

# Ralf Mrowka

## List of Publications by Year in descending order

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124  
papers

2,774  
citations

172457

29  
h-index

189892

50  
g-index

132  
all docs

132  
docs citations

132  
times ranked

3671  
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of coupling direction: Application to cardiorespiratory interaction. <i>Physical Review E</i> , 2002, 65, 041909.	2.1	220
2	Is There a Bias in Proteome Research?. <i>Genome Research</i> , 2001, 11, 1971-1973.	5.5	189
3	Phase dynamics of coupled oscillators reconstructed from data. <i>Physical Review E</i> , 2008, 77, 066205.	2.1	176
4	Generation of Multicellular Breast Cancer Tumor Spheroids: Comparison of Different Protocols. <i>Journal of Mammary Gland Biology and Neoplasia</i> , 2016, 21, 89-98.	2.7	130
5	Enhanced Blood Pressure Variability in eNOS Knockout Mice. <i>Hypertension</i> , 1999, 33, 1359-1363.	2.7	118
6	Liver-Kidney-on-Chip To Study Toxicity of Drug Metabolites. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 78-89.	5.2	102
7	AT1 receptors mediate angiotensin II-induced release of nitric oxide in afferent arterioles. <i>Kidney International</i> , 2004, 66, 1949-1958.	5.2	81
8	Uncovering interaction of coupled oscillators from data. <i>Physical Review E</i> , 2007, 76, 055201.	2.1	81
9	Role of nucleolin in posttranscriptional control of MMP-9 expression. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 2005, 1731, 32-40.	2.4	77
10	Does low frequency power of arterial blood pressure reflect sympathetic tone?. <i>Journal of the Autonomic Nervous System</i> , 1995, 54, 145-154.	1.9	70
11	QUANTITATIVE ANALYSIS OF CARDIORESPIRATORY SYNCHRONIZATION IN INFANTS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2000, 10, 2479-2488.	1.7	68
12	Tubular von Hippel-Lindau Knockout Protects against Rhabdomyolysis-Induced AKI. <i>Journal of the American Society of Nephrology: JASN</i> , 2013, 24, 1806-1819.	6.1	65
13	Molecular Insights into Reprogramming-Initiation Events Mediated by the OSKM Gene Regulatory Network. <i>PLoS ONE</i> , 2011, 6, e24351.	2.5	64
14	Interaction of Angiotensin II and Nitric Oxide in Isolated Perfused Afferent Arterioles of Mice. <i>Journal of the American Society of Nephrology: JASN</i> , 2001, 12, 1122-1127.	6.1	61
15	Directionality of coupling of physiological subsystems: age-related changes of cardiorespiratory interaction during different sleep stages in babies. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 285, R1395-R1401.	1.8	54
16	Contribution of adenosine receptors in the control of arteriolar tone and adenosine-induced angiotensin II interaction. <i>Kidney International</i> , 2006, 70, 690-698.	5.2	54
17	Translational Control of Collagen Prolyl 4-Hydroxylase-1(I) Gene Expression under Hypoxia. <i>Journal of Biological Chemistry</i> , 2006, 281, 26089-26101.	3.4	54
18	Adenosine Restores Angiotensin II-Induced Contractions by Receptor-Independent Enhancement of Calcium Sensitivity in Renal Arterioles. <i>Circulation Research</i> , 2006, 99, 1117-1124.	4.5	52

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19	Translational Regulation of the Human Achaete-scute Homologue-1 by Fragile X Mental Retardation Protein. <i>Journal of Biological Chemistry</i> , 2009, 284, 4255-4266.	3.4	51
20	Influence of the adenosine A1 receptor on blood pressure regulation and renin release. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2006, 290, R1324-R1329.	1.8	45
21	Heterogeneous Nuclear Ribonucleoprotein-A2/B1 Modulate Collagen Prolyl 4-Hydroxylase, $\hat{\pm}$ (I) mRNA Stability. <i>Journal of Biological Chemistry</i> , 2006, 281, 9279-9286.	3.4	45
22	Protein arginine methyl transferases $\hat{\epsilon}$ 3 and $\hat{\epsilon}$ 5 increase cell surface expression of cardiac sodium channel. <i>FEBS Letters</i> , 2013, 587, 3159-3165.	2.8	40
23	A Java applet for visualizing protein-protein interaction. <i>Bioinformatics</i> , 2001, 17, 669-671.	4.1	38
24	Hypoxia-induced gene expression results from selective mRNA partitioning to the endoplasmic reticulum. <i>Nucleic Acids Research</i> , 2015, 43, 3219-3236.	14.5	38
25	Human serum alters cell culture behavior and improves spheroid formation in comparison to fetal bovine serum. <i>Experimental Cell Research</i> , 2018, 365, 57-65.	2.6	36
26	Indirubin Derivatives Modulate TGF $\hat{\beta}$ 2/BMP Signaling at Different Levels and Trigger Ubiquitin-Mediated Depletion of Nonactivated R-Smads. <i>Chemistry and Biology</i> , 2012, 19, 1423-1436.	6.0	35
27	Nitric oxide counteracts angiotensin II induced contraction in efferent arterioles in mice. <i>Acta Physiologica Scandinavica</i> , 2004, 181, 439-444.	2.2	34
28	Blood pressure control in eNOS knock-out mice: comparison with other species under NO blockade. <i>Acta Physiologica Scandinavica</i> , 2000, 168, 155-160.	2.2	33
29	Wilms' tumor protein ( $\hat{\epsilon}$ "KTS) modulates renin gene transcription. <i>Kidney International</i> , 2008, 74, 458-466.	5.2	32
30	Oligodb-interactive design of oligo DNA for transcription profiling of human genes. <i>Bioinformatics</i> , 2002, 18, 1686-1687.	4.1	29
31	Control of renin synthesis. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 285, R491-R497.	1.8	29
32	Targetfinder.org: a resource for systematic discovery of transcription factor target genes. <i>Nucleic Acids Research</i> , 2010, 38, W233-W238.	14.5	29
33	Linear and non-linear properties of heart rate in postnatal maturation. <i>Cardiovascular Research</i> , 1996, 31, 447-454.	3.8	27
34	Annexin A2 Mediates Apical Trafficking of Renal Na $\hat{+}$ -K $\hat{+}$ -2Cl $\hat{-}$ Cotransporter. <i>Journal of Biological Chemistry</i> , 2014, 289, 9983-9997.	3.4	25
35	Imidazopyridines as Potent KDM5 Demethylase Inhibitors Promoting Reprogramming Efficiency of Human iPSCs. <i>IScience</i> , 2019, 12, 168-181.	4.1	24
36	Sex Differences in Diabetes- and TGF- $\hat{\beta}$ 1-Induced Renal Damage. <i>Cells</i> , 2020, 9, 2236.	4.1	24

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37	Does mapping reveal correlation between gene expression and protein-protein interaction?. <i>Nature Genetics</i> , 2003, 33, 15-16.	21.4	20
38	Rhythms and complexity of respiration during sleep in preterm infants. <i>Clinical Physiology</i> , 1999, 19, 458-466.	0.7	19
39	Ethyl 2-((4-Chlorophenyl)amino)thiazole-4-carboxylate and Derivatives Are Potent Inducers of Oct3/4. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 5742-5750.	6.4	19
40	Development of heart rate power spectra reveals neonatal peculiarities of cardiorespiratory control. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1996, 271, R1025-R1032.	1.8	18
41	Human microRNA-299-3p decreases invasive behavior of cancer cells by downregulation of Oct4 expression and causes apoptosis. <i>PLoS ONE</i> , 2017, 12, e0174912.	2.5	18
42	Group VIA phospholipase A <sub>2</sub> is a target for vasopressin signaling in the thick ascending limb. <i>American Journal of Physiology - Renal Physiology</i> , 2012, 302, F865-F874.	2.7	16
43	Seed-based systematic discovery of specific transcription factor target genes. <i>FEBS Journal</i> , 2008, 275, 3178-3192.	4.7	15
44	Multilevel regulation of HIF-1 signaling by TTP. <i>Molecular Biology of the Cell</i> , 2012, 23, 4129-4141.	2.1	15
45	Comparison of Sepsis-Induced Transcriptomic Changes in a Murine Model to Clinical Blood Samples Identifies Common Response Patterns. <i>Frontiers in Microbiology</i> , 2012, 3, 284.	3.5	15
46	Identification of 2-[4-[(4-Methoxyphenyl)methoxy]-phenyl]acetonitrile and Derivatives as Potent Oct3/4 Inducers. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 4976-4983.	6.4	15
47	Dissecting the action of an evolutionary conserved non-coding region on renin promoter activity. <i>Nucleic Acids Research</i> , 2007, 35, 5120-5129.	14.5	13
48	ICAM1 depletion reduces spinal metastasis formation in vivo and improves neurological outcome. <i>European Spine Journal</i> , 2015, 24, 2173-2181.	2.2	13
49	Inflammation - Dysregulated inflammatory response and strategies for treatment. <i>Acta Physiologica</i> , 2019, 226, e13284.	3.8	13
50	An evolutionary approach for identifying potential transcription factor binding sites: the renin gene as an example. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 284, R1147-R1150.	1.8	12
51	Shutdown of Achaete-scute Homolog-1 Expression by Heterogeneous Nuclear Ribonucleoprotein (hnRNP)-A2/B1 in Hypoxia. <i>Journal of Biological Chemistry</i> , 2014, 289, 26973-26988.	3.4	10
52	Vitamin D3 Partly Antagonizes Advanced-Glycation Endproducts-Induced NF- $\kappa$ B Activation in Mouse Podocytes. <i>Nephron</i> , 2016, 134, 105-116.	1.8	10
53	Empfehlungen für die Bestimmung der Herzfrequenzvariabilität im pädiatrischen Schlaflabor. <i>Heart Rate Variability in the Paediatric Sleep Laboratory - Recommendations for Measurement and Analysis. Somnologie</i> , 2002, 6, 39-50.	1.5	9
54	Skeletal muscle in the fight against chronic diseases. <i>Acta Physiologica</i> , 2018, 223, e13086.	3.8	9

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55	Interaction of heart-rate fluctuations and respiration in 12 to 14-year-old children during sleeping and waking. <i>Journal of the Autonomic Nervous System</i> , 1996, 57, 141-143.	1.9	8
56	Acute kidney injury. <i>Acta Physiologica</i> , 2015, 215, 73-75.	3.8	8
57	Thermoregulation. <i>Acta Physiologica</i> , 2016, 217, 3-5.	3.8	8
58	Evaluation of in vivo and in vitro models of toxicity by comparison of toxicogenomics data with the literature. <i>Methods</i> , 2018, 132, 57-65.	3.8	8
59	Obesity, adipocytes and insulin resistanceâ€”Friends for life?. <i>Acta Physiologica</i> , 2019, 225, e13258.	3.8	8
60	Symbolic dynamics approach in the analysis of heart rate in premature babies at high risk for sudden infant death syndrome (SIDS). , 0, , .		7
61	The complexity of heart rate in its postnatal development. <i>IEEE Engineering in Medicine and Biology Magazine</i> , 2001, 20, 88-91.	0.8	7
62	Linear and non-linear properties of heart rate in postnatal maturation. <i>Cardiovascular Research</i> , 1996, 31, 447-454.	3.8	7
63	Genomic difference analysis by two-dimensional DNA fingerprinting reveals typical changes in human low-grade gliomas. , 1998, 23, 130-138.		6
64	Time of measurement influences the variability of tidal breathing parameters in healthy and sick infants. <i>Respiration Physiology</i> , 2001, 128, 187-194.	2.7	6
65	Chronic activation of vasopressin V2 receptor signalling lowers renal medullary oxygen levels in rats. <i>Acta Physiologica</i> , 2013, 207, 721-731.	3.8	6
66	Monitoring cytochrome P450 activity in living hepatocytes by chromogenic substrates in response to drug treatment or during cell maturation. <i>Archives of Toxicology</i> , 2018, 92, 1133-1149.	4.2	6
67	The impact of episporic modification of <i>Lichtheimia corymbifera</i> on virulence and interaction with phagocytes. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 880-896.	4.1	6
68	Similarity in targets with REST points to neural and glioblastoma related miRNAs. <i>Nucleic Acids Research</i> , 2014, 42, 5436-5446.	14.5	5
69	How Simulations May Help Us to Understand the Dynamics of COVIDâ€™19 Spread. â€” Visualizing Nonâ€™ntuitive Behaviours of a Pandemic (pansim.uniâ€™jena.de). <i>Acta Physiologica</i> , 2020, 229, e13520.	3.8	5
70	Observing monomer: dimer transitions of neurotensin receptors 1 in single SMALPs by homoFRET and in an ABELtrap. , 2019, , .		5
71	Non-linear analysis of the cardiovascular control system in rat strains with differing hemodynamic characteristics. , 0, , .		4
72	Linear and nonlinear properties of heart rate control in infants at risk. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1997, 273, R540-R547.	1.8	4

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73	The metabolic syndrome: the future is now. <i>Acta Physiologica</i> , 2015, 214, 291-294.	3.8	4
74	Arterial hypertension. <i>Acta Physiologica</i> , 2017, 219, 697-699.	3.8	4
75	Nephropathy: New aspects of mechanisms, diagnosis and therapy. <i>Acta Physiologica</i> , 2018, 224, e13162.	3.8	4
76	Cancer – An ongoing fight searching for reasons and therapies. <i>Acta Physiologica</i> , 2019, 226, e13275.	3.8	4
77	Linear and non-linear properties of heart rate in postnatal maturation. <i>Cardiovascular Research</i> , 1996, 31, 447-54.	3.8	4
78	A novel standardization method for two-dimensional DNA fingerprints. <i>Electrophoresis</i> , 1997, 18, 2874-2879.	2.4	3
79	Alternans-like phenomena due to filtering of electrocardiographic data. , 0, , .		3
80	Hypertension. <i>Acta Physiologica</i> , 2014, 211, 1-4.	3.8	3
81	ExActa: blood pressure. <i>Acta Physiologica</i> , 2016, 217, 178-179.	3.8	3
82	Imaging cytochrome C oxidase and F <sub>1</sub> -ATP synthase in mitochondrial cristae of living human cells by FLIM and superresolution microscopy. <i>Proceedings of SPIE</i> , 2017, , .	0.8	3
83	Sequence-related human proteins cluster by degree of evolutionary conservation. <i>Physical Review E</i> , 2004, 70, 051908.	2.1	2
84	Microfluidic devices for stem-cell cultivation, differentiation and toxicity testing. <i>Proceedings of SPIE</i> , 2017, , .	0.8	2
85	Nephropathies. <i>Acta Physiologica</i> , 2017, 221, 151-154.	3.8	2
86	How to switch on genes with CRISPR/Cas9?. <i>Acta Physiologica</i> , 2018, 224, e13087.	3.8	2
87	Recent advances in hypertension research. <i>Acta Physiologica</i> , 2019, 226, e13295.	3.8	2
88	Influence of Macitentan on the Vascular Tone and Recruitment of Finger Capillaries Under Hypobaric Hypoxia in High Altitude. <i>High Altitude Medicine and Biology</i> , 2020, 21, 336-345.	0.9	2
89	Rate of Protein Synthesis Under Hypometabolic Conditions: The Down and Up and Down. <i>FASEB Journal</i> , 2008, 22, 1174.12.	0.5	2
90	Real-time monitoring of immediate drug response and adaptation upon repeated treatment in a microfluidic chip system. <i>Archives of Toxicology</i> , 2022, 96, 1483-1487.	4.2	2

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91	Heart rate control in infants at high risk for sudden infant death syndrome (SIDS). , 0, , .		1
92	Heart rate control in infants at risk. Journal of Electrocardiology, 1996, 29, 214.	0.9	1
93	Evolution and physical laws. Acta Physiologica, 2015, 215, 125-126.	3.8	1
94	The complement system in kidney diseases. Acta Physiologica, 2017, 220, 398-401.	3.8	1
95	Did you know? Modelling vision: computational science for understanding human visual perception. Acta Physiologica, 2017, 221, 227-229.	3.8	1
96	New insights into the astonishing diversity of hormone functions. Acta Physiologica, 2018, 224, e13188.	3.8	1
97	Ligand-induced oligomerization of the human GPCR neurotensin receptor 1 monitored in living HEK293T cells. , 2019, , .		1
98	DEVELOPMENT OF T WAVE ALTERNANS AND HEART RATE VARIABILITY AFTER MYOCARDIAL INFARCTION. FASEB Journal, 2006, 20, A324.	0.5	1
99	DEVELOPMENT OF LINEAR AND NON-LINEAR PROPERTIES OF HEART RATE DURING QUIET AND ACTIVE SLEEP IN INFANTS. 371. Pediatric Research, 1996, 39, 64-64.	2.3	1
100	Recent advances in kidney research. Acta Physiologica, 2022, 235, e13820.	3.8	1
101	Complexity changes in instantaneous heart rate prior to ventricular fibrillation in patients with implantable defibrillator. , 0, , .		0
102	Mechanism of heart-rate turbulence. , 0, , .		0
103	Does percutaneous transluminal coronary angioplasty influence T wave alternans and heart rate variability based risk predictors?. , 0, , .		0
104	APPLIKATION VON HALBLEITERLASERLICHT ÜBER EINE GLASFASER ZUR MESSUNG INTRAZELLULÄRER Ca <sup>2+</sup> -TRANSIENTEN. Biomedizinische Technik, 2001, 46, 424-425.	0.8	0
105	Coupled oscillators approach to identification of directionality in cardiorespiratory interaction. , 0, , .		0
106	Effects of chemotherapeutics on trophoblast cells in 2D, 3D and placental explant culture. Placenta, 2016, 45, 97.	1.5	0
107	Did you know? Visual adaption causing illusion. Acta Physiologica, 2016, 217, 272-273.	3.8	0
108	Did you know? Suppression by delay. Acta Physiologica, 2017, 221, 87-89.	3.8	0

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109	Modifiers of hypertension. <i>Acta Physiologica</i> , 2018, 224, e13184.	3.8	0
110	Literature optimized integration of gene expression for organ-specific evaluation of toxicogenomics datasets. <i>PLoS ONE</i> , 2019, 14, e0210467.	2.5	0
111	Recent advances in blood pressure research. <i>Acta Physiologica</i> , 2020, 228, e13412.	3.8	0
112	Kidney research. <i>Acta Physiologica</i> , 2020, 230, e13569.	3.8	0
113	Decipher the complexity of cis-regulatory regions by a modified Cas9. <i>PLoS ONE</i> , 2020, 15, e0235530.	2.5	0
114	Preselector.uni-jena.de: optimize your cloning—a resource for identifying restriction enzymes for preselection reactions. <i>Nucleic Acids Research</i> , 2021, 49, W541-W543.	14.5	0
115	From small molecules to dinosaurs — Recent advances in blood pressure research. <i>Acta Physiologica</i> , 2021, 232, e13677.	3.8	0
116	Wilms’s Tumor Protein WT1 (WT1) inhibits Renin gene transcription. <i>FASEB Journal</i> , 2007, 21, A896.	0.5	0
117	Translational control of hypoxia sensitive genes by nucleolin. <i>FASEB Journal</i> , 2007, 21, A1402.	0.5	0
118	Joint analysis of a compendium gene expression data and 5’ untranslated mRNA regions points to a common cis-regulatory region under epigenetic control. <i>FASEB Journal</i> , 2008, 22, 1024.2.	0.5	0
119	Fatty acid dependent regulation of renin transcription by nuclear hormone receptor HNF4. <i>FASEB Journal</i> , 2008, 22, 735.9.	0.5	0
120	Seed based systematic discovery of specific transcription factor target genes. <i>FASEB Journal</i> , 2009, 23, .	0.5	0
121	Unbiased Functional Annotation of the Human Regulatome. <i>FASEB Journal</i> , 2010, 24, 488.1.	0.5	0
122	Effect of Vasopressin on the renal distribution of Annexin A2 in Brattleboro rats. <i>FASEB Journal</i> , 2011, 25, 1038.14.	0.5	0
123	Vasopressin treatment lowers renal outer medullary epoxyeicosatrienoic acid levels in Brattleboro rats. <i>FASEB Journal</i> , 2011, 25, 665.30.	0.5	0
124	Vasopressin treatment causes widespread hypoxia in the renal medulla of Brattleboro rats. <i>FASEB Journal</i> , 2011, 25, 1038.13.	0.5	0