Benoit G Bruneau

List of Publications by Year
in descending order

126 papers	20,453 citations	16411 64 h-index	17546 121 g-index
149 all docs	149 docs citations	149 times ranked	22561 citing authors

#	Article	IF	Citations
1	Direct Reprogramming of Fibroblasts into Functional Cardiomyocytes by Defined Factors. Cell, 2010, 142, 375-386.	13.5	2,235
2	miR-126 Regulates Angiogenic Signaling and Vascular Integrity. Developmental Cell, 2008, 15, 272-284.	3.1	1,489
3	Targeted Degradation of CTCF Decouples Local Insulation of Chromosome Domains from Genomic Compartmentalization. Cell, 2017, 169, 930-944.e22.	13.5	1,374
4	A Murine Model of Holt-Oram Syndrome Defines Roles of the T-Box Transcription Factor Tbx5 in Cardiogenesis and Disease. Cell, 2001, 106, 709-721.	13.5	957
5	The developmental genetics of congenital heart disease. Nature, 2008, 451, 943-948.	13.7	673
6	Dynamic and Coordinated Epigenetic Regulation of Developmental Transitions in the Cardiac Lineage. Cell, 2012, 151, 206-220.	13.5	555
7	Mutations in human TBX3 alter limb, apocrine and genital development in ulnar-mammary syndrome. Nature Genetics, 1997, 16, 311-315.	9.4	511
8	Directed transdifferentiation of mouse mesoderm to heart tissue by defined factors. Nature, 2009, 459, 708-711.	13.7	498
9	Baf60c is essential for function of BAF chromatin remodelling complexes in heart development. Nature, 2004, 432, 107-112.	13.7	478
10	Chamber-Specific Cardiac Expression of Tbx5 and Heart Defects in Holtâ€“Oram Syndrome. Developmental Biology, 1999, 211, 100-108.	0.9	453
11	Single-Cell Resolution of Temporal Gene Expression during Heart Development. Developmental Cell, 2016, 39, 480-490.	3.1	361
12	Direct Reprogramming of Human Fibroblasts toward a Cardiomyocyte-like State. Stem Cell Reports, 2013, 1, 235-247.	2.3	351
13	Tbx1 has a dual role in the morphogenesis of the cardiac outflow tract. Development (Cambridge), 2004, 131, 3217-3227.	1.2	348
14	Mechanical and neuroendocrine regulation of the endocrine heart. Cardiovascular Research, 1996, 31, 7-18.	1.8	262
15	Cardiac natriuretic peptides. Nature Reviews Cardiology, 2020, 17, 698-717.	6.1	262
16	Cardiac T-box factor Tbx20 directly interacts with Nkx2-5, GATA4, and GATA5 in regulation of gene expression in the developing heart. Developmental Biology, 2003, 262, 206-224.	0.9	260
17	The functional landscape of mouse gene expression. Journal of Biology, 2004, 3, 21.	2.7	259
18	Tbx5 is essential for forelimb bud initiation following patterning of the limb field in the mouse embryo. Development (Cambridge), 2003, 130, 623-633.	1.2	253

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19	Extensive enteric nervous system abnormalities in mice transgenic for artificial chromosomes containing Parkinson disease-associated Î±-synuclein gene mutations precede central nervous system changes. Human Molecular Genetics, 2010, 19, 1633-1650.	1.4	237
20	Transcriptional Regulation of Vertebrate Cardiac Morphogenesis. Circulation Research, 2002, 90, 509-519.	2.0	234
21	The Homeodomain Transcription Factor Irx5 Establishes the Mouse Cardiac Ventricular Repolarization Gradient. Cell, 2005, 123, 347-358.	13.5	233
22	Regulation of Chamber-Specific Gene Expression in the Developing Heart by Irx4. Science, 1999, 283, 1161-1164.	6.0	232
23	Epigenetic repression of cardiac progenitor gene expression by Ezh2 is required for postnatal cardiac homeostasis. Nature Genetics, 2012, 44, 343-347.	9.4	230
24	Signaling and Transcriptional Networks in Heart Development and Regeneration. Cold Spring Harbor Perspectives in Biology, 2013, 5, a008292-a008292.	2.3	213
25	A Gja1 missense mutation in a mouse model of oculodentodigital dysplasia. Development (Cambridge), 2005, 132, 4375-4386.	1.2	211
26	Tbx20 dose-dependently regulates transcription factor networks required for mouse heart and motoneuron development. Development (Cambridge), 2005, 132, 2463-2474.	1.2	205
27	Tbx5 is required for forelimb bud formation and continued outgrowth. Development (Cambridge), 2003, 130, 2741-2751.	1.2	204
28	Early patterning and specification of cardiac progenitors in gastrulating mesoderm. ELife, 2014, 3, .	2.8	202
29	ATP-dependent chromatin remodeling during mammalian development. Development (Cambridge), 2016, 143, 2882-2897.	1.2	194
30	The T-Box transcription factor Tbx5 is required for the patterning and maturation of the murine cardiac conduction system. Development (Cambridge), 2004, 131, 4107-4116.	1.2	188
31	Epigenetics and Cardiovascular Development. Annual Review of Physiology, 2012, 74, 41-68.	5.6	187
32	Cardiac Expression of the Ventricle-Specific Homeobox Gene Irx4 Is Modulated by Nkx2-5 and dHand. Developmental Biology, 2000, 217, 266-277.	0.9	183
33	RNA Interactions Are Essential for CTCF-Mediated Genome Organization. Molecular Cell, 2019, 76, 412-422.e5.	4.5	183
34	Lats2/Kpm is required for embryonic development, proliferation control and genomic integrity. EMBO Journal, 2004, 23, 3677-3688.	3.5	179
35	Complex Interdependence Regulates Heterotypic Transcription Factor Distribution and Coordinates Cardiogenesis. Cell, 2016, 164, 999-1014.	13.5	179
36	Chromatin remodelling complex dosage modulates transcription factor function in heart development. Nature Communications, 2011, 2, 187.	5.8	175

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37	Human Disease Modeling Reveals Integrated Transcriptional and Epigenetic Mechanisms of NOTCH1 Haploinsufficiency. Cell, 2015, 160, 1072-1086.	13.5	173
38	Tbx5-dependent rheostatic control of cardiac gene expression and morphogenesis. Developmental Biology, 2006, 297, 566-586.	0.9	164
39	Cooperative and antagonistic interactions between Sall4 and Tbx5 pattern the mouse limb and heart. Nature Genetics, 2006, 38, 175-183.	9.4	156
40	TBX5 mutations and congenital heart disease: Holt-Oram syndrome revealed. Current Opinion in Cardiology, 2004, 19, 211-215.	0.8	152
41	Cardiomyopathy in Irx4 -Deficient Mice Is Preceded by Abnormal Ventricular Gene Expression. Molecular and Cellular Biology, 2001, 21, 1730-1736.	1.1	150
42	Identifying cis Elements for Spatiotemporal Control of Mammalian DNA Replication. Cell, 2019, 176, 816-830.e18.	13.5	144
43	A Slit/miR-218/Robo regulatory loop is required during heart tube formation in zebrafish. Development (Cambridge), 2011, 138, 1409-1419.	1.2	142
44	Reptilian heart development and the molecular basis of cardiac chamber evolution. Nature, 2009, 461, 95-98.	13.7	135
45	HDAC-regulated myomiRs control BAF60 variant exchange and direct the functional phenotype of fibro-adipogenic progenitors in dystrophic muscles. Genes and Development, 2014, 28, 841-857.	2.7	132
46	Regulation of single-cell genome organization into TADs and chromatin nanodomains. Nature Genetics, 2020, 52, 1151-1157.	9.4	127
47	ETS Factors Regulate Vegf-Dependent Arterial Specification. Developmental Cell, 2013, 26, 45-58.	3.1	124
48	Polycomb Regulates Mesoderm Cell Fate-Specification in Embryonic Stem Cells through Activation and Repression Mechanisms. Cell Stem Cell, 2015, 17, 300-315.	5.2	124
49	Transcriptional profiling and therapeutic targeting of oxidative stress in neuroinflammation. Nature Immunology, 2020, 21, 513-524.	7.0	118
50	Expandable Cardiovascular Progenitor Cells Reprogrammed from Fibroblasts. Cell Stem Cell, 2016, 18, 368-381.	5.2	115
51	<i>Iroquois homeobox gene 3</i> establishes fast conduction in the cardiac Hisâ€“Purkinje network. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13576-13581.	3.3	109
52	Baf60c is a nuclear Notch signaling component required for the establishment of leftâ€“right asymmetry. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 846-851.	3.3	108
53	Shox2 mediates Tbx5 activity by regulating Bmp4 in the pacemaker region of the developing heart. Human Molecular Genetics, 2010, 19, 4625-4633.	1.4	106
54	Acetylation of RNA Polymerase II Regulates Growth-Factor-Induced Gene Transcription in Mammalian Cells. Molecular Cell, 2013, 52, 314-324.	4.5	103

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55	Molecular basis of CTCF binding polarity in genome folding. Nature Communications, 2020, 11, 5612.	5.8	102
56	Evidence for Load-Dependent and Load-Independent Determinants of Cardiac Natriuretic Peptide Production. Circulation, 1996, 93, 2059-2067.	1.6	102
57	WAPL maintains a cohesin loading cycle to preserve cell-type-specific distal gene regulation. Nature Genetics, 2021, 53, 100-109.	9.4	101
58	KMT2D regulates specific programs in heart development via histone H3 lysine 4 di-methylation. Development (Cambridge), 2016, 143, 810-821.	1.2	100
59	The Iroquois homeobox gene, Irx5, is required for retinal cone bipolar cell development. Developmental Biology, 2005, 287, 48-60.	0.9	90
60	Brg1 modulates enhancer activation in mesoderm lineage commitment. Development (Cambridge), 2015, 142, 1418-30.	1.2	81
61	Investigating the Transcriptional Control of Cardiovascular Development. Circulation Research, 2015, 116, 700-714.	2.0	77
62	Tinman/Nkx2-5 acts via miR-1 and upstream of Cdc42 to regulate heart function across species. Journal of Cell Biology, 2011, 193, 1181-1196.	2.3	74
63	Co-emergence of cardiac and gut tissues promotes cardiomyocyte maturation within human iPSC-derived organoids. Cell Stem Cell, 2021, 28, 2137-2152.e6.	5.2	73
64	Function-based identification of mammalian enhancers using site-specific integration. Nature Methods, 2014, 11, 566-571.	9.0	71
65	Genome of the Komodo dragon reveals adaptations in the cardiovascular and chemosensory systems of monitor lizards. Nature Ecology and Evolution, 2019, 3, 1241-1252.	3.4	67
66	Selective changes in natriuretic peptide and early response gene expression in isolated rat atria following stimulation by stretch or endothelin-1. Cardiovascular Research, 1994, 28, 1519-1525.	1.8	66
67	Dissociation of cardiac hypertrophy, myosin heavy chain isoform expression, and natriuretic peptide production in DOCA-salt rats. American Journal of Hypertension, 1995, 8, 301-310.	1.0	66
68	Cooperative and antagonistic roles for Irx3 and Irx5 in cardiac morphogenesis and postnatal physiology. Development (Cambridge), 2012, 139, 4007-4019.	1.2	66
69	The Ubiquitin Ligase Nedd4-1 Is Required for Heart Development and Is a Suppressor of Thrombospondin-1. Journal of Biological Chemistry, 2010, 285, 6770-6780.	1.6	65
70	Alternative Induced Pluripotent Stem Cell Characterization Criteria for In Vitro Applications. Cell Stem Cell, 2009, 4, 198-199.	5.2	64
71	<i>Iroquois</i> Homeodomain Transcription Factors in Heart Development and Function. Circulation Research, 2012, 110, 1513-1524.	2.0	63
72	Modeling Human TBX5 Haploinsufficiency Predicts Regulatory Networks for Congenital Heart Disease. Developmental Cell, 2021, 56, 292-309.e9.	3.1	63

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73	CTCF confers local nucleosome resiliency after DNA replication and during mitosis. ELife, 2019, 8, .	2.8	61
74	Ezh2 regulates anteroposterior axis specification and proximodistal axis elongation in the developing limb. Development (Cambridge), 2011, 138, 3759-3767.	1.2	60
75	Tbx5-dependent pathway regulating diastolic function in congenital heart disease. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 5519-5524.	3.3	59
76	An endocardial pathway involving Tbx5, Gata4, and Nos3 required for atrial septum formation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19356-19361.	3.3	59
77	A De Novo Shape Motif Discovery Algorithm Reveals Preferences of Transcription Factors for DNA Shape Beyond Sequence Motifs. Cell Systems, 2019, 8, 27-42.e6.	2.9	54
78	The Iroquois Homeobox Gene Irx2 Is Not Essential for Normal Development of the Heart and Midbrain-Hindbrain Boundary in Mice. Molecular and Cellular Biology, 2003, 23, 8216-8225.	1.1	49
79	The developing heart and congenital heart defects: a make or break situation. Clinical Genetics, 2003, 63, 252-261.	1.0	48
80	Serum Response Factor, an Enriched Cardiac Mesoderm Obligatory Factor, Is a Downstream Gene Target for Tbx Genes. Journal of Biological Chemistry, 2005, 280, 11816-11828.	1.6	48
81	CTCF Promotes Muscle Differentiation by Modulating the Activity of Myogenic Regulatory Factors. Journal of Biological Chemistry, 2011, 286, 12483-12494.	1.6	48
82	Ezh2-mediated repression of a transcriptional pathway upstream of <i>Mmp9</i> maintains integrity of the developing vasculature. Development (Cambridge), 2014, 141, 4610-4617.	1.2	47
83	Abnormal cardiac inflow patterns during postnatal development in a mouse model of Holt-Oram syndrome. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H992-H1001.	1.5	45
84	Chromatin remodeling in heart development. Current Opinion in Genetics and Development, 2010, 20, 505-511.	1.5	43
85	Heart enhancers with deeply conserved regulatory activity are established early in zebrafish development. Nature Communications, 2018, 9, 4977.	5.8	42
86	BNP gene expression is specifically modulated by stretch and ET-1 in a new model of isolated rat atria. American Journal of Physiology - Heart and Circulatory Physiology, 1997, 273, H2678-H2686.	1.5	41
87	Connexin 40, a Target of Transcription Factor Tbx5, Patterns Wrist, Digits, and Sternum. Molecular and Cellular Biology, 2005, 25, 5073-5083.	1.1	41
88	NKX2-5 Regulates the Expression of Î²-Catenin and GATA4 in Ventricular Myocytes. PLoS ONE, 2009, 4, e5698.	1.1	41
89	Dynamic BAF chromatin remodeling complex subunit inclusion promotes temporally distinct gene expression programs in cardiogenesis. Development (Cambridge), 2019, 146, .	1.2	39
90	Transcription factor protein interactomes reveal genetic determinants in heart disease. Cell, 2022, 185, 794-814.e30.	13.5	39

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91	Genome-wide analysis of mouse transcripts using exon microarrays and factor graphs. Nature Genetics, 2005, 37, 991-996.	9.4	38
92	Defining the relative and combined contribution of CTCF and CTCFL to genomic regulation. Genome Biology, 2020, 21, 108.	3.8	37
93	Characterization of natriuretic peptide production by adult heart atria. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H1977-H1986.	1.5	33
94	Cardiac-enriched BAF chromatin-remodeling complex subunit Baf60c regulates gene expression programs essential for heart development and function. Biology Open, 2018, 7, .	0.6	33
95	Regulation of retinal interneuron subtype identity by the<i>Iroquois</i>homeobox gene<i>Irx6</i>. Development (Cambridge), 2012, 139, 4644-4655.	1.2	32
96	Lessons for cardiac regeneration and repair through development. Trends in Molecular Medicine, 2010, 16, 426-434.	3.5	30
97	Salt-inducible kinase 1 maintains HDAC7 stability to promote pathologic cardiac remodeling. Journal of Clinical Investigation, 2020, 130, 2966-2977.	3.9	29
98	4D cardiac MRI in the mouse. NMR in Biomedicine, 2007, 20, 360-365.	1.6	27
99	Congenital Heart Disease. Circulation Research, 2014, 114, 598-599.	2.0	27
100	Accelerated Evolution of Enhancer Hotspots in the Mammal Ancestor. Molecular Biology and Evolution, 2016, 33, 1008-1018.	3.5	23
101	Brahma safeguards canalization of cardiac mesoderm differentiation. Nature, 2022, 602, 129-134.	13.7	22
102	Epigenetic Regulation of the Cardiovascular System. Circulation Research, 2010, 107, 324-326.	2.0	21
103	Loss of Iroquois homeobox transcription factors 3 and 5 in osteoblasts disrupts cranial mineralization. Bone Reports, 2016, 5, 86-95.	0.2	21
104	Chromatin modulators as facilitating factors in cellular reprogramming. Current Opinion in Genetics and Development, 2013, 23, 556-561.	1.5	20
105	Tiny brakes for a growing heart. Nature, 2005, 436, 181-182.	13.7	19
106	Minimal <i>in vivo</i> requirements for developmentally regulated cardiac long intergenic non-coding RNAs. Development (Cambridge), 2019, 146, .	1.2	19
107	Irxl1, a divergent Iroquois homeobox family transcription factor gene. Gene Expression Patterns, 2007, 7, 51-56.	0.3	13
108	Cooperative activation of cardiac transcription through myocardin bridging of paired MEF2 sites. Development (Cambridge), 2017, 144, 1235-1241.	1.2	12

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109	The developing heart: from <i>The Wizard of Oz</i> to congenital heart disease. Development (Cambridge), 2020, 147, .	1.2	11
110	Atrial natriuretic factor in the developing heart: a signpost for cardiac morphogenesis. Canadian Journal of Physiology and Pharmacology, 2011, 89, 533-537.	0.7	8
111	Direct Reprogramming for Cardiac Regeneration. Circulation Research, 2012, 110, 1392-1394.	2.0	8
112	Chromatin Domains Go on Repeat in Disease. Cell, 2018, 175, 38-40.	13.5	8
113	Mouse models of cardiac chamber formation and congenital heart disease. Trends in Genetics, 2002, 18, S15-S20.	2.9	7
114	Modeling congenital heart disease: lessons from mice, hPSC-based models, and organoids. Genes and Development, 2022, 36, 652-663.	2.7	6
115	Chromatin and epigenetics in development: a Special Issue. Development (Cambridge), 2019, 146, .	1.2	5
116	Chromatin Modification and Remodeling in Heart Development. Scientific World Journal, The, 2006, 6, 1851-1861.	0.8	3
117	Finding a niche for cardiac precursors. ELife, 2014, 3, e02993.	2.8	2
118	Transcriptional Control of the Cardiac Conduction System. Advances in Developmental Biology (Amsterdam, Netherlands), 2007, 18, 219-258.	0.4	1
119	Aetiology of Congenital Cardiac Disease. , 2010, , 161-171.		1
120	Dissecting CTCF site function in a tense HoxD locus. Genes and Development, 2021, 35, 1401-1402.	2.7	1
121	Chromatin Modification and Remodeling in Heart Development. , 2010, , 703-714.		0
122	Preface. Current Topics in Developmental Biology, 2012, 100, xv-xvi.	1.0	0
123	Cardiac Myocyte Specification and Differentiation. , 2012, , 25-34.		0
124	Chromatin Modification and Remodeling in Heart Development. TSW Development & Embryology, 2006, 1, 37-47.	0.2	0
125	Origin and Identity of the Right Heart. , 2009, , 3-8.		0
126	Tinman/Nkx2-5 acts via miR-1 and upstream of Cdc42 to regulate heart function across species. Journal of Experimental Medicine, 2011, 208, i20-i20.	4.2	0