Jason S Mclellan

List of Publications by Citations

139 papers	17,201 citations	52 h-index	131 g-index
157 ext. papers	23,057 ext. citations	16.7 avg, IF	7.44 L-index

#	Paper	IF	Citations
139	Cryo-EM structure of the 2019-nCoV spike in the prefusion conformation. *Science*, **2020**, 367, 1260-1263	33.3	5176
138	Site-specific glycan analysis of the SARS-CoV-2 spike. *Science*, **2020**, 369, 330-333	33.3	768
137	Structure of HIV-1 gp120 V1/V2 domain with broadly neutralizing antibody PG9. *Nature*, **2011**, 480, 336-43	50.4	682
136	Immunogenicity and structures of a rationally designed prefusion MERS-CoV spike antigen. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E7348-E7357	11.5	615
135	SARS-CoV-2 mRNA vaccine design enabled by prototype pathogen preparedness. *Nature*, **2020**, 586, 567-571	50.4	594
134	Structure-based design of a fusion glycoprotein vaccine for respiratory syncytial virus. *Science*, **2013** , 342, 592-8	33.3	531
133	Structure of RSV fusion glycoprotein trimer bound to a prefusion-specific neutralizing antibody. *Science*, **2013**, 340, 1113-7	33.3	483
132	Pre-fusion structure of a human coronavirus spike protein. *Nature*, **2016**, 531, 118-21	50.4	474
131	Structure-based design of prefusion-stabilized SARS-CoV-2 spikes. *Science*, **2020**, 369, 1501-1505	33.3	450
130	Broad neutralization of SARS-related viruses by human monoclonal antibodies. *Science*, **2020**, 369, 731-736	33.3	376
129	Immunogenicity of a DNA vaccine candidate for COVID-19. *Nature Communications*, **2020**, 11, 2601	17.4	361
128	Beyond Shielding: The Roles of Glycans in the SARS-CoV-2 Spike Protein. *ACS Central Science*, **2020**, 6, 1722-1734	16.8	340
127	Structural Basis for Potent Neutralization of Betacoronaviruses by Single-Domain Camelid Antibodies. *Cell*, **2020**, 181, 1004-1015.e15	56.2	319
126	Vaccine induction of antibodies against a structurally heterogeneous site of immune pressure within HIV-1 envelope protein variable regions 1 and 2. *Immunity*, **2013**, 38, 176-86	32.3	319
125	Structure of respiratory syncytial virus fusion glycoprotein in the postfusion conformation reveals preservation of neutralizing epitopes. *Journal of Virology*, **2011**, 85, 7788-96	6.6	268
124	Stabilized coronavirus spikes are resistant to conformational changes induced by receptor recognition or proteolysis. *Scientific Reports*, **2018**, 8, 15701	4.9	259
123	The respiratory syncytial virus vaccine landscape: lessons from the graveyard and promising candidates. *Lancet Infectious Diseases, The*, **2018**, 18, e295-e311	25.5	218

122	Prefusion F-specific antibodies determine the magnitude of RSV neutralizing activity in human sera. *Science Translational Medicine*, **2015**, 7, 309ra162	17.5	202
121	A highly stable prefusion RSV F vaccine derived from structural analysis of the fusion mechanism. *Nature Communications*, **2015**, 6, 8143	17.4	174
120	Vulnerabilities in coronavirus glycan shields despite extensive glycosylation. *Nature Communications*, **2020**, 11, 2688	17.4	174
119	The neutralizing antibody, LY-CoV555, protects against SARS-CoV-2 infection in nonhuman primates. *Science Translational Medicine*, **2021**, 13,	17.5	169
118	Structure and function of respiratory syncytial virus surface glycoproteins. *Current Topics in Microbiology and Immunology*, **2013**, 372, 83-104	3.3	159
117	Broad and potent activity against SARS-like viruses by an engineered human monoclonal antibody. *Science*, **2021**, 371, 823-829	33.3	157
116	SARS-CoV-2 escape from a highly neutralizing COVID-19 convalescent plasma **2020**,		153
115	Cryo-EM Structure of the 2019-nCoV Spike in the Prefusion Conformation **2020**,		143
114	Structural and molecular basis for Ebola virus neutralization by protective human antibodies. *Science*, **2016**, 351, 1343-6	33.3	134
113	Structural basis of respiratory syncytial virus neutralization by motavizumab. *Nature Structural and Molecular Biology*, **2010**, 17, 248-50	17.6	121
112	Rapid profiling of RSV antibody repertoires from the memory B cells of naturally infected adult donors. *Science Immunology*, **2016**, 1,	28	120
111	Importance of Neutralizing Monoclonal Antibodies Targeting Multiple Antigenic Sites on the Middle East Respiratory Syndrome Coronavirus Spike Glycoprotein To Avoid Neutralization Escape. *Journal of Virology*, **2018**, 92,	6.6	119
110	A proof of concept for structure-based vaccine design targeting RSV in humans. *Science*, **2019**, 365, 505-509	33.3	118
109	A highly potent extended half-life antibody as a potential RSV vaccine surrogate for all infants. *Science Translational Medicine*, **2017**, 9,	17.5	113
108	SARS-CoV-2 escape from a highly neutralizing COVID-19 convalescent plasma. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	106
107	Prevalent, protective, and convergent IgG recognition of SARS-CoV-2 non-RBD spike epitopes. *Science*, **2021**, 372, 1108-1112	33.3	100
106	Adjuvanting a subunit COVID-19 vaccine to induce protective immunity. *Nature*, **2021**, 594, 253-258	50.4	92
105	Structure-Based Vaccine Antigen Design. *Annual Review of Medicine*, **2019**, 70, 91-104	17.4	91

104	Design and characterization of epitope-scaffold immunogens that present the motavizumab epitope from respiratory syncytial virus. *Journal of Molecular Biology*, **2011**, 409, 853-66	6.5	90
103	Characterization of a Prefusion-Specific Antibody That Recognizes a Quaternary, Cleavage-Dependent Epitope on the RSV Fusion Glycoprotein. *PLoS Pathogens*, **2015**, 11, e1005035	7.6	87
102	Molecular mechanism of respiratory syncytial virus fusion inhibitors. *Nature Chemical Biology*, **2016**, 12, 87-93	11.7	84
101	Structure of a major antigenic site on the respiratory syncytial virus fusion glycoprotein in complex with neutralizing antibody 101F. *Journal of Virology*, **2010**, 84, 12236-44	6.6	83
100	Infants Infected with Respiratory Syncytial Virus Generate Potent Neutralizing Antibodies that Lack Somatic Hypermutation. *Immunity*, **2018**, 48, 339-349.e5	32.3	82
99	Site-specific analysis of the SARS-CoV-2 glycan shield **2020**,		74
98	Molecular determinants and mechanism for antibody cocktail preventing SARS-CoV-2 escape. *Nature Communications*, **2021**, 12, 469	17.4	74
97	Respiratory syncytial virus entry and how to block it. *Nature Reviews Microbiology*, **2019**, 17, 233-245	22.2	72
96	Prolonged evolution of the human B cell response to SARS-CoV-2 infection. *Science Immunology*, **2021**, 6,	28	70
95	Molecular Architecture of Early Dissemination and Massive Second Wave of the SARS-CoV-2 Virus in a Major Metropolitan Area. *MBio*, **2020**, 11,	7.8	69
94	Neutralizing epitopes on the respiratory syncytial virus fusion glycoprotein. *Current Opinion in Virology*, **2015**, 11, 70-5	7.5	64
93	LY-CoV555, a rapidly isolated potent neutralizing antibody, provides protection in a non-human primate model of SARS-CoV-2 infection **2020**,		64
92	A glycan gate controls opening of the SARS-CoV-2 spike protein. *Nature Chemistry*, **2021**, 13, 963-968	17.6	63
91	SARS-CoV-2 mRNA Vaccine Development Enabled by Prototype Pathogen Preparedness **2020**,		62
90	Structural Definition of a Neutralization-Sensitive Epitope on the MERS-CoV S1-NTD. *Cell Reports*, **2019**, 28, 3395-3405.e6	10.6	53
89	Structure and immunogenicity of pre-fusion-stabilized human metapneumovirus F glycoprotein. *Nature Communications*, **2017**, 8, 1528	17.4	50
88	Neutralization of Diverse Human Cytomegalovirus Strains Conferred by Antibodies Targeting Viral gH/gL/pUL128-131 Pentameric Complex. *Journal of Virology*, **2017**, 91,	6.6	46
87	Enhanced Neutralizing Antibody Response Induced by Respiratory Syncytial Virus Prefusion F Protein Expressed by a Vaccine Candidate. *Journal of Virology*, **2015**, 89, 9499-510	6.6	43

86	Potent single-domain antibodies that arrest respiratory syncytial virus fusion protein in its prefusion state. *Nature Communications*, **2017**, 8, 14158	17.4	41
85	Therapeutic efficacy of a respiratory syncytial virus fusion inhibitor. *Nature Communications*, **2017**, 8, 167	17.4	41
84	Global site-specific analysis of glycoprotein N-glycan processing. *Nature Protocols*, **2018**, 13, 1196-1212	18.8	40
83	The 3.1-Angstrom Cryo-electron Microscopy Structure of the Porcine Epidemic Diarrhea Virus Spike Protein in the Prefusion Conformation. *Journal of Virology*, **2019**, 93,	6.6	40
82	Structural basis of respiratory syncytial virus subtype-dependent neutralization by an antibody targeting the fusion glycoprotein. *Nature Communications*, **2017**, 8, 1877	17.4	37
81	Structural basis for recognition of the central conserved region of RSV G by neutralizing human antibodies. *PLoS Pathogens*, **2018**, 14, e1006935	7.6	35
80	Structural, antigenic and immunogenic features of respiratory syncytial virus glycoproteins relevant for vaccine development. *Vaccine*, **2017**, 35, 461-468	4.1	35
79	Elicitation of broadly protective sarbecovirus immunity by receptor-binding domain nanoparticle vaccines. *Cell*, **2021**, 184, 5432-5447.e16	56.2	34
78	A Cysteine Zipper Stabilizes a Pre-Fusion F Glycoprotein Vaccine for Respiratory Syncytial Virus. *PLoS ONE*, **2015**, 10, e0128779	3.7	32
77	Suptavumab for the Prevention of Medically Attended Respiratory Syncytial Virus Infection in Preterm Infants. *Clinical Infectious Diseases*, **2021**, 73, e4400-e4408	11.6	30
76	Transient opening of trimeric prefusion RSV F proteins. *Nature Communications*, **2019**, 10, 2105	17.4	29
75	Prevalent, protective, and convergent IgG recognition of SARS-CoV-2 non-RBD spike epitopes in COVID-19 convalescent plasma **2020**,		29
74	Clinical Potential of Prefusion RSV F-specific Antibodies. *Trends in Microbiology*, **2018**, 26, 209-219	12.4	28
73	Structure-Based Design of Prefusion-Stabilized Filovirus Glycoprotein Trimers. *Cell Reports*, **2020**, 30, 4540-4550.e3	10.6	27
72	Structure-based Design of Prefusion-stabilized SARS-CoV-2 Spikes **2020**,		27
71	Beyond Shielding: The Roles of Glycans in SARS-CoV-2 Spike Protein **2020**,		27
70	Continuous flexibility analysis of SARS-CoV-2 spike prefusion structures. *IUCrJ*, **2020**, 7,	4.7	25
69	Engineering, Structure and Immunogenicity of the Human Metapneumovirus F Protein in the Postfusion Conformation. *PLoS Pathogens*, **2016**, 12, e1005859	7.6	24

68	Cross-reactive coronavirus antibodies with diverse epitope specificities and Fc effector functions. *Cell Reports Medicine*, **2021**, 2, 100313	18	24
67	Packaging and Prefusion Stabilization Separately and Additively Increase the Quantity and Quality of Respiratory Syncytial Virus (RSV)-Neutralizing Antibodies Induced by an RSV Fusion Protein Expressed by a Parainfluenza Virus Vector. *Journal of Virology*, **2016**, 90, 10022-10038	6.6	24
66	Improved Prefusion Stability, Optimized Codon Usage, and Augmented Virion Packaging Enhance the Immunogenicity of Respiratory Syncytial Virus Fusion Protein in a Vectored-Vaccine Candidate. *Journal of Virology*, **2017**, 91,	6.6	23
65	RSV N-nanorings fused to palivizumab-targeted neutralizing epitope as a nanoparticle RSV vaccine. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2017**, 13, 411-420	6	23
64	A glycan gate controls opening of the SARS-CoV-2 spike protein **2021**,		22
63	Early cross-coronavirus reactive signatures of humoral immunity against COVID-19. *Science Immunology*, **2021**, 6, eabj2901	28	22
62	Discovery of a Prefusion Respiratory Syncytial Virus F-Specific Monoclonal Antibody That Provides Greater Protection than the Murine Precursor of Palivizumab. *Journal of Virology*, **2017**, 91,	6.6	18
61	Stabilized coronavirus spike stem elicits a broadly protective antibody. *Cell Reports*, **2021**, 37, 109929	10.6	18
60	Broad sarbecovirus neutralizing antibodies define a key site of vulnerability on the SARS-CoV-2 spike protein **2020**,		18
59	Crystal Structures of Two Immune Complexes Identify Determinants for Viral Infectivity and Type-Specific Neutralization of Human Papillomavirus. *MBio*, **2017**, 8,	7.8	17
58	Human Cytomegalovirus Glycoprotein B Nucleoside-Modified mRNA Vaccine Elicits Antibody Responses with Greater Durability and Breadth than MF59-Adjuvanted gB Protein Immunization. *Journal of Virology*, **2020**, 94,	6.6	16
57	Alternative conformations of a major antigenic site on RSV F. *PLoS Pathogens*, **2019**, 15, e1007944	7.6	15
56	Identification of a conserved neutralizing epitope present on spike proteins from all highly pathogenic coronaviruses		14
55	Vulnerabilities in coronavirus glycan shields despite extensive glycosylation		13
54	Local computational methods to improve the interpretability and analysis of cryo-EM maps. *Nature Communications*, **2021**, 12, 1240	17.4	13
53	Molecular Architecture of Early Dissemination and Evolution of the SARS-CoV-2 Virus in Metropolitan Houston, Texas		12
52	Elicitation of broadly protective sarbecovirus immunity by receptor-binding domain nanoparticle vaccines **2021**,		12
51	Structure and Characterization of Crimean-Congo Hemorrhagic Fever Virus GP38. *Journal of Virology*, **2020**, 94,	6.6	11

50	Structure-Based Design of Nipah Virus Vaccines: A Generalizable Approach to Paramyxovirus Immunogen Development. *Frontiers in Immunology*, **2020**, 11, 842	8.4	11
49	A Combination of Receptor-Binding Domain and N-Terminal Domain Neutralizing Antibodies Limits the Generation of SARS-CoV-2 Spike Neutralization-Escape Mutants. *MBio*, **2021**, 12, e0247321	7.8	11
48	Molecular Architecture of Early Dissemination and Massive Second Wave of the SARS-CoV-2 Virus in a Major Metropolitan Area **2020**,		11
47	An Engineered Antibody with Broad Protective Efficacy in Murine Models of SARS and COVID-19 **2020**,		11
46	Cross-neutralizing antibodies bind a SARS-CoV-2 cryptic site and resist circulating variants. *Nature Communications*, **2021**, 12, 5652	17.4	11
45	Structural Basis for Potent Neutralization of Betacoronaviruses by Single-domain Camelid Antibodies		10
44	Trimeric SARS-CoV-2 Spike Proteins Produced from CHO Cells in Bioreactors Are High-Quality Antigens. *Processes*, **2020**, 8, 1539	2.9	10
43	Characterization of a human monoclonal antibody generated from a B-cell specific for a prefusion-stabilized spike protein of Middle East respiratory syndrome coronavirus. *PLoS ONE*, **2020**, 15, e0232757	3.7	9
42	Five Residues in the Apical Loop of the Respiratory Syncytial Virus Fusion Protein F Subunit Are Critical for Its Fusion Activity. *Journal of Virology*, **2018**, 92,	6.6	9
41	Crystal Structure and Immunogenicity of the DS-Cav1-Stabilized Fusion Glycoprotein From Respiratory Syncytial Virus Subtype B. *Pathogens and Immunity*, **2019**, 4, 294-323	4.9	9
40	Continuous flexibility analysis of SARS-CoV-2 Spike prefusion structures **2020**,		9
39	Vaccination with prefusion-stabilized respiratory syncytial virus fusion protein induces genetically and antigenically diverse antibody responses. *Immunity*, **2021**, 54, 769-780.e6	32.3	9
38	Iterative screen optimization maximizes the efficiency of macromolecular crystallization. *Acta Crystallographica Section F, Structural Biology Communications*, **2019**, 75, 123-131	1.1	8
37	Protective neutralizing antibodies from human survivors of Crimean-Congo hemorrhagic fever. *Cell*, **2021**, 184, 3486-3501.e21	56.2	8
36	A high-throughput inhibition assay to study MERS-CoV antibody interactions using image cytometry. *Journal of Virological Methods*, **2019**, 265, 77-83	2.6	8
35	Cross-reactive coronavirus antibodies with diverse epitope specificities and extra-neutralization functions **2020**,		7
34	Adjuvanting a subunit SARS-CoV-2 nanoparticle vaccine to induce protective immunity in non-human primates **2021**,		7
33	Potent neutralization of SARS-CoV-2 variants of concern by an antibody with an uncommon genetic signature and structural mode of spike recognition. *Cell Reports*, **2021**, 37, 109784	10.6	7

32	The SARS-CoV-2 spike reversibly samples an open-trimer conformation exposing novel epitopes.. *Nature Structural and Molecular Biology*, **2022**,	17.6	6
31	Efficient discovery of SARS-CoV-2-neutralizing antibodies via B cell receptor sequencing and ligand blocking.. *Nature Biotechnology*, **2022**,	44.5	6
30	Recognition of a highly conserved glycoprotein B epitope by a bivalent antibody neutralizing HCMV at a post-attachment step. *PLoS Pathogens*, **2020**, 16, e1008736	7.6	5
29	Safety and Immunogenicity of an Inactivated Recombinant Newcastle Disease Virus Vaccine Expressing SARS-CoV-2 Spike: Interim Results of a Randomised, Placebo-Controlled, Phase 1/2 Trial **2021**,		5
28	Expression and characterization of SARS-CoV-2 spike proteins. *Nature Protocols*, **2021**, 16, 5339-5356	18.8	4
27	Synthetic repertoires derived from convalescent COVID-19 patients enable discovery of SARS-CoV-2 neutralizing antibodies and a novel quaternary binding modality **2021**,		4
26	Safety and immunogenicity of an inactivated recombinant Newcastle disease virus vaccine expressing SARS-CoV-2 spike: Interim results of a randomised, placebo-controlled, phase 1 trial.. *EClinicalMedicine*, **2022**, 45, 101323	11.3	4
25	Chimeric fusion proteins as immunogens to induce cross-neutralizing antibody responses. *EMBO Molecular Medicine*, **2018**, 10, 175-187	12	3
24	The SARS-CoV-2 spike reversibly samples an open-trimer conformation exposing novel epitopes		3
23	Structural basis of synergistic neutralization of Crimean-Congo hemorrhagic fever virus by human antibodies. *Science*, **2022**, 375, 104-109	33.3	2
22	Local computational methods to improve the interpretability and analysis of cryo-EM maps		2
21	A vulnerable, membrane-proximal site in human respiratory syncytial virus F revealed by a prefusion-specific single-domain antibody. *Journal of Virology*, **2021**,	6.6	2
20	A combination of RBD and NTD neutralizing antibodies limits the generation of SARS-CoV-2 spike neutralization-escape mutants		2
19	Efficient discovery of potently neutralizing SARS-CoV-2 antibodies using LIBRA-seq with ligand blocking **2021**,		2
18	Structural basis for antibody binding to adenylate cyclase toxin reveals RTX linkers as neutralization-sensitive epitopes. *PLoS Pathogens*, **2021**, 17, e1009920	7.6	2
17	Analysis of Viral Spike Protein N-Glycosylation Using Ultraviolet Photodissociation Mass Spectrometry.. *Analytical Chemistry*, **2022**,	7.8	2
16	Trimeric SARS-CoV-2 Spike proteins produced from CHO-cells in bioreactors are high quality antigens		1
15	Receptor binding and proteolysis do not induce large conformational changes in the SARS-CoV spike		1

14	Glycosylation and Serological Reactivity of an Expression-enhanced SARS-CoV-2 Viral Spike Mimetic. *Journal of Molecular Biology*, **2021**, 434, 167332	6.5	1
13	Structural basis for HCMV Pentamer recognition by antibodies and neuropilin 2		1
12	Prefusion F-Based Polyanhydride Nanovaccine Induces Both Humoral and Cell-Mediated Immunity Resulting in Long-Lasting Protection against Respiratory Syncytial Virus. *Journal of Immunology*, **2021**, 206, 2122-2134	5.3	1
11	Potent neutralization of SARS-CoV-2 variants of concern by an antibody with a unique genetic signature and structural mode of spike recognition		1
10	Structure-based design of prefusion-stabilized human metapneumovirus fusion proteins.. *Nature Communications*, **2022**, 13, 1299	17.4	1
9	Cryo-EM structure of the EBV ribonucleotide reductase BORF2 and mechanism of APOBEC3B inhibition.. *Science Advances*, **2022**, 8, eabm2827	14.3	1
8	Principles and practical applications of structure-based vaccine design. *Current Opinion in Immunology*, **2022**, 77, 102209	7.8	1
7	Structural basis of synergistic neutralization of Crimean-Congo hemorrhagic fever virus by human antibodies. *Science*, **2021**, eabl6502	33.3	0
6	Structural basis for HCMV Pentamer recognition by neuropilin 2 and neutralizing antibodies.. *Science Advances*, **2022**, 8, eabm2546	14.3	0
5	Protein engineering responses to the COVID-19 pandemic.. *Current Opinion in Structural Biology*, **2022**, 74, 102385	8.1	0
4	Recognition of a highly conserved glycoprotein B epitope by a bivalent antibody neutralizing HCMV at a post-attachment step **2020**, 16, e1008736		
3	Recognition of a highly conserved glycoprotein B epitope by a bivalent antibody neutralizing HCMV at a post-attachment step **2020**, 16, e1008736		
2	Recognition of a highly conserved glycoprotein B epitope by a bivalent antibody neutralizing HCMV at a post-attachment step **2020**, 16, e1008736		
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