Edward S Ruthazer

List of Publications by Year
in descending order

78	3,849	136950 32	138484 58
papers	citations	h-index	g-index

97	97	97	4193
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Activityâ€dependent alteration of early myelin ensheathment in a developing sensory circuit. Journal of Comparative Neurology, 2022, 530, 871-885.	1.6	2
2	Glia Regulate the Development, Function, and Plasticity of the Visual System From Retina to Cortex. Frontiers in Neural Circuits, 2022, 16, 826664.	2.8	7
3	Topographic map formation and the effects of NMDA receptor blockade in the developing visual system. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	11
4	Editorial: Shedding Light on the Nervous System: Progress in Neurophotonics Research. Frontiers in Neural Circuits, 2022, 16, .	2.8	0
5	Guiding synaptic plasticity: Novel roles for netrinâ€1 in synaptic plasticity and memory formation in the adult brain. Journal of Physiology, 2021, 599, 493-505.	2.9	35
6	Editorsâ€™ Choiceâ€”A Miniaturized Enzymatic Biosensor for Detection of Sensory-Evoked D-serine Release in the Brain. Journal of the Electrochemical Society, 2021, 168, 025502.	2.9	8
7	Microglial trogocytosis and the complement system regulate axonal pruning in vivo. ELife, 2021, 10, .	6.0	59
8	Early Inflammation Dysregulates Neuronal Circuit Formation In Vivo via Upregulation of IL-1Î². Journal of Neuroscience, 2021, 41, 6353-6366.	3.6	4
9	Sodium-calcium exchanger mediates sensory-evoked glial calcium transients in the developing retinotectal system. Cell Reports, 2021, 37, 109791.	6.4	9
10	InÂvivo imaging of synaptogenesis. , 2020, , 33-53.		0
11	Postsynaptic and Presynaptic NMDARs Have Distinct Roles in Visual Circuit Development. Cell Reports, 2020, 32, 107955.	6.4	17
12	A Simple and Efficient Method for Visualizing Individual Cells in vivo by Cre-Mediated Single-Cell Labeling by Electroporation (CREMSCLE). Frontiers in Neural Circuits, 2020, 14, 47.	2.8	10
13	TORC1 selectively regulates synaptic maturation and input convergence in the developing visual system. Developmental Neurobiology, 2020, 80, 332-350.	3.0	2
14	Stentian structural plasticity in the developing visual system. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10636-10638.	7.1	16
15	Pre- and post-synaptic roles for DCC in memory consolidation in the adult mouse hippocampus. Molecular Brain, 2020, 13, 56.	2.6	32
16	Improved genetically encoded near-infrared fluorescent calcium ion indicators for in vivo imaging. PLoS Biology, 2020, 18, e3000965.	5.6	62
17	Approaches and Limitations in the Investigation of Synaptic Transmission and Plasticity. Frontiers in Synaptic Neuroscience, 2019, 11, 20.	2.5	41
18	Spatial memory formation requires netrin-1 expression by neurons in the adult mammalian brain. Learning and Memory, 2019, 26, 77-83.	1.3	20

#	Article	IF	Citations
19	Glial regulation of synapse maturation and stabilization in the developing nervous system. Current Opinion in Neurobiology, 2019, 54, 113-119.	4.2	26
20	Maternal immune activation in neurodevelopmental disorders. Developmental Dynamics, 2018, 247, 588-619.	1.8	107
21	White Matter Plasticity Keeps the Brain in Tune: Axons Conduct While Glia Wrap. Frontiers in Cellular Neuroscience, 2018, 12, 428.	3.7	49
22	Activity-Dependent Netrin-1 Secretion Drives Synaptic Insertion of GluA1-Containing AMPA Receptors in the Hippocampus. Cell Reports, 2018, 25, 168-182.e6.	6.4	59
23	Editorial: Spontaneous Activity in Sensory Systems. Frontiers in Neural Circuits, 2018, 12, 27.	2.8	4
24	The Gliotransmitter d-Serine Promotes Synapse Maturation and Axonal Stabilization In Vivo. Journal of Neuroscience, 2017, 37, 6277-6288.	3.6	23
25	Major depressive disorder and anxiety disorders from the glial perspective: Etiological mechanisms, intervention and monitoring. Neuroscience and Biobehavioral Reviews, 2017, 83, 474-488.	6.1	40
26	Neural Activity-Dependent Regulation of Radial Glial Filopodial Motility Is Mediated by Glial cGMP-Dependent Protein Kinase 1 and Contributes to Synapse Maturation in the Developing Visual System. Journal of Neuroscience, 2016, 36, 5279-5288.	3.6	27
27	Rules for Shaping Neural Connections in the Developing Brain. Frontiers in Neural Circuits, 2016, 10, 111.	2.8	46
28	Endocannabinoid signaling enhances visual responses through modulation of intracellular chloride levels in retinal ganglion cells. ELife, 2016, 5, .	6.0	17
29	Formula for Unsilencing Plasticity: Spike with GABA. Neuron, 2015, 87, 915-917.	8.1	1
30	A long Stokes shift red fluorescent Ca2+ indicator protein for two-photon and ratiometric imaging. Nature Communications, 2014, 5, 5262.	12.8	75
31	Disk-Shaped Amperometric Enzymatic Biosensor for in Vivo Detection of <scp>d</scp>-serine. Analytical Chemistry, 2014, 86, 3501-3507.	6.5	31
32	Rapid Hebbian axonal remodeling mediated by visual stimulation. Science, 2014, 344, 904-909.	12.6	75
33	Identifying Active Neurons from In Vivo 2-Photon Calcium Imaging of the Brain via Pixel Correlation Analysis and Region-Growing Segmentation. Biophysical Journal, 2014, 106, 643a-644a.	0.5	0
34	Using Twoâ€“Photon Intravital Imaging to Study Developmental Plasticity of Neural Circuits. Microscopy and Microanalysis, 2014, 20, 1342-1343.	0.4	0
35	Semi-Automated Image Analysis of Xenopus Laevis Behavioral Response to Visual Stimuli. Biophysical Journal, 2013, 104, 511a.	0.5	0
36	DCC Expression by Neurons Regulates Synaptic Plasticity in the Adult Brain. Cell Reports, 2013, 3, 173-185.	6.4	118

#	Article	IF	Citations
37	Netrin-1 Promotes Excitatory Synaptogenesis between Cortical Neurons by Initiating Synapse Assembly. Journal of Neuroscience, 2013, 33, 17278-17289.	3.6	107
38	In Vivo Time-Lapse Imaging of Neuronal Development inXenopus. Cold Spring Harbor Protocols, 2013, 2013, pdb.top077156.	0.3	12
39	In Vivo Imaging of Synaptogenesis. , 2013, , 521-536.		0
40	Cellular response to micropatterned growth promoting and inhibitory substrates. BMC Biotechnology, 2013, 13, 86.	3.3	14
41	Labeling Individual Neurons in the Brains of Live Xenopus Tadpoles by Electroporation of Dyes or DNA. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot077149.	0.3	5
42	Bulk Electroporation of Retinal Ganglion Cells in Live Xenopus Tadpoles. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot076471.	0.3	13
43	Dye Labeling Retinal Ganglion Cell Axons in Live Xenopus Tadpoles. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot076463.	0.3	3
44	D-serine as a gliotransmitter and its roles in brain development and disease. Frontiers in Cellular Neuroscience, 2013, 7, 39.	3.7	89
45	Improved Method for the Quantification of Motility in Glia and Other Morphologically Complex Cells. Neural Plasticity, 2013, 2013, 1-11.	2.2	10
46	Receptor protein tyrosine phosphatase sigma regulates synapse structure, function and plasticity. Journal of Neurochemistry, 2012, 122, 147-161.	3.9	52
47	Listening to Npas4: a transcription factor is the prescription for restoring youthful plasticity in the mature brain. Journal of Physiology, 2012, 590, 4637-4638.	2.9	1
48	GABA Expression and Regulation by Sensory Experience in the Developing Visual System. PLoS ONE, 2012, 7, e29086.	2.5	21
49	Expression patterns of Ephs and ephrins throughout retinotectal development in Xenopus laevis. Developmental Neurobiology, 2012, 72, 547-563.	3.0	16
50	A CANDLE for a deeper in vivo insight. Medical Image Analysis, 2012, 16, 849-864.	11.6	58
51	Activity-Dependent Transcription of BDNF Enhances Visual Acuity during Development. Neuron, 2011, 70, 455-467.	8.1	42
52	Radial Glia: Progenitor, Pathway, and Partner. Neuroscientist, 2011, 17, 288-302.	3.5	68
53	Development of Single Retinofugal Axon Arbors in Normal and Î²2 Knock-Out Mice. Journal of Neuroscience, 2011, 31, 3384-3399.	3.6	119
54	Role of interstitial branching in the development of visual corticocortical connections: A timeâ€lapse and fixedâ€tissue analysis. Journal of Comparative Neurology, 2010, 518, 4963-4979.	1.6	9

#	Article	IF	Citations
55	Neurodevelopmental effects of chronic exposure to elevated levels of pro-inflammatory cytokines in a developing visual system. Neural Development, 2010, 5, 2.	2.4	59
56	A developmental sensitive period for spike timing-dependent plasticity in the retinotectal projection. Frontiers in Synaptic Neuroscience, 2010, 2, 13.	2.5	16
57	Layers upon Layers: MHC Class I Acts in the Retina to Influence Thalamic Segregation. Neuron, 2010, 65, 439-441.	8.1	3
58	Learning to see: patterned visual activity and the development of visual function. Trends in Neurosciences, 2010, 33, 183-192.	8.6	38
59	Regulation of Radial Glial Motility by Visual Experience. Journal of Neuroscience, 2009, 29, 14066-14076.	3.6	35
60	Nâ€cadherin prodomain cleavage regulates synapse formation in vivo. Developmental Neurobiology, 2009, 69, 518-529.	3.0	25
61	Neural Activity Regulates Synaptic Properties and Dendritic Structure In Vivo through Calcineurin/NFAT Signaling. Neuron, 2009, 62, 655-669.	8.1	83
62	Activity in Visual Development. , 2009, , 47-51.		0
63	On and off domains of geniculate afferents in cat primary visual cortex. Nature Neuroscience, 2008, 11, 88-94.	14.8	159
64	The Role of Neural Activity in Cortical Axon Branching. Neuroscientist, 2006, 12, 102-106.	3.5	34
65	Stabilization of Axon Branch Dynamics by Synaptic Maturation. Journal of Neuroscience, 2006, 26, 3594-3603.	3.6	175
66	Activity Dependence of Cortical Axon Branch Formation: A Morphological and Electrophysiological Study Using Organotypic Slice Cultures. Journal of Neuroscience, 2005, 25, 1-9.	3.6	113
67	Youâ€™re Perfect, Now Changeâ€‰â€” Redefining the Role of Developmental Plasticity. Neuron, 2005, 45, 825-828.	8.1	17
68	Insights into activityâ€dependent map formation from the retinotectal system: A middleâ€ofâ€theâ€brain perspective. Journal of Neurobiology, 2004, 59, 134-146.	3.6	150
69	Control of Axon Branch Dynamics by Correlated Activity in Vivo. Science, 2003, 301, 66-70.	12.6	236
70	Multiphoton Imaging of Neurons in Living Tissue: Acquisition and Analysis of Time-Lapse Morphological Data. Real Time Imaging, 2002, 8, 175-188.	1.6	34
71	Dendrite growth increased by visual activity requires NMDA receptor and Rho GTPases. Nature, 2002, 419, 475-480.	27.8	416
72	Inhibitory Mechanism by Polysialic Acid for Lamina-Specific Branch Formation of Thalamocortical Axons. Journal of Neuroscience, 2000, 20, 9145-9151.	3.6	62

#	Article	IF	Citations
73	Development and organization of ocular dominance bands in primary visual cortex of the sable ferret. , 1999, 407, 151-165.		42
74	Relationship between the Ocular Dominance and Orientation Maps in Visual Cortex of Monocularly Deprived Cats. Neuron, 1997, 19, 307-318.	8.1	114
75	Ocular Dominance Peaks at Pinwheel Center Singularities of the Orientation Map in Cat Visual Cortex. Journal of Neurophysiology, 1997, 77, 3381-3385.	1.8	100
76	The Role of Activity in the Development of Long-Range Horizontal Connections in Area 17Âof the Ferret. Journal of Neuroscience, 1996, 16, 7253-7269.	3.6	218
77	Inhibition of nitric oxide synthase does not prevent ocular dominance plasticity in kitten visual cortex.. Journal of Physiology, 1996, 494, 519-527.	2.9	38
78	Plasticity in visual connections: retinal ganglion cell axonal development and regeneration. , 0, , 114-124.		0