Alik S Widge

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1681941/publications.pdf

Version: 2024-02-01

146 papers 3,845 citations

196777 29 h-index 190340 53 g-index

166 all docs

166 docs citations

166 times ranked 4502 citing authors

#	Article	IF	CITATIONS
1	Closed-loop enhancement and neural decoding of cognitive control in humans. Nature Biomedical Engineering, 2023, 7, 576-588.	11.6	29
2	Hybrid Decoders for Marked Point Process Observations and External Influences. IEEE Transactions on Biomedical Engineering, 2023, 70, 343-353.	2.5	2
3	Reply to "Diagnosis of stress-associated dermatological conditions in New York City safety net hospitals during the pandemicâ€. Journal of the American Academy of Dermatology, 2023, 88, e99.	0.6	O
4	Support, technology and mental health: correlates of trainee workplace satisfaction. Perspectives on Medical Education, 2022, 9, 31-40.	1.8	5
5	Patient-specific connectomic models correlate with, but do not reliably predict, outcomes in deep brain stimulation for obsessive-compulsive disorder. Neuropsychopharmacology, 2022, 47, 965-972.	2.8	22
6	Toolkit for Oscillatory Real-time Tracking and Estimation (TORTE). Journal of Neuroscience Methods, 2022, 366, 109409.	1.3	9
7	Physiologically informed neuromodulation. Journal of the Neurological Sciences, 2022, 434, 120121.	0.3	11
8	Beyond Description and Deficits: How Computational Psychiatry Can Enhance an Understanding of Decision-Making in Anorexia Nervosa. Current Psychiatry Reports, 2022, 24, 77-87.	2.1	6
9	Treating Refractory Mental Illness With Closed-Loop Brain Stimulation: Progress Towards a Patient-Specific Transdiagnostic Approach. Focus (American Psychiatric Publishing), 2022, 20, 137-151.	0.4	2
10	Risks and Benefits of Cannabis and Cannabinoids in Psychiatry. American Journal of Psychiatry, 2022, 179, 98-109.	4.0	42
11	Computational validity: using computation to translate behaviours across species. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200525.	1.8	33
12	Local and distant cortical responses to single pulse intracranial stimulation in the human brain are differentially modulated by specific stimulation parameters. Brain Stimulation, 2022, 15, 491-508.	0.7	24
13	Personalizing Dual-Target Cortical Stimulation with Bayesian Parameter Optimization Successfully Treats Central Post-Stroke Pain: A Case Report. Brain Sciences, 2022, 12, 25.	1.1	4
14	A 16-Channel 60ÂμW Neural Synchrony Processor for Multi-Mode Phase-Locked Neurostimulation. , 2022, , .		2
15	Transcranial Direct Current Stimulation to the Left Dorsolateral Prefrontal Cortex Improves Cognitive Control in Patients With Attention-Deficit/Hyperactivity Disorder: A Randomized Behavioral and Neurophysiological Study. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2021, 6. 439-448.	1.1	12
16	Deep brain stimulation for psychiatric disorders: From focal brain targets to cognitive networks. Neurolmage, 2021, 225, 117515.	2.1	63
17	Psychedelics and Psychedelic-Assisted Psychotherapy. Focus (American Psychiatric Publishing), 2021, 19, 95-115.	0.4	6
18	Region-Level Functional and Effective Network Analysis of Human Brain During Cognitive Task Engagement. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1651-1660.	2.7	7

#	Article	IF	CITATIONS
19	Cross-sectional survey examining skin picking and hair pulling disorders during the COVID-19 pandemic. Journal of the American Academy of Dermatology, 2021, 84, 771-773.	0.6	12
20	Transcranial Direct Current Stimulation to the Left Dorsolateral Prefrontal Cortex Improves Cognitive Control and its Physiological Biomarkers in Patients With Attention Deficit Hyperactivity Disorder. Biological Psychiatry, 2021, 89, S77-S78.	0.7	1
21	Divergent Effects of Electrical and Optogenetic Deep Brain Stimulation in Cognitive Flexibility in Rodents. Biological Psychiatry, 2021, 89, S194.	0.7	0
22	Concurrent Benzodiazepine Use and TMS Clinical Outcomes. Biological Psychiatry, 2021, 89, S288.	0.7	0
23	Lost in translation: no effect of repeated optogenetic cortico-striatal stimulation on compulsivity in rats. Translational Psychiatry, 2021, 11, 315.	2.4	7
24	Double blind randomized controlled trial of deep brain stimulation for obsessive-compulsive disorder: Clinical trial design. Contemporary Clinical Trials Communications, 2021, 22, 100785.	0.5	10
25	Neuroimaging Biomarkers in Schizophrenia. American Journal of Psychiatry, 2021, 178, 509-521.	4.0	117
26	Local and distant responses to single pulse electrical stimulation reflect different forms of connectivity. NeuroImage, 2021, 237, 118094.	2.1	31
27	Evaluating the Machine Learning Literature: A Primer and User's Guide for Psychiatrists. American Journal of Psychiatry, 2021, 178, 715-729.	4.0	29
28	Restriction of Access to Deep Brain Stimulation for Refractory OCD: Failure to Apply the Federal Parity Act. Frontiers in Psychiatry, 2021, 12, 706181.	1.3	9
29	A state space modeling approach to real-time phase estimation. ELife, 2021, 10, .	2.8	24
30	Amyloid and Tau in Alzheimer's Disease: Biomarkers or Molecular Targets for Therapy? Are We Shooting the Messenger?. American Journal of Psychiatry, 2021, 178, 1014-1025.	4.0	11
31	Spectral Features Based Decoding of Task Engagement: The Role of Theta and High Gamma Bands in Cognitive Control., 2021, 2021, 6062-6065.		0
32	Decoding Human Cognitive Control Using Functional Connectivity of Local Field Potentials., 2021, 2021, 451-454.		1
33	Estimating Dynamic Signals From Trial Data With Censored Values. Computational Psychiatry, 2020, 1 , 58 .	1.1	7
34	Electroencephalographic Biomarkers for Predicting Antidepressant Response. JAMA Psychiatry, 2020, 77, 347.	6.0	10
35	A case of non-affective psychosis followed by extended response to non-stimulation in deep brain stimulation for obsessive-compulsive disorder. Brain Stimulation, 2020, 13, 1317-1319.	0.7	2
36	Social media recruitment for mental health research: A systematic review. Comprehensive Psychiatry, 2020, 103, 152197.	1.5	41

#	Article	IF	Citations
37	Lost in Translation: No Effect of Repeated Orbitofrontal-Striatal Optogenetic Stimulation on Repetitive Behaviors and Behavioral Flexibility in Rats. Biological Psychiatry, 2020, 87, S193-S194.	0.7	О
38	Controlling Brain Networks Through Oscillatory Synchrony. Biological Psychiatry, 2020, 87, S96.	0.7	0
39	Case Report of Dual-Site Neurostimulation and Chronic Recording of Cortico-Striatal Circuitry in a Patient With Treatment Refractory Obsessive Compulsive Disorder. Frontiers in Human Neuroscience, 2020, 14, 569973.	1.0	26
40	Treating Psychiatric Illness Through Targeted Network Disruption and Electrical Biomarker Identification. Biological Psychiatry, 2020, 87, S237.	0.7	0
41	Intra-Hemisphere Gamma Band Coherence as an EEG Marker of Negative Self-Referential Thinking. Biological Psychiatry, 2020, 87, S189.	0.7	0
42	Paired Electrical Pulse Trains for Controlling Connectivity in Emotion-Related Brain Circuitry. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2721-2730.	2.7	13
43	CLoSES: A platform for closed-loop intracranial stimulation in humans. NeuroImage, 2020, 223, 117314.	2.1	21
44	Hormonal Treatments for Major Depressive Disorder: State of the Art. American Journal of Psychiatry, 2020, 177, 686-705.	4.0	119
45	Uncovering Relationships Between Mood, Movement, and Neural Activity via Dense Longitudinal Data From an Obsessive-Compulsive Disorder Patient Undergoing Deep Brain Stimulation. Biological Psychiatry, 2020, 87, S459.	0.7	0
46	Identification and Functional Dissection of Corticostriatal Circuits Modulated by Deep Brain Stimulation. Biological Psychiatry, 2020, 87, S183-S184.	0.7	0
47	Psychedelics and Psychedelic-Assisted Psychotherapy. American Journal of Psychiatry, 2020, 177, 391-410.	4.0	309
48	Transgene-free remote magnetothermal regulation of adrenal hormones. Science Advances, 2020, 6, eaaz 3734.	4.7	52
49	Alteration of Brain Connectivity and Behavior Using a Precisely Timed Electrical Stimulation Paradigm in a Fear Regulation Circuit. Biological Psychiatry, 2020, 87, S359-S360.	0.7	0
50	Decoding Hidden Cognitive States From Behavior and Physiology Using a Bayesian Approach. Neural Computation, 2019, 31, 1751-1788.	1.3	23
51	Decoding task engagement from distributed network electrophysiology in humans. Journal of Neural Engineering, 2019, 16, 056015.	1.8	22
52	Neural engineering: the process, applications, and its role in the future of medicine. Journal of Neural Engineering, 2019, 16, 063002.	1.8	14
53	215. Recording and Disrupting Cortical-Striatal HyperconnectivityÂin Obsessive-Compulsive Disorder. Biological Psychiatry, 2019, 85, S89.	0.7	0
54	T34. Effects of Repeated Cortico-Striatal Optogenetic Stimulation on OCD-Like Behaviors in Rats. Biological Psychiatry, 2019, 85, S142.	0.7	1

#	Article	IF	CITATIONS
55	F8. Closed-Loop Phase-Locked Electrical Stimulation Alters Low Frequency Coherence in a Fear Regulation Circuit. Biological Psychiatry, 2019, 85, S215-S216.	0.7	O
56	Behavioral validation of a wireless low-power neurostimulation technology in a conditioned place preference task. Journal of Neural Engineering, 2019, 16, 026022.	1.8	9
57	Caudate stimulation enhances learning. Brain, 2019, 142, 2930-2937.	3.7	25
58	213. Effects of Deep Brain Stimulation in Cognitive Flexibility Using an OCD Animal Model. Biological Psychiatry, 2019, 85, S88.	0.7	0
59	Dynamic network targeting for closed-loop deep brain stimulation. Neuropsychopharmacology, 2019, 44, 219-220.	2.8	7
60	tDCS to the left DLPFC modulates cognitive and physiological correlates of executive function in a state-dependent manner. Brain Stimulation, 2019, 12, 1456-1463.	0.7	97
61	Targeting Cognition and Networks Through Neural Oscillations. JAMA Psychiatry, 2019, 76, 671.	6.0	31
62	F139. Decoding of Cognitive Flexibility State Using Behavior and Pre-Frontal Cortical Local Field Potentials. Biological Psychiatry, 2019, 85, S267.	0.7	0
63	Consistent linear and non-linear responses to invasive electrical brain stimulation across individuals and primate species with implanted electrodes. Brain Stimulation, 2019, 12, 877-892.	0.7	41
64	Deep brain stimulation of the internal capsule enhances human cognitive control and prefrontal cortex function. Nature Communications, 2019, 10, 1536.	5.8	97
65	Continuous Prediction of Cognitive State Using A Marked-Point Process Modeling Framework. , 2019, 2019, 2933-2938.		3
66	EEG Biomarkers for Treatment Response Prediction in Major Depressive Illness. American Journal of Psychiatry, 2019, 176, 82-82.	4.0	4
67	Deficits in frontoparietal activation and anterior insula functional connectivity during regulation of cognitiveâ€affective interference in bipolar disorder. Bipolar Disorders, 2019, 21, 244-258.	1.1	43
68	Electroencephalographic Biomarkers for Treatment Response Prediction in Major Depressive Illness: A Meta-Analysis. American Journal of Psychiatry, 2019, 176, 44-56.	4.0	122
69	Prefrontal cortex and cognitive control: new insights from human electrophysiology. F1000Research, 2019, 8, 1696.	0.8	47
70	The Neural Basis of Approach-Avoidance Conflict: A Model Based Analysis. ENeuro, 2019, 6, ENEURO.0115-19.2019.	0.9	23
71	A statistical framework to assess cross-frequency coupling while accounting for confounding analysis effects. ELife, 2019, 8, .	2.8	9
72	T37. Effects of Deep Brain Stimulation in Cognitive Flexibility Using an OCD Animal Model. Biological Psychiatry, 2019, 85, S143.	0.7	0

#	Article	IF	CITATIONS
73	Clinical Implementation of Pharmacogenetic Decision Support Tools for Antidepressant Drug Prescribing. American Journal of Psychiatry, 2018, 175, 873-886.	4.0	119
74	Realistic modeling of deep brain stimulation implants for electromagnetic MRI safety studies. Physics in Medicine and Biology, 2018, 63, 095015.	1.6	27
75	A Shared Vision for Machine Learning in Neuroscience. Journal of Neuroscience, 2018, 38, 1601-1607.	1.7	121
76	Increasing Full Child Immunization Rates by Government Using an Innovative Computerized Immunization Due List in Rural India. Inquiry (United States), 2018, 55, 004695801775129.	0.5	3
77	Multimodal Encoding of Novelty, Reward, and Learning in the Primate Nucleus Basalis of Meynert. Journal of Neuroscience, 2018, 38, 1942-1958.	1.7	10
78	T11. Contributions of Cortico-Striatal Pathways to the Modulation of Cognitive Flexibility. Biological Psychiatry, 2018, 83, S133.	0.7	0
79	T275. Going Wireless: Validation of a Novel Neurostimulation Technology in a Conditioned Place Preference Task. Biological Psychiatry, 2018, 83, S236.	0.7	0
80	Cross-Species Neuromodulation from High-Intensity Transcranial Electrical Stimulation. Trends in Cognitive Sciences, 2018, 22, 372-374.	4.0	9
81	Continuous Phase Estimation for Phase-Locked Neural Stimulation Using an Autoregressive Model for Signal Prediction., 2018, 2018, 4736-4739.		15
82	Altering alpha-frequency brain oscillations with rapid analog feedback-driven neurostimulation. PLoS ONE, 2018, 13, e0207781.	1.1	11
83	T15. Paired, Phase-Lagged Electrical Stimulation Alters Connectivity and Plasticity in a Fear Regulation Circuit. Biological Psychiatry, 2018, 83, S134.	0.7	0
84	Deep Brain Stimulation for Highly Refractory Depression. , 2018, , 1057-1072.		0
85	A neural mass model to predict electrical stimulation evoked responses in human and non-human primate brain. Journal of Neural Engineering, 2018, 15, 066012.	1.8	20
86	Closing the Loop on Deep Brain Stimulation for Treatment-Resistant Depression. Focus (American) Tj ETQq0 0 0	rgBT ₄ /Ove	rlogk 10 Tf 50
87	Closing the Loop on Deep Brain Stimulation for Treatment-Resistant Depression. Frontiers in Neuroscience, 2018, 12, 175.	1.4	107
88	Deep Brain Stimulation in Psychiatry. Psychiatric Clinics of North America, 2018, 41, 373-383.	0.7	21
89	A Case of Severe Intractable Contamination-Based Obsessive-Compulsive Disorder. JAMA Psychiatry, 2018, 75, 1088.	6.0	1
90	Neuroscientifically Informed Formulation and Treatment Planning for Patients With Obsessive-Compulsive Disorder. JAMA Psychiatry, 2018, 75, 1081.	6.0	101

#	Article	IF	Citations
91	COMPASS: An Open-Source, General-Purpose Software Toolkit for Computational Psychiatry. Frontiers in Neuroscience, 2018, 12, 957.	1.4	16
92	Intermittent subthalamic nucleus deep brain stimulation induces risk-aversive behavior in human subjects. ELife, $2018,7,.$	2.8	10
93	Low-Intensity Transcranial Current Stimulation in Psychiatry. American Journal of Psychiatry, 2017, 174, 628-639.	4.0	105
94	Facilitating conservation. Science, 2017, 356, 242-244.	6.0	0
95	The interactive electrode localization utility: software for automatic sorting and labeling of intracranial subdural electrodes. International Journal of Computer Assisted Radiology and Surgery, 2017, 12, 1829-1837.	1.7	21
96	Closed-loop neuromodulation systems: next-generation treatments for psychiatric illness. International Review of Psychiatry, 2017, 29, 191-204.	1.4	73
97	Putative biological predictors of treatment response in bipolar disorders. Personalized Medicine in Psychiatry, 2017, 1-2, 39-58.	0.1	1
98	991. Oscillation Changes in EEG Measured in the On and Off DBS State in Patients with Treatment Resistant Depression. Biological Psychiatry, 2017, 81, S401.	0.7	0
99	47. Preferential Role of the Subthalamic Nucleus in Avoidant Decision Making. Biological Psychiatry, 2017, 81, S20.	0.7	0
100	102. Modulating Top-Down Executive Control Networks with Striatal Deep Brain Stimulation. Biological Psychiatry, 2017, 81, S43.	0.7	1
101	Neurotherapeutic Interventions for Psychiatric Illness. Harvard Review of Psychiatry, 2017, 25, 253-255.	0.9	8
102	Staying in the Loop: Relational Agency and Identity in Next-Generation DBS for Psychiatry. AJOB Neuroscience, 2017, 8, 59-70.	0.6	92
103	Treating refractory mental illness with closed-loop brain stimulation: Progress towards a patient-specific transdiagnostic approach. Experimental Neurology, 2017, 287, 461-472.	2.0	94
104	Predicting learning dynamics in Multiple-Choice Decision-Making Tasks using a variational Bayes technique., 2017, 2017, 3194-3197.		4
105	A Sub-millimeter, Inductively Powered Neural Stimulator. Frontiers in Neuroscience, 2017, 11, 659.	1.4	62
106	149 Human Subthalamic Nucleus Neurons Exhibit Increased Theta-band Phase-locking During High-conflict Decision Making. Neurosurgery, 2017, 64, 236.	0.6	0
107	Functional Neurosurgery in Severe and Treatment-Refractory OCD. , 2017, , .		0
108	Ventral Capsule/Ventral Striatum Deep Brain Stimulation Does Not Consistently Diminish Occipital Cross-Frequency Coupling. Biological Psychiatry, 2016, 80, e59-e60.	0.7	15

#	Article	IF	Citations
109	Brain-computer interface-based control of closed-loop brain stimulation: attitudes and ethical considerations. Brain-Computer Interfaces, 2016, 3, 140-148.	0.9	100
110	Predicting local field potentials with recurrent neural networks., 2016, 2016, 808-811.		5
111	Challenges in Managing Treatment-Refractory Obsessive-Compulsive Disorder and Tourette's Syndrome. Harvard Review of Psychiatry, 2016, 24, 294-301.	0.9	2
112	Acute deep brain stimulation changes in regional cerebral blood flow in obsessive-compulsive disorder. Journal of Neurosurgery, 2016, 125, 1087-1093.	0.9	35
113	Closing the Loop in Deep Brain Stimulation for Psychiatric Disorders: Lessons from Motor Neural Prosthetics. Neuropsychopharmacology, 2016, 41, 379-380.	2.8	7
114	Predictors of Hypomania During Ventral Capsule/Ventral Striatum Deep Brain Stimulation. Journal of Neuropsychiatry and Clinical Neurosciences, 2016, 28, 38-44.	0.9	42
115	Variability and anatomical specificity of the orbitofrontothalamic fibers of passage in the ventral capsule/ventral striatum (VC/VS): precision care for patient-specific tractography-guided targeting of deep brain stimulation (DBS) in obsessive compulsive disorder (OCD). Brain Imaging and Behavior, 2016, 10. 1054-1067.	1.1	115
116	Deep Brain Stimulation for Treatment-Resistant Psychiatric Illnesses: What Has Gone Wrong and What Should We Do Next?. Biological Psychiatry, 2016, 79, e9-e10.	0.7	47
117	Packaging Architecture for an Implanted System that Monitors Brain Activity and Applies Therapeutic Stimulation. Journal of Microelectronics and Electronic Packaging, 2016, 13, 64-70.	0.8	4
118	Avoiding a lost generation of scientists. ELife, 2016, 5, .	2.8	4
119	Cognitive state prediction using an EM algorithm applied to Gamma distributed data. , 2015, 2015, 7819-24.		14
120	Lurasidone for the treatment of bipolar depression: an evidence-based review. Neuropsychiatric Disease and Treatment, 2015, 11, 2143.	1.0	18
121	An implantable 64-channel neural interface with reconfigurable recording and stimulation. , 2015, 2015, 7837-40.		17
122	Characterization of fear conditioning and fear extinction by analysis of electrodermal activity., 2015, 2015, 7814-8.		34
123	Neural signal processing and closed-loop control algorithm design for an implanted neural recording and stimulation system., 2015, 2015, 7831-6.		6
124	Estimating a dynamic state to relate neural spiking activity to behavioral signals during cognitive tasks., 2015, 2015, 7808-13.		7
125	Attitudes Toward Neuroscience Education in Psychiatry: a National Multi-stakeholder Survey. Academic Psychiatry, 2015, 39, 139-146.	0.4	19
126	Deep Brain Stimulation for Treatment-Refractory Mood and Obsessive-Compulsive Disorders. Current Behavioral Neuroscience Reports, 2015, 2, 187-197.	0.6	24

#	Article	IF	Citations
127	Package architecture and component design for an implanted neural stimulator with closed loop control., 2015, 2015, 7825-30.		11
128	Packaging Architecture for an Implanted System that Monitors Brain Activity and Applies Therapeutic Stimulation. International Symposium on Microelectronics, 2015, 2015, 000548-000554.	0.3	3
129	Pre-frontal control of closed-loop limbic neurostimulation by rodents using a brain–computer interface. Journal of Neural Engineering, 2014, 11, 024001.	1.8	22
130	Methodology and the Limits of QEEG: Reply to Olbrich & Arns. Brain Stimulation, 2014, 7, 148-149.	0.7	1
131	Attitudes Toward Neuroscience Education Among Psychiatry Residents and Fellows. Academic Psychiatry, 2014, 38, 127-134.	0.4	20
132	Opportunities and Challenges: Residents' Perspectives on the Next Accreditation System in Psychiatry. Academic Psychiatry, 2014, 38, 303-304.	0.4	5
133	Systems-Based Practice and Practice-Based Learning for the General Psychiatrist: Old Competencies, New Emphasis. Academic Psychiatry, 2014, 38, 288-293.	0.4	10
134	Neuropsychiatry and Neuroscience Milestones for General Psychiatry Trainees. Academic Psychiatry, 2014, 38, 275-282.	0.4	20
135	Affective brain-computer interfaces as enabling technology for responsive psychiatric stimulation. Brain-Computer Interfaces, 2014, 1, 126-136.	0.9	42
136	Baseline and Treatment-Emergent EEG Biomarkers of Antidepressant Medication Response Do Not Predict Response to Repetitive Transcranial Magnetic Stimulation. Brain Stimulation, 2013, 6, 929-931.	0.7	34
137	Psychosis from subthalamic nucleus deep brain stimulator lesion effect. , 2013, 4, 7.		24
138	An Evaluation of Neuroplasticity and Behavior After Deep Brain Stimulation of the Nucleus Accumbens in an Animal Model of Depression. Neurosurgery, 2011, 69, 1281-1290.	0.6	74
139	Direct Neural Control of Anatomically Correct Robotic Hands. Human-computer Interaction Series, 2010, , 105-119.	0.4	3
140	Sacral preservation in cauda equina syndrome from inferior vena cava thrombosis. Journal of Neurosurgery: Spine, 2009, 10, 257-259.	0.9	4
141	Development and initial testing of an empirical forcefield for simulation of poly(alkylthiophenes). Journal of Molecular Graphics and Modelling, 2008, 27, 34-44.	1.3	12
142	Computational Modeling of Poly(alkylthiophene) Conductive Polymer Insertion into Phospholipid Bilayers. Langmuir, 2007, 23, 10672-10681.	1.6	16
143	Self-assembled monolayers of polythiophene conductive polymers improve biocompatibility and electrical impedance of neural electrodes. Biosensors and Bioelectronics, 2007, 22, 1723-1732.	5. 3	81
144	The NOESY Jigsaw: Automated Protein Secondary Structure and Main-Chain Assignment from Sparse, Unassigned NMR Data. Journal of Computational Biology, 2000, 7, 537-558.	0.8	85

#	Article	IF	CITATIONS
145	Managing patients with psychiatric conditions treated with deep brain stimulation., 0,, 124-137.		11
146	Probing Neuro-Endocrine Interactions Through Remote Magnetothermal Adrenal Stimulation. Frontiers in Neuroscience, 0, 16 , .	1.4	2