## Marc Robinson-Rechavi

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Genome duplication in the teleost fish Tetraodon nigroviridis reveals the early vertebrate proto-karyotype. Nature, 2004, 431, 946-957.	13.7	1,801
2	The amphioxus genome and the evolution of the chordate karyotype. Nature, 2008, 453, 1064-1071.	13.7	1,496
3	Genome sequence of the metazoan plant-parasitic nematode Meloidogyne incognita. Nature Biotechnology, 2008, 26, 909-915.	9.4	1,012
4	The amphioxus genome illuminates vertebrate origins and cephalochordate biology. Genome Research, 2008, 18, 1100-1111.	2.4	456
5	The nuclear receptor superfamily. Journal of Cell Science, 2003, 116, 585-586.	1.2	424
6	Gene Loss and Evolutionary Rates Following Whole-Genome Duplication in Teleost Fishes. Molecular Biology and Evolution, 2006, 23, 1808-1816.	3.5	352
7	Evolutionary Genomics of Nuclear Receptors: From Twenty-Five Ancestral Genes to Derived Endocrine Systems. Molecular Biology and Evolution, 2004, 21, 1923-1937.	3.5	319
8	RRTree: Relative-Rate Tests between groups of sequences on a phylogenetic tree. Bioinformatics, 2000, 16, 296-297.	1.8	317
9	A benchmark of gene expression tissue-specificity metrics. Briefings in Bioinformatics, 2017, 18, bbw008.	3.2	302
10	Evidence for two distinct functional glucocorticoid receptors in teleost fish. Journal of Molecular Endocrinology, 2003, 31, 141-156.	1.1	220
11	Resolving the Ortholog Conjecture: Orthologs Tend to Be Weakly, but Significantly, More Similar in Function than Paralogs. PLoS Computational Biology, 2012, 8, e1002514.	1.5	217
12	How many nuclear hormone receptors are there in the human genome?. Trends in Genetics, 2001, 17, 554-556.	2.9	209
13	Euteleost Fish Genomes are Characterized by Expansion of Gene Families. Genome Research, 2001, 11, 781-788.	2.4	201
14	Evidence for Polygenic Adaptation to Pathogens in the Human Genome. Molecular Biology and Evolution, 2013, 30, 1544-1558.	3.5	181
15	Sensitivity of the relative-rate test to taxonomic sampling. Molecular Biology and Evolution, 1998, 15, 1091-1098.	3.5	180
16	How confident can we be that orthologs are similar, but paralogs differ?. Trends in Genetics, 2009, 25, 210-216.	2.9	156
17	One Billion Years of bZIP Transcription Factor Evolution: Conservation and Change in Dimerization and DNA-Binding Site Specificity. Molecular Biology and Evolution, 2006, 24, 827-835.	3.5	155
18	Patterns of Positive Selection in Seven Ant Genomes. Molecular Biology and Evolution, 2014, 31, 1661-1685.	3.5	138

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19	Bgee: Integrating and Comparing Heterogeneous Transcriptome Data Among Species. Lecture Notes in Computer Science, 2008, , 124-131.	1.0	137
20	Contribution of Electrostatic Interactions, Compactness and Quaternary Structure to Protein Thermostability: Lessons from Structural Genomics of Thermotoga maritima. Journal of Molecular Biology, 2006, 356, 547-557.	2.0	132
21	Characterization of oestrogen receptors in zebrafish (Danio rerio). Journal of Molecular Endocrinology, 2002, 28, 153-163.	1.1	124
22	Community-wide plasmid gene mobilization and selection. ISME Journal, 2013, 7, 1173-1186.	4.4	124
23	The Branch-Site Test of Positive Selection Is Surprisingly Robust but Lacks Power under Synonymous Substitution Saturation and Variation in GC. Molecular Biology and Evolution, 2013, 30, 1675-1686.	3.5	122
24	Unification of multi-species vertebrate anatomy ontologies for comparative biology in Uberon. Journal of Biomedical Semantics, 2014, 5, 21.	0.9	121
25	Low number of fixed somatic mutations in a long-lived oak tree. Nature Plants, 2017, 3, 926-929.	4.7	120
26	An ancestral whole-genome duplication may not have been responsible for the abundance of duplicated fish genes. Current Biology, 2001, 11, R458-R459.	1.8	112
27	The Bgee suite: integrated curated expression atlas and comparative transcriptomics in animals. Nucleic Acids Research, 2021, 49, D831-D847.	6.5	112
28	Big data and other challenges in the quest for orthologs. Bioinformatics, 2014, 30, 2993-2998.	1.8	109
29	Neofunctionalization in Vertebrates: The Example of Retinoic Acid Receptors. PLoS Genetics, 2006, 2, e102.	1.5	108
30	Explosive Lineage-Specific Expansion of the Orphan Nuclear Receptor HNF4 in Nematodes. Journal of Molecular Evolution, 2005, 60, 577-586.	0.8	100
31	Developmental Constraints on Vertebrate Genome Evolution. PLoS Genetics, 2008, 4, e1000311.	1.5	99
32	Molecular Phylogeny of Rodents, with Special Emphasis on Murids: Evidence from Nuclear Gene LCAT. Molecular Phylogenetics and Evolution, 1997, 8, 423-434.	1.2	88
33	A conserved retinoid X receptor (RXR) from the mollusk Biomphalaria glabrata transactivates transcription in the presence of retinoids. Journal of Molecular Endocrinology, 2005, 34, 567-582.	1.1	82
34	Evolutionary Rates of Duplicate Genes in Fish and Mammals. Molecular Biology and Evolution, 2001, 18, 681-683.	3.5	80
35	Rapid Divergence of the Ecdysone Receptor in Diptera and Lepidoptera Suggests Coevolution Between ECR and USP-RXR. Molecular Biology and Evolution, 2003, 20, 541-553.	3.5	73
36	Pervasive positive selection on duplicated and nonduplicated vertebrate protein coding genes. Genome Research, 2008, 18, 1393-1402.	2.4	73

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37	The Hourglass and the Early Conservation Models—Co-Existing Patterns of Developmental Constraints in Vertebrates. PLoS Genetics, 2013, 9, e1003476.	1.5	73
38	Phylogenetic Dating and Characterization of Gene Duplications in Vertebrates: The Cartilaginous Fish Reference. Molecular Biology and Evolution, 2004, 21, 580-586.	3.5	70
39	Tissue-Specificity of Gene Expression Diverges Slowly between Orthologs, and Rapidly between Paralogs. PLoS Computational Biology, 2016, 12, e1005274.	1.5	66
40	Selectome update: quality control and computational improvements to a database of positive selection. Nucleic Acids Research, 2014, 42, D917-D921.	6.5	65
41	The SIB Swiss Institute of Bioinformatics' resources: focus on curated databases. Nucleic Acids Research, 2016, 44, D27-D37.	6.5	64
42	Bayesian association scan reveals loci associated with human lifespan and linked biomarkers. Nature Communications, 2017, 8, 15842.	5.8	64
43	When orthologs diverge between human and mouse. Briefings in Bioinformatics, 2011, 12, 436-441.	3.2	63
44	What to compare and how: Comparative transcriptomics for Evoâ€Đevo. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2015, 324, 372-382.	0.6	63
45	Structural Genomics of Thermotoga maritima Proteins Shows that Contact Order Is a Major Determinant of Protein Thermostability. Structure, 2005, 13, 857-860.	1.6	58
46	Genomic Features of Parthenogenetic Animals. Journal of Heredity, 2021, 112, 19-33.	1.0	55
47	Molecular Evidence for a Functional Ecdysone Signaling System in Brugia malayi. PLoS Neglected Tropical Diseases, 2010, 4, e625.	1.3	52
48	Comparative genome analysis of <scp><i>P</i></scp> <i>seudomonas knackmussii</i> â€ <scp>B</scp> 13, the first bacterium known to degrade chloroaromatic compounds. Environmental Microbiology, 2015, 17, 91-104.	1.8	52
49	Interactome Mapping of the Phosphatidylinositol 3-Kinase-Mammalian Target of Rapamycin Pathway Identifies Deformed Epidermal Autoregulatory Factor-1 as a New Glycogen Synthase Kinase-3 Interactor. Molecular and Cellular Proteomics, 2010, 9, 1578-1593.	2.5	51
50	Age-dependent gain of alternative splice forms and biased duplication explain the relation between splicing and duplication. Genome Research, 2011, 21, 357-363.	2.4	50
51	Comparative analysis of human and mouse expression data illuminates tissue-specific evolutionary patterns of miRNAs. Nucleic Acids Research, 2012, 40, 5890-5900.	6.5	48
52	Detection of Pathways Affected by Positive Selection in Primate Lineages Ancestral to Humans. Molecular Biology and Evolution, 2017, 34, 1391-1402.	3.5	47
53	Structural and Evolutionary Innovation of the Heterodimerization Interface between USP and the Ecdysone Receptor ECR in Insects. Molecular Biology and Evolution, 2009, 26, 753-768.	3.5	45
54	How much does the amphioxus genome represent the ancestor of chordates?. Briefings in Functional Genomics, 2012, 11, 89-95.	1.3	45

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55	Genomic changes underlying host specialization in the bee gut symbiont <i>Lactobacillus</i> Firm5. Molecular Ecology, 2019, 28, 2224-2237.	2.0	45
56	Selective Constraints on Coding Sequences of Nervous System Genes Are a Major Determinant of Duplicate Gene Retention in Vertebrates. Molecular Biology and Evolution, 2017, 34, 2773-2791.	3.5	43
57	Tissue-Specific Evolution of Protein Coding Genes in Human and Mouse. PLoS ONE, 2015, 10, e0131673.	1.1	40
58	NUREBASE: database of nuclear hormone receptors. Nucleic Acids Research, 2002, 30, 364-368.	6.5	39
59	Evolution of the epithelial sodium channel and the sodium pump as limiting factors of aldosterone action on sodium transport. Physiological Genomics, 2011, 43, 844-854.	1.0	39
60	A protein interaction atlas for the nuclear receptors: properties and quality of a hub-based dimerisation network. BMC Systems Biology, 2007, 1, 34.	3.0	38
61	Selectome: a database of positive selection. Nucleic Acids Research, 2009, 37, D404-D407.	6.5	38
62	The Confidence Information Ontology: a step towards a standard for asserting confidence in annotations. Database: the Journal of Biological Databases and Curation, 2015, 2015, bav043-bav043.	1.4	37
63	Gearing up to handle the mosaic nature of life in the quest for orthologs. Bioinformatics, 2018, 34, 323-329.	1.8	36
64	Identifying gene function and module connections by the integration of multispecies expression compendia. Genome Research, 2019, 29, 2034-2045.	2.4	36
65	Molecular signaling in zebrafish development and the vertebrate phylotypic period. Evolution & Development, 2010, 12, 144-156.	1.1	33
66	Conceptual framework and pilot study to benchmark phylogenomic databases based on reference gene trees. Briefings in Bioinformatics, 2011, 12, 423-435.	3.2	33
67	Fast Evolution of Interleukin-2 in Mammals and Positive Selection in Ruminants. Journal of Molecular Evolution, 2000, 51, 234-244.	0.8	32
68	Nuclear receptors are markers of animal genome evolution. Journal of Structural and Functional Genomics, 2003, 3, 177-184.	1.2	32
69	Sequencing and characterizing the genome of Estrella lausannensis as an undergraduate project: training students and biological insights. Frontiers in Microbiology, 2015, 6, 101.	1.5	32
70	Evolution of isochores in rodents. Molecular Biology and Evolution, 1997, 14, 823-828.	3.5	31
71	OncoMX: A Knowledgebase for Exploring Cancer Biomarkers in the Context of Related Cancer and Healthy Data. JCO Clinical Cancer Informatics, 2020, 4, 210-220.	1.0	30
72	Large-Scale Comparative Analysis of Codon Models Accounting for Protein and Nucleotide Selection. Molecular Biology and Evolution, 2019, 36, 1316-1332.	3.5	28

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73	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. PLoS Computational Biology, 2020, 16, e1007666.	1.5	28
74	Inventing a Sex-Specific Gene: A Conserved Role of DMRT1 in Teleost Fishes Plus a Recent Duplication in the Medaka Oryzias latipes Resulted in DMY. Journal of Molecular Evolution, 2003, 57, S148-S153.	0.8	27
75	Genomic signatures accompanying the dietary shift to phytophagy in polyphagan beetles. Genome Biology, 2019, 20, 98.	3.8	27
76	BgeeDB, an R package for retrieval of curated expression datasets and for gene list expression localization enrichment tests. F1000Research, 2016, 5, 2748.	0.8	27
77	Convergent consequences of parthenogenesis on stick insect genomes. Science Advances, 2022, 8, eabg3842.	4.7	27
78	Meta-analysis of estrogen response in MCF-7 distinguishes early target genes involved in signaling and cell proliferation from later target genes involved in cell cycle and DNA repair. BMC Systems Biology, 2011, 5, 138.	3.0	26
79	Repeated Evolution of Asexuality Involves Convergent Gene Expression Changes. Molecular Biology and Evolution, 2019, 36, 350-364.	3.5	26
80	Optimization strategies for fast detection of positive selection on phylogenetic trees. Bioinformatics, 2014, 30, 1129-1137.	1.8	24
81	The Genome of the Toluene-Degrading Pseudomonas veronii Strain 1YdBTEX2 and Its Differential Gene Expression in Contaminated Sand. PLoS ONE, 2016, 11, e0165850.	1.1	24
82	Update of NUREBASE: nuclear hormone receptor functional genomics. Nucleic Acids Research, 2004, 32, 165D-167.	6.5	23
83	Developmental Constraints on Genome Evolution in Four Bilaterian Model Species. Genome Biology and Evolution, 2018, 10, 2266-2277.	1.1	23
84	Enabling semantic queries across federated bioinformatics databases. Database: the Journal of Biological Databases and Curation, 2019, 2019, .	1.4	23
85	Inter-embryo gene expression variability recapitulates the hourglass pattern of evo-devo. BMC Biology, 2020, 18, 129.	1.7	23
86	Haplotype divergence supports long-term asexuality in the oribatid mite <i>Oppiella nova</i> . Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	23
87	BgeeDB, an R package for retrieval of curated expression datasets and for gene list expression localization enrichment tests. F1000Research, 2016, 5, 2748.	0.8	23
88	Sex-biased gene expression is repeatedly masculinized in asexual females. Nature Communications, 2019, 10, 4638.	5.8	21
89	JaDis: computing distances between nucleic acid sequences. Bioinformatics, 1999, 15, 424-425.	1.8	20
90	Homolonto: generating homology relationships by pairwise alignment of ontologies and application to vertebrate anatomy. Bioinformatics, 2010, 26, 1766-1771.	1.8	20

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91	Detecting patterns of species diversification in the presence of both rate shifts and mass extinctions. BMC Evolutionary Biology, 2015, 15, 157.	3.2	20
92	Robust inference of positive selection on regulatory sequences in the human brain. Science Advances, 2020, 6, .	4.7	20
93	vHOG, a multispecies vertebrate ontology of homologous organs groups. Bioinformatics, 2012, 28, 1017-1020.	1.8	19
94	Correcting for the bias due to expression specificity improves the estimation of constrained evolution of expression between mouse and human. Bioinformatics, 2012, 28, 1865-1872.	1.8	19
95	Large-Scale Analysis of Orthologs and Paralogs under Covarion-Like and Constant-but-Different Models of Amino Acid Evolution. Molecular Biology and Evolution, 2010, 27, 2618-2627.	3.5	17
96	Evidence for an episodic model of protein sequence evolution. Biochemical Society Transactions, 2009, 37, 783-786.	1.6	16
97	Nuclear receptors are markers of animal genome evolution. Journal of Structural and Functional Genomics, 2003, 3, 177-84.	1.2	16
98	An ontology to clarify homology-related concepts. Trends in Genetics, 2010, 26, 99-102.	2.9	15
99	IQRray, a new method for Affymetrix microarray quality control, and the homologous organ conservation score, a new benchmark method for quality control metrics. Bioinformatics, 2014, 30, 1392-1399.	1.8	15
100	Sex differentiation in grayling (Salmonidae) goes through an all-male stage and is delayed in genetic males who instead grow faster. Scientific Reports, 2017, 7, 15024.	1.6	15
101	Adaptive Evolution of Animal Proteins over Development: Support for the Darwin Selection Opportunity Hypothesis of Evo-Devo. Molecular Biology and Evolution, 2018, 35, 2862-2872.	3.5	15
102	Convergent evolution of venom gland transcriptomes across Metazoa. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	15
103	Orthologues of the Drosophila melanogaster E75 molting control gene in the filarial parasites Brugia malayi and Dirofilaria immitis. Molecular and Biochemical Parasitology, 2008, 157, 92-97.	0.5	14
104	The challenge of modeling nuclear receptor regulatory networks in mammalian cells. Molecular and Cellular Endocrinology, 2011, 334, 91-97.	1.6	14
105	Uncovering hidden duplicated content in public transcriptomics data. Database: the Journal of Biological Databases and Curation, 2013, 2013, bat010.	1.4	14
106	Quality Matters: Biocuration Experts on the Impact of Duplication and Other Data Quality Issues in Biological Databases. Genomics, Proteomics and Bioinformatics, 2020, 18, 91-103.	3.0	14
107	Dynamics of sex-biased gene expression during development in the stick insect Timema californicum. Heredity, 2022, 129, 113-122.	1.2	14
108	Inference of Evolutionary Forces Acting on Human Biological Pathways. Genome Biology and Evolution, 2015, 7, 1546-1558.	1.1	13

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109	An ancient truncated duplication of the antiâ€Müllerian hormone receptor type 2 gene is a potential conserved master sex determinant in the Pangasiidae catfish family. Molecular Ecology Resources, 2022, 22, 2411-2428.	2.2	13
110	Nuclear Gene LCAT Supports Rodent Monophyly. Molecular Biology and Evolution, 2000, 17, 1410-1412.	3.5	12
111	SlimCodeML: An Optimized Version of CodeML for the Branch-Site Model. , 2012, , .		12
112	Sex-specific changes in gene expression in response to estrogen pollution around the onset of sex differentiation in grayling (Salmonidae). BMC Genomics, 2019, 20, 583.	1.2	11
113	Cross-species functional modules link proteostasis to human normal aging. PLoS Computational Biology, 2019, 15, e1007162.	1.5	11
114	No evidence for the radiation time lag model after whole genome duplications in Teleostei. PLoS ONE, 2017, 12, e0176384.	1.1	11
115	Impact of changes in GC content on the silent molecular clock in murids. Gene, 1997, 205, 317-322.	1.0	9
116	Bioinformatics of Nuclear Receptors. Methods in Enzymology, 2003, 364, 93-118.	0.4	9
117	Comparative modular analysis of gene expression in vertebrate organs. BMC Genomics, 2012, 13, 124.	1.2	9
118	Single-cell transcriptomics allows novel insights into aging and circadian processes. Briefings in Functional Genomics, 2020, 19, 343-349.	1.3	9
119	First annotated draft genomes of nonmarine ostracods (Ostracoda, Crustacea) with different reproductive modes. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	9
120	The hourglass model of evolutionary conservation during embryogenesis extends to developmental enhancers with signatures of positive selection. Genome Research, 2021, 31, 1573-1581.	2.4	9
121	Special Care Is Needed in Applying Phylogenetic Comparative Methods to Gene Trees with Speciation and Duplication Nodes. Molecular Biology and Evolution, 2021, 38, 1614-1626.	3.5	8
122	Re: Revisiting recent challenges to the ancient fish-specific genome duplication hypothesis. Current Biology, 2001, 11, R1007-R1008.	1.8	7
123	State aggregation for fast likelihood computations in molecular evolution. Bioinformatics, 2017, 33, 354-362.	1.8	7
124	The expansion of amino-acid repeats is not associated to adaptive evolution in mammalian genes. BMC Genomics, 2009, 10, 619.	1.2	6
125	OMAmer: tree-driven and alignment-free protein assignment to subfamilies outperforms closest sequence approaches. Bioinformatics, 2021, 37, 2866-2873.	1.8	5
126	gcodeml: a Grid-enabled tool for detecting positive selection in biological evolution. Studies in Health Technology and Informatics, 2012, 175, 59-68.	0.2	5

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127	USAGE OPTIMIZATION OF UNEVENLY SAMPLED DATA THROUGH THE COMBINATION OF QUARTET TREES: A EUTHERIAN DRAFT PHYLOGENY BASED ON 640 NUCLEAR AND MITOCHONDRIAL PROTEINS. Israel Journal of Zoology, 2001, 47, 259-270.	0.2	4
128	Molecular evolution of angrogen receptors in fish. Fish Physiology and Biochemistry, 2003, 28, 207-208.	0.9	4
129	Bio-SODA: Enabling Natural Language Question Answering over Knowledge Graphs without Training Data. , 2021, , .		4
130	Performance of a phylogenetic independent contrast method and an improved pairwise comparison under different scenarios of trait evolution after speciation and duplication. Methods in Ecology and Evolution, 2021, 12, 1875-1887.	2.2	4
131	Large-Scale Analyses of Positive Selection Using Codon Models. , 2009, , 217-235.		3
132	Determinants of protein evolutionary rates in light of ENCODE functional genomics. BMC Bioinformatics, 2014, 15, .	1.2	2
133	Nuclear receptors are markers of animal genome evolution. , 2003, , 177-184.		2
134	Perspective: From molecular endocrinology of mouse to genomic endocrinology of animals. Molecular and Cellular Endocrinology, 2008, 293, 2-4.	1.6	1
135	DATABASE, The Journal of Biological Databases and Curation, is now the official journal of the International Society for Biocuration. Database: the Journal of Biological Databases and Curation, 2013, 2013, bat077-bat077.	1.4	1
136	Phylogenetic code in the cloud - can it meet the expectations?. Studies in Health Technology and Informatics, 2010, 159, 55-63.	0.2	1
137	Bio-SODA UX: enabling natural language question answering over knowledge graphs with user disambiguation. Distributed and Parallel Databases, 0, , .	1.0	1
138	Bioinformatics for Evolutionary Developmental Biology. , 2009, , 355-378.		0
139	Genomics is changing Evoâ€Đevo. Journal of Experimental Zoology Part B: Molecular and Developmental Evolution, 2015, 324, 315-315.	0.6	Ο
140	Combining molecular information on chromatin organisation with eQTLs and evolutionary conservation provides strong candidates for the evolution of gene regulation in mammalian brains. Peer Community in Evolutionary Biology, 2018, , 100035.	0.0	0
141	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. , 2020, 16, e1007666.		Ο
142	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. , 2020, 16, e1007666.		0
143	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. , 2020, 16, e1007666.		0
144	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. , 2020, 16, e1007666.		0

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145	Methods detecting rhythmic gene expression are biologically relevant only for strong signal. , 2020, 16, e1007666.		Ο
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