Matthias Hackl

List of Publications by Year in descending order

82 papers	3,541 citations	126907 33 h-index	144013 57 g-index
87 all docs	87 docs citations	87 times ranked	4624 citing authors

#	Article	IF	Citations
1	A new player in the game: treatment with antagomiR-21a-5p significantly attenuates histological and echocardiographic effects of experimental autoimmune myocarditis. Cardiovascular Research, 2022, 118, 556-572.	3.8	14
2	Peripheral blood RNA biomarkers for cardiovascular disease from bench to bedside: a position paper from the EU-CardioRNA COST action CA17129. Cardiovascular Research, 2022, 118, 3183-3197.	3.8	18
3	Association of cardiometabolic microRNAs with COVID-19 severity and mortality. Cardiovascular Research, 2022, 118, 461-474.	3.8	51
4	Circulating serum microRNAs including senescent miR-31-5p are associated with incident fragility fractures in older postmenopausal women with type 2 diabetes mellitus. Bone, 2022, 158, 116308.	2.9	14
5	A MicroRNA Next-Generation-Sequencing Discovery Assay (miND) for Genome-Scale Analysis and Absolute Quantitation of Circulating MicroRNA Biomarkers. International Journal of Molecular Sciences, 2022, 23, 1226.	4.1	16
6	Effect of Anti-Osteoporotic Treatments on Circulating and Bone MicroRNA Patterns in Osteopenic ZDF Rats. International Journal of Molecular Sciences, 2022, 23, 6534.	4.1	1
7	Circulating miRNAs in bone health and disease. Bone, 2021, 145, 115787.	2.9	36
8	Analytical challenges in microRNA biomarker development: Best practices for analyzing microRNAs in cell-free biofluids. , 2021, , 415-430.		0
9	Size changes in miRâ€21 knockout mice: Geometric morphometrics on teeth, alveolar bone and mandible. Molecular Medicine Reports, 2021, 23, .	2.4	3
10	A robust machine learning framework to identify signatures for frailty: a nested case-control study in four aging European cohorts. GeroScience, 2021, 43, 1317-1329.	4.6	31
11	Cardiovascular RNA markers and artificial intelligence may improve COVID-19 outcome: a position paper from the EU-CardioRNA COST Action CA17129. Cardiovascular Research, 2021, 117, 1823-1840.	3.8	17
12	Circulating miRâ€19aâ€3p and miRâ€19bâ€3p characterize the human aging process and their isomiRs associate with healthy status at extreme ages. Aging Cell, 2021, 20, e13409.	6.7	12
13	Systems analysis of miRNA biomarkers to inform drug safety. Archives of Toxicology, 2021, 95, 3475-3495.	4.2	14
14	Development of the Bone Phenotype and <scp>microRNA</scp> Profile in Adults With Lowâ€Density Lipoprotein Receptorâ€Related Protein 5â€“High Bone Mass (<scp>LRP5â€HBM)</scp> Disease. JBMR Plus, 2021, 5, e10534.	2.7	0
15	MicroRNA Expression Profiling in Porcine Liver, Jejunum and Serum upon Dietary DON Exposure Reveals Candidate Toxicity Biomarkers. International Journal of Molecular Sciences, 2021, 22, 12043.	4.1	1
16	MicroRNA levels in bone and blood change during bisphosphonate and teriparatide therapy in an animal model of postmenopausal osteoporosis. Bone, 2020, 131, 115104.	2.9	40
17	MicroRNA Profiling Reveals Distinct Signatures in Degenerative Rotator Cuff Pathologies. Journal of Orthopaedic Research, 2020, 38, 202-211.	2.3	24
18	Serum microRNAs as novel biomarkers for osteoporotic vertebral fractures. Bone, 2020, 130, 115105.	2.9	54

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19	microRNAâ€146a controls ageâ€related bone loss. Aging Cell, 2020, 19, e13244.	6.7	20
20	Circulating miRNAs Associated With ER Stress and Organ Damage in a Preclinical Model of Trauma Hemorrhagic Shock. Frontiers in Medicine, 2020, 7, 568096.	2.6	8
21	SVF-derived extracellular vesicles carry characteristic miRNAs in lipedema. Scientific Reports, 2020, 10, 7211.	3.3	20
22	miRNAâ€21 deficiency impairs alveolar socket healing in mice. Journal of Periodontology, 2020, 91, 1664-1672.	3.4	12
23	microRNAs as Promising Biomarkers of Platelet Activity in Antiplatelet Therapy Monitoring. International Journal of Molecular Sciences, 2020, 21, 3477.	4.1	34
24	Unique, Genderâ€Dependent Serum <scp>microRNA</scp> Profile in <scp>PLS3</scp> Geneâ€Related Osteoporosis. Journal of Bone and Mineral Research, 2020, 35, 1962-1973.	2.8	12
25	Combined proteomics/miRNomics of dendritic cell immunotherapy-treated glioblastoma patients as a screening for survival-associated factors. Npj Vaccines, 2020, 5, 5.	6.0	19
26	Longitudinal Changes of Circulating miRNAs During Bisphosphonate and Teriparatide Treatment in an Animal Model of Postmenopausal Osteoporosis. Journal of Bone and Mineral Research, 2020, 36, 1131-1144.	2.8	17
27	MicroRNAs in porcine uterus and serum are affected by zearalenone and represent a new target for mycotoxin biomarker discovery. Scientific Reports, 2019, 9, 9408.	3.3	19
28	Combining laser microdissection and microRNA expression profiling to unmask microRNA signatures in complex tissues. BioTechniques, 2019, 67, 276-285.	1.8	6
29	Biotransformation of the Mycotoxin Zearalenone to its Metabolites Hydrolyzed Zearalenone (HZEN) and Decarboxylated Hydrolyzed Zearalenone (DHZEN) Diminishes its Estrogenicity In Vitro and In Vivo. Toxins, 2019, 11, 481.	3.4	35
30	Transient manipulation of the expression level of selected growth rate correlating microRNAs does not increase growth rate in CHO-K1 cells. Journal of Biotechnology, 2019, 295, 63-70.	3.8	2
31	Predicting Postoperative Liver Dysfunction Based on Bloodâ€Derived MicroRNA Signatures. Hepatology, 2019, 69, 2636-2651.	7.3	33
32	Cost-utility analysis of fracture risk assessment using microRNAs compared with standard tools and no monitoring in the Austrian female population. Bone, 2018, 108, 44-54.	2.9	38
33	Altered MicroRNA Profile in Osteoporosis Caused by Impaired WNT Signaling. Journal of Clinical Endocrinology and Metabolism, 2018, 103, 1985-1996.	3.6	65
34	Bone-related Circulating MicroRNAs miR-29b-3p, miR-550a-3p, and miR-324-3p and their Association to Bone Microstructure and Histomorphometry. Scientific Reports, 2018, 8, 4867.	3.3	65
35	Clopidogrel in Critically Ill Patients. Clinical Pharmacology and Therapeutics, 2018, 103, 217-223.	4.7	22
36	Developing a toolkit for the assessment and monitoring of musculoskeletal ageing. Age and Ageing, 2018, 47, iv1-iv19.	1.6	25

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37	Small extracellular vesicles and their miRNA cargo are anti-apoptotic members of the senescence-associated secretory phenotype. Aging, 2018, 10, 1103-1132.	3.1	162
38	Transcriptomic changes in CHO cells after adaptation to suspension growth in protein-free medium analysed by a species-specific microarray. Journal of Biotechnology, 2017, 257, 13-21.	3.8	25
39	MicroRNAs and toxicology: A love marriage. Toxicology Reports, 2017, 4, 634-636.	3.3	38
40	Editorial: Non-coding RNA in aging and age-associated diseases â€“ from intracellular regulators to hormone like actions. Mechanisms of Ageing and Development, 2017, 168, 1-2.	4.6	4
41	Comprehensive genome and epigenome characterization of CHO cells in response to evolutionary pressures and over time. Biotechnology and Bioengineering, 2016, 113, 2241-2253.	3.3	112
42	Circulating microRNA Signatures in Patients With Idiopathic and Postmenopausal Osteoporosis and Fragility Fractures. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 4125-4134.	3.6	170
43	Serum miRNA Signatures Are Indicative of Skeletal Fractures in Postmenopausal Women With and Without Type 2 Diabetes and Influence Osteogenic and Adipogenic Differentiation of Adipose Tissueâ€“Derived Mesenchymal Stem Cells In Vitro. Journal of Bone and Mineral Research, 2016, 31, 2173-2192.	2.8	115
44	A signature of 12 microRNAs is robustly associated with growth rate in a variety of CHO cell lines. Journal of Biotechnology, 2016, 235, 150-161.	3.8	16
45	Circulating microRNAs as novel biomarkers for bone diseases â€“ Complex signatures for multifactorial diseases?. Molecular and Cellular Endocrinology, 2016, 432, 83-95.	3.2	137
46	FROM REPLICATIVE SENESCENCE TO MICRORNA BASED DIAGNOSTICS OF AGE-ASSOCIATED DISEASES. Osteoporosis and Bone Diseases, 2016, 19, 5-7.	1.4	0
47	Annotation of additional evolutionary conserved microRNAs in CHO cells from updated genomic data. Biotechnology and Bioengineering, 2015, 112, 1488-1493.	3.3	13
48	Noncoding RNAs, post-transcriptional RNA operons and Chinese hamster ovary cells. Pharmaceutical Bioprocessing, 2015, 3, 227-247.	0.8	15
49	Microarray profiling of preselected CHO host cell subclones identifies gene expression patterns associated with inâ€creased production capacity. Biotechnology Journal, 2015, 10, 1625-1638.	3.5	22
50	Enhanced protein production by microRNA-30 family in CHO cells is mediated by the modulation of the ubiquitin pathway. Journal of Biotechnology, 2015, 212, 32-43.	3.8	28
51	Differentially circulating miRNAs after recent osteoporotic fractures can influence osteogenic differentiation. Bone, 2015, 79, 43-51.	2.9	166
52	5.2 Functional -Omics for Cell Lines and Processes: The -Omics Technologies on the Example of CHO Cells. , 2014, , 326-367.		0
53	Endogenous microRNA clusters outperform chimeric sequence clusters in Chinese hamster ovary cells. Biotechnology Journal, 2014, 9, 538-544.	3.5	20
54	One plus one makes three: adding value by coâ€transfection of antiâ€apoptotic genes during transient gene expression. Biotechnology Journal, 2014, 9, 1101-1102.	3.5	1

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55	Stable overexpression of miR-17 enhances recombinant protein production of CHO cells. Journal of Biotechnology, 2014, 175, 38-44.	3.8	67
56	Identification of microRNAs specific for high producer CHO cell lines using steady-state cultivation. Applied Microbiology and Biotechnology, 2014, 98, 7535-7548.	3.6	29
57	Analysis of microRNA transcription and post-transcriptional processing by Dicer in the context of CHO cell proliferation. Journal of Biotechnology, 2014, 190, 76-84.	3.8	14
58	MicroRNAs differentially present in the plasma of HIV elite controllers reduce HIV infection in vitro. Scientific Reports, 2014, 4, 5915.	3.3	82
59	Molecular and Cellular Effects of In Vitro Shockwave Treatment on Lymphatic Endothelial Cells. PLoS ONE, 2014, 9, e114806.	2.5	23
60	CHO microRNA engineering is growing up: Recent successes and future challenges. Biotechnology Advances, 2013, 31, 1501-1513.	11.7	77
61	Identification of process relevant miRNA in CHO cell lines - Process profiling reveals interesting targets for cell line engineering. BMC Proceedings, 2013, 7, .	1.6	1
62	Prediction of transcribed PIWI-interacting RNAs from CHO RNAseq data. Journal of Biotechnology, 2013, 166, 51-57.	3.8	21
63	Identification of microRNA-mRNA functional interactions in UVB-induced senescence of human diploid fibroblasts. BMC Genomics, 2013, 14, 224.	2.8	55
64	High levels of oncomi<scp>R</scp>â€21 contribute to the senescenceâ€induced growth arrest in normal human cells and its knockâ€down increases the replicative lifespan. Aging Cell, 2013, 12, 446-458.	6.7	99
65	Growth, productivity and protein glycosylation in a CHO EpoFc producer cell line adapted to glutamine-free growth. Journal of Biotechnology, 2012, 157, 295-303.	3.8	45
66	Computational identification of microRNA gene loci and precursor microRNA sequences in CHO cell lines. Journal of Biotechnology, 2012, 158, 151-155.	3.8	46
67	Upregulation of miRâ€24 is associated with a decreased DNA damage response upon etoposide treatment in highly differentiated CD8⁺ T cells sensitizing them to apoptotic cell death. Aging Cell, 2012, 11, 579-587.	6.7	78
68	miRNAs â€“ pathway engineering of CHO cell factories that avoids translational burdening. Trends in Biotechnology, 2012, 30, 405-406.	9.3	50
69	Construction of a Stability Landscape of the CH3 Domain of Human IgG1 by Combining Directed Evolution with High Throughput Sequencing. Journal of Molecular Biology, 2012, 423, 397-412.	4.2	48
70	Dynamic mRNA and miRNA profiling of CHOâ€K1 suspension cell cultures. Biotechnology Journal, 2012, 7, 500-515.	3.5	83
71	Utilization and evaluation of CHOâ€specific sequence databases for mass spectrometry based proteomics. Biotechnology and Bioengineering, 2012, 109, 1386-1394.	3.3	46
72	A screening method to assess biological effects of microRNA overexpression in Chinese hamster ovary cells. Biotechnology and Bioengineering, 2012, 109, 1376-1385.	3.3	45

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73	The CHO miRNA Transcriptome. , 2012, , 49-64.		2
74	Unraveling the Chinese hamster ovary cell line transcriptome by next-generation sequencing. Journal of Biotechnology, 2011, 156, 227-235.	3.8	96
75	Next-generation sequencing of the CHO cell transcriptome. BMC Proceedings, 2011, 5, P6.	1.6	11
76	GiSAO.db: a database for ageing research. BMC Genomics, 2011, 12, 262.	2.8	3
77	Conserved MicroRNAs in Chinese hamster ovary cell lines. Biotechnology and Bioengineering, 2011, 108, 475-480.	3.3	49
78	Next-generation sequencing of the Chinese hamster ovary microRNA transcriptome: Identification, annotation and profiling of microRNAs as targets for cellular engineering. Journal of Biotechnology, 2011, 153, 62-75.	3.8	102
79	miR-17â€“92 cluster: ups and downs in cancer and aging. Biogerontology, 2010, 11, 501-506.	3.9	135
80	miRâ€17, miRâ€19b, miRâ€20a, and miRâ€106a are downâ€regulated in human aging. Aging Cell, 2010, 9, 291-296.	6.7	338
81	A Deletion in the Golgi Î±-Mannosidase II Gene of Caenorhabditis elegans Results in Unexpected Non-wild-type N-Glycan Structures. Journal of Biological Chemistry, 2006, 281, 28265-28277.	3.4	44
82	miND (miRNA NGS Discovery pipeline): a small RNA-seq analysis pipeline and report generator for microRNA biomarker discovery studies. F1000Research, 0, 11, 233.	1.6	6