# Gary R Whittaker

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 84 papers | 9,572 citations | 87723 38 h-index | 60497 81 g-index |
| 97 all docs | 97 docs citations | 97 times ranked | 13588 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Mechanisms of Coronavirus Cell Entry Mediated by the Viral Spike Protein. Viruses, 2012, 4, 1011-1033. | 1.5 | 1,086 |
| 2 | Activation of the SARS coronavirus spike protein via sequential proteolytic cleavage at two distinct sites. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5871-5876. | 3.3 | 906 |
| 3 | Host cell proteases: Critical determinants of coronavirus tropism and pathogenesis. Virus Research, 2015, 202, 120-134. | 1.1 | 752 |
| 4 | Coronavirus membrane fusion mechanism offers a potential target for antiviral development. Antiviral Research, 2020, 178, 104792. | 1.9 | 635 |
| 5 | Host cell entry of Middle East respiratory syndrome coronavirus after two-step, furin-mediated activation of the spike protein. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15214-15219. | 3.3 | 576 |
| 6 | Î²-Coronaviruses Use Lysosomes for Egress Instead of the Biosynthetic Secretory Pathway. Cell, 2020, 183, 1520-1535.e14. | 13.5 | 441 |
| 7 | Dissecting virus entry via endocytosis. Journal of General Virology, 2002, 83, 1535-1545. | 1.3 | 433 |
| 8 | Phylogenetic Analysis and Structural Modeling of SARS-CoV-2 Spike Protein Reveals an Evolutionary Distinct and Proteolytically Sensitive Activation Loop. Journal of Molecular Biology, 2020, 432, 3309-3325. | 2.0 | 406 |
| 9 | Fusion of Enveloped Viruses in Endosomes. Traffic, 2016, 17, 593-614. | 1.3 | 326 |
| 10 | Proteolytic Cleavage of the SARS-CoV-2 Spike Protein and the Role of the Novel S1/S2 Site. IScience, 2020, 23, 101212. | 1.9 | 277 |
| 11 | Physiological and molecular triggers for SARS-CoV membrane fusion and entry into host cells. Virology, 2018, 517, 3-8. | 1.1 | 251 |
| 12 | Characterization of a Highly Conserved Domain within the Severe Acute Respiratory Syndrome Coronavirus Spike Protein S2 Domain with Characteristics of a Viral Fusion Peptide. Journal of Virology, 2009, 83, 7411-7421. | 1.5 | 229 |
| 13 | Viral Entry into the Nucleus. Annual Review of Cell and Developmental Biology, 2000, 16, 627-651. | 4.0 | 210 |
| 14 | The SARS-CoV Fusion Peptide Forms an Extended Bipartite Fusion Platform that Perturbs Membrane Order in a Calcium-Dependent Manner. Journal of Molecular Biology, 2017, 429, 3875-3892. | 2.0 | 170 |
| 15 | Mutation in Spike Protein Cleavage Site and Pathogenesis of Feline Coronavirus. Emerging Infectious Diseases, 2013, 19, 1066-1073. | 2.0 | 146 |
| 16 | Functional evaluation of the P681H mutation on the proteolytic activation of the SARS-CoV-2 variant B.1.1.7 (Alpha) spike. IScience, 2022, 25, 103589. | 1.9 | 134 |
| 17 | Proteolytic Activation of SARS-CoV-2 Spike at the S1/S2 Boundary: Potential Role of Proteases beyond Furin. ACS Infectious Diseases, 2021, 7, 264-272. | 1.8 | 122 |
| 18 | Middle East respiratory syndrome coronavirus infection is inhibited by griffithsin. Antiviral Research, 2016, 133, 1-8. | 1.9 | 117 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Aï»¿ TMPRSS2 inhibitor acts as a pan-SARS-CoV-2 prophylactic and therapeutic. Nature, 2022, 605, 340-348. | 13.7 | 108 |
| 20 | A Tale of Two Viruses: The Distinct Spike Glycoproteins of Feline Coronaviruses. Viruses, 2020, 12, 83. | 1.5 | 106 |
| 21 | Identifying SARS-CoV-2 Entry Inhibitors through Drug Repurposing Screens of SARS-S and MERS-S Pseudotyped Particles. ACS Pharmacology and Translational Science, 2020, 3, 1165-1175. | 2.5 | 94 |
| 22 | Ca <sup>2+</sup> Ions Promote Fusion of Middle East Respiratory Syndrome Coronavirus with Host Cells and Increase Infectivity. Journal of Virology, 2020, 94, . | 1.5 | 93 |
| 23 | Modifications to the Hemagglutinin Cleavage Site Control the Virulence of a Neurotropic H1N1 Influenza Virus. Journal of Virology, 2010, 84, 8683-8690. | 1.5 | 92 |
| 24 | Recombinant M2e outer membrane vesicle vaccines protect against lethal influenza A challenge in BALB/c mice. Vaccine, 2016, 34, 1252-1258. | 1.7 | 91 |
| 25 | Coronaviruses in cats and other companion animals: Where does SARS-CoV-2/COVID-19 fit?. Veterinary Microbiology, 2020, 247, 108777. | 0.8 | 88 |
| 26 | Safe Recombinant Outer Membrane Vesicles that Display M2e Elicit Heterologous Influenza Protection. Molecular Therapy, 2017, 25, 989-1002. | 3.7 | 75 |
| 27 | Molecular diversity of coronavirus host cell entry receptors. FEMS Microbiology Reviews, 2021, 45, . | 3.9 | 75 |
| 28 | Calcium Ions Directly Interact with the Ebola Virus Fusion Peptide To Promote Structureâ€“Function Changes That Enhance Infection. ACS Infectious Diseases, 2020, 6, 250-260. | 1.8 | 72 |
| 29 | Entry of influenza viruses into cells is inhibited by a highly specific protein kinase C inhibitor. Journal of General Virology, 2000, 81, 2697-2705. | 1.3 | 70 |
| 30 | Heparan Sulfate Is a Selective Attachment Factor for the Avian Coronavirus Infectious Bronchitis Virus Beaudette. Avian Diseases, 2007, 51, 45-51. | 0.4 | 69 |
| 31 | Feline coronavirus: Insights into viral pathogenesis based on the spike protein structure and function. Virology, 2018, 517, 108-121. | 1.1 | 68 |
| 32 | Production of Pseudotyped Particles to Study Highly Pathogenic Coronaviruses in a Biosafety Level 2 Setting. Journal of Visualized Experiments, 2019, , . | 0.2 | 64 |
| 33 | SARS-CoV-2 spike and its adaptable furin cleavage site. Lancet Microbe, The, 2021, 2, e488-e489. | 3.4 | 62 |
| 34 | SARS-coronavirus spike S2 domain flanked by cysteine residues C822 and C833 is important for activation of membrane fusion. Virology, 2009, 393, 265-271. | 1.1 | 56 |
| 35 | Virus nuclear import. Advanced Drug Delivery Reviews, 2003, 55, 733-747. | 6.6 | 54 |
| 36 | Coronavirus entry: how we arrived at SARS-CoV-2. Current Opinion in Virology, 2021, 47, 113-120. | 2.6 | 51 |

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|---|---|---|---|
| 37 | Utilization of DC-SIGN for Entry of Feline Coronaviruses into Host Cells. Journal of Virology, 2008, 82, 11992-11996. | 1.5 | 50 |
| 38 | Differential role for low pH and cathepsin-mediated cleavage of the viral spike protein during entry of serotype II feline coronaviruses. Veterinary Microbiology, 2008, 132, 235-248. | 0.8 | 47 |
| 39 | Variations in pH Sensitivity, Acid Stability, and Fusogenicity of Three Influenza Virus H3 Subtypes. Journal of Virology, 2015, 89, 350-360. | 1.5 | 38 |
| 40 | Coagulation factors directly cleave SARS-CoV-2 spike and enhance viral entry. ELife, 2022, 11, . | 2.8 | 34 |
| 41 | Inhibitors of L-Type Calcium Channels Show Therapeutic Potential for Treating SARS-CoV-2 Infections by Preventing Virus Entry and Spread. ACS Infectious Diseases, 2021, 7, 2807-2815. | 1.8 | 32 |
| 42 | Feline Lectin Activity Is Critical for the Cellular Entry of Feline Infectious Peritonitis Virus. Journal of Virology, 2010, 84, 7917-7921. | 1.5 | 31 |
| 43 | Utilization of human DC-SIGN and L-SIGN for entry and infection of host cells by the New World arenavirus, JunÃn virus. Biochemical and Biophysical Research Communications, 2013, 441, 612-617. | 1.0 | 30 |
| 44 | A single dose and long lasting vaccine against pandemic influenza through the controlled release of a heterospecies tandem M2 sequence embedded within detoxified bacterial outer membrane vesicles. Vaccine, 2017, 35, 5373-5380. | 1.7 | 26 |
| 45 | Improving Virus Taxonomy by Recontextualizing Sequence-Based Classification with Biologically Relevant Data: the Case of the Alphacoronavirus 1 Species. MSphere, 2018, 3, . | 1.3 | 25 |
| 46 | Distinct mutation in the feline coronavirus spike protein cleavage activation site in a cat with feline infectious peritonitis-associated meningoencephalomyelitis. Journal of Feline Medicine and Surgery Open Reports, 2019, 5, 205511691985610. | 0.1 | 24 |
| 47 | Intracellular trafficking of influenza virus: clinical implications for molecular medicine. Expert Reviews in Molecular Medicine, 2001, 3, 1-13. | 1.6 | 23 |
| 48 | A Fluorogenic Peptide Cleavage Assay to Screen for Proteolytic Activity: Applications for coronavirus spike protein activation. Journal of Visualized Experiments, 2019, , . | 0.2 | 23 |
| 49 | Proteolytic Cleavage of the SARS-CoV-2 Spike Protein and the Role of the Novel S1/S2 Site. SSRN Electronic Journal, 2020, , 3581359. | 0.4 | 23 |
| 50 | A peptide-based approach to evaluate the adaptability of influenza A virus to humans based on its hemagglutinin proteolytic cleavage site. PLoS ONE, 2017, 12, e0174827. | 1.1 | 22 |
| 51 | A camel-derived MERS-CoV with a variant spike protein cleavage site and distinct fusion activation properties. Emerging Microbes and Infections, 2016, 5, 1-9. | 3.0 | 21 |
| 52 | Spike Protein Cleavage-Activation in the Context of the SARS-CoV-2 P681R Mutation: an Analysis from Its First Appearance in Lineage A.23.1 Identified in Uganda. Microbiology Spectrum, 2022, 10, . | 1.2 | 20 |
| 53 | Inhibition of influenza virus infection and hemagglutinin cleavage by the protease inhibitor HAI-2. Biochemical and Biophysical Research Communications, 2014, 450, 1070-1075. | 1.0 | 19 |
| 54 | Furin cleavage sites in the spike proteins of bat and rodent coronaviruses: Implications for virus evolution and zoonotic transfer from rodent species. One Health, 2021, 13, 100282. | 1.5 | 19 |

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|---|---|---|---|
| 55 | Viral fusion efficacy of specific H3N2 influenza virus reassortant combinations at single-particle level. Scientific Reports, 2016, 6, 35537. | 1.6 | 18 |
| 56 | SARS CoV-2 Spike Protein in silico Interaction With ACE2 Receptors From Wild and Domestic Species. Frontiers in Genetics, 2021, 12, 571707. | 1.1 | 17 |
| 57 | Coronaviruses Associated with the Superfamily Musteloidea. MBio, 2021, 12, . | 1.8 | 17 |
| 58 | A 3D structural SARS-CoV-2â€“human interactome to explore genetic and drug perturbations. Nature Methods, 2021, 18, 1477-1488. | 9.0 | 17 |
| 59 | Genotypic Characterization of Canine Coronaviruses Associated with Fatal Canine Neonatal Enteritis in the United States. Journal of Clinical Microbiology, 2014, 52, 4230-4238. | 1.8 | 16 |
| 60 | A high throughput screening assay for inhibitors of SARS-CoV-2 pseudotyped particle entry. SLAS Discovery, 2022, 27, 86-94. | 1.4 | 16 |
| 61 | SPINT2 inhibits proteases involved in activation of both influenza viruses and metapneumoviruses. Virology, 2020, 543, 43-53. | 1.1 | 15 |
| 62 | Modification of the hemagglutinin cleavage site allows indirect activation of avian influenza virus H9N2 by bacterial staphylokinase. Virology, 2015, 482, 1-8. | 1.1 | 14 |
| 63 | Characterizing replication kinetics and plaque production of type I feline infectious peritonitis virus in three feline cell lines. Virology, 2018, 525, 1-9. | 1.1 | 13 |
| 64 | Outbreak of feline infectious peritonitis (FIP) in shelter-housed cats: molecular analysis of the feline coronavirus S1/S2 cleavage site consistent with a â€˜circulating virulentâ€“avirulent theoryâ€™ of FIP pathogenesis. Journal of Feline Medicine and Surgery Open Reports, 2022, 8, 205511692210742. | 0.1 | 12 |
| 65 | Haloperoxidase-mimicking CeO<sub>2â^'x</sub>nanorods for the deactivation of human coronavirus OC43. Nanoscale, 2022, 14, 3731-3737. | 2.8 | 12 |
| 66 | Human matriptase/ST 14 proteolytically cleaves H7N9 hemagglutinin and facilitates the activation of influenza A/Shanghai/2/2013 virus in cell culture. Influenza and Other Respiratory Viruses, 2020, 14, 189-195. | 1.5 | 11 |
| 67 | Recent Zoonotic Spillover and Tropism Shift of a Canine Coronavirus Is Associated with Relaxed Selection and Putative Loss of Function in NTD Subdomain of Spike Protein. Viruses, 2022, 14, 853. | 1.5 | 11 |
| 68 | Influenza entry pathways in polarized MDCK cells. Biochemical and Biophysical Research Communications, 2014, 450, 234-239. | 1.0 | 10 |
| 69 | Biochemical Characterization of Middle East Respiratory Syndrome Coronavirus Spike Protein Proteolytic Processing. Methods in Molecular Biology, 2020, 2099, 21-37. | 0.4 | 10 |
| 70 | Feline infectious peritonitis virus-associated rhinitis in a cat. Journal of Feline Medicine and Surgery Open Reports, 2020, 6, 205511692093058. | 0.1 | 9 |
| 71 | Infectious disease surveillance of apparently healthy horses at a multi-day show using a novel nanoscale real-time PCR panel. Journal of Veterinary Diagnostic Investigation, 2021, 33, 80-86. | 0.5 | 9 |
| 72 | Clinical and Molecular Relationships between COVID-19 and Feline Infectious Peritonitis (FIP). Viruses, 2022, 14, 481. | 1.5 | 9 |

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|---|---|---|---|
| 73 | Human transferrin receptor triggers an alternative Tacaribe virus internalization pathway. Archives of Virology, 2016, 161, 353-363. | 0.9 | 8 |
| 74 | FELINE CORONAVIRUS AND FELINE INFECTIOUS PERITONITIS IN NONDOMESTIC FELID SPECIES. Journal of Zoo and Wildlife Medicine, 2021, 52, 14-27. | 0.3 | 7 |
| 75 | Use of AAScatterPlot tool for monitoring the evolution of the hemagglutinin cleavage site in H9 avian influenza viruses. Bioinformatics, 2017, 33, 2431-2435. | 1.8 | 6 |
| 76 | Generating and evaluating type I interferon receptor-deficient and feline TMPRSS2-expressing cells for propagating serotype I feline infectious peritonitis virus. Virology, 2019, 537, 226-236. | 1.1 | 6 |
| 77 | Public health surveillance of infectious diseases: beyond point mutations. Lancet Microbe, The, 2021, 2, e53-e54. | 3.4 | 6 |
| 78 | Viral and Host Attributes Underlying the Origins of Zoonotic Coronaviruses in Bats. Comparative Medicine, 2021, 71, 442-450. | 0.4 | 6 |
| 79 | Third Helical Domain of the Nipah Virus Fusion Glycoprotein Modulates both Early and Late Steps in the Membrane Fusion Cascade. Journal of Virology, 2020, 94, . | 1.5 | 5 |
| 80 | Persistent infection and pancytopenia associated with ferret systemic coronaviral disease in a domestic ferret. Journal of Veterinary Diagnostic Investigation, 2020, 32, 616-620. | 0.5 | 4 |
| 81 | RNA in-situ hybridization for pathology-based diagnosis of feline infectious peritonitis (FIP): current diagnostics for FIP and comparison to the current gold standard. Qeios, 0, , . | 0.0 | 2 |
| 82 | One Medicine: a comparative approach to investigating human and animal coronavirus infections. Journal of Feline Medicine and Surgery, 2021, 23, 267-268. | 0.6 | 1 |
| 83 | Receptor determinants for the avian coronavirus infectious bronchitis virus: Roles of host cell lectins and glycans. FASEB Journal, 2012, 26, 606.3. | 0.2 | 0 |
| 84 | [Review] Coronaviruses in Wild Canids: A review of the literature. Qeios, 0, , . | 0.0 | 0 |