

Viviana Gradinaru

List of Publications by Year in descending order

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Version: 2024-02-01

86
papers

22,263
citations

34105

52
h-index

49909

87
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107
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107
docs citations

107
times ranked

27560
citing authors

#	ARTICLE	IF	CITATIONS
1	Brain-wide Cas9-mediated cleavage of a gene causing familial Alzheimer's disease alleviates amyloid-related pathologies in mice. <i>Nature Biomedical Engineering</i> , 2022, 6, 168-180.	22.5	27
2	Age-dependent alterations in key components of the nigrostriatal dopaminergic system and distinct motor phenotypes. <i>Acta Pharmacologica Sinica</i> , 2022, 43, 862-875.	6.1	5
3	Glutamate in primary afferents is required for itch transmission. <i>Neuron</i> , 2022, 110, 809-823.e5.	8.1	18
4	AAV capsid variants with brain-wide transgene expression and decreased liver targeting after intravenous delivery in mouse and marmoset. <i>Nature Neuroscience</i> , 2022, 25, 106-115.	14.8	162
5	Adeno-Associated Virus Toolkit to Target Diverse Brain Cells. <i>Annual Review of Neuroscience</i> , 2022, 45, 447-469.	10.7	44
6	Engineered AAVs for non-invasive gene delivery to rodent and non-human primate nervous systems. <i>Neuron</i> , 2022, 110, 2242-2257.e6.	8.1	55
7	Dorsal Raphe Dopamine Neurons Signal Motivational Salience Dependent on Internal State, Expectation, and Behavioral Context. <i>Journal of Neuroscience</i> , 2021, 41, 2645-2655.	3.6	16
8	Functional enhancer elements drive subclass-selective expression from mouse to primate neocortex. <i>Cell Reports</i> , 2021, 34, 108754.	6.4	88
9	Use of high-content imaging to quantify transduction of AAV-PHP viruses in the brain following systemic delivery. <i>Brain Communications</i> , 2021, 3, fcab105.	3.3	7
10	Cholinergic neurons constitutively engage the ISR for dopamine modulation and skill learning in mice. <i>Science</i> , 2021, 372, .	12.6	26
11	Enhancer viruses for combinatorial cell-subclass-specific labeling. <i>Neuron</i> , 2021, 109, 1449-1464.e13.	8.1	93
12	The SHREAD gene therapy platform for paracrine delivery improves tumor localization and intratumoral effects of a clinical antibody. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	15
13	Microbiota regulate social behaviour via stress response neurons in the brain. <i>Nature</i> , 2021, 595, 409-414.	27.8	142
14	Specific and behaviorally consequential astrocyte Gq GPCR signaling attenuation in vivo with β ARK. <i>Neuron</i> , 2021, 109, 2256-2274.e9.	8.1	47
15	Improved systemic AAV gene therapy with a neurotrophic capsid in Niemann-Pick disease type C1 mice. <i>Life Science Alliance</i> , 2021, 4, e202101040.	2.8	6
16	Human embryo polarization requires PLC signaling to mediate trophoctoderm specification. <i>ELife</i> , 2021, 10, .	6.0	24
17	Light-guided sectioning for precise in situ localization and tissue interface analysis for brain-implanted optical fibers and GRIN lenses. <i>Cell Reports</i> , 2021, 36, 109744.	6.4	9
18	Deep Parallel Characterization of AAV Tropism and AAV-Mediated Transcriptional Changes via Single-Cell RNA Sequencing. <i>Frontiers in Immunology</i> , 2021, 12, 730825.	4.8	31

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19	Tissue clearing and its applications in neuroscience. <i>Nature Reviews Neuroscience</i> , 2020, 21, 61-79.	10.2	350
20	Negative feedback control of neuronal activity by microglia. <i>Nature</i> , 2020, 586, 417-423.	27.8	520
21	Expanding the brain researcher's toolkit. <i>Science</i> , 2020, 369, 637-637.	12.6	7
22	Directed Evolution of a Selective and Sensitive Serotonin Sensor via Machine Learning. <i>Cell</i> , 2020, 183, 1986-2002.e26.	28.9	104
23	RecV recombinase system for in vivo targeted optogenomic modifications of single cells or cell populations. <i>Nature Methods</i> , 2020, 17, 422-429.	19.0	36
24	LRP1 is a master regulator of tau uptake and spread. <i>Nature</i> , 2020, 580, 381-385.	27.8	326
25	Gut-seeded α -synuclein fibrils promote gut dysfunction and brain pathology specifically in aged mice. <i>Nature Neuroscience</i> , 2020, 23, 327-336.	14.8	247
26	Positron emission tomography imaging of novel AAV capsids maps rapid brain accumulation. <i>Nature Communications</i> , 2020, 11, 2102.	12.8	17
27	Multiplexed Cre-dependent selection yields systemic AAVs for targeting distinct brain cell types. <i>Nature Methods</i> , 2020, 17, 541-550.	19.0	121
28	A gut bacterial amyloid promotes α -synuclein aggregation and motor impairment in mice. <i>ELife</i> , 2020, 9, .	6.0	251
29	The Serotonergic Raphe Promote Sleep in Zebrafish and Mice. <i>Neuron</i> , 2019, 103, 686-701.e8.	8.1	160
30	Imaging neuromodulators with high spatiotemporal resolution using genetically encoded indicators. <i>Nature Protocols</i> , 2019, 14, 3471-3505.	12.0	33
31	Identification of peripheral neural circuits that regulate heart rate using optogenetic and viral vector strategies. <i>Nature Communications</i> , 2019, 10, 1944.	12.8	140
32	TRIM9-Mediated Resolution of Neuroinflammation Confers Neuroprotection upon Ischemic Stroke in Mice. <i>Cell Reports</i> , 2019, 27, 549-560.e6.	6.4	43
33	Machine learning-guided channelrhodopsin engineering enables minimally invasive optogenetics. <i>Nature Methods</i> , 2019, 16, 1176-1184.	19.0	141
34	Systemic AAV vectors for widespread and targeted gene delivery in rodents. <i>Nature Protocols</i> , 2019, 14, 379-414.	12.0	235
35	Low- and high-thermogenic brown adipocyte subpopulations coexist in murine adipose tissue. <i>Journal of Clinical Investigation</i> , 2019, 130, 247-257.	8.2	134
36	Optical dopamine monitoring with dLight1 reveals mesolimbic phenotypes in a mouse model of neurofibromatosis type 1. <i>ELife</i> , 2019, 8, .	6.0	33

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37	Gene therapy for the treatment of Niemann-Pick disease type C1: Comparison of AAV9 to a novel serotype, AAV-PHP.B. <i>Molecular Genetics and Metabolism</i> , 2018, 123, S36-S37.	1.1	0
38	Viral Strategies for Targeting the Central and Peripheral Nervous Systems. <i>Annual Review of Neuroscience</i> , 2018, 41, 323-348.	10.7	127
39	Dopaminergic dysfunction in neurodevelopmental disorders: recent advances and synergistic technologies to aid basic research. <i>Current Opinion in Neurobiology</i> , 2018, 48, 17-29.	4.2	23
40	Whole-Brain Analysis of Cells and Circuits by Tissue Clearing and Light-Sheet Microscopy. <i>Journal of Neuroscience</i> , 2018, 38, 9330-9337.	3.6	45
41	The Neuropeptide Tac2 Controls a Distributed Brain State Induced by Chronic Social Isolation Stress. <i>Cell</i> , 2018, 173, 1265-1279.e19.	28.9	211
42	Ultrafast neuronal imaging of dopamine dynamics with designed genetically encoded sensors. <i>Science</i> , 2018, 360, .	12.6	773
43	Hydrogel-Tissue Chemistry: Principles and Applications. <i>Annual Review of Biophysics</i> , 2018, 47, 355-376.	10.0	95
44	Two-Photon Microscopy with a Double-Wavelength Metasurface Objective Lens. <i>Nano Letters</i> , 2018, 18, 4943-4948.	9.1	77
45	Time-reversed ultrasonically encoded (TRUE) focusing for deep-tissue optogenetic modulation. , 2018, , .		0
46	Structure-guided SCHEMA recombination generates diverse chimeric channelrhodopsins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E2624-E2633.	7.1	51
47	Directed Evolution of a Bright Near-Infrared Fluorescent Rhodopsin Using a Synthetic Chromophore. <i>Cell Chemical Biology</i> , 2017, 24, 415-425.	5.2	55
48	Bone CLARITY: Clearing, imaging, and computational analysis of osteoprogenitors within intact bone marrow. <i>Science Translational Medicine</i> , 2017, 9, .	12.4	160
49	Global Representations of Goal-Directed Behavior in Distinct Cell Types of Mouse Neocortex. <i>Neuron</i> , 2017, 94, 891-907.e6.	8.1	316
50	Dorsal Raphe Dopamine Neurons Modulate Arousal and Promote Wakefulness by Salient Stimuli. <i>Neuron</i> , 2017, 94, 1205-1219.e8.	8.1	201
51	Overriding sleep. <i>Science</i> , 2017, 358, 457-457.	12.6	3
52	The Jellyfish <i>Cassiopea</i> Exhibits a Sleep-like State. <i>Current Biology</i> , 2017, 27, 2984-2990.e3.	3.9	171
53	Deep tissue optical focusing and optogenetic modulation with time-reversed ultrasonically encoded light. <i>Science Advances</i> , 2017, 3, eaao5520.	10.3	60
54	Q&A: How can advances in tissue clearing and optogenetics contribute to our understanding of normal and diseased biology?. <i>BMC Biology</i> , 2017, 15, 87.	3.8	8

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55	Engineered AAVs for efficient noninvasive gene delivery to the central and peripheral nervous systems. <i>Nature Neuroscience</i> , 2017, 20, 1172-1179.	14.8	927
56	Machine learning to design integral membrane channelrhodopsins for efficient eukaryotic expression and plasma membrane localization. <i>PLoS Computational Biology</i> , 2017, 13, e1005786.	3.2	96
57	Extracting structural and functional features of widely distributed biological circuits with single cell resolution via tissue clearing and delivery vectors. <i>Current Opinion in Biotechnology</i> , 2016, 40, 193-207.	6.6	41
58	Single-molecule RNA detection at depth via hybridization chain reaction and tissue hydrogel embedding and clearing. <i>Development (Cambridge)</i> , 2016, 143, 2862-7.	2.5	174
59	Gut Microbiota Regulate Motor Deficits and Neuroinflammation in a Model of Parkinson's Disease. <i>Cell</i> , 2016, 167, 1469-1480.e12.	28.9	2,399
60	Exposing the Three-Dimensional Biogeography and Metabolic States of Pathogens in Cystic Fibrosis Sputum via Hydrogel Embedding, Clearing, and rRNA Labeling. <i>MBio</i> , 2016, 7, .	4.1	112
61	Cholinergic Mesopontine Signals Govern Locomotion and Reward through Dissociable Midbrain Pathways. <i>Neuron</i> , 2016, 90, 333-347.	8.1	168
62	Regional glutamine deficiency in tumours promotes dedifferentiation through inhibition of histone demethylation. <i>Nature Cell Biology</i> , 2016, 18, 1090-1101.	10.3	291
63	Fluorescent boost for voltage sensors. <i>Nature</i> , 2016, 529, 469-470.	27.8	5
64	Cre-dependent selection yields AAV variants for widespread gene transfer to the adult brain. <i>Nature Biotechnology</i> , 2016, 34, 204-209.	17.5	727
65	Genomic Reconstruction of an Uncultured Hydrothermal Vent Gammaproteobacterial Methanotroph (Family Methylothermaceae) Indicates Multiple Adaptations to Oxygen Limitation. <i>Frontiers in Microbiology</i> , 2015, 6, 1425.	3.5	36
66	Genetically Encoded Spy Peptide Fusion System to Detect Plasma Membrane-Localized Proteins In Vivo. <i>Chemistry and Biology</i> , 2015, 22, 1108-1121.	6.0	56
67	Whole-body tissue stabilization and selective extractions via tissue-hydrogel hybrids for high-resolution intact circuit mapping and phenotyping. <i>Nature Protocols</i> , 2015, 10, 1860-1896.	12.0	234
68	Bioelectronic medicines: a research roadmap. <i>Nature Reviews Drug Discovery</i> , 2014, 13, 399-400.	46.4	283
69	Archaerhodopsin variants with enhanced voltage-sensitive fluorescence in mammalian and <i>Caenorhabditis elegans</i> neurons. <i>Nature Communications</i> , 2014, 5, 4894.	12.8	124
70	Single-Cell Phenotyping within Transparent Intact Tissue through Whole-Body Clearing. <i>Cell</i> , 2014, 158, 945-958.	28.9	833
71	Directed evolution of a far-red fluorescent rhodopsin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13034-13039.	7.1	84
72	Structural and molecular interrogation of intact biological systems. <i>Nature</i> , 2013, 497, 332-337.	27.8	1,765

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73	Optogenetic Delay of Status Epilepticus Onset in an In Vivo Rodent Epilepsy Model. PLoS ONE, 2013, 8, e62013.	2.5	58
74	Principles for applying optogenetic tools derived from direct comparative analysis of microbial opsins. Nature Methods, 2012, 9, 159-172.	19.0	666
75	Leptin regulates the reward value of nutrient. Nature Neuroscience, 2011, 14, 1562-1568.	14.8	201
76	Dynamics of Retrieval Strategies for Remote Memories. Cell, 2011, 147, 678-689.	28.9	481
77	Amygdala circuitry mediating reversible and bidirectional control of anxiety. Nature, 2011, 471, 358-362.	27.8	1,073
78	Global and local fMRI signals driven by neurons defined optogenetically by type and wiring. Nature, 2010, 465, 788-792.	27.8	659
79	Lee et al. reply. Nature, 2010, 468, E4-E5.	27.8	3
80	Optogenetic interrogation of neural circuits: technology for probing mammalian brain structures. Nature Protocols, 2010, 5, 439-456.	12.0	895
81	Cholinergic Interneurons Control Local Circuit Activity and Cocaine Conditioning. Science, 2010, 330, 1677-1681.	12.6	417
82	Molecular and Cellular Approaches for Diversifying and Extending Optogenetics. Cell, 2010, 141, 154-165.	28.9	919
83	Optical Deconstruction of Parkinsonian Neural Circuitry. Science, 2009, 324, 354-359.	12.6	1,385
84	eNpHR: a Natronomonas halorhodopsin enhanced for optogenetic applications. Brain Cell Biology, 2008, 36, 129-139.	3.2	454
85	Controlling Neuronal Activity. American Journal of Psychiatry, 2008, 165, 562-562.	7.2	11
86	Targeting and Readout Strategies for Fast Optical Neural Control <i>In Vitro</i> and <i>In Vivo</i> . Journal of Neuroscience, 2007, 27, 14231-14238.	3.6	450