Robert Passier

List of Publications by Year
in descending order

81 papers	12,606 citations	43973 48 h-index	60497 81 g-index
81 all docs	81 docs citations	81 times ranked	17503 citing authors

#	Article	IF	Citations
1	Conditional immortalization of human atrial myocytes for the generation of in vitro models of atrial fibrillation. Nature Biomedical Engineering, 2022, 6, 389-402.	11.6	16
2	Animal models and animal-free innovations for cardiovascular research: current status and routes to be explored. Consensus document of the ESC Working Group on Myocardial Function and the ESC Working Group on Cellular Biology of the Heart. Cardiovascular Research, 2022, 118, 3016-3051.	1.8	30
3	Fluidic circuit board with modular sensor and valves enables stand-alone, tubeless microfluidic flow control in organs-on-chips. Lab on A Chip, 2022, 22, 1231-1243.	3.1	17
4	Generation and Culture of Cardiac Microtissues in a Microfluidic Chip with a Reversible Open Top Enables Electrical Pacing, Dynamic Drug Dosing and Endothelial Cell Coâ€Culture. Advanced Materials Technologies, 2022, 7, .	3.0	11
5	A New Versatile Platform for Assessment of Improved Cardiac Performance in Human-Engineered Heart Tissues. Journal of Personalized Medicine, 2022, 12, 214.	1.1	8
6	Cardiovascular Tissue Engineering and Regeneration: A Plead for Further Knowledge Convergence. Tissue Engineering - Part A, 2022, 28, 525-541.	1.6	6
7	Improved Atrial Differentiation of Human Pluripotent Stem Cells by Activation of Retinoic Acid Receptor Alpha (RARÎ±). Journal of Personalized Medicine, 2022, 12, 628.	1.1	5
8	Microfluidic organ-on-a-chip model of the outer bloodâ€“retinal barrier with clinically relevant read-outs for tissue permeability and vascular structure. Lab on A Chip, 2021, 21, 272-283.	3.1	40
9	Collagen I Based Enzymatically Degradable Membranes for Organ-on-a-Chip Barrier Models. ACS Biomaterials Science and Engineering, 2021, 7, 2998-3005.	2.6	21
10	Measuring Both pH and O₂ with a Single On-Chip Sensor in Cultures of Human Pluripotent Stem Cell-Derived Cardiomyocytes to Track Induced Changes in Cellular Metabolism. ACS Sensors, 2021, 6, 267-274.	4.0	26
11	Expandable human cardiovascular progenitors from stem cells for regenerating mouse heart after myocardial infarction. Cardiovascular Research, 2020, 116, 545-553.	1.8	10
12	Automated image analysis system for studying cardiotoxicity in human pluripotent stem cell-Derived cardiomyocytes. BMC Bioinformatics, 2020, 21, 187.	1.2	5
13	Metabolic environment in vivo as a blueprint for differentiation and maturation of human stem cell-derived cardiomyocytes. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2020, 1866, 165881.	1.8	14
14	A cardiomyocyte show of force: A fluorescent alpha-actinin reporter line sheds light on human cardiomyocyte contractility versus substrate stiffness. Journal of Molecular and Cellular Cardiology, 2020, 141, 54-64.	0.9	42
15	Human Pluripotent Stem Cell-Derived Cardiomyocytes for Assessment of Anticancer Drug-Induced Cardiotoxicity. Frontiers in Cardiovascular Medicine, 2020, 7, 50.	1.1	36
16	Advanced in vitro models of vascular biology: Human induced pluripotent stem cells and organ-on-chip technology. Advanced Drug Delivery Reviews, 2019, 140, 68-77.	6.6	109
17	Native cardiac environment and its impact on engineering cardiac tissue. Biomaterials Science, 2019, 7, 3566-3580.	2.6	51
18	Personalised organs-on-chips: functional testing for precision medicine. Lab on A Chip, 2019, 19, 198-205.	3.1	183

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19	Cardiac differentiation of pluripotent stem cells and implications for modeling the heart in health and disease. Science Translational Medicine, 2018, 10, .	5.8	53
20	NKX2-5 regulates human cardiomyogenesis via a HEY2 dependent transcriptional network. Nature Communications, 2018, 9, 1373.	5.8	77
21	MUSCLEMOTION. Circulation Research, 2018, 122, e5-e16.	2.0	235
22	Advanced Good Cell Culture Practice for human primary, stem cell-derived and organoid models as well as microphysiological systems. ALTEX: Alternatives To Animal Experimentation, 2018, 35, 353-378.	0.9	87
23	FANTOM5 CAGE profiles of human and mouse samples. Scientific Data, 2017, 4, 170112.	2.4	195
24	Mimicking arterial thrombosis in a 3D-printed microfluidic in vitro vascular model based on computed tomography angiography data. Lab on A Chip, 2017, 17, 2785-2792.	3.1	143
25	A COUP-TFII Human Embryonic Stem Cell Reporter Line to Identify and Select Atrial Cardiomyocytes. Stem Cell Reports, 2017, 9, 1765-1779.	2.3	44
26	Human Pluripotent Stem Cell Differentiation into Functional Epicardial Progenitor Cells. Stem Cell Reports, 2017, 9, 1754-1764.	2.3	55
27	Z-disc protein CHAPb induces cardiomyopathy and contractile dysfunction in the postnatal heart. PLoS ONE, 2017, 12, e0189139.	1.1	22
28	<i><scp>TECRL</scp></i>, a new lifeâ€threatening inherited arrhythmia gene associated with overlapping clinical features of both <scp>LQTS</scp> and <scp>CPVT</scp>. EMBO Molecular Medicine, 2016, 8, 1390-1408.	3.3	98
29	Complex Tissue and Disease Modeling using hiPSCs. Cell Stem Cell, 2016, 18, 309-321.	5.2	121
30	Concise Review: Fluorescent Reporters in Human Pluripotent Stem Cells: Contributions to Cardiac Differentiation and Their Applications in Cardiac Disease and Toxicity. Stem Cells, 2016, 34, 13-26.	1.4	21
31	A comprehensive gene expression analysis at sequential stages of in vitro cardiac differentiation from isolated MESP1-expressing-mesoderm progenitors. Scientific Reports, 2016, 6, 19386.	1.6	53
32	Organs-on-Chips in Drug Development: The Importance of Involving Stakeholders in Early Health Technology Assessment. Applied in Vitro Toxicology, 2016, 2, 74-81.	0.6	16
33	Generation and purification of human stem cell-derived cardiomyocytes. Differentiation, 2016, 91, 126-138.	1.0	24
34	Atrialâ€like cardiomyocytes from human pluripotent stem cells are a robust preclinical model for assessing atrialâ€selective pharmacology. EMBO Molecular Medicine, 2015, 7, 394-410.	3.3	310
35	Altered calcium handling and increased contraction force in human embryonic stem cell derived cardiomyocytes following short term dexamethasone exposure. Biochemical and Biophysical Research Communications, 2015, 467, 998-1005.	1.0	28
36	KeyGenes, a Tool to Probe Tissue Differentiation Using a Human Fetal Transcriptional Atlas. Stem Cell Reports, 2015, 4, 1112-1124.	2.3	118

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37	Functional maturation of human pluripotent stem cell derived cardiomyocytes inÂvitro â€" Correlation between contraction force andÂelectrophysiology. Biomaterials, 2015, 51, 138-150.	5.7	176
38	Transcribed enhancers lead waves of coordinated transcription in transitioning mammalian cells. Science, 2015, 347, 1010-1014.	6.0	517
39	Expansion and patterning of cardiovascular progenitors derived from human pluripotent stem cells. Nature Biotechnology, 2015, 33, 970-979.	9.4	165
40	Contractile Defect Caused by Mutation in MYBPC3 Revealed under Conditions Optimized for Human PSC-Cardiomyocyte Function. Cell Reports, 2015, 13, 733-745.	2.9	167
41	Transcriptome of human foetal heart compared with cardiomyocytes from pluripotent stem cells. Development (Cambridge), 2015, 142, 3231-8.	1.2	139
42	Dual Reporter <i>MESP1mCherry/w-NKX2-5eGFP/w</i> hESCs Enable Studying Early Human Cardiac Differentiation. Stem Cells, 2015, 33, 56-67.	1.4	65
43	A promoter-level mammalian expression atlas. Nature, 2014, 507, 462-470.	13.7	1,838
44	Sarcosin (Krp1) in skeletal muscle differentiation: gene expression profiling and knockdown experiments. International Journal of Developmental Biology, 2012, 56, 301-309.	0.3	12
45	Funny current channel HCN4 delineates the developing cardiac conduction system in chicken heart. Heart Rhythm, 2011, 8, 1254-1263.	0.3	37
46	NKX2-5eGFP/w hESCs for isolation of human cardiac progenitors and cardiomyocytes. Nature Methods, 2011, 8, 1037-1040.	9.0	384
47	Cytoskeletal heart-enriched actin-associated protein (CHAP) is expressed in striated and smooth muscle cells in chick and mouse during embryonic and adult stages. International Journal of Developmental Biology, 2011, 55, 649-655.	0.3	8
48	Human Embryonic and Fetal Mesenchymal Stem Cells Differentiate toward Three Different Cardiac Lineages in Contrast to Their Adult Counterparts. PLoS ONE, 2011, 6, e24164.	1.1	64
49	Molecular Analysis of Patterning of Conduction Tissues in the Developing Human Heart. Circulation: Arrhythmia and Electrophysiology, 2011, 4, 532-542.	2.1	78
50	Prediction of drug-induced cardiotoxicity using human embryonic stem cell-derived cardiomyocytes. Stem Cell Research, 2010, 4, 107-116.	0.3	340
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	Inhibition of ROCK improves survival of human embryonic stem cellâ€"derived cardiomyocytes after dissociation. Annals of the New York Academy of Sciences, 2010, 1188, 52-57.	1.8	30
53	CHAP is a newly identified Z-disc protein essential for heart and skeletal muscle function. Journal of Cell Science, 2010, 123, 1141-1150.	1.2	53
54	Sox2 Transduction Enhances Cardiovascular Repair Capacity of Blood-Derived Mesoangioblasts. Circulation Research, 2010, 106, 1290-1302.	2.0	37

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55	Getting to the Heart of the Matter: Direct Reprogramming to Cardiomyocytes. Cell Stem Cell, 2010, 7, 139-141.	5.2	14
56	Identification of Cell Surface Proteins for Antibody-Based Selection of Human Embryonic Stem Cell-Derived Cardiomyocytes. Journal of Proteome Research, 2010, 9, 1610-1618.	1.8	99
57	Cardiomyocytes from human pluripotent stem cells in regenerative medicine and drug discovery. Trends in Pharmacological Sciences, 2009, 30, 536-545.	4.0	78
58	Improvement of mouse cardiac function by hESC-derived cardiomyocytes correlates with vascularity but not graft size. Stem Cell Research, 2009, 3, 106-112.	0.3	71
59	Insulin Redirects Differentiation from Cardiogenic Mesoderm and Endoderm to Neuroectoderm in Differentiating Human Embryonic Stem Cells. Stem Cells, 2008, 26, 724-733.	1.4	113
60	Recombinant Vitronectin Is a Functionally Defined Substrate That Supports Human Embryonic Stem Cell Self-Renewal via Î±VÎ²5 Integrin. Stem Cells, 2008, 26, 2257-2265.	1.4	389
61	Stem-cell-based therapy and lessons from the heart. Nature, 2008, 453, 322-329.	13.7	523
62	Improved genetic manipulation of human embryonic stem cells. Nature Methods, 2008, 5, 389-392.	9.0	95
63	Feeder-free culture of human embryonic stem cells in conditioned medium for efficient genetic modification. Nature Protocols, 2008, 3, 1435-1443.	5.5	73
64	Human Embryonic Stem Cellâ€"Derived Cardiomyocytes and Cardiac Repair in Rodents. Circulation Research, 2008, 102, 1008-1010.	2.0	233
65	Characterization of human embryonic stem cell lines by the International Stem Cell Initiative. Nature Biotechnology, 2007, 25, 803-816.	9.4	983
66	Monitoring of cell therapy and assessment of cardiac function using magnetic resonance imaging in a mouse model of myocardial infarction. Nature Protocols, 2007, 2, 2551-2567.	5.5	79
67	Human embryonic stem cell-derived cardiomyocytes survive and mature in the mouse heart and transiently improve function after myocardial infarction. Stem Cell Research, 2007, 1, 9-24.	0.3	383
68	Genome-Wide Transcriptional Profiling of Human Embryonic Stem Cells Differentiating to Cardiomyocytes. Stem Cells, 2006, 24, 1956-1967.	1.4	179
69	A Quest for Human and Mouse Embryonic Stem Cell-specific Proteins. Molecular and Cellular Proteomics, 2006, 5, 1261-1273.	2.5	120
70	Cardiomyocyte differentiation from embryonic and adult stem cells. Current Opinion in Biotechnology, 2005, 16, 498-502.	3.3	53
71	Increased Cardiomyocyte Differentiation from Human Embryonic Stem Cells in Serum-Free Cultures. Stem Cells, 2005, 23, 772-780.	1.4	324
72	Human embryonic stem cells: Genetic manipulation on the way to cardiac cell therapies. Reproductive Toxicology, 2005, 20, 377-391.	1.3	55

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73	Human embryonic stem cells: towards therapies for cardiac disease. Derivation of a Dutch human embryonic stem cell line. Reproductive BioMedicine Online, 2005, 11, 476-485.	1.1	20
74	Adenoviral Transfer of Endothelial Nitric Oxide Synthase Attenuates Lesion Formation in a Novel Murine Model of Postangioplasty Restenosis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2004, 24, 357-362.	1.1	21
75	Differentiation of Human Embryonic Stem Cells to Cardiomyocytes. Circulation, 2003, 107, 2733-2740.	1.6	1,091
76	Origin and use of embryonic and adult stem cells in differentiation and tissue repair. Cardiovascular Research, 2003, 58, 324-335.	1.8	122
77	Calmodulin Kinase II and Arrhythmias in a Mouse Model of Cardiac Hypertrophy. Circulation, 2002, 106, 1288-1293.	1.6	240
78	Modulation of Cardiac Growth and Development by HOP, an Unusual Homeodomain Protein. Cell, 2002, 110, 725-735.	13.5	219
79	CHAMP, A Novel Cardiac-Specific Helicase Regulated by MEF2C. Developmental Biology, 2001, 234, 497-509.	0.9	39
80	Oracle, a novel PDZ-LIM domain protein expressed in heart and skeletal muscle. Mechanisms of Development, 2000, 92, 277-284.	1.7	67
81	CaM kinase signaling induces cardiac hypertrophy and activates the MEF2 transcription factor in vivo. Journal of Clinical Investigation, 2000, 105, 1395-1406.	3.9	455