# Charles F Aquadro

List of Publications by Year
in descending order



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|---|---|---|---|
| 86 papers | 8,932 citations | 71102 41 h-index | 56724 83 g-index |
| 89 all docs | 89 docs citations | 89 times ranked | 8175 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Evolution of genes and genomes on the Drosophila phylogeny. Nature, 2007, 450, 203-218. | 27.8 | 1,886 |
| 2 | Levels of naturally occurring DNA polymorphism correlate with recombination rates in D. melanogaster. Nature, 1992, 356, 519-520. | 27.8 | 1,019 |
| 3 | HUMAN MITOCHONDRIAL DNA VARIATION AND EVOLUTION: ANALYSIS OF NUCLEOTIDE SEQUENCES FROM SEVEN INDIVIDUALS. Genetics, 1983, 103, 287-312. | 2.9 | 401 |
| 4 | African and North American populations of Drosophila melanogaster are very different at the DNA level. Nature, 1993, 365, 548-550. | 27.8 | 330 |
| 5 | Stepwise Modification of a Modular Enhancer Underlies Adaptation in a <i>Drosophila</i> Population. Science, 2009, 326, 1663-1667. | 12.6 | 259 |
| 6 | MOLECULAR POPULATION GENETICS OF THE ALCOHOL DEHYDROGENASE GENE REGION OF <i>DROSOPHILA MELANOGASTER</i>. Genetics, 1986, 114, 1165-1190. | 2.9 | 234 |
| 7 | Distinguishing Between Selective Sweeps and Demography Using DNA Polymorphism Data. Genetics, 2005, 170, 1401-1410. | 2.9 | 229 |
| 8 | Low mutation rates of microsatellite loci in Drosophila melanogaster. Nature Genetics, 1997, 15, 99-102. | 21.4 | 223 |
| 9 | Nonneutral Mitochondrial DNA Variation in Humans and Chimpanzees. Genetics, 1996, 142, 953-963. | 2.9 | 211 |
| 10 | Evolutionary Expressed Sequence Tag Analysis of Drosophila Female Reproductive Tracts Identifies Genes Subjected to Positive Selection. Genetics, 2004, 168, 1457-1465. | 2.9 | 199 |
| 11 | DNA Variability and Recombination Rates at X-Linked Loci in Humans. Genetics, 1998, 150, 1133-1141. | 2.9 | 194 |
| 12 | Canine host range and a specific epitope map along with variant sequences in the capsid protein gene of canine parvovirus and related feline, mink, and raccoon parvoviruses. Virology, 1988, 166, 293-307. | 2.4 | 168 |
| 13 | Evolutionary Rate Covariation Identifies New Members of a Protein Network Required for Drosophila melanogaster Female Post-Mating Responses. PLoS Genetics, 2014, 10, e1004108. | 3.5 | 137 |
| 14 | The genetic basis of adaptive pigmentation variation in Drosophila melanogaster. Molecular Ecology, 2007, 16, 2844-2851. | 3.9 | 132 |
| 15 | Coevolution of Interacting Fertilization Proteins. PLoS Genetics, 2009, 5, e1000570. | 3.5 | 125 |
| 16 | The importance of the Neutral Theory in 1968 and 50 years on: A response to Kern and Hahn 2018. Evolution; International Journal of Organic Evolution, 2019, 73, 111-114. | 2.3 | 123 |
| 17 | Comparative structural modeling and inference of conserved protein classes in Drosophila seminal fluid. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13542-13547. | 7.1 | 118 |
| 18 | Nucleotide Sequence of the Adh Gene Region of Drosophila pseudoobscura: Evolutionary Change and Evidence for an Ancient Gene Duplication. Genetics, 1987, 117, 61-73. | 2.9 | 115 |

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|---|---|---|---|
| 19 | Mitochondrial DNA Variation among Lake Trout (<i>Salvelinus namaycush</i>) Strains Stocked into Lake Ontario. Canadian Journal of Fisheries and Aquatic Sciences, 1993, 50, 2397-2403. | 1.4 | 112 |
| 20 | Selection, Recombination, and DNA Polymorphism in Drosophila. , 1994, , 46-56. | | 106 |
| 21 | A Nutrient-Driven tRNA Modification Alters Translational Fidelity and Genome-wide Protein Coding across an Animal Genus. PLoS Biology, 2014, 12, e1002015. | 5.6 | 93 |
| 22 | Genome-wide variation in the human and fruitfly: a comparison. Current Opinion in Genetics and Development, 2001, 11, 627-634. | 3.3 | 91 |
| 23 | Approaches for identifying targets of positive selection. Trends in Genetics, 2007, 23, 568-577. | 6.7 | 89 |
| 24 | Evolutionary rate covariation reveals shared functionality and coexpression of genes. Genome Research, 2012, 22, 714-720. | 5.5 | 89 |
| 25 | Microsatellite Mutation Models. Genetics, 2004, 168, 383-395. | 2.9 | 86 |
| 26 | Challenges of Detecting Directional Selection After a Bottleneck: Lessons From Sorghum bicolor. Genetics, 2006, 173, 953-964. | 2.9 | 86 |
| 27 | On the Utility of Linkage Disequilibrium as a Statistic for Identifying Targets of Positive Selection in Nonequilibrium Populations. Genetics, 2007, 176, 2371-2379. | 2.9 | 84 |
| 28 | Polymorphism in Abalone Fertilization Proteins Is Consistent with the Neutral Evolution of the Egg's Receptor for Lysin (VERL) and Positive Darwinian Selection of Sperm Lysin. Molecular Biology and Evolution, 2001, 18, 376-383. | 8.9 | 83 |
| 29 | Genetic Variation and Differentiation at Microsatellite Loci in Drosophila simulans: Evidence for Founder Effects in New World Populations. Genetics, 1998, 150, 777-790. | 2.9 | 80 |
| 30 | Why is the genome variable? Insights from Drosophila. Trends in Genetics, 1992, 8, 355-362. | 6.7 | 76 |
| 31 | Negative epistasis between natural variants of the Saccharomyces cerevisiae MLH1 and PMS1 genes results in a defect in mismatch repair. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 3256-3261. | 7.1 | 76 |
| 32 | Distribution and Abundance of Microsatellites in the Yeast Genome Can Be Explained by a Balance Between Slippage Events and Point Mutations. Molecular Biology and Evolution, 2000, 17, 1210-1219. | 8.9 | 73 |
| 33 | Maximum Likelihood Estimation of Ancestral Codon Usage Bias Parameters in Drosophila. Molecular Biology and Evolution, 2006, 24, 228-235. | 8.9 | 71 |
| 34 | History and Structure of Sub-Saharan Populations of Drosophila melanogaster. Genetics, 2006, 174, 915-929. | 2.9 | 70 |
| 35 | Microsatellite Variation in Colonizing and Palearctic Populations of Drosophila subobscura. Molecular Biology and Evolution, 2001, 18, 731-740. | 8.9 | 66 |
| 36 | The Evolutionary Analysis of â€œOrphansâ€•From the Drosophila Genome Identifies Rapidly Diverging and Incorrectly Annotated Genes. Genetics, 2001, 159, 589-598. | 2.9 | 64 |

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|---|---|---|---|
| 37 | Recommendations for improving statistical inference in population genomics. PLoS Biology, 2022, 20, e3001669. | 5.6 | 60 |
| 38 | Strong Evidence for Lineage and Sequence Specificity of Substitution Rates and Patterns in Drosophila. Molecular Biology and Evolution, 2009, 26, 1591-1605. | 8.9 | 57 |
| 39 | Microsatellite variation in populations of Drosophila pseudoobscura and Drosophila persimilis. Genetical Research, 2000, 75, 25-35. | 0.9 | 55 |
| 40 | Evidence for Positive Selection on Drosophila melanogaster Seminal Fluid Protease Homologs. Molecular Biology and Evolution, 2008, 25, 497-506. | 8.9 | 54 |
| 41 | Dynamics of Microsatellite Divergence Under Stepwise Mutation and Proportional Slippage/Point Mutation Models. Genetics, 2001, 159, 839-852. | 2.9 | 53 |
| 42 | DNA Sequence Variation and the Recombinational Landscape in Drosophila pseudoobscura: A Study of the Second Chromosome. Genetics, 1999, 153, 859-869. | 2.9 | 52 |
| 43 | DNA Variability and Divergence at the Notch Locus in Drosophila melanogaster and D. simulans: A Case of Accelerated Synonymous Site Divergence. Genetics, 2004, 167, 171-185. | 2.9 | 47 |
| 44 | Patterns of Mutation and Selection at Synonymous Sites in Drosophila. Molecular Biology and Evolution, 2007, 24, 2687-2697. | 8.9 | 45 |
| 45 | Fitting background-selection predictions to levels of nucleotide variation and divergence along the human autosomes. Genome Research, 2005, 15, 1211-1221. | 5.5 | 44 |
| 46 | Insights into the evolutionary process from patterns of DNA sequence variability. Current Opinion in Genetics and Development, 1997, 7, 835-840. | 3.3 | 42 |
| 47 | A Novel Method to Detect Proteins Evolving at Correlated Rates: Identifying New Functional Relationships between Coevolving Proteins. Molecular Biology and Evolution, 2010, 27, 1152-1161. | 8.9 | 42 |
| 48 | Large Number of Replacement Polymorphisms in Rapidly Evolving Genes of Drosophila: Implications for Genome-Wide Surveys of DNA Polymorphism. Genetics, 1999, 153, 1717-1729. | 2.9 | 40 |
| 49 | Multiple Signatures of Positive Selection Downstream of Notch on the X Chromosome in Drosophila melanogaster. Genetics, 2005, 171, 639-653. | 2.9 | 39 |
| 50 | High Density of Long Dinucleotide Microsatellites in Drosophila subobscura. Molecular Biology and Evolution, 2000, 17, 1259-1267. | 8.9 | 36 |
| 51 | Recurrent Positive Selection at Bgcn, a Key Determinant of Germ Line Differentiation, Does Not Appear to be Driven by Simple Coevolution with Its Partner Protein Bam. Molecular Biology and Evolution, 2007, 24, 182-191. | 8.9 | 36 |
| 52 | Mutation and evolution of microsatellites in Drosophila melanogaster. Genetica, 1998, 102/103, 359-367. | 1.1 | 35 |
| 53 | A Scan of Molecular Variation Leads to the Narrow Localization of a Selective Sweep Affecting Both Afrotropical and Cosmopolitan Populations of Drosophila melanogaster. Genetics, 2006, 172, 1093-1105. | 2.9 | 35 |
| 54 | Contrasting Patterns of Nucleotide Sequence Variation at the Glucose Dehydrogenase (<i>Gld</i>) Locus in Different Populations of <i>Drosophila melanogaster</i>. Genetics, 1997, 145, 1053-1062. | 2.9 | 35 |

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| 55 | Evolutionary Rate Covariation in Meiotic Proteins Results from Fluctuating Evolutionary Pressure in Yeasts and Mammals. Genetics, 2013, 193, 529-538. | 2.9 | 34 |
| 56 | Fine-Scale Heterogeneity in Crossover Rate in the<i>garnet</i>-<i>scalloped</i>Region of the<i>Drosophila melanogaster</i>X Chromosome. Genetics, 2013, 194, 375-387. | 2.9 | 33 |
| 57 | The Drosophila bag of marbles Gene Interacts Genetically with Wolbachia and Shows Female-Specific Effects of Divergence. PLoS Genetics, 2015, 11, e1005453. | 3.5 | 31 |
| 58 | Phylogenetic incongruence in the Drosophila melanogaster species group. Molecular Phylogenetics and Evolution, 2007, 43, 1138-1150. | 2.7 | 30 |
| 59 | Estimation of Fine-Scale Recombination Intensity Variation in the whiteâ€“echinus Interval of D. melanogaster. Journal of Molecular Evolution, 2009, 69, 42-53. | 1.8 | 29 |
| 60 | Population Genomics of Infectious and Integrated<i>Wolbachia pipientis</i>Genomes in<i>Drosophila ananassae</i>. Genome Biology and Evolution, 2015, 7, 2362-2382. | 2.5 | 28 |
| 61 | Nucleotide Polymorphism in theEst6Promoter, Which Is Widespread in Derived Populations ofDrosophila melanogaster, Changes the Level of Esterase 6 Expressed in the Male Ejaculatory Duct. Genetics, 2002, 162, 785-797. | 2.9 | 25 |
| 62 | The Coevolutionary Period of Wolbachia pipientis Infecting Drosophila ananassae and Its Impact on the Evolution of the Host Germline Stem Cell Regulating Genes. Molecular Biology and Evolution, 2014, 31, 2457-2471. | 8.9 | 24 |
| 63 | Adaptive Evolution of Genes Involved in the Regulation of Germline Stem Cells in Drosophila melanogaster and D. simulans. G3: Genes, Genomes, Genetics, 2015, 5, 583-592. | 1.8 | 22 |
| 64 | Mismatch Repair Incompatibilities in Diverse Yeast Populations. Genetics, 2017, 205, 1459-1471. | 2.9 | 22 |
| 65 | A Genetic Incompatibility Accelerates Adaptation in Yeast. PLoS Genetics, 2015, 11, e1005407. | 3.5 | 22 |
| 66 | Inferences of Demography and Selection in an African Population of <i>Drosophila melanogaster</i>. Genetics, 2013, 193, 215-228. | 2.9 | 21 |
| 67 | Patterns of Sequence Variability and Divergence at the diminutive Gene Region of Drosophila melanogaster: Complex Patterns Suggest an Ancestral Selective Sweep. Genetics, 2007, 177, 1071-1085. | 2.9 | 18 |
| 68 | Incompatibilities in Mismatch Repair Genes <i>MLH1-PMS1</i> Contribute to a Wide Range of Mutation Rates in Human Isolates of Bakerâ€™s Yeast. Genetics, 2018, 210, 1253-1266. | 2.9 | 17 |
| 69 | Inversions and adaptation to the plant toxin ouabain shape DNA sequence variation within and between chromosomal inversions of Drosophila subobscura.. Scientific Reports, 2016, 6, 23754. | 3.3 | 16 |
| 70 | Mutation and evolution of microsatellites in Drosophila melanogaster. Contemporary Issues in Genetics and Evolution, 1998, , 359-367. | 0.9 | 13 |
| 71 | EVIDENCE OF SUSCEPTIBILITY AND RESISTANCE TO CRYPTIC X-LINKED MEIOTIC DRIVE IN NATURAL POPULATIONS OF DROSOPHILA MELANOGASTER. Evolution; International Journal of Organic Evolution, 2005, 59, 1280-1291. | 2.3 | 13 |
| 72 | Inferring Selection in Partially Sequenced Regions. Molecular Biology and Evolution, 2008, 25, 438-446. | 8.9 | 13 |

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| 73 | Bakerâ€™s Yeast Clinical Isolates Provide a Model for How Pathogenic Yeasts Adapt to Stress. Trends in Genetics, 2019, 35, 804-817. | 6.7 | 13 |
| 74 | Molecular Population Genetics of Drosophila. Springer Series in Experimental Entomology, 1993, , 222-266. | 0.7 | 13 |
| 75 | Temporally Variable Selection on Proteolysis-Related Reproductive Tract Proteins in Drosophila. Molecular Biology and Evolution, 2012, 29, 229-238. | 8.9 | 12 |
| 76 | Recent and Long-Term Selection Across Synonymous Sites in Drosophila ananassae. Journal of Molecular Evolution, 2016, 83, 50-60. | 1.8 | 12 |
| 77 | Evidence for a Selective Sweep on Chromosome 1 of Cultivated Sorghum. Crop Science, 2006, 46, S-27. | 1.8 | 11 |
| 78 | Locus-Specific Decoupling of Base Composition Evolution at Synonymous Sites and Introns along the Drosophila melanogaster and Drosophila sechellia Lineages. Genome Biology and Evolution, 2009, 1, 67-74. | 2.5 | 11 |
| 79 | Molecular Evolution ofDrosophilaGermline Stem Cell and Neural Stem Cell Regulating Genes. Genome Biology and Evolution, 2015, 7, 3097-3114. | 2.5 | 10 |
| 80 | Diverse <i>w</i>Mel variants of <i>Wolbachia pipientis</i> differentially rescue fertility and cytological defects of the <i>bag of marbles</i> partial loss of function mutation in <i>Drosophila melanogaster</i>. G3: Genes, Genomes, Genetics, 2021, 11, . | 1.8 | 6 |
| 81 | Functional Divergence of the<i>bag-of-marbles</i>Gene in the<i>Drosophila melanogaster</i>Species Group. Molecular Biology and Evolution, 2022, 39, . | 8.9 | 5 |
| 82 | Regional variation in fruitflies. Nature, 1994, 369, 450-450. | 27.8 | 4 |
| 83 | The Problem of Inferring Selection and Evolutionary History from Molecular Data. , 2000, , 135-149. | | 4 |
| 84 | Stability of Allozyme and Mitochondrial DNA Markers among Three Year-Classes of Lake Trout Propagated from Seneca Lake, New York. North American Journal of Fisheries Management, 1994, 14, 467-474. | 1.0 | 2 |
| 85 | Molecular population genetics of <i>Sex-lethal</i> (<i>Sxl</i>) in the <i>Drosophila melanogaster</i> species group: a locus that genetically interacts with <i>Wolbachia pipientis</i> in <i>Drosophila melanogaster</i>. G3: Genes, Genomes, Genetics, 2021, 11, . | 1.8 | 2 |
| 86 | EVIDENCE OF SUSCEPTIBILITY AND RESISTANCE TO CRYPTIC X-LINKED MEIOTIC DRIVE IN NATURAL POPULATIONS OF DROSOPHILA MELANOGASTER. Evolution; International Journal of Organic Evolution, 2005, 59, 1280. | 2.3 | 0 |