Robert E Poelmann

List of Publications by Year
in descending order

113 papers	6,390 citations	53751 45 h-index	69214 77 g-index
121 all docs	121 docs citations	121 times ranked	5205 citing authors

#	Article	IF	Citations
1	Introduction to Special Issue â€œLeaders in Cardiovascular Research, Dedicated to the Memory of Professor Adriana Gittenberger-de Grootâ€ Journal of Cardiovascular Development and Disease, 2022, 9, 92.	0.8	0
2	A Systematic Histopathologic Evaluation of Type-A Aortic Dissections Implies a Uniform Multiple-Hit Causation. Journal of Cardiovascular Development and Disease, 2021, 8, 12.	0.8	16
3	Normal stages of embryonic development of a brood parasite, the rosy bitterling <scp><i>Rhodeus ocellatus</i></scp> (Teleostei: Cypriniformes). Journal of Morphology, 2021, 282, 783-819.	0.6	5
4	Extent of Coronary Artery Disease in Patients With Stenotic Bicuspid Versus Tricuspid Aortic Valves. Journal of the American Heart Association, 2021, 10, e020080.	1.6	12
5	Comparative evaluation of coronary disease burden: bicuspid valve disease is not atheroprotective. Open Heart, 2021, 8, e001772.	0.9	9
6	Ventricular Septation and Outflow Tract Development in Crocodilians Result in Two Aortas with Bicuspid Semilunar Valves. Journal of Cardiovascular Development and Disease, 2021, 8, 132.	0.8	5
7	Pulmonary ductal coarctation and left pulmonary artery interruption; pathology and role of neural crest and second heart field during development. PLoS ONE, 2020, 15, e0228478.	1.1	10
8	Transforming Growth Factor Beta3 is Required for Cardiovascular Development. Journal of Cardiovascular Development and Disease, 2020, 7, 19.	0.8	21
9	Human epicardium-derived cells reinforce cardiac sympathetic innervation. Journal of Molecular and Cellular Cardiology, 2020, 143, 26-37.	0.9	9
10	The Development of the Ascending Aortic Wall in Tricuspid and Bicuspid Aortic Valve: A Process from Maturation to Degeneration. Journal of Clinical Medicine, 2020, 9, 908.	1.0	16
11	The Ductus Arteriosus, a Vascular Outsider, in Relation to the Pulmonary Circulation. , 2020, , 227-233.		0
12	Structural Heart Disease: Embryology. , 2019, , 110-122.		0
13	Development and evolution of the metazoan heart. Developmental Dynamics, 2019, 248, 634-656.	0.8	26
14	The role of hemodynamics in bicuspid aortopathy: a histopathologic study. Cardiovascular Pathology, 2019, 41, 29-37.	0.7	23
15	Disruption of RHOAâ€ROCK Signaling Results in Atrioventricular Block and Disturbed Development of the Putative Atrioventricular Node. Anatomical Record, 2019, 302, 83-92.	0.8	3
16	Hemodynamics in Cardiac Development. Journal of Cardiovascular Development and Disease, 2018, 5, 54.	0.8	20
17	Coding of coronary arterial origin and branching in congenital heart disease: The modified Leiden Convention. Journal of Thoracic and Cardiovascular Surgery, 2018, 156, 2260-2269.	0.4	43
18	Outflow tract septation and the aortic arch system in reptiles: lessons for understanding the mammalian heart. EvoDevo, 2017, 8, 9.	1.3	24

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19	RHOA-ROCK signalling is necessary for lateralization and differentiation of the developing sinoatrial node. Cardiovascular Research, 2017, 113, 1186-1197.	1.8	17
20	Part and Parcel of the Cardiac Autonomic Nerve System: Unravelling Its Cellular Building Blocks during Development. Journal of Cardiovascular Development and Disease, 2016, 3, 28.	0.8	33
21	14â€3â€3epsilon controls multiple developmental processes in the mouse heart. Developmental Dynamics, 2016, 245, 1107-1123.	0.8	12
22	The avian embryo to study development of the cardiac conduction system. Differentiation, 2016, 91, 90-103.	1.0	6
23	Histopathology of aortic complications in bicuspid aortic valve versus Marfan syndrome: relevance for therapy?. Heart and Vessels, 2016, 31, 795-806.	0.5	40
24	Molecular Pathways and Animal Models of Total Anomalous Pulmonary Venous Return. , 2016, , 379-394.		0
25	Human Genetics of Total Anomalous Pulmonary Venous Return. , 2016, , 373-378.		0
26	The Epicardium in Ventricular Septation During Evolution and Development. , 2016, , 115-123.		1
27	Regional differences in WT-1 and Tcf21 expression during ventricular development: implications for myocardial compaction. PLoS ONE, 2015, 10, e0136025.	1.1	22
28	Heterochrony and Early Left-Right Asymmetry in the Development of the Cardiorespiratory System of Snakes. PLoS ONE, 2015, 10, e116416.	1.1	14
29	Normal Development and Morphology of the Right Ventricle: Clinical Relevance. Respiratory Medicine, 2015, , 3-18.	0.1	0
30	Evolution and Development of Ventricular Septation in the Amniote Heart. PLoS ONE, 2014, 9, e106569.	1.1	40
31	Echocardiographic Assessment of Embryonic and Fetal Mouse Heart Development: A Focus on Haemodynamics and Morphology. Scientific World Journal, The, 2014, 2014, 1-11.	0.8	9
32	Bicuspid aortic valve: phosphorylation of c-Kit and downstream targets are prognostic for future aortopathy. European Journal of Cardio-thoracic Surgery, 2014, 46, 831-839.	0.6	35
33	Nitric oxide synthase-3 deficiency results in hypoplastic coronary arteries and postnatal myocardial infarction. European Heart Journal, 2014, 35, 920-931.	1.0	28
34	Morphogenesis and molecular considerations on congenital cardiac septal defects. Annals of Medicine, 2014, 46, 640-652.	1.5	51
35	Ascending aorta dilation in association with bicuspid aortic valve: AÂmaturation defect of the aortic wall. Journal of Thoracic and Cardiovascular Surgery, 2014, 148, 1583-1590.	0.4	67
36	Embryology of the heart and its impact on understanding fetal and neonatal heart disease. Seminars in Fetal and Neonatal Medicine, 2013, 18, 237-244.	1.1	40

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37	Scavenger Receptor-AIâ€“Targeted Iron Oxide Nanoparticles for In Vivo MRI Detection of Atherosclerotic Lesions. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 1812-1819.	1.1	59
38	Remodeling of the myocardium in early trabeculation and cardiac valve formation; a role for TGFÎ²2. International Journal of Developmental Biology, 2013, 57, 853-863.	0.3	12
39	Self-Gated CINE MRI for Combined Contrast-Enhanced Imaging and Wall-Stiffness Measurements of Murine Aortic Atherosclerotic Lesions. PLoS ONE, 2013, 8, e57299.	1.1	4
40	Peritruncal Coronary Endothelial Cells Contribute to Proximal Coronary Artery Stems and Their Aortic Orifices in the Mouse Heart. PLoS ONE, 2013, 8, e80857.	1.1	38
41	TGF-Î² Signaling in Endothelial-to-Mesenchymal Transition: The Role of Shear Stress and Primary CiliaA Presentation from the Keystone Symposium on Epithelial Plasticity and Epithelial to Mesenchymal Transition, Vancouver, Canada, 21 to 26 January 2011.. Science Signaling, 2012, 5, pt2.	1.6	69
42	Primary cilia as biomechanical sensors in regulating endothelial function. Differentiation, 2012, 83, S56-S61.	1.0	67
43	The arterial and cardiac epicardium in development, disease and repair. Differentiation, 2012, 84, 41-53.	1.0	95
44	Cardiac birth defects. Differentiation, 2012, 84, 1-3.	1.0	2
45	Morphogenesis of outflow tract rotation during cardiac development: The pulmonary push concept. Developmental Dynamics, 2012, 241, 1413-1422.	0.8	45
46	Endothelial colony-forming cells show a mature transcriptional response to shear stress. In Vitro Cellular and Developmental Biology - Animal, 2012, 48, 21-29.	0.7	41
47	Funny current channel HCN4 delineates the developing cardiac conduction system in chicken heart. Heart Rhythm, 2011, 8, 1254-1263.	0.3	37
48	TgfÎ²/Alk5 signaling is required for shear stress induced klf2 expression in embryonic endothelial cells. Developmental Dynamics, 2011, 240, 1670-1680.	0.8	55
49	Role for Primary Cilia as Flow Detectors in the Cardiovascular System. International Review of Cell and Molecular Biology, 2011, 290, 87-119.	1.6	24
50	Lack of Primary Cilia Primes Shear-Induced Endothelial-to-Mesenchymal Transition. Circulation Research, 2011, 108, 1093-1101.	2.0	173
51	Electrical Activation of Sinus Venosus Myocardium and Expression Patterns of RhoA and Islâ€1 in the Chick Embryo. Journal of Cardiovascular Electrophysiology, 2010, 21, 1284-1292.	0.8	28
52	Pulmonary Vein, Dorsal Atrial Wall and Atrial Septum Abnormalities in Podoplanin Knockout Mice With Disturbed Posterior Heart Field Contribution. Pediatric Research, 2009, 65, 27-32.	1.1	38
53	<i>Podoplanin</i> deficient mice show a rhoaâ€related hypoplasia of the sinus venosus myocardium including the sinoatrial node. Developmental Dynamics, 2009, 238, 183-193.	0.8	53
54	Plateletâ€derived growth factor is involved in the differentiation of second heart fieldâ€derived cardiac structures in chicken embryos. Developmental Dynamics, 2009, 238, 2658-2669.	0.8	29

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55	Nonâ€invasive tracking of avian development <i>in vivo</i> by MRI. NMR in Biomedicine, 2009, 22, 365-373.	1.6	27
56	Endothelial mechanosensing by primary cilia. FASEB Journal, 2009, 23, 828.3.	0.2	0
57	The development of the heart and microcirculation: role of shear stress. Medical and Biological Engineering and Computing, 2008, 46, 479-484.	1.6	53
58	PDGFâ€B signaling is important for murine cardiac development: Its role in developing atrioventricular valves, coronaries, and cardiac innervation. Developmental Dynamics, 2008, 237, 494-503.	0.8	78
59	Cardiac malformations and myocardial abnormalities in <i>podoplanin</i> knockout mouse embryos: Correlation with abnormal epicardial development. Developmental Dynamics, 2008, 237, 847-857.	0.8	130
60	Primary cilia sensitize endothelial cells for fluid shear stress. Developmental Dynamics, 2008, 237, 725-735.	0.8	154
61	Endothelial primary cilia in areas of disturbed flow are at the base of atherosclerosis. Atherosclerosis, 2008, 196, 542-550.	0.4	150
62	Deciphering the Endothelial Shear Stress Sensor. Circulation, 2008, 117, 1124-1126.	1.6	46
63	The Endothelin-1 Pathway and the Development of Cardiovascular Defects in the Haemodynamically Challenged Chicken Embryo. Journal of Vascular Research, 2008, 45, 54-68.	0.6	38
64	Epicardium-Derived Cells in Development of Annulus Fibrosis and Persistence of Accessory Pathways. Circulation, 2008, 117, 1508-1517.	1.6	65
65	Cardiac Development. Scientific World Journal, The, 2008, 8, 855-858.	0.8	3
66	Fluid Shear Stress and Inner Curvature Remodeling of the Embryonic Heart. Choosing the Right Lane!. Scientific World Journal, The, 2008, 8, 212-222.	0.8	53
67	The Role of Shear Stress on ET-1, KLF2, and NOS-3 Expression in the Developing Cardiovascular System of Chicken Embryos in a Venous Ligation Model. Physiology, 2007, 22, 380-389.	1.6	90
68	Tetralogy of Fallot and Alterations in Vascular Endothelial Growth Factor-A Signaling and Notch Signaling in Mouse Embryos Solely Expressing the VEGF120 Isoform. Circulation Research, 2007, 100, 842-849.	2.0	63
69	Origin, Fate, and Function of Epicardium-Derived Cells (EPDCs) in Normal and Abnormal Cardiac Development. Scientific World Journal, The, 2007, 7, 1777-1798.	0.8	178
70	Nkx2.5-negative myocardium of the posterior heart field and its correlation with podoplanin expression in cells from the developing cardiac pacemaking and conduction system. Anatomical Record, 2007, 290, 115-122.	0.8	65
71	Epicardium-derived cells are important for correct development of the Purkinje fibers in the avian heart. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 1272-1280.	2.0	52
72	Monocilia on chicken embryonic endocardium in low shear stress areas. Developmental Dynamics, 2006, 235, 19-28.	0.8	124

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73	Apoptosis as an instrument in cardiovascular development. Birth Defects Research Part C: Embryo Today Reviews, 2005, 75, 305-313.	3.6	45
74	Myocardial heterogeneity in permissiveness for epicardium-derived cells and endothelial precursor cells along the developing heart tube at the onset of coronary vascularization. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2005, 282A, 120-129.	2.0	33
75	Changes in Shear Stressâ€"Related Gene Expression After Experimentally Altered Venous Return in the Chicken Embryo. Circulation Research, 2005, 96, 1291-1298.	2.0	165
76	Systolic and Diastolic Ventricular Function Assessed by Pressure-Volume Loops in the Stage 21 Venous Clipped Chick Embryo. Pediatric Research, 2005, 57, 16-21.	1.1	61
77	Chirality in snails is determined by highly conserved asymmetry genes. Journal of Molluscan Studies, 2005, 71, 192-195.	0.4	28
78	Coronary Artery and Orifice Development Is Associated With Proper Timing of Epicardial Outgrowth and Correlated Fas Ligand Associated Apoptosis Patterns. Circulation Research, 2005, 96, 526-534.	2.0	76
79	Basics of Cardiac Development for the Understanding of Congenital Heart Malformations. Pediatric Research, 2005, 57, 169-176.	1.1	251
80	Ventricular diastolic filling characteristics in stage-24 chick embryos after extra-embryonic venous obstruction. Journal of Experimental Biology, 2004, 207, 1487-1490.	0.8	42
81	Homocysteine Induces Endothelial Cell Detachment and Vessel Wall Thickening During Chick Embryonic Development. Circulation Research, 2004, 94, 542-549.	2.0	30
82	The neural crest is contiguous with the cardiac conduction system in the mouse embryo: a role in induction?. Anatomy and Embryology, 2004, 208, 389-93.	1.5	51
83	Embryonic Conduction Tissue:. Journal of Cardiovascular Electrophysiology, 2004, 15, 349-355.	0.8	127
84	Changing intracellular compartmentalization of ?-galactosidase in the ROSA26 reporter mouse during embryonic development: A light- and electron-microscopic study. The Anatomical Record, 2004, 279A, 740-748.	2.3	4
85	Disturbed morphogenesis of cardiac outflow tract and increased rate of aortic arch anomalies in the offspring of diabetic rats. Birth Defects Research Part A: Clinical and Molecular Teratology, 2004, 70, 927-938.	1.6	67
86	Development-related changes in the expression of shear stress responsive genesKLF-2,ET-1, andNOS-3 in the developing cardiovascular system of chicken embryos. Developmental Dynamics, 2004, 230, 57-68.	0.8	113
87	The myth of ventrally emigrating neural tube (VENT) cells and their contribution to the developing cardiovascular system. Anatomy and Embryology, 2003, 206, 327-333.	1.5	18
88	Expression patterns ofTgf?1-3 associate with myocardialisation of the outflow tract and the development of the epicardium and the fibrous heart skeleton. Developmental Dynamics, 2003, 227, 431-444.	0.8	86
89	Spatiotemporally separated cardiac neural crest subpopulations that target the outflow tract septum and pharyngeal arch arteries. The Anatomical Record, 2003, 275A, 1009-1018.	2.3	37
90	Acutely altered hemodynamics following venous obstruction in the early chick embryo. Journal of Experimental Biology, 2003, 206, 1051-1057.	0.8	60

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91	Altered apoptosis pattern during pharyngeal arch artery remodelling is associated with aortic arch malformations in TgfÎ²2 knock-out mice. Cardiovascular Research, 2002, 56, 312-322.	1.8	78
92	The role of the epicardium and neural crest as extracardiac contributors to coronary vascular development. Texas Heart Institute Journal, 2002, 29, 255-61.	0.1	40
93	Dorsal aortic flow velocity in chick embryos of stage 16 to 28. Ultrasound in Medicine and Biology, 2001, 27, 919-924.	0.7	19
94	Magnetic resonance microscopy at 17.6-Tesla on chicken embryos in vitro. Journal of Magnetic Resonance Imaging, 2001, 14, 83-86.	1.9	39
95	Double-Outlet Right Ventricle and Overriding Tricuspid Valve Reflect Disturbances of Looping, Myocardialization, Endocardial Cushion Differentiation, and Apoptosis in TGF-Î² ₂ â€“Knockout Mice. Circulation, 2001, 103, 2745-2752.	1.6	288
96	Distribution of different regions of cardiac neural crest in the extrinsic and the intrinsic cardiac nervous system. , 2000, 217, 191-204.		37
97	Distribution of antigen epitopes shared by nerves and the myocardium of the embryonic chick heart using different neuronal markers. The Anatomical Record, 2000, 260, 335-350.	2.3	16
98	Magnetic resonance microscopy of mouse embryos in utero. The Anatomical Record, 2000, 260, 373-377.	2.3	42
99	Apoptosis in cardiac development. Cell and Tissue Research, 2000, 301, 43-52.	1.5	73
100	Epicardial Outgrowth Inhibition Leads to Compensatory Mesothelial Outflow Tract Collar and Abnormal Cardiac Septation and Coronary Formation. Circulation Research, 2000, 87, 969-971.	2.0	184
101	Smooth muscle cells and fibroblasts of the coronary arteries derive from epithelial-mesenchymal transformation of the epicardium. Anatomy and Embryology, 1999, 199, 367-378.	1.5	221
102	Contribution of the cervical sympathetic ganglia to the innervation of the pharyngeal arch arteries and the heart in the chick embryo. , 1999, 255, 407-419.		30
103	Patterns of paired-related homeobox genesPRX1 andPRX2 suggest involvement in matrix modulation in the developing chick vascular system. Developmental Dynamics, 1998, 213, 59-70.	0.8	45
104	Development of the atrioventricular valve tension apparatus in the human heart. Anatomy and Embryology, 1998, 198, 317-329.	1.5	60
105	Neural Crest Cell Contribution to the Developing Circulatory System. Circulation Research, 1998, 82, 221-231.	2.0	275
106	Epicardium-Derived Cells Contribute a Novel Population to the Myocardial Wall and the Atrioventricular Cushions. Circulation Research, 1998, 82, 1043-1052.	2.0	487
107	Differential expression of Î±6 and other subunits of laminin binding integrins during development of the murine heart. , 1996, 206, 100-111.		39
108	Expression of the Î²4 integrin subunit in the mouse heart during embryonic development: Retinoic acid advances Î²4 expression. , 1996, 207, 39-103.		10

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109	Cell origins and tissue boundaries during outflow tract development. Trends in Cardiovascular Medicine, 1995, 5, 69-75.	2.3	75
110	Variants of the Î±₆Î²₁Laminin Receptor in Early Murine Development: Distribution, Molecular Cloning and Chromosomal Localization of the Mouse Integrin Î±₆Subunit. Cell Adhesion and Communication, 1993, 1, 33-53.	1.7	99
111	Induction of cardiac anomalies with all-trans retinoic acid in the chick embryo. Cardiology in the Young, 1992, 2, 311-317.	0.4	17
112	Changes in distribution of elastin and elastin receptor during intimal cushion formation in the ductus arteriosus. Anatomy and Embryology, 1990, 182, 473-80.	1.5	21
113	Structural heart disease. , 0, , 100-112.		0