

Robert Passier

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78
papers

10,002
citations

45
h-index

81
g-index

81
ext. papers

11,595
ext. citations

11
avg, IF

5.72
L-index

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 78 | 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.. <i>Cardiovascular Research</i> , 2022 , | 9.9 | 3 |
| 77 | A New Versatile Platform for Assessment of Improved Cardiac Performance in Human-Engineered Heart Tissues.. <i>Journal of Personalized Medicine</i> , 2022 , 12, | 3.6 | 1 |
| 76 | Conditional immortalization of human atrial myocytes for the generation of in vitro models of atrial fibrillation.. <i>Nature Biomedical Engineering</i> , 2022 , | 19 | 1 |
| 75 | Measuring Both pH and O with a Single On-Chip Sensor in Cultures of Human Pluripotent Stem Cell-Derived Cardiomyocytes to Track Induced Changes in Cellular Metabolism. <i>ACS Sensors</i> , 2021 , 6, 267-274 | 9.2 | 10 |
| 74 | Microfluidic organ-on-a-chip model of the outer blood-retinal barrier with clinically relevant read-outs for tissue permeability and vascular structure. <i>Lab on A Chip</i> , 2021 , 21, 272-283 | 7.2 | 7 |
| 73 | Collagen I Based Enzymatically Degradable Membranes for Organ-on-a-Chip Barrier Models. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 2998-3005 | 5.5 | 6 |
| 72 | Automated image analysis system for studying cardiotoxicity in human pluripotent stem cell-Derived cardiomyocytes. <i>BMC Bioinformatics</i> , 2020 , 21, 187 | 3.6 | 2 |
| 71 | Metabolic environment in vivo as a blueprint for differentiation and maturation of human stem cell-derived cardiomyocytes. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020 , 1866, 165881 | 6.9 | 4 |
| 70 | A cardiomyocyte show of force: A fluorescent alpha-actinin reporter line sheds light on human cardiomyocyte contractility versus substrate stiffness. <i>Journal of Molecular and Cellular Cardiology</i> , 2020 , 141, 54-64 | 5.8 | 16 |
| 69 | Human Pluripotent Stem Cell-Derived Cardiomyocytes for Assessment of Anticancer Drug-Induced Cardiotoxicity. <i>Frontiers in Cardiovascular Medicine</i> , 2020 , 7, 50 | 5.4 | 13 |
| 68 | Expandable human cardiovascular progenitors from stem cells for regenerating mouse heart after myocardial infarction. <i>Cardiovascular Research</i> , 2020 , 116, 545-553 | 9.9 | 7 |
| 67 | Personalised organs-on-chips: functional testing for precision medicine. <i>Lab on A Chip</i> , 2019 , 19, 198-205 | 7.2 | 122 |
| 66 | Advanced in vitro models of vascular biology: Human induced pluripotent stem cells and organ-on-chip technology. <i>Advanced Drug Delivery Reviews</i> , 2019 , 140, 68-77 | 18.5 | 79 |
| 65 | Native cardiac environment and its impact on engineering cardiac tissue. <i>Biomaterials Science</i> , 2019 , 7, 3566-3580 | 7.4 | 38 |
| 64 | Cardiac differentiation of pluripotent stem cells and implications for modeling the heart in health and disease. <i>Science Translational Medicine</i> , 2018 , 10, | 17.5 | 43 |
| 63 | NKX2-5 regulates human cardiomyogenesis via a HEY2 dependent transcriptional network. <i>Nature Communications</i> , 2018 , 9, 1373 | 17.4 | 45 |
| 62 | MUSCLEMOTION: A Versatile Open Software Tool to Quantify Cardiomyocyte and Cardiac Muscle Contraction In Vitro and In Vivo. <i>Circulation Research</i> , 2018 , 122, e5-e16 | 15.7 | 125 |

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| 61 | Advanced Good Cell Culture Practice for human primary, stem cell-derived and organoid models as well as microphysiological systems. <i>ALTEX: Alternatives To Animal Experimentation</i> , 2018 , 35, 353-378 | 4.3 | 58 |
| 60 | FANTOM5 CAGE profiles of human and mouse samples. <i>Scientific Data</i> , 2017 , 4, 170112 | 8.2 | 88 |
| 59 | Mimicking arterial thrombosis in a 3D-printed microfluidic in vitro vascular model based on computed tomography angiography data. <i>Lab on A Chip</i> , 2017 , 17, 2785-2792 | 7.2 | 99 |
| 58 | A COUP-TFII Human Embryonic Stem Cell Reporter Line to Identify and Select Atrial Cardiomyocytes. <i>Stem Cell Reports</i> , 2017 , 9, 1765-1779 | 8 | 30 |
| 57 | Human Pluripotent Stem Cell Differentiation into Functional Epicardial Progenitor Cells. <i>Stem Cell Reports</i> , 2017 , 9, 1754-1764 | 8 | 39 |
| 56 | Z-disc protein CHAPb induces cardiomyopathy and contractile dysfunction in the postnatal heart. <i>PLoS ONE</i> , 2017 , 12, e0189139 | 3.7 | 7 |
| 55 | A comprehensive gene expression analysis at sequential stages of in vitro cardiac differentiation from isolated MESP1-expressing-mesoderm progenitors. <i>Scientific Reports</i> , 2016 , 6, 19386 | 4.9 | 36 |
| 54 | Organs-on-Chips in Drug Development: The Importance of Involving Stakeholders in Early Health Technology Assessment. <i>Applied in Vitro Toxicology</i> , 2016 , 2, 74-81 | 1.3 | 14 |
| 53 | Generation and purification of human stem cell-derived cardiomyocytes. <i>Differentiation</i> , 2016 , 91, 126-38.5 | 3.5 | 21 |
| 52 | TECRL, a new life-threatening inherited arrhythmia gene associated with overlapping clinical features of both LQTS and CPVT. <i>EMBO Molecular Medicine</i> , 2016 , 8, 1390-1408 | 12 | 68 |
| 51 | Complex Tissue and Disease Modeling using hiPSCs. <i>Cell Stem Cell</i> , 2016 , 18, 309-21 | 18 | 99 |
| 50 | Concise Review: Fluorescent Reporters in Human Pluripotent Stem Cells: Contributions to Cardiac Differentiation and Their Applications in Cardiac Disease and Toxicity. <i>Stem Cells</i> , 2016 , 34, 13-26 | 5.8 | 17 |
| 49 | Expansion and patterning of cardiovascular progenitors derived from human pluripotent stem cells. <i>Nature Biotechnology</i> , 2015 , 33, 970-9 | 44.5 | 137 |
| 48 | Contractile Defect Caused by Mutation in MYBPC3 Revealed under Conditions Optimized for Human PSC-Cardiomyocyte Function. <i>Cell Reports</i> , 2015 , 13, 733-745 | 10.6 | 119 |
| 47 | Transcriptome of human foetal heart compared with cardiomyocytes from pluripotent stem cells. <i>Development (Cambridge)</i> , 2015 , 142, 3231-8 | 6.6 | 102 |
| 46 | Dual reporter MESP1 mCherry/w-NKX2-5 eGFP/w hESCs enable studying early human cardiac differentiation. <i>Stem Cells</i> , 2015 , 33, 56-67 | 5.8 | 53 |
| 45 | Atrial-like cardiomyocytes from human pluripotent stem cells are a robust preclinical model for assessing atrial-selective pharmacology. <i>EMBO Molecular Medicine</i> , 2015 , 7, 394-410 | 12 | 212 |
| 44 | Altered calcium handling and increased contraction force in human embryonic stem cell derived cardiomyocytes following short term dexamethasone exposure. <i>Biochemical and Biophysical Research Communications</i> , 2015 , 467, 998-1005 | 3.4 | 20 |

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| 43 | KeyGenes, a Tool to Probe Tissue Differentiation Using a Human Fetal Transcriptional Atlas. <i>Stem Cell Reports</i> , 2015 , 4, 1112-24 | 8 | 78 |
| 42 | Functional maturation of human pluripotent stem cell derived cardiomyocytes in vitro--correlation between contraction force and electrophysiology. <i>Biomaterials</i> , 2015 , 51, 138-150 | 15.6 | 144 |
| 41 | Transcribed enhancers lead waves of coordinated transcription in transitioning mammalian cells. <i>Science</i> , 2015 , 347, 1010-4 | 33.3 | 384 |
| 40 | A promoter-level mammalian expression atlas. <i>Nature</i> , 2014 , 507, 462-70 | 50.4 | 1301 |
| 39 | Sarcosin (Krp1) in skeletal muscle differentiation: gene expression profiling and knockdown experiments. <i>International Journal of Developmental Biology</i> , 2012 , 56, 301-9 | 1.9 | 11 |
| 38 | Funny current channel HCN4 delineates the developing cardiac conduction system in chicken heart. <i>Heart Rhythm</i> , 2011 , 8, 1254-63 | 6.7 | 32 |
| 37 | NKX2-5(eGFP/w) hESCs for isolation of human cardiac progenitors and cardiomyocytes. <i>Nature Methods</i> , 2011 , 8, 1037-40 | 21.6 | 321 |
| 36 | Cytoskeletal heart-enriched actin-associated protein (CHAP) is expressed in striated and smooth muscle cells in chick and mouse during embryonic and adult stages. <i>International Journal of Developmental Biology</i> , 2011 , 55, 649-55 | 1.9 | 7 |
| 35 | Human embryonic and fetal mesenchymal stem cells differentiate toward three different cardiac lineages in contrast to their adult counterparts. <i>PLoS ONE</i> , 2011 , 6, e24164 | 3.7 | 58 |
| 34 | Molecular analysis of patterning of conduction tissues in the developing human heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2011 , 4, 532-42 | 6.4 | 64 |
| 33 | Electrical activation of sinus venosus myocardium and expression patterns of RhoA and Isl-1 in the chick embryo. <i>Journal of Cardiovascular Electrophysiology</i> , 2010 , 21, 1284-92 | 2.7 | 26 |
| 32 | Inhibition of ROCK improves survival of human embryonic stem cell-derived cardiomyocytes after dissociation. <i>Annals of the New York Academy of Sciences</i> , 2010 , 1188, 52-7 | 6.5 | 29 |
| 31 | CHAP is a newly identified Z-disc protein essential for heart and skeletal muscle function. <i>Journal of Cell Science</i> , 2010 , 123, 1141-50 | 5.3 | 44 |
| 30 | Sox2 transduction enhances cardiovascular repair capacity of blood-derived mesoangioblasts. <i>Circulation Research</i> , 2010 , 106, 1290-302 | 15.7 | 28 |
| 29 | Getting to the heart of the matter: direct reprogramming to cardiomyocytes. <i>Cell Stem Cell</i> , 2010 , 7, 139-41 | 18 | 14 |
| 28 | Identification of cell surface proteins for antibody-based selection of human embryonic stem cell-derived cardiomyocytes. <i>Journal of Proteome Research</i> , 2010 , 9, 1610-8 | 5.6 | 84 |
| 27 | Prediction of drug-induced cardiotoxicity using human embryonic stem cell-derived cardiomyocytes. <i>Stem Cell Research</i> , 2010 , 4, 107-16 | 1.6 | 297 |
| 26 | Cardiomyocytes from human pluripotent stem cells in regenerative medicine and drug discovery. <i>Trends in Pharmacological Sciences</i> , 2009 , 30, 536-45 | 13.2 | 66 |

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| 25 | Improvement of mouse cardiac function by hESC-derived cardiomyocytes correlates with vascularity but not graft size. <i>Stem Cell Research</i> , 2009 , 3, 106-12 | 1.6 | 63 |
| 24 | Stem-cell-based therapy and lessons from the heart. <i>Nature</i> , 2008 , 453, 322-9 | 50.4 | 465 |
| 23 | Improved genetic manipulation of human embryonic stem cells. <i>Nature Methods</i> , 2008 , 5, 389-92 | 21.6 | 87 |
| 22 | Feeder-free culture of human embryonic stem cells in conditioned medium for efficient genetic modification. <i>Nature Protocols</i> , 2008 , 3, 1435-43 | 18.8 | 67 |
| 21 | Human embryonic stem cell-derived cardiomyocytes and cardiac repair in rodents. <i>Circulation Research</i> , 2008 , 102, 1008-10 | 15.7 | 204 |
| 20 | Insulin redirects differentiation from cardiogenic mesoderm and endoderm to neuroectoderm in differentiating human embryonic stem cells. <i>Stem Cells</i> , 2008 , 26, 724-33 | 5.8 | 94 |
| 19 | Recombinant vitronectin is a functionally defined substrate that supports human embryonic stem cell self-renewal via alphavbeta5 integrin. <i>Stem Cells</i> , 2008 , 26, 2257-65 | 5.8 | 335 |
| 18 | Characterization of human embryonic stem cell lines by the International Stem Cell Initiative. <i>Nature Biotechnology</i> , 2007 , 25, 803-16 | 44.5 | 857 |
| 17 | Monitoring of cell therapy and assessment of cardiac function using magnetic resonance imaging in a mouse model of myocardial infarction. <i>Nature Protocols</i> , 2007 , 2, 2551-67 | 18.8 | 69 |
| 16 | Human embryonic stem cell-derived cardiomyocytes survive and mature in the mouse heart and transiently improve function after myocardial infarction. <i>Stem Cell Research</i> , 2007 , 1, 9-24 | 1.6 | 338 |
| 15 | A quest for human and mouse embryonic stem cell-specific proteins. <i>Molecular and Cellular Proteomics</i> , 2006 , 5, 1261-73 | 7.6 | 107 |
| 14 | Genome-wide transcriptional profiling of human embryonic stem cells differentiating to cardiomyocytes. <i>Stem Cells</i> , 2006 , 24, 1956-67 | 5.8 | 158 |
| 13 | Human embryonic stem cells: towards therapies for cardiac disease. Derivation of a Dutch human embryonic stem cell line. <i>Reproductive BioMedicine Online</i> , 2005 , 11, 476-85 | 4 | 17 |
| 12 | Cardiomyocyte differentiation from embryonic and adult stem cells. <i>Current Opinion in Biotechnology</i> , 2005 , 16, 498-502 | 11.4 | 47 |
| 11 | Increased cardiomyocyte differentiation from human embryonic stem cells in serum-free cultures. <i>Stem Cells</i> , 2005 , 23, 772-80 | 5.8 | 291 |
| 10 | Human embryonic stem cells: genetic manipulation on the way to cardiac cell therapies. <i>Reproductive Toxicology</i> , 2005 , 20, 377-91 | 3.4 | 48 |
| 9 | Adenoviral transfer of endothelial nitric oxide synthase attenuates lesion formation in a novel murine model of postangioplasty restenosis. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2004 , 24, 357-62 | 9.4 | 20 |
| 8 | Differentiation of human embryonic stem cells to cardiomyocytes: role of coculture with visceral endoderm-like cells. <i>Circulation</i> , 2003 , 107, 2733-40 | 16.7 | 1012 |

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| 7 | Origin and use of embryonic and adult stem cells in differentiation and tissue repair. <i>Cardiovascular Research</i> , 2003 , 58, 324-35 | 9.9 | 91 |
| 6 | Calmodulin kinase II and arrhythmias in a mouse model of cardiac hypertrophy. <i>Circulation</i> , 2002 , 106, 1288-93 | 16.7 | 216 |
| 5 | Modulation of cardiac growth and development by HOP, an unusual homeodomain protein. <i>Cell</i> , 2002 , 110, 725-35 | 56.2 | 203 |
| 4 | CHAMP, a novel cardiac-specific helicase regulated by MEF2C. <i>Developmental Biology</i> , 2001 , 234, 497-509 | 3.1 | 37 |
| 3 | Oracle, a novel PDZ-LIM domain protein expressed in heart and skeletal muscle. <i>Mechanisms of Development</i> , 2000 , 92, 277-84 | 1.7 | 63 |
| 2 | CaM kinase signaling induces cardiac hypertrophy and activates the MEF2 transcription factor in vivo. <i>Journal of Clinical Investigation</i> , 2000 , 105, 1395-406 | 15.9 | 380 |
| 1 | Generation and Culture of Cardiac Microtissues in a Microfluidic Chip with a Reversible Open Top Enables Electrical Pacing, Dynamic Drug Dosing and Endothelial Cell Co-Culture. <i>Advanced Materials Technologies</i> , 2101355 | 6.8 | 2 |