Susanna Narkilahti

List of Publications by Year
in descending order

46	1,612	331259 21	301761 39
papers	citations	h-index	g-index

46	46	46	2372
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bidirectional cell-matrix interaction dictates neuronal network formation in a brain-mimetic 3D scaffold. Acta Biomaterialia, 2022, 140, 314-323.	4.1	13
2	A kainic acid-induced seizure model in human pluripotent stem cell-derived cortical neurons for studying the role of IL-6 in the functional activity. Stem Cell Research, 2022, 60, 102665.	0.3	6
3	Comparative microelectrode array data of the functional development of hPSC-derived and rat neuronal networks. Scientific Data, 2022, 9, 120.	2.4	7
4	Human Neurons Form Axon-Mediated Functional Connections with Human Cardiomyocytes in Compartmentalized Microfluidic Chip. International Journal of Molecular Sciences, 2022, 23, 3148.	1.8	6
5	Corrosion and Protection of Silicon Nitride Insulators in Microelectrode Array Applications. IEEE Sensors Journal, 2022, 22, 12504-12514.	2.4	1
6	Novel method to produce a layered 3D scaffold for human pluripotent stem cell-derived neuronal cells. Journal of Neuroscience Methods, 2021, 350, 109043.	1.3	10
7	Directional Growth of Human Neuronal Axons in a Microfluidic Device with Nanotopography on Azobenzeneâ€Based Material. Advanced Materials Interfaces, 2021, 8, 2100048.	1.9	22
8	A modular brain-on-a-chip for modelling epileptic seizures with functionally connected human neuronal networks. Biosensors and Bioelectronics, 2020, 168, 112553.	5.3	43
9	In Vitro Oxygen-Glucose Deprivation-Induced Stroke Models with Human Neuroblastoma Cell- and Induced Pluripotent Stem Cell-Derived Neurons. Stem Cells International, 2020, 2020, 1-13.	1.2	14
10	Transparent Microelectrode Arrays Fabricated by Ion Beam Assisted Deposition for Neuronal Cell In Vitro Recordings. Micromachines, 2020, 11, 497.	1.4	9
11	Covalent immobilization of luminescent oxygen indicators reduces cytotoxicity. Biomedical Microdevices, 2020, 22, 41.	1.4	5
12	Carbon nanotube micropillars trigger guided growth of complex human neural stem cells networks. Nano Research, 2019, 12, 2894-2899.	5.8	27
13	Co-stimulation with IL-1Î² and TNF-Î± induces an inflammatory reactive astrocyte phenotype with neurosupportive characteristics in a human pluripotent stem cell model system. Scientific Reports, 2019, 9, 16944.	1.6	93
14	Catalytically inactive carbonic anhydraseâ€related proteins enhance transport of lactate by MCT1. FEBS Open Bio, 2019, 9, 1204-1211.	1.0	13
15	Screening of Hydrogels for Human Pluripotent Stem Cellâ€“Derived Neural Cells: Hyaluronanâ€Polyvinyl Alcoholâ€Collagenâ€Based Interpenetrating Polymer Network Provides an Improved Hydrogel Scaffold. Macromolecular Bioscience, 2019, 19, e1900096.	2.1	16
16	Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis. Advances in Neurobiology, 2019, 22, 299-329.	1.3	7
17	Microelectrode Array With Transparent ALD TiN Electrodes. Frontiers in Neuroscience, 2019, 13, 226.	1.4	20
18	A compartmentalized neuron-oligodendrocyte co-culture device for myelin research: design, fabrication and functionality testing. Journal of Micromechanics and Microengineering, 2019, 29, 065009.	1.5	18

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19	Functional characterization of human pluripotent stem cell-derived cortical networks differentiated on laminin-521 substrate: comparison to rat cortical cultures. Scientific Reports, 2019, 9, 17125.	1.6	77
20	Effects of inflammatory cytokines IFN-Î³, TNF-Î± and IL-6 on the viability and functionality of human pluripotent stem cell-derived neural cells. Journal of Neuroimmunology, 2019, 331, 36-45.	1.1	16
21	Effect of prolonged differentiation on functional maturation of human pluripotent stem cell-derived neuronal cultures. Stem Cell Research, 2018, 27, 151-161.	0.3	51
22	Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells. Reactive and Functional Polymers, 2018, 124, 29-39.	2.0	25
23	Ion Beam Assisted E-Beam Deposited TiN Microelectrodesâ€"Applied to Neuronal Cell Culture Medium Evaluation. Frontiers in Neuroscience, 2018, 12, 882.	1.4	18
24	GABA and Gap Junctions in the Development of Synchronized Activity in Human Pluripotent Stem Cell-Derived Neural Networks. Frontiers in Cellular Neuroscience, 2018, 12, 56.	1.8	17
25	Cell culture chamber with gas supply for prolonged recording of human neuronal cells on microelectrode array. Journal of Neuroscience Methods, 2017, 280, 27-35.	1.3	22
26	Bioamine-crosslinked gellan gum hydrogel for neural tissue engineering. Biomedical Materials (Bristol), 2017, 12, 025014.	1.7	61
27	Aligned Poly(Îµâ€caprolactone) Nanofibers Guide the Orientation and Migration of Human Pluripotent Stem Cellâ€Derived Neurons, Astrocytes, and Oligodendrocyte Precursor Cells In Vitro. Macromolecular Bioscience, 2017, 17, 1600517.	2.1	22
28	Laminin Î±5 substrates promote survival, network formation and functional development of human pluripotent stem cell-derived neurons in vitro. Stem Cell Research, 2017, 24, 118-127.	0.3	47
29	Direct Laser Writing of Tubular Microtowers for 3D Culture of Human Pluripotent Stem Cell-Derived Neuronal Cells. ACS Applied Materials & Interfaces, 2017, 9, 25717-25730.	4.0	35
30	Optimised PDMS Tunnel Devices on MEAs Increase the Probability of Detecting Electrical Activity from Human Stem Cell-Derived Neuronal Networks. Frontiers in Neuroscience, 2017, 11, 606.	1.4	16
31	Simulation of developing human neuronal cell networks. BioMedical Engineering OnLine, 2016, 15, 105.	1.3	6
32	Joint analysis of extracellular spike waveforms and neuronal network bursts. Journal of Neuroscience Methods, 2016, 259, 143-155.	1.3	10
33	Three-dimensional growth matrix for human embryonic stem cell-derived neuronal cells. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 186-194.	1.3	39
34	Comparative Analysis of Targeted Differentiation of Human Induced Pluripotent Stem Cells (hiPSCs) and Human Embryonic Stem Cells Reveals Variability Associated With Incomplete Transgene Silencing in Retrovirally Derived hiPSC Lines. Stem Cells Translational Medicine, 2013, 2, 83-93.	1.6	64
35	Burst analysis tool for developing neuronal networks exhibiting highly varying action potential dynamics. Frontiers in Computational Neuroscience, 2012, 6, 38.	1.2	62
36	Twoâ€photon microfabrication of poly(ethylene glycol) diacrylate and a novel biodegradable photopolymerâ€"comparison of processability for biomedical applications. Polymers for Advanced Technologies, 2012, 23, 992-1001.	1.6	19

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37	Structured PDMS Chambers for Enhanced Human Neuronal Cell Activity on MEA Platforms. Journal of Bionic Engineering, 2012, 9, 1-10.	2.7	29
38	An automated continuous monitoring system: a useful tool for monitoring neuronal differentiation of human embryonic stem cells. Stem Cell Studies, 2011, 1, 10.	0.2	3
39	Human cell-based micro electrode array platform for studying neurotoxicity. Frontiers in Neuroengineering, 2010, 3, .	4.8	74
40	Similarly derived and cultured hESC lines show variation in their developmental potential towards neuronal cells in long-term culture. Regenerative Medicine, 2010, 5, 749-762.	0.8	66
41	A Defined and Xeno-Free Culture Method Enabling the Establishment of Clinical-Grade Human Embryonic, Induced Pluripotent and Adipose Stem Cells. PLoS ONE, 2010, 5, e10246.	1.1	138
42	Electrospun Poly(L,D-lactide) Scaffolds Support the Growth of Human Embryonic Stem Cell-derived Neuronal Cells~!2009-08-26~!2009-11-30~!2010-02-12~!. The Open Tissue Engineering and Regenerative Medicine Journal, 2010, 3, 1-9.	2.6	6
43	Human embryonic stem cell-derived neuronal cells form spontaneously active neuronal networks in vitro. Experimental Neurology, 2009, 218, 109-116.	2.0	113
44	Monitoring and analysis of dynamic growth of human embryonic stem cells: comparison of automated instrumentation and conventional culturing methods. BioMedical Engineering OnLine, 2007, 6, 11.	1.3	36
45	Neurogenic neuroepithelial and radial glial cells generated from six human embryonic stem cell lines in serum-free suspension and adherent cultures. Glia, 2007, 55, 385-399.	2.5	129
46	Expression and activation of caspase 3 following status epilepticus in the rat. European Journal of Neuroscience, 2003, 18, 1486-1496.	1.2	81