progressive Supranuclear Palsyâ€Parkinsonism</scp> From <scp>Parkinson's Disease</scp>. Movement Disorders, 2022, 37, 1272-1281.	2.2	17
63	Parkinson's disease biomarkers program brain imaging repository. NeuroImage, 2016, 124, 1120-1124.	2.1	15
64	The abnormal firing of Purkinje cells in the knockin mouse model of DYT1 dystonia. Brain Research Bulletin, 2020, 165, 14-22.	1.4	15
65	Magnetic Resonance Imaging and Neurofilament Light in the Differentiation of Parkinsonism. Movement Disorders, 2020, 35, 1388-1395.	2.2	15
66	Nonlinear Regression on Riemannian Manifolds and Its Applications to Neuro-Image Analysis. Lecture Notes in Computer Science, 2015, 9349, 719-727.	1.0	15
67	Visuomotor brain network activation and functional connectivity among individuals with autism spectrum disorder. Human Brain Mapping, 2022, 43, 844-859.	1.9	14
68	Association of Cognitive Impairment With Free Water in the Nucleus Basalis of Meynert and Locus Coeruleus to Transentorhinal Cortex Tract. Neurology, 2022, 98, .	1.5	12
69	Advanced diffusion imaging to track progression in Parkinsonâ€™s disease, multiple system atrophy, and progressive supranuclear palsy. NeuroImage: Clinical, 2022, 34, 103022.	1.4	12
70	Physiological effects of subthalamic nucleus deep brain stimulation surgery in cervical dystonia. Journal of Neurology, Neurosurgery and Psychiatry, 2018, 89, 1296-1300.	0.9	11
71	Î±-Synuclein Induces Progressive Changes in Brain Microstructure and Sensory-Evoked Brain Function That Precedes Locomotor Decline. Journal of Neuroscience, 2020, 40, 6649-6659.	1.7	10
72	Alteration of the cholinergic system and motor deficits in cholinergic neuron-specific Dyt1 knockout mice. Neurobiology of Disease, 2021, 154, 105342.	2.1	10

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73	The HIV protease inhibitor, ritonavir, corrects diverse brain phenotypes across development in mouse model of DYT-TOR1A dystonia. Science Translational Medicine, 2021, 13, .	5.8	10
74	Quantitative Separation of Tremor and Ataxia in Essential Tremor. Annals of Neurology, 2020, 88, 375-387.	2.8	9
75	Multimodal neuroimaging and behavioral assessment of Î±-synuclein polymorphism rs356219 in older adults. Neurobiology of Aging, 2018, 66, 32-39.	1.5	8
76	Better Brain and Cognition Prior to Surgery Is Associated With Elevated Postoperative Brain Extracellular Free-Water in Older Adults. Frontiers in Aging Neuroscience, 2019, 11, 117.	1.7	8
77	Nicotine and the developing brain: Insights from preclinical models. Pharmacology Biochemistry and Behavior, 2022, 214, 173355.	1.3	8
78	Diffusion Magnetic Resonance Imaging Detects Progression in <scp>Parkinson's</scp> Disease: A Placeboâ€Controlled Trial of Rasagiline. Movement Disorders, 2022, 37, 325-333.	2.2	7
79	Sensory and motor cortex function contributes to symptom severity in spinocerebellar ataxia type 6. Brain Structure and Function, 2017, 222, 1039-1052.	1.2	6
80	Functional imaging of the brainstem during visually-guided motor control reveals visuomotor regions in the pons and midbrain. NeuroImage, 2021, 226, 117627.	2.1	6
81	<scp>A</scp>ducanumab reduces <scp>A</scp>Î² plaques in <scp>A</scp>lzheimer's disease. Movement Disorders, 2016, 31, 1631-1631.	2.2	5
82	Investigating the role of striatal dopamine receptor 2 in motor coordination and balance: Insights into the pathogenesis of DYT1 dystonia. Behavioural Brain Research, 2021, 403, 113137.	1.2	5
83	PET Imaging of Tau Pathology and Amyloid-Î², and MRI for Alzheimerâ€™s Disease Feature Fusion and Multimodal Classification. Journal of Alzheimer's Disease, 2021, 84, 1497-1514.	1.2	5
84	The ice test to differentiate essential tremor from Parkinsonâ€™s disease tremor. Clinical Neurophysiology, 2017, 128, 2181-2183.	0.7	4
85	Cortical Oscillations in Cervical Dystonia and Dystonic Tremor. Cerebral Cortex Communications, 2020, 1, tgaa048.	0.7	4
86	Understanding Neuromuscular System Plasticity to Improve Motor Function in Health, Disease, and Injury. Neural Plasticity, 2017, 2017, 1-2.	1.0	3
87	Reply: Visually-sensitive networks in essential tremor: evidence from structural and functional imaging. Brain, 2018, 141, e48-e48.	3.7	3
88	Illuminating basal ganglia and beyond in Parkinson's disease. Movement Disorders, 2018, 33, 1373-1375.	2.2	3
89	Parkinsonâ€™s disease progression in the substantia nigra: location, location, location. Brain, 2020, 143, 2628-2630.	3.7	3
90	Unraveling somatotopic organization in the human brain using machine learning and adaptive supervoxel-based parcellations. NeuroImage, 2021, 245, 118710.	2.1	2

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91	What Would Dr. James Parkinson Think Today? Tau and Other Imaging Possibilities in Parkinson's Disease. Movement Disorders, 2017, 32, 805-806.	2.2	1
92	Reply: Thalamotomy for tremor normalizes aberrant pre-therapeutic visual cortex functional connectivity. Brain, 2019, 142, e58-e58.	3.7	1
93	Suppression of Axial Tremor by Deep Brain Stimulation in Patients with Essential Tremor: Effects on Gait and Balance Measures. Tremor and Other Hyperkinetic Movements, 2022, 12, .	1.1	1
94	Reply to: â€œExperience with a New Index to Differentiate Parkinson's Disease and Progressive Supranuclear Palsyâ€• Movement Disorders, 2021, 36, 2208-2209.	2.2	0