Mattia Bonsignori

List of Publications by Year
in descending order

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82 papers	8,747 citations	57758 44 h-index	60623 81 g-index
93 all docs	93 docs citations	93 times ranked	6308 citing authors

#	Article	IF	Citations
1	Structure of HIV-1 gp120 V1/V2 domain with broadly neutralizing antibody PG9. Nature, 2011, 480, 336-343.	27.8	794
2	Focused Evolution of HIV-1 Neutralizing Antibodies Revealed by Structures and Deep Sequencing. Science, 2011, 333, 1593-1602.	12.6	788
3	Analysis of a Clonal Lineage of HIV-1 Envelope V2/V3 Conformational Epitope-Specific Broadly Neutralizing Antibodies and Their Inferred Unmutated Common Ancestors. Journal of Virology, 2011, 85, 9998-10009.	3.4	393
4	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, 176-186.	14.3	374
5	Vaccine-induced plasma IgA specific for the C1 region of the HIV-1 envelope blocks binding and effector function of IgG. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9019-9024.	7.1	371
6	Antibody-Dependent Cellular Cytotoxicity-Mediating Antibodies from an HIV-1 Vaccine Efficacy Trial Target Multiple Epitopes and Preferentially Use the VH1 Gene Family. Journal of Virology, 2012, 86, 11521-11532.	3.4	357
7	Multidonor Analysis Reveals Structural Elements, Genetic Determinants, and Maturation Pathway for HIV-1 Neutralization by VRC01-Class Antibodies. Immunity, 2013, 39, 245-258.	14.3	332
8	Maturation Pathway from Germline to Broad HIV-1 Neutralizer of a CD4-Mimic Antibody. Cell, 2016, 165, 449-463.	28.9	305
9	Magnitude and Breadth of the Neutralizing Antibody Response in the RV144 and Vax003 HIV-1 Vaccine Efficacy Trials. Journal of Infectious Diseases, 2012, 206, 431-441.	4.0	273
10	Cooperation of B Cell Lineages in Induction of HIV-1-Broadly Neutralizing Antibodies. Cell, 2014, 158, 481-491.	28.9	266
11	Interaction with Cellular CD4 Exposes HIV-1 Envelope Epitopes Targeted by Antibody-Dependent Cell-Mediated Cytotoxicity. Journal of Virology, 2014, 88, 2633-2644.	3.4	237
12	A human monoclonal antibody prevents malaria infection by targeting a new site of vulnerability on the parasite. Nature Medicine, 2018, 24, 408-416.	30.7	235
13	Staged induction of HIV-1 glycanâ€“dependent broadly neutralizing antibodies. Science Translational Medicine, 2017, 9, .	12.4	212
14	HIV-1 Vaccine-Induced C1 and V2 Env-Specific Antibodies Synergize for Increased Antiviral Activities. Journal of Virology, 2014, 88, 7715-7726.	3.4	169
15	Structures of HIV-1 Env V1V2 with broadly neutralizing antibodies reveal commonalities that enable vaccine design. Nature Structural and Molecular Biology, 2016, 23, 81-90.	8.2	162
16	Antibodyâ€virus coâ€evolution in <scp>HIV</scp> infection: paths for <scp>HIV</scp> vaccine development. Immunological Reviews, 2017, 275, 145-160.	6.0	160
17	Early Low-Titer Neutralizing Antibodies Impede HIV-1 Replication and Select for Virus Escape. PLoS Pathogens, 2012, 8, e1002721.	4.7	159
18	Two Distinct Broadly Neutralizing Antibody Specificities of Different Clonal Lineages in a Single HIV-1-Infected Donor: Implications for Vaccine Design. Journal of Virology, 2012, 86, 4688-4692.	3.4	159

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19	Polyreactivity and Autoreactivity among HIV-1 Antibodies. Journal of Virology, 2015, 89, 784-798.	3.4	154
20	Dual-Affinity Re-Targeting proteins direct T cellâ€“mediated cytolysis of latently HIV-infected cells. Journal of Clinical Investigation, 2015, 125, 4077-4090.	8.2	124
21	HIV-1 Neutralizing Antibody Signatures and Application to Epitope-Targeted Vaccine Design. Cell Host and Microbe, 2019, 25, 59-72.e8.	11.0	124
22	Potent and broad HIV-neutralizing antibodies in memory B cells and plasma. Science Immunology, 2017, 2, .	11.9	119
23	Targeted selection of HIV-specific antibody mutations by engineering B cell maturation. Science, 2019, 366, .	12.6	118
24	Functional Relevance of Improbable Antibody Mutations for HIV Broadly Neutralizing Antibody Development. Cell Host and Microbe, 2018, 23, 759-765.e6.	11.0	98
25	Antigenicity and Immunogenicity of RV144 Vaccine AIDSVAX Clade E Envelope Immunogen Is Enhanced by a gp120 N-Terminal Deletion. Journal of Virology, 2013, 87, 1554-1568.	3.4	97
26	Vaccine Induction of Heterologous Tier 2 HIV-1 Neutralizing Antibodies in Animal Models. Cell Reports, 2017, 21, 3681-3690.	6.4	97
27	An autoreactive antibody from an SLE/HIV-1 individual broadly neutralizes HIV-1. Journal of Clinical Investigation, 2014, 124, 1835-1843.	8.2	93
28	Antibody Feedback Limits the Expansion of B Cell Responses to Malaria Vaccination but Drives Diversification of the Humoral Response. Cell Host and Microbe, 2020, 28, 572-585.e7.	11.0	87
29	Epitope Specificity of Human Immunodeficiency Virus-1 Antibody Dependent Cellular Cytotoxicity [ADCC] Responses. Current HIV Research, 2013, 11, 378-387.	0.5	82
30	Mimicry of an HIV broadly neutralizing antibody epitope with a synthetic glycopeptide. Science Translational Medicine, 2017, 9, .	12.4	81
31	A Short Segment of the HIV-1 gp120 V1/V2 Region Is a Major Determinant of Resistance to V1/V2 Neutralizing Antibodies. Journal of Virology, 2012, 86, 8319-8323.	3.4	76
32	Initiation of HIV neutralizing B cell lineages with sequential envelope immunizations. Nature Communications, 2017, 8, 1732.	12.8	76
33	Recognition of synthetic glycopeptides by HIV-1 broadly neutralizing antibodies and their unmutated ancestors. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18214-18219.	7.1	73
34	Vaccine Elicitation of High Mannose-Dependent Neutralizing Antibodies against the V3-Glycan Broadly Neutralizing Epitope in Nonhuman Primates. Cell Reports, 2017, 18, 2175-2188.	6.4	69
35	Aberrant B cell repertoire selection associated with HIV neutralizing antibody breadth. Nature Immunology, 2020, 21, 199-209.	14.5	68
36	HIV-1 Envelope Induces Memory B Cell Responses That Correlate with Plasma Antibody Levels after Envelope gp120 Protein Vaccination or HIV-1 Infection. Journal of Immunology, 2009, 183, 2708-2717.	0.8	67

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37	Strain-Specific V3 and CD4 Binding Site Autologous HIV-1 Neutralizing Antibodies Select Neutralization-Resistant Viruses. Cell Host and Microbe, 2015, 18, 354-362.	11.0	66
38	Antibody Light-Chain-Restricted Recognition of the Site of Immune Pressure in the RV144 HIV-1 Vaccine Trial Is Phylogenetically Conserved. Immunity, 2014, 41, 909-918.	14.3	65
39	Progress in HIV-1 vaccine development. Journal of Allergy and Clinical Immunology, 2014, 134, 3-10.	2.9	62
40	Flow cytometry-based assay to study HIV-1 gp120 specific antibody-dependent cellular cytotoxicity responses. Journal of Virological Methods, 2014, 208, 107-114.	2.1	62
41	HIV-1 antibodies from infection and vaccination: insights for guiding vaccine design. Trends in Microbiology, 2012, 20, 532-539.	7.7	61
42	Inference of the HIV-1 VRC01 Antibody Lineage Unmutated Common Ancestor Reveals Alternative Pathways to Overcome a Key Glycan Barrier. Immunity, 2018, 49, 1162-1174.e8.	14.3	61
43	Infectious Virion Capture by HIV-1 gp120-Specific IgG from RV144 Vaccinees. Journal of Virology, 2013, 87, 7828-7836.	3.4	59
44	Fab-dimerized glycan-reactive antibodies are a structural category of natural antibodies. Cell, 2021, 184, 2955-2972.e25.	28.9	57
45	Neutralization-guided design of HIV-1 envelope trimers with high affinity for the unmutated common ancestor of CH235 lineage CD4bs broadly neutralizing antibodies. PLoS Pathogens, 2019, 15, e1008026.	4.7	56
46	Influence of the Envelope gp120 Phe 43 Cavity on HIV-1 Sensitivity to Antibody-Dependent Cell-Mediated Cytotoxicity Responses. Journal of Virology, 2017, 91, .	3.4	52
47	Recapitulation of HIV-1 Env-antibody coevolution in macaques leading to neutralization breadth. Science, 2021, 371, .	12.6	49
48	HIV-1-Specific IgA Monoclonal Antibodies from an HIV-1 Vaccinee Mediate Galactosylceramide Blocking and Phagocytosis. Journal of Virology, 2018, 92, .	3.4	45
49	Sequence intrinsic somatic mutation mechanisms contribute to affinity maturation of VRC01-class HIV-1 broadly neutralizing antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8614-8619.	7.1	42
50	Capacity for Infectious HIV-1 Virion Capture Differs by Envelope Antibody Specificity. Journal of Virology, 2014, 88, 5165-5170.	3.4	41
51	Difficult-to-neutralize global HIV-1 isolates are neutralized by antibodies targeting open envelope conformations. Nature Communications, 2019, 10, 2898.	12.8	35
52	Amino Acid Changes in the HIV-1 gp41 Membrane Proximal Region Control Virus Neutralization Sensitivity. EBioMedicine, 2016, 12, 196-207.	6.1	34
53	Selection of immunoglobulin elbow region mutations impacts interdomain conformational flexibility in HIV-1 broadly neutralizing antibodies. Nature Communications, 2019, 10, 654.	12.8	34
54	Multi-envelope HIV-1 vaccine devoid of SIV components controls disease in macaques challenged with heterologous pathogenic SHIV. Vaccine, 2005, 23, 5306-5320.	3.8	33

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55	Prevalence and characterization of metallo-Î²-lactamases in clinical isolates of pseudomonas aeruginosaâ˜†. Diagnostic Microbiology and Infectious Disease, 2004, 48, 131-135.	1.8	31
56	HIV envelope V3 region mimic embodies key features of a broadly neutralizing antibody lineage epitope. Nature Communications, 2018, 9, 1111.	12.8	30
57	Immune checkpoint modulation enhances HIV-1 antibody induction. Nature Communications, 2020, 11, 948.	12.8	27
58	Longitudinal Antigenic Sequences and Sites from Intra-Host Evolution (LASSIE) Identifies Immune-Selected HIV Variants. Viruses, 2015, 7, 5443-5475.	3.3	26
59	IDLV-HIV-1 Env vaccination in non-human primates induces affinity maturation of antigen-specific memory B cells. Communications Biology, 2018, 1, 134.	4.4	26
60	mRNA-encoded HIV-1 Env trimer ferritin nanoparticles induce monoclonal antibodies that neutralize heterologous HIV-1 isolates in mice. Cell Reports, 2022, 38, 110514.	6.4	23
61	HIV-1 vaccine development: tackling virus diversity with a multi-envelope cocktail. Frontiers in Bioscience - Landmark, 2008, 13, 609.	3.0	22
62	HIV vaccine delayed boosting increases Env variable region 2â€“specific antibody effector functions. JCI Insight, 2020, 5, .	5.0	18
63	Vaccine-Induced HIV-1 Envelope gp120 Constant Region 1-Specific Antibodies Expose a CD4-Inducible Epitope and Block the Interaction of HIV-1 gp140 with Galactosylceramide. Journal of Virology, 2014, 88, 9406-9417.	3.4	16
64	Fine epitope signature of antibody neutralization breadth at the HIV-1 envelope CD4-binding site. JCI Insight, 2018, 3, .	5.0	16
65	HIV Vaccine Rationale, Design and Testing. Current HIV Research, 2005, 3, 107-112.	0.5	13
66	Structural analysis of the unmutated ancestor of the HIV-1 envelope V2 region antibody CH58 isolated from an RV144 vaccine efficacy trial vaccinee. EBioMedicine, 2015, 2, 713-722.	6.1	13
67	HIV vaccines: brief review and discussion of future directions. Expert Review of Vaccines, 2005, 4, 305-313.	4.4	11
68	Tissue memory B cell repertoire analysis after ALVAC/AIDSVAX B/E gp120 immunization of rhesus macaques. JCI Insight, 2016, 1, e88522.	5.0	10
69	Rapid selection of HIV envelopes that bind to neutralizing antibody B cell lineage members with functional improbable mutations. Cell Reports, 2021, 36, 109561.	6.4	9
70	Will studies in individuals with systemic lupus erythematosus be the key to future HIV vaccine design?. Expert Review of Vaccines, 2014, 13, 1271-1273.	4.4	6
71	Recognition Patterns of the C1/C2 Epitopes Involved in Fc-Mediated Response in HIV-1 Natural Infection and the RV114 Vaccine Trial. MBio, 2020, 11, .	4.1	6
72	Clade, Country and Region-specific HIV-1 Vaccines: Are they necessary?. AIDS Research and Therapy, 2005, 2, 3.	1.7	5

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73	Multi-Envelope HIV-1 Vaccine Development: Two Targeted Immune Pathways, One Desired Protective Outcome. Viral Immunology, 2018, 31, 124-132.	1.3	4
74	A Multi-Vector, Multi-Envelope HIV-1 Vaccine. Journal of Pediatric Pharmacology and Therapeutics, 2007, 12, 68-76.	0.5	3
75	Simultaneous Detection of Antigen-Specific IgG- and IgM-Secreting Cells with a B Cell Fluorospot Assay. Cells, 2012, 1, 15-26.	4.1	2
76	Development of a recombinant yellow fever vector expressing a HIV clade C founder envelope gp120. Journal of Virological Methods, 2017, 249, 85-93.	2.1	2
77	Structural and genetic convergence of HIV-1 neutralizing antibodies in vaccinated non-human primates. PLoS Pathogens, 2021, 17, e1009624.	4.7	2
78	A combination of 5-fluorouracil and membrane-bound antibody inhibits B-cell lymphoma growth in a mouse model system. Leukemia and Lymphoma, 2007, 48, 406-409.	1.3	1
79	ÂÂÂÂRapid Selection of HIV Envelopes that Bind to Neutralizing Antibody B Cell Lineage Members with Functional Improbable Mutations. SSRN Electronic Journal, 0, , .	0.4	1
80	P04-01. Simultaneous enumeration of HIV-1 gp41 Env-specific IgG and IgM antibody-secreting cells with a multiplex B-cell fluorospot assay. Retrovirology, 2009, 6, .	2.0	0
81	P04-48. HIV-1 envelope induces memory B cell responses that correlate with plasma antibody levels after gp120 protein vaccination or chronic HIV-1 infection. Retrovirology, 2009, 6, .	2.0	0
82	116â€ƒAutologous and Heterologous Neutralizing Antibody Responses in HIV-1 Infection. Journal of Acquired Immune Deficiency Syndromes (1999), 2012, 59, 47.	2.1	0