

Volker Busskamp

List of Publications by Year in descending order

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Version: 2024-02-01

44
papers

4,237
citations

236612

25
h-index

243296

44
g-index

51
all docs

51
docs citations

51
times ranked

6309
citing authors

#	ARTICLE	IF	CITATIONS
1	Genetic Reactivation of Cone Photoreceptors Restores Visual Responses in Retinitis Pigmentosa. <i>Science</i> , 2010, 329, 413-417.	6.0	578
2	Light-activated channels targeted to ON bipolar cells restore visual function in retinal degeneration. <i>Nature Neuroscience</i> , 2008, 11, 667-675.	7.1	522
3	Noninvasive optical inhibition with a red-shifted microbial rhodopsin. <i>Nature Neuroscience</i> , 2014, 17, 1123-1129.	7.1	480
4	Characterizing Light-Regulated Retinal MicroRNAs Reveals Rapid Turnover as a Common Property of Neuronal MicroRNAs. <i>Cell</i> , 2010, 141, 618-631.	13.5	431
5	Retinal Organoids from Pluripotent Stem Cells Efficiently Recapitulate Retinogenesis. <i>Stem Cell Reports</i> , 2016, 6, 525-538.	2.3	236
6	Optogenetic therapy for retinitis pigmentosa. <i>Gene Therapy</i> , 2012, 19, 169-175.	2.3	207
7	Rapid neurogenesis through transcriptional activation in human stem cells. <i>Molecular Systems Biology</i> , 2014, 10, 760.	3.2	187
8	Efficient transduction and optogenetic stimulation of retinal bipolar cells by a synthetic adeno-associated virus capsid and promoter. <i>EMBO Molecular Medicine</i> , 2014, 6, 1175-1190.	3.3	149
9	miRNAs 182 and 183 Are Necessary to Maintain Adult Cone Photoreceptor Outer Segments and Visual Function. <i>Neuron</i> , 2014, 83, 586-600.	3.8	125
10	Automated methods for cell type annotation on scRNA-seq data. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 961-969.	1.9	122
11	KAP1-Mediated Epigenetic Repression in the Forebrain Modulates Behavioral Vulnerability to Stress. <i>Neuron</i> , 2008, 60, 818-831.	3.8	110
12	A comprehensive library of human transcription factors for cell fate engineering. <i>Nature Biotechnology</i> , 2021, 39, 510-519.	9.4	110
13	FUS pathology in ALS is linked to alterations in multiple ALS-associated proteins and rescued by drugs stimulating autophagy. <i>Acta Neuropathologica</i> , 2019, 138, 67-84.	3.9	94
14	Genetically timed, activity-sensor and rainbow transsynaptic viral tools. <i>Nature Methods</i> , 2009, 6, 127-130.	9.0	85
15	Optogenetic approaches to restoring visual function in retinitis pigmentosa. <i>Current Opinion in Neurobiology</i> , 2011, 21, 942-946.	2.0	82
16	Human brain organoids assemble functionally integrated bilateral optic vesicles. <i>Cell Stem Cell</i> , 2021, 28, 1740-1757.e8.	5.2	77
17	Functional Maturation of Human Stem Cell-Derived Neurons in Long-Term Cultures. <i>PLoS ONE</i> , 2017, 12, e0169506.	1.1	62
18	Highly Conductive, Stretchable, and Cell-Adhesive Hydrogel by Nanoclay Doping. <i>Small</i> , 2019, 15, e1901406.	5.2	62

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19	Retinal miRNA Functions in Health and Disease. <i>Genes</i> , 2019, 10, 377.	1.0	52
20	Primate-restricted KRAB zinc finger proteins and target retrotransposons control gene expression in human neurons. <i>Science Advances</i> , 2020, 6, eaba3200.	4.7	50
21	Gene Therapy in Ophthalmology: Validation on Cultured Retinal Cells and Explants from Postmortem Human Eyes. <i>Human Gene Therapy</i> , 2011, 22, 587-593.	1.4	44
22	Biophysical Properties of Optogenetic Tools and Their Application for Vision Restoration Approaches. <i>Frontiers in Systems Neuroscience</i> , 2016, 10, 74.	1.2	41
23	Combined Experimental and System-Level Analyses Reveal the Complex Regulatory Network of miR-124 during Human Neurogenesis. <i>Cell Systems</i> , 2018, 7, 438-452.e8.	2.9	41
24	Preserved DNA Damage Checkpoint Pathway Protects against Complications in Long-Standing Type 1 Diabetes. <i>Cell Metabolism</i> , 2015, 22, 239-252.	7.2	40
25	Optogenetic Stimulation of Human Neural Networks Using Fast Ferroelectric Spatial Light Modulator-Based Holographic Illumination. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1180.	1.3	32
26	Transplanted human cones incorporate into the retina and function in a murine cone degeneration model. <i>Journal of Clinical Investigation</i> , 2022, 132, .	3.9	26
27	A customizable microfluidic platform for medium-throughput modeling of neuromuscular circuits. <i>Biomaterials</i> , 2019, 225, 119537.	5.7	24
28	On-demand optogenetic activation of human stem-cell-derived neurons. <i>Scientific Reports</i> , 2017, 7, 14450.	1.6	23
29	Genetic Architecture of Parkinson's Disease in the Indian Population: Harnessing Genetic Diversity to Address Critical Gaps in Parkinson's Disease Research. <i>Frontiers in Neurology</i> , 2020, 11, 524.	1.1	23
30	Challenges in microRNAs TM targetome prediction and validation. <i>Neural Regeneration Research</i> , 2019, 14, 1672.	1.6	15
31	Whole transcriptomic network analysis using Co-expression Differential Network Analysis (CoDiNA). <i>PLoS ONE</i> , 2020, 15, e0240523.	1.1	13
32	The Rise of Retinal Organoids for Vision Research. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8484.	1.8	13
33	MiRNA Regulatory Functions in Photoreceptors. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 620249.	1.8	13
34	Optogenetics for neural transplant manipulation and functional analysis. <i>Biochemical and Biophysical Research Communications</i> , 2020, 527, 343-349.	1.0	12
35	Using Transcriptomic Analysis to Assess Double-Strand Break Repair Activity: Towards Precise in Vivo Genome Editing. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1380.	1.8	11
36	Printed elastic membranes for multimodal pacing and recording of human stem-cell-derived cardiomyocytes. <i>Npj Flexible Electronics</i> , 2020, 4, .	5.1	8

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37	Vision Restoration Becomes Druggable. <i>Neuron</i> , 2016, 92, 3-5.	3.8	7
38	Induced Neurons for the Study of Neurodegenerative and Neurodevelopmental Disorders. <i>Methods in Molecular Biology</i> , 2019, 1942, 101-121.	0.4	6
39	Tracking connectivity maps in human stem cell-derived neuronal networks by holographic optogenetics. <i>Life Science Alliance</i> , 2022, 5, e202101268.	1.3	6
40	Neuronal Cell-type Engineering by Transcriptional Activation. <i>Frontiers in Genome Editing</i> , 2021, 3, 715697.	2.7	5
41	Gene-independent therapeutic interventions to maintain and restore light sensitivity in degenerating photoreceptors. <i>Progress in Retinal and Eye Research</i> , 2022, 90, 101065.	7.3	4
42	Two-Wavelength Computational Holography for Aberration-Corrected Simultaneous Optogenetic Stimulation and Inhibition of In Vitro Biological Samples. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2283.	1.3	1
43	Holographically generated structured illumination for cell stimulation in optogenetics. <i>Proceedings of SPIE</i> , 2017, , .	0.8	0
44	Analysis of human iPSC-derived neuronal networks (hiPSCNN) using holographic single cell and full field optogenetic stimulation. , 2021, , .		0