Carmen Birchmeier

List of Publications by Year
in descending order

109 papers	20,681 citations	17405 63 h-index	27345 106 g-index
118 all docs	118 docs citations	118 times ranked	23469 citing authors

#	Article	IF	Citations
1	Met, metastasis, motility and more. Nature Reviews Molecular Cell Biology, 2003, 4, 915-925.	16.1	2,399
2	Essential role for the c-met receptor in the migration of myogenic precursor cells into the limb bud. Nature, 1995, 376, 768-771.	13.7	1,202
3	Multiple essential functions of neuregulin in development. Nature, 1995, 378, 386-390.	13.7	1,154
4	A Validated Regulatory Network for Th17 Cell Specification. Cell, 2012, 151, 289-303.	13.5	1,010
5	Loss of a mammalian circular RNA locus causes miRNA deregulation and affects brain function. Science, 2017, 357, .	6.0	978
6	Axonal Neuregulin-1 Regulates Myelin Sheath Thickness. Science, 2004, 304, 700-703.	6.0	821
7	Severe neuropathies in mice with targeted mutations in the ErbB3 receptor. Nature, 1997, 389, 725-730.	13.7	659
8	Control of Peripheral Nerve Myelination by the Â-Secretase BACE1. Science, 2006, 314, 664-666.	6.0	652
9	Developmental roles of HGF/SF and its receptor, the c-Met tyrosine kinase. Trends in Cell Biology, 1998, 8, 404-410.	3.6	558
10	Schwann Cell Precursors from Nerve Innervation Are a Cellular Origin of Melanocytes in Skin. Cell, 2009, 139, 366-379.	13.5	477
11	Met provides essential signals for liver regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10608-10613.	3.3	449
12	Î²-Catenin signals regulate cell growth and the balance between progenitor cell expansion and differentiation in the nervous system. Developmental Biology, 2003, 258, 406-418.	0.9	442
13	Patterning of Muscle Acetylcholine Receptor Gene Expression in the Absence of Motor Innervation. Neuron, 2001, 30, 399-410.	3.8	428
14	Conditional mutation of the ErbB2 (HER2) receptor in cardiomyocytes leads to dilated cardiomyopathy. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8880-8885.	3.3	418
15	Hepatocyte Growth Factor/Scatter Factor Is an Axonal Chemoattractant and a Neurotrophic Factor for Spinal Motor Neurons. Neuron, 1996, 17, 1157-1172.	3.8	387
16	Short- and Long-Range Attraction of Cortical GABAergic Interneurons by Neuregulin-1. Neuron, 2004, 44, 251-261.	3.8	383
17	The Homeodomain Factor Lbx1 Distinguishes Two Major Programs of Neuronal Differentiation in the Dorsal Spinal Cord. Neuron, 2002, 34, 551-562.	3.8	343
18	Neuregulin-1/ErbB Signaling Serves Distinct Functions in Myelination of the Peripheral and Central Nervous System. Neuron, 2008, 59, 581-595.	3.8	321

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19	c-Met is essential for wound healing in the skin. Journal of Cell Biology, 2007, 177, 151-162.	2.3	275
20	Essential Role of Gab1 for Signaling by the C-Met Receptor in Vivo. Journal of Cell Biology, 2000, 150, 1375-1384.	2.3	256
21	Neuregulin, a factor with many functions in the life of a Schwann cell. BioEssays, 2000, 22, 987-996.	1.2	251
22	A Dual Role of erbB2 in Myelination and in Expansion of the Schwann Cell Precursor Pool. Journal of Cell Biology, 2000, 148, 1035-1046.	2.3	245
23	The Tyrosine Phosphatase Shp2 in Development and Cancer. Advances in Cancer Research, 2010, 106, 53-89.	1.9	239
24	Neuregulinâ€1, a key axonal signal that drives Schwann cell growth and differentiation. Glia, 2008, 56, 1491-1497.	2.5	210
25	Nrg1/ErbB signaling networks in Schwann cell development and myelination. Seminars in Cell and Developmental Biology, 2010, 21, 922-928.	2.3	207
26	RBP-J (Rbpsuh) is essential to maintain muscle progenitor cells and to generate satellite cells. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4443-4448.	3.3	202
27	Cell fixation and preservation for droplet-based single-cell transcriptomics. BMC Biology, 2017, 15, 44.	1.7	186
28	The Zinc-finger factor Insm1 (IA-1) is essential for the development of pancreatic beta cells and intestinal endocrine cells. Genes and Development, 2006, 20, 2465-2478.	2.7	185
29	Parasympathetic neurons originate from nerve-associated peripheral glial progenitors. Science, 2014, 345, 82-87.	6.0	181
30	Self-Organizing 3D Human Trunk Neuromuscular Organoids. Cell Stem Cell, 2020, 26, 172-186.e6.	5.2	177
31	RNA localization is a key determinant of neurite-enriched proteome. Nature Communications, 2017, 8, 583.	5.8	176
32	Touch Receptor-Derived Sensory Information Alleviates Acute Pain Signaling and Fine-Tunes Nociceptive Reflex Coordination. Neuron, 2017, 93, 179-193.	3.8	172
33	CXCR4 and Gab1 cooperate to control the development of migrating muscle progenitor cells. Genes and Development, 2005, 19, 2187-2198.	2.7	164
34	Colonization of the Satellite Cell Niche by Skeletal Muscle Progenitor Cells Depends on Notch Signals. Developmental Cell, 2012, 23, 469-481.	3.1	157
35	The Transcription Factor c-Maf Controls Touch Receptor Development and Function. Science, 2012, 335, 1373-1376.	6.0	147
36	Genes that control the development of migrating muscle precursor cells. Current Opinion in Cell Biology, 2000, 12, 725-730.	2.6	146

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37	A Role for Neuregulin1 Signaling in Muscle Spindle Differentiation. Neuron, 2002, 36, 1035-1049.	3.8	141
38	Axonally Derived Neuregulin-1 Is Required for Remyelination and Regeneration after Nerve Injury in Adulthood. Journal of Neuroscience, 2011, 31, 3225-3233.	1.7	129
39	The bHLH factor Olig3 coordinates the specification of dorsal neurons in the spinal cord. Genes and Development, 2005, 19, 733-743.	2.7	128
40	Bace1 and Neuregulin-1 cooperate to control formation and maintenance of muscle spindles. EMBO Journal, 2013, 32, 2015-2028.	3.5	122
41	Single-nucleus transcriptomics reveals functional compartmentalization in syncytial skeletal muscle cells. Nature Communications, 2020, 11, 6375.	5.8	122
42	ErbB receptors and the development of the nervous system. Experimental Cell Research, 2009, 315, 611-618.	1.2	117
43	A nonclassical bHLHâ€"Rbpj transcription factor complex is required for specification of GABAergic neurons independent of Notch signaling. Genes and Development, 2008, 22, 166-178.	2.7	116
44	Defective Respiratory Rhythmogenesis and Loss of Central Chemosensitivity in Phox2b Mutants Targeting Retrotrapezoid Nucleus Neurons. Journal of Neuroscience, 2009, 29, 14836-14846.	1.7	115
45	Lbx1 Acts as a Selector Gene in the Fate Determination of Somatosensory and Viscerosensory Relay Neurons in the Hindbrain. Journal of Neuroscience, 2007, 27, 4902-4909.	1.7	113
46	ErbB2 Signaling in Schwann Cells Is Mostly Dispensable for Maintenance of Myelinated Peripheral Nerves and Proliferation of Adult Schwann Cells after Injury. Journal of Neuroscience, 2006, 26, 2124-2131.	1.7	109
47	Dual origin of enteric neurons in vagal Schwann cell precursors and the sympathetic neural crest. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11980-11985.	3.3	108
48	Insm1 (IA-1) is a crucial component of the transcriptional network that controls differentiation of the sympatho-adrenal lineage. Development (Cambridge), 2008, 135, 473-481.	1.2	103
49	Homeoprotein Phox2b commands a somatic-to-visceral switch in cranial sensory pathways. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20018-20023.	3.3	101
50	The tyrosine phosphatase Shp2 (PTPN11) directs Neuregulin-1/ErbB signaling throughout Schwann cell development. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16704-16709.	3.3	100
51	Mutations in Disordered Regions Can Cause Disease by Creating Dileucine Motifs. Cell, 2018, 175, 239-253.e17.	13.5	97
52	The bHLH transcription factor Olig3 marks the dorsal neuroepithelium of the hindbrain and is essential for the development of brainstem nuclei. Development (Cambridge), 2009, 136, 295-305.	1.2	94
53	Engineered mutants of HGF/SF with reduced binding to heparan sulphate proteoglycans, decreased clearance and enhanced activity in vivo. Current Biology, 1998, 8, 125-135.	1.8	91
54	ErbB2 Pathways in Heart and Neural Diseases. Trends in Cardiovascular Medicine, 2003, 13, 80-86.	2.3	90

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55	The breast proto-oncogene, HRGÎ± regulates epithelial proliferation and lobuloalveolar development in the mouse mammary gland. Oncogene, 2002, 21, 4900-4907.	2.6	81
56	dILA neurons in the dorsal spinal cord are the product of terminal and non-terminal asymmetric progenitor cell divisions, and require Mash1 for their development. Development (Cambridge), 2006, 133, 2105-2113.	1.2	77
57	Bmp and Wnt/Î²-catenin signals control expression of the transcription factor Olig3 and the specification of spinal cord neurons. Developmental Biology, 2007, 303, 181-190.	0.9	77
58	A transcriptional network coordinately determines transmitter and peptidergic fate in the dorsal spinal cord. Developmental Biology, 2008, 322, 381-393.	0.9	77
59	Insm1 cooperates with <scp>N</scp> eurod1 and <scp>F</scp> oxa2 to maintain mature pancreatic Î²â€cell function. EMBO Journal, 2015, 34, 1417-1433.	3.5	77
60	Activation of MAPK overrides the termination of myelin growth and replaces Nrg1/ErbB3 signals during Schwann cell development and myelination. Genes and Development, 2014, 28, 290-303.	2.7	76
61	Wnt/Rspondin/Î²-catenin signals control axonal sorting and lineage progression in Schwann cell development. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18174-18179.	3.3	74
62	Genetic identification of a hindbrain nucleus essential for innate vocalization. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8095-8100.	3.3	74
63	The dorsal spinal cord and hindbrain: From developmental mechanisms to functional circuits. Developmental Biology, 2017, 432, 34-42.	0.9	74
64	Axonal neuregulin 1 is a rate limiting but not essential factor for nerve remyelination. Brain, 2013, 136, 2279-2297.	3.7	73
65	Neuregulin-1 controls an endogenous repair mechanism after spinal cord injury. Brain, 2016, 139, 1394-1416.	3.7	69
66	The HGF Receptor/Met Tyrosine Kinase Is a Key Regulator of Dendritic Cell Migration in Skin Immunity. Journal of Immunology, 2012, 189, 1699-1707.	0.4	67
67	Muscle contraction is required to maintain the pool of muscle progenitors via YAP and NOTCH during fetal myogenesis. ELife, 2016, 5, .	2.8	65
68	Sustained MAPK/ERK Activation in Adult Schwann Cells Impairs Nerve Repair. Journal of Neuroscience, 2018, 38, 679-690.	1.7	60
69	Oscillations of MyoD and Hes1 proteins regulate the maintenance of activated muscle stem cells. Genes and Development, 2019, 33, 524-535.	2.7	60
70	Ontogeny of Excitatory Spinal Neurons Processing Distinct Somatic Sensory Modalities. Journal of Neuroscience, 2013, 33, 14738-14748.	1.7	57
71	Neuregulin-3 in the Mouse Medial Prefrontal Cortex Regulates Impulsive Action. Biological Psychiatry, 2014, 76, 648-655.	0.7	55
72	The development of migrating muscle precursor cells. Anatomy and Embryology, 2006, 211, 37-41.	1.5	50

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73	Insm1 (IA-1) is an essential component of the regulatory network that specifies monoaminergic neuronal phenotypes in the vertebrate hindbrain. Development (Cambridge), 2009, 136, 2477-2485.	1.2	50
74	Insm1 controls the differentiation of pulmonary neuroendocrine cells by repressing Hes1. Developmental Biology, 2015, 408, 90-98.	0.9	49
75	Neuregulin/ErbB Signaling in Developmental Myelin Formation and Nerve Repair. Current Topics in Developmental Biology, 2016, 116, 45-64.	1.0	49
76	Sensory Axon-Derived Neuregulin-1 Is Required for Axoglial Signaling and Normal Sensory Function But Not for Long-Term Axon Maintenance. Journal of Neuroscience, 2009, 29, 7667-7678.	1.7	46
77	Insm1 controls development of pituitary endocrine cells and requires a SNAG domain for function and for recruitment of histone-modifying factors. Development (Cambridge), 2013, 140, 4947-4958.	1.2	46
78	Genome-Wide Expression Analysis of<i>Ptf1a</i>- and<i>Ascl1</i>-Deficient Mice Reveals New Markers for Distinct Dorsal Horn Interneuron Populations Contributing to Nociceptive Reflex Plasticity. Journal of Neuroscience, 2013, 33, 7299-7307.	1.7	45
79	Antagonistic regulation of p57kip2 by Hes/Hey downstream of Notch signaling and muscle regulatory factors regulates skeletal muscle growth arrest. Development (Cambridge), 2014, 141, 2780-2790.	1.2	45
80	Neuregulin 3 promotes excitatory synapse formation on hippocampal interneurons. EMBO Journal, 2018, 37, .	3.5	45
81	EHD2-mediated restriction of caveolar dynamics regulates cellular fatty acid uptake. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7471-7481.	3.3	41
82	BMP signaling regulates satellite cell dependent postnatal muscle growth. Development (Cambridge), 2017, 144, 2737-2747.	1.2	34
83	Oscillations of Delta-like1 regulate the balance between differentiation and maintenance of muscle stem cells. Nature Communications, 2021, 12, 1318.	5.8	34
84	Human muscle-derived CLEC14A-positive cells regenerate muscle independent of PAX7. Nature Communications, 2019, 10, 5776.	5.8	30
85	Homozygous ARHGEF2 mutation causes intellectual disability and midbrain-hindbrain malformation. PLoS Genetics, 2017, 13, e1006746.	1.5	27
86	Mutation in <i>LBX1/Lbx1</i> precludes transcription factor cooperativity and causes congenital hypoventilation in humans and mice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 13021-13026.	3.3	27
87	Divergent and conserved roles of Dll1 signaling in development of craniofacial and trunk muscle. Developmental Biology, 2014, 395, 307-316.	0.9	23
88	Maf links Neuregulin1 signaling to cholesterol synthesis in myelinating Schwann cells. Genes and Development, 2018, 32, 645-657.	2.7	22
89	Mutations in<i>MYO1H</i>cause a recessive form of central hypoventilation with autonomic dysfunction. Journal of Medical Genetics, 2017, 54, 754-761.	1.5	21
90	A medullary centre for lapping in mice. Nature Communications, 2021, 12, 6307.	5.8	19

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91	Loss of Ptpn11 (Shp2) drives satellite cells into quiescence. ELife, 2017, 6, .	2.8	18
92	Quantitative Proteomics Reveals Dynamic Interaction of c-Jun N-terminal Kinase (JNK) with RNA Transport Granule Proteins Splicing Factor Proline- and Glutamine-rich (Sfpq) and Non-POU Domain-containing Octamer-binding Protein (Nono) during Neuronal Differentiation. Molecular and Cellular Proteomics, 2015, 14, 50-65.	2.5	17
93	Context-specific regulation of cell survival by a miRNA-controlled BIM rheostat. Genes and Development, 2019, 33, 1673-1687.	2.7	13
94	Î²-Secretase BACE1 Is Required for Normal Cochlear Function. Journal of Neuroscience, 2019, 39, 9013-9027.	1.7	13
95	The transcription factor c-Maf in sensory neuron development. Transcription, 2012, 3, 285-289.	1.7	9
96	Teashirt1 (Tshz1) is essential for the development, survival and function of hypoglossal and phrenic motor neurons. Development (Cambridge), 2019, 146, .	1.2	8
97	Met and Cxcr4 cooperate to protect skeletal muscle stem cells against inflammation-induced damage during regeneration. ELife, 2021, 10, .	2.8	7
98	Haploinsufficiency of Insm1 Impairs Postnatal Baseline Î²-Cell Mass. Diabetes, 2018, 67, 2615-2625.	0.3	6
99	SIX1 and SIX4 homeoproteins regulate PAX7+ progenitor cell properties during fetal epaxial myogenesis. Development (Cambridge), 2020, 147, .	1.2	6
100	An oscillatory network controlling self-renewal of skeletal muscle stem cells. Experimental Cell Research, 2021, 409, 112933.	1.2	6
101	Neuregulin-1 mutant mice indicate motor and sensory deficits, indeed few references for schizophrenia endophenotype model. Behavioural Brain Research, 2017, 322, 177-185.	1.2	5
102	Neuregulin, a factor with many functions in the life of a Schwann cell. BioEssays, 2000, 22, 987-996.	1.2	5
103	CO2 in the spotlight. ELife, 2015, 4, .	2.8	5
104	Genes That Control Cell Migration during Mouse Development. , 0, , 317-330.		1
105	Neuregulin, a factor with many functions in the life of a Schwann cell. , 2000, 22, 987.		1
106	Technologies for profiling the impact of genomic variants on transcription factor binding. Medizinische Genetik, 2021, 33, 147-155.	0.1	1
107	Editorial overview. Current Opinion in Cell Biology, 2000, 12, 717-718.	2.6	0
108	Development and more. Seminars in Cell and Developmental Biology, 2010, 21, 812-813.	2.3	0

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109	Tiermodelle in der biomedizinischen Forschung. , 2003, , 299-339.		0