Bas E Dutilh

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/8296366/publications.pdf

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147 papers 16,982 citations

28274 55 h-index 120 g-index

181 all docs

181 docs citations

times ranked

181

20920 citing authors

#	Article	IF	CITATIONS
1	Nitrite-driven anaerobic methane oxidation by oxygenic bacteria. Nature, 2010, 464, 543-548.	27.8	1,521
2	Deciphering the evolution and metabolism of an anammox bacterium from a community genome. Nature, 2006, 440, 790-794.	27.8	1,075
3	Eleven grand challenges in single-cell data science. Genome Biology, 2020, 21, 31.	8.8	742
4	A bacterial driver–passenger model for colorectal cancer: beyond the usual suspects. Nature Reviews Microbiology, 2012, 10, 575-582.	28.6	672
5	Ecogenomics and potential biogeochemical impacts of globally abundant ocean viruses. Nature, 2016, 537, 689-693.	27.8	629
6	A highly abundant bacteriophage discovered in the unknown sequences of human faecal metagenomes. Nature Communications, 2014, 5, 4498.	12.8	617
7	Changes to taxonomy and the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2018). Archives of Virology, 2018, 163, 2601-2631.	2.1	567
8	Marine DNA Viral Macro- and Microdiversity from Pole to Pole. Cell, 2019, 177, 1109-1123.e14.	28.9	541
9	Metagenomics and future perspectives in virus discovery. Current Opinion in Virology, 2012, 2, 63-77.	5.4	493
10	Towards the Human Colorectal Cancer Microbiome. PLoS ONE, 2011, 6, e20447.	2.5	470
11	Minimum Information about an Uncultivated Virus Genome (MIUViG). Nature Biotechnology, 2019, 37, 29-37.	17.5	414
12	Computational approaches to predict bacteriophage–host relationships. FEMS Microbiology Reviews, 2016, 40, 258-272.	8.6	394
13	Genome-based microbial ecology of anammox granules in a full-scale wastewater treatment system. Nature Communications, 2016, 7, 11172.	12.8	373
14	Targeting mechanisms of tailed bacteriophages. Nature Reviews Microbiology, 2018, 16, 760-773.	28.6	310
15	Molecular and Evolutionary Determinants of Bacteriophage Host Range. Trends in Microbiology, 2019, 27, 51-63.	7.7	277
16	Robust taxonomic classification of uncharted microbial sequences and bins with CAT and BAT. Genome Biology, 2019, 20, 217.	8.8	269
17	Changes to virus taxonomy and the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2019). Archives of Virology, 2019, 164, 2417-2429.	2.1	257
18	The metagenome of the marine anammox bacterium â€~ <i>Candidatus</i> Scalindua profunda' illustrates the versatility of this globally important nitrogen cycle bacterium. Environmental Microbiology, 2013, 15, 1275-1289.	3.8	246

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19	Marine viruses discovered via metagenomics shed light on viral strategies throughout the oceans. Nature Communications, 2017, 8, 15955.	12.8	231
20	Changes to virus taxonomy and to the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2021). Archives of Virology, 2021, 166, 2633-2648.	2.1	219
21	Computational pan-genomics: status, promises and challenges. Briefings in Bioinformatics, 2018, 19, bbw089.	6.5	207
22	Changes to virus taxonomy and the Statutes ratified by the International Committee on Taxonomy of Viruses (2020). Archives of Virology, 2020, 165, 2737-2748.	2.1	202
23	The new scope of virus taxonomy: partitioning the virosphere into 15 hierarchical ranks. Nature Microbiology, 2020, 5, 668-674.	13.3	198
24	Pyrosequencing of 16S rRNA gene amplicons to study the microbiota in the gastrointestinal tract of carp (Cyprinus carpio L.). AMB Express, 2011 , 1 , 41 .	3.0	186
25	GENOME TREES AND THE NATURE OF GENOME EVOLUTION. Annual Review of Microbiology, 2005, 59, 191-209.	7.3	184
26	Global phylogeography and ancient evolution of the widespread human gut virus crAssphage. Nature Microbiology, 2019, 4, 1727-1736.	13.3	184
27	Taxonomy of prokaryotic viruses: 2017 update from the ICTV Bacterial and Archaeal Viruses Subcommittee. Archives of Virology, 2018, 163, 1125-1129.	2.1	172
28	Genome-Wide Profiling of p63 DNA–Binding Sites Identifies an Element that Regulates Gene Expression during Limb Development in the 7q21 SHFM1 Locus. PLoS Genetics, 2010, 6, e1001065.	3.5	169
29	Discovery of a hapE Mutation That Causes Azole Resistance in Aspergillus fumigatus through Whole Genome Sequencing and Sexual Crossing. PLoS ONE, 2012, 7, e50034.	2.5	168
30	SUPER-FOCUS: a tool for agile functional analysis of shotgun metagenomic data. Bioinformatics, 2016, 32, 354-361.	4.1	161
31	The bacterial sulfur cycle in expanding dysoxic and euxinic marine waters. Environmental Microbiology, 2021, 23, 2834-2857.	3.8	145
32	Microbial taxonomy in the post-genomic era: Rebuilding from scratch?. Archives of Microbiology, 2015, 197, 359-370.	2.2	144
33	Taxonomy of prokaryotic viruses: 2018-2019 update from the ICTV Bacterial and Archaeal Viruses Subcommittee. Archives of Virology, 2020, 165, 1253-1260.	2.1	144
34	Horizontal gene transfer from Bacteria to rumen Ciliates indicates adaptation to their anaerobic, carbohydrates-rich environment. BMC Genomics, 2006, 7, 22.	2.8	138
35	Pharmacomicrobiomics: The Impact of Human Microbiome Variations on Systems Pharmacology and Personalized Therapeutics. OMICS A Journal of Integrative Biology, 2014, 18, 402-414.	2.0	122
36	From cultured to uncultured genome sequences: metagenomics and modeling microbial ecosystems. Cellular and Molecular Life Sciences, 2015, 72, 4287-4308.	5.4	114

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37	Additional changes to taxonomy ratified in a special vote by the International Committee on Taxonomy of Viruses (October 2018). Archives of Virology, 2019, 164, 943-946.	2.1	102
38	Ecogenomics and Taxonomy of Cyanobacteria Phylum. Frontiers in Microbiology, 2017, 8, 2132.	3.5	99
39	Practical and theoretical advances in predicting the function of a protein by its phylogenetic distribution. Journal of the Royal Society Interface, 2008, 5, 151-170.	3.4	97
40	A Phage Protein Aids Bacterial Symbionts in Eukaryote Immune Evasion. Cell Host and Microbe, 2019, 26, 542-550.e5.	11.0	94
41	Analysis of Spounaviruses as a Case Study for the Overdue Reclassification of Tailed Phages. Systematic Biology, 2020, 69, 110-123.	5.6	89
42	FOCUS: an alignment-free model to identify organisms in metagenomes using non-negative least squares. Peerl, 2014, 2, e425.	2.0	89
43	The Consistent Phylogenetic Signal in Genome Trees Revealed by Reducing the Impact of Noise. Journal of Molecular Evolution, 2004, 58, 527-539.	1.8	88
44	Assessment of phylogenomic and orthology approaches for phylogenetic inference. Bioinformatics, 2007, 23, 815-824.	4.1	87
45	Reference-independent comparative metagenomics using cross-assembly: crAss. Bioinformatics, 2012, 28, 3225-3231.	4.1	87
46	Taxonomy of prokaryotic viruses: update from the ICTV bacterial and archaeal viruses subcommittee. Archives of Virology, 2016, 161, 1095-1099.	2.1	83
47	The Organellar Genome and Metabolic Potential of the Hydrogen-Producing Mitochondrion of Nyctotherus ovalis. Molecular Biology and Evolution, 2011, 28, 2379-2391.	8.9	82
48	The human gut microbiome and health inequities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118 , .	7.1	82
49	Towards predicting the environmental metabolome from metagenomics with a mechanistic model. Nature Microbiology, 2018, 3, 456-460.	13.3	79
50	Draft Genome of Scalindua rubra, Obtained from the Interface Above the Discovery Deep Brine in the Red Sea, Sheds Light on Potential Salt Adaptation Strategies in Anammox Bacteria. Microbial Ecology, 2017, 74, 1-5.	2.8	73
51	Signature Genes as a Phylogenomic Tool. Molecular Biology and Evolution, 2008, 25, 1659-1667.	8.9	72
52	Dispersion of the HIV-1 Epidemic in Men Who Have Sex with Men in the Netherlands: A Combined Mathematical Model and Phylogenetic Analysis. PLoS Medicine, 2015, 12, e1001898.	8.4	69
53	Oxygen minimum zones harbour novel viral communities with low diversity. Environmental Microbiology, 2012, 14, 3043-3065.	3.8	68
54	Phage Genome Annotation Using the RAST Pipeline. Methods in Molecular Biology, 2018, 1681, 231-238.	0.9	64

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55	Bridging the membrane lipid divide: bacteria of the FCB group superphylum have the potential to synthesize archaeal ether lipids. ISME Journal, 2021, 15, 168-182.	9.8	62
56	Combining de novo and reference-guided assembly with scaffold_builder. Source Code for Biology and Medicine, 2013, 8, 23.	1.7	59
57	Characterization and Temperature Dependence of Arctic Micromonas polaris Viruses. Viruses, 2017, 9, 134.	3.3	59
58	Ultra-deep pyrosequencing of pmoA amplicons confirms the prevalence of Methylomonas and Methylocystis in Sphagnum mosses from a Dutch peat bog. Environmental Microbiology Reports, 2011, 3, 667-673.	2.4	58
59	Identification of a Novel Human Papillomavirus by Metagenomic Analysis of Samples from Patients with Febrile Respiratory Illness. PLoS ONE, 2013, 8, e58404.	2.5	58
60	Explaining microbial phenotypes on a genomic scale: GWAS for microbes. Briefings in Functional Genomics, 2013, 12, 366-380.	2.7	57
61	Taxonomy of prokaryotic viruses: 2016 update from the ICTV bacterial and archaeal viruses subcommittee. Archives of Virology, 2017, 162, 1153-1157.	2.1	57
62	Taxonomic and Functional Microbial Signatures of the Endemic Marine Sponge Arenosclera brasiliensis. PLoS ONE, 2012, 7, e39905.	2.5	56
63	Microbial Metabolism Shifts Towards an Adverse Profile with Supplementary Iron in the TIM-2 In vitro Model of the Human Colon. Frontiers in Microbiology, 2015, 6, 1481.	3.5	55
64	RaFAH: Host prediction for viruses of Bacteria and Archaea based on protein content. Patterns, 2021, 2, 100274.	5.9	53
65	Metagenomic and metaproteomic analyses of Accumulibacter phosphatisâ€enriched floccular and granular biofilm. Environmental Microbiology, 2016, 18, 273-287.	3.8	51
66	Binomial nomenclature for virus species: a consultation. Archives of Virology, 2020, 165, 519-525.	2.1	51
67	Conservation of divergent transcription in fungi. Trends in Genetics, 2008, 24, 207-211.	6.7	48
68	Metagenomic Characterization of the Human Intestinal Microbiota in Fecal Samples from STEC-Infected Patients. Frontiers in Cellular and Infection Microbiology, 2018, 8, 25.	3.9	47
69	Decline in excision circles requires homeostatic renewal or homeostatic death of naive T cells. Journal of Theoretical Biology, 2003, 224, 351-358.	1.7	46
70	Draft Genome Sequence of Anammox Bacterium "Candidatus Scalindua brodae,―Obtained Using Differential Coverage Binning of Sequencing Data from Two Reactor Enrichments. Genome Announcements, 2015, 3, .	0.8	46
71	Microbial diversity, ecological networks and functional traits associated to materials used in drinking water distribution systems. Water Research, 2020, 173, 115586.	11.3	45
72	Temporal dynamics of uncultured viruses: a new dimension in viral diversity. ISME Journal, 2018, 12, 199-211.	9.8	44

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73	Bacterial Responses to a Simulated Colon Tumor Microenvironment. Molecular and Cellular Proteomics, 2012, 11, 851-862.	3.8	43
74	FACIL: Fast and Accurate Genetic Code Inference and Logo. Bioinformatics, 2011, 27, 1929-1933.	4.1	42
75	Asymmetric relationships between proteins shape genome evolution. Genome Biology, 2009, 10, R19.	9.6	39
76	Genomic Comparison of the Closely-Related Salmonella enterica Serovars Enteritidis, Dublin and Gallinarum. PLoS ONE, 2015, 10, e0126883.	2.5	39
77	The mitochondrial genomes of the ciliates Euplotes minuta and Euplotes crassus. BMC Genomics, 2009, 10, 514.	2.8	36
78	Screening metatranscriptomes for toxin genes as functional drivers of human colorectal cancer. Bailliere's Best Practice and Research in Clinical Gastroenterology, 2013, 27, 85-99.	2.4	36
79	Niche distribution and influence of environmental parameters in marine microbial communities: a systematic review. Peerl, 2015, 3, e1008.	2.0	36
80	Using the structure of genome data in the design of deep neural networks for predicting amyotrophic lateral sclerosis from genotype. Bioinformatics, 2019, 35, i538-i547.	4.1	35
81	Prophages are associated with extensive CRISPR–Cas auto-immunity. Nucleic Acids Research, 2020, 48, 12074-12084.	14.5	35
82	Microbial community diversity and physical–chemical features of the Southwestern Atlantic Ocean. Archives of Microbiology, 2015, 197, 165-179.	2.2	34
83	Stability of the human gut virome and effect of gluten-free diet. Cell Reports, 2021, 35, 109132.	6.4	34
84	Macronuclear genome structure of the ciliate Nyctotherus ovalis: Single-gene chromosomes and tiny introns. BMC Genomics, 2008, 9, 587.	2.8	33
85	Differentiating between viruses and virus species by writing their names correctly. Archives of Virology, 2022, 167, 1231-1234.	2.1	33
86	Editorial: Virus Discovery by Metagenomics: The (Im)possibilities. Frontiers in Microbiology, 2017, 8, 1710.	3.5	32
87	Gut virome profiling identifies a widespread bacteriophage family associated with metabolic syndrome. Nature Communications, 2022, 13 , .	12.8	32
88	Perspective on taxonomic classification of uncultivated viruses. Current Opinion in Virology, 2021, 51, 207-215.	5.4	31
89	Increasing the coverage of a metapopulation consensus genome by iterative read mapping and assembly. Bioinformatics, 2009, 25, 2878-2881.	4.1	29
90	A global definition of expression context is conserved between orthologs, but does not correlate with sequence conservation. BMC Genomics, 2006, 7, 10.	2.8	28

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91	Insights of Phage-Host Interaction in Hypersaline Ecosystem through Metagenomics Analyses. Frontiers in Microbiology, 2017, 8, 352.	3.5	28
92	Metabolic models predict bacterial passengers in colorectal cancer. Cancer & Metabolism, 2020, 8, 3.	5.0	28
93	Metagenomic ventures into outer sequence space. Bacteriophage, 2014, 4, e979664.	1.9	27
94	Growth rate alterations of human colorectal cancer cells by 157 gut bacteria. Gut Microbes, 2020, 12, 1799733.	9.8	26
95	Mass Spectrometry Analysis of Hepcidin Peptides in Experimental Mouse Models. PLoS ONE, 2011, 6, e16762.	2.5	25
96	Comparative genomics of 274 Vibrio cholerae genomes reveals mobile functions structuring three niche dimensions. BMC Genomics, 2014, 15, 654.	2.8	24
97	Bacterial Viruses Subcommittee and Archaeal Viruses Subcommittee of the ICTV: update of taxonomy changes in 2021. Archives of Virology, 2021, 166, 3239-3244.	2.1	24
98	Adsorption Sequencing as a Rapid Method to Link Environmental Bacteriophages to Hosts. IScience, 2020, 23, 101439.	4.1	23
99	Metagenomics in Virology. , 2021, , 133-140.		23
100	Identical sequences found in distant genomes reveal frequent horizontal transfer across the bacterial domain. ELife, $2021,10,10$	6.0	23
101	Cell Wall Modifications during Conidial Maturation of the Human Pathogenic Fungus Pseudallescheria boydii. PLoS ONE, 2014, 9, e100290.	2.5	23
102	High viral abundance and low diversity are associated with increased CRISPR-Cas prevalence across microbial ecosystems. Current Biology, 2022, 32, 220-227.e5.	3.9	23
103	Development of the first marmoset-specific DNA microarray (EUMAMA): a new genetic tool for large-scale expression profiling in a non-human primate. BMC Genomics, 2007, 8, 190.	2.8	22
104	Microsatellite instability screening in colorectal adenomas to detect Lynch syndrome patients? A systematic review and meta-analysis. European Journal of Human Genetics, 2020, 28, 277-286.	2.8	22
105	Beyond research: a primer for considerations on using viral metagenomics in the field and clinic. Frontiers in Microbiology, 2015, 6, 224.	3.5	21
106	Modelling the influence of environmental parameters over marine planktonic microbial communities using artificial neural networks. Science of the Total Environment, 2019, 677, 205-214.	8.0	21
107	Optimized bacterial DNA isolation method for microbiome analysis of human tissues. MicrobiologyOpen, 2021, 10, e1191.	3.0	21
108	Establishing normal metabolism and differentiation in hepatocellular carcinoma cells by culturing in adult human serum. Scientific Reports, 2018, 8, 11685.	3.3	20

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109	Evolution of BACON Domain Tandem Repeats in crAssphage and Novel Gut Bacteriophage Lineages. Viruses, 2019, 11, 1085.	3.3	20
110	Impact of phosphate dosing on the microbial ecology of drinking water distribution systems: Fieldwork studies in chlorinated networks. Water Research, 2020, 187, 116416.	11.3	19
111	Lifestyle of sponge symbiont phages by host prediction and correlative microscopy. ISME Journal, 2021, 15, 2001-2011.	9.8	19
112	Sequencing at sea: challenges and experiences in Ion Torrent PGM sequencing during the 2013 Southern Line Islands Research Expedition. PeerJ, 2014, 2, e520.	2.0	19
113	Sequence specificity between interacting and non-interacting homologs identifies interface residues $\hat{a} \in \text{``a homodimer and monomer use case. BMC Bioinformatics, 2015, 16, 325.}$	2.6	18
114	The gill-associated microbiome is the main source of wood plant polysaccharide hydrolases and secondary metabolite gene clusters in the mangrove shipworm Neoteredo reynei. PLoS ONE, 2018, 13, e0200437.	2.5	18
115	Large-scale genomic analysis shows association between homoplastic genetic variation in Mycobacterium tuberculosis genes and meningeal or pulmonary tuberculosis. BMC Genomics, 2018, 19, 122.	2.8	18
116	Ecogenomics and metabolic potential of the South Atlantic Ocean microbiome. Science of the Total Environment, 2021, 765, 142758.	8.0	16
117	A Prioritized and Validated Resource of Mitochondrial Proteins in <i>Plasmodium</i> Identifies Unique Biology. MSphere, 2021, 6, e0061421.	2.9	16
118	Signature, a web server for taxonomic characterization of sequence samples using signature genes. Nucleic Acids Research, 2008, 36, W470-W474.	14.5	14
119	Genome reconstruction of the non-culturable spinach downy mildew Peronospora effusa by metagenome filtering. PLoS ONE, 2020, 15, e0225808.	2.5	14
120	Genome-Wide Study of the Defective Sucrose Fermenter Strain of Vibrio cholerae from the Latin American Cholera Epidemic. PLoS ONE, 2012, 7, e37283.	2.5	13
121	Ultrastructure and Viral Metagenome of Bacteriophages from an Anaerobic Methane Oxidizing Methylomirabilis Bioreactor Enrichment Culture. Frontiers in Microbiology, 2016, 7, 1740.	3.5	13
122	Use of whole-genome sequencing to predict Mycobacterium tuberculosis drug resistance in Indonesia. Journal of Global Antimicrobial Resistance, 2019, 16, 170-177.	2.2	13
123	Virus Bioinformatics. , 2021, , 124-132.		12
124	Production of inactivated gram-positive and gram-negative species with preserved cellular morphology and integrity. Journal of Microbiological Methods, 2021, 184, 106208.	1.6	12
125	Quantifying the Impact of Human Leukocyte Antigen on the Human Gut Microbiota. MSphere, 2021, 6, e0047621.	2.9	12
126	Genome-wide association studies of Shigella spp. and Enteroinvasive Escherichia coli isolates demonstrate an absence of genetic markers for prediction of disease severity. BMC Genomics, 2020, 21, 138.	2.8	11

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127	Novel high-resolution targeted sequencing of the cervicovaginal microbiome. BMC Biology, 2021, 19, 267.	3.8	11
128	A metagenomic portrait of the microbial community responsible for two decades of bioremediation of poly-contaminated groundwater. Water Research, 2022, 221, 118767.	11.3	11
129	Proposal of fifteen new species of Parasynechococcus based on genomic, physiological and ecological features. Archives of Microbiology, 2016, 198, 973-986.	2.2	10
130	Drug Discovery and Repurposing Inhibits a Major Gut Pathogen-Derived Oncogenic Toxin. Frontiers in Cellular and Infection Microbiology, 2019, 9, 364.	3.9	10
131	Genome Sequences of the Ethanol-Tolerant Lactobacillus vini Strains LMG 23202 T and JP7.8.9. Journal of Bacteriology, 2012, 194, 3018-3018.	2.2	9
132	Genome Sequence of the Human Pathogen Vibrio cholerae Amazonia. Journal of Bacteriology, 2011, 193, 5877-5878.	2.2	8
133	Evolutionary Study of the Crassphage Virus at Gene Level. Viruses, 2020, 12, 1035.	3.3	8
134	Copper tolerance and distribution of epibiotic bacteria associated with giant kelp Macrocystis pyrifera in southern California. Ecotoxicology, 2015, 24, 1131-1140.	2.4	7
135	Integrating Computational Methods to Investigate the Macroecology of Microbiomes. Frontiers in Genetics, 2019, 10, 1344.	2.3	7
136	Genome-wide screening in human growth plates during puberty in one patient suggests a role for RUNX2 in epiphyseal maturation. Journal of Endocrinology, 2011, 209, 245-254.	2.6	6
137	Bioinformatics Meets Virology: The European Virus Bioinformatics Center's Second Annual Meeting. Viruses, 2018, 10, 256.	3.3	6
138	OGRE: Overlap Graph-based metagenomic Read clustEring. Bioinformatics, 2021, 37, 905-912.	4.1	6
139	Immunoglobulin rearrangement analysis from multiple lesions in the same patient using nextâ€generation sequencing. Histopathology, 2015, 67, 843-858.	2.9	5
140	ITNâ€"VIROINF: Understanding (Harmful) Virus-Host Interactions by Linking Virology and Bioinformatics. Viruses, 2021, 13, 766.	3.3	5
141	Preservation of bacterial DNA in 10-year-old guaiac FOBT cards and FIT tubes. Journal of Clinical Pathology, 2017, 70, 994-996.	2.0	4
142	Ecogenomics of the Marine Benthic Filamentous Cyanobacterium Adonisia. Microbial Ecology, 2020, 80, 249-265.	2.8	4
143	Development of Styrene Maleic Acid Lipid Particles as a Tool for Studies of Phage-Host Interactions. Journal of Virology, 2020, 94, .	3.4	3
144	Reply to: Caution in inferring viral strategies from abundance correlations in marine metagenomes. Nature Communications, 2019, 10, 502.	12.8	2

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145	Finding functional associations between prokaryotic virus orthologous groups: a proof of concept. BMC Bioinformatics, 2021, 22, 438.	2.6	2
146	Editorial: Computational Methods for Microbiome Analysis. Frontiers in Genetics, 2020, 11, 623897.	2.3	0
147	Colorectal Cancer-Associated Microbiota. , 2013, , 1-8.		0