

Frank Grutzner

List of Publications by Year in descending order

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97
papers

8,947
citations

87888

38
h-index

53230

85
g-index

105
all docs

105
docs citations

105
times ranked

10925
citing authors

#	ARTICLE	IF	CITATIONS
1	EchidnaCSI: Engaging the public in research and conservation of the short-beaked echidna. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
2	COVID restrictions impact wildlife monitoring in Australia. Biological Conservation, 2022, 267, 109470.	4.1	8
3	Functional Diversity and Evolution of Bitter Taste Receptors in Egg-Laying Mammals. Molecular Biology and Evolution, 2022, 39, .	8.9	2
4	The emergence of the brain non-CpG methylation system in vertebrates. Nature Ecology and Evolution, 2021, 5, 369-378.	7.8	63
5	Restriction of an intron size <i>en route</i> to endothermy. Nucleic Acids Research, 2021, 49, 2460-2487.	14.5	6
6	Towards complete and error-free genome assemblies of all vertebrate species. Nature, 2021, 592, 737-746.	27.8	1,139
7	Flavors of Non-Random Meiotic Segregation of Autosomes and Sex Chromosomes. Genes, 2021, 12, 1338.	2.4	5
8	Evolution, Expression and Meiotic Behavior of Genes Involved in Chromosome Segregation of Monotremes. Genes, 2021, 12, 1320.	2.4	1
9	EchidnaCSI – Improving monitoring of a cryptic species at continental scale using Citizen Science. Global Ecology and Conservation, 2021, 28, e01626.	2.1	3
10	Platypus and echidna genomes reveal mammalian biology and evolution. Nature, 2021, 592, 756-762.	27.8	85
11	Reduced Gonadotrophin Receptor Expression Is Associated with a More Aggressive Ovarian Cancer Phenotype. International Journal of Molecular Sciences, 2021, 22, 71.	4.1	12
12	The Evolution of Viviparity in Vertebrates. Advances in Anatomy, Embryology and Cell Biology, 2021, 234, 7-19.	1.6	1
13	A Comprehensive Molecular and Clinical Analysis of the piRNA Pathway Genes in Ovarian Cancer. Cancers, 2021, 13, 4.	3.7	9
14	Microchromosomes are building blocks of bird, reptile, and mammal chromosomes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	84
15	Transcriptome and translome co-evolution in mammals. Nature, 2020, 588, 642-647.	27.8	122
16	Chromosomics: Bridging the Gap between Genomes and Chromosomes. Genes, 2019, 10, 627.	2.4	79
17	Tachyglossus aculeatus (Monotremata: Tachyglossidae). Mammalian Species, 2019, 51, 75-91.	0.7	13
18	Non-invasive genetic sexing technique for analysis of short-beaked echidna (Tachyglossus aculeatus) populations. Reproduction, Fertility and Development, 2019, 31, 1289.	0.4	6

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19	Evidence for hormonal control of heart regenerative capacity during endothermy acquisition. <i>Science</i> , 2019, 364, 184-188.	12.6	252
20	Evolution and meiotic organization of heteromorphic sex chromosomes. <i>Current Topics in Developmental Biology</i> , 2019, 134, 1-48.	2.2	10
21	Insights into Platypus Population Structure and History from Whole-Genome Sequencing. <i>Molecular Biology and Evolution</i> , 2018, 35, 1238-1252.	8.9	27
22	PIWI-Interacting RNAs (piRNAs) and Cancer. , 2018, , 131-150.		0
23	Reproduction in Monotremes. , 2018, , 602-608.		0
24	Characterization of the Mel1c melatoninergic receptor in platypus (<i>Ornithorhynchus anatinus</i>). <i>PLoS ONE</i> , 2018, 13, e0191904.	2.5	35
25	Remodelling of the bovine placenta: Comprehensive morphological and histomorphological characterization at the late embryonic and early accelerated fetal growth stages. <i>Placenta</i> , 2017, 55, 37-46.	1.5	7
26	Targeted Deletion of an Entire Chromosome Using CRISPR/Cas9. <i>Molecular Therapy</i> , 2017, 25, 1736-1738.	8.2	71
27	Differential cohesin loading marks paired and unpaired regions of platypus sex chromosomes at prophase I. <i>Scientific Reports</i> , 2017, 7, 4217.	3.3	7
28	Monotreme glucagon-like peptide-1 in venom and gut: one gene “ two very different functions. <i>Scientific Reports</i> , 2016, 6, 37744.	3.3	12
29	Lack of sex chromosome specific meiotic silencing in platypus reveals origin of MSCI in therian mammals. <i>BMC Biology</i> , 2015, 13, 106.	3.8	23
30	Identification and characterisation of synaptonemal complex genes in monotremes. <i>Gene</i> , 2015, 567, 146-153.	2.2	3
31	Immunohistochemical analysis of pancreatic islets of platypus (<i>Ornithorhynchus anatinus</i>) and echidna (<i>Tachyglossus aculeatus</i> ssp.). <i>Journal of Anatomy</i> , 2015, 226, 373-380.	1.5	3
32	Ancient Transposable Elements Transformed the Uterine Regulatory Landscape and Transcriptome during the Evolution of Mammalian Pregnancy. <i>Cell Reports</i> , 2015, 10, 551-561.	6.4	249
33	Overexpression of piRNA Pathway Genes in Epithelial Ovarian Cancer. <i>PLoS ONE</i> , 2014, 9, e99687.	2.5	54
34	Origins and functional evolution of Y chromosomes across mammals. <i>Nature</i> , 2014, 508, 488-493.	27.8	448
35	The evolution of lncRNA repertoires and expression patterns in tetrapods. <i>Nature</i> , 2014, 505, 635-640.	27.8	898
36	RNA sequencing reveals sexually dimorphic gene expression before gonadal differentiation in chicken and allows comprehensive annotation of the W-chromosome. <i>Genome Biology</i> , 2013, 14, R26.	9.6	98

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37	Changes in the ghrelin hormone pathway maybe part of an unusual gastric system in monotremes. <i>General and Comparative Endocrinology</i> , 2013, 191, 74-82.	1.8	9
38	Conservation and Expression of PIWI-Interacting RNA Pathway Genes in Male and Female Adult Gonad of Amniotes. <i>Biology of Reproduction</i> , 2013, 89, 136.	2.7	28
39	Ancestry of the Australian Termitivorous Numbat. <i>Molecular Biology and Evolution</i> , 2013, 30, 1041-1045.	8.9	11
40	Epigenetic conservation at gene regulatory elements revealed by non-methylated DNA profiling in seven vertebrates. <i>ELife</i> , 2013, 2, e00348.	6.0	192
41	Widespread Divergence of the CEACAM/PSG Genes in Vertebrates and Humans Suggests Sensitivity to Selection. <i>PLoS ONE</i> , 2013, 8, e61701.	2.5	25
42	Mechanisms and Evolutionary Patterns of Mammalian and Avian Dosage Compensation. <i>PLoS Biology</i> , 2012, 10, e1001328.	5.6	198
43	An Exon Splice Enhancer Primes IGF2:IGF2R Binding Site Structure and Function Evolution. <i>Science</i> , 2012, 338, 1209-1213.	12.6	40
44	Insights into the evolution of mammalian telomerase: Platypus TERT shares similarities with genes of birds and other reptiles and localizes on sex chromosomes. <i>BMC Genomics</i> , 2012, 13, 216.	2.8	10
45	Chromosome Analysis in Invertebrates and Vertebrates. <i>Methods in Molecular Biology</i> , 2012, 772, 13-35.	0.9	26
46	Identification of mediator complex 26 (Crs7) gametologs on platypus X1 and Y5 sex chromosomes: a candidate testis-determining gene in monotremes?. <i>Chromosome Research</i> , 2012, 20, 127-138.	2.2	8
47	The evolution of gene expression levels in mammalian organs. <i>Nature</i> , 2011, 478, 343-348.	27.8	1,080
48	Replication asynchrony and differential condensation of X chromosomes in female platypus (<i>Ornithorhynchus anatinus</i>). <i>Reproduction, Fertility and Development</i> , 2009, 21, 952.	0.4	10
49	Evolution and Male Fertility: Lessons from the Insulin-Like Factor 6 Gene (Insl6). <i>Endocrinology</i> , 2009, 150, 3986-3990.	2.8	11
50	Higher-order genome organization in platypus and chicken sperm and repositioning of sex chromosomes during mammalian evolution. <i>Chromosoma</i> , 2009, 118, 53-69.	2.2	22
51	Characterisation of ATRX, DMRT1, DMRT7 and WT1 in the platypus (<i>Ornithorhynchus anatinus</i>). <i>Reproduction, Fertility and Development</i> , 2009, 21, 985.	0.4	14
52	Platypus chain reaction: directional and ordered meiotic pairing of the multiple sex chromosome chain in <i>Ornithorhynchus anatinus</i> . <i>Reproduction, Fertility and Development</i> , 2009, 21, 976.	0.4	10
53	Location, Location, Location! Monotremes Provide Unique Insights into the Evolution of Sex Chromosome Silencing in Mammals. <i>DNA and Cell Biology</i> , 2009, 28, 91-100.	1.9	14
54	The enigma of the platypus genome. <i>Australian Journal of Zoology</i> , 2009, 57, 157.	1.0	2

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55	Analysis of SINE and LINE repeat content of Y chromosomes in the platypus, <i>Ornithorhynchus anatinus</i> . <i>Reproduction, Fertility and Development</i> , 2009, 21, 964.	0.4	13
56	Genome analysis of the platypus reveals unique signatures of evolution. <i>Nature</i> , 2008, 453, 175-183.	27.8	657
57	Platypus <i>Pou5f1</i> reveals the first steps in the evolution of trophoctoderm differentiation and pluripotency in mammals. <i>Evolution & Development</i> , 2008, 10, 671-682.	2.0	60
58	Bird-like sex chromosomes of platypus imply recent origin of mammal sex chromosomes. <i>Genome Research</i> , 2008, 18, 965-973.	5.5	268
59	Loss of genes implicated in gastric function during platypus evolution. <i>Genome Biology</i> , 2008, 9, R81.	9.6	44
60	Retroposed SNOfall-A mammalian-wide comparison of platypus snoRNAs. <i>Genome Research</i> , 2008, 18, 1005-1010.	5.5	62
61	Cone visual pigments of monotremes: Filling the phylogenetic gap. <i>Visual Neuroscience</i> , 2008, 25, 257-264.	1.0	60
62	Reproductive Biology in Egg-Laying Mammals. <i>Sexual Development</i> , 2008, 2, 115-127.	2.0	26
63	Conservation of small RNA pathways in platypus. <i>Genome Research</i> , 2008, 18, 995-1004.	5.5	39
64	Mapping platypus SOX genes; autosomal location of SOX9 excludes it from sex determining role. <i>Cytogenetic and Genome Research</i> , 2007, 116, 232-234.	1.1	17
65	DMRT gene cluster analysis in the platypus: New insights into genomic organization and regulatory regions. <i>Genomics</i> , 2007, 89, 10-21.	2.9	52
66	The multiple sex chromosomes of platypus and echidna are not completely identical and several share homology with the avian Z. <i>Genome Biology</i> , 2007, 8, R243.	9.6	119
67	Disruption and pseudoautosomal localization of the major histocompatibility complex in monotremes. <i>Genome Biology</i> , 2007, 8, R175.	9.6	55
68	Sex determination in platypus and echidna: autosomal location of SOX3 confirms the absence of SRY from monotremes. <i>Chromosome Research</i> , 2007, 15, 949-959.	2.2	66
69	Characterizing the chromosomes of the platypus (<i>Ornithorhynchus anatinus</i>). <i>Chromosome Research</i> , 2007, 15, 961-974.	2.2	18
70	An XX/XY sex microchromosome system in a freshwater turtle, <i>Chelodina longicollis</i> (Testudines:). <i>Tj ETQq0 0 0 rgBT Overlock_10 Tf 50</i>	2.2	68
71	Construction of a highly enriched marsupial Y chromosome-specific BAC sub-library using isolated Y chromosomes. <i>Chromosome Research</i> , 2006, 14, 657-664.	2.2	23
72	How did the platypus get its sex chromosome chain? A comparison of meiotic multiples and sex chromosomes in plants and animals. <i>Chromosoma</i> , 2006, 115, 75-88.	2.2	60

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73	Segmental duplication associated with evolutionary instability of human chromosome 3p25.1. <i>Cytogenetic and Genome Research</i> , 2006, 112, 202-207.	1.1	5
74	Assignment of <i>SOX1</i> to platypus chromosome 20q by fluorescence in situ hybridization. <i>Cytogenetic and Genome Research</i> , 2006, 112, 342L-342L.	1.1	4
75	RBMX gene is essential for brain development in zebrafish. <i>Developmental Dynamics</i> , 2005, 234, 682-688.	1.8	46
76	Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. <i>Cytogenetic and Genome Research</i> , 2005, 108, 98-105.	1.1	13
77	In the platypus a meiotic chain of ten sex chromosomes shares genes with the bird Z and mammal X chromosomes. <i>Nature</i> , 2004, 432, 913-917.	27.8	252
78	Resolution and evolution of the duck-billed platypus karyotype with an X ₁ Y ₁ X ₂ Y ₂ X ₃ Y ₃ X ₄ Y ₄ X ₅ Y ₅ male sex chromosome constitution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 16257-16261.	7.1	149
79	A platypus™ eye view of the mammalian genome. <i>Current Opinion in Genetics and Development</i> , 2004, 14, 642-649.	3.3	30
80	Plasticity of human chromosome 3 during primate evolution. <i>Genomics</i> , 2004, 83, 193-202.	2.9	26
81	The monotreme genome: a patchwork of reptile, mammal and unique features?. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2003, 136, 867-881.	1.8	39
82	Comparative and functional analyses of LYL1 loci establish marsupial sequences as a model for phylogenetic footprinting†† Sequence data from this article have been deposited with the DDBJ/EMBL/GenBank Data Libraries under Accession No. AL731834.. <i>Genomics</i> , 2003, 81, 249-259.	2.9	42
83	Isolation of chromosomal regions controlling intersex development in a marsupial. <i>Cytogenetic and Genome Research</i> , 2003, 101, 224-228.	1.1	4
84	Four-Hundred Million Years of Conserved Synteny of Human Xp and Xq Genes on Three Tetraodon Chromosomes. <i>Genome Research</i> , 2002, 12, 1316-1322.	5.5	24
85	Species-specific evolution of repeated DNA sequences in great apes. <i>Chromosome Research</i> , 2001, 9, 431-435.	2.2	7
86	Molecular cloning and characterization of the Fugu rubripes MEST/COPG2 imprinting cluster and chromosomal localization in Fugu and Tetraodon nigroviridis. <i>Chromosome Research</i> , 2000, 8, 465-476.	2.2	13
87	Conserved synteny between the chicken Z sex chromosome and human chromosome 9 includes the male regulatory gene <i>DMRT1</i> ; a comparative (re)view on avian sex determination. <i>Cytogenetic and Genome Research</i> , 2000, 89, 67-78.	1.1	159
88	Global methylation in eutherian hybrids. <i>Nature</i> , 1999, 401, 131-132.	27.8	145
89	300 million years of conserved synteny between chicken Z and human chromosome 9. <i>Nature Genetics</i> , 1999, 21, 258-259.	21.4	330
90	Classical and molecular cytogenetics of the pufferfish Tetraodon nigroviridis. <i>Chromosome Research</i> , 1999, 7, 655-662.	2.2	33

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91	Comparative Mapping of Mouse and Rat Chromosomes by Fluorescence in Situ Hybridization. <i>Genomics</i> , 1999, 55, 306-313.	2.9	46
92	Primate Evolution of an Olfactory Receptor Cluster: Diversification by Gene Conversion and Recent Emergence of Pseudogenes. <i>Genomics</i> , 1999, 61, 24-36.	2.9	119
93	Simian Y Chromosomes: species-specific rearrangements of DAZ, RBM, and TSPY versus contiguity of PAR and SRY. <i>Mammalian Genome</i> , 1998, 9, 226-231.	2.2	58
94	Comparative mapping of Xp22 genes in hominoids--evolutionary linear instability of their Y homologues. <i>Chromosome Research</i> , 1997, 5, 167-176.	2.2	19
95	Inverted and satellited Y chromosome in the orangutan (<i>Pongo pygmaeus</i>). <i>Chromosome Research</i> , 1993, 1, 69-75.	2.2	19
96	Replication Timing: Evolution, Nuclear Organization and Relevance for Human Disease. , 0, , .		0
97	Characterising the Gut Microbiomes in Wild and Captive Short-Beaked Echidnas Reveals Diet-Associated Changes. <i>Frontiers in Microbiology</i> , 0, 13, .	3.5	8