

# Yevgeny Berdichevsky

## List of Publications by Year in descending order

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Version: 2024-02-01

47  
papers

1,869  
citations

361045

20  
h-index

360668

35  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2586  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluidic adaptive lens with high focal length tunability. <i>Applied Physics Letters</i> , 2003, 82, 3171-3172.	1.5	399
2	UV/ozone modification of poly(dimethylsiloxane) microfluidic channels. <i>Sensors and Actuators B: Chemical</i> , 2004, 97, 402-408.	4.0	258
3	Polypyrrole Nanowire Actuators. <i>Advanced Materials</i> , 2006, 18, 122-125.	11.1	182
4	The fabrication of low-impedance nanoporous gold multiple-electrode arrays for neural electrophysiology studies. <i>Nanotechnology</i> , 2010, 21, 125504.	1.3	115
5	PI3K-Akt Signaling Activates mTOR-Mediated Epileptogenesis in Organotypic Hippocampal Culture Model of Post-Traumatic Epilepsy. <i>Journal of Neuroscience</i> , 2013, 33, 9056-9067.	1.7	80
6	Building and manipulating neural pathways with microfluidics. <i>Lab on A Chip</i> , 2010, 10, 999.	3.1	74
7	Microfluidics and multielectrode array-compatible organotypic slice culture method. <i>Journal of Neuroscience Methods</i> , 2009, 178, 59-64.	1.3	60
8	Cell-cell interaction modulates neuroectodermal specification of embryonic stem cells. <i>Neuroscience Letters</i> , 2008, 438, 190-195.	1.0	58
9	Interictal spikes, seizures and ictal cell death are not necessary for post-traumatic epileptogenesis in vitro. <i>Neurobiology of Disease</i> , 2012, 45, 774-785.	2.1	58
10	High-performance fluidic adaptive lenses. <i>Applied Optics</i> , 2004, 43, 783.	2.1	56
11	Evolution of Network Synchronization during Early Epileptogenesis Parallels Synaptic Circuit Alterations. <i>Journal of Neuroscience</i> , 2015, 35, 9920-9934.	1.7	53
12	Nest Making and Oxytocin Comparably Promote Wound Healing in Isolation Reared Rats. <i>PLoS ONE</i> , 2009, 4, e5523.	1.1	50
13	High-sensitivity cytometric detection using fluidic-photonics integrated circuits with array waveguides. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2005, 11, 827-834.	1.9	46
14	Microfabrication-compatible Nanoporous Gold Foams as Biomaterials for Drug Delivery. <i>Advanced Healthcare Materials</i> , 2012, 1, 172-176.	3.9	43
15	Epilepsy-on-a-Chip System for Antiepileptic Drug Discovery. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1231-1241.	2.5	34
16	Neuroprotective levels of IGF-1 exacerbate epileptogenesis after brain injury. <i>Scientific Reports</i> , 2016, 6, 32095.	1.6	33
17	Propofol induces MAPK/ERK cascade dependant expression of cFos and Egr-1 in rat hippocampal slices. <i>BMC Research Notes</i> , 2010, 3, 201.	0.6	31
18	Neural Circuits on a Chip. <i>Micromachines</i> , 2016, 7, 157.	1.4	31

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19	Isolation rearing impairs wound healing and is associated with increased locomotion and decreased immediate early gene expression in the medial prefrontal cortex of juvenile rats. <i>Neuroscience</i> , 2008, 151, 589-603.	1.1	26
20	Nondestructive evaluation of progressive neuronal changes in organotypic rat hippocampal slice cultures using ultrahigh-resolution optical coherence microscopy. <i>Neurophotonics</i> , 2014, 1, 1.	1.7	24
21	Staged anticonvulsant screening for chronic epilepsy. <i>Annals of Clinical and Translational Neurology</i> , 2016, 3, 908-923.	1.7	19
22	Epileptogenesis in organotypic hippocampal cultures has limited dependence on culture medium composition. <i>PLoS ONE</i> , 2017, 12, e0172677.	1.1	16
23	Perfused drop microfluidic device for brain slice culture-based drug discovery. <i>Biomedical Microdevices</i> , 2016, 18, 46.	1.4	13
24	Polymer Microvalve Based on Anisotropic Expansion of Polypyrrole. <i>Materials Research Society Symposia Proceedings</i> , 2003, 782, 1.	0.1	12
25	Multi-electrode array capable of supporting precisely patterned hippocampal neuronal networks. <i>Biomedical Microdevices</i> , 2015, 17, 2.	1.4	12
26	Neural layer self-assembly in geometrically confined rat and human 3D cultures. <i>Biofabrication</i> , 2019, 11, 045011.	3.7	12
27	Microdevice for directional axodendritic connectivity between micro 3D neuronal cultures. <i>Microsystems and Nanoengineering</i> , 2021, 7, 67.	3.4	10
28	Microspherical surfaces with predefined focal lengths fabricated using microfluidic capillaries. <i>Applied Physics Letters</i> , 2003, 83, 5563-5565.	1.5	9
29	Micro Three-Dimensional Neuronal Cultures Generate Developing Cortex-Like Activity Patterns. <i>Frontiers in Neuroscience</i> , 2020, 14, 563905.	1.4	9
30	Fabrication and Evaluation of Conducting Polymer Nanowire Heterostructures. <i>Materials Research Society Symposia Proceedings</i> , 2005, 872, 1.	0.1	7
31	A Supervised Stdp-Based Training Algorithm for Living Neural Networks. , 2018, , .		7
32	Neuron and astrocyte aggregation and sorting in three-dimensional neuronal constructs. <i>Communications Biology</i> , 2021, 4, 587.	2.0	7
33	BK <sub>ca</sub> Channel in Autism and Mental Retardation. <i>American Journal of Psychiatry</i> , 2007, 164, 977-978.	4.0	6
34	Kinase Inhibitors with Antiepileptic Properties Identified with a Novel in Vitro Screening Platform. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2502.	1.8	5
35	Fabrication of polypyrrole nanowires. , 2005, , .		4
36	A novel technology for fabricating gratings of any chirp characteristics by design. <i>IEEE Photonics Technology Letters</i> , 2003, 15, 712-714.	1.3	3

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37	Variability of seizure-like activity in an in vitro model of epilepsy depends on the electrical recording method. <i>Heliyon</i> , 2020, 6, e05587.	1.4	3
38	Organotypic Hippocampal Slice Cultures as a Model of Posttraumatic Epileptogenesis. , 2017, , 301-311.		1
39	Designing and manipulating interconnectivity between cortical and striatal 3D cultures. , 2019, , .		1
40	Understanding the Impact of Neural Variations and Random Connections on Inference. <i>Frontiers in Computational Neuroscience</i> , 2021, 15, 612937.	1.2	1
41	Polypyrrole Nano- and Microsensors and Actuators for Biomedical Applications. , 2008, , 367-400.		1
42	Multiple-compartment chip for parallel recordings of epileptic activity from organotypic cultures. , 2011, , .		0
43	Nanoporous Gold: A Biomaterial for Microfabricated Drug-Delivery Platforms. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1415, 48.	0.1	0
44	Protocol for Rodent Organotypic Hippocampal Slice Culture Model for Ex Vivo Monitoring of Epileptogenesis. <i>Neuromethods</i> , 2021, , 11-28.	0.2	0
45	Temporal Learning with Biologically Fitted SNN Models. , 2021, , .		0
46	Polypyrrole: Nano- and Microsensors and Actuators. , 0, , 6538-6560.		0
47	Efficient and Accurate Computational Model of Neuron with Spike Frequency Adaptation. , 2021, 2021, 6496-6499.		0