Loren L Looger

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Fluorescence activation mechanism and imaging of drug permeation with new sensors for smoking-cessation ligands. ELife, 2022, 11, .	6.0	14
2	Three Mutations Convert the Selectivity of a Protein Sensor from Nicotinic Agonists to S-Methadone for Use in Cells, Organelles, and Biofluids. Journal of the American Chemical Society, 2022, 144, 8480-8486.	13.7	6
3	Optogenetics. , 2021, , 283-302.		1
4	Evaluation of multi-color genetically encoded Ca2+ indicators in filamentous fungi. Fungal Genetics and Biology, 2021, 149, 103540.	2.1	2
5	Lupus Susceptibility Region Containing <i>CDKN1B</i> rs34330 Mechanistically Influences Expression and Function of Multiple Target Genes, Also Linked to Proliferation and Apoptosis. Arthritis and Rheumatology, 2021, 73, 2303-2313.	5.6	11
6	InÂvivo glucose imaging in multiple model organisms with an engineered single-wavelength sensor. Cell Reports, 2021, 35, 109284.	6.4	24
7	The functional organization of excitatory synaptic input to place cells. Nature Communications, 2021, 12, 3558.	12.8	22
8	A sequenceâ€based method for predicting extant fold switchers that undergo αâ€helixÂ↔Âβâ€strand transitic Biopolymers, 2021, 112, e23471.	^{ons} . 2.4	11
9	A highâ€ŧhroughput predictive method for sequenceâ€similar fold switchers. Biopolymers, 2021, 112, e23416.	2.4	17
10	The neuropeptide Drosulfakinin regulates social isolation-induced aggression in <i>Drosophila</i> . Journal of Experimental Biology, 2020, 223, .	1.7	33
11	Directed Evolution of a Selective and Sensitive Serotonin Sensor via Machine Learning. Cell, 2020, 183, 1986-2002.e26.	28.9	104
12	Nanoscopic Visualization of Restricted Nonvolume Cholinergic and Monoaminergic Transmission with Genetically Encoded Sensors. Nano Letters, 2020, 20, 4073-4083.	9.1	18
13	Temperature-dependent sex determination is mediated by pSTAT3 repression of <i>Kdm6b</i> . Science, 2020, 368, 303-306.	12.6	78
14	jYCaMP: an optimized calcium indicator for two-photon imaging at fiber laser wavelengths. Nature Methods, 2020, 17, 694-697.	19.0	45
15	Optimized Vivid-derived Magnets photodimerizers for subcellular optogenetics in mammalian cells. ELife, 2020, 9, .	6.0	37
16	Kilohertz frame-rate two-photon tomography. Nature Methods, 2019, 16, 778-786.	19.0	122
17	A genetically encoded fluorescent sensor for in vivo imaging of GABA. Nature Methods, 2019, 16, 763-770.	19.0	242
18	Single-Cell Reconstruction of Emerging Population Activity in an Entire Developing Circuit. Cell, 2019, 179, 355-372.e23.	28.9	72

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19	High-performance calcium sensors for imaging activity in neuronal populations and microcompartments. Nature Methods, 2019, 16, 649-657.	19.0	843
20	Glia Accumulate Evidence that Actions Are Futile and Suppress Unsuccessful Behavior. Cell, 2019, 178, 27-43.e19.	28.9	226
21	Mechanistic Characterization of RASGRP1 Variants Identifies an hnRNP-K-Regulated Transcriptional Enhancer Contributing to SLE Susceptibility. Frontiers in Immunology, 2019, 10, 1066.	4.8	13
22	Inaccurate secondary structure predictions often indicate protein fold switching. Protein Science, 2019, 28, 1487-1493.	7.6	31
23	Quantitative <i>in vivo</i> imaging of neuronal glucose concentrations with a genetically encoded fluorescence lifetime sensor. Journal of Neuroscience Research, 2019, 97, 946-960.	2.9	67
24	Amino acid signatures of HLA Class-I and II molecules are strongly associated with SLE susceptibility and autoantibody production in Eastern Asians. PLoS Genetics, 2019, 15, e1008092.	3.5	36
25	Multiplex imaging relates quantal glutamate release to presynaptic Ca2+ homeostasis at multiple synapses in situ. Nature Communications, 2019, 10, 1414.	12.8	66
26	Determining the pharmacokinetics of nicotinic drugs in the endoplasmic reticulum using biosensors. Journal of General Physiology, 2019, 151, 738-757.	1.9	50
27	A genetically encoded single-wavelength sensor for imaging cytosolic and cell surface ATP. Nature Communications, 2019, 10, 711.	12.8	185
28	Voices in methods development. Nature Methods, 2019, 16, 945-951.	19.0	5
29	Biosensors Show the Pharmacokinetics of S-Ketamine in the Endoplasmic Reticulum. Frontiers in Cellular Neuroscience, 2019, 13, 499.	3.7	14
30	Functional Imaging and Optogenetics in <i>Drosophila</i> . Genetics, 2018, 208, 1291-1309.	2.9	94
31	Stability, affinity, and chromatic variants of the glutamate sensor iCluSnFR. Nature Methods, 2018, 15, 936-939.	19.0	310
32	Distinct descending motor cortex pathways and their roles in movement. Nature, 2018, 563, 79-84.	27.8	320
33	Shared and distinct transcriptomic cell types across neocortical areas. Nature, 2018, 563, 72-78.	27.8	1,323
34	Extant fold-switching proteins are widespread. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5968-5973.	7.1	129
35	Aberrant Calcium Signaling in Astrocytes Inhibits Neuronal Excitability in a Human Down Syndrome Stem Cell Model. Cell Reports, 2018, 24, 355-365.	6.4	39
36	Development and Applications of Fluorescent Proteins for Correlative Light and Electron Microscopy. Microscopy and Microanalysis, 2018, 24, 2318-2319.	0.4	0

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37	Molecularly Defined Subplate Neurons Project Both to Thalamocortical Recipient Layers and Thalamus. Cerebral Cortex, 2017, 27, 4759-4768.	2.9	55
38	Confirmation of five novel susceptibility loci for Systemic Lupus Erythematosus (SLE) and integrated network analysis of 82 SLE susceptibility loci. Human Molecular Genetics, 2017, 26, ddx026.	2.9	47
39	Neural signatures of dynamic stimulus selection in Drosophila. Nature Neuroscience, 2017, 20, 1104-1113.	14.8	113
40	Diverse protocols for correlative super-resolution fluorescence imaging and electron microscopy of chemically fixed samples. Nature Protocols, 2017, 12, 916-946.	12.0	66
41	Allâ€optical functional synaptic connectivity mapping in acute brain slices using the calcium integrator CaMPARI. Journal of Physiology, 2017, 595, 1465-1477.	2.9	42
42	Sensitive red protein calcium indicators for imaging neural activity. ELife, 2016, 5, .	6.0	813
43	Real-time quantification of single RNA translation dynamics in living cells. Science, 2016, 352, 1425-1429.	12.6	317
44	A timecourse analysis of systemic and gonadal effects of temperature on sexual development of the red-eared slider turtle Trachemys scripta elegans. Developmental Biology, 2016, 420, 166-177.	2.0	91
45	The Oscillating Stimulus Transporter Assay, OSTA: Quantitative Functional Imaging of Transporter Protein Activity in Time and Frequency Domains. Molecular Cell, 2016, 64, 199-212.	9.7	12
46	A Designer AAV Variant Permits Efficient Retrograde Access to Projection Neurons. Neuron, 2016, 92, 372-382.	8.1	1,007
47	GFP-Aequorin Protein Sensor for ExÂVivo and InÂVivo Imaging of Ca 2+ Dynamics in High-Ca 2+ Organelles. Cell Chemical Biology, 2016, 23, 738-745.	5.2	30
48	High-density genotyping of immune-related loci identifies new SLE risk variants in individuals with Asian ancestry. Nature Genetics, 2016, 48, 323-330.	21.4	219
49	Dysfunctional Calcium and Glutamate Signaling in Striatal Astrocytes from Huntington's Disease Model Mice. Journal of Neuroscience, 2016, 36, 3453-3470.	3.6	185
50	Falling apart. ELife, 2016, 5, .	6.0	0
51	Direct InÂVivo Manipulation and Imaging of Calcium Transients in Neutrophils Identify a Critical Role for Leading-Edge Calcium Flux. Cell Reports, 2015, 13, 2107-2117.	6.4	45
52	A Low Affinity GCaMP3 Variant (GCaMPer) for Imaging the Endoplasmic Reticulum Calcium Store. PLoS ONE, 2015, 10, e0139273.	2.5	51
53	Stimulation-Evoked Ca ²⁺ Signals in Astrocytic Processes at Hippocampal CA3–CA1 Synapses of Adult Mice Are Modulated by Glutamate and ATP. Journal of Neuroscience, 2015, 35, 3016-3021. 	3.6	56
54	Labeling of active neural circuits in vivo with designed calcium integrators. Science, 2015, 347, 755-760.	12.6	377

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55	Fixation-resistant photoactivatable fluorescent proteins for CLEM. Nature Methods, 2015, 12, 215-218.	19.0	173
56	High-performance probes for light and electron microscopy. Nature Methods, 2015, 12, 568-576.	19.0	225
57	Dynamics of Ionic Shifts in Cortical Spreading Depression. Cerebral Cortex, 2015, 25, 4469-4476.	2.9	142
58	Green-to-Red Photoconversion of GCaMP. PLoS ONE, 2015, 10, e0138127.	2.5	17
59	Receptive field properties of bipolar cell axon terminals in direction-selective sublaminas of the mouse retina. Journal of Neurophysiology, 2014, 112, 1950-1962.	1.8	46
60	Conditions and Constraints for Astrocyte Calcium Signaling in the Hippocampal Mossy Fiber Pathway. Neuron, 2014, 82, 413-429.	8.1	206
61	Excitatory Synaptic Inputs to Mouse On-Off Direction-Selective Retinal Ganglion Cells Lack Direction Tuning. Journal of Neuroscience, 2014, 34, 3976-3981.	3.6	75
62	Combined protein- and nucleic acid-level effects of rs1143679 (R77H), a lupus-predisposing variant within ITGAM. Human Molecular Genetics, 2014, 23, 4161-4176.	2.9	25
63	Mapping brain activity at scale with cluster computing. Nature Methods, 2014, 11, 941-950.	19.0	257
64	Light-sheet functional imaging in fictively behaving zebrafish. Nature Methods, 2014, 11, 883-884.	19.0	294
65	Thy1-GCaMP6 Transgenic Mice for Neuronal Population Imaging In Vivo. PLoS ONE, 2014, 9, e108697.	2.5	506
66	Integrated action of pheromone signals in promoting courtship behavior in male mice. ELife, 2014, 3, e03025.	6.0	77
67	Ultrasensitive fluorescent proteins for imaging neuronal activity. Nature, 2013, 499, 295-300.	27.8	5,490
68	An optimized fluorescent probe for visualizing glutamate neurotransmission. Nature Methods, 2013, 10, 162-170.	19.0	827
69	Genetically encoded calcium indicators for multi-color neural activity imaging and combination with optogenetics. Frontiers in Molecular Neuroscience, 2013, 6, 2.	2.9	629
70	A Neuron-Based Screening Platform for Optimizing Genetically-Encoded Calcium Indicators. PLoS ONE, 2013, 8, e77728.	2.5	66
71	A Cre-Dependent GCaMP3 Reporter Mouse for Neuronal Imaging <i>In Vivo</i> . Journal of Neuroscience, 2012, 32, 3131-3141.	3.6	341
72	Excitation Spectra and Brightness Optimization of Two-Photon Excited Probes. Biophysical Journal, 2012, 102, 934-944.	0.5	100

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73	Activity in motor–sensory projections reveals distributed coding in somatosensation. Nature, 2012, 489, 299-303.	27.8	314
74	Optimization of a GCaMP Calcium Indicator for Neural Activity Imaging. Journal of Neuroscience, 2012, 32, 13819-13840.	3.6	1,099
75	Genetically encoded neural activity indicators. Current Opinion in Neurobiology, 2012, 22, 18-23.	4.2	164
76	Structure of the Escherichia coli Phosphonate Binding Protein PhnD and Rationally Optimized Phosphonate Biosensors. Journal of Molecular Biology, 2011, 414, 356-369.	4.2	60
77	A genetically encoded, highâ€signalâ€toâ€noise maltose sensor. Proteins: Structure, Function and Bioinformatics, 2011, 79, 3025-3036.	2.6	96
78	Imaging Light Responses of Targeted Neuron Populations in the Rodent Retina. Journal of Neuroscience, 2011, 31, 2855-2867.	3.6	80
79	Functional imaging of hippocampal place cells at cellular resolution during virtual navigation. Nature Neuroscience, 2010, 13, 1433-1440.	14.8	742
80	Crystal Structures of the GCaMP Calcium Sensor Reveal the Mechanism of Fluorescence Signal Change and Aid Rational Design. Journal of Biological Chemistry, 2009, 284, 6455-6464.	3.4	226
81	Imaging neural activity in worms, flies and mice with improved GCaMP calcium indicators. Nature Methods, 2009, 6, 875-881.	19.0	1,759
82	Crystal structures of the GCaMP calcium sensor protein reveal the mechanism of fluorescence signal change and aid rational design. FASEB Journal, 2009, 23, 517.1.	0.5	0
83	Construction and optimization of a family of genetically encoded metabolite sensors by semirational protein engineering. Protein Science, 2005, 14, 2304-2314.	7.6	229
84	<i>In Vivo</i> Glucose Imaging in Multiple Model Organisms with an Engineered Single-Wavelength Sensor. SSRN Electronic Journal, 0, , .	0.4	2