

# Heinrich Sauer

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6771401/publications.pdf>

Version: 2024-02-01

81  
papers

5,028  
citations

109321

35  
h-index

95266

68  
g-index

82  
all docs

82  
docs citations

82  
times ranked

6427  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reactive Oxygen Species as Intracellular Messengers During Cell Growth and Differentiation. Cellular Physiology and Biochemistry, 2001, 11, 173-186.	1.6	980
2	Regulation of the multidrug resistance transporter P-glycoprotein in multicellular tumor spheroids by hypoxia-inducible factor-1 and reactive oxygen species. FASEB Journal, 2003, 17, 1-22.	0.5	243
3	Embryonic stem cells utilize reactive oxygen species as transducers of mechanical strain-induced cardiovascular differentiation. FASEB Journal, 2006, 20, 1182-1184.	0.5	243
4	Role of reactive oxygen species and phosphatidylinositol 3-kinase in cardiomyocyte differentiation of embryonic stem cells. FEBS Letters, 2000, 476, 218-223.	2.8	220
5	Cardiac specific differentiation of mouse embryonic stem cells. Cardiovascular Research, 2003, 58, 278-291.	3.8	201
6	Effects of electrical fields on cardiomyocyte differentiation of embryonic stem cells. , 1999, 75, 710-723.		191
7	Stimulation of ES-cell-derived cardiomyogenesis and neonatal cardiac cell proliferation by reactive oxygen species and NADPH oxidase. Journal of Cell Science, 2007, 120, 885-894.	2.0	158
8	Tumor-induced angiogenesis studied in confrontation cultures of multicellular tumor spheroids and embryoid bodies grown from pluripotent embryonic stem cells. FASEB Journal, 2001, 15, 995-1005.	0.5	142
9	Tumor-induced angiogenesis studied in confrontation cultures of multicellular tumor spheroids and embryoid bodies grown from pluripotent embryonic stem cells. FASEB Journal, 2001, 15, 995-1005.	0.5	126
10	Reactive Oxygen Species as Signaling Molecules in Cardiovascular Differentiation of Embryonic Stem Cells and Tumor-Induced Angiogenesis. Antioxidants and Redox Signaling, 2005, 7, 1423-1434.	5.4	124
11	Thalidomide Inhibits Angiogenesis in Embryoid Bodies by the Generation of Hydroxyl Radicals. American Journal of Pathology, 2000, 156, 151-158.	3.8	108
12	Down-regulation of Intrinsic P-glycoprotein Expression in Multicellular Prostate Tumor Spheroids by Reactive Oxygen Species. Journal of Biological Chemistry, 2001, 276, 17420-17428.	3.4	98
13	Identification and characterization of embryonic stem cell-derived pacemaker and atrial cardiomyocytes. FASEB Journal, 2005, 19, 1-25.	0.5	98
14	Redox control of angiogenic factors and CD31-positive vessel-like structures in mouse embryonic stem cells after direct current electrical field stimulation. Experimental Cell Research, 2005, 304, 380-390.	2.6	86
15	Platelet-derived growth factor BB stimulates vasculogenesis of embryonic stem cell-derived endothelial cells by calcium-mediated generation of reactive oxygen species. Cardiovascular Research, 2009, 81, 159-168.	3.8	83
16	The Antimalaria Agent Artemisinin Exerts Antiangiogenic Effects in Mouse Embryonic Stem Cell-Derived Embryoid Bodies. Laboratory Investigation, 2003, 83, 1647-1655.	3.7	80
17	Inhibition of Tumor-Induced Angiogenesis and Matrix-Metalloproteinase Expression in Confrontation Cultures of Embryoid Bodies and Tumor Spheroids by Plant Ingredients Used in Traditional Chinese Medicine. Laboratory Investigation, 2003, 83, 87-98.	3.7	79
18	Involvement of reactive oxygen species in cardiotrophin-1-induced proliferation of cardiomyocytes differentiated from murine embryonic stem cells. Experimental Cell Research, 2004, 294, 313-324.	2.6	78

#	ARTICLE	IF	CITATIONS
19	Reactive oxygen species-linked regulation of the multidrug resistance transporter P-glycoprotein in Nox-1 overexpressing prostate tumor spheroids. <i>FEBS Letters</i> , 2005, 579, 4541-4549.	2.8	71
20	Regulation of cardiotrophin-1 expression in mouse embryonic stem cells by HIF-1 $\alpha$ and intracellular reactive oxygen species. <i>Journal of Cell Science</i> , 2006, 119, 1043-1052.	2.0	71
21	Regulation of the multidrug resistance transporter P-glycoprotein in multicellular prostate tumor spheroids by hyperthermia and reactive oxygen species. <i>International Journal of Cancer</i> , 2005, 113, 229-240.	5.1	70
22	Development of an intrinsic P-glycoprotein-mediated doxorubicin resistance in quiescent cell layers of large, multicellular prostate tumor spheroids. , 1998, 75, 855-863.		68
23	Peroxisome Proliferator-Activated Receptor $\alpha$ Agonists Enhance Cardiomyogenesis of Mouse ES Cells by Utilization of a Reactive Oxygen Species-Dependent Mechanism. <i>Stem Cells</i> , 2008, 26, 64-71.	3.2	66
24	VEGF-mediated PI3K class IA and PKC signaling in cardiomyogenesis and vasculogenesis of mouse embryonic stem cells. <i>Journal of Cell Science</i> , 2011, 124, 1819-1830.	2.0	64
25	Anticonvulsant valproic acid inhibits cardiomyocyte differentiation of embryonic stem cells by increasing intracellular levels of reactive oxygen species. <i>Birth Defects Research Part A: Clinical and Molecular Teratology</i> , 2003, 67, 174-180.	1.6	60
26	Activation of p90RSK and growth stimulation of multicellular tumor spheroids are dependent on reactive oxygen species generated after purinergic receptor stimulation by ATP. <i>FASEB Journal</i> , 2001, 15, 2539-2541.	0.5	57
27	Hypoxia, Leptin, and Vascular Endothelial Growth Factor Stimulate Vascular Endothelial Cell Differentiation of Human Adipose Tissue-Derived Stem Cells. <i>Stem Cells and Development</i> , 2014, 23, 333-351.	2.1	56
28	The acute phase protein $\alpha$ 2-macroglobulin induces rat ventricular cardiomyocyte hypertrophy via ERK1,2 and PI3-kinase/Akt pathways. <i>Cardiovascular Research</i> , 2007, 75, 118-128.	3.8	55
29	Regulation of intrinsic prion protein by growth factors and tnf- $\alpha$ : the role of intracellular reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2003, 35, 586-594.	2.9	54
30	Redox regulation of P-glycoprotein-mediated multidrug resistance in multicellular prostate tumor spheroids. <i>International Journal of Cancer</i> , 2000, 85, 267-274.	5.1	53
31	Doxorubicin distribution in multicellular prostate cancer spheroids evaluated by confocal laser scanning microscopy and the optical probe technique?. , 1998, 31, 137-145.		51
32	Redox regulation of P-glycoprotein-mediated multidrug resistance in multicellular prostate tumor spheroids. <i>International Journal of Cancer</i> , 2000, 85, 267.	5.1	49
33	Glycolytic pyruvate regulates P-glycoprotein expression in multicellular tumor spheroids via modulation of the intracellular redox state. <i>Journal of Cellular Biochemistry</i> , 2010, 109, 434-446.	2.6	48
34	Direct current electrical fields induce apoptosis in oral mucosa cancer cells by NADPH oxidase-derived reactive oxygen species. <i>Bioelectromagnetics</i> , 2008, 29, 47-54.	1.6	44
35	Static magnetic fields increase cardiomyocyte differentiation of Flk-1+ cells derived from mouse embryonic stem cells via Ca <sup>2+</sup> influx and ROS production. <i>International Journal of Cardiology</i> , 2013, 167, 798-808.	1.7	43
36	Reconstruction of critical-size mandibular defects in immunoincompetent rats with human adipose-derived stromal cells. <i>Journal of Cranio-Maxillo-Facial Surgery</i> , 2013, 41, 496-503.	1.7	42

#	ARTICLE	IF	CITATIONS
37	Spontaneous Calcium Oscillations in Embryonic Stem Cell-Derived Primitive Endodermal Cells. <i>Experimental Cell Research</i> , 1998, 238, 13-22.	2.6	38
38	Î²-adrenergic receptor antagonists inhibit vasculogenesis of embryonic stem cells by downregulation of nitric oxide generation and interference with VEGF signalling. <i>Cell and Tissue Research</i> , 2014, 358, 443-452.	2.9	38
39	The Multifunctional Contribution of FGF Signaling to Cardiac Development, Homeostasis, Disease and Repair. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 672935.	3.7	38
40	Static Electromagnetic Fields Induce Vasculogenesis and Chondro-Osteogenesis of Mouse Embryonic Stem Cells by Reactive Oxygen Species-Mediated Up-Regulation of Vascular Endothelial Growth Factor. <i>Stem Cells and Development</i> , 2010, 19, 731-743.	2.1	35
41	NADPH oxidase and eNOS control cardiomyogenesis in mouse embryonic stem cells on ascorbic acid treatment. <i>Free Radical Biology and Medicine</i> , 2011, 51, 432-443.	2.9	35
42	Intracellular redox state: towards quantitative description. <i>European Biophysics Journal</i> , 2005, 34, 937-942.	2.2	33
43	Modulation of intrinsic P-glycoprotein expression in multicellular prostate tumor spheroids by cell cycle inhibitors. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2002, 1589, 49-62.	4.1	31
44	Activation of AMP-kinase by AICAR induces apoptosis of DU-145 prostate cancer cells through generation of reactive oxygen species and activation of c-Jun N-terminal kinase. <i>International Journal of Oncology</i> , 2012, 40, 501-8.	3.3	28
45	Mechanical strain stimulates vasculogenesis and expression of angiogenesis guidance molecules of embryonic stem cells through elevation of intracellular calcium, reactive oxygen species and nitric oxide generation. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016, 1863, 3096-3105.	4.1	28
46	NOS inhibition synchronizes calcium oscillations in human adipose tissueâ€derived mesenchymal stem cells by increasing gapâ€junctional coupling. <i>Journal of Cellular Physiology</i> , 2011, 226, 1642-1650.	4.1	23
47	TRPC3 regulates the automaticity of embryonic stem cell-derived cardiomyocytes. <i>International Journal of Cardiology</i> , 2016, 203, 169-181.	1.7	22
48	Î± <sub>2</sub> -Macroglobulin Enhances Vasculogenesis/Angiogenesis of Mouse Embryonic Stem Cells by Stimulation of Nitric Oxide Generation and Induction of Fibroblast Growth Factor-2 Expression. <i>Stem Cells and Development</i> , 2013, 22, 1443-1454.	2.1	21
49	The DC electrical-field-induced Ca(2+) response and growth stimulation of multicellular tumor spheroids are mediated by ATP release and purinergic receptor stimulation. <i>Journal of Cell Science</i> , 2002, 115, 3265-73.	2.0	21
50	Redox Buffer Capacity of the Cell: Theoretical and Experimental Approach. <i>Cell Biochemistry and Biophysics</i> , 2010, 58, 75-83.	1.8	20
51	Control of leucocyte differentiation from embryonic stem cells upon vasculogenesis and confrontation with tumour tissue. <i>Journal of Cellular and Molecular Medicine</i> , 2010, 14, 303-312.	3.6	18
52	Embryonic Stem Cells as a Model for the Physiological Analysis of the Cardiovascular System. , 2002, 185, 169-187.		16
53	Hypotonic Ca <sup>2+</sup> signaling and volume regulation in proliferating and quiescent cells from multicellular spheroids. , 1998, 175, 129-140.		15
54	Regulation of multiple transcription factors by reactive oxygen species and effects of pro-inflammatory cytokines released during myocardial infarction on cardiac differentiation of embryonic stem cells. <i>International Journal of Cardiology</i> , 2013, 168, 3458-3472.	1.7	15

#	ARTICLE	IF	CITATIONS
55	Stimulation of vasculogenesis and leukopoiesis of embryonic stem cells by extracellular transfer RNA and ribosomal RNA. <i>Free Radical Biology and Medicine</i> , 2015, 89, 1203-1217.	2.9	15
56	Redox Stimulation of Cardiomyogenesis <i> Versus</i> Inhibition of Vasculogenesis Upon Treatment of Mouse Embryonic Stem Cells with Thalidomide. <i>Antioxidants and Redox Signaling</i> , 2010, 13, 1813-1827.	5.4	14
57	Reactive Oxygen Species and Upregulation of NADPH Oxidases in Mechanotransduction of Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2008, 477, 397-418.	0.9	13
58	Transmitting biological information using oxygen: Reactive oxygen species as signalling molecules in cardiovascular pathophysiology. <i>Cardiovascular Research</i> , 2006, 71, 191-194.	3.8	12
59	Differential effects of high and low strength magnetic fields on mouse embryonic development and vasculogenesis of embryonic stem cells. <i>Reproductive Toxicology</i> , 2016, 65, 46-58.	2.9	12
60	Involvement of phosphoinositide 3-kinase class IA (PI3K 110 $\hat{\pm}$ ) and NADPH oxidase 1 (NOX1) in regulation of vascular differentiation induced by vascular endothelial growth factor (VEGF) in mouse embryonic stem cells. <i>Cell and Tissue Research</i> , 2016, 364, 159-174.	2.9	12
61	Stimulation of Cardiomyogenesis of Embryonic Stem Cells by Nitric Oxide Downstream of AMP-Activated Protein Kinase and mTOR Signaling Pathways. <i>Stem Cells and Development</i> , 2011, 20, 2163-2175.	2.1	11
62	Stimulation of cardiomyogenesis from mouse embryonic stem cells by nuclear translocation of cardiotrophin-1. <i>International Journal of Cardiology</i> , 2015, 193, 23-33.	1.7	10
63	Omega $\hat{\text{€}}$ 3 and Omega $\hat{\text{€}}$ 6 polyunsaturated fatty acids stimulate vascular differentiation of mouse embryonic stem cells. <i>Journal of Cellular Physiology</i> , 2020, 235, 7094-7106.	4.1	10
64	Impact of Arachidonic Acid and the Leukotriene Signaling Pathway on Vasculogenesis of Mouse Embryonic Stem Cells. <i>Cells Tissues Organs</i> , 2016, 201, 319-332.	2.3	9
65	Silibinin from <i>Silybum marianum</i> Stimulates Embryonic Stem Cell Vascular Differentiation via the STAT3/PI3-K/AKT Axis and Nitric Oxide. <i>Planta Medica</i> , 2018, 84, 768-778.	1.3	9
66	The nicotinamide phosphoribosyltransferase antagonist FK866 inhibits growth of prostate tumour spheroids and increases doxorubicin retention without changes in drug transporter and cancer stem cell protein expression. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2021, 48, 422-434.	1.9	9
67	Cardiomyogenesis of embryonic stem cells upon purinergic receptor activation by ADP and ATP. <i>Purinergic Signalling</i> , 2015, 11, 491-506.	2.2	8
68	Differential expression of islet glutaredoxin 1 and 5 with high reactive oxygen species production in a mouse model of diabetes. <i>PLoS ONE</i> , 2017, 12, e0176267.	2.5	8
69	Regulation of somatostatin expression by vitamin D3 and valproic acid in human adipose-derived mesenchymal stem cells. <i>Stem Cell Research and Therapy</i> , 2019, 10, 240.	5.5	7
70	Antibacterial Capacity of Differentiated Murine Embryonic Stem Cells During Defined In Vitro Inflammatory Conditions. <i>Stem Cells and Development</i> , 2013, 22, 1977-1990.	2.1	6
71	Induction of Stem-Cell-Derived Cardiomyogenesis by Fibroblast Growth Factor 10 (FGF10) and Its Interplay with Cardiotrophin-1 (CT-1). <i>Biology</i> , 2022, 11, 534.	2.8	5
72	Embryonic Stem Cells for Tissue Biocompatibility, Angiogenesis, and Inflammation Testing. <i>Cells Tissues Organs</i> , 2017, 204, 1-12.	2.3	3

#	ARTICLE	IF	CITATIONS
73	Extracellular and Intracellular Angiotensin II Regulate the Automaticity of Developing Cardiomyocytes via Different Signaling Pathways. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 699827.	3.5	3
74	Loss and Recovery of Glutaredoxin 5 Is Inducible by Diet in a Murine Model of Diabetes and Mediated by Free Fatty Acids In Vitro. <i>Antioxidants</i> , 2022, 11, 788.	5.1	3
75	Stem Cell Spheroid-Based Sprout Assay in Three-Dimensional Fibrin Scaffold: A Novel In Vitro Model for the Study of Angiogenesis. <i>Methods in Molecular Biology</i> , 2016, 1430, 179-189.	0.9	2
76	The milk thistle ( <i>Silybum marianum</i> ) compound Silibinin stimulates leukopoiesis from mouse embryonic stem cells. <i>Phytotherapy Research</i> , 2019, 33, 452-460.	5.8	2
77	Stem/Progenitor Cells in Cardiopulmonary Health, Disease, and Treatment. <i>Stem Cells International</i> , 2019, 2019, 1-4.	2.5	2
78	The Milk Thistle ( <i>Silybum marianum</i> ) Compound Silibinin Inhibits Cardiomyogenesis of Embryonic Stem Cells by Interfering with Angiotensin II Signaling. <i>Stem Cells International</i> , 2018, 2018, 1-10.	2.5	1
79	Mitochondrial G8292A and C8794T mutations in patients with Niemann-Pick disease type C. <i>Biomedical Reports</i> , 2018, 9, 65-73.	2.0	1
80	Zoxazolamine-induced stimulation of cardiomyogenesis from embryonic stem cells is mediated by Ca <sup>2+</sup> , nitric oxide and ATP release. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2020, 1867, 118796.	4.1	1
81	Reactive Oxygen and Nitrogen Species in Cardiovascular Differentiation of Stem Cells. , 2010, , 61-85.		1