Vania Broccoli

List of Publications by Year
in descending order

121 papers	12,569 citations	28190 55 h-index	24915 109 g-index
129 all docs	129 docs citations	129 times ranked	17267 citing authors

#	Article	IF	Citations
1	Neurons derived from reprogrammed fibroblasts functionally integrate into the fetal brain and improve symptoms of rats with Parkinson's disease. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5856-5861.	3.3	1,129
2	Direct generation of functional dopaminergic neurons from mouse and human fibroblasts. Nature, 2011, 476, 224-227.	13.7	941
3	Mapping Wnt/Â-catenin signaling during mouse development and in colorectal tumors. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3299-3304.	3.3	730
4	The meso-angioblast: a multipotent, self-renewing cell that originates from the dorsal aorta and differentiates into most mesodermal tissues. Development (Cambridge), 2002, 129, 2773-2783.	1.2	429
5	FOXG1 Is Responsible for the Congenital Variant of Rett Syndrome. American Journal of Human Genetics, 2008, 83, 89-93.	2.6	366
6	Tbr2 Directs Conversion of Radial Glia into Basal Precursors and Guides Neuronal Amplification by Indirect Neurogenesis in the Developing Neocortex. Neuron, 2008, 60, 56-69.	3.8	344
7	The caudal limit of Otx2 expression positions the isthmic organizer. Nature, 1999, 401, 164-168.	13.7	305
8	Site-specific integration and tailoring of cassette design for sustainable gene transfer. Nature Methods, 2011, 8, 861-869.	9.0	300
9	CDKL5 belongs to the same molecular pathway of MeCP2 and it is responsible for the early-onset seizure variant of Rett syndrome. Human Molecular Genetics, 2005, 14, 1935-1946.	1.4	279
10	Transplantation of Genetically Corrected Human iPSC-Derived Progenitors in Mice with Limb-Girdle Muscular Dystrophy. Science Translational Medicine, 2012, 4, 140ra89.	5.8	269
11	Axonal degeneration in paraplegin-deficient mice is associated with abnormal mitochondria and impairment of axonal transport. Journal of Clinical Investigation, 2004, 113, 231-242.	3.9	241
12	Defective Neurogenesis in Citron Kinase Knockout Mice by Altered Cytokinesis and Massive Apoptosis. Neuron, 2000, 28, 115-127.	3.8	232
13	CDKL5 ensures excitatory synapse stability by reinforcing NGL-1â€“PSD95 interaction in the postsynaptic compartment and is impaired in patient iPSC-derived neurons. Nature Cell Biology, 2012, 14, 911-923.	4.6	231
14	Emx1andEmx2Show Different Patterns of Expression During Proliferation and Differentiation of the Developing Cerebral Cortex in the Mouse. European Journal of Neuroscience, 1996, 8, 1037-1050.	1.2	213
15	The simultaneous loss of Arx and Pax4 genes promotes a somatostatin-producing cell fate specification at the expense of the Î±-and Î²-cell lineages in the mouse endocrine pancreas. Development (Cambridge), 2005, 132, 2969-2980.	1.2	203
16	Reduced AKT/mTOR signaling and protein synthesis dysregulation in a Rett syndrome animal model. Human Molecular Genetics, 2011, 20, 1182-1196.	1.4	202
17	Direct Conversion of Fibroblasts into Functional Astrocytes by Defined Transcription Factors. Stem Cell Reports, 2015, 4, 25-36.	2.3	194
18	c-otx2 is expressed in two different phases of gastrulation and is sensitive to retinoic acid treatment in chick embryo. Mechanisms of Development, 1995, 49, 49-63.	1.7	183

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19	Importance of Shank3 Protein in Regulating Metabotropic Glutamate Receptor 5 (mGluR5) Expression and Signaling at Synapses. Journal of Biological Chemistry, 2011, 286, 34839-34850.	1.6	180
20	Pharmacological Inhibition of Necroptosis Protects from Dopaminergic Neuronal Cell Death in Parkinsonâ€™s Disease Models. Cell Reports, 2018, 22, 2066-2079.	2.9	167
21	CDKL5 Expression Is Modulated during Neuronal Development and Its Subcellular Distribution Is Tightly Regulated by the C-terminal Tail. Journal of Biological Chemistry, 2008, 283, 30101-30111.	1.6	155
22	Rapid Conversion of Fibroblasts into Functional Forebrain GABAergic Interneurons by Direct Genetic Reprogramming. Cell Stem Cell, 2015, 17, 719-734.	5.2	152
23	Axonal degeneration in paraplegin-deficient mice is associated with abnormal mitochondria and impairment of axonal transport. Journal of Clinical Investigation, 2004, 113, 231-242.	3.9	144
24	Arx Is a Direct Target of Dlx2 and Thereby Contributes to the Tangential Migration of GABAergic Interneurons. Journal of Neuroscience, 2008, 28, 10674-10686.	1.7	140
25	dCas9-Based Scn1a Gene Activation Restores Inhibitory Interneuron Excitability and Attenuates Seizures in Dravet Syndrome Mice. Molecular Therapy, 2020, 28, 235-253.	3.7	135
26	Location and Size of Dopaminergic and Serotonergic Cell Populations Are Controlled by the Position of the Midbrainâ€“Hindbrain Organizer. Journal of Neuroscience, 2003, 23, 4199-4207.	1.7	133
27	Emx and Otx homeobox genes in the developing mouse brain. Journal of Neurobiology, 1993, 24, 1356-1366.	3.7	129
28	Inactivation of Arx, the Murine Ortholog of the X-Linked Lissencephaly with Ambiguous Genitalia Gene, Leads to Severe Disorganization of the Ventral Telencephalon with Impaired Neuronal Migration and Differentiation. Journal of Neuroscience, 2007, 27, 4786-4798.	1.7	124
29	Adult Human MÃ¼ller Glia Cells Are a Highly Efficient Source of Rod Photoreceptors. Stem Cells, 2011, 29, 344-356.	1.4	122
30	Primary Skin Fibroblasts as a Model of Parkinson's Disease. Molecular Neurobiology, 2012, 46, 20-27.	1.9	121
31	A Human Bi-specific Antibody against Zika Virus with High Therapeutic Potential. Cell, 2017, 171, 229-241.e15.	13.5	118
32	Emx2regulates the proliferation of stem cells of the adult mammalian central nervous system. Development (Cambridge), 2002, 129, 1633-1644.	1.2	115
33	Cas9/sgRNA selective targeting of the P23H Rhodopsin mutant allele for treating retinitis pigmentosa by intravitreal AAV9.PHP.B-based delivery. Human Molecular Genetics, 2018, 27, 761-779.	1.4	107
34	The endoplasmic reticulum-mitochondria interface is perturbed in PARK2 knockout mice and patients with PARK2 mutations. Human Molecular Genetics, 2016, 25, ddw148.	1.4	105
35	Remote control of induced dopaminergic neurons in parkinsonian rats. Journal of Clinical Investigation, 2014, 124, 3215-3229.	3.9	104
36	PRRT2 controls neuronal excitability by negatively modulating Na+ channel 1.2/1.6 activity. Brain, 2018, 141, 1000-1016.	3.7	99

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37	Isolation of Crb1, a mouse homologue of Drosophila crumbs, and analysis of its expression pattern in eye and brain. Mechanisms of Development, 2002, 110, 203-207.	1.7	98
38	AAV-PHP.B-Mediated Global-Scale Expression in the Mouse Nervous System Enables GBA1 Gene Therapy for Wide Protection from Synucleinopathy. Molecular Therapy, 2017, 25, 2727-2742.	3.7	98
39	Otx genes in brain morphogenesis. Progress in Neurobiology, 2001, 64, 69-95.	2.8	97
40	The Apical Complex Couples Cell Fate and Cell Survival to Cerebral Cortical Development. Neuron, 2010, 66, 69-84.	3.8	97
41	Tbr2-positive intermediate (basal) neuronal progenitors safeguard cerebral cortex expansion by controlling amplification of pallial glutamatergic neurons and attraction of subpallial GABAergic interneurons. Genes and Development, 2010, 24, 1816-1826.	2.7	94
42	The vertebrate ortholog ofAristaless is regulated byDlx genes in the developing forebrain. Journal of Comparative Neurology, 2005, 483, 292-303.	0.9	91
43	Inactivation of the peroxisomal ABCD2 transporter in the mouse leads to late-onset ataxia involving mitochondria, Golgi and endoplasmic reticulum damage. Human Molecular Genetics, 2005, 14, 3565-3577.	1.4	90
44	Hypogonadotropic hypogonadism and peripheral neuropathy inEbf2-null mice. Development (Cambridge), 2003, 130, 401-410.	1.2	89
45	Heparin prevents Zika virus induced-cytopathic effects in human neural progenitor cells. Antiviral Research, 2017, 140, 13-17.	1.9	88
46	Rapid Generation of Functional Dopaminergic Neurons From Human Induced Pluripotent Stem Cells Through a Single-Step Procedure Using Cell Lineage Transcription Factors. Stem Cells Translational Medicine, 2013, 2, 473-479.	1.6	81
47	In vivo CRISPRa decreases seizures and rescues cognitive deficits in a rodent model of epilepsy. Brain, 2020, 143, 891-905.	3.7	79
48	Neuroacanthocytosis: new developments in a neglected group of dementing disorders. Journal of the Neurological Sciences, 2005, 229-230, 171-186.	0.3	77
49	Mouse orthologue of ARX, a gene mutated in several X-linked forms of mental retardation and epilepsy, is a marker of adult neural stem cells and forebrain GABAergic neurons. Developmental Dynamics, 2004, 231, 631-639.	0.8	76
50	SETD5 Regulates Chromatin Methylation State and Preserves Global Transcriptional Fidelity during Brain Development and Neuronal Wiring. Neuron, 2019, 104, 271-289.e13.	3.8	75
51	Coenzyme A corrects pathological defects in human neurons of <scp>PANK</scp> 2â€associated neurodegeneration. EMBO Molecular Medicine, 2016, 8, 1197-1211.	3.3	74
52	Microglia-specific overexpression of Î±-synuclein leads to severe dopaminergic neurodegeneration by phagocytic exhaustion and oxidative toxicity. Nature Communications, 2021, 12, 6237.	5.8	74
53	SETBP1 induces transcription of a network of development genes by acting as an epigenetic hub. Nature Communications, 2018, 9, 2192.	5.8	66
54	Generation of Human Induced Pluripotent Stem Cell-Derived Bona Fide Neural Stem Cells for Ex Vivo Gene Therapy of Metachromatic Leukodystrophy. Stem Cells Translational Medicine, 2017, 6, 352-368.	1.6	63

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55	Aristaless-related homeobox gene, the gene responsible for West syndrome and related disorders, is a Groucho/transducin-like enhancer of split dependent transcriptional repressor. Neuroscience, 2007, 146, 236-247.	1.1	62
56	Mitochondrial iron and energetic dysfunction distinguish fibroblasts and induced neurons from pantothenate kinase-associated neurodegeneration patients. Neurobiology of Disease, 2015, 81, 144-153.	2.1	61
57	Administration of aerosolized SARS-CoV-2 to K18-hACE2 mice uncouples respiratory infection from fatal neuroinvasion. Science Immunology, 2022, 7, .	5.6	61
58	Cloning and characterization of a new human Xq13 gene, encoding a putative helicase. Human Molecular Genetics, 1994, 3, 1957-1964.	1.4	58
59	ARX Regulates Cortical Intermediate Progenitor Cell Expansion and Upper Layer Neuron Formation Through Repression of Cdkn1c. Cerebral Cortex, 2015, 25, 322-335.	1.6	56
60	MyT1 Counteracts the Neural Progenitor Program to Promote Vertebrate Neurogenesis. Cell Reports, 2016, 17, 469-483.	2.9	56
61	FERM protein EPB41L5 is a novel member of the mammalian CRBâ€“MPP5 polarity complex. Experimental Cell Research, 2007, 313, 3959-3970.	1.2	55
62	MICAL2is a novel human cancer gene controlling mesenchymal to epithelial transition involved in cancer growth and invasion. Oncotarget, 2016, 7, 1808-1825.	0.8	55
63	CDKL5 influences RNA splicing activity by its association to the nuclear speckle molecular machinery. Human Molecular Genetics, 2009, 18, 4590-4602.	1.4	53
64	Human Endometrial Stromal Cells Are Highly Permissive To Productive Infection by Zika Virus. Scientific Reports, 2017, 7, 44286.	1.6	50
65	Arx acts as a regional key selector gene in the ventral telencephalon mainly through its transcriptional repression activity. Developmental Biology, 2009, 334, 59-71.	0.9	48
66	Direct Derivation of Neural Rosettes from Cloned Bovine Blastocysts: A Model of Early Neurulation Events and Neural Crest Specification In Vitro. Stem Cells, 2006, 24, 2514-2521.	1.4	46
67	Necdin mediates skeletal muscle regeneration by promoting myoblast survival and differentiation. Journal of Cell Biology, 2007, 179, 305-319.	2.3	46
68	Stem Cell Modeling of Neuroferritinopathy Reveals Iron as a Determinant of Senescence and Ferroptosis during Neuronal Aging. Stem Cell Reports, 2019, 13, 832-846.	2.3	46
69	Reconstitution of the Human Nigro-striatal Pathway on-a-Chip Reveals OPA1-Dependent Mitochondrial Defects and Loss of Dopaminergic Synapses. Cell Reports, 2019, 29, 4646-4656.e4.	2.9	42
70	Frataxin gene editing rescues Friedreichâ€™s ataxia pathology in dorsal root ganglia organoid-derived sensory neurons. Nature Communications, 2020, 11, 4178.	5.8	42
71	Whole brain delivery of an instability-prone Mecp2 transgene improves behavioral and molecular pathological defects in mouse models of Rett syndrome. ELife, 2020, 9, .	2.8	42
72	Human L-ferritin deficiency is characterized by idiopathic generalized seizures and atypical restless leg syndrome. Journal of Experimental Medicine, 2013, 210, 1779-1791.	4.2	39

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73	Embryonic Stem-Derived Versus Somatic Neural Stem Cells: A Comparative Analysis of Their Developmental Potential and Molecular Phenotype. Stem Cells, 2006, 24, 825-834.	1.4	38
74	Rapid and efficient CRISPR/Cas9 gene inactivation in human neurons during human pluripotent stem cell differentiation and direct reprogramming. Scientific Reports, 2016, 6, 37540.	1.6	38
75	Magic-Factor 1, a Partial Agonist of Met, Induces Muscle Hypertrophy by Protecting Myogenic Progenitors from Apoptosis. PLoS ONE, 2008, 3, e3223.	1.1	36
76	Vascular endothelial growth factor messenger ribonucleic acid expression in human ovarian and endometrial cancer. Gynecological Endocrinology, 1996, 10, 375-382.	0.7	35
77	Wnt Signaling Has Opposing Roles in the Developing and the Adult Brain That Are Modulated by Hipk1. Cerebral Cortex, 2012, 22, 2415-2427.	1.6	35
78	<scp>SCN</scp>1A/Na_V1.1 channelopathies: Mechanisms in expression systems, animal models, and human <scp>iPSC</scp> models. Epilepsia, 2019, 60, S25-S38.	2.6	35
79	Long-term culture and differentiation of CNS precursors derived from anterior human neural rosettes following exposure to ventralizing factors. Experimental Cell Research, 2010, 316, 1148-1158.	1.2	34
80	Human induced pluripotent stem cells differentiate into insulin-producing cells able to engraft in vivo. Acta Diabetologica, 2015, 52, 1025-1035.	1.2	33
81	Bsx, an evolutionary conserved Brain Specific homeoboX gene expressed in the septum, epiphysis, mammillary bodies and arcuate nucleus. Gene Expression Patterns, 2004, 4, 47-51.	0.3	32
82	H3K36 Methylation in Neural Development and Associated Diseases. Frontiers in Genetics, 2019, 10, 1291.	1.1	32
83	Modeling physiological and pathological human neurogenesis in the dish. Frontiers in Neuroscience, 2014, 8, 183.	1.4	31
84	The Tbr2 Molecular Network Controls Cortical Neuronal Differentiation Through Complementary Genetic and Epigenetic Pathways. Cerebral Cortex, 2017, 27, 3378-3396.	1.6	31
85	A microRNA-Based System for Selecting and Maintaining the Pluripotent State in Human Induced Pluripotent Stem Cells. Stem Cells, 2011, 29, 1684-1695.	1.4	29
86	Zrf1 is required to establish and maintain neural progenitor identity. Genes and Development, 2014, 28, 182-197.	2.7	29
87	Scn1a gene reactivation after symptom onset rescues pathological phenotypes in a mouse model of Dravet syndrome. Nature Communications, 2022, 13, 161.	5.8	29
88	The homeobox gene Arx is a novel positive regulator of embryonic myogenesis. Cell Death and Differentiation, 2008, 15, 94-104.	5.0	28
89	Two factor-based reprogramming of rodent and human fibroblasts into Schwann cells. Nature Communications, 2017, 8, 14088.	5.8	28
90	Efficient Genetic Reprogramming of Unmodified Somatic Neural Progenitors Uncovers the Essential Requirement of Oct4 and Klf4. Stem Cells and Development, 2009, 18, 707-716.	1.1	26

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91	SETBP1 accumulation induces P53 inhibition and genotoxic stress in neural progenitors underlying neurodegeneration in Schinzel-Giedion syndrome. Nature Communications, 2021, 12, 4050.	5.8	24
92	Cloning and expression of noz1, a zebrafish zinc finger gene related to Drosophila nocA. Mechanisms of Development, 2001, 104, 117-120.	1.7	22
93	Xenopus Bsxlinks daily cell cycle rhythms and pineal photoreceptor fate. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6352-6357.	3.3	22
94	Evolution of Emx genes and brain development in vertebrates. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 1763-1766.	1.2	21
95	Gene therapy approaches in the non-human primate model of Parkinsonâ€™s disease. Journal of Neural Transmission, 2018, 125, 575-589.	1.4	20
96	Direct Neuronal Reprogramming Reveals Unknown Functions for Known Transcription Factors. Frontiers in Neuroscience, 2019, 13, 283.	1.4	20
97	MAEG, an EGF-repeat containing gene, is a new marker associated with dermatome specification and morphogenesis of its derivatives. Mechanisms of Development, 2000, 98, 179-182.	1.7	19
98	GABAergic Neuronal Precursor Grafting: Implications in Brain Regeneration and Plasticity. Neural Plasticity, 2011, 2011, 1-11.	1.0	19
99	SOX9-induced Generation of Functional Astrocytes Supporting Neuronal Maturation in an All-human System. Stem Cell Reviews and Reports, 2021, 17, 1855-1873.	1.7	19
100	Dmbx1 is a paired-box containing gene specifically expressed in the caudal most brain structures. Mechanisms of Development, 2002, 114, 219-223.	1.7	18
101	Role of citron kinase in dendritic morphogenesis of cortical neurons. Brain Research Bulletin, 2003, 60, 319-327.	1.4	18
102	Folic Acid Exposure Rescues Spina Bifida Aperta Phenotypes in Human Induced Pluripotent Stem Cell Model. Scientific Reports, 2018, 8, 2942.	1.6	18
103	Glucocerebrosidase Gene Therapy Induces Alpha-Synuclein Clearance and Neuroprotection of Midbrain Dopaminergic Neurons in Mice and Macaques. International Journal of Molecular Sciences, 2021, 22, 4825.	1.8	18
104	An ES-Like Pluripotent State in FGF-Dependent Murine iPS cells. PLoS ONE, 2010, 5, e16092.	1.1	17
105	Transdifferentiation of Mouse Embryonic Fibroblasts into Dopaminergic Neurons Reactivates LINE-1 Repetitive Elements. Stem Cell Reports, 2020, 14, 60-74.	2.3	16
106	Emx and Otx Gene Expression in the Developing Mouse Brain. Novartis Foundation Symposium, 1995, 193, 100-126.	1.2	13
107	Case Report: Off-Label Liraglutide Use in Children With Wolfram Syndrome Type 1: Extensive Characterization of Four Patients. Frontiers in Pediatrics, 2021, 9, 755365.	0.9	12
108	Neuroprotection of Brain Cells by Lipoic Acid Treatment after Cellular Stress. ACS Chemical Neuroscience, 2017, 8, 569-577.	1.7	11

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109	SULT4A1 Modulates Synaptic Development and Function by Promoting the Formation of PSD-95/NMDAR Complex. Journal of Neuroscience, 2020, 40, 7013-7026.	1.7	11
110	Overcoming the hurdles for a reproducible generation of human functionally mature reprogrammed neurons. Experimental Biology and Medicine, 2015, 240, 787-794.	1.1	10
111	Histone modifications controlling native and induced neural stem cell identity. Current Opinion in Genetics and Development, 2015, 34, 95-101.	1.5	9
112	Genetics and gene therapy in Dravet syndrome. Epilepsy and Behavior, 2021, , 108043.	0.9	9
113	Setting a highway for converting skin into neurons. Journal of Molecular Cell Biology, 2011, 3, 322-323.	1.5	8
114	The relevance of mitochondrial DNA variants fluctuation during reprogramming and neuronal differentiation of human iPSCs. Stem Cell Reports, 2021, 16, 1953-1967.	2.3	8
115	Reprogramming of somatic cells. Progress in Brain Research, 2017, 230, 53-68.	0.9	7
116	Exploiting hiPSCs in Leber's Hereditary Optic Neuropathy (LHON): Present Achievements and Future Perspectives. Frontiers in Neurology, 2021, 12, 648916.	1.1	7
117	1 Body Plan Genes and Human Malformation. Advances in Genetics, 1998, 38, 1-29.	0.8	5
118	Administration of aerosolized SARS-CoV-2 to K18-hACE2 mice uncouples respiratory infection from fatal neuroinvasion. Science Immunology, 2021, , eabl9929.	5.6	3
119	Oxysterols detour to neurodevelopment. Nature Chemical Biology, 2013, 9, 70-71.	3.9	2
120	mSELâ€1L deficiency affects vasculogenesis and neural stem cell lineage commitment. Journal of Cellular Physiology, 2018, 233, 3152-3163.	2.0	2
121	Recipes for Making Neurons using Combinatorial Forward Genetics. Cell Stem Cell, 2018, 23, 13-14.	5.2	0