

Accurate quantification of astrocyte and neurotransmitter single-cell and population-level physiology

Nature Neuroscience

22, 1936-1944

DOI: [10.1038/s41593-019-0492-2](https://doi.org/10.1038/s41593-019-0492-2)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Diving into new depths of astrocyte signaling. <i>Nature Neuroscience</i> , 2019, 22, 1749-1750.	7.1	2
2	A Role for Astroglial Calcium in Mammalian Sleep and Sleep Regulation. <i>Current Biology</i> , 2020, 30, 4373-4383.e7.	1.8	93
3	Astrocytes contribute to remote memory formation by modulating hippocampal cortical communication during learning. <i>Nature Neuroscience</i> , 2020, 23, 1229-1239.	7.1	167
4	Vasculo-Neuronal Coupling and Neurovascular Coupling at the Neurovascular Unit: Impact of Hypertension. <i>Frontiers in Physiology</i> , 2020, 11, 584135.	1.3	46
5	Making sense of astrocytic calcium signals from acquisition to interpretation. <i>Nature Reviews Neuroscience</i> , 2020, 21, 551-564.	4.9	131
6	Live-imaging of astrocyte morphogenesis and function in zebrafish neural circuits. <i>Nature Neuroscience</i> , 2020, 23, 1297-1306.	7.1	90
7	Augmenting vascular disease diagnosis by vasculature-aware unsupervised learning. <i>Nature Machine Intelligence</i> , 2020, 2, 337-346.	8.3	13
8	No Longer Underappreciated: The Emerging Concept of Astrocyte Heterogeneity in Neuroscience. <i>Brain Sciences</i> , 2020, 10, 168.	1.1	64
9	Mapping astrocyte activity domains by light sheet imaging and spatio-temporal correlation screening. <i>NeuroImage</i> , 2020, 220, 117069.	2.1	14
10	Astrocytic Ca ²⁺ signaling is reduced during sleep and is involved in the regulation of slow wave sleep. <i>Nature Communications</i> , 2020, 11, 3240.	5.8	120
11	Microglia phagocytose myelin sheaths to modify developmental myelination. <i>Nature Neuroscience</i> , 2020, 23, 1055-1066.	7.1	179
12	Emerging technologies to study glial cells. <i>Glia</i> , 2020, 68, 1692-1728.	2.5	32
13	Astroglial Calcium Signaling Encodes Sleep Need in <i>Drosophila</i> . <i>Current Biology</i> , 2021, 31, 150-162.e7.	1.8	66
14	Non-canonical glutamate signaling in a genetic model of migraine with aura. <i>Neuron</i> , 2021, 109, 611-628.e8.	3.8	41
15	Deformable mirror-based axial scanning for two-photon mammalian brain imaging. <i>NeuroPhotonics</i> , 2021, 8, 015003.	1.7	5
17	Reactive astrocyte nomenclature, definitions, and future directions. <i>Nature Neuroscience</i> , 2021, 24, 312-325.	7.1	1,098
18	Astrocytes mediate migraine-related intracranial meningeal mechanical hypersensitivity. <i>Pain</i> , 2021, 162, 2386-2396.	2.0	13
20	Modeling of Astrocyte Networks: Toward Realistic Topology and Dynamics. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 645068.	1.8	21

#	ARTICLE	IF	CITATIONS
21	Cortical astrocytes independently regulate sleep depth and duration via separate GPCR pathways. <i>ELife</i> , 2021, 10, .	2.8	77
22	Extracting meaningful circuit-based calcium dynamics in astrocytes and neurons from adult mouse brain slices using single-photon GCaMP imaging. <i>STAR Protocols</i> , 2021, 2, 100306.	0.5	6
23	Tracking single cells in zebrafish brain. <i>Journal of Neuroscience Methods</i> , 2021, 353, 109086.	1.3	2
24	Imaging in vivo acetylcholine release in the peripheral nervous system with a fluorescent nanosensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	9
25	Simulation of Astrocytic Calcium Dynamics in Lattice Light Sheet Microscopy Images. , 2021, , .		2
26	Local and CNS-Wide Astrocyte Intracellular Calcium Signaling Attenuation <i>In Vivo</i> with CalEx ^{flox} Mice. <i>Journal of Neuroscience</i> , 2021, 41, 4556-4574.	1.7	18
27	Begoniaâ€”A Two-Photon Imaging Analysis Pipeline for Astrocytic Ca ²⁺ Signals. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 681066.	1.8	15
28	Calcium Signals in Astrocyte Microdomains, a Decade of Great Advances. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 673433.	1.8	48
29	Analysing Intercellular Communication in Astrocytic Networks Using â€œAstralâ€œ. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 689268.	1.8	7
30	Specific and behaviorally consequential astrocyte Gq GPCR signaling attenuation in <i>Â</i> vivo with <i>Î</i> ² ARK. <i>Neuron</i> , 2021, 109, 2256-2274.e9.	3.8	47
31	Astrocytic IP3Rs: Beyond IP3R2. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 695817.	1.8	23
32	A common role for astrocytes in rhythmic behaviours?. <i>Progress in Neurobiology</i> , 2021, 202, 102052.	2.8	12
34	Connectivity promotes repeatable activation patterns in the model of astrocytic networks. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	4
35	Elucidating regulators of astrocytic Ca ²⁺ signaling via multi-threshold event detection (<i>sc</i> _{MTED}). <i>Glia</i> , 2021, 69, 2798-2811.	2.5	3
36	Astrocytes regulate ultra-slow arteriole oscillations via stretch-mediated TRPV4-COX-1 feedback. <i>Cell Reports</i> , 2021, 36, 109405.	2.9	28
38	Glial <i>sc</i> _{ER} and <i>sc</i> _{GAP} junction mediated Ca ²⁺ waves are crucial to maintain normal brain excitability. <i>Glia</i> , 2022, 70, 123-144.	2.5	13
39	Astrocyte and neuron cooperation in long-term depression. <i>Trends in Neurosciences</i> , 2021, 44, 837-848.	4.2	39
42	Real-Time Monitoring and Detection of Single-Cell Level Cytokine Secretion Using LSPR Technology. <i>Micromachines</i> , 2020, 11, 107.	1.4	15

#	ARTICLE	IF	CITATIONS
43	TrpML-mediated astrocyte microdomain Ca ²⁺ transients regulate astrocyte–tracheal interactions. <i>ELife</i> , 2020, 9, .	2.8	12
49	Insights Into Central Nervous System Glial Cell Formation and Function From Zebrafish. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 754606.	1.8	5
50	From Synapses to Circuits, Astrocytes Regulate Behavior. <i>Frontiers in Neural Circuits</i> , 2021, 15, 786293.	1.4	41
52	A sensitive GRAB sensor for detecting extracellular ATP in vitro and in vivo. <i>Neuron</i> , 2022, 110, 770-782.e5.	3.8	71
53	Hypothalamic Astrocytes Control Systemic Glucose Metabolism and Energy Balance via Regulation of Extra-Synaptic Glutamate Signaling. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
56	Photonics tools begin to clarify astrocyte calcium transients. <i>Neurophotonics</i> , 2022, 9, 021907.	1.7	8
57	A Liquid Interfacial SERS Platform on a Nanoparticle Array Stabilized by Rigid Probes for the Quantification of Norepinephrine in Rat Brain Microdialysates. <i>Angewandte Chemie</i> , 0, , .	1.6	2
58	A Liquid Interfacial SERS Platform on a Nanoparticle Array Stabilized by Rigid Probes for the Quantification of Norepinephrine in Rat Brain Microdialysates. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	24
59	A perspective on astrocyte regulation of neural circuit function and animal behavior. <i>Glia</i> , 2022, 70, 1554-1580.	2.5	18
60	Astrocyte regulation of cerebral blood flow during hypoglycemia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2022, 42, 1534-1546.	2.4	9
61	Ca ²⁺ activity maps of astrocytes tagged by axoastrocytic AAV transfer. <i>Science Advances</i> , 2022, 8, eabe5371.	4.7	17
62	Reinforcing Interdisciplinary Collaborations to Unravel the Astrocyte ‘‘Calcium Code’’. <i>Journal of Molecular Neuroscience</i> , 2022, 72, 1443-1455.	1.1	6
65	Impaired astrocytic Ca ²⁺ signaling in awake-behaving Alzheimer’s disease transgenic mice. <i>ELife</i> , 0, 11, .	2.8	15
70	Review of data processing of functional optical microscopy for neuroscience. <i>Neurophotonics</i> , 2022, 9, .	1.7	6
71	Glioblastoma hijacks neuronal mechanisms for brain invasion. <i>Cell</i> , 2022, 185, 2899-2917.e31.	13.5	168
72	Astrocytic CD24 Protects Neuron from Recombinant High-Mobility Group Box 1 Protein(rHMGB1)-Elicited Neuronal Injury. <i>Brain Sciences</i> , 2022, 12, 1119.	1.1	0
73	Cholesterol-induced robust Ca oscillation in astrocytes required for survival and lipid droplet formation in high-cholesterol condition. <i>IScience</i> , 2022, 25, 105138.	1.9	3
74	Photochemical biosignaling with ruthenium complexes. <i>Advances in Inorganic Chemistry</i> , 2022, , .	0.4	1

#	ARTICLE	IF	CITATIONS
75	Looking to the stars for answers: Strategies for determining how astrocytes influence neuronal activity. <i>Computational and Structural Biotechnology Journal</i> , 2022, 20, 4146-4156.	1.9	3
76	A visualization pipeline for <i>in vivo</i> two-photon volumetric astrocytic calcium imaging. <i>Journal of Biomedical Research</i> , 2022, 36, 358.	0.7	1
77	Hippocampal astrocytes encode reward location. <i>Nature</i> , 2022, 609, 772-778.	13.7	37
79	Dopamine activates astrocytes in prefrontal cortex via $\alpha 1$ -adrenergic receptors. <i>Cell Reports</i> , 2022, 40, 111426.	2.9	16
80	Hypothalamic astrocytes control systemic glucose metabolism and energy balance. <i>Cell Metabolism</i> , 2022, 34, 1532-1547.e6.	7.2	22
83	Functional network properties derived from wide-field calcium imaging differ with wakefulness and across cell type. <i>NeuroImage</i> , 2022, 264, 119735.	2.1	6
84	Astrocytes mediate long-lasting synaptic regulation of ventral tegmental area dopamine neurons. <i>Nature Neuroscience</i> , 2022, 25, 1639-1650.	7.1	9
85	Astrocytes amplify neurovascular coupling to sustained activation of neocortex in awake mice. <i>Nature Communications</i> , 2022, 13, .	5.8	14
87	An astrocytic signaling loop for frequency-dependent control of dendritic integration and spatial learning. <i>Nature Communications</i> , 2022, 13, .	5.8	9
88	Astrocytes Transplanted during Early Postnatal Development Integrate, Mature, and Survive Long Term in Mouse Cortex. <i>Journal of Neuroscience</i> , 2023, 43, 1509-1529.	1.7	7
89	Astrocyte heterogeneity and interactions with local neural circuits. <i>Essays in Biochemistry</i> , 2023, 67, 93-106.	2.1	11
90	Calcium signaling in astrocytes and gliotransmitter release. <i>Frontiers in Synaptic Neuroscience</i> , 0, 15, .	1.3	19
91	Axonal ER Ca^{2+} Release Selectively Enhances Activity-Independent Glutamate Release in a Huntington Disease Model. <i>Journal of Neuroscience</i> , 0, , JN-RM-1593-22.	1.7	2
92	Social deprivation induces astrocytic TRPA1-GABA suppression of hippocampal circuits. <i>Neuron</i> , 2023, 111, 1301-1315.e5.	3.8	9
94	Purkinje cell dopaminergic inputs to astrocytes regulate cerebellar-dependent behavior. <i>Nature Communications</i> , 2023, 14, .	5.8	4
95	<i>PV</i> interneurons evoke astrocytic Ca^{2+} responses in awake mice, which contributes to neurovascular coupling. <i>Glia</i> , 2023, 71, 1830-1846.	2.5	4
96	Ageing reduces calreticulin expression and alters spontaneous calcium signals in astrocytic endfeet of the mouse dorsolateral striatum. , 2023, 9, .		0
97	Norepinephrine links astrocytic activity to regulation of cortical state. <i>Nature Neuroscience</i> , 2023, 26, 579-593.	7.1	23

#	ARTICLE	IF	CITATIONS
98	Role of glia and extracellular matrix in controlling neuroplasticity in the central nervous system. <i>Seminars in Immunopathology</i> , 2023, 45, 377-387.	2.8	9
111	Astrocytic transcriptional and epigenetic mechanisms of drug addiction. <i>Journal of Neural Transmission</i> , 0, , .	1.4	0