Catherina G Becker

List of Publications by Year
in descending order

91 papers	4,221 citations	94433 37 h-index	123424 61 g-index
102 all docs	102 docs citations	102 times ranked	3436 citing authors

#	Article	IF	Citations
1	Trulyâ€Biocompatible Gold Catalysis Enables Vivoâ€Orthogonal Intraâ€CNS Release of Anxiolytics. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
2	Trulyâ€Biocompatible Gold Catalysis Enables Vivoâ€Orthogonal Intraâ€CNS Release of Anxiolytics. Angewandte Chemie, 2022, 134, e202111461.	2.0	4
3	An exception to the rule? Regeneration of the injured spinal cord in the spiny mouse. Developmental Cell, 2022, 57, 415-416.	7.0	4
4	Regenerative neurogenesis: the integration of developmental, physiological and immune signals. Development (Cambridge), 2022, 149, .	2.5	9
5	Automated <i>in vivo</i> drug screen in zebrafish identifies synapse-stabilising drugs with relevance to spinal muscular atrophy. DMM Disease Models and Mechanisms, 2021, 14, .	2.4	12
6	CRISPR gRNA phenotypic screening in zebrafish reveals pro-regenerative genes in spinal cord injury. PLoS Genetics, 2021, 17, e1009515.	3.5	36
7	A unique macrophage subpopulation signals directly to progenitor cells to promote regenerative neurogenesis in the zebrafish spinal cord. Developmental Cell, 2021, 56, 1617-1630.e6.	7.0	44
8	Controlled Semi-Automated Lased-Induced Injuries for Studying Spinal Cord Regeneration in Zebrafish Larvae. Journal of Visualized Experiments, 2021, , .	0.3	1
9	Coaxing stem cells to repair the spinal cord. Science, 2020, 370, 36-37.	12.6	2
10	Neural circuit reorganisation after spinal cord injury in zebrafish. Current Opinion in Genetics and Development, 2020, 64, 44-51.	3.3	9
11	Dynamic cell interactions allow spinal cord regeneration in zebrafish. Current Opinion in Physiology, 2020, 14, 64-69.	1.8	9
12	Regeneration of Dopaminergic Neurons in Adult Zebrafish Depends on Immune System Activation and Differs for Distinct Populations. Journal of Neuroscience, 2019, 39, 4694-4713.	3.6	26
13	Interaction of Axonal Chondrolectin with Collagen XIXa1 Is Necessary for Precise Neuromuscular Junction Formation. Cell Reports, 2019, 29, 1082-1098.e10.	6.4	13
14	The spinal ependymal zone as a source of endogenous repair cells across vertebrates. Progress in Neurobiology, 2018, 170, 67-80.	5.7	63
15	Restoration of anatomical continuity after spinal cord transection depends on Wnt/Î²-catenin signaling in larval zebrafish. Data in Brief, 2018, 16, 65-70.	1.0	10
16	Dynamic control of proinflammatory cytokines Il-1Î² and Tnf-Î± by macrophages in zebrafish spinal cord regeneration. Nature Communications, 2018, 9, 4670.	12.8	210
17	Reduce, reuse, recycle â€“ Developmental signals in spinal cord regeneration. Developmental Biology, 2017, 432, 53-62.	2.0	36
18	A synthetic cell permeable antioxidant protects neurons against acute oxidative stress. Scientific Reports, 2017, 7, 11857.	3.3	20

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19	Therapeutic strategies for spinal muscular atrophy: SMN and beyond. DMM Disease Models and Mechanisms, 2017, 10, 943-954.	2.4	87
20	Wnt signaling controls pro-regenerative Collagen XII in functional spinal cord regeneration in zebrafish. Nature Communications, 2017, 8, 126.	12.8	146
21	Bioenergetic status modulates motor neuron vulnerability and pathogenesis in a zebrafish model of spinal muscular atrophy. PLoS Genetics, 2017, 13, e1006744.	3.5	69
22	Systemic restoration of UBA1 ameliorates disease in spinal muscular atrophy. JCI Insight, 2016, 1, e87908.	5.0	65
23	Spinal motor neurons are regenerated after mechanical lesion and genetic ablation in larval zebrafish. Development (Cambridge), 2016, 143, 1464-74.	2.5	88
24	Serotonin Promotes Development and Regeneration of Spinal Motor Neurons in Zebrafish. Cell Reports, 2015, 13, 924-932.	6.4	64
25	Neural development and regeneration: it's all in your spinal cord. Development (Cambridge), 2015, 142, 811-816.	2.5	12
26	Neuronal Regeneration from Ependymo-Radial Glial Cells: Cook, Little Pot, Cook!. Developmental Cell, 2015, 32, 516-527.	7.0	92
27	ISDN2014_0175: Serotonin promotes motor neuron development and adult regeneration in zebrafish. International Journal of Developmental Neuroscience, 2015, 47, 51-51.	1.6	0
28	Zebrafish regenerate full thickness optic nerve myelin after demyelination, but this fails with increasing age. Acta Neuropathologica Communications, 2014, 2, 77.	5.2	53
29	Chondrolectin affects cell survival and neuronal outgrowth in in vitro and in vivo models of spinal muscular atrophy. Human Molecular Genetics, 2014, 23, 855-869.	2.9	62
30	Axonal regeneration in zebrafish. Current Opinion in Neurobiology, 2014, 27, 186-191.	4.2	76
31	Dysregulation of ubiquitin homeostasis and Î²-catenin signaling promote spinal muscular atrophy. Journal of Clinical Investigation, 2014, 124, 1821-1834.	8.2	151
32	Distribution of glycinergic neurons in the brain of glycine transporterâ€2 transgenic Tg(<i>glyt2:Gfp</i>) adult zebrafish: Relationship to brainâ€“spinal descending systems. Journal of Comparative Neurology, 2013, 521, 389-425.	1.6	25
33	Dopamine from the Brain Promotes Spinal Motor Neuron Generation during Development and Adult Regeneration. Developmental Cell, 2013, 25, 478-491.	7.0	110
34	<i>Chondrolectin</i>Mediates Growth Cone Interactions of Motor Axons with an Intermediate Target. Journal of Neuroscience, 2012, 32, 4426-4439.	3.6	23
35	Notch Signaling Controls Generation of Motor Neurons in the Lesioned Spinal Cord of Adult Zebrafish. Journal of Neuroscience, 2012, 32, 3245-3252.	3.6	85
36	Lesionâ€induced generation of interneuron cell types in specific dorsoventral domains in the spinal cord of adult zebrafish. Journal of Comparative Neurology, 2012, 520, 3604-3616.	1.6	56

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37	Plasticity of tyrosine hydroxylase and serotonergic systems in the regenerating spinal cord of adult zebrafish. Journal of Comparative Neurology, 2012, 520, 933-951.	1.6	71
38	Claudin k is specifically expressed in cells that form myelin during development of the nervous system and regeneration of the optic nerve in adult zebrafish. Glia, 2012, 60, 253-270.	4.9	78
39	SSDP cofactors regulate neural patterning and differentiation of specific axonal projections. Developmental Biology, 2011, 349, 213-224.	2.0	5
40	Analysis of the astray/robo2 Zebrafish Mutant Reveals that Degenerating Tracts Do Not Provide Strong Guidance Cues for Regenerating Optic Axons. Journal of Neuroscience, 2010, 30, 13838-13849.	3.6	26
41	Sonic Hedgehog Is a Polarized Signal for Motor Neuron Regeneration in Adult Zebrafish. Journal of Neuroscience, 2009, 29, 15073-15082.	3.6	118
42	Developmentally Regulated Impediments to Skin Reinnervation by Injured Peripheral Sensory Axon Terminals. Current Biology, 2009, 19, 2086-2090.	3.9	42
43	Motor Neuron Regeneration in Adult Zebrafish. Journal of Neuroscience, 2008, 28, 8510-8516.	3.6	239
44	Adult zebrafish as a model for successful central nervous system regeneration. Restorative Neurology and Neuroscience, 2008, 26, 71-80.	0.7	133
45	Proteasomal selection of multiprotein complexes recruited by LIM homeodomain transcription factors. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15000-15005.	7.1	46
46	PlexinA3 Restricts Spinal Exit Points and Branching of Trunk Motor Nerves in Embryonic Zebrafish. Journal of Neuroscience, 2007, 27, 4978-4983.	3.6	38
47	Semaphorin3D Regulates Axonâ€"Axon Interactions by Modulating Levels of L1 Cell Adhesion Molecule. Journal of Neuroscience, 2007, 27, 9653-9663.	3.6	42
48	Contactin1a expression is associated with oligodendrocyte differentiation and axonal regeneration in the central nervous system of zebrafish. Molecular and Cellular Neurosciences, 2007, 35, 194-207.	2.2	43
49	Growth and pathfinding of regenerating axons in the optic projection of adult fish. Journal of Neuroscience Research, 2007, 85, 2793-2799.	2.9	62
50	Expression of collapsin response mediator proteins in the nervous system of embryonic zebrafish. Gene Expression Patterns, 2005, 5, 809-816.	0.8	17
51	Neuropilin-1a is involved in trunk motor axon outgrowth in embryonic zebrafish. Developmental Dynamics, 2005, 234, 535-549.	1.8	49
52	Tenascin-C is involved in motor axon outgrowth in the trunk of developing zebrafish. Developmental Dynamics, 2005, 234, 550-566.	1.8	51
53	Differences in the regenerative response of neuronal cell populations and indications for plasticity in intraspinal neurons after spinal cord transection in adult zebrafish. Molecular and Cellular Neurosciences, 2005, 30, 265-278.	2.2	55
54	L1.1 Is Involved in Spinal Cord Regeneration in Adult Zebrafish. Journal of Neuroscience, 2004, 24, 7837-7842.	3.6	156

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55	Expression and mapping of duplicate neuropilin-1 and neuropilin-2 genes in developing zebrafish. Gene Expression Patterns, 2004, 4, 361-370.	0.8	34
56	Tenascin-R as a repellent guidance molecule for newly growing and regenerating optic axons in adult zebrafish. Molecular and Cellular Neurosciences, 2004, 26, 376-389.	2.2	52
57	Double labeling of neurons by retrograde axonal tracing and non-radioactive in situ hybridization in the CNS of adult zebrafish. Cytotechnology, 2003, 25, 65-70.	0.7	15
58	Comparing protein stabilities during zebrafish embryogenesis. Cytotechnology, 2003, 25, 85-89.	0.7	5
59	Expression of protein zero is increased in lesioned axon pathways in the central nervous system of adult zebrafish. Glia, 2003, 41, 301-317.	4.9	80
60	Integrin antagonists affect growth and pathfinding of ventral motor nerves in the trunk of embryonic zebrafish. Molecular and Cellular Neurosciences, 2003, 23, 54-68.	2.2	12
61	Tenascin-R as a Repellent Guidance Molecule for Developing Optic Axons in Zebrafish. Journal of Neuroscience, 2003, 23, 6232-6237.	3.6	43
62	Multiple functions of LIM domain-binding CLIM/NLI/Ldb cofactors during zebrafish development. Mechanisms of Development, 2002, 117, 75-85.	1.7	42
63	Expression of the zebrafish recognition molecule F3/F11/contactin in a subset of differentiating neurons is regulated by cofactors associated with LIM domains. Mechanisms of Development, 2002, 119, S135-S141.	1.7	7
64	Repellent Guidance of Regenerating Optic Axons by Chondroitin Sulfate Glycosaminoglycans in Zebrafish. Journal of Neuroscience, 2002, 22, 842-853.	3.6	96
65	Increased NCAM-180 Immunoreactivity and Maintenance of L1 Immunoreactivity in Injured Optic Fibers of Adult Mice. Experimental Neurology, 2001, 169, 438-448.	4.1	17
66	Antibody to the HNK-1 glycoepitope affects fasciculation and axonal pathfinding in the developing posterior lateral line nerve of embryonic zebrafish. Mechanisms of Development, 2001, 109, 37-49.	1.7	29
67	Regenerating descending axons preferentially reroute to the gray matter in the presence of a general macrophage/microglial reaction caudal to a spinal transection in adult zebrafish. Journal of Comparative Neurology, 2001, 433, 131-147.	1.6	102
68	Tenascin-R inhibits regrowth of optic fibers in vitro and persists in the optic nerve of mice after injury. , 2000, 29, 330-346.		66
69	Gradients of ephrin-A2 and ephrin-A5b mRNA during retinotopic regeneration of the optic projection in adult zebrafish. Journal of Comparative Neurology, 2000, 427, 469-483.	1.6	61
70	Tenascin-R Inhibits the Growth of Optic FibersIn VitroBut Is Rapidly Eliminated during Nerve Regeneration in the SalamanderPleurodeles waltl. Journal of Neuroscience, 1999, 19, 813-827.	3.6	34
71	Expression of Polysialylated NCAM but Not L1 orN-Cadherin by Regenerating Adult Mouse Optic Fibersin Vitro. Experimental Neurology, 1999, 155, 128-139.	4.1	24
72	Axonal regrowth after spinal cord transection in adult zebrafish. Journal of Comparative Neurology, 1997, 377, 577-595.	1.6	359

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73	Polysialic Acid (PSA) Associated with the Neural Cell Adhesion Molecule (N-CAM) May Play a Role in Spatial Learning and LTP in Rats. , 1997, , 863-868.		0
74	Immunohistological localization of tenascin-c in the developing and regenerating retinotectal system of two amphibian species. Journal of Comparative Neurology, 1995, 360, 643-657.	1.6	13
75	Polysialic acid expression in the salamander retina is inducible by thyroxine. Developmental Brain Research, 1994, 79, 140-146.	1.7	5
76	Amphibian-specific regulation of polysialic acid and the neural cell adhesion molecule in development and regeneration of the retinotectal system of the salamanderPleurodeles waltl. Journal of Comparative Neurology, 1993, 336, 532-544.	1.6	26
77	Distribution of NCAM-180 and polysialic acid in the developing tectum mesencephali of the frog Discoglossus pictus and the salamander Pleurodeles waltl. Cell and Tissue Research, 1993, 272, 289-301.	2.9	16
78	Cellular Grafting Strategies to Enhance Regeneration in the Mammalian Spinal Cord. , 0, , 99-125.		0
79	Comparative Analysis of Descending Supraspinal Projections in Amphibians. , 0, , 187-226.		2
80	The Role of Inhibitory Molecules in Limiting Axonal Regeneration in the Mammalian Spinal Cord. , 0, , 1-50.		0
81	Spinal Motor Functions in Lamprey. , 0, , 127-145.		2
82	Genetic Approaches to Spinal Locomotor Function in Mammals. , 0, , 147-186.		1
83	Optic Nerve Regeneration in Goldfish. , 0, , 355-371.		2
84	Intrinsic Factors Contributing to Axon Regeneration in the Mammalian Nervous System. , 0, , 51-72.		1
85	Stimulating Intrinsic Growth Potential in Mammalian Neurons. , 0, , 73-97.		1
86	Gene Regulation During Axon and Tissue Regeneration in the Retina of Zebrafish. , 0, , 373-394.		0
87	Functional Aspects of Optic Nerve Regeneration in Non-Mammalian Vertebrates. , 0, , 321-353.		0
88	Functional Regeneration in the Larval Zebrafish Spinal Cord. , 0, , 263-288.		1
89	Zebrafish as a Model System for Successful Spinal Cord Regeneration. , 0, , 289-319.		8
90	Interaction of Axonal Chondrolectin with Collagen XIXa1 Is Necessary for Precise Neuromuscular Junction Formation. SSRN Electronic Journal, 0, , .	0.4	0

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91	Regeneration in the Lamprey Spinal Cord. , 0, , 227-262.		4