Brian D Harfe

List of Publications by Year
in descending order

86 papers	14,190 citations	31976 53 h-index	53230 85 g-index
91 all docs	91 docs citations	91 times ranked	16072 citing authors

#	Article	IF	Citations
1	Evidence for an Expansion-Based Temporal Shh Gradient in Specifying Vertebrate Digit Identities. Cell, 2004, 118, 517-528.	28.9	893
2	BMP2 activity, although dispensable for bone formation, is required for the initiation of fracture healing. Nature Genetics, 2006, 38, 1424-1429.	21.4	708
3	The RNaseIII enzyme <i>Dicer</i> is required for morphogenesis but not patterning of the vertebrate limb. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10898-10903.	7.1	619
4	DNA MISMATCH REPAIR AND GENETIC INSTABILITY. Annual Review of Genetics, 2000, 34, 359-399.	7.6	561
5	Genetic Analysis of the Roles of BMP2, BMP4, and BMP7 in Limb Patterning and Skeletogenesis. PLoS Genetics, 2006, 2, e216.	3.5	532
6	MicroRNA-responsive 'sensor' transgenes uncover Hox-like and other developmentally regulated patterns of vertebrate microRNA expression. Nature Genetics, 2004, 36, 1079-1083.	21.4	411
7	Conditional Loss of Dicer Disrupts Cellular and Tissue Morphogenesis in the Cortex and Hippocampus. Journal of Neuroscience, 2008, 28, 4322-4330.	3.6	411
8	Dicerfunction is essential for lung epithelium morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2208-2213.	7.1	382
9	Distinct Stem Cell Populations Regenerate the Follicle and Interfollicular Epidermis. Developmental Cell, 2005, 9, 855-861.	7.0	381
10	The microRNA miR-196 acts upstream of Hoxb8 and Shh in limb development. Nature, 2005, 438, 671-674.	27.8	365
11	Epidermal stem cells arise from the hair follicle after wounding. FASEB Journal, 2007, 21, 1358-1366.	0.5	350
12	Expression of anoctamin 1/TMEM16A by interstitial cells of Cajal is fundamental for slow wave activity in gastrointestinal muscles. Journal of Physiology, 2009, 587, 4887-4904.	2.9	348
13	MicroRNA Expression Is Required for Pancreatic Islet Cell Genesis in the Mouse. Diabetes, 2007, 56, 2938-2945.	0.6	344
14	MicroRNAs in vertebrate development. Current Opinion in Genetics and Development, 2005, 15, 410-415.	3.3	337
15	The calcium-activated chloride channel anoctamin 1 acts as a heat sensor in nociceptive neurons. Nature Neuroscience, 2012, 15, 1015-1021.	14.8	316
16	Podocyte-Specific Deletion of Dicer Alters Cytoskeletal Dynamics and Causes Glomerular Disease. Journal of the American Society of Nephrology: JASN, 2008, 19, 2150-2158.	6.1	300
17	Essential role for Dicer during skeletal muscle development. Developmental Biology, 2007, 311, 359-368.	2.0	298
18	Degeneration and regeneration of the intervertebral disc: lessons from development. DMM Disease Models and Mechanisms, 2011, 4, 31-41.	2.4	295

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19	Identification of nucleus pulposus precursor cells and notochordal remnants in the mouse: Implications for disk degeneration and chordoma formation. Developmental Dynamics, 2008, 237, 3953-3958.	1.8	280
20	Studies on expression and function of the TMEM16A calcium-activated chloride channel. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21413-21418.	7.1	278
21	TMEM16A Induces MAPK and Contributes Directly to Tumorigenesis and Cancer Progression. Cancer Research, 2012, 72, 3270-3281.	0.9	252
22	Members of the miRNA-200 Family Regulate Olfactory Neurogenesis. Neuron, 2008, 57, 41-55.	8.1	245
23	Transmembrane Protein 16A (TMEM16A) Is a Ca2+-regulated Clâ€– Secretory Channel in Mouse Airways. Journal of Biological Chemistry, 2009, 284, 14875-14880.	3.4	220
24	Functional genomic analysis of the ADPâ€•ribosylation factor family of GTPases: phylogeny among diverse eukaryotes and function in<i>C. elegans</i>. FASEB Journal, 2004, 18, 1834-1850.	0.5	214
25	Loss of TMEM16A Causes a Defect in Epithelial Ca2+-dependent Chloride Transport. Journal of Biological Chemistry, 2009, 284, 28698-28703.	3.4	213
26	Dicer loss in striatal neurons produces behavioral and neuroanatomical phenotypes in the absence of neurodegeneration. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5614-5619.	7.1	205
27	<i>Dicer</i>Inactivation Leads to Progressive Functional and Structural Degeneration of the Mouse Retina. Journal of Neuroscience, 2008, 28, 4878-4887.	3.6	204
28	Dicer1 Is Required for Differentiation of the Mouse Male Germline1. Biology of Reproduction, 2008, 79, 696-703.	2.7	203
29	The transmembrane protein TMEM16A is required for normal development of the murine trachea. Developmental Biology, 2008, 321, 141-149.	2.0	202
30	A Tcf4-Positive Mesodermal Population Provides a Prepattern for Vertebrate Limb Muscle Patterning. Developmental Cell, 2003, 5, 937-944.	7.0	188
31	LPS induces KHâ€•type splicing regulatory proteinâ€•dependent processing of microRNAâ€•155 precursors in macrophages. FASEB Journal, 2009, 23, 2898-2908.	0.5	188
32	Tmem16A Encodes the Ca2+-activated Clâˆ’ Channel in Mouse Submandibular Salivary Gland Acinar Cells. Journal of Biological Chemistry, 2010, 285, 12990-13001.	3.4	174
33	Sertoli cell Dicer is essential for spermatogenesis in mice. Developmental Biology, 2009, 326, 250-259.	2.0	171
34	TMEM16 Proteins Produce Volume-regulated Chloride Currents That Are Reduced in Mice Lacking TMEM16A. Journal of Biological Chemistry, 2009, 284, 28571-28578.	3.4	159
35	Calcium-Activated Chloride Channels (CaCCs) Regulate Action Potential and Synaptic Response in Hippocampal Neurons. Neuron, 2012, 74, 179-192.	8.1	146
36	The Limb Bud Shh-Fgf Feedback Loop Is Terminated by Expansion of Former ZPA Cells. Science, 2004, 305, 396-399.	12.6	143

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37	Cell lineage analysis demonstrates an endodermal origin of the distal urethra and perineum. Developmental Biology, 2008, 318, 143-152.	2.0	143
38	The MicroRNA-Processing Enzyme Dicer Maintains Juxtaglomerular Cells. Journal of the American Society of Nephrology: JASN, 2010, 21, 460-467.	6.1	143
39	Residual microRNA expression dictates the extent of inner ear development in conditional Dicer knockout mice. Developmental Biology, 2009, 328, 328-341.	2.0	131
40	Hedgehog signaling is required for formation of the notochord sheath and patterning of nuclei pulposi within the intervertebral discs. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9484-9489.	7.1	125
41	Discrete in vivo roles for the MutL homologs Mlh2p and Mlh3p in the removal of frameshift intermediates in budding yeast. Current Biology, 2000, 10, 145-148.	3.9	118
42	DNA Polymerase Î¶ Introduces Multiple Mutations when Bypassing Spontaneous DNA Damage in Saccharomyces cerevisiae. Molecular Cell, 2000, 6, 1491-1499.	9.7	114
43	Needle puncture injury causes acute and long-term mechanical deficiency in a mouse model of intervertebral disc degeneration. Journal of Orthopaedic Research, 2013, 31, 1276-1282.	2.3	101
44	Abnormal Hair Development and Apparent Follicular Transformation to Mammary Gland in the Absence of Hedgehog Signaling. Developmental Cell, 2007, 12, 99-112.	7.0	92
45	Fate-mapping of the epithelial seam during palatal fusion rules out epithelialâ€“mesenchymal transformation. Developmental Biology, 2005, 285, 490-495.	2.0	88
46	Multiphasic and tissue-specific roles of sonic hedgehog in cloacal septation and external genitalia development. Development (Cambridge), 2009, 136, 3949-3957.	2.5	87
47	Ano1, a Ca²⁺â€activated Cl^{âˆ’} channel, coordinates contractility in mouse intestine by Ca²⁺ transient coordination between interstitial cells of Cajal. Journal of Physiology, 2014, 592, 4051-4068.	2.9	84
48	Base Composition of Mononucleotide Runs Affects DNA Polymerase Slippage and Removal of Frameshift Intermediates by Mismatch Repair in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2002, 22, 8756-8762.	2.3	82
49	Genetic analyses reveal a requirement for Dicer1 in the mouse urogenital tract. Mammalian Genome, 2009, 20, 140-151.	2.2	82
50	Musculoskeletal integration at the wrist underlies modular development of limb tendons. Development (Cambridge), 2015, 142, 2431-41.	2.5	79
51	Sonic hedgehog in the notochord is sufficient for patterning of the intervertebral discs. Mechanisms of Development, 2012, 129, 255-262.	1.7	72
52	The Transmembrane Protein 16A Ca²⁺-activated Cl^{âˆ’} Channel in Airway Smooth Muscle Contributes to Airway Hyperresponsiveness. American Journal of Respiratory and Critical Care Medicine, 2013, 187, 374-381.	5.6	72
53	An Lmx1b-miR135a2 Regulatory Circuit Modulates Wnt1/Wnt Signaling and Determines the Size of the Midbrain Dopaminergic Progenitor Pool. PLoS Genetics, 2013, 9, e1003973.	3.5	63
54	Autonomous and nonautonomous roles of Hedgehog signaling in regulating limb muscle formation. Genes and Development, 2012, 26, 2088-2102.	5.9	57

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55	Removal of Frameshift Intermediates by Mismatch Repair Proteins in <i>Saccharomyces cerevisiae</i>. Molecular and Cellular Biology, 1999, 19, 4766-4773.	2.3	56
56	Foxa1 and Foxa2 Are Required for Formation of the Intervertebral Discs. PLoS ONE, 2013, 8, e55528.	2.5	56
57	Notochord to Nucleus Pulposus Transition. Current Osteoporosis Reports, 2015, 13, 336-341.	3.6	55
58	Sequence Composition and Context Effects on the Generation and Repair of Frameshift Intermediates in Mononucleotide Runs in Saccharomyces cerevisiae. Genetics, 2000, 156, 571-578.	2.9	53
59	Whole Transcriptome Analysis of Notochord-Derived Cells during Embryonic Formation of the Nucleus Pulposus. Scientific Reports, 2017, 7, 10504.	3.3	52
60	Characterization of a novel ectodermal signaling center regulating Tbx2 and Shh in the vertebrate limb. Developmental Biology, 2007, 304, 9-21.	2.0	50
61	In the limb AER Bmp2 and Bmp4 are required for dorsalâ€“ventral patterning and interdigital cell death but not limb outgrowth. Developmental Biology, 2009, 327, 516-523.	2.0	47
62	Avian intervertebral disc arises from rostral sclerotome and lacks a nucleus pulposus: Implications for evolution of the vertebrate disc. Developmental Dynamics, 2012, 241, 675-683.	1.8	47
63	dpy-18 Encodes an Î±-Subunit of Prolyl-4-Hydroxylase in Caenorhabditis elegans. Genetics, 2000, 155, 1139-1148.	2.9	43
64	MicroRNAs in mammalian development and tumorigenesis. Birth Defects Research Part C: Embryo Today Reviews, 2006, 78, 172-179.	3.6	42
65	Developmental mechanisms of intervertebral disc and vertebral column formation. Wiley Interdisciplinary Reviews: Developmental Biology, 2017, 6, e283.	5.9	41
66	Shh pathway activation is present and required within the vertebrate limb bud apical ectodermal ridge for normal autopod patterning. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5489-5494.	7.1	39
67	Expression patterns of the Tmem16 gene family during cephalic development in the mouse. Gene Expression Patterns, 2009, 9, 178-191.	0.8	34
68	BMPs are direct triggers of interdigital programmed cell death. Developmental Biology, 2016, 411, 266-276.	2.0	30
69	Dynamics of BMP signaling in limb bud mesenchyme and polydactyly. Developmental Biology, 2014, 393, 270-281.	2.0	28
70	The microRNA-processing enzyme Dicer is dispensable for somite segmentation but essential for limb bud positioning. Developmental Biology, 2011, 351, 254-265.	2.0	27
71	Bmp2, Bmp4 and Bmp7 Are Co-Required in the Mouse AER for Normal Digit Patterning but Not Limb Outgrowth. PLoS ONE, 2012, 7, e37826.	2.5	24
72	Let-7b/c Enhance the Stability of a Tissue-Specific mRNA during Mammalian Organogenesis as Part of a Feedback Loop Involving KSRP. PLoS Genetics, 2012, 8, e1002823.	3.5	22

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73	Identification of genes expressed in the mouse limb using a novel ZPA microarray approach. Gene Expression Patterns, 2007, 8, 19-26.	0.8	21
74	Aberrant FGF signaling, independent of ectopic hedgehog signaling, initiates preaxial polydactyly in Dorking chickens. Developmental Biology, 2009, 334, 133-141.	2.0	21
75	MicroRNAs in Development. Scientific World Journal, The, 2006, 6, 1828-1840.	2.1	20
76	Cell fate specification in the lingual epithelium is controlled by antagonistic activities of Sonic hedgehog and retinoic acid. PLoS Genetics, 2017, 13, e1006914.	3.5	16
77	TMEM16A calcium-activated chloride currents in supporting cells of the mouse olfactory epithelium. Journal of General Physiology, 2019, 151, 954-966.	1.9	16
78	Nuclei Pulposi Formation From the Embryonic Notochord Occurs Normally in GDF-5-Deficient Mice. Spine, 2011, 36, E1555-E1561.	2.0	15
79	Keeping up with the zone of polarizing activity: New roles for an old signaling center. Developmental Dynamics, 2011, 240, 915-919.	1.8	15
80	Intervertebral disc repair and regeneration: Insights from the notochord. Seminars in Cell and Developmental Biology, 2022, 127, 3-9.	5.0	12
81	The sonic hedgehog pathway in chordoid tumours. Histopathology, 2010, 56, 978-979.	2.9	10
82	Development of the Olfactory Epithelium and Nasal Glands in TMEM16A-/- and TMEM16A+/+ Mice. PLoS ONE, 2015, 10, e0129171.	2.5	10
83	Sonic Hedgehog Signaling Is Required for Cyp26 Expression during Embryonic Development. International Journal of Molecular Sciences, 2019, 20, 2275.	4.1	10
84	SHH Protein Variance in the Limb Bud Is Constrained by Feedback Regulation and Correlates with Altered Digit Patterning. G3: Genes, Genomes, Genetics, 2017, 7, 851-858.	1.8	7
85	Ano1 as a regulator of proliferation. FASEB Journal, 2011, 25, lb115.	0.5	0
86	Loss of BMP2 and BMP4 Signaling in the Dental Epithelium Causes Defective Enamel Maturation and Aberrant Development of Ameloblasts. International Journal of Molecular Sciences, 2022, 23, 6095.	4.1	0