Antibody evasion by the P.1 strain of SARS-CoV-2

Cell 184, 2939-2954.e9

DOI: 10.1016/j.cell.2021.03.055

Citation Report

#	Article	IF	Citations
1	Evolution, correlation, structural impact and dynamics of emerging SARS-CoV-2 variants. Computational and Structural Biotechnology Journal, 2021, 19, 3799-3809.	1.9	24
2	Clinical and Infection Prevention Applications of Severe Acute Respiratory Syndrome Coronavirus 2 Genotyping: An Infectious Diseases Society of America/American Society for Microbiology Consensus Review Document. Clinical Infectious Diseases, 2022, 74, 1496-1502.	2.9	20
3	Germline IGHV3-53-encoded RBD-targeting neutralizing antibodies are commonly present in the antibody repertoires of COVID-19 patients. Emerging Microbes and Infections, 2021, 10, 1097-1111.	3.0	25
4	Population Impact of SARS-CoV-2 Variants with Enhanced Transmissibility and/or Partial Immune Escape. SSRN Electronic Journal, 0, , .	0.4	O
11	BNT162b2 mRNA COVIDâ€19 vaccine induces antibodies of broader crossâ€reactivity than natural infection, but recognition of mutant viruses is up to 10â€fold reduced. Allergy: European Journal of Allergy and Clinical Immunology, 2021, 76, 2895-2998.	2.7	29
12	Structural and functional ramifications of antigenic drift in recent SARS-CoV-2 variants. Science, 2021, 373, 818-823.	6.0	309
13	COVID-19 in Amazonas, Brazil, was driven by the persistence of endemic lineages and P.1 emergence. Nature Medicine, 2021, 27, 1230-1238.	15.2	279
16	Indirect Protection by Reducing Transmission: Ending the Pandemic With Severe Acute Respiratory Syndrome Coronavirus 2 Vaccination. Open Forum Infectious Diseases, 2022, 9, .	0.4	38
18	Anti-SARS-CoV-2 Antibodies Testing in Recipients of COVID-19 Vaccination: Why, When, and How?. Diagnostics, 2021, 11, 941.	1.3	45
25	Sequence signatures of two public antibody clonotypes that bind SARS-CoV-2 receptor binding domain. Nature Communications, 2021, 12, 3815.	5.8	44
26	SARS-CoV-2 Portrayed against HIV: Contrary Viral Strategies in Similar Disguise. Microorganisms, 2021, 9, 1389.	1.6	4
29	Immune Evasion of SARS-CoV-2 Emerging Variants: What Have We Learnt So Far?. Viruses, 2021, 13, 1192.	1.5	150
32	Engineered single-domain antibodies tackle COVID variants. Nature, 2021, 595, 176-178.	13.7	8
35	Structure-function relations of the SARS-CoV-2 spike protein and impact of mutations in the variants of concern. Comptes Rendus - Biologies, 2021, 344, 77-110.	0.1	4
38	Tackling COVID-19 with neutralizing monoclonal antibodies. Cell, 2021, 184, 3086-3108.	13.5	309
39	FnCas9-based CRISPR diagnostic for rapid and accurate detection of major SARS-CoV-2 variants on a paper strip. ELife, 2021, 10, .	2.8	53
40	SARS-CoV-2 Antiviral Therapy. Clinical Microbiology Reviews, 2021, 34, e0010921.	5.7	64
43	Structural Evaluation of the Spike Glycoprotein Variants on SARS-CoV-2 Transmission and Immune Evasion. International Journal of Molecular Sciences, 2021, 22, 7425.	1.8	69

#	ARTICLE	IF	CITATIONS
46	A Comprehensive Review of COVID-19 Virology, Vaccines, Variants, and Therapeutics. Current Medical Science, 2021, 41, 1037-1051.	0.7	136
48	Potency of BNT162b2 and mRNAâ€1273 vaccineâ€induced neutralizing antibodies against severe acute respiratory syndromeâ€CoVâ€2 variants of concern: A systematic review of in vitro studies. Reviews in Medical Virology, 2022, 32, e2277.	3.9	57
49	Conformational Variability Correlation Prediction of Transmissibility and Neutralization Escape Ability for Multiple Mutation SARS-CoV-2 Strains using SSSCPreds. ACS Omega, 2021, 6, 19323-19329.	1.6	6
50	SARS-CoV-2 variant B.1.617 is resistant to bamlanivimab and evades antibodies induced by infection and vaccination. Cell Reports, 2021, 36, 109415.	2.9	206
51	Antibody and B cell responses to SARS-CoV-2 infection and vaccination. Cell Host and Microbe, 2021, 29, 1063-1075.	5.1	99
52	Immunogenicity and safety of the CoronaVac inactivated vaccine in patients with autoimmune rheumatic diseases: a phase 4 trial. Nature Medicine, 2021, 27, 1744-1751.	15.2	148
57	Phytocompounds of Rheum emodi, Thymus serpyllum, and Artemisia annua Inhibit Spike Protein of SARS-CoV-2 Binding to ACE2 Receptor: In Silico Approach. Current Pharmacology Reports, 2021, 7, 135-149.	1.5	50
59	Real-World Clinical Outcomes of Bamlanivimab and Casirivimab-Imdevimab Among High-Risk Patients With Mild to Moderate Coronavirus Disease 2019. Journal of Infectious Diseases, 2021, 224, 1278-1286.	1.9	77
60	A SARS-CoV-2 neutralizing antibody selected from COVID-19 patients binds to the ACE2-RBD interface and is tolerant to most known RBD mutations. Cell Reports, 2021, 36, 109433.	2.9	75
61	After the pandemic: perspectives on the future trajectory of COVID-19. Nature, 2021, 596, 495-504.	13.7	260
62	Neutralizing activity of Sputnik V vaccine sera against SARS-CoV-2 variants. Nature Communications, 2021, 12, 4598.	5.8	88
63	Use of Monoclonal Antibody to Treat COVID-19 in Children and Adolescents: Risk of Abuse of Prescription and Exacerbation of Health Inequalities. Pharmaceuticals, 2021, 14, 673.	1.7	4
64	Single-dose mRNA Vaccine Effectiveness Against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), Including Alpha and Gamma Variants: A Test-negative Design in Adults 70 Years and Older in British Columbia, Canada. Clinical Infectious Diseases, 2022, 74, 1158-1165.	2.9	40
66	Early detection of the SARS-CoV-2 P.1 variant in Rio Grande do Sul, Brazil: a case report. Infection Control and Hospital Epidemiology, 2022, 43, 1997-1999.	1.0	5
67	Molecular Level Dissection of Critical Spike Mutations in SARS oVâ€2 Variants of Concern (VOCs): A Simplified Review. ChemistrySelect, 2021, 6, 7981-7998.	0.7	18
70	Therapeutic targets and interventional strategies in COVID-19: mechanisms and clinical studies. Signal Transduction and Targeted Therapy, 2021, 6, 317.	7.1	68
73	Effects of common mutations in the SARS-CoV-2 Spike RBD and its ligand, the human ACE2 receptor on binding affinity and kinetics. ELife, 2021 , 10 , .	2.8	267
74	Reduced neutralization of SARS-CoV-2 B.1.617 by vaccine and convalescent serum. Cell, 2021, 184, 4220-4236.e13.	13.5	630

#	Article	IF	Citations
75	An Overview of Vaccines against SARS-CoV-2 in the COVID-19 Pandemic Era. Pathogens, 2021, 10, 1030.	1.2	33
76	Jumping a Moving Train: SARS-CoV-2 Evolution in Real Time. Journal of the Pediatric Infectious Diseases Society, 2021, 10, S96-S105.	0.6	9
77	Characterization of SARS-CoV-2 worldwide transmission based on evolutionary dynamics and specific viral mutations in the spike protein. Infectious Diseases of Poverty, 2021, 10, 112.	1.5	8
79	A SARS-CoV-2 antibody broadly neutralizes SARS-related coronaviruses and variants by coordinated recognition of a virus-vulnerable site. Immunity, 2021, 54, 2385-2398.e10.	6.6	46
81	The rapid adaptation of SARS-CoV-2–rise of the variants: transmission and resistance. Journal of Microbiology, 2021, 59, 807-818.	1.3	18
82	The protective immunity induced by SARS-CoV-2 infection and vaccination: a critical appraisal. Exploration of Immunology, 2021, , 199-225.	1.7	5
83	An update comprehensive review on the status of COVID-19: vaccines, drugs, variants and neurological symptoms. Turkish Journal of Biology, 2021, 45, 342-357.	2.1	3
84	The future of COVID-19: A vaccine review. Journal of Infection and Public Health, 2021, 14, 1461-1465.	1.9	16
85	Therapeutic effect of CT-P59 against SARS-CoV-2 South African variant. Biochemical and Biophysical Research Communications, 2021, 566, 135-140.	1.0	46
86	Robust Antibody Responses to the BNT162b2 mRNA Vaccine Occur Within a Week After the First Dose in Previously Infected Individuals and After the Second Dose in Uninfected Individuals. Frontiers in Immunology, 2021, 12, 722766.	2.2	20
87	SARS-CoV-2 Variants in Patients with Immunosuppression. New England Journal of Medicine, 2021, 385, 562-566.	13.9	333
88	Temporal maturation of neutralizing antibodies in COVID-19 convalescent individuals improves potency and breadth to circulating SARS-CoV-2 variants. Immunity, 2021, 54, 1841-1852.e4.	6.6	114
89	Cross-Neutralizing Activity Against SARS-CoV-2 Variants in COVID-19 Patients: Comparison of 4 Waves of the Pandemic in Japan. Open Forum Infectious Diseases, 2021, 8, ofab430.	0.4	18
90	The ongoing evolution of variants of concern and interest of SARS-CoV-2 in Brazil revealed by convergent indels in the amino (N)-terminal domain of the spike protein. Virus Evolution, 2021, 7, veab069.	2.2	31
92	Anti-COVID-19 Vaccination in Patients with Autoimmune-Autoinflammatory Disorders and Primary/Secondary Immunodeficiencies: The Position of the Task Force on Behalf of the Italian Immunological Societies. Biomedicines, 2021, 9, 1163.	1.4	18
94	Fast SARS-CoV-2 Variant Detection Using Snapback Primer High-Resolution Melting. Diagnostics, 2021, 11, 1788.	1.3	8
95	The SARS-CoV-2 spike protein is vulnerable to moderate electric fields. Nature Communications, 2021, 12, 5407.	5.8	26
98	COVID-19 vaccines: Keeping pace with SARS-CoV-2 variants. Cell, 2021, 184, 5077-5081.	13.5	114

#	Article	IF	CITATIONS
99	Emerging SARS-CoV-2 variants of concern evade humoral immune responses from infection and vaccination. Science Advances, 2021, 7, eabj5365.	4.7	83
100	Broadly-Neutralizing Antibodies Against Emerging SARS-CoV-2 Variants. Frontiers in Immunology, 2021, 12, 752003.	2.2	62
102	Vaccines for COVID-19: Where do we stand in 2021?. Paediatric Respiratory Reviews, 2021, 39, 22-31.	1.2	53
103	Neutralizing antibodies for the prevention and treatment of COVID-19. Cellular and Molecular Immunology, 2021, 18, 2293-2306.	4.8	91
104	Dynamics of SARS-CoV-2 mutations reveals regional-specificity and similar trends of N501 and high-frequency mutation N501Y in different levels of control measures. Scientific Reports, 2021, 11, 17755.	1.6	19
105	Shooting at a Moving Targetâ€"Effectiveness and Emerging Challenges for SARS-CoV-2 Vaccine Development. Vaccines, 2021, 9, 1052.	2.1	22
107	The biological and clinical significance of emerging SARS-CoV-2 variants. Nature Reviews Genetics, 2021, 22, 757-773.	7.7	778
108	Chitosan derivatives: A suggestive evaluation for novel inhibitor discovery against wild type and variants of SARS-CoV-2 virus. International Journal of Biological Macromolecules, 2021, 187, 492-512.	3.6	17
110	Emerging SARS-CoV-2 Variants of Concern (VOCs): An Impending Global Crisis. Biomedicines, 2021, 9, 1303.	1.4	87
111	Impact of mutations in SARS-COV-2 spike on viral infectivity and antigenicity. Briefings in Bioinformatics, 2022, 23, .	3.2	16
112	Effectiveness of CoronaVac among healthcare workers in the setting of high SARS-CoV-2 Gamma variant transmission in Manaus, Brazil: A test-negative case-control study. The Lancet Regional Health Americas, 2021, 1, 100025.	1.5	116
113	The Immune Response to SARS-CoV-2 and Variants of Concern. Viruses, 2021, 13, 1911.	1.5	18
114	Possible future waves of SARS-CoV-2 infection generated by variants of concern with a range of characteristics. Nature Communications, 2021, 12, 5730.	5.8	90
115	Paucity and discordance of neutralising antibody responses to SARS-CoV-2 VOCs in vaccinated immunodeficient patients and health-care workers in the UK. Lancet Microbe, The, 2021, 2, e416-e418.	3.4	16
116	Novel virus-like nanoparticle vaccine effectively protects animal model from SARS-CoV-2 infection. PLoS Pathogens, 2021, 17, e1009897.	2.1	49
118	Discovery and Evaluation of Entry Inhibitors for SARS-CoV-2 and Its Emerging Variants. Journal of Virology, 2021, 95, e0143721.	1.5	24
119	Impact of original, B.1.1.7, and B.1.351/P.1 SARS-CoV-2 lineages on vaccine effectiveness of two doses of COVID-19 mRNA vaccines: Results from a nationwide case-control study in France. Lancet Regional Health - Europe, The, 2021, 8, 100171.	3.0	70
121	Computational prediction of the effect of amino acid changes on the binding affinity between SARS-CoV-2 spike RBD and human ACE2. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	61

#	Article	IF	CITATIONS
122	The Potential Beneficial Effects of Vaccination on Antigenically Evolving Pathogens. American Naturalist, 2022, 199, 223-237.	1.0	6
123	Pseudoephedrine and its derivatives antagonize wild and mutated severe acute respiratory syndrome < scp>â€CoV < /scp>â€2 viruses through blocking virus invasion and antiinflammatory effect. Phytotherapy Research, 2021, 35, 5847-5860.	2.8	8
124	COVID-19 Pandemic and Vaccines Update on Challenges and Resolutions. Frontiers in Cellular and Infection Microbiology, 2021, 11, 690621.	1.8	60
126	The neutralization potency of anti-SARS-CoV-2 therapeutic human monoclonal antibodies is retained against viral variants. Cell Reports, 2021, 36, 109679.	2.9	12
127	Cross-neutralization of SARS-CoV-2 B.1.1.7 and P.1 variants in vaccinated, convalescent and P.1 infected. Journal of Infection, 2021, 83, 467-472.	1.7	28
128	Controversy surrounding the Sputnik V vaccine. Respiratory Medicine, 2021, 187, 106569.	1.3	28
129	Neutralisation of SARS-CoV-2 lineage P.1 by antibodies elicited through natural SARS-CoV-2 infection or vaccination with an inactivated SARS-CoV-2 vaccine: an immunological study. Lancet Microbe, The, 2021, 2, e527-e535.	3.4	92
130	The inÂvitro and inÂvivo efficacy of CT-P59 against Gamma, Delta and its associated variants of SARS-CoV-2. Biochemical and Biophysical Research Communications, 2021, 578, 91-96.	1.0	39
131	Comparative Analysis of SARS-CoV-2-Specific B Cell and Humoral Responses Elicited by Sputnik V in Na \tilde{A} ve and COVID-19-Recovered Vaccine Recipients. SSRN Electronic Journal, 0, , .	0.4	0
132	Potent RBD-specific neutralizing rabbit monoclonal antibodies recognize emerging SARS-CoV-2 variants elicited by DNA prime-protein boost vaccination. Emerging Microbes and Infections, 2021, 10, 1390-1403.	3.0	16
134	Divergence of Delta and Beta Variants and SARS-CoV-2 Evolved in Advanced HIV Disease into Two Serological Phenotypes. SSRN Electronic Journal, 0, , .	0.4	1
135	A Single Dose of a Hybrid hAdV5-Based Anti-COVID-19 Vaccine Induces a Long-Lasting Immune Response and Broad Coverage against VOC. Vaccines, 2021, 9, 1106.	2.1	5
136	Effectiveness of COVID‑19 vaccines and their challenges (Review). Experimental and Therapeutic Medicine, 2021, 22, 1407.	0.8	23
137	INO-4800 DNA vaccine induces neutralizing antibodies and T cell activity against global SARS-CoV-2 variants. Npj Vaccines, 2021, 6, 121.	2.9	36
138	Immunogenicity of standard and extended dosing intervals of BNT162b2 mRNA vaccine. Cell, 2021, 184, 5699-5714.e11.	13.5	262
139	Comparing COVID-19 vaccines for their characteristics, efficacy and effectiveness against SARS-CoV-2 and variants of concern: a narrative review. Clinical Microbiology and Infection, 2022, 28, 202-221.	2.8	569
140	Imidazoles and benzimidazoles as putative inhibitors of SARS-CoV-2 B.1.1.7 (Alpha) and P.1 (Gamma) variant spike glycoproteins: A computational approach. Chemical Papers, 2021, , 1-11.	1.0	4
141	COVID-19 Risk Assessment for the Tokyo Olympic Games. Frontiers in Public Health, 2021, 9, 730611.	1.3	9

#	Article	IF	CITATIONS
142	Polyclonal F(ab')2 fragments of equine antibodies raised against the spike protein neutralize SARS-CoV-2 variants with high potency. IScience, 2021, 24, 103315.	1.9	23
143	Molecular rationale for SARS-CoV-2 spike circulating mutations able to escape bamlanivimab and etesevimab monoclonal antibodies. Scientific Reports, 2021, 11, 20274.	1.6	33
144	Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 lineages circulating in Brazil. Nature Communications, 2021, 12, 5861.	5.8	38
145	Key Substitutions in the Spike Protein of SARS-CoV-2 Variants Can Predict Resistance to Monoclonal Antibodies, but Other Substitutions Can Modify the Effects. Journal of Virology, 2022, 96, JVI0111021.	1.5	29
146	Identification of driver genes for critical forms of COVID-19 in a deeply phenotyped young patient cohort. Science Translational Medicine, 2022, 14, eabj7521.	5.8	71
149	Altered O-glycomes of Renal Brush-Border Membrane in Model Rats with Chronic Kidney Diseases. Biomolecules, 2021, 11, 1560.	1.8	5
151	SARS-CoV-2 Virusâ^'Host Interaction: Currently Available Structures and Implications of Variant Emergence on Infectivity and Immune Response. International Journal of Molecular Sciences, 2021, 22, 10836.	1.8	25
152	Host Response to SARS-CoV2 and Emerging Variants in Pre-Existing Liver and Gastrointestinal Diseases. Frontiers in Cellular and Infection Microbiology, 2021, 11, 753249.	1.8	6
155	The impact of the <scp>SARS oV</scp> â€2 pandemic on the management of chronic limbâ€threatening ischemia and wound care. Wound Repair and Regeneration, 2022, 30, 7-23.	1.5	4
156	Scientific rationale for developing potent RBD-based vaccines targeting COVID-19. Npj Vaccines, 2021, 6, 128.	2.9	102
157	SARS-CoV-2 beta variant substitutions alter spike glycoprotein receptor binding domain structure and stability. Journal of Biological Chemistry, 2021, 297, 101371.	1.6	6
158	The way of SARS-CoV-2 vaccine development: success and challenges. Signal Transduction and Targeted Therapy, 2021, 6, 387.	7.1	42
159	Clinical and Infection Prevention Applications of Severe Acute Respiratory Syndrome Coronavirus 2 Genotyping: an Infectious Diseases Society of America/American Society for Microbiology Consensus Review Document. Journal of Clinical Microbiology, 2022, 60, JCM0165921.	1.8	13
160	Understanding the Secret of SARS-CoV-2 Variants of Concern/Interest and Immune Escape. Frontiers in Immunology, 2021, 12, 744242.	2.2	44
161	Development and characterization of SARS-CoV-2 variant-neutralizing monoclonal antibodies. Antiviral Research, 2021, 196, 105206.	1.9	1
162	Molecular strategies for antibody binding and escape of SARS-CoV-2 and its mutations. Scientific Reports, 2021, 11, 21735.	1.6	11
164	Structures and therapeutic potential of anti-RBD human monoclonal antibodies against SARS-CoV-2. Theranostics, 2022, 12, 1-17.	4.6	6
165	Cluster of SARS-CoV-2 Gamma Variant Infections, Parintins, Brazil, March 2021. Emerging Infectious Diseases, 2022, 28, 262-264.	2.0	11

#	Article	IF	CITATIONS
166	The alpha/B.1.1.7 SARS-CoV-2 variant exhibits significantly higher affinity for ACE-2 and requires lower inoculation doses to cause disease in K18-hACE2 mice. ELife, 2021, 10, .	2.8	24
167	COVIDâ€19 vaccinations: The unknowns, challenges, and hopes. Journal of Medical Virology, 2022, 94, 1336-1349.	2.5	75
168	Neutralising antibody titres as predictors of protection against SARS-CoV-2 variants and the impact of boosting: a meta-analysis. Lancet Microbe, The, 2022, 3, e52-e61.	3.4	436
169	Evolution of the SARS-CoV-2 genome and emergence of variants of concern. Archives of Virology, 2022, 167, 293-305.	0.9	28
171	Mutations of SARS-CoV-2 spike protein: Implications on immune evasion and vaccine-induced immunity. Seminars in Immunology, 2021, 55, 101533.	2.7	72
172	Immune Evasive Effects of SARS-CoV-2 Variants to COVID-19 Emergency Used Vaccines. Frontiers in Immunology, 2021, 12, 771242.	2.2	15
173	The SARS-CoV-2 Lambda variant and its neutralisation efficiency following vaccination with Comirnaty, Israel, April to June 2021. Eurosurveillance, 2021, 26, .	3.9	4
175	Nucleocapsid mutations R203K/G204R increase the infectivity, fitness, and virulence of SARS-CoV-2. Cell Host and Microbe, 2021, 29, 1788-1801.e6.	5.1	145
176	A Strategy to Detect Emerging Non-Delta SARS-CoV-2 Variants with a Monoclonal Antibody Specific for the N501 Spike Residue. Diagnostics, 2021, 11, 2092.	1.3	6
178	The antibody response to SARS-CoV-2 Beta underscores the antigenic distance to other variants. Cell Host and Microbe, 2022, 30, 53-68.e12.	5.1	52
180	Population impact of SARS-CoV-2 variants with enhanced transmissibility and/or partial immune escape. Cell, 2021, 184, 6229-6242.e18.	13.5	72
181	SARS-CoV-2 Variants: Past, Present and Future. Economics, Law, and Institutions in Asia Pacific, 2022, , 3-23.	0.4	0
182	The emergence of SARS-CoV-2 variants threatens to decrease the efficacy of neutralizing antibodies and vaccines. Biochemical Society Transactions, 2021, 49, 2879-2890.	1.6	16
183	Introduction and rapid dissemination of SARS-CoV-2 Gamma Variant of Concern in Venezuela. Infection, Genetics and Evolution, 2021, 96, 105147.	1.0	13
184	SARS-CoV-2 introduction and lineage dynamics across three epidemic peaks in Southern Brazil: massive spread of P.1. Infection, Genetics and Evolution, 2021, 96, 105144.	1.0	14
185	Structure and Mutations of SARS-CoV-2 Spike Protein: A Focused Overview. ACS Infectious Diseases, 2022, 8, 29-58.	1.8	32
186	Rapid test to assess the escape of SARS-CoV-2 variants of concern. Science Advances, 2021, 7, eabl7682.	4.7	21
187	An immunodominant NP105–113-B*07:02 cytotoxic T cell response controls viral replication and is associated with less severe COVID-19 disease. Nature Immunology, 2022, 23, 50-61.	7.0	110

#	Article	IF	CITATIONS
190	SARS-CoV-2 Omicron spike glycoprotein receptor binding domain exhibits super-binder ability with ACE2 but not convalescent monoclonal antibody. Computers in Biology and Medicine, 2022, 142, 105226.	3.9	26
191	Cyclosporine A Inhibits Viral Infection and Release as Well as Cytokine Production in Lung Cells by Three SARS-CoV-2 Variants. Microbiology Spectrum, 2022, 10, e0150421.	1.2	17
192	Genomic analysis of SARS-CoV-2 variants of concern identified from the ChAdOx1 nCoV-19 immunized patients from Southwest part of Bangladesh. Journal of Infection and Public Health, 2022, 15, 156-163.	1.9	10
193	A comprehensive overview of identified mutations in SARS CoV-2 spike glycoprotein among Iranian patients. Gene, 2022, 813, 146113.	1.0	8
195	Mechanistic insights of CRISPR/Cas nucleases for programmable targeting and early-stage diagnosis: A review. Biosensors and Bioelectronics, 2022, 203, 114033.	5.3	23
196	The SARS-CoV-2 monoclonal antibody combination, AZD7442, is protective in nonhuman primates and has an extended half-life in humans. Science Translational Medicine, 2022, 14, eabl8124.	5.8	143
197	Looking at COVID-19 from a Systems Biology Perspective. Biomolecules, 2022, 12, 188.	1.8	1
198	A non-ACE2-blocking neutralizing antibody against Omicron-included SARS-CoV-2 variants. Signal Transduction and Targeted Therapy, 2022, 7, 23.	7.1	11
199	mRNA-1273 vaccine-induced antibodies maintain Fc effector functions across SARS-CoV-2 variants of concern. Immunity, 2022, 55, 355-365.e4.	6.6	76
200	SARS-CoV-2 Variants, Vaccines, and Host Immunity. Frontiers in Immunology, 2021, 12, 809244.	2.2	176
202	Immunization with synthetic SARS-CoV-2 S glycoprotein virus-like particles protects macaques from infection. Cell Reports Medicine, 2022, 3, 100528.	3.3	6
203	Structural basis for continued antibody evasion by the SARS-CoV-2 receptor binding domain. Science, 2022, 375, .	6.0	68
206	Viral Load in COVID-19 Patients: Implications for Prognosis and Vaccine Efficacy in the Context of Emerging SARS-CoV-2 Variants. Frontiers in Medicine, 2021, 8, 836826.	1.2	15
207	The Variation of SARS-CoV-2 and Advanced Research on Current Vaccines. Frontiers in Medicine, 2021, 8, 806641.	1.2	22
208	SARS-COV-2 Variants: Differences and Potential of Immune Evasion. Frontiers in Cellular and Infection Microbiology, 2021, 11, 781429.	1.8	154
210	The Remarkable Evolutionary Plasticity of Coronaviruses by Mutation and Recombination: Insights for the COVID-19 Pandemic and the Future Evolutionary Paths of SARS-CoV-2. Viruses, 2022, 14, 78.	1.5	64
212	SARS-CoV-2 Omicron-B.1.1.529 leads to widespread escape from neutralizing antibody responses. Cell, 2022, 185, 467-484.e15.	13.5	788
213	A phase 2a clinical trial of molnupiravir in patients with COVID-19 shows accelerated SARS-CoV-2 RNA clearance and elimination of infectious virus. Science Translational Medicine, 2022, 14, eabl7430.	5.8	241

#	ARTICLE	IF	CITATIONS
214	SARS-CoV-2 prolonged infection during advanced HIV disease evolves extensive immune escape. Cell Host and Microbe, 2022, 30, 154-162.e5.	5.1	153
215	Mutational landscape and in silico structure models of SARS-CoV-2 spike receptor binding domain reveal key molecular determinants for virus-host interaction. BMC Molecular and Cell Biology, 2022, 23, 2.	1.0	10
217	Growth, Antigenicity, and Immunogenicity of SARS-CoV-2 Spike Variants Revealed by a Live rVSV-SARS-CoV-2 Virus. Frontiers in Medicine, 2021, 8, 793437.	1.2	4
218	Synthetic multiantigen MVA vaccine COH04S1 protects against SARS-CoV-2 in Syrian hamsters and non-human primates. Npj Vaccines, 2022, 7, 7.	2.9	35
219	Evaluation of the Gam-COVID-Vac and vaccine-induced neutralizing response against SARS-CoV-2 lineage P.1 variant in an Argentinean cohort. Vaccine, 2022, 40, 811-818.	1.7	9
221	Comparative Single-Dose mRNA and ChAdOx1 Vaccine Effectiveness Against Severe Acute Respiratory Syndrome Coronavirus 2, Including Variants of Concern: Test-Negative Design, British Columbia, Canada. Journal of Infectious Diseases, 2022, 226, 485-496.	1.9	8
222	Predicting the mutational drivers of future SARS-CoV-2 variants of concern. Science Translational Medicine, 2022, 14, eabk3445.	5.8	101
223	Bovine-derived antibodies and camelid-derived nanobodies as biotherapeutic weapons against SARS-CoV-2 and its variants: A review article. International Journal of Surgery, 2022, 98, 106233.	1.1	21
224	CoronaVac and ChAdOx1 Vaccination and Gamma Infection Elicited Neutralizing Antibodies against the SARS-CoV-2 Delta Variant. Viruses, 2022, 14, 305.	1.5	2
225	Longitudinal analysis of antibody dynamics in COVID-19 convalescents reveals neutralizing responses up to 16 months after infection. Nature Microbiology, 2022, 7, 423-433.	5.9	78
226	In silico analysis of mutant epitopes in new SARS-CoV-2 lineages suggest global enhanced CD8+ T cell reactivity and also signs of immune response escape. Infection, Genetics and Evolution, 2022, 99, 105236.	1.0	6
227	In Silico Molecular Characterization of Human TMPRSS2 Protease Polymorphic Variants and Associated SARS-CoV-2 Susceptibility. Life, 2022, 12, 231.	1.1	5
228	Molecular and Epidemiological Characterization of Emerging Immune-Escape Variants of SARS-CoV-2. Frontiers in Medicine, 2022, 9, 811004.	1.2	3
229	A review of the safety and efficacy of current COVID-19 vaccines. Frontiers of Medicine, 2022, 16, 39-55.	1.5	19
230	Co-circulation of SARS-CoV-2 Alpha and Gamma variants in Italy, February and March 2021. Eurosurveillance, 2022, 27, .	3.9	20
231	Parallel profiling of antigenicity alteration and immune escape of SARS-CoV-2 Omicron and other variants. Signal Transduction and Targeted Therapy, 2022, 7, 42.	7.1	25
232	In-Silico Design of a Novel Tridecapeptide Targeting Spike Protein of SARS-CoV-2 Variants of Concern. International Journal of Peptide Research and Therapeutics, 2022, 28, 28.	0.9	12
233	Structural analysis of receptor binding domain mutations in SARS-CoV-2 variants of concern that modulate ACE2 and antibody binding. Cell Reports, 2021, 37, 110156.	2.9	67

#	Article	IF	CITATIONS
234	The emergence, genomic diversity and global spread of SARS-CoV-2. Nature, 2021, 600, 408-418.	13.7	249
238	Live attenuated virus vaccine protects against SARS-CoV-2 variants of concern B.1.1.7 (Alpha) and B.1.351 (Beta). Science Advances, 2021, 7, eabk0172.	4.7	32
239	Biparatopic nanobodies protect mice from lethal challenge with SARSâ€CoVâ€2 variants of concern. EMBO Reports, 2022, 23, e53865.	2.0	18
240	Structural basis for continued antibody evasion by the SARS-CoV-2 receptor binding domain. Science, 2021, , eabl6251.	6.0	12
241	B.1.617.2 (Delta) Variant of SARS-CoV-2: features, transmission and potential strategies. International Journal of Biological Sciences, 2022, 18, 1844-1851.	2.6	34
242	Immunogenic Dynamics and SARS-CoV-2 Variants Neutralization of the Heterologous ChAdOx1-S/BNT162b2 Vaccination: Secondary Analysis of the CombiVacS Study. SSRN Electronic Journal, 0, , .	0.4	0
243	COVID-19 Vaccine: Between Myth and Truth. Vaccines, 2022, 10, 349.	2.1	12
244	SARS-CoV-2 Beta variant infection elicits potent lineage-specific and cross-reactive antibodies. Science, 2022, 375, 782-787.	6.0	60
245	In-Silico Analysis of Monoclonal Antibodies against SARS-CoV-2 Omicron. Viruses, 2022, 14, 390.	1.5	7
246	Broad ultra-potent neutralization of SARS-CoV-2 variants by monoclonal antibodies specific to the tip of RBD. Cell Discovery, 2022, 8, 16.	3.1	18
247	Cross-Neutralizing Breadth and Longevity Against SARS-CoV-2 Variants After Infections. Frontiers in Immunology, 2022, 13, 773652.	2.2	9
248	Protection Duration of COVID-19 Vaccines: Waning Effectiveness and Future Perspective. Frontiers in Microbiology, 2022, 13, 828806.	1.5	17
249	Structural basis for SARS-CoV-2 Delta variant recognition of ACE2 receptor and broadly neutralizing antibodies. Nature Communications, 2022, 13, 871.	5.8	107
250	Genomic Surveillance of SARS-CoV-2 Lineages Indicates Early Circulation of P.1 (Gamma) Variant of Concern in Southern Brazil. Microbiology Spectrum, 2022, 10, e0151121.	1.2	8
251	Structural and antigenic variations in the spike protein of emerging SARS-CoV-2 variants. PLoS Pathogens, 2022, 18, e1010260.	2.1	81
252	SARS-CoV-2 Mutations and Their Impact on Diagnostics, Therapeutics and Vaccines. Frontiers in Medicine, 2022, 9, 815389.	1.2	96
254	Emergence of Two Distinct SARS-CoV-2 Gamma Variants and the Rapid Spread of P.1-like-II SARS-CoV-2 during the Second Wave of COVID-19 in Santa Catarina, Southern Brazil. Viruses, 2022, 14, 695.	1.5	8
255	E-Volve: understanding the impact of mutations in SARS-CoV-2 variants spike protein on antibodies and ACE2 affinity through patterns of chemical interactions at protein interfaces. PeerJ, 2022, 10, e13099.	0.9	3

#	Article	IF	CITATIONS
257	Generalized Methodology for the Quick Prediction of Variant SARS-CoV-2 Spike Protein Binding Affinities with Human Angiotensin-Converting Enzyme II. Journal of Physical Chemistry B, 2022, 126, 2353-2360.	1.2	7
259	In vitro evaluation of therapeutic antibodies against a SARS-CoV-2 Omicron B.1.1.529 isolate. Scientific Reports, 2022, 12, 4683.	1.6	33
260	Computational profiling of natural compounds as promising inhibitors against the spike proteins of SARSâ€CoVâ€2 wildâ€type and the variants of concern, viral cellâ€entry process, and cytokine storm in COVIDâ€19. Journal of Cellular Biochemistry, 2022, 123, 964-986.	1.2	8
261	The Impact of Evolving SARS-CoV-2 Mutations and Variants on COVID-19 Vaccines. MBio, 2022, 13, e0297921.	1.8	117
262	High Seroprevalence of SARS-CoV-2 in White-Tailed Deer (Odocoileus virginianus) at One of Three Captive Cervid Facilities in Texas. Microbiology Spectrum, 2022, 10, e0057622.	1.2	30
263	Immunogenicity mechanism of mRNA vaccines and their limitations in promoting adaptive protection against SARS-CoV-2. PeerJ, 2022, 10, e13083.	0.9	14
264	Impact of new variants on SARS-CoV-2 infectivity and neutralization: A molecular assessment of the alterations in the spike-host protein interactions. IScience, 2022, 25, 103939.	1.9	32
268	Divergent trajectories of antiviral memory after SARS-CoV-2 infection. Nature Communications, 2022, 13, 1251.	5.8	20
269	The Runaway Evolution of SARS-CoV-2 Leading to the Highly Evolved Delta Strain. Molecular Biology and Evolution, 2022, 39, .	3.5	14
270	Transmissibility and pathogenicity of SARS-CoV-2 variants in animal models. Journal of Microbiology, 2022, 60, 255-267.	1.3	9
271	Nanotechnology and COVID-19: quo vadis?. Journal of Nanoparticle Research, 2022, 24, 62.	0.8	6
272	Specific Detection of SARS-CoV-2 Variants B.1.1.7 (Alpha) and B.1.617.2 (Delta) Using a One-Step Quantitative PCR Assay. Microbiology Spectrum, 2022, 10, e0217621.	1.2	9
273	Immunotherapy and CRISPR Cas Systems: Potential Cure of COVID-19?. Drug Design, Development and Therapy, 2022, Volume 16, 951-972.	2.0	4
274	Comparative Analysis of SARS-CoV-2 Variants of Concern, Including Omicron, Highlights Their Common and Distinctive Amino Acid Substitution Patterns, Especially at the Spike ORF. Viruses, 2022, 14, 707.	1.5	30
276	SARSâ€CoVâ€⊋ variants and vulnerability at the global level. Journal of Medical Virology, 2022, 94, 2986-3005.	2.5	79
278	Identifying vaccine escape sites via statistical comparisons of short-term molecular dynamics. Biophysical Reports, 2022, 2, 100056.	0.7	2
279	Infectious viral load in unvaccinated and vaccinated individuals infected with ancestral, Delta or Omicron SARS-CoV-2. Nature Medicine, 2022, 28, 1491-1500.	15.2	239
280	Spike protein of SARS-CoV-2 variants: a brief review and practical implications. Brazilian Journal of Microbiology, 2022, 53, 1133-1157.	0.8	22

#	Article	IF	CITATIONS
281	A potent human monoclonal antibody with pan-neutralizing activities directly dislocates S trimer of SARS-CoV-2 through binding both up and down forms of RBD. Signal Transduction and Targeted Therapy, 2022, 7, 114.	7.1	17
282	Molecular Dynamics and MM-PBSA Analysis of the SARS-CoV-2 Gamma Variant in Complex with the hACE-2 Receptor. Molecules, 2022, 27, 2370.	1.7	10
285	New variants of SARS-CoV-2, vaccine immune response and the Brazilian reality. Exploration of Immunology, 0, , 432-439.	1.7	0
287	Molecular Evolution of Severe Acute Respiratory Syndrome Coronavirus 2: Hazardous and More Hazardous Strains Behind the Coronavirus Disease 2019 Pandemic and Their Targeting by Drugs and Vaccines. Frontiers in Cellular and Infection Microbiology, 2021, 11, 763687.	1.8	3
288	Genomic Epidemiology of SARS-CoV-2 Divulge B.1, B.1.36, and B.1.1.7 as the Most Dominant Lineages in First, Second, and Third Wave of SARS-CoV-2 Infections in Pakistan. Microorganisms, 2021, 9, 2609.	1.6	17
289	Protective Immunity against Gamma and Zeta Variants after Inactivated SARS-CoV-2 Virus Immunization. Viruses, 2021, 13, 2440.	1.5	8
290	SARS-CoV-2 Variants: Mutations and Effective Changes. Biotechnology and Bioprocess Engineering, 2021, 26, 859-870.	1.4	12
291	Host Predictors of Broadly Cross-Reactive Antibodies Against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Variants of Concern Differ Between Infection and Vaccination. Clinical Infectious Diseases, 2022, 75, e705-e714.	2.9	10
293	The Development of SARS-CoV-2 Variants: The Gene Makes the Disease. Journal of Developmental Biology, 2021, 9, 58.	0.9	27
295	Emergence of novel combinations of SARS-CoV-2 spike receptor binding domain variants in Senegal. Scientific Reports, 2021, 11, 23644.	1.6	4
296	Vaccination with SARS-CoV-2 variants of concern protects mice from challenge with wild-type virus. PLoS Biology, 2021, 19, e3001384.	2.6	15
297	A multi-step and multi-scale bioinformatic approach to investigate potential source of cross-reactive immunity against SARS-CoV-2 UK variant. , 2021, , .		0
298	Assessing Differential Binding of Aggregation-Induced Emission-Based Luminogens to Host Interacting Surface Proteins of SARS-CoV-2 and Influenza Virus–An in silico Approach. Frontiers in Microbiology, 2021, 12, 766351.	1.5	2
300	A Promising Vaccination Strategy against COVID-19 on the Horizon: Heterologous Immunization. Journal of Microbiology and Biotechnology, 2021, 31, 1601-1614.	0.9	8
301	Computational prediction of the molecular mechanism of statin group of drugs against SARS-CoV-2 pathogenesis. Scientific Reports, 2022, 12, 6241.	1.6	12
302	Multivalent designed proteins neutralize SARS-CoV-2 variants of concern and confer protection against infection in mice. Science Translational Medicine, 2022, 14, eabn1252.	5.8	68
303	Research progress on vaccine efficacy against SARS-CoV-2 variants of concern. Human Vaccines and Immunotherapeutics, 2022, 18, 1-12.	1.4	10
304	Impact of SARS-CoV-2 Gamma lineage introduction and COVID-19 vaccination on the epidemiological landscape of a Brazilian city. Communications Medicine, 2022, 2, .	1.9	32

#	Article	IF	CITATIONS
305	Development of antibody resistance in emerging mutant strains of SARS CoVâ€2: Impediment for COVIDâ€19 vaccines. Reviews in Medical Virology, 2022, 32, e2346.	3.9	16
307	SARS-CoV-2 Gamma and Delta Variants of Concern Might Undermine Neutralizing Activity Generated in Response to BNT162b2 mRNA Vaccination. Viruses, 2022, 14, 814.	1.5	2
308	Evaluation of phytoconstituents of <i>Tinospora cordifolia</i> against K417N and N501Y mutant spike glycoprotein and main protease of SARS-CoV-2- an in silico study. Journal of Biomolecular Structure and Dynamics, 2023, 41, 4106-4123.	2.0	1
309	Clinical Characteristics, Transmissibility, Pathogenicity, Susceptible Populations, and Re-infectivity of Prominent COVID-19 Variants., 2022, 13, 402.		28
310	SARS-CoV-2: Evolution and Emergence of New Viral Variants. Viruses, 2022, 14, 653.	1.5	39
311	Tixagevimab/Cilgavimab for Treatment of Hospitalised COVID-19 Patients: A Randomised, Double-Blind, Phase 3 Trial. SSRN Electronic Journal, 0, , .	0.4	3
312	Covid-19: virology, variants, and vaccines. , 2022, 1, e000040.		24
313	The E484K Substitution in a SARS-CoV-2 Spike Protein Subunit Vaccine Resulted in Limited Cross-Reactive Neutralizing Antibody Responses in Mice. Viruses, 2022, 14, 854.	1.5	5
314	Passive Immunotherapy Against SARS-CoV-2: From Plasma-Based Therapy to Single Potent Antibodies in the Race to Stay Ahead of the Variants. BioDrugs, 2022, 36, 231-323.	2.2	24
315	SARS-CoV-2: An Overview of the Genetic Profile and Vaccine Effectiveness of the Five Variants of Concern. Pathogens, 2022, 11, 516.	1.2	10
316	Tracking SARS-CoV-2 Omicron diverse spike gene mutations identifies multiple inter-variant recombination events. Signal Transduction and Targeted Therapy, 2022, 7, 138.	7.1	140
317	LY-CoV1404 (bebtelovimab) potently neutralizes SARS-CoV-2 variants. Cell Reports, 2022, 39, 110812.	2.9	287
318	COVID-19 Vaccines and the Efficacy of Currently Available Vaccines Against COVID-19 Variants. Cureus, 2022, , .	0.2	3
319	Assessment of Neutralizing Antibody Response Against SARS-CoV-2 Variants After 2 to 3 Doses of the BNT162b2 mRNA COVID-19 Vaccine. JAMA Network Open, 2022, 5, e2210780.	2.8	27
320	SARS-CoV-2 variants – Evolution, spike protein, and vaccines. Biomedical Journal, 2022, 45, 573-579.	1.4	26
321	T Cell Epitope Discovery in the Context of Distinct and Unique Indigenous HLA Profiles. Frontiers in Immunology, 2022, 13, .	2.2	4
322	COVID-19 vaccine development: milestones, lessons and prospects. Signal Transduction and Targeted Therapy, 2022, 7, 146.	7.1	153
323	Heterogeneous Infectivity and Pathogenesis of SARS-CoV-2 Variants Beta, Delta and Omicron in Transgenic K18-hACE2 and Wildtype Mice. Frontiers in Microbiology, 2022, 13, .	1.5	39

#	ARTICLE	IF	CITATIONS
324	Antibodies induced by an ancestral SARS-CoV-2 strain that cross-neutralize variants from Alpha to Omicron BA.1. Science Immunology, 2022, 7, eabo3425.	5.6	28
326	Antibody-mediated neutralization of SARS-CoV-2. Immunity, 2022, 55, 925-944.	6.6	74
327	An Electrostatically-steered Conformational Selection Mechanism Promotes SARS-CoV-2 Spike Protein Variation. Journal of Molecular Biology, 2022, 434, 167637.	2.0	1
328	Antibody engineering improves neutralization activity against K417 spike mutant SARS-CoV-2 variants. Cell and Bioscience, 2022, 12, 63.	2.1	4
329	Neutralization assays for SARS-CoV-2: Implications for assessment of protective efficacy of COVID-19 vaccines. Indian Journal of Medical Research, 2022, 155, 105.	0.4	2
331	Potent cross-reactive antibodies following Omicron breakthrough in vaccinees. Cell, 2022, 185, 2116-2131.e18.	13.5	105
332	Current molecular diagnostics assays for SARS-CoV-2 and emerging variants. Methods in Microbiology, 2022, , 83-121.	0.4	2
333	VH3-53/66-Class RBD-Specific Human Monoclonal Antibody iB20 Displays Cross-Neutralizing Activity against Emerging SARS-CoV-2 Lineages. Journal of Personalized Medicine, 2022, 12, 895.	1.1	2
334	COH04S1 and beta sequence-modified vaccine protect hamsters from SARS-CoV-2 variants. IScience, 2022, 25, 104457.	1.9	8
335	Probing structural basis for enhanced binding of SARSâ€CoVâ€2 P.1 variant spike protein with the human ACE2 receptor. Journal of Cellular Biochemistry, 2022, 123, 1207-1221.	1.2	3
336	Protective neutralizing epitopes in SARSâ€CoVâ€2. Immunological Reviews, 2022, 310, 76-92.	2.8	23
337	Structural and functional analysis of an inter-Spike bivalent neutralizing antibody against SARS-CoV-2 variants. IScience, 2022, 25, 104431.	1.9	3
338	Effectiveness of COVID-19 vaccines against SARS-CoV-2 variants of concern: a systematic review and meta-analysis. BMC Medicine, 2022, 20, .	2.3	149
339	Covid-19, an unfinished story. Presse Medicale, 2022, 51, 104131.	0.8	8
340	Novel cleavage sites identified in SARS-CoV-2 spike protein reveal mechanism for cathepsin L-facilitated viral infection and treatment strategies. Cell Discovery, 2022, 8, .	3.1	40
341	Neutralizing Antibodies Response against SARS-CoV-2 Variants of Concern Elicited by Prior Infection or mRNA BNT162b2 Vaccination. Vaccines, 2022, 10, 874.	2.1	5
342	Biological Properties of SARS-CoV-2 Variants: Epidemiological Impact and Clinical Consequences. Vaccines, 2022, 10, 919.	2.1	23
343	Bovine colostrum-derived antibodies against SARS-CoV-2 show great potential to serve as prophylactic agents. PLoS ONE, 2022, 17, e0268806.	1.1	14

#	ARTICLE	IF	Citations
344	Singular Interface Dynamics of the SARS-CoV-2 Delta Variant Explained with Contact Perturbation Analysis. Journal of Chemical Information and Modeling, 2022, 62, 3107-3122.	2.5	5
345	Exploring the Role of Serology Testing to Strengthen Vaccination Initiatives and Policies for COVID-19 in Asia Pacific Countries and Territories: A Discussion Paper. International Journal of Translational Medicine, 2022, 2, 275-308.	0.1	1
346	Antibody escape of SARS-CoV-2 Omicron BA.4 and BA.5 from vaccine and BA.1 serum. Cell, 2022, 185, 2422-2433.e13.	13.5	532
347	Potent human broadly SARS-CoV-2–neutralizing IgA and IgG antibodies effective against Omicron BA.1 and BA.2. Journal of Experimental Medicine, 2022, 219, .	4.2	34
348	Cross-Reactivity of IgG Antibodies and Virus Neutralization in mRNA-Vaccinated People Against Wild-Type SARS-CoV-2 and the Five Most Common SARS-CoV-2 Variants of Concern. Frontiers in Immunology, 0, 13, .	2.2	7
349	Absence of neutralizing antibodies against the Omicron SARS-CoV-2 variant in convalescent sera from individuals infected with the ancestral SARS-CoV-2 virus or its Gamma variant. Clinics, 2022, 77, 100068.	0.6	2
350	A comprehensive account of SARS-CoV-2 genome structure, incurred mutations, lineages and COVID-19 vaccination program. Future Virology, 0 , , .	0.9	4
351	Natural selection plays a significant role in governing the codon usage bias in the novel SARS-CoV-2 variants of concern (VOC). Peerl, 0, 10, e13562.	0.9	4
353	A broadly neutralizing antibody protects Syrian hamsters against SARS-CoV-2 Omicron challenge. Nature Communications, 2022, 13, .	5.8	22
354	COVID-19 Vaccines: Update of the vaccines in use and under development. Vacunas, 2022, , .	1.1	6
356	Vaccines based on the replication-deficient simian adenoviral vector ChAdOx1: Standardized template with key considerations for a risk/benefit assessment. Vaccine, 2022, 40, 5248-5262.	1.7	9
357	Multiplex Quantitative Polymerase Chain Reaction Test to Identify SARS-CoV-2 Variants. Methods in Molecular Biology, 2022, , 67-78.	0.4	1
359	The spike glycoprotein of highly pathogenic human coronaviruses: structural insights for understanding infection, evolution and inhibition. FEBS Open Bio, 2022, 12, 1602-1622.	1.0	6
360	Introduction and Establishment of SARS-CoV-2 Gamma Variant in New York City in Early 2021. Journal of Infectious Diseases, 2022, 226, 2142-2149.	1.9	5
361	Tixagevimab–cilgavimab for treatment of patients hospitalised with COVID-19: a randomised, double-blind, phase 3 trial. Lancet Respiratory Medicine,the, 2022, 10, 972-984.	5.2	61
362	Pre-Omicron Vaccine Breakthrough Infection Induces Superior Cross-Neutralization against SARS-CoV-2 Omicron BA.1 Compared to Infection Alone. International Journal of Molecular Sciences, 2022, 23, 7675.	1.8	9
363	A panel of nanobodies recognizing conserved hidden clefts of all SARS-CoV-2 spike variants including Omicron. Communications Biology, 2022, 5, .	2.0	26
365	Detecting lineage-defining mutations in SARS-CoV-2 using colorimetric RT-LAMP without probes or additional primers. Scientific Reports, 2022, 12, .	1.6	4

#	Article	IF	CITATIONS
366	Plasma and memory antibody responses to Gamma SARS-CoV-2 provide limited cross-protection to other variants. Journal of Experimental Medicine, 2022, 219 , .	4.2	6
367	Functional mutations of SARS-CoV-2: implications to viral transmission, pathogenicity and immune escape. Chinese Medical Journal, 0, Publish Ahead of Print, .	0.9	3
368	Equine Anti-SARS-CoV-2 Serum (ECIG) Binds to Mutated RBDs and N Proteins of Variants of Concern and Inhibits the Binding of RBDs to ACE-2 Receptor. Frontiers in Immunology, 0, 13, .	2.2	1
370	Immunogenic dynamics and SARS-CoV-2 variant neutralisation of the heterologous ChAdOx1-S/BNT162b2 vaccination: Secondary analysis of the randomised CombiVacS study. EClinicalMedicine, 2022, 50, 101529.	3.2	3
371	A circular mRNA vaccine prototype producing VFLIP-X spike confers a broad neutralization of SARS-CoV-2 variants by mouse sera. Antiviral Research, 2022, 204, 105370.	1.9	16
372	Immune response and reactogenicity after immunization with two-doses of an experimental COVID-19 vaccine (CVnCOV) followed by a third-fourth shot with a standard mRNA vaccine (BNT162b2): RescueVacs multicenter cohort study. EClinicalMedicine, 2022, 51, 101542.	3.2	5
373	Spread of endemic SARS-CoV-2 lineages in Russia before April 2021. PLoS ONE, 2022, 17, e0270717.	1.1	8
375	Immune Escape Associated with RBD Omicron Mutations and SARS-CoV-2 Evolution Dynamics. Viruses, 2022, 14, 1603.	1.5	27
376	A bibliometric analysis of the 100 most cited articles describing SARS-CoV-2 variants. Frontiers in Public Health, 0, 10 , .	1.3	0
377	Sera of patients infected by earlier lineages of SARS-CoV-2 are capable to neutralize later emerged variants of concern. Biology Methods and Protocols, 2022, 7, .	1.0	1
378	Density functional theory computation of the binding free energies between various mutations of SARS-CoV-2 RBD and human ACE2: molecular level roots of the contagiousness. Heliyon, 2022, 8, e10128.	1.4	2
379	Effectiveness of Household Disinfection Techniques to Remove SARS-CoV-2 from Cloth Masks. Pathogens, 2022, 11, 916.	1.2	2
380	Structural bases for the higher adherence to ACE2 conferred by the SARS-CoV-2 spike Q498Y substitution. Acta Crystallographica Section D: Structural Biology, 2022, 78, 1156-1170.	1.1	2
381	A mosaic-type trimeric RBD-based COVID-19 vaccine candidate induces potent neutralization against Omicron and other SARS-CoV-2 variants. ELife, 0, 11 , .	2.8	10
382	Molecular Dynamics Analysis of Fast-Spreading Severe Acute Respiratory Syndrome Coronavirus 2 Variants and Their Effects on the Interaction with Human Angiotensin-Converting Enzyme 2. ACS Omega, 2022, 7, 30700-30709.	1.6	6
383	Latest in COVID-19 Vaccine 'Candidates' Race. Infectious Disorders - Drug Targets, 2022, 22, .	0.4	0
384	A humanized nanobody phage display library yields potent binders of SARS CoV-2 spike. PLoS ONE, 2022, 17, e0272364.	1.1	6
386	Two Years into the COVID-19 Pandemic: Lessons Learned. ACS Infectious Diseases, 2022, 8, 1758-1814.	1.8	47

#	Article	IF	CITATIONS
387	Qualification of a Biolayer Interferometry Assay to Support AZD7442 Resistance Monitoring. Microbiology Spectrum, 2022, 10, .	1.2	2
388	Promotion of neutralizing antibody-independent immunity to wild-type and SARS-CoV-2 variants of concern using an RBD-Nucleocapsid fusion protein. Nature Communications, 2022, 13, .	5.8	12
389	Optimised Non-Coding Regions of mRNA SARS-CoV-2 Vaccine CV2CoV Improves Homologous and Heterologous Neutralising Antibody Responses. Vaccines, 2022, 10, 1251.	2.1	10
390	Neutralizing antibodies to SARSâ€CoVâ€2 variants of concern including Delta and Omicron in subjects receiving mRNAâ€1273, BNT162b2, and Ad26.COV2.S vaccines. Journal of Medical Virology, 2022, 94, 5678-5690.	2.5	16
391	Nanotechnology-based strategies against SARS-CoV-2 variants. Nature Nanotechnology, 2022, 17, 1027-1037.	15.6	63
392	Six-month humoral and cellular immune response to the third dose of BNT162b2 anti-SARS-CoV-2 vaccine in patients with solid tumors: a longitudinal cohort study with a focus on the variants of concern. ESMO Open, 2022, 7, 100574.	2.0	12
393	Structural aspects of SARS-CoV-2 mutations: Implications to plausible infectivity with ACE-2 using computational modeling approach. Journal of Biomolecular Structure and Dynamics, 2023, 41, 6518-6533.	2.0	9
394	COVID-19 mRNA Vaccines. , 2022, , 769-802.		0
395	Will New Variants Emerge after Delta and Omicron?. , 2022, 13, 1317.		1
396	Titers and Capacity of Neutralizing Antibodies Against SARS-CoV-2 Variants after Heterologous Booster Vaccination in Health Care Workers Primed with Two Doses of ChadOx1 nCov-19: A Single-Blinded, Randomized Clinical Trial. SSRN Electronic Journal, 0, , .	0.4	0
397	Antibody-mediated immunity to SARS-CoV-2 spike. Advances in Immunology, 2022, , 1-69.	1.1	12
398	Low Seroprevalence of SARS-CoV-2 among Healthcare Workers in Malaysia during the Third COVID-19 Wave: Prospective Study with Literature Survey on Infection Prevention and Control Measures. Healthcare (Switzerland), 2022, 10, 1810.	1.0	0
400	SARS-CoV-2 Variants, Current Vaccines and Therapeutic Implications for COVID-19. Vaccines, 2022, 10, 1538.	2.1	12
401	Dual spike and nucleocapsid mRNA vaccination confer protection against SARS-CoV-2 Omicron and Delta variants in preclinical models. Science Translational Medicine, 2022, 14, .	5.8	55
402	Computation of the Binding Energies between Human ACE2 and Spike RBDs of the Original Strain, Delta and Omicron Variants of the SARSâ€CoVâ€2: A DFT Simulation Approach. Advanced Theory and Simulations, 2022, 5, .	1.3	6
403	RNA G-quadruplex formed in SARS-CoV-2 used for COVID-19 treatment in animal models. Cell Discovery, 2022, 8, .	3.1	28
404	Structural heterogeneity and precision of implications drawn from cryo-electron microscopy structures: SARS-CoV-2 spike-protein mutations as a test case. European Biophysics Journal, 2022, 51, 555-568.	1.2	4
405	Localized delivery of nanomedicine and antibodies for combating COVID-19. Acta Pharmaceutica Sinica B, 2023, 13, 1828-1846.	5.7	5

#	ARTICLE	IF	Citations
406	Safety and immunogenicity of intradermal administration of fractional dose CoronaVac $\hat{A}^{\text{@}}$, ChAdOx1 nCoV-19 and BNT162b2 as primary series vaccination. Frontiers in Immunology, 0, 13, .	2.2	7
407	Booster Vaccination Against SARS-CoV-2 Induces Potent Immune Responses in People With Human Immunodeficiency Virus. Clinical Infectious Diseases, 2023, 76, 201-209.	2.9	10
408	Importancia de la vigilancia gen \tilde{A}^3 mica de SARS-CoV-2 en los tiempos de las vacunas contra la COVID-19. Revista De La Universidad Industrial De Santander Salud, 2022, 54, .	0.0	0
409	Effectiveness of the Fiocruz recombinant ChadOx1-nCoV19 against variants of SARS-CoV-2 in the Municipality of Botucatu-SP. Frontiers in Public Health, $0,10,10$	1.3	3
410	Shared IGHV1-69-encoded neutralizing antibodies contribute to the emergence of L452R substitution in SARS-CoV-2 variants. Emerging Microbes and Infections, 2022, 11, 2749-2761.	3.0	9
412	Homology Modeling and Molecular Dynamics-Driven Search for Natural Inhibitors That Universally Target Receptor-Binding Domain of Spike Glycoprotein in SARS-CoV-2 Variants. Molecules, 2022, 27, 7336.	1.7	1
413	SARS-CoV-2 variants of concern: a review. Monaldi Archives for Chest Disease, 0, , .	0.3	4
414	Retrospective Analysis of the SARS-CoV-2 Infection Profile in COVID-19 Positive Patients in Vitoria da Conquista, Northeast Brazil. Viruses, 2022, 14, 2424.	1.5	3
415	Tixagevimab/cilgavimab for prevention and treatment of COVID-19: a review. Expert Review of Anti-Infective Therapy, 0 , 1 -11.	2.0	3
416	Evolutionary trajectory of receptor binding specificity and promiscuity of the spike protein of <scp>SARSâ€CoV</scp> â€2. Protein Science, 2022, 31, .	3.1	1
417	Computational modeling of the effect of five mutations on the structure of the ACE2 receptor and their correlation with infectivity and virulence of some emerged variants of SARS-CoV-2 suggests mechanisms of binding affinity dysregulation. Chemico-Biological Interactions, 2022, 368, 110244.	1.7	4
418	Novel coronavirus mutations: Vaccine development and challenges. Microbial Pathogenesis, 2022, 173, 105828.	1.3	7
419	The Concomitant Use of Melatonin and Bebtelovimab as a Treatment Strategy for Omicron and Future Variants of Concern. International Journal of Pharmaceutical Research and Allied Sciences, 2022, 11, 33-40.	0.1	1
421	Structural insights into broadly neutralizing antibodies elicited by hybrid immunity against SARS-CoV-2. Emerging Microbes and Infections, 2023, 12, .	3.0	3
423	Antibody multispecificity: A necessary evil?. Molecular Immunology, 2022, 152, 153-161.	1.0	4
424	Titers and breadth of neutralizing antibodies against SARS-CoV-2 variants after heterologous booster vaccination in health care workers primed with two doses of ChAdOx1 nCov-19: A single-blinded, randomized clinical trial. Journal of Clinical Virology, 2022, 157, 105328.	1.6	10
425	Green and Regioselective Approach for the Synthesis of 3-Substituted Indole Based 1,2-Dihydropyridine and Azaxanthone Derivatives as a Potential Lead for SARS-CoV-2 and Delta Plus Mutant Virus: DFT and Docking Studies. ACS Omega, $0, , .$	1.6	3
426	Molecular dynamics study on the strengthening behavior of Delta and Omicron SARS-CoV-2 spike RBD improved receptor-binding affinity. PLoS ONE, 2022, 17, e0277745.	1.1	4

#	Article	IF	CITATIONS
427	COVID-19 endgame: From pandemic to endemic? Vaccination, reopening and evolution in low- and high-vaccinated populations. Journal of Theoretical Biology, 2023, 559, 111368.	0.8	29
428	Progress on COVID-19 Chemotherapeutics Discovery and Novel Technology. Molecules, 2022, 27, 8257.	1.7	4
429	Modelling optimal lockdowns with waning immunity. Economic Theory, 2024, 77, 197-234.	0.5	7
430	Efficacy and Safety of COVID-19 Vaccines—An Update. Diseases (Basel, Switzerland), 2022, 10, 112.	1.0	11
431	Comparative study of Wuhan-like and omicron-like variants of SARS-CoV-2 in experimental animal models. Voprosy Virusologii, 2022, 67, 439-449.	0.1	0
432	Advanced Plasmonic Nanoparticle-Based Techniques for the Prevention, Detection, and Treatment of Current COVID-19. Plasmonics, 2023, 18, 311-347.	1.8	4
433	Neutralizing Antibody Responses Elicited by Inactivated Whole Virus and Genetic Vaccines against Dominant SARS-CoV-2 Variants during the Four Epidemic Peaks of COVID-19 in Colombia. Vaccines, 2022, 10, 2144.	2.1	1
434	Understanding the challenges to COVID-19 vaccines and treatment options, herd immunity and probability of reinfection. Journal of Taibah University Medical Sciences, 2023, 18, 600-638.	0.5	1
435	Evaluation of antibody response to SARS-CoV-2 variants after 2 doses of mRNA COVID-19 vaccine in a correctional facility. Human Vaccines and Immunotherapeutics, 2022, 18, .	1.4	3
436	A delicate balance between antibody evasion and ACE2 affinity for Omicron BA.2.75. Cell Reports, 2023, 42, 111903.	2.9	34
437	SARS-CoV-2 Lineage P.4 Detection in Southeast Brazil: A Retrospective Genomic and Clinical Overview. Covid, 2022, 2, 1768-1777.	0.7	1
438	Prophylactic Administration of the Monoclonal Antibody Adintrevimab Protects against SARS-CoV-2 in Hamster and Non-Human Primate Models of COVID-19. Antimicrobial Agents and Chemotherapy, 2023, 67,	1.4	2
439	Functionalized Fullerene for Inhibition of SARSâ€CoVâ€2 Variants. Small, 2023, 19, .	5.2	8
440	Rapid and Flexible RT-qPCR Surveillance Platforms To Detect SARS-CoV-2 Mutations. Microbiology Spectrum, 0, , .	1.2	4
441	Cross-immunity against SARS-COV-2 variants of concern in naturally infected critically ill COVID-19 patients. Heliyon, 2023, 9, e12704.	1.4	2
443	Application of germline antibody features to vaccine development, antibody discovery, antibody optimization and disease diagnosis. Biotechnology Advances, 2023, 65, 108143.	6.0	4
444	A Protein Co-Conservation Network Model Characterizes Mutation Effects on SARS-CoV-2 Spike Protein. International Journal of Molecular Sciences, 2023, 24, 3255.	1.8	4
445	Robust induction of functional humoral response by a plant-derived Coronavirus-like particle vaccine candidate for COVID-19. Npj Vaccines, 2023, 8, .	2.9	2

#	ARTICLE	IF	CITATIONS
446	Somatically hypermutated antibodies isolated from SARS-CoV-2 Delta infected patients cross-neutralize heterologous variants. Nature Communications, 2023, 14, .	5.8	6
448	HLA-I and HLA-II Peptidomes of SARS-CoV-2: A Review. Vaccines, 2023, 11, 548.	2.1	1
449	Rapid escape of new SARS-CoV-2 Omicron variants from BA.2-directed antibody responses. Cell Reports, 2023, 42, 112271.	2.9	12
450	Longer intervals between SARSâ€CoVâ€2 infection and mRNAâ€1273 doses improve the neutralization of different variants of concern. Journal of Medical Virology, 2023, 95, .	2.5	1
451	Antibody-mediated protection against symptomatic COVID-19 can be achieved at low serum neutralizing titers. Science Translational Medicine, 2023, 15, .	5.8	12
453	Comprehensive deep mutational scanning reveals the pH induced stability and binding differences between SARS-CoV-2 spike RBD and human ACE2. Journal of Biomolecular Structure and Dynamics, 2023, 41, 15207-15218.	2.0	1
454	In silico identification and molecular dynamic simulations of derivatives of 6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2-carboxamide against main protease 3CLpro of SARS-CoV-2 viral infection. Journal of Molecular Modeling, 2023, 29, .	0.8	6
455	SARS-CoV-2: Structure, Pathogenesis, and Diagnosis. , 2024, , 24-51.		O
456	Potent Omicron-neutralizing antibodies isolated from a patient vaccinated 6Âmonths before Omicron emergence. Cell Reports, 2023, 42, 112421.	2.9	3
457	Next-Generation Vaccines against COVID-19 Variants: Beyond the Spike Protein. Zoonoses, 2023, 3, .	0.5	1
458	COVID-19 vaccines based on viral nanoparticles displaying a conserved B-cell epitope show potent immunogenicity and a long-lasting antibody response. Frontiers in Microbiology, 0, 14, .	1.5	2
471	The COVID-19 Pandemic: SARS-CoV-2 Structure, Infection, Transmission, Symptomology, and Variants of Concern. Advances in Experimental Medicine and Biology, 2023, , 3-26.	0.8	0
483	Chronicling the 3-year evolution of the COVID-19 pandemic: analysis of disease management, characteristics of major variants, and impacts on pathogenicity. Clinical and Experimental Medicine, 0, , .	1.9	0
489	Role of cellular fatty acids in combating the corona virus. , 2023, , 439-453.		0
511	Innovation-driven trend shaping COVID-19 vaccine development in China. Frontiers of Medicine, 2023, 17, 1096-1116.	1.5	0