Ed S Lein

List of Publications by Year
in descending order

67 papers	29,965 citations	46918 47 h-index	88477 70 g-index
110 all docs	110 docs citations	110 times ranked	42131 citing authors

#	Article	IF	Citations
1	Strong and reliable synaptic communication between pyramidal neurons in adult human cerebral cortex. Cerebral Cortex, 2023, 33, 2857-2878.	1.6	21
2	Cellular resolution anatomical and molecular atlases for prenatal human brains. Journal of Comparative Neurology, 2022, 530, 6-503.	0.9	14
3	Single nucleus multi-omics identifies human cortical cell regulatory genome diversity. Cell Genomics, 2022, 2, 100107.	3.0	58
4	Local connectivity and synaptic dynamics in mouse and human neocortex. Science, 2022, 375, eabj5861.	6.0	124
5	Conservation and divergence of cortical cell organization in human and mouse revealed by MERFISH. Science, 2022, 377, 56-62.	6.0	107
6	Expansion sequencing: Spatially precise in situ transcriptomics in intact biological systems. Science, 2021, 371, .	6.0	197
7	Functional enhancer elements drive subclass-selective expression from mouse to primate neocortex. Cell Reports, 2021, 34, 108754.	2.9	88
8	Enhancer viruses for combinatorial cell-subclass-specific labeling. Neuron, 2021, 109, 1449-1464.e13.	3.8	93
9	A machine learning method for the discovery of minimum marker gene combinations for cell type identification from single-cell RNA sequencing. Genome Research, 2021, 31, 1767-1780.	2.4	50
10	Scaled, high fidelity electrophysiological, morphological, and transcriptomic cell characterization. ELife, 2021, 10, .	2.8	33
11	Comprehensive in situ mapping of human cortical transcriptomic cell types. Communications Biology, 2021, 4, 998.	2.0	18
12	Signature morpho-electric, transcriptomic, and dendritic properties of human layer 5 neocortical pyramidal neurons. Neuron, 2021, 109, 2914-2927.e5.	3.8	54
13	Single-cell and single-nucleus RNA-seq uncovers shared and distinct axes of variation in dorsal LGN neurons in mice, non-human primates, and humans. ELife, 2021, 10, .	2.8	41
14	Human neocortical expansion involves glutamatergic neuron diversification. Nature, 2021, 598, 151-158.	13.7	160
15	Comparative cellular analysis of motor cortex in human, marmoset and mouse. Nature, 2021, 598, 111-119.	13.7	361
16	A multimodal cell census and atlas of the mammalian primary motor cortex. Nature, 2021, 598, 86-102.	13.7	316
17	Cell type ontologies of the Human Cell Atlas. Nature Cell Biology, 2021, 23, 1129-1135.	4.6	71
18	Hybridization-based in situ sequencing (HybISS) for spatially resolved transcriptomics in human and mouse brain tissue. Nucleic Acids Research, 2020, 48, e112-e112.	6.5	145

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19	A community-based transcriptomics classification and nomenclature of neocortical cell types. Nature Neuroscience, 2020, 23, 1456-1468.	7.1	183
20	FR-Match: robust matching of cell type clusters from single cell RNA sequencing data using the Friedmanâ€“Rafsky non-parametric test. Briefings in Bioinformatics, 2020, 22, .	3.2	12
21	Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. Cell, 2020, 183, 935-953.e19.	13.5	290
22	Parallel RNA and DNA analysis after deep sequencing (PRDD-seq) reveals cell type-specific lineage patterns in human brain. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13886-13895.	3.3	33
23	Transcriptomic evidence that von Economo neurons are regionally specialized extratelencephalic-projecting excitatory neurons. Nature Communications, 2020, 11, 1172.	5.8	70
24	Common cell type nomenclature for the mammalian brain. ELife, 2020, 9, .	2.8	56
25	Conserved cell types with divergent features in human versus mouse cortex. Nature, 2019, 573, 61-68.	13.7	1,198
26	Classification of electrophysiological and morphological neuron types in the mouse visual cortex. Nature Neuroscience, 2019, 22, 1182-1195.	7.1	333
27	Neurodevelopmental disease genes implicated by de novo mutation and copy number variation morbidity. Nature Genetics, 2019, 51, 106-116.	9.4	231
28	Single-cell transcriptomic evidence for dense intracortical neuropeptide networks. ELife, 2019, 8, .	2.8	98
29	Cell type discovery using single-cell transcriptomics: implications for ontological representation. Human Molecular Genetics, 2018, 27, R40-R47.	1.4	63
30	Single-nucleus and single-cell transcriptomes compared in matched cortical cell types. PLoS ONE, 2018, 13, e0209648.	1.1	400
31	Integrative functional genomic analysis of human brain development and neuropsychiatric risks. Science, 2018, 362, .	6.0	516
32	Shared and distinct transcriptomic cell types across neocortical areas. Nature, 2018, 563, 72-78.	13.7	1,323
33	h-Channels Contribute to Divergent Intrinsic Membrane Properties of Supragranular Pyramidal Neurons in Human versus Mouse Cerebral Cortex. Neuron, 2018, 100, 1194-1208.e5.	3.8	134
34	Genetic identification of brain cell types underlying schizophrenia. Nature Genetics, 2018, 50, 825-833.	9.4	497
35	A robust ex vivo experimental platform for molecular-genetic dissection of adult human neocortical cell types and circuits. Scientific Reports, 2018, 8, 8407.	1.6	77
36	An anatomic transcriptional atlas of human glioblastoma. Science, 2018, 360, 660-663.	6.0	384

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37	Transcriptomic and morphophysiological evidence for a specialized human cortical GABAergic cell type. Nature Neuroscience, 2018, 21, 1185-1195.	7.1	212
38	Distinctive Structural and Molecular Features of Myelinated Inhibitory Axons in Human Neocortex. ENeuro, 2018, 5, ENEURO.0297-18.2018.	0.9	35
39	Sparse recurrent excitatory connectivity in the microcircuit of the adult mouse and human cortex. ELife, 2018, 7, .	2.8	142
40	Single-Cell Profiling of an InÂVitro Model of Human Interneuron Development Reveals Temporal Dynamics of Cell Type Production and Maturation. Neuron, 2017, 93, 1035-1048.e5.	3.8	43
41	Biallelic mutations in human DCC cause developmental split-brain syndrome. Nature Genetics, 2017, 49, 606-612.	9.4	62
42	PRODUCTION OF A PRELIMINARY QUALITY CONTROL PIPELINE FOR SINGLE NUCLEI RNA-SEQ AND ITS APPLICATION IN THE ANALYSIS OF CELL TYPE DIVERSITY OF POST-MORTEM HUMAN BRAIN NEOCORTEX. , 2017, 22, 564-575.		8
43	The promise of spatial transcriptomics for neuroscience in the era of molecular cell typing. Science, 2017, 358, 64-69.	6.0	333
44	SmartScope2: Simultaneous Imaging and Reconstruction of Neuronal Morphology. Scientific Reports, 2017, 7, 9325.	1.6	8
45	Molecular and cellular reorganization of neural circuits in the human lineage. Science, 2017, 358, 1027-1032.	6.0	192
46	Transcriptomic Perspectives on Neocortical Structure, Development, Evolution, and Disease. Annual Review of Neuroscience, 2017, 40, 629-652.	5.0	85
47	STRT-seq-2i: dual-index 5Ê¹ single cell and nucleus RNA-seq on an addressable microwell array. Scientific Reports, 2017, 7, 16327.	1.6	69
48	The Human Cell Atlas. ELife, 2017, 6, .	2.8	1,547
49	Neuropathological and transcriptomic characteristics of the aged brain. ELife, 2017, 6, .	2.8	97
50	Cell type discovery and representation in the era of high-content single cell phenotyping. BMC Bioinformatics, 2017, 18, 559.	1.2	51
51	A comprehensive transcriptional map of primate brain development. Nature, 2016, 535, 367-375.	13.7	341
52	Using single nuclei for RNA-seq to capture the transcriptome of postmortem neurons. Nature Protocols, 2016, 11, 499-524.	5.5	358
53	Canonical genetic signatures of the adult human brain. Nature Neuroscience, 2015, 18, 1832-1844.	7.1	503
54	Correlated Gene Expression and Target Specificity Demonstrate Excitatory Projection Neuron Diversity. Cerebral Cortex, 2015, 25, 433-449.	1.6	125

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55	Improving reliability and absolute quantification of human brain microarray data by filtering and scaling probes using RNA-Seq. BMC Genomics, 2014, 15, 154.	1.2	49
56	Patches of Disorganization in the Neocortex of Children with Autism. New England Journal of Medicine, 2014, 370, 1209-1219.	13.9	601
57	Transcriptional landscape of the prenatal human brain. Nature, 2014, 508, 199-206.	13.7	1,147
58	Disruptive CHD8 Mutations Define a Subtype of Autism Early in Development. Cell, 2014, 158, 263-276.	13.5	637
59	Coexpression Networks Implicate Human Midfetal Deep Cortical Projection Neurons in the Pathogenesis of Autism. Cell, 2013, 155, 997-1007.	13.5	825
60	Transcriptional Architecture of the Primate Neocortex. Neuron, 2012, 73, 1083-1099.	3.8	234
61	Large-Scale Cellular-Resolution Gene Profiling in Human Neocortex Reveals Species-Specific Molecular Signatures. Cell, 2012, 149, 483-496.	13.5	342
62	An anatomically comprehensive atlas of the adult human brain transcriptome. Nature, 2012, 489, 391-399.	13.7	2,321
63	Differential connectivity and response dynamics of excitatory and inhibitory neurons in visual cortex. Nature Neuroscience, 2011, 14, 1045-1052.	7.1	439
64	A robust and high-throughput Cre reporting and characterization system for the whole mouse brain. Nature Neuroscience, 2010, 13, 133-140.	7.1	5,650
65	Shifting the paradigm: new approaches for characterizing and classifying neurons. Current Opinion in Neurobiology, 2009, 19, 530-536.	2.0	28
66	An anatomic gene expression atlas of the adult mouse brain. Nature Neuroscience, 2009, 12, 356-362.	7.1	264
67	Genome-wide atlas of gene expression in the adult mouse brain. Nature, 2007, 445, 168-176.	13.7	4,863