

# Rainer Breitling

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/1039954/rainer-breitling-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

202  
papers

15,611  
citations

57  
h-index

122  
g-index

226  
ext. papers

18,453  
ext. citations

6.5  
avg, IF

6.52  
L-index

#	Paper	IF	Citations
202	antiSMASH 3.0-a comprehensive resource for the genome mining of biosynthetic gene clusters. <i>Nucleic Acids Research</i> , <b>2015</b> , 43, W237-43	20.1	1403
201	Rank products: a simple, yet powerful, new method to detect differentially regulated genes in replicated microarray experiments. <i>FEBS Letters</i> , <b>2004</b> , 573, 83-92	3.8	1155
200	antiSMASH: rapid identification, annotation and analysis of secondary metabolite biosynthesis gene clusters in bacterial and fungal genome sequences. <i>Nucleic Acids Research</i> , <b>2011</b> , 39, W339-46	20.1	1153
199	antiSMASH 4.0-improvements in chemistry prediction and gene cluster boundary identification. <i>Nucleic Acids Research</i> , <b>2017</b> , 45, W36-W41	20.1	834
198	antiSMASH 2.0--a versatile platform for genome mining of secondary metabolite producers. <i>Nucleic Acids Research</i> , <b>2013</b> , 41, W204-12	20.1	654
197	RankProd: a bioconductor package for detecting differentially expressed genes in meta-analysis. <i>Bioinformatics</i> , <b>2006</b> , 22, 2825-7	7.2	566
196	Minimum Information about a Biosynthetic Gene cluster. <i>Nature Chemical Biology</i> , <b>2015</b> , 11, 625-31	11.7	498
195	The potassium-dependent transcriptome of Arabidopsis reveals a prominent role of jasmonic acid in nutrient signaling. <i>Plant Physiology</i> , <b>2004</b> , 136, 2556-76	6.6	381
194	Mass appeal: metabolite identification in mass spectrometry-focused untargeted metabolomics. <i>Metabolomics</i> , <b>2013</b> , 9, 44-66	4.7	369
193	C. elegans model identifies genetic modifiers of alpha-synuclein inclusion formation during aging. <i>PLoS Genetics</i> , <b>2008</b> , 4, e1000027	6	295
192	Toward global metabolomics analysis with hydrophilic interaction liquid chromatography-mass spectrometry: improved metabolite identification by retention time prediction. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 8703-10	7.8	266
191	Regulation of ubiquitin-binding proteins by monoubiquitination. <i>Nature Cell Biology</i> , <b>2006</b> , 8, 163-9	23.4	254
190	Detecting sequence homology at the gene cluster level with MultiGeneBlast. <i>Molecular Biology and Evolution</i> , <b>2013</b> , 30, 1218-23	8.3	235
189	IDEOM: an Excel interface for analysis of LC-MS-based metabolomics data. <i>Bioinformatics</i> , <b>2012</b> , 28, 1048-9	7.2	214
188	PeakML/mzMatch: a file format, Java library, R library, and tool-chain for mass spectrometry data analysis. <i>Analytical Chemistry</i> , <b>2011</b> , 83, 2786-93	7.8	210
187	Mapping determinants of gene expression plasticity by genetical genomics in C. elegans. <i>PLoS Genetics</i> , <b>2006</b> , 2, e222	6	210
186	System-wide molecular evidence for phenotypic buffering in Arabidopsis. <i>Nature Genetics</i> , <b>2009</b> , 41, 1663-6	7.3	205

185	Computational tools for the synthetic design of biochemical pathways. <i>Nature Reviews Microbiology</i> , <b>2012</b> , 10, 191-202	22.2	181
184	A comparison of meta-analysis methods for detecting differentially expressed genes in microarray experiments. <i>Bioinformatics</i> , <b>2008</b> , 24, 374-82	7.2	171
183	GeneRank: using search engine technology for the analysis of microarray experiments. <i>BMC Bioinformatics</i> , <b>2005</b> , 6, 233	3.6	170
182	The sequence of a 1.8-mb bacterial linear plasmid reveals a rich evolutionary reservoir of secondary metabolic pathways. <i>Genome Biology and Evolution</i> , <b>2010</b> , 2, 212-24	3.9	150
181	Genetical genomics: spotlight on QTL hotspots. <i>PLoS Genetics</i> , <b>2008</b> , 4, e1000232	6	146
180	Exploiting plug-and-play synthetic biology for drug discovery and production in microorganisms. <i>Nature Reviews Microbiology</i> , <b>2011</b> , 9, 131-7	22.2	144
179	The dynamic architecture of the metabolic switch in <i>Streptomyces coelicolor</i> . <i>BMC Genomics</i> , <b>2010</b> , 11, 10	4.5	137
178	DiffCoEx: a simple and sensitive method to find differentially coexpressed gene modules. <i>BMC Bioinformatics</i> , <b>2010</b> , 11, 497	3.6	135
177	Adaptation of cancer cells from different entities to the MDM2 inhibitor nutlin-3 results in the emergence of p53-mutated multi-drug-resistant cancer cells. <i>Cell Death and Disease</i> , <b>2011</b> , 2, e243	9.8	127
176	Stable isotope-labeling studies in metabolomics: new insights into structure and dynamics of metabolic networks. <i>Bioanalysis</i> , <b>2014</b> , 6, 511-24	2.1	123
175	Phytoestrogens inhibit human 17beta-hydroxysteroid dehydrogenase type 5. <i>Molecular and Cellular Endocrinology</i> , <b>2001</b> , 171, 151-62	4.4	116
174	Precision mapping of the metabolome. <i>Trends in Biotechnology</i> , <b>2006</b> , 24, 543-8	15.1	113
173	Iterative Group Analysis (iGA): a simple tool to enhance sensitivity and facilitate interpretation of microarray experiments. <i>BMC Bioinformatics</i> , <b>2004</b> , 5, 34	3.6	109
172	Rank-based methods as a non-parametric alternative of the T-statistic for the analysis of biological microarray data. <i>Journal of Bioinformatics and Computational Biology</i> , <b>2005</b> , 3, 1171-89	1	109
171	Sequence polymorphisms cause many false cis eQTLs. <i>PLoS ONE</i> , <b>2007</b> , 2, e622	3.7	105
170	Closing the gap: identification of human 3-ketosteroid reductase, the last unknown enzyme of mammalian cholesterol biosynthesis. <i>Molecular Endocrinology</i> , <b>2003</b> , 17, 1715-25		104
169	prediction of metabolic networks using Fourier transform mass spectrometry data. <i>Metabolomics</i> , <b>2006</b> , 2, 155-164	4.7	99
168	Stable isotope-assisted metabolomics for network-wide metabolic pathway elucidation. <i>Analytical Chemistry</i> , <b>2012</b> , 84, 8442-7	7.8	98

167	An automated Design-Build-Test-Learn pipeline for enhanced microbial production of fine chemicals. <i>Communications Biology</i> , <b>2018</b> , 1, 66	6.7	97
166	Determination of cDNA, gene structure and chromosomal localization of the novel human 17beta-hydroxysteroid dehydrogenase type 7(1). <i>FEBS Letters</i> , <b>1999</b> , 460, 373-9	3.8	91
165	Anti-cancer effects of artesunate in a panel of chemoresistant neuroblastoma cell lines. <i>Biochemical Pharmacology</i> , <b>2010</b> , 79, 130-6	6	89
164	Metabolomics to unveil and understand phenotypic diversity between pathogen populations. <i>PLoS Neglected Tropical Diseases</i> , <b>2010</b> , 4, e904	4.8	85
163	Probing the metabolic network in bloodstream-form <i>Trypanosoma brucei</i> using untargeted metabolomics with stable isotope labelled glucose. <i>PLoS Pathogens</i> , <b>2015</b> , 11, e1004689	7.6	79
162	Feature selection and the class imbalance problem in predicting protein function from sequence. <i>Applied Bioinformatics</i> , <b>2005</b> , 4, 195-203		79
161	New surveyor tools for charting microbial metabolic maps. <i>Nature Reviews Microbiology</i> , <b>2008</b> , 6, 156-61	22.2	78
160	Probabilistic assignment of formulas to mass peaks in metabolomics experiments. <i>Bioinformatics</i> , <b>2009</b> , 25, 512-8	7.2	75
159	Metabolic modeling and analysis of the metabolic switch in <i>Streptomyces coelicolor</i> . <i>BMC Genomics</i> , <b>2010</b> , 11, 202	4.5	75
158	Expression quantitative trait loci are highly sensitive to cellular differentiation state. <i>PLoS Genetics</i> , <b>2009</b> , 5, e1000692	6	74
157	A lock-and-key model for protein-protein interactions. <i>Bioinformatics</i> , <b>2006</b> , 22, 2012-9	7.2	72
156	Pep2Path: automated mass spectrometry-guided genome mining of peptidic natural products. <i>PLoS Computational Biology</i> , <b>2014</b> , 10, e1003822	5	68
155	Graph-based iterative Group Analysis enhances microarray interpretation. <i>BMC Bioinformatics</i> , <b>2004</b> , 5, 100	3.6	68
154	mzMatch-ISO: an R tool for the annotation and relative quantification of isotope-labelled mass spectrometry data. <i>Bioinformatics</i> , <b>2013</b> , 29, 281-3	7.2	67
153	Towards synthesis of monoterpenes and derivatives using synthetic biology. <i>Current Opinion in Chemical Biology</i> , <b>2016</b> , 34, 37-43	9.7	66
152	The yeast vacuolar membrane proteome. <i>Molecular and Cellular Proteomics</i> , <b>2009</b> , 8, 380-92	7.6	66
151	Neurodegenerative diseases: Lessons from genome-wide screens in small model organisms. <i>EMBO Molecular Medicine</i> , <b>2009</b> , 1, 360-70	12	65
150	Metabolomic characterization of the salt stress response in <i>Streptomyces coelicolor</i> . <i>Applied and Environmental Microbiology</i> , <b>2010</b> , 76, 2574-81	4.8	62

149	Steps towards the synthetic biology of polyketide biosynthesis. <i>FEMS Microbiology Letters</i> , <b>2014</b> , 351, 116-25	2.9	59
148	RankProd 2.0: a refactored bioconductor package for detecting differentially expressed features in molecular profiling datasets. <i>Bioinformatics</i> , <b>2017</b> , 33, 2774-2775	7.2	57
147	Metabolomics methods for the synthetic biology of secondary metabolism. <i>FEBS Letters</i> , <b>2012</b> , 586, 2173-83	3.8	57
146	What is systems biology?. <i>Frontiers in Physiology</i> , <b>2010</b> , 1, 9	4.6	57
145	Microarray challenges in ecology. <i>Trends in Ecology and Evolution</i> , <b>2007</b> , 22, 273-9	10.9	57
144	MetAssign: probabilistic annotation of metabolites from LC-MS data using a Bayesian clustering approach. <i>Bioinformatics</i> , <b>2014</b> , 30, 2764-71	7.2	54
143	The latent process decomposition of cDNA microarray data sets. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , <b>2005</b> , 2, 143-56	3	54
142	A structured approach for the engineering of biochemical network models, illustrated for signalling pathways. <i>Briefings in Bioinformatics</i> , <b>2008</b> , 9, 404-21	13.4	53
141	Machine Learning of Designed Translational Control Allows Predictive Pathway Optimization in <i>Escherichia coli</i> . <i>ACS Synthetic Biology</i> , <b>2019</b> , 8, 127-136	5.7	53
140	Origin of the paired domain. <i>Development Genes and Evolution</i> , <b>2000</b> , 210, 644-50	1.8	52
139	Coronatine-insensitive 1 (COI1) mediates transcriptional responses of <i>Arabidopsis thaliana</i> to external potassium supply. <i>Molecular Plant</i> , <b>2010</b> , 3, 390-405	14.4	51
138	Increasing the mass accuracy of high-resolution LC-MS data using background ions: a case study on the LTQ-Orbitrap. <i>Proteomics</i> , <b>2008</b> , 8, 4647-56	4.8	51
137	Synthetic biology advances for pharmaceutical production. <i>Current Opinion in Biotechnology</i> , <b>2015</b> , 35, 46-51	11.4	49
136	Evolution of 17beta-HSD type 4, a multifunctional protein of beta-oxidation. <i>Molecular and Cellular Endocrinology</i> , <b>2001</b> , 171, 205-10	4.4	49
135	Expression of Muscarinic Receptor Types in the Primate Ovary and Evidence for Nonneuronal Acetylcholine Synthesis. <i>Journal of Clinical Endocrinology and Metabolism</i> , <b>2001</b> , 86, 349-354	5.6	49
134	17beta-hydroxysteroid dehydrogenase type 7--an ancient 3-ketosteroid reductase of cholesterologenesis. <i>Molecular and Cellular Endocrinology</i> , <b>2001</b> , 171, 199-204	4.4	48
133	Bioinformatics for the synthetic biology of natural products: integrating across the Design-Build-Test cycle. <i>Natural Product Reports</i> , <b>2016</b> , 33, 925-32	15.1	48
132	Towards an unbiased metabolic profiling of protozoan parasites: optimisation of a <i>Leishmania</i> sampling protocol for HILIC-orbitrap analysis. <i>Analytical and Bioanalytical Chemistry</i> , <b>2010</b> , 398, 2059-69	4.4	47

131	Synthetic biology in <i>Streptomyces</i> bacteria. <i>Methods in Enzymology</i> , <b>2011</b> , 497, 485-502	1.7	46
130	Simple data-reduction method for high-resolution LC-MS data in metabolomics. <i>Bioanalysis</i> , <b>2009</b> , 1, 1551-7	2.1	46
129	MetaNetter: inference and visualization of high-resolution metabolomic networks. <i>Bioinformatics</i> , <b>2008</b> , 24, 143-5	7.2	46
128	Global genetic robustness of the alternative splicing machinery in <i>Caenorhabditis elegans</i> . <i>Genetics</i> , <b>2010</b> , 186, 405-10	4	43
127	Metabolic adaptations of <i>Leishmania donovani</i> in relation to differentiation, drug resistance, and drug pressure. <i>Molecular Microbiology</i> , <b>2013</b> , 90, 428-42	4.1	42
126	Metabolomics for secondary metabolite research. <i>Metabolites</i> , <b>2013</b> , 3, 1076-83	5.6	42
125	Selenzyme: enzyme selection tool for pathway design. <i>Bioinformatics</i> , <b>2018</b> , 34, 2153-2154	7.2	41
124	Butyrolactone signalling circuits for synthetic biology. <i>Current Opinion in Chemical Biology</i> , <b>2015</b> , 28, 91-8	7	40
123	Separating the wheat from the chaff: a prioritisation pipeline for the analysis of metabolomics datasets. <i>Metabolomics</i> , <b>2012</b> , 8, 29-36	4.7	38
122	Genome-wide gene expression changes in an industrial clavulanic acid overproduction strain of <i>Streptomyces clavuligerus</i> . <i>Microbial Biotechnology</i> , <b>2011</b> , 4, 300-5	6.3	37
121	A transatlantic perspective on 20 emerging issues in biological engineering. <i>ELife</i> , <b>2017</b> , 6,	8.9	36
120	The potential of metabolomics for <i>Leishmania</i> research in the post-genomics era. <i>Parasitology</i> , <b>2010</b> , 137, 1291-302	2.7	35
119	Biological microarray interpretation: the rules of engagement. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , <b>2006</b> , 1759, 319-27		35
118	LC-MS metabolomics from study design to data-analysis - using a versatile pathogen as a test case. <i>Computational and Structural Biotechnology Journal</i> , <b>2013</b> , 4, e201301002	6.8	34
117	Handling uncertainty in dynamic models: the pentose phosphate pathway in <i>Trypanosoma brucei</i> . <i>PLoS Computational Biology</i> , <b>2013</b> , 9, e1003371	5	34
116	msCompare: a framework for quantitative analysis of label-free LC-MS data for comparative candidate biomarker studies. <i>Molecular and Cellular Proteomics</i> , <b>2012</b> , 11, M111.015974	7.6	34
115	Generalizing genetical genomics: getting added value from environmental perturbation. <i>Trends in Genetics</i> , <b>2008</b> , 24, 518-24	8.5	33
114	Network theory to understand microarray studies of complex diseases. <i>Current Molecular Medicine</i> , <b>2006</b> , 6, 695-701	2.5	33

113	Design-based re-engineering of biosynthetic gene clusters: plug-and-play in practice. <i>Current Opinion in Biotechnology</i> , <b>2013</b> , 24, 1144-50	11.4	31
112	Genome-based phylogenetic analysis of <i>Streptomyces</i> and its relatives. <i>Molecular Phylogenetics and Evolution</i> , <b>2010</b> , 54, 763-72	4.1	31
111	Phosphoenolpyruvate carboxylase identified as a key enzyme in erythrocytic <i>Plasmodium falciparum</i> carbon metabolism. <i>PLoS Pathogens</i> , <b>2014</b> , 10, e1003876	7.6	29
110	Inhibition of 17beta-hydroxysteroid dehydrogenases by phytoestrogens: comparison with other steroid metabolizing enzymes. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , <b>2005</b> , 93, 285-92	5.1	29
109	TrypanoCyc: a community-led biochemical pathways database for <i>Trypanosoma brucei</i> . <i>Nucleic Acids Research</i> , <b>2015</b> , 43, D637-44	20.1	28
108	MultiMetEval: comparative and multi-objective analysis of genome-scale metabolic models. <i>PLoS ONE</i> , <b>2012</b> , 7, e51511	3.7	28
107	LC-MS-based absolute metabolite quantification: application to metabolic flux measurement in trypanosomes. <i>Metabolomics</i> , <b>2015</b> , 11, 1721-1732	4.7	27
106	Comparative genome-scale metabolic modeling of actinomycetes: the topology of essential core metabolism. <i>FEBS Letters</i> , <b>2011</b> , 585, 2389-94	3.8	27
105	Structure-based phylogenetic analysis of short-chain alcohol dehydrogenases and reclassification of the 17beta-hydroxysteroid dehydrogenase family. <i>Molecular Biology and Evolution</i> , <b>2001</b> , 18, 2154-61	8.3	27
104	SelProm: A Queryable and Predictive Expression Vector Selection Tool for. <i>ACS Synthetic Biology</i> , <b>2019</b> , 8, 1478-1483	5.7	26
103	Mobilising ion mobility mass spectrometry for metabolomics. <i>Analyst, The</i> , <b>2018</b> , 143, 4783-4788	5	26
102	Bacterial Microcompartments: Biomaterials for Synthetic Biology-Based Compartmentalization Strategies. <i>ACS Biomaterials Science and Engineering</i> , <b>2015</b> , 1, 345-351	5.5	26
101	FIVA: Functional Information Viewer and Analyzer extracting biological knowledge from transcriptome data of prokaryotes. <i>Bioinformatics</i> , <b>2007</b> , 23, 1161-3	7.2	26
100	Biologically valid linear factor models of gene expression. <i>Bioinformatics</i> , <b>2004</b> , 20, 3021-33	7.2	26
99	Rapid prototyping of microbial production strains for the biomanufacture of potential materials monomers. <i>Metabolic Engineering</i> , <b>2020</b> , 60, 168-182	9.7	25
98	Dynamic modelling under uncertainty: the case of <i>Trypanosoma brucei</i> energy metabolism. <i>PLoS Computational Biology</i> , <b>2012</b> , 8, e1002352	5	25
97	Deletion of the signalling molecule synthase ScbA has pleiotropic effects on secondary metabolite biosynthesis, morphological differentiation and primary metabolism in <i>Streptomyces coelicolor</i> A3(2). <i>Microbial Biotechnology</i> , <b>2011</b> , 4, 239-51	6.3	25
96	The future of industrial antibiotic production: From random mutagenesis to synthetic biology. <i>Bioengineered Bugs</i> , <b>2011</b> , 2, 230-233		25

95	Current challenges in quantitative modeling of epidermal growth factor signaling. <i>FEBS Letters</i> , <b>2005</b> , 579, 6289-94	3.8	25
94	Loss of compartmentalization causes misregulation of lysine biosynthesis in peroxisome-deficient yeast cells. <i>Eukaryotic Cell</i> , <b>2002</b> , 1, 978-86		25
93	The silicon trypanosome. <i>Parasitology</i> , <b>2010</b> , 137, 1333-41	2.7	24
92	FrankSum: new feature selection method for protein function prediction. <i>International Journal of Neural Systems</i> , <b>2005</b> , 15, 259-75	6.2	24
91	The exact probability distribution of the rank product statistics for replicated experiments. <i>FEBS Letters</i> , <b>2013</b> , 587, 677-82	3.8	22
90	Robust signaling networks of the adipose secretome. <i>Trends in Endocrinology and Metabolism</i> , <b>2009</b> , 20, 1-7	8.8	22
89	Predicting protein function by machine learning on amino acid sequences--a critical evaluation. <i>BMC Genomics</i> , <b>2007</b> , 8, 78	4.5	21
88	Modeling challenges in the synthetic biology of secondary metabolism. <i>ACS Synthetic Biology</i> , <b>2013</b> , 2, 373-8	5.7	20
87	Metabolomic analysis of a synthetic metabolic switch in <i>Streptomyces coelicolor</i> A3(2). <i>Proteomics</i> , <b>2011</b> , 11, 4622-31	4.8	20
86	Chemoresistance acquisition induces a global shift of expression of angiogenesis-associated genes and increased pro-angiogenic activity in neuroblastoma cells. <i>Molecular Cancer</i> , <b>2009</b> , 8, 80	42.1	20
85	Synthetic Biology of Natural Products. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2016</b> , 8,	10.2	20
84	biochem4j: Integrated and extensible biochemical knowledge through graph databases. <i>PLoS ONE</i> , <b>2017</b> , 12, e0179130	3.7	18
83	Rational cell culture optimization enhances experimental reproducibility in cancer cells. <i>Scientific Reports</i> , <b>2018</b> , 8, 3029	4.9	18
82	Exploring the metabolic state of microorganisms using metabolomics. <i>Bioanalysis</i> , <b>2011</b> , 3, 2443-58	2.1	18
81	Human neuroblastoma cells with acquired resistance to the p53 activator RITA retain functional p53 and sensitivity to other p53 activating agents. <i>Cell Death and Disease</i> , <b>2012</b> , 3, e294	9.8	18
80	Dynamics of the human skin mediator lipidome in response to dietary $\Omega$ 3 fatty acid supplementation. <i>FASEB Journal</i> , <b>2019</b> , 33, 13014-13027	0.9	17
79	Metabolomics tools for the synthetic biology of natural products. <i>Current Opinion in Biotechnology</i> , <b>2018</b> , 54, 114-120	11.4	17
78	A fast algorithm for determining bounds and accurate approximate p-values of the rank product statistic for replicate experiments. <i>BMC Bioinformatics</i> , <b>2014</b> , 15, 367	3.6	17



77	Metabolomic systems biology of trypanosomes. <i>Parasitology</i> , <b>2010</b> , 137, 1285-90	2.7	17
76	Engineering towards production of gatekeeper (2)-flavanones: naringenin, pinocembrin, eriodictyol and homoeriodictyol. <i>Synthetic Biology</i> , <b>2020</b> , 5, ysaa012	3.3	17
75	Orthogonal Regulatory Circuits for Escherichia coli Based on the $\gamma$ -Butyrolactone System of Streptomyces coelicolor. <i>ACS Synthetic Biology</i> , <b>2018</b> , 7, 1043-1055	5.7	16
74	A second gene for peroxisomal HMG-CoA reductase? A genomic reassessment. <i>Journal of Lipid Research</i> , <b>2002</b> , 43, 2031-6	6.3	16
73	Greased hedgehogs: new links between hedgehog signaling and cholesterol metabolism. <i>BioEssays</i> , <b>2007</b> , 29, 1085-94	4.1	15
72	Embryonic expression of cholesterologenic genes is restricted to distinct domains and colocalizes with apoptotic regions in mice. <i>Molecular Brain Research</i> , <b>2003</b> , 115, 87-92		15
71	Vector analysis as a fast and easy method to compare gene expression responses between different experimental backgrounds. <i>BMC Bioinformatics</i> , <b>2005</b> , 6, 181	3.6	15
70	Respectful Modeling: Addressing Uncertainty in Dynamic System Models for Molecular Biology. <i>Trends in Biotechnology</i> , <b>2017</b> , 35, 518-529	15.1	14
69	Computational identification of co-evolving multi-gene modules in microbial biosynthetic gene clusters. <i>Communications Biology</i> , <b>2019</b> , 2, 83	6.7	14
68	Development and validation of an updated computational model of Streptomyces coelicolor primary and secondary metabolism. <i>BMC Genomics</i> , <b>2018</b> , 19, 519	4.5	14
67	Highly multiplexed, fast and accurate nanopore sequencing for verification of synthetic DNA constructs and sequence libraries. <i>Synthetic Biology</i> , <b>2019</b> , 4, ysz025	3.3	14
66	A fast algorithm for determining bounds and accurate approximate p-values of the rank product statistic for replicate experiments. <i>BMC Bioinformatics</i> , <b>2014</b> , 15, 367	3.6	14
65	Translation Stress Positively Regulates MscL-Dependent Excretion of Cytoplasmic Proteins. <i>MBio</i> , <b>2018</b> , 9,	7.8	14
64	Synthetic biology for fibres, adhesives and active camouflage materials in protection and aerospace. <i>MRS Communications</i> , <b>2019</b> , 9, 486-504	2.7	13
63	Analyses of intricate kinetics of the serum proteome during and after colon surgery by protein expression time series. <i>Proteomics</i> , <b>2007</b> , 7, 3219-28	4.8	13
62	reGenotyper: Detecting mislabeled samples in genetic data. <i>PLoS ONE</i> , <b>2017</b> , 12, e0171324	3.7	13
61	Explicit consideration of topological and parameter uncertainty gives new insights into a well-established model of glycolysis. <i>FEBS Journal</i> , <b>2013</b> , 280, 4640-51	5.7	12
60	Integrated Probabilistic Annotation: A Bayesian-Based Annotation Method for Metabolomic Profiles Integrating Biochemical Connections, Isotope Patterns, and Adduct Relationships. <i>Analytical Chemistry</i> , <b>2019</b> , 91, 12799-12807	7.8	11

59	Physiological Adaptation of the Bacterium <i>Lactococcus lactis</i> in Response to the Production of Human CFTR. <i>Molecular and Cellular Proteomics</i> , <b>2011</b> , 10, M000052-MCP200	7.6	11
58	Physiological adaptation of the bacterium <i>Lactococcus lactis</i> in response to the production of human CFTR. <i>Molecular and Cellular Proteomics</i> , <b>2011</b> , 10, M000052MCP200	7.6	11
57	A verification protocol for the probe sequences of Affymetrix genome arrays reveals high probe accuracy for studies in mouse, human and rat. <i>BMC Bioinformatics</i> , <b>2007</b> , 8, 132	3.6	11
56	Pathogenesis of peroxisomal deficiency disorders (Zellweger syndrome) may be mediated by misregulation of the GABAergic system via the diazepam binding inhibitor. <i>BMC Pediatrics</i> , <b>2004</b> , 4, 5	2.6	11
55	Incorporating peak grouping information for alignment of multiple liquid chromatography-mass spectrometry datasets. <i>Bioinformatics</i> , <b>2015</b> , 31, 1999-2006	7.2	10
54	Host Systems for the Production of Recombinant Spider Silk. <i>Trends in Biotechnology</i> , <b>2021</b> , 39, 560-573	15.1	10
53	Exploring novel bacterial terpene synthases. <i>PLoS ONE</i> , <b>2020</b> , 15, e0232220	3.7	9
52	Isopentenyl-diphosphate isomerases in human and mouse: evolutionary analysis of a mammalian gene duplication. <i>Journal of Molecular Evolution</i> , <b>2003</b> , 57, 282-91	3.1	9
51	Biological master games: using biologists' reasoning to guide algorithm development for integrated functional genomics. <i>OMICS A Journal of Integrative Biology</i> , <b>2005</b> , 9, 225-32	3.8	9
50	Bioengineering horizon scan 2020. <i>ELife</i> , <b>2020</b> , 9,	8.9	9
49	CodonGenie: optimised ambiguous codon design tools. <i>PeerJ Computer Science</i> , <b>3</b> , e120	2.7	9
48	Defining informative priors for ensemble modeling in systems biology. <i>Nature Protocols</i> , <b>2018</b> , 13, 2643-2663	15.3	9
47	The effect of terminal globular domains on the response of recombinant mini-spidroins to fiber spinning triggers. <i>Scientific Reports</i> , <b>2020</b> , 10, 10671	4.9	8
46	Metabolomic Systems Biology of Protozoan Parasites <b>2012</b> , 73-84		8
45	A circuit model of the temporal pattern generator of <i>Caenorhabditis</i> egg-laying behavior. <i>BMC Systems Biology</i> , <b>2010</b> , 4, 81	3.5	7
44	An Introduction to BioModel Engineering, Illustrated for Signal Transduction Pathways. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 13-28	0.9	7
43	designGG: an R-package and web tool for the optimal design of genetical genomics experiments. <i>BMC Bioinformatics</i> , <b>2009</b> , 10, 188	3.6	6
42	Analysis of Tiling Microarray Data by Learning Vector Quantization and Relevance Learning <b>2007</b> , 880-889		6

41	SYNBIOCHEM Synthetic Biology Research Centre, Manchester - A UK foundry for fine and speciality chemicals production. <i>Synthetic and Systems Biotechnology</i> , <b>2016</b> , 1, 271-275	4.2	5
40	Prosecutor: parameter-free inference of gene function for prokaryotes using DNA microarray data, genomic context and multiple gene annotation sources. <i>BMC Genomics</i> , <b>2008</b> , 9, 495	4.5	5
39	Biomodel Engineering I From Structure to Behavior. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 1-12	0.9	5
38	Multi-Omics Analysis of the Effect of cAMP on Actinorhodin Production in. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2020</b> , 8, 595552	5.8	5
37	SYNBIOCHEM-a SynBio foundry for the biosynthesis and sustainable production of fine and speciality chemicals. <i>Biochemical Society Transactions</i> , <b>2016</b> , 44, 675-7	5.1	5
36	The evolving art of creating genetic diversity: From directed evolution to synthetic biology. <i>Biotechnology Advances</i> , <b>2021</b> , 50, 107762	17.8	5
35	The silicon trypanosome: a test case of iterative model extension in systems biology. <i>Advances in Microbial Physiology</i> , <b>2014</b> , 64, 115-43	4.4	4
34	Selection of a highly invasive neuroblastoma cell population through long-term human cytomegalovirus infection. <i>Oncogenesis</i> , <b>2012</b> , 1, e10	6.6	4
33	Feature Selection and the Class Imbalance Problem in Predicting Protein Function from Sequence <b>2005</b> , 4, 195		4
32	Phantom spiders: notes on dubious spider species from Europe. <i>Arachnologische Mitteilungen</i> , <b>2015</b> , 50, 65-80	0.4	4
31	Apex peptide elution chain selection: a new strategy for selecting precursors in 2D-LC-MALDI-TOF/TOF experiments on complex biological samples. <i>Journal of Proteome Research</i> , <b>2010</b> , 9, 5922-8	5.6	3
30	A BARCODE-BASED PHYLOGENETIC SCAFFOLD FOR XYSTICUS AND ITS RELATIVES (ARANEAE: THOMISIDAE: CORIARACHNINI). <i>Ecologica Montenegrina</i> , <b>20</b> , 198-206	0.7	3
29	Phantom spiders 2: More notes on dubious spider species from Europe. <i>Arachnologische Mitteilungen</i> , <b>2016</b> , 52, 50-77	0.4	3
28	Investigation of the effects of actinorhodin biosynthetic gene cluster expression and a rpoB point mutation on the metabolome of <i>Streptomyces coelicolor</i> M1146. <i>Journal of Bioscience and Bioengineering</i> , <b>2021</b> , 131, 525-536	3.3	3
27	Efficient learning in metabolic pathway designs through optimal assembling. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 52, 7-12	0.7	3
26	Towards engineering and production of artificial spider silk using tools of synthetic biology. <i>Engineering Biology</i> , <b>2020</b> , 4, 1-6	1.1	3
25	Detection and Quantification of Butyrolactones from <i>Streptomyces</i> . <i>Methods in Molecular Biology</i> , <b>2018</b> , 1673, 117-128	1.4	3
24	The Three Cs of Novel Antibiotic Discovery and Production through Synthetic Biology: Biosynthetic Gene Clusters, Heterologous Chassis, and Synthetic Microbial Consortia. <i>Advanced Biology</i> , <b>2018</b> , 2, 1800064	3.5	2

23	A turning point for natural product discovery--ESF-EMBO research conference: synthetic biology of antibiotic production. <i>Molecular Microbiology</i> , <b>2012</b> , 83, 884-93	4.1	2
22	Prioritizing orphan proteins for further study using phylogenomics and gene expression profiles in <i>Streptomyces coelicolor</i> . <i>BMC Research Notes</i> , <b>2011</b> , 4, 325	2.3	2
21	Interspecies comparison of gene structure and computational analysis of gene regulation of 17beta-hydroxysteroid dehydrogenase type 1. <i>Molecular and Cellular Endocrinology</i> , <b>2006</b> , 248, 168-71	4.4	2
20	Public DNA barcoding data resolve the status of the genus <i>Arboricaria</i> (Araneae: Gnaphosidae). <i>Arachnologische Mitteilungen</i> , <b>2017</b> , 54, 24-27	0.4	2
19	Computational modelling of kinase signalling cascades. <i>Methods in Molecular Biology</i> , <b>2010</b> , 661, 369-84	1.4	2
18	Unravelling the butyrolactone network in <i>Streptomyces coelicolor</i> by computational ensemble modelling. <i>PLoS Computational Biology</i> , <b>2020</b> , 16, e1008039	5	2
17	Blood, sweat, and tears: extraterrestrial regolith biocomposites with binders. <i>Materials Today Bio</i> , <b>2021</b> , 12, 100136	9.9	2
16	Effect of iTRAQ labeling on the relative abundance of peptide fragment ions produced by MALDI-MS/MS. <i>Journal of Proteome Research</i> , <b>2012</b> , 11, 4044-51	5.6	1
15	Bayesian Approaches for Mass Spectrometry-Based Metabolomics <b>2011</b> , 467-476		1
14	Synthetic biology approaches to actinomycete strain improvement. <i>FEMS Microbiology Letters</i> , <b>2021</b> , 368,	2.9	1
13	BARCODE TAXONOMY AT THE GENUS LEVEL. <i>Ecologica Montenegrina</i> , <b>2019</b> , 21, 17-37	0.7	1
12	Remarks on Synonyms of European <i>Larinioides</i> Species (Arachnida: Araneae: Araneidae). <i>Arachnology</i> , <b>2015</b> , 16, 305-310		0
11	Output ordering and prioritisation system (OOPS): ranking biosynthetic gene clusters to enhance bioactive metabolite discovery. <i>Journal of Industrial Microbiology and Biotechnology</i> , <b>2018</b> , 45, 615-619	4.2	0
10	South European spiders from the Duffey collection in the Manchester Museum (Arachnida: Araneae) <b>2020</b> , 18, 333		0
9	Multi-omics Study of <i>Planobispora rosea</i> , Producer of the Thiopeptide Antibiotic GE2270A. <i>MSystems</i> , <b>2021</b> , 6, e0034121	7.6	0
8	Advanced LC/MS applications for identification and quantification of the metabolome <b>2015</b> , 84-93		
7	Synthetic Biology of Natural Products <b>2014</b> , 357-369		
6	<i>Theridion zonulatum</i> Thorell 1890, a senior synonym of <i>Theridion zebrinusum</i> Zhu 1998. <i>Acta Arachnologica</i> , <b>2014</b> , 63, 79-82	0.1	

- 5 Stoffwechselwege vom Reißbrett: neue Ansätze der Naturstoffbiochemie. *BioSpektrum*, **2013**, 19, 30-32 o.1
- 4 Epigean Spiders at Abisko Scientific Research Station in Swedish Lapland (Arachnida: Araneae). *Arachnology*, **2015**, 16, 287-293
- 3 Synthetic Biology of Antibiotic Production **2014**, 1-24
- 2 Discriminating Microbial Species Using Protein Sequence Properties and Machine Learning **2007**, 890-897
- 1 List of German names for the spiders of Germany (Araneae).. *Arachnologische Mitteilungen*, **2020**, 59, 38 o.4