

Alexandra C Walls

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

24,919
citations

57758

44
h-index

182427

51
g-index

88
all docs

88
docs citations

88
times ranked

29642
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure, Function, and Antigenicity of the SARS-CoV-2 Spike Glycoprotein. <i>Cell</i> , 2020, 181, 281-292.e6.	28.9	6,979
2	Deep Mutational Scanning of SARS-CoV-2 Receptor Binding Domain Reveals Constraints on Folding and ACE2 Binding. <i>Cell</i> , 2020, 182, 1295-1310.e20.	28.9	1,726
3	Cross-neutralization of SARS-CoV-2 by a human monoclonal SARS-CoV antibody. <i>Nature</i> , 2020, 583, 290-295.	27.8	1,695
4	Mapping Neutralizing and Immunodominant Sites on the SARS-CoV-2 Spike Receptor-Binding Domain by Structure-Guided High-Resolution Serology. <i>Cell</i> , 2020, 183, 1024-1042.e21.	28.9	1,195
5	Broadly neutralizing antibodies overcome SARS-CoV-2 Omicron antigenic shift. <i>Nature</i> , 2022, 602, 664-670.	27.8	917
6	N-terminal domain antigenic mapping reveals a site of vulnerability for SARS-CoV-2. <i>Cell</i> , 2021, 184, 2332-2347.e16.	28.9	784
7	Altered TMPRSS2 usage by SARS-CoV-2 Omicron impacts infectivity and fusogenicity. <i>Nature</i> , 2022, 603, 706-714.	27.8	756
8	Sensitivity of SARS-CoV-2 B.1.1.7 to mRNA vaccine-elicited antibodies. <i>Nature</i> , 2021, 593, 136-141.	27.8	648
9	Unexpected Receptor Functional Mimicry Elucidates Activation of Coronavirus Fusion. <i>Cell</i> , 2019, 176, 1026-1039.e15.	28.9	558
10	Tectonic conformational changes of a coronavirus spike glycoprotein promote membrane fusion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11157-11162.	7.1	501
11	Structural basis for human coronavirus attachment to sialic acid receptors. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 481-489.	8.2	475
12	De novo design of picomolar SARS-CoV-2 miniprotein inhibitors. <i>Science</i> , 2020, 370, 426-431.	12.6	464
13	Cryo-electron microscopy structure of a coronavirus spike glycoprotein trimer. <i>Nature</i> , 2016, 531, 114-117.	27.8	453
14	Elicitation of Potent Neutralizing Antibody Responses by Designed Protein Nanoparticle Vaccines for SARS-CoV-2. <i>Cell</i> , 2020, 183, 1367-1382.e17.	28.9	420
15	Structural basis of SARS-CoV-2 Omicron immune evasion and receptor engagement. <i>Science</i> , 2022, 375, 864-868.	12.6	394
16	SARS-CoV-2 immune evasion by the B.1.427/B.1.429 variant of concern. <i>Science</i> , 2021, 373, 648-654.	12.6	385
17	SARS-CoV-2 RBD antibodies that maximize breadth and resistance to escape. <i>Nature</i> , 2021, 597, 97-102.	27.8	385
18	Glycan shield and epitope masking of a coronavirus spike protein observed by cryo-electron microscopy. <i>Nature Structural and Molecular Biology</i> , 2016, 23, 899-905.	8.2	366

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19	Spread of a SARS-CoV-2 variant through Europe in the summer of 2020. <i>Nature</i> , 2021, 595, 707-712.	27.8	363
20	Broad betacoronavirus neutralization by a stem helix-specific human antibody. <i>Science</i> , 2021, 373, 1109-1116.	12.6	262
21	Adjuvanting a subunit COVID-19 vaccine to induce protective immunity. <i>Nature</i> , 2021, 594, 253-258.	27.8	253
22	Molecular basis of immune evasion by the Delta and Kappa SARS-CoV-2 variants. <i>Science</i> , 2021, 374, 1621-1626.	12.6	232
23	Lectins enhance SARS-CoV-2 infection and influence neutralizing antibodies. <i>Nature</i> , 2021, 598, 342-347.	27.8	230
24	Broad sarbecovirus neutralization by a human monoclonal antibody. <i>Nature</i> , 2021, 597, 103-108.	27.8	220
25	Structures of MERS-CoV spike glycoprotein in complex with sialoside attachment receptors. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 1151-1157.	8.2	218
26	An <i>Alphavirus</i> -derived replicon RNA vaccine induces SARS-CoV-2 neutralizing antibody and T cell responses in mice and nonhuman primates. <i>Science Translational Medicine</i> , 2020, 12, .	12.4	181
27	SARS-CoV-2 breakthrough infections elicit potent, broad, and durable neutralizing antibody responses. <i>Cell</i> , 2022, 185, 872-880.e3.	28.9	165
28	Structure-guided covalent stabilization of coronavirus spike glycoprotein trimers in the closed conformation. <i>Nature Structural and Molecular Biology</i> , 2020, 27, 942-949.	8.2	153
29	Structural basis for broad coronavirus neutralization. <i>Nature Structural and Molecular Biology</i> , 2021, 28, 478-486.	8.2	152
30	Elicitation of broadly protective sarbecovirus immunity by receptor-binding domain nanoparticle vaccines. <i>Cell</i> , 2021, 184, 5432-5447.e16.	28.9	131
31	Glycan Shield and Fusion Activation of a Deltacoronavirus Spike Glycoprotein Fine-Tuned for Enteric Infections. <i>Journal of Virology</i> , 2018, 92, .	3.4	124
32	RosettaES: a sampling strategy enabling automated interpretation of difficult cryo-EM maps. <i>Nature Methods</i> , 2017, 14, 797-800.	19.0	118
33	ACE2 binding is an ancestral and evolvable trait of sarbecoviruses. <i>Nature</i> , 2022, 603, 913-918.	27.8	109
34	Subunit connectivity, assembly determinants and architecture of the yeast exocyst complex. <i>Nature Structural and Molecular Biology</i> , 2016, 23, 59-66.	8.2	108
35	Antibody-mediated broad sarbecovirus neutralization through ACE2 molecular mimicry. <i>Science</i> , 2022, 375, 449-454.	12.6	108
36	Designed proteins assemble antibodies into modular nanocages. <i>Science</i> , 2021, 372, .	12.6	104

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37	Broadly neutralizing antibodies overcome SARS-CoV-2 Omicron antigenic shift. <i>Nature</i> , 0, , .	27.8	101
38	Automatically Fixing Errors in Glycoprotein Structures with Rosetta. <i>Structure</i> , 2019, 27, 134-139.e3.	3.3	93
39	ACE2-binding exposes the SARS-CoV-2 fusion peptide to broadly neutralizing coronavirus antibodies. <i>Science</i> , 2022, 377, 735-742.	12.6	85
40	Secreted Effectors Encoded within and outside of the Francisella Pathogenicity Island Promote Intramacrophage Growth. <i>Cell Host and Microbe</i> , 2016, 20, 573-583.	11.0	68
41	Vitrification after multiple rounds of sample application and blotting improves particle density on cryo-electron microscopy grids. <i>Journal of Structural Biology</i> , 2017, 198, 38-42.	2.8	68
42	Multivalent designed proteins neutralize SARS-CoV-2 variants of concern and confer protection against infection in mice. <i>Science Translational Medicine</i> , 2022, 14, eabn1252.	12.4	68
43	Serological identification of SARS-CoV-2 infections among children visiting a hospital during the initial Seattle outbreak. <i>Nature Communications</i> , 2020, 11, 4378.	12.8	63
44	Discovery and Characterization of Spike N-Terminal Domain-Binding Aptamers for Rapid SARS-CoV-2 Detection. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21211-21215.	13.8	62
45	Stabilization of the SARS-CoV-2 Spike Receptor-Binding Domain Using Deep Mutational Scanning and Structure-Based Design. <i>Frontiers in Immunology</i> , 2021, 12, 710263.	4.8	32
46	Adjuvanting a subunit SARS-CoV-2 vaccine with clinically relevant adjuvants induces durable protection in mice. <i>Npj Vaccines</i> , 2022, 7, .	6.0	32
47	Crucial steps in the structure determination of a coronavirus spike glycoprotein using cryo-electron microscopy. <i>Protein Science</i> , 2017, 26, 113-121.	7.6	31
48	Structure, receptor recognition, and antigenicity of the human coronavirus CCoV-HuPn-2018 spike glycoprotein. <i>Cell</i> , 2022, 185, 2279-2291.e17.	28.9	25
49	Thermodynamically coupled biosensors for detecting neutralizing antibodies against SARS-CoV-2 variants. <i>Nature Biotechnology</i> , 2022, 40, 1336-1340.	17.5	23
50	Discovery and Characterization of Spike N-Terminal Domain-Binding Aptamers for Rapid SARS-CoV-2 Detection. <i>Angewandte Chemie</i> , 2021, 133, 21381-21385.	2.0	14
51	Structural Studies of Coronavirus Fusion Proteins. <i>Microscopy and Microanalysis</i> , 2019, 25, 1300-1301.	0.4	4