Markus Wehland

List of Publications by Citations

129 papers	3,880 citations	38 h-index	55 g-index
132 ext. papers	4,600 ext. citations	4.6 avg, IF	5.37 L-index

#	Paper	IF	Citations
129	The autoregulatory role of EsaR, a quorum-sensing regulator in Pantoea stewartii ssp. stewartii: evidence for a repressor function. *Molecular Microbiology*, **2002**, 44, 1625-35	4.1	151
128	The RcsAB box. Characterization of a new operator essential for the regulation of exopolysaccharide biosynthesis in enteric bacteria. *Journal of Biological Chemistry*, **2000**, 275, 7013-20	5.4	130
127	Comparative expression analysis of the renin-angiotensin system components between white and brown perivascular adipose tissue. *Journal of Endocrinology*, **2008**, 197, 55-64	4.7	117
126	The role of SOX family members in solid tumours and metastasis. *Seminars in Cancer Biology*, **2020**, 67, 122-153	12.7	117
125	The impact of microgravity on bone in humans. *Bone*, **2016**, 87, 44-56	4.7	115
124	Differential gene expression profile and altered cytokine secretion of thyroid cancer cells in space. *FASEB Journal*, **2014**, 28, 813-35	0.9	94
123	Growing tissues in real and simulated microgravity: new methods for tissue engineering. *Tissue Engineering - Part B: Reviews*, **2014**, 20, 555-66	7.9	91
122	Modeled gravitational unloading induced downregulation of endothelin-1 in human endothelial cells. *Journal of Cellular Biochemistry*, **2007**, 101, 1439-55	4.7	81
121	Differential gene regulation under altered gravity conditions in follicular thyroid cancer cells: relationship between the extracellular matrix and the cytoskeleton. *Cellular Physiology and Biochemistry*, **2011**, 28, 185-98	3.9	80
120	Spheroid formation of human thyroid cancer cells in an automated culturing system during the Shenzhou-8 Space mission. *Biomaterials*, **2013**, 34, 7694-705	15.6	76
119	Simulated weightlessness changes the cytoskeleton and extracellular matrix proteins in papillary thyroid carcinoma cells. *Cell and Tissue Research*, **2006**, 324, 267-77	4.2	74
118	Gravity-sensitive signaling drives 3-dimensional formation of multicellular thyroid cancer spheroids. *FASEB Journal*, **2012**, 26, 5124-40	0.9	73
117	Short-term weightlessness produced by parabolic flight maneuvers altered gene expression patterns in human endothelial cells. *FASEB Journal*, **2012**, 26, 639-55	0.9	71
116	Alterations of the cytoskeleton in human cells in space proved by life-cell imaging. *Scientific Reports* , **2016**, 6, 20043	4.9	65
115	The impact of simulated and real microgravity on bone cells and mesenchymal stem cells. *BioMed Research International*, **2014**, 2014, 928507	3	64
114	Different responsiveness of endothelial cells to vascular endothelial growth factor and basic fibroblast growth factor added to culture media under gravity and simulated microgravity. *Tissue Engineering - Part A*, **2010**, 16, 1559-73	3.9	63
113	Moderate alterations of the cytoskeleton in human chondrocytes after short-term microgravity produced by parabolic flight maneuvers could be prevented by up-regulation of BMP-2 and SOX-9. *FASEB Journal*, **2015**, 29, 2303-14	0.9	57

112	Increased transient receptor potential channel TRPC3 expression in spontaneously hypertensive rats. *American Journal of Hypertension*, **2005**, 18, 1503-7	2.3	57
111	Spheroid formation of human thyroid cancer cells under simulated microgravity: a possible role of CTGF and CAV1. *Cell Communication and Signaling*, **2014**, 12, 32	7.5	55
110	Effects of basic fibroblast growth factor on endothelial cells under conditions of simulated microgravity. *Journal of Cellular Biochemistry*, **2008**, 104, 1324-41	4.7	55
109	Structural analysis of the DNA-binding domain of the Erwinia amylovora RcsB protein and its interaction with the RcsAB box. *Journal of Biological Chemistry*, **2003**, 278, 17752-9	5.4	55
108	Identifications of novel mechanisms in breast cancer cells involving duct-like multicellular spheroid formation after exposure to the Random Positioning Machine. *Scientific Reports*, **2016**, 6, 26887	4.9	54
107	Biomarkers for anti-angiogenic therapy in cancer. *International Journal of Molecular Sciences*, **2013**, 14, 9338-64	6.3	52
106	Identification of an RcsA/RcsB recognition motif in the promoters of exopolysaccharide biosynthetic operons from Erwinia amylovora and Pantoea stewartii subspecies stewartii. *Journal of Biological Chemistry*, **1999**, 274, 3300-7	5.4	50
105	Mechanisms of three-dimensional growth of thyroid cells during long-term simulated microgravity. *Scientific Reports*, **2015**, 5, 16691	4.9	49
104	The Impact of Vitamin D in the Treatment of Essential Hypertension. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	48
103	Common Effects on Cancer Cells Exerted by a Random Positioning Machine and a 2D Clinostat. *PLoS ONE*, **2015**, 10, e0135157	3.7	48
102	The impact of altered gravity and vibration on endothelial cells during a parabolic flight. *Cellular Physiology and Biochemistry*, **2013**, 31, 432-51	3.9	46
101	Mechanisms of apoptosis after ischemia and reperfusion: role of the renin-angiotensin system. *Apoptosis: an International Journal on Programmed Cell Death*, **2006**, 11, 347-58	5.4	46
100	Effects and Side Effects of Using Sorafenib and Sunitinib in the Treatment of Metastatic Renal Cell Carcinoma. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	43
99	Selective loss of podoplanin protein expression accompanies proteinuria and precedes alterations in podocyte morphology in a spontaneous proteinuric rat model. *American Journal of Pathology*, **2008**, 173, 315-26	5.8	42
98	Tissue Engineering Under Microgravity Conditions-Use of Stem Cells and Specialized Cells. *Stem Cells and Development*, **2018**, 27, 787-804	4.4	41
97	Anti-vascular endothelial growth factor therapy in breast cancer. *International Journal of Molecular Sciences*, **2014**, 15, 23024-41	6.3	41
96	Expression and response to angiotensin-converting enzyme inhibition of matrix metalloproteinases 2 and 9 in renal glomerular damage in young transgenic rats with renin-dependent hypertension. *Journal of Pharmacology and Experimental Therapeutics*, **2006**, 316, 8-16	4.7	41
95	Differential impact of the CYP3A5*1 and CYP3A5*3 alleles on pre-dose concentrations of two tacrolimus formulations. *Pharmacogenetics and Genomics*, **2011**, 21, 179-84	1.9	40

94	Expression of vascular endothelial growth factor and receptor tyrosine kinases in cardiac ischemia/reperfusion injury. *Cardiovascular Pathology*, **2007**, 16, 291-9	3.8	40
93	The Adverse Effect of Hypertension in the Treatment of Thyroid Cancer with Multi-Kinase Inhibitors. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	39
92	Increase of fibronectin and osteopontin in porcine hearts following ischemia and reperfusion. *Journal of Molecular Medicine*, **2005**, 83, 626-37	5.5	39
91	The role of NFB in spheroid formation of human breast cancer cells cultured on the Random Positioning Machine. *Scientific Reports*, **2018**, 8, 921	4.9	37
90	Real Microgravity Influences the Cytoskeleton and Focal Adhesions in Human Breast Cancer Cells. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	37
89	Genomic approach to identify factors that drive the formation of three-dimensional structures by EA.hy926 endothelial cells. *PLoS ONE*, **2013**, 8, e64402	3.7	37
88	The Effects of Oral l-Arginine and l-Citrulline Supplementation on Blood Pressure. *Nutrients*, **2019**, 11,	6.7	34
87	The impact of microgravity-based proteomics research. *Expert Review of Proteomics*, **2014**, 11, 465-76	4.2	34
86	Decreased E-Cadherin in MCF7 Human Breast Cancer Cells Forming Multicellular Spheroids Exposed to Simulated Microgravity. *Proteomics*, **2018**, 18, e1800015	4.8	34
85	Genetic linkage of albuminuria and renal injury in Dahl salt-sensitive rats on a high-salt diet: comparison with spontaneously hypertensive rats. *Physiological Genomics*, **2004**, 18, 218-25	3.6	33
84	Target-based anti-angiogenic therapy in breast cancer. *Current Pharmaceutical Design*, **2012**, 18, 4244-57	3.3	32
83	Endothelin Receptor Antagonists: Status Quo and Future Perspectives for Targeted Therapy. *Journal of Clinical Medicine*, **2020**, 9,	5.1	31
82	The Vasoactive Mas Receptor in Essential Hypertension. *Journal of Clinical Medicine*, **2020**, 9,	5.1	30
81	Development of overt proteinuria in the Munich Wistar Frhter rat is suppressed by replacement of chromosome 6 in a consomic rat strain. *Journal of the American Society of Nephrology: JASN*, **2007**, 18, 113-21	12.7	30
80	Effects and Role of Multikinase Inhibitors in Thyroid Cancer. *Current Pharmaceutical Design*, **2016**, 22, 5915-5926	3.3	30
79	Scaffold-free Tissue Formation Under Real and Simulated Microgravity Conditions. *Basic and Clinical Pharmacology and Toxicology*, **2016**, 119 Suppl 3, 26-33	3.1	30
78	Pathways Regulating Spheroid Formation of Human Follicular Thyroid Cancer Cells under Simulated Microgravity Conditions: A Genetic Approach. *International Journal of Molecular Sciences*, **2016**, 17, 528	6.3	28
77	Multikinase Inhibitor Treatment in Thyroid Cancer. *International Journal of Molecular Sciences*, **2019**, 21,	6.3	26

76	Differential gene expression of human chondrocytes cultured under short-term altered gravity conditions during parabolic flight maneuvers. *Cell Communication and Signaling*, **2015**, 13, 18	7.5	25
75	Bioactive Candy: Effects of Licorice on the Cardiovascular System. *Foods*, **2019**, 8,	4.9	25
74	Interleukin-6 expression under gravitational stress due to vibration and hypergravity in follicular thyroid cancer cells. *PLoS ONE*, **2013**, 8, e68140	3.7	25
73	Monocytes from spontaneously hypertensive rats show increased store-operated and second messenger-operated calcium influx mediated by transient receptor potential canonical Type 3 channels. *American Journal of Hypertension*, **2007**, 20, 1111-8	2.3	25
72	Genetic loci contribute to the progression of vascular and cardiac hypertrophy in salt-sensitive spontaneous hypertension. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2003**, 23, 1211-7	9.4	25
71	Proteome Analysis of Human Follicular Thyroid Cancer Cells Exposed to the Random Positioning Machine. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	24
70	Mechanisms of apoptosis in irradiated and sunitinib-treated follicular thyroid cancer cells. *Apoptosis: an International Journal on Programmed Cell Death*, **2014**, 19, 480-90	5.4	23
69	Drugs interfering with apoptosis in breast cancer. *Current Pharmaceutical Design*, **2011**, 17, 272-83	3.3	23
68	Growth of Endothelial Cells in Space and in Simulated Microgravity - a Comparison on the Secretory Level. *Cellular Physiology and Biochemistry*, **2019**, 52, 1039-1060	3.9	23
67	Third-generation beta-adrenoceptor antagonists in the treatment of hypertension and heart failure. *Basic and Clinical Pharmacology and Toxicology*, **2015**, 117, 5-14	3.1	22
66	The effects of newer beta-adrenoceptor antagonists on vascular function in cardiovascular disease. *Current Vascular Pharmacology*, **2012**, 10, 378-90	3.3	22
65	LCZ696 (Valsartan/Sacubitril)--A Possible New Treatment for Hypertension and Heart Failure. *Basic and Clinical Pharmacology and Toxicology*, **2016**, 118, 14-22	3.1	22
64	Fighting Thyroid Cancer with Microgravity Research. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	21
63	The effects of microgravity on differentiation and cell growth in stem cells and cancer stem cells. *Stem Cells Translational Medicine*, **2020**, 9, 882-894	6.9	21
62	Pazopanib, Cabozantinib, and Vandetanib in the Treatment of Progressive Medullary Thyroid Cancer with a Special Focus on the Adverse Effects on Hypertension. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	21
61	Drug-Induced Hypertension Caused by Multikinase Inhibitors (Sorafenib, Sunitinib, Lenvatinib and Axitinib) in Renal Cell Carcinoma Treatment. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	20
60	Changes in Human Foetal Osteoblasts Exposed to the Random Positioning Machine and Bone Construct Tissue Engineering. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	20
59	Morphological and Molecular Changes in Juvenile Normal Human Fibroblasts Exposed to Simulated Microgravity. *Scientific Reports*, **2019**, 9, 11882	4.9	19

58	Semantic Analysis of Posttranslational Modification of Proteins Accumulated in Thyroid Cancer Cells Exposed to Simulated Microgravity. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	18
57	Potential Beneficial Effects of Vitamin D in Coronary Artery Disease. *Nutrients*, **2019**, 12,	6.7	18
56	Short-Term Microgravity Influences Cell Adhesion in Human Breast Cancer Cells. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	18
55	Thyroid Cells Exposed to Simulated Microgravity Conditions Comparison of the Fast Rotating Clinostat and the Random Positioning Machine. *Microgravity Science and Technology*, **2016**, 28, 247-260	1.6	17
54	Simulated Microgravity Influences VEGF, MAPK, and PAM Signaling in Prostate Cancer Cells. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	16
53	Thyroid cancer cells in space during the TEXUS-53 sounding rocket mission - The THYROID Project. *Scientific Reports*, **2018**, 8, 10355	4.9	16
52	Impact of sunitinib on human thyroid cancer cells. *Cellular Physiology and Biochemistry*, **2013**, 32, 154-70	3.9	16
51	Latest Results for Anti-Angiogenic Drugs in Cancer Treatment. *Current Pharmaceutical Design*, **2016**, 22, 5927-5942	3.3	16
50	The prostacyclin analogue treprostinil in the treatment of pulmonary arterial hypertension. *Basic and Clinical Pharmacology and Toxicology*, **2019**, 126, 32	3.1	16
49	Microgravity Affects Thyroid Cancer Cells during the TEXUS-53 Mission Stronger than Hypergravity. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	16
48	Hypertension Caused by Lenvatinib and Everolimus in the Treatment of Metastatic Renal Cell Carcinoma. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	15
47	A Focus on Macitentan in the Treatment of Pulmonary Arterial Hypertension. *Basic and Clinical Pharmacology and Toxicology*, **2018**, 123, 103-113	3.1	15
46	Cytokine Release and Focal Adhesion Proteins in Normal Thyroid Cells Cultured on the Random Positioning Machine. *Cellular Physiology and Biochemistry*, **2017**, 43, 257-270	3.9	15
45	Nebivolol in the treatment of arterial hypertension. *Basic and Clinical Pharmacology and Toxicology*, **2019**, 125, 189-201	3.1	14
44	The Combination of Valsartan and Sacubitril in the Treatment of Hypertension and Heart Failure - an Update. *Basic and Clinical Pharmacology and Toxicology*, **2018**, 122, 9-18	3.1	13
43	Annotated Gene and Proteome Data Support Recognition of Interconnections Between the Results of Different Experiments in Space Research. *Microgravity Science and Technology*, **2016**, 28, 357-365	1.6	13
42	Genetic low nephron number hypertension is associated with dysregulation of the hepatic and renal insulin-like growth factor system during nephrogenesis. *Journal of Hypertension*, **2006**, 24, 1857-64	1.9	13
41	Genetic variants implicated in telomere length associated with left ventricular function in patients with hypertension and cardiac organ damage. *Journal of Molecular Medicine*, **2012**, 90, 1059-67	5.5	11

40	Induction of C1q expression in glomerular endothelium in a rat model with arterial hypertension and albuminuria. *Journal of Hypertension*, **2007**, 25, 2308-16	1.9	11
39	Tyrosine Kinase Inhibitor-Induced Hypertension: Role of Hypertension as a Biomarker in Cancer Treatment. *Current Vascular Pharmacology*, **2019**, 17, 618-634	3.3	11
38	Role of Apoptosis in Wound Healing and Apoptosis Alterations in Microgravity. *Frontiers in Bioengineering and Biotechnology*, **2021**, 9, 679650	5.8	11
37	Tissue Engineering of Cartilage on Ground-Based Facilities. *Microgravity Science and Technology*, **2016**, 28, 237-245	1.6	9
36	Gene networks modified by sulphonylureas in beta cells: a pathway-based analysis of insulin secretion and cell death. *Basic and Clinical Pharmacology and Toxicology*, **2012**, 111, 254-61	3.1	9
35	Alteration of Cytoskeleton Morphology and Gene Expression in Human Breast Cancer Cells under Simulated Microgravity. *Cell Journal*, **2020**, 22, 106-114	2.4	9
34	Azilsartan Medoxomil, an Angiotensin II Receptor Antagonist for the Treatment of Hypertension. *Basic and Clinical Pharmacology and Toxicology*, **2017**, 121, 225-233	3.1	8
33	A focus on riociguat in the treatment of pulmonary arterial hypertension. *Basic and Clinical Pharmacology and Toxicology*, **2019**, 125, 202-214	3.1	8
32	Dexamethasone Inhibits Spheroid Formation of Thyroid Cancer Cells Exposed to Simulated Microgravity. *Cells*, **2020**, 9,	7.9	8
31	The impact of vascular endothelial growth factor and basic fibroblast growth factor on cardiac fibroblasts grown under altered gravity conditions. *Cellular Physiology and Biochemistry*, **2010**, 26, 1011-22	3.9	8
30	Rat chromosome 19 transfer from SHR ameliorates hypertension, salt-sensitivity, cardiovascular and renal organ damage in salt-sensitive Dahl rats. *Journal of Hypertension*, **2007**, 25, 95-102	1.9	8
29	Breast Cancer Cells in Microgravity: New Aspects for Cancer Research. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
28	Tissue Engineering of Cartilage Using a Random Positioning Machine. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	7
27	Vascular Endothelial Growth Factor Enhances Proliferation of Human Tenocytes and Promotes Tenogenic Gene Expression. *Plastic and Reconstructive Surgery*, **2018**, 142, 1240-1247	2.7	7
26	The Cardiovascular System in Space: Focus on In Vivo and In Vitro Studies.. *Biomedicines*, **2021**, 10,	4.8	7
25	Growing blood vessels in space: Preparation studies of the SPHEROIDS project using related ground-based studies. *Acta Astronautica*, **2019**, 159, 267-272	2.9	6
24	An evaluation of the fixed-dose combination sacubitril/valsartan for the treatment of arterial hypertension. *Expert Opinion on Pharmacotherapy*, **2020**, 21, 1133-1143	4	6
23	Searching the literature for proteins facilitates the identification of biological processes, if advanced methods of analysis are linked: a case study on microgravity-caused changes in cells. *Expert Review of Proteomics*, **2016**, 13, 697-705	4.2	6

22	Preparation of A Spaceflight: Apoptosis Search in Sutured Wound Healing Models. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	5
21	Alterations of Growth and Focal Adhesion Molecules in Human Breast Cancer Cells Exposed to the Random Positioning Machine. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 672098	5.7	5
20	The Fight against Cancer by Microgravity: The Multicellular Spheroid as a Metastasis Model.. *International Journal of Molecular Sciences*, **2022**, 23,	6.3	5
19	Insight in Adhesion Protein Sialylation and Microgravity Dependent Cell Adhesion-An Omics Network Approach. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	4
18	The Impact of Hypergravity and Vibration on Gene and Protein Expression of Thyroid Cells. *Microgravity Science and Technology*, **2016**, 28, 261-274	1.6	4
17	Pathway Analysis Hints Towards Beneficial Effects of Long-Term Vibration on Human Chondrocytes. *Cellular Physiology and Biochemistry*, **2018**, 47, 1729-1741	3.9	4
16	Anti-Angiogenic Drugs in the Treatment of Metastatic Renal Cell Carcinoma: Advances in Clinical Application. *Current Vascular Pharmacology*, **2015**, 13, 381-91	3.3	4
15	Microgravity-based Modulation of VEGF Expression in Human Thyroid Carcinoma Cells. *Frontiers in Physiology*,9,	4.6	4
14	SARS-CoV-2 and hypertension. *Physiological Reports*, **2021**, 9, e14800	2.6	4
13	Changes in Exosome Release in Thyroid Cancer Cells after Prolonged Exposure to Real Microgravity in Space. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	4
12	Three-Dimensional Growth of Prostate Cancer Cells Exposed to Simulated Microgravity.. *Frontiers in Cell and Developmental Biology*, **2022**, 10, 841017	5.7	4
11	A Special Focus on Selexipag - Treatment of Pulmonary Arterial Hypertension. *Current Pharmaceutical Design*, **2017**, 23, 5191-5199	3.3	3
10	Changes in Exosomal miRNA Composition in Thyroid Cancer Cells after Prolonged Exposure to Real Microgravity in Space. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
9	The Effect of Continuous Positive Airway Pressure Therapy on Obstructive Sleep Apnea-Related Hypertension. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
8	Genetic low nephron number hypertension is associated with altered expression of osteopontin and CD44 during nephrogenesis. *Journal of Perinatal Medicine*, **2013**, 41, 295-9	2.7	2
7	Current Knowledge about the New Drug Firibastat in Arterial Hypertension.. *International Journal of Molecular Sciences*, **2022**, 23,	6.3	2
6	Tissue Engineering in Microgravity. *SpringerBriefs in Space Life Sciences*, **2017**, 73-85	0.4	2
5	The CellBox-2 Mission to the International Space Station: Thyroid Cancer Cells in Space. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	2

List of Publications

4	Beneficial Effects of Low Frequency Vibration on Human Chondrocytes in Vitro. *Cellular Physiology and Biochemistry*, **2019**, 53, 623-637	3.9	1
3	Biotechnologische Nutzung der Schwerelosigkeit f□ medizinische Forschung - Analyse humaner Zellen nach Schwerelosigkeit. *Flugmedizin □Tropenmedizin □Reisemedizin - FTR*, **2013**, 20, 173-178	0.1	
2	Isolation of Renal Glomeruli Specific Cell Material Using an Experimental NIR-Laser Microdissection Setup. *Medical Laser Application: International Journal for Laser Treatment and Research*, **2002**, 17, 21-24		
1	Science between Bioreactors and Space Research-Response to Comments by Joseph J. Bevelacqua et al. on "Dexamethasone Inhibits Spheroid Formation of Thyroid Cancer Cells Exposed to Simulated Microgravity". *Cells*, **2020**, 9,	7.9	