

Ulrich FlÄngel

List of Publications by Year in descending order

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111
papers

5,237
citations

81900

39
h-index

91884

69
g-index

111
all docs

111
docs citations

111
times ranked

6889
citing authors

#	ARTICLE	IF	CITATIONS
1	In Vivo Monitoring of Inflammation After Cardiac and Cerebral Ischemia by Fluorine Magnetic Resonance Imaging. <i>Circulation</i> , 2008, 118, 140-148.	1.6	306
2	Nitrite Reductase Function of Deoxymyoglobin. <i>Circulation Research</i> , 2007, 100, 1749-1754.	4.5	270
3	RIP3, a kinase promoting necroptotic cell death, mediates adverse remodelling after myocardial infarction. <i>Cardiovascular Research</i> , 2014, 103, 206-216.	3.8	257
4	Targeted Disruption of <i>CD73</i> /Ecto-5'-Nucleotidase Alters Thromboregulation and Augments Vascular Inflammatory Response. <i>Circulation Research</i> , 2004, 95, 814-821.	4.5	220
5	Taurine transporter knockout depletes muscle taurine levels and results in severe skeletal muscle impairment but leaves cardiac function uncompromised. <i>FASEB Journal</i> , 2004, 18, 577-579.	0.5	156
6	Role of myoglobin in the antioxidant defense of the heart. <i>FASEB Journal</i> , 2004, 18, 1156-1158.	0.5	140
7	Probing different perfluorocarbons for <i>in vivo</i> inflammation imaging by ¹⁹ F MRI: image reconstruction, biological half-lives and sensitivity. <i>NMR in Biomedicine</i> , 2014, 27, 261-271.	2.8	138
8	Cardiac-Specific Overexpression of Inducible Nitric Oxide Synthase Does Not Result in Severe Cardiac Dysfunction. <i>Circulation Research</i> , 2002, 90, 93-99.	4.5	134
9	Mechanisms of Insulin Resistance in Primary and Secondary Nonalcoholic Fatty Liver. <i>Diabetes</i> , 2017, 66, 2241-2253.	0.6	124
10	Iron-regulatory proteins secure iron availability in cardiomyocytes to prevent heart failure. <i>European Heart Journal</i> , 2016, 38, ehw333.	2.2	115
11	SGK1-dependent cardiac CTGF formation and fibrosis following DOCA treatment. <i>Journal of Molecular Medicine</i> , 2006, 84, 396-404.	3.9	111
12	Selective Activation of Adenosine A _{2A} Receptors on Immune Cells by a CD73-Dependent Prodrug Suppresses Joint Inflammation in Experimental Rheumatoid Arthritis. <i>Science Translational Medicine</i> , 2012, 4, 146ra108.	12.4	111
13	Early Assessment of Pulmonary Inflammation by ¹⁹ F MRI In Vivo. <i>Circulation: Cardiovascular Imaging</i> , 2010, 3, 202-210.	2.6	108
14	Chronic liver disease is triggered by taurine transporter knockout in the mouse. <i>FASEB Journal</i> , 2006, 20, 574-576.	0.5	106
15	Survivin Determines Cardiac Function by Controlling Total Cardiomyocyte Number. <i>Circulation</i> , 2008, 117, 1583-1593.	1.6	105
16	¹⁹ F magnetic resonance imaging of endogenous macrophages in inflammation. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2012, 4, 329-343.	6.1	97
17	The natriuretic peptide/guanylyl cyclase- <i>A</i> system functions as a stress-responsive regulator of angiogenesis in mice. <i>Journal of Clinical Investigation</i> , 2009, 119, 2019-2030.	8.2	95
18	Targeting sphingosine-1-phosphate lyase as an anabolic therapy for bone loss. <i>Nature Medicine</i> , 2018, 24, 667-678.	30.7	93

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19	Myoglobin facilitates oxygen diffusion. <i>FASEB Journal</i> , 2001, 15, 1077-1079.	0.5	92
20	Contribution of NO to Ischemia-Reperfusion Injury in the Saline-Perfused Heart: a Study in Endothelial NO Synthase Knockout Mice. <i>Journal of Molecular and Cellular Cardiology</i> , 1999, 31, 827-836.	1.9	90
21	Noninvasive Imaging of Early Venous Thrombosis by ¹⁹ F Magnetic Resonance Imaging With Targeted Perfluorocarbon Nanoemulsions. <i>Circulation</i> , 2015, 131, 1405-1414.	1.6	79
22	Myocardial T2 mapping reveals age- and sex-related differences in volunteers. <i>Journal of Cardiovascular Magnetic Resonance</i> , 2015, 17, 9.	3.3	77
23	Myoglobin Protects the Heart from Inducible Nitric-oxide Synthase (iNOS)-mediated Nitrosative Stress. <i>Journal of Biological Chemistry</i> , 2003, 278, 21761-21766.	3.4	76
24	CD73 on T Cells Orchestrates Cardiac Wound Healing After Myocardial Infarction by Purinergic Metabolic Reprogramming. <i>Circulation</i> , 2017, 136, 297-313.	1.6	68
25	Loss of UCP2 Attenuates Mitochondrial Dysfunction without Altering ROS Production and Uncoupling Activity. <i>PLoS Genetics</i> , 2014, 10, e1004385.	3.5	63
26	Noninvasive Detection of Graft Rejection by In Vivo ¹⁹ F MRI in the Early Stage. <i>American Journal of Transplantation</i> , 2011, 11, 235-244.	4.7	61
27	Acute Inhibition of Myoglobin Impairs Contractility and Energy State of iNOS-Overexpressing Hearts. <i>Circulation Research</i> , 2003, 92, 1352-1358.	4.5	59
28	Lack of Myoglobin Causes a Switch in Cardiac Substrate Selection. <i>Circulation Research</i> , 2005, 96, e68-75.	4.5	57
29	Effects of Ammonia Exposition on Glioma Cells: Changes in Cell Volume and Organic Osmolytes Studied by Diffusion-Weighted and High-Resolution NMR Spectroscopy. <i>Developmental Neuroscience</i> , 2000, 22, 463-471.	2.0	54
30	Keeping the heart in balance: the functional interactions of myoglobin with nitrogen oxides. <i>Journal of Experimental Biology</i> , 2010, 213, 2726-2733.	1.7	52
31	Fluorine MR Imaging of Inflammation in Atherosclerotic Plaque in Vivo. <i>Radiology</i> , 2015, 275, 421-429.	7.3	50
32	Direct comparison of magnetic resonance imaging and conductance microcatheter in the evaluation of left ventricular function in mice. <i>Basic Research in Cardiology</i> , 2006, 101, 87-95.	5.9	48
33	Methods Employed for Induction and Analysis of Experimental Myocardial Infarction in Mice. <i>Cellular Physiology and Biochemistry</i> , 2011, 28, 1-12.	1.6	48
34	Cardiac Hyaluronan Synthesis Is Critically Involved in the Cardiac Macrophage Response and Promotes Healing After Ischemia Reperfusion Injury. <i>Circulation Research</i> , 2019, 124, 1433-1447.	4.5	47
35	Oxygen supply and nitric oxide scavenging by myoglobin contribute to exercise endurance and cardiac function. <i>FASEB Journal</i> , 2005, 19, 1015-1017.	0.5	46
36	Regulation of intracellular pH in neuronal and glial tumour cells, studied by multinuclear NMR spectroscopy. <i>NMR in Biomedicine</i> , 1994, 7, 157-166.	2.8	42

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37	Development of a Growing Rat Model for the In Vivo Assessment of Engineered Aortic Conduits. <i>Journal of Surgical Research</i> , 2012, 176, 367-375.	1.6	42
38	Ecto-5'-Nucleotidase on Immune Cells Protects From Adverse Cardiac Remodeling. <i>Circulation Research</i> , 2013, 113, 301-312.	4.5	42
39	Cardiospecific Overexpression of the Prostaglandin EP3 Receptor Attenuates Ischemia-Induced Myocardial Injury. <i>Circulation</i> , 2005, 112, 400-406.	1.6	40
40	Development and pathomechanisms of cardiomyopathy in very long-chain acyl-CoA dehydrogenase deficient (VLCAD ^{-/-}) mice. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 677-685.	3.8	40
41	In vivo 2D mapping of impaired murine cardiac energetics in NO-induced heart failure. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 50-58.	3.0	39
42	Visualization of immune cell infiltration in experimental viral myocarditis by 19F MRI in vivo. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2014, 27, 101-106.	2.0	38
43	The Osmolyte Taurine Protects against Ultraviolet B Radiation-Induced Immunosuppression. <i>Journal of Immunology</i> , 2007, 179, 3604-3612.	0.8	35
44	Decreased contractility due to energy deprivation in a transgenic rat model of hypertrophic cardiomyopathy. <i>Journal of Molecular Medicine</i> , 2009, 87, 411-422.	3.9	34
45	Nrf2 Deficiency Unmasks the Significance of Nitric Oxide Synthase Activity for Cardioprotection. <i>Oxidative Medicine and Cellular Longevity</i> , 2018, 2018, 1-15.	4.0	34
46	Anaemia is associated with severe RBC dysfunction and a reduced circulating NO pool: vascular and cardiac eNOS are crucial for the adaptation to anaemia. <i>Basic Research in Cardiology</i> , 2020, 115, 43.	5.9	34
47	Technical Advance: Monitoring the trafficking of neutrophil granulocytes and monocytes during the course of tissue inflammation by noninvasive 19F MRI. <i>Journal of Leukocyte Biology</i> , 2014, 95, 689-697.	3.3	33
48	In vivo clearance of 19F MRI imaging nanocarriers is strongly influenced by nanoparticle ultrastructure. <i>Biomaterials</i> , 2020, 261, 120307.	11.4	33
49	Myoglobin facilitates oxygen diffusion. <i>FASEB Journal</i> , 2001, 15, 1077-1079.	0.5	32
50	Nitrosative Stress Leads to Protein Glutathiolation, Increased S-Nitrosation, and Up-regulation of Peroxiredoxins in the Heart. <i>Journal of Biological Chemistry</i> , 2008, 283, 17440-17449.	3.4	31
51	Insulin Resistance and Vulnerability to Cardiac Ischemia. <i>Diabetes</i> , 2018, 67, 2695-2702.	0.6	31
52	Multi-targeted 1H/19F MRI unmasks specific danger patterns for emerging cardiovascular disorders. <i>Nature Communications</i> , 2021, 12, 5847.	12.8	31
53	Disrupted fat distribution and composition due to medium-chain triglycerides in mice with a β -oxidation defect. <i>American Journal of Clinical Nutrition</i> , 2011, 94, 439-449.	4.7	30
54	Myocardial T2 Mapping Increases Noninvasive Diagnostic Accuracy for Biopsy-Proven Myocarditis. <i>JACC: Cardiovascular Imaging</i> , 2016, 9, 1467-1469.	5.3	30

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55	Simultaneous Assessment of Cardiac Inflammation and Extracellular Matrix Remodeling After Myocardial Infarction. <i>Circulation: Cardiovascular Imaging</i> , 2018, 11, .	2.6	30
56	A1H/13C inverse 2D method for the analysis of the polyamines putrescine, spermidine and spermine in cell extracts and biofluids. , 1998, 11, 47-54.		29
57	In vitro differentiation of unrestricted somatic stem cells into functional hepatic-like cells displaying a hepatocyte-like glucose metabolism. <i>Journal of Cellular Physiology</i> , 2010, 225, 545-554.	4.1	29
58	A novel physiological role for cardiac myoglobin in lipid metabolism. <i>Scientific Reports</i> , 2017, 7, 43219.	3.3	29
59	Adaptation of the myoglobin knockout mouse to hypoxic stress. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2004, 286, R786-R792.	1.8	28
60	Multifunctional MR monitoring of the healing process after myocardial infarction. <i>Basic Research in Cardiology</i> , 2014, 109, 430.	5.9	28
61	Overexpression of prostaglandin EP3 receptors activates calcineurin and promotes hypertrophy in the murine heart. <i>Cardiovascular Research</i> , 2008, 81, 310-318.	3.8	26
62	4-Methylumbelliferone improves the thermogenic capacity of brown adipose tissue. <i>Nature Metabolism</i> , 2019, 1, 546-559.	11.9	26
63	Characterization of perfluorocarbon relaxation times and their influence on the optimization of fluorine-19 MRI at 3 tesla. <i>Magnetic Resonance in Medicine</i> , 2017, 77, 2263-2271.	3.0	25
64	Fluorine-19 Magnetic Resonance Angiography of the Mouse. <i>PLoS ONE</i> , 2012, 7, e42236.	2.5	25
65	Assessment of the Mechanism of Astrocyte Swelling Induced by the Macrolide Immunosuppressant Sirolimus Using Multinuclear Nuclear Magnetic Resonance Spectroscopy. <i>Chemical Research in Toxicology</i> , 1997, 10, 1359-1363.	3.3	24
66	Graves' orbitopathy occurs sex-independently in an autoimmune hyperthyroid mouse model. <i>Scientific Reports</i> , 2018, 8, 13096.	3.3	24
67	Hot spot ¹⁹ F magnetic resonance imaging of inflammation. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2020, 12, e1639.	6.1	23
68	Deletion of CD73 promotes dyslipidemia and intramyocellular lipid accumulation in muscle of mice. <i>Archives of Physiology and Biochemistry</i> , 2013, 119, 39-51.	2.1	22
69	Epicardium-Derived Cells Formed After Myocardial Injury Display Phagocytic Activity Permitting In Vivo Labeling and Tracking. <i>Stem Cells Translational Medicine</i> , 2016, 5, 639-650.	3.3	22
70	In vivo ¹⁹ F MR inflammation imaging after myocardial infarction in a large animal model at 3T. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2019, 32, 5-13.	2.0	22
71	Dissociation of ¹⁹ F and fluorescence signal upon cellular uptake of dual-contrast perfluorocarbon nanoemulsions. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2019, 32, 133-145.	2.0	22
72	Dapagliflozin reduces thrombin generation and platelet activation: implications for cardiovascular risk reduction in type 2 diabetes mellitus. <i>Diabetologia</i> , 2021, 64, 1834-1849.	6.3	22

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73	Echocardiographic Analysis of Cardiac Function after Infarction in Mice: Validation of Single-Plane Long-Axis View Measurements and the Bi-Plane Simpson Method. <i>Ultrasound in Medicine and Biology</i> , 2018, 44, 1544-1555.	1.5	21
74	Lack of ecto-5â€²-nucleotidase (CD73) promotes arteriogenesis. <i>Cardiovascular Research</i> , 2013, 97, 88-96.	3.8	20
75	Impact of dietary nitrate on age-related diastolic dysfunction. <i>European Journal of Heart Failure</i> , 2016, 18, 599-610.	7.1	20
76	Phagocytosis of a PFOB-Nanoemulsion for 19F Magnetic Resonance Imaging: First Results in Monocytes of Patients with Stable Coronary Artery Disease and ST-Elevation Myocardial Infarction. <i>Molecules</i> , 2019, 24, 2058.	3.8	20
77	Immobilization of Primary Astrocytes and Neurons for On-Line Monitoring of Biochemical Processes by NMR. <i>Developmental Neuroscience</i> , 1996, 18, 478-483.	2.0	19
78	Sexual dimorphism of lipid metabolism in very long-chain acyl-CoA dehydrogenase deficient (VLCAD ^Δ) mice in response to medium-chain triglycerides (MCT). <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2015, 1852, 1442-1450.	3.8	18
79	Synthetic Cargo Internalization Receptor System for Nanoparticle Tracking of Individual Cell Populations by Fluorine Magnetic Resonance Imaging. <i>ACS Nano</i> , 2018, 12, 11178-11192.	14.6	18
80	Cardiovascular Magnetic Resonance Relaxometry Predicts Regional Functional Outcome After Experimental Myocardial Infarction. <i>Circulation: Cardiovascular Imaging</i> , 2017, 10, .	2.6	16
81	Adaptation of Cellular Metabolism to Anisotonic Conditions in a Glial Cell Line, as Assessed by ¹³ C-NMR Spectroscopy. <i>Developmental Neuroscience</i> , 1996, 18, 449-459.	2.0	14
82	Fluorine-19 Magnetic Resonance Imaging of Activated Platelets. <i>Journal of the American Heart Association</i> , 2020, 9, e016971.	3.7	14
83	Monitoring left ventricular dilation in mice with PET. <i>Journal of Nuclear Medicine</i> , 2005, 46, 1516-21.	5.0	14
84	Multimodal assessment of orbital immune cell infiltration and tissue remodeling during development of graves disease by ¹ H ¹⁹ F MRI. <i>Magnetic Resonance in Medicine</i> , 2018, 80, 711-718.	3.0	12
85	A2bR-dependent signaling alters immune cell composition and enhances IL-6 formation in the ischemic heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2019, 317, H190-H200.	3.2	11
86	An Early Wave of Macrophage Infiltration Intertwined with Antigen-Specific Proinflammatory T Cells and Browning of Adipose Tissue Characterizes the Onset of Orbital Inflammation in a Mouse Model of Graves' Orbitopathy. <i>Thyroid</i> , 2022, 32, 283-293.	4.5	11
87	Endothelial α 1 Integrin-Mediated Adaptation to Myocardial Ischemia. <i>Thrombosis and Haemostasis</i> , 2021, 121, 741-754.	3.4	10
88	4-hydroxytamoxifen does not deteriorate cardiac function in cardiomyocyte-specific MerCreMer transgenic mice. <i>Basic Research in Cardiology</i> , 2021, 116, 8.	5.9	9
89	Does timing matter in radiotherapy of hepatocellular carcinoma? An experimental study in mice. <i>Cancer Medicine</i> , 2021, 10, 7712-7725.	2.8	9
90	Determination of de novo synthesized amino acids in cellular proteins revisited by ¹³ C NMR spectroscopy. , 1997, 10, 50-58.		8

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91	Special issue on fluorine-19 magnetic resonance: technical solutions, research promises and frontier applications. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2019, 32, 1-3.	2.0	7
92	Longitudinal 19F magnetic resonance imaging of brain oxygenation in a mouse model of vascular cognitive impairment using a cryogenic radiofrequency coil. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2019, 32, 105-114.	2.0	7
93	Endothelial Hyaluronan Synthase 3 Augments Postischemic Arteriogenesis Through CD44/eNOS Signaling. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2021, 41, 2551-2562.	2.4	7
94	Rat brain primary neurons immobilized in basement membrane gel threads: an improved method for on-line NMR spectroscopy of live cells. <i>Brain Research Protocols</i> , 1998, 3, 183-191.	1.6	6
95	Modified Suture Technique in a Mouse Heart Transplant Model. <i>Asian Journal of Surgery</i> , 2011, 34, 86-91.	0.4	6
96	Multiparametric MRI identifies subtle adaptations for demarcation of disease transition in murine aortic valve stenosis. <i>Basic Research in Cardiology</i> , 2022, 117, .	5.9	6
97	Alterations in glial cell metabolism during recovery from chronic osmotic stress. <i>Neurochemical Research</i> , 1998, 23, 1553-1561.	3.3	5
98	State of the Art in Cardiovascular T2 Mapping: on the Way to a Cardiac Biomarker?. <i>Current Cardiovascular Imaging Reports</i> , 2018, 11, 1.	0.6	5
99	Endothelial hyaluronan synthase 3 aggravates acute colitis in an experimental model of inflammatory bowel disease. <i>Matrix Biology</i> , 2021, 102, 20-36.	3.6	5
100	Biomedical 19F MRI Using Perfluorocarbons. <i>Methods in Molecular Biology</i> , 2018, 1718, 235-257.	0.9	5
101	Beyond Vessel Diameters: Non-invasive Monitoring of Flow Patterns and Immune Cell Recruitment in Murine Abdominal Aortic Disorders by Multiparametric MRI. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 750251.	2.4	5
102	Acute Heart Failure After Reperfused Ischemic Stroke: Association With Systemic and Cardiac Inflammatory Responses. <i>Frontiers in Physiology</i> , 2021, 12, 782760.	2.8	5
103	MRI-based molecular imaging of epicardium-derived stromal cells (EpiSC) by peptide-mediated active targeting. <i>Scientific Reports</i> , 2020, 10, 21669.	3.3	4
104	Phenotyping placental oxygenation in <i>Lgals1</i> deficient mice using 19F MRI. <i>Scientific Reports</i> , 2021, 11, 2126.	3.3	4
105	Myoglobin tames tumor growth and spread. <i>Journal of Clinical Investigation</i> , 2009, 119, 766-768.	8.2	4
106	Opening of calcium-activated potassium channels improves long-term left-ventricular function after coronary artery occlusion in mice. <i>International Journal of Cardiology</i> , 2017, 241, 351-357.	1.7	3
107	Dynamic monitoring of vital functions and tissue re-organization in <i>Saturnia pavonia</i> (Lepidoptera,) Tj ETQq1 1 0.784314 rgBJ /Overlo	3.3	3
108	Chapter 4 Active Targeting of Perfluorocarbon Nanoemulsions. , 2016, , 103-140.		2

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109	A Toolbox to Investigate the Impact of Impaired Oxygen Delivery in Experimental Disease Models. <i>Frontiers in Medicine</i> , 2022, 9, .	2.6	2
110	IL-23R Signaling Plays No Role in Myocardial Infarction. <i>Scientific Reports</i> , 2018, 8, 17078.	3.3	1
111	MR for the Investigation of Murine Vasculature. <i>Methods in Molecular Biology</i> , 2011, 771, 439-456.	0.9	1