StÃ©phane Zaffran

List of Publications by Year
in descending order

93 papers	6,994 citations	117625 34 h-index	60623 81 g-index
107 all docs	107 docs citations	107 times ranked	7097 citing authors

#	Article	IF	Citations
1	Building the mammalian heart from two sources of myocardial cells. Nature Reviews Genetics, 2005, 6, 826-835.	16.3	1,051
2	Direct Isolation of Satellite Cells for Skeletal Muscle Regeneration. Science, 2005, 309, 2064-2067.	12.6	939
3	Pax3 and Pax7 have distinct and overlapping functions in adult muscle progenitor cells. Journal of Cell Biology, 2006, 172, 91-102.	5.2	599
4	An Nkx2-5/Bmp2/Smad1 Negative Feedback Loop Controls Heart Progenitor Specification and Proliferation. Cell, 2007, 128, 947-959.	28.9	470
5	Right Ventricular Myocardium Derives From the Anterior Heart Field. Circulation Research, 2004, 95, 261-268.	4.5	334
6	Early Signals in Cardiac Development. Circulation Research, 2002, 91, 457-469.	4.5	272
7	Rotation of the Myocardial Wall of the Outflow Tract Is Implicated in the Normal Positioning of the Great Arteries. Circulation Research, 2006, 98, 421-428.	4.5	190
8	Retinoic acid deficiency alters second heart field formation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2913-2918.	7.1	186
9	Fgf10expression identifies parabronchial smooth muscle cell progenitors and is required for their entry into the smooth muscle cell lineage. Development (Cambridge), 2005, 132, 2157-2166.	2.5	168
10	Hox genes define distinct progenitor sub-domains within the second heart field. Developmental Biology, 2011, 353, 266-274.	2.0	144
11	Atrial myocardium derives from the posterior region of the second heart field, which acquires left-right identity as Pitx2c is expressed. Development (Cambridge), 2008, 135, 1157-1167.	2.5	134
12	biniou (FoxF), a central component in a regulatory network controlling visceral mesoderm development and midgut morphogenesis in Drosophila. Genes and Development, 2001, 15, 2900-2915.	5.9	133
13	Early cardiac development: a view from stem cells to embryos. Cardiovascular Research, 2012, 96, 352-362.	3.8	115
14	A roadmap for the Human Developmental Cell Atlas. Nature, 2021, 597, 196-205.	27.8	114
15	Fibroblast growth factor 10 gene regulation in the second heart field by Tbx1, Nkx2-5, and Islet1 reveals a genetic switch for down-regulation in the myocardium. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18273-18280.	7.1	109
16	Tbx1 Coordinates Addition of Posterior Second Heart Field Progenitor Cells to the Arterial and Venous Poles of the Heart. Circulation Research, 2014, 115, 790-799.	4.5	105
17	Endogenous retinoic acid regulates cardiac progenitor differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9234-9239.	7.1	96
18	Congenital heart defects in Fgfr2-IIIb and Fgf10 mutant mice. Cardiovascular Research, 2006, 71, 50-60.	3.8	86

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19	Cardioblast-intrinsic Tinman activity controls proper diversification and differentiation of myocardial cells in Drosophila. Development (Cambridge), 2006, 133, 4073-4083.	2.5	86
20	Decreased Levels of Embryonic Retinoic Acid Synthesis Accelerate Recovery From Arterial Growth Delay in a Mouse Model of DiGeorge Syndrome. Circulation Research, 2010, 106, 686-694.	4.5	82
21	New developments in the second heart field. Differentiation, 2012, 84, 17-24.	1.9	77
22	Mechanisms of retinoic acid signaling during cardiogenesis. Mechanisms of Development, 2017, 143, 9-19.	1.7	74
23	The Heterotrimeric Protein Go Is Required for the Formation of Heart Epithelium in Drosophila. Journal of Cell Biology, 1999, 145, 1063-1076.	5.2	71
24	Myocardium at the base of the aorta and pulmonary trunk is prefigured in the outflow tract of the heart and in subdomains of the second heart field. Developmental Biology, 2008, 313, 25-34.	2.0	62
25	Human pre-valvular endocardial cells derived from pluripotent stem cells recapitulate cardiac pathophysiological valvulogenesis. Nature Communications, 2019, 10, 1929.	12.8	60
26	T-box genes and retinoic acid signaling regulate the segregation of arterial and venous pole progenitor cells in the murine second heart field. Human Molecular Genetics, 2018, 27, 3747-3760.	2.9	59
27	The NK-2 homeobox gene scarecrow (scro) is expressed in pharynx, ventral nerve cord and brain of Drosophila embryos. Mechanisms of Development, 2000, 94, 237-241.	1.7	58
28	Transcriptome analysis of mouse and human sinoatrial node cells reveals a conserved genetic program. Development (Cambridge), 2019, 146, .	2.5	54
29	Hoxb1 regulates proliferation and differentiation of second heart field progenitors in pharyngeal mesoderm and genetically interacts with Hoxa1 during cardiac outflow tract development. Developmental Biology, 2015, 406, 247-258.	2.0	48
30	Pericardin, a Drosophila type IV collagen-like protein is involved in the morphogenesis and maintenance of the heart epithelium during dorsal ectoderm closure. Development (Cambridge), 2002, 129, 3241-53.	2.5	48
31	ISL1 Directly Regulates FGF10 Transcription during Human Cardiac Outflow Formation. PLoS ONE, 2012, 7, e30677.	2.5	46
32	Piezo1 is required for outflow tract and aortic valve development.. Journal of Molecular and Cellular Cardiology, 2020, 143, 51-62.	1.9	44
33	Hox-dependent coordination of mouse cardiac progenitor cell patterning and differentiation. ELife, 2020, 9, .	6.0	41
34	Genetics and embryological mechanisms of congenital heart diseases. Archives of Cardiovascular Diseases, 2009, 102, 59-63.	1.6	38
35	Expression of Slit and Robo genes in the developing mouse heart. Developmental Dynamics, 2010, 239, 3303-3311.	1.8	38
36	Value of In Vivo T2 Measurement for Myocardial Fibrosis Assessment in Diabetic Mice at 11.75 T. Investigative Radiology, 2012, 47, 319-323.	6.2	34

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37	Krox20 defines a subpopulation of cardiac neural crest cells contributing to arterial valves and bicuspid aortic valve. Development (Cambridge), 2018, 145, .	2.5	34
38	Cellular interactions during heart morphogenesis in the Drosophila embryo. Biology of the Cell, 1995, 84, 13-24.	2.0	33
39	Disruption of CXCR4 signaling in pharyngeal neural crest cells causes DiGeorge syndrome-like malformations. Development (Cambridge), 2016, 143, 582-8.	2.5	33
40	The Drosophila Hand gene is required for remodeling of the developing adult heart and midgut during metamorphosis. Developmental Biology, 2007, 311, 287-296.	2.0	30
41	Hox Genes in Cardiovascular Development and Diseases. Journal of Developmental Biology, 2016, 4, 14.	1.7	30
42	Cardiac outflow morphogenesis depends on effects of retinoic acid signaling on multiple cell lineages. Developmental Dynamics, 2016, 245, 388-401.	1.8	30
43	Bmp2 and Notch cooperate to pattern the embryonic endocardium. Development (Cambridge), 2018, 145, .	2.5	30
44	Asb2Î±â€“Filamin A Axis Is Essential for Actin Cytoskeleton Remodeling During Heart Development. Circulation Research, 2018, 122, e34-e48.	4.5	29
45	A Retinoic Acid Responsive Hoxa3 Transgene Expressed in Embryonic Pharyngeal Endoderm, Cardiac Neural Crest and a Subdomain of the Second Heart Field. PLoS ONE, 2011, 6, e27624.	2.5	26
46	Conotruncal defects associated with anomalous pulmonary venous connections. Archives of Cardiovascular Diseases, 2009, 102, 105-110.	1.6	25
47	Myocardial Bmp2 gain causes ectopic EMT and promotes cardiomyocyte proliferation and immaturity. Cell Death and Disease, 2018, 9, 399.	6.3	24
48	Cardiogenesis in the Drosophila Model: Control Mechanisms during Early Induction and Diversification of Cardiac Progenitors. Cold Spring Harbor Symposia on Quantitative Biology, 2002, 67, 1-12.	1.1	24
49	Hoxa1 and Hoxb1 are required for pharyngeal arch artery development. Mechanisms of Development, 2017, 143, 1-8.	1.7	23
50	Giant congenital melanocytic nevus with vascular malformation and epidermal cysts associated with a somatic activating mutation in <scp>BRAF</scp>. Pigment Cell and Melanoma Research, 2018, 31, 437-441.	3.3	22
51	Retinoids and Cardiac Development. Journal of Developmental Biology, 2014, 2, 50-71.	1.7	20
52	Hox and Tale transcription factors in heart development and disease. International Journal of Developmental Biology, 2018, 62, 837-846.	0.6	20
53	Loss of Krox20 results in aortic valve regurgitation and impaired transcriptional activation of fibrillar collagen genes. Cardiovascular Research, 2014, 104, 443-455.	3.8	19
54	Ectopic expression of Hoxb1 induces cardiac and craniofacial malformations. Genesis, 2018, 56, e23221.	1.6	18

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55	Outflow Tract Formationâ€"Embryonic Origins of Conotruncal Congenital Heart Disease. Journal of Cardiovascular Development and Disease, 2021, 8, 42.	1.6	18
56	Molecular cloning and embryonic expression of dFKBP59, a novel Drosophila FK506-binding protein. Gene, 2000, 246, 103-109.	2.2	17
57	The homeodomain of Tinman mediates homo- and heterodimerization of NK proteins. Biochemical and Biophysical Research Communications, 2005, 334, 361-369.	2.1	17
58	The Î²3 tubulin gene is a direct target of bagpipe and biniou in the visceral mesoderm of Drosophila. Mechanisms of Development, 2002, 114, 85-93.	1.7	16
59	Novel ALPK3 mutation in a Tunisian patient with pediatric cardiomyopathy and facio-thoraco-skeletal features. Journal of Human Genetics, 2018, 63, 1077-1082.	2.3	16
60	Reduced aggrecan expression affects cardiac outflow tract development in zebrafish and is associated with bicuspid aortic valve disease in humans. International Journal of Cardiology, 2017, 249, 340-343.	1.7	14
61	The alternatively spliced LRRFIP1 Isoform-1 is a key regulator of the Wnt/Î²-catenin transcription pathway. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 1142-1152.	4.1	13
62	Development of the Larval Visceral Musculature. , 2006, , 62-78.		11
63	Identification of a peripheral blood gene signature predicting aortic valve calcification. Physiological Genomics, 2020, 52, 563-574.	2.3	11
64	Mesp1 controls the chromatin and enhancer landscapes essential for spatiotemporal patterning of early cardiovascular progenitors. Nature Cell Biology, 2022, 24, 1114-1128.	10.3	11
65	<scp>M</scp>sx1^{cre}<scp>^{ERT}</scp>² knockâ€in allele: A useful tool to target embryonic and adult cardiac valves. Genesis, 2015, 53, 337-345.	1.6	9
66	Cell history determines the maintenance of transcriptional differences between left and right ventricular cardiomyocytes in the developing mouse heart. Journal of Cell Science, 2003, 116, 5005-5013.	2.0	8
67	FOXC1 haploinsufficiency due to 6p25 deletion in a patient with rapidly progressing aortic valve disease. American Journal of Medical Genetics, Part A, 2017, 173, 2489-2493.	1.2	7
68	Identification of two variants in AGRN and RPL3L genes in a patient with catecholaminergic polymorphic ventricular tachycardia suggesting new candidate disease genes and digenic inheritance. Clinical Case Reports (discontinued), 2022, 10, e05339.	0.5	7
69	Actionable Genes, Core Databases, and Locus-Specific Databases. Human Mutation, 2016, 37, 1299-1307.	2.5	6
70	Multiallelic rare variants support an oligogenic origin of sudden cardiac death in the young. Herz, 2021, 46, 94-102.	1.1	6
71	Side-dependent effect in the response of valve endothelial cells to bidirectional shear stress. International Journal of Cardiology, 2021, 323, 220-228.	1.7	6
72	Msx1 haploinsufficiency modifies the Pax9-deficient cardiovascular phenotype. BMC Developmental Biology, 2021, 21, 14.	2.1	6

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73	Anterior Hox Genes in Cardiac Development and Great Artery Patterning. Journal of Cardiovascular Development and Disease, 2014, 1, 3-13.	1.6	5
74	WES/WGS Reporting of Mutations from Cardiovascular â€œActionableâ€•Genes in Clinical Practice: A Key Role for UMD Knowledgebases in the Era of Big Databases. Human Mutation, 2016, 37, 1308-1317.	2.5	5
75	Krox20 Regulates Endothelial Nitric Oxide Signaling in Aortic Valve Development and Disease. Journal of Cardiovascular Development and Disease, 2019, 6, 39.	1.6	5
76	Genetic Lineage Tracing Analysis of Anterior Hox Expressing Cells. Methods in Molecular Biology, 2014, 1196, 37-48.	0.9	5
77	Molecular autopsy and clinical family screening in a case of sudden cardiac death reveals ACTN2 mutation related to hypertrophic/dilated cardiomyopathy and a novel LZTR1 variant associated with Noonan syndrome. Molecular Genetics & Genomic Medicine, 2022, 10, .	1.2	5
78	Krox20 heterozygous mice: A model of aortic regurgitation associated with decreased expression of fibrillar collagen genes. Archives of Cardiovascular Diseases, 2016, 109, 188-198.	1.6	4
79	A severe clinical phenotype of Noonan syndrome with neonatal hypertrophic cardiomyopathy in the second case worldwide with RAF1 S259Y neomutation. Genetical Research, 2019, 101, e6.	0.9	4
80	Identification of non-synonymous variations in ROBO1 and GATA5 genes in a family with bicuspid aortic valve disease. Journal of Human Genetics, 2022, , .	2.3	3
81	Clinical insights into a tertiary care center cohort of patients with bicuspid aortic valve. International Journal of Cardiovascular Imaging, 2022, 38, 51-59.	1.5	2
82	Single Cell Approaches to Understand the Earliest Steps in Heart Development. Current Cardiology Reports, 2022, 24, 611-621.	2.9	2
83	La Souris comme modÃ¨le dâ€™Ã©tude de la morphogenÃ¨se du cÅ“ur chez les mammifÃ¨res : origine des myocytes et Ã©tudes dâ€™explants cardiaques. SociÃ©tÃ© De Biologie Journal, 2003, 197, 187-194.	0.3	1
84	An uncommon cause of tricuspid regurgitation: three-dimensional echocardiographic incremental value, surgical and genetic insights. European Journal of Cardio-thoracic Surgery, 2016, 50, 180-182.	1.4	1
85	<i>Hox</i>-Dependent Coordination of Cardiac Cell Patterning and Differentiation. SSRN Electronic Journal, 0, , .	0.4	1
86	Dilated-Left Ventricular Non-Compaction Cardiomyopathy in a Pediatric Case with SPEG Compound Heterozygous Variants. International Journal of Molecular Sciences, 2022, 23, 5205.	4.1	1
87	Myocardial cell lineages in the mammalian embryo: The second heart field. Journal of Molecular and Cellular Cardiology, 2006, 40, 992.	1.9	0
88	Correction: Pax3 and Pax7 have distinct and overlapping functions in adult muscle progenitor cells. Journal of Cell Biology, 2007, 176, 125-125.	5.2	0
89	0174: LRRFip1 and Wnt pathway involvement in mitral valve prolapse. Archives of Cardiovascular Diseases Supplements, 2014, 6, 72.	0.0	0
90	0268 : Involvement of LRRFip1 gene and canonical Wnt pathway in Mitral Valve Prolapse (MVP). Archives of Cardiovascular Diseases Supplements, 2015, 7, 204.	0.0	0

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91	0352: Decrease of Krox20 expression leads to aortic valve dysfunction and thickening of the valve leaflets. Archives of Cardiovascular Diseases Supplements, 2016, 8, 55.	0.0	0
92	Origines gÃ©nÃ©tique et dÃ©veloppementale de la bicuspidie aortique. Archives Des Maladies Du Coeur Et Des Vaisseaux - Pratique, 2017, 2017, 22-26.	0.0	0
93	Analysis of HOXB1 gene in a cohort of patients with sporadic ventricular septal defect. Molecular Biology Reports, 2018, 45, 1507-1513.	2.3	0