Richard T Wyatt

List of Publications by Citations

56 papers	9,591 citations	32 h-index	60 g-index
60 ext. papers	10,788 ext. citations	15.3 avg, IF	5.25 L-index

#	Paper	IF	Citations
56	Structure of an HIV gp120 envelope glycoprotein in complex with the CD4 receptor and a neutralizing human antibody. *Nature*, **1998**, 393, 648-59	50.4	2465
55	Rational design of envelope identifies broadly neutralizing human monoclonal antibodies to HIV-1. *Science*, **2010**, 329, 856-61	33.3	1327
54	CD4-induced interaction of primary HIV-1 gp120 glycoproteins with the chemokine receptor CCR-5. *Nature*, **1996**, 384, 179-83	50.4	1078
53	The antigenic structure of the HIV gp120 envelope glycoprotein. *Nature*, **1998**, 393, 705-11	50.4	1057
52	Structural definition of a conserved neutralization epitope on HIV-1 gp120. *Nature*, **2007**, 445, 732-7	50.4	657
51	Proof of principle for epitope-focused vaccine design. *Nature*, **2014**, 507, 201-6	50.4	365
50	Broad and potent HIV-1 neutralization by a human antibody that binds the gp41-gp120 interface. *Nature*, **2014**, 515, 138-42	50.4	330
49	Elicitation of Robust Tier 2 Neutralizing Antibody Responses in Nonhuman Primates by HIV Envelope Trimer Immunization Using Optimized Approaches. *Immunity*, **2017**, 46, 1073-1088.e6	32.3	204
48	Structure-based, targeted deglycosylation of HIV-1 gp120 and effects on neutralization sensitivity and antibody recognition. *Virology*, **2003**, 313, 387-400	3.6	150
47	Cleavage-independent HIV-1 Env trimers engineered as soluble native spike mimetics for vaccine design. *Cell Reports*, **2015**, 11, 539-50	10.6	145
46	Vaccine-Elicited Tier 2 HIV-1 Neutralizing Antibodies Bind to Quaternary Epitopes Involving Glycan-Deficient Patches Proximal to the CD4 Binding Site. *PLoS Pathogens*, **2015**, 11, e1004932	7.6	116
45	Vaccine-Induced Protection from Homologous Tier 2 SHIV Challenge in Nonhuman Primates Depends on Serum-Neutralizing Antibody Titers. *Immunity*, **2019**, 50, 241-252.e6	32.3	96
44	Structure-Guided Redesign Increases the Propensity of HIV Env To Generate Highly Stable Soluble Trimers. *Journal of Virology*, **2015**, 90, 2806-17	6.6	89
43	High-Density Array of Well-Ordered HIV-1 Spikes on Synthetic Liposomal Nanoparticles Efficiently Activate B Cells. *Cell Reports*, **2016**, 15, 1986-99	10.6	89
42	Differential processing of HIV envelope glycans on the virus and soluble recombinant trimer. *Nature Communications*, **2018**, 9, 3693	17.4	87
41	Well-ordered trimeric HIV-1 subtype B and C soluble spike mimetics generated by negative selection display native-like properties. *PLoS Pathogens*, **2015**, 11, e1004570	7.6	78
40	Correction for Chakrabarti et al., Robust Neutralizing Antibodies Elicited by HIV-1 JRFL Envelope Glycoprotein Trimers in Nonhuman Primates. *Journal of Virology*, **2015**, 89, 887-887	6.6	78

39	Heterologous epitope-scaffold prime:boosting immuno-focuses B cell responses to the HIV-1 gp41 2F5 neutralization determinant. *PLoS ONE*, **2011**, 6, e16074	3.7	69
38	Vaccine-elicited primate antibodies use a distinct approach to the HIV-1 primary receptor binding site informing vaccine redesign. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E738-47	11.5	63
37	Particulate Array of Well-Ordered HIV Clade C Env Trimers Elicits Neutralizing Antibodies that Display a Unique V2 Cap Approach. *Immunity*, **2017**, 46, 804-817.e7	32.3	62
36	Key gp120 Glycans Pose Roadblocks to the Rapid Development of VRC01-Class Antibodies in an HIV-1-Infected Chinese Donor. *Immunity*, **2016**, 44, 939-50	32.3	62
35	Vaccination with Glycan-Modified HIV NFL Envelope Trimer-Liposomes Elicits Broadly Neutralizing Antibodies to Multiple Sites of Vulnerability. *Immunity*, **2019**, 51, 915-929.e7	32.3	62
34	Glycine Substitution at Helix-to-Coil Transitions Facilitates the Structural Determination of a Stabilized Subtype C HIV Envelope Glycoprotein. *Immunity*, **2017**, 46, 792-803.e3	32.3	59
33	Thermostability of Well-Ordered HIV Spikes Correlates with the Elicitation of Autologous Tier 2 Neutralizing Antibodies. *PLoS Pathogens*, **2016**, 12, e1005767	7.6	57
32	HIV-1 neutralizing antibodies display dual recognition of the primary and coreceptor binding sites and preferential binding to fully cleaved envelope glycoproteins. *Journal of Virology*, **2012**, 86, 11231-41	6.6	51
31	Virus-like Particles Identify an HIV V1V2 Apex-Binding Neutralizing Antibody that Lacks a Protruding Loop. *Immunity*, **2017**, 46, 777-791.e10	32.3	50
30	Biochemically defined HIV-1 envelope glycoprotein variant immunogens display differential binding and neutralizing specificities to the CD4-binding site. *Journal of Biological Chemistry*, **2012**, 287, 5673-86	5.4	49
29	Covalent Linkage of HIV-1 Trimers to Synthetic Liposomes Elicits Improved B Cell and Antibody Responses. *Journal of Virology*, **2017**, 91,	6.6	43
28	Elicitation of Neutralizing Antibodies Targeting the V2 Apex of the HIV Envelope Trimer in a Wild-Type Animal Model. *Cell Reports*, **2017**, 21, 222-235	10.6	40
27	Targeted Isolation of Antibodies Directed against Major Sites of SIV Env Vulnerability. *PLoS Pathogens*, **2016**, 12, e1005537	7.6	39
26	Route of Vaccine Administration Alters Antigen Trafficking but Not Innate or Adaptive Immunity. *Cell Reports*, **2020**, 30, 3964-3971.e7	10.6	37
25	Dense Array of Spikes on HIV-1 Virion Particles. *Journal of Virology*, **2017**, 91,	6.6	35
24	Hyperglycosylated stable core immunogens designed to present the CD4 binding site are preferentially recognized by broadly neutralizing antibodies. *Journal of Virology*, **2014**, 88, 14002-16	6.6	28
23	Targeted N-glycan deletion at the receptor-binding site retains HIV Env NFL trimer integrity and accelerates the elicited antibody response. *PLoS Pathogens*, **2017**, 13, e1006614	7.6	28
22	Structure of a cleavage-independent HIV Env recapitulates the glycoprotein architecture of the native cleaved trimer. *Nature Communications*, **2018**, 9, 1956	17.4	28

21	Structure-guided alterations of the gp41-directed HIV-1 broadly neutralizing antibody 2F5 reveal new properties regarding its neutralizing function. *PLoS Pathogens*, **2012**, 8, e1002806	7.6	27
20	The HIV-1 Envelope Glycoprotein C3/V4 Region Defines a Prevalent Neutralization Epitope following Immunization. *Cell Reports*, **2019**, 27, 586-598.e6	10.6	24
19	High-Resolution Longitudinal Study of HIV-1 Env Vaccine-Elicited B Cell Responses to the Virus Primary Receptor Binding Site Reveals Affinity Maturation and Clonal Persistence. *Journal of Immunology*, **2016**, 196, 3729-43	5.3	24
18	Structure-Guided Redesign Improves NFL HIV Env Trimer Integrity and Identifies an Inter-Protomer Disulfide Permitting Post-Expression Cleavage. *Frontiers in Immunology*, **2018**, 9, 1631	8.4	24
17	Diverse antibody genetic and recognition properties revealed following HIV-1 envelope glycoprotein immunization. *Journal of Immunology*, **2015**, 194, 5903-14	5.3	21
16	Targeting the HIV-1 Spike and Coreceptor with Bi- and Trispecific Antibodies for Single-Component Broad Inhibition of Entry. *Journal of Virology*, **2018**, 92,	6.6	21
15	Rhesus Macaque B-Cell Responses to an HIV-1 Trimer Vaccine Revealed by Unbiased Longitudinal Repertoire Analysis. *MBio*, **2015**, 6, e01375-15	7.8	21
14	HIV-1 receptor binding site-directed antibodies using a VH1-2 gene segment orthologue are activated by Env trimer immunization. *PLoS Pathogens*, **2014**, 10, e1004337	7.6	21
13	Cleavage-Independent HIV-1 Trimers From CHO Cell Lines Elicit Robust Autologous Tier 2 Neutralizing Antibodies. *Frontiers in Immunology*, **2018**, 9, 1116	8.4	19
12	Evolution of B cell analysis and Env trimer redesign. *Immunological Reviews*, **2017**, 275, 183-202	11.3	18
11	Calcium Phosphate Nanoparticle-Based Vaccines as a Platform for Improvement of HIV-1 Env Antibody Responses by Intrastructural Help. *Nanomaterials*, **2019**, 9,	5.4	15
10	Primate immune responses to HIV-1 Env formulated in the saponin-based adjuvant AbISCO-100 in the presence or absence of TLR9 co-stimulation. *Scientific Reports*, **2015**, 5, 8925	4.9	13
9	An HIV-1 Env-Antibody Complex Focuses Antibody Responses to Conserved Neutralizing Epitopes. *Journal of Immunology*, **2016**, 197, 3982-3998	5.3	12
8	HIV-1 Cross-Reactive Primary Virus Neutralizing Antibody Response Elicited by Immunization in Nonhuman Primates. *Journal of Virology*, **2017**, 91,	6.6	12
7	Extensive dissemination and intraclonal maturation of HIV Env vaccine-induced B cell responses. *Journal of Experimental Medicine*, **2020**, 217,	16.6	11
6	Overcoming Steric Restrictions of VRC01 HIV-1 Neutralizing Antibodies through Immunization. *Cell Reports*, **2019**, 29, 3060-3072.e7	10.6	11
5	Phosphoserine acidic cluster motifs bind distinct basic regions on the β subunits of clathrin adaptor protein complexes. *Journal of Biological Chemistry*, **2018**, 293, 15678-15690	5.4	8
4	Glutaraldehyde Cross-linking of HIV-1 Env Trimers Skews the Antibody Subclass Response in Mice. *Frontiers in Immunology*, **2017**, 8, 1654	8.4	5

3	Sudan Ebolavirus VP35-NP Crystal Structure Reveals a Potential Target for Pan-Filovirus Treatment. *MBio*, **2019**, 10,	7.8	4
2	Ligand accessibility to the HIV-1 Env co-receptor binding site can occur prior to CD4 engagement and is independent of viral tier category. *Virology*, **2018**, 519, 99-105	3.6	3
1	Structurally related but genetically unrelated antibody lineages converge on an immunodominant HIV-1 Env neutralizing determinant following trimer immunization. *PLoS Pathogens*, **2021**, 17, e1009543	7.6	3