Bali Pulendran

List of Publications by Year
in descending order

125 papers	23,812 citations	10986 71 h-index	16650 123 g-index
144 all docs	144 docs citations	144 times ranked	30473 citing authors

#	Article	IF	Citations
1	Systems biology approach predicts immunogenicity of the yellow fever vaccine in humans. Nature Immunology, 2009, 10, 116-125.	14.5	1,019
2	Systems biological assessment of immunity to mild versus severe COVID-19 infection in humans. Science, 2020, 369, 1210-1220.	12.6	947
3	Lamina propria macrophages and dendritic cells differentially induce regulatory and interleukin 17â€“producing T cell responses. Nature Immunology, 2007, 8, 1086-1094.	14.5	932
4	Programming the magnitude and persistence of antibody responses with innate immunity. Nature, 2011, 470, 543-547.	27.8	847
5	Immunological mechanisms of vaccination. Nature Immunology, 2011, 12, 509-517.	14.5	790
6	Mice lacking flt3 ligand have deficient hematopoiesis affecting hematopoietic progenitor cells, dendritic cells, and natural killer cells. Blood, 2000, 95, 3489-3497.	1.4	769
7	Systems biology of vaccination for seasonal influenza in humans. Nature Immunology, 2011, 12, 786-795.	14.5	749
8	Predicting Network Activity from High Throughput Metabolomics. PLoS Computational Biology, 2013, 9, e1003123.	3.2	697
9	Molecular signatures of antibody responses derived from a systems biology study of five human vaccines. Nature Immunology, 2014, 15, 195-204.	14.5	672
10	Emerging concepts in the science of vaccine adjuvants. Nature Reviews Drug Discovery, 2021, 20, 454-475.	46.4	601
11	Translating Innate Immunity into Immunological Memory: Implications for Vaccine Development. Cell, 2006, 124, 849-863.	28.9	564
12	Activation of Î²-Catenin in Dendritic Cells Regulates Immunity Versus Tolerance in the Intestine. Science, 2010, 329, 849-853.	12.6	480
13	Yellow fever vaccine YF-17D activates multiple dendritic cell subsets via TLR2, 7, 8, and 9 to stimulate polyvalent immunity. Journal of Experimental Medicine, 2006, 203, 413-424.	8.5	474
14	TLR5-Mediated Sensing of Gut Microbiota Is Necessary for Antibody Responses to Seasonal Influenza Vaccination. Immunity, 2014, 41, 478-492.	14.3	444
15	Zika Virus Infects Human Placental Macrophages. Cell Host and Microbe, 2016, 20, 83-90.	11.0	410
16	Antibiotics-Driven Gut Microbiome Perturbation Alters Immunity to Vaccines in Humans. Cell, 2019, 178, 1313-1328.e13.	28.9	402
17	New Paradigms in Type 2 Immunity. Science, 2012, 337, 431-435.	12.6	370
18	A Blueprint for HIV Vaccine Discovery. Cell Host and Microbe, 2012, 12, 396-407.	11.0	348

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19	N6-Methyladenosine Modification Controls Circular RNA Immunity. Molecular Cell, 2019, 76, 96-109.e9.	9.7	348
20	Toll-like receptorâ€"mediated induction of type I interferon in plasmacytoid dendritic cells requires the rapamycin-sensitive PI(3)K-mTOR-p70S6K pathway. Nature Immunology, 2008, 9, 1157-1164.	14.5	346
21	Systems Vaccinology. Immunity, 2010, 33, 516-529.	14.3	343
22	Programming dendritic cells to induce TH2 and tolerogenic responses. Nature Immunology, 2010, 11, 647-655.	14.5	337
23	CXCL13 is a plasma biomarker of germinal center activity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2702-2707.	7.1	322
24	Dendritic cell control of tolerogenic responses. Immunological Reviews, 2011, 241, 206-227.	6.0	319
25	Systems vaccinology of the BNT162b2 mRNA vaccine in humans. Nature, 2021, 596, 410-416.	27.8	313
26	Functional Specializations of Intestinal Dendritic Cell and Macrophage Subsets That Control Th17 and Regulatory T Cell Responses Are Dependent on the T Cell/APC Ratio, Source of Mouse Strain, and Regional Localization. Journal of Immunology, 2011, 187, 733-747.	0.8	290
27	The T helper type 2 response to cysteine proteases requires dendritic cellâ€"basophil cooperation via ROS-mediated signaling. Nature Immunology, 2010, 11, 608-617.	14.5	287
28	Systems Analysis of Immunity to Influenza Vaccination across Multiple Years and in Diverse Populations Reveals Shared Molecular Signatures. Immunity, 2015, 43, 1186-1198.	14.3	286
29	Impairment of dendritic cells and adaptive immunity by anthrax lethal toxin. Nature, 2003, 424, 329-334.	27.8	282
30	Modulating vaccine responses with dendritic cells and Tollâ€like receptors. Immunological Reviews, 2004, 199, 227-250.	6.0	278
31	Toll-like receptor 2â€"dependent induction of vitamin Aâ€"metabolizing enzymes in dendritic cells promotes T regulatory responses and inhibits autoimmunity. Nature Medicine, 2009, 15, 401-409.	30.7	277
32	Modulating the immune response with dendritic cells and their growth factors. Trends in Immunology, 2001, 22, 41-47.	6.8	257
33	Adjuvanting a subunit COVID-19 vaccine to induce protective immunity. Nature, 2021, 594, 253-258.	27.8	253
34	Learning immunology from the yellow fever vaccine: innate immunity to systems vaccinology. Nature Reviews Immunology, 2009, 9, 741-747.	22.7	251
35	Systems analysis of protective immune responses to RTS,S malaria vaccination in humans. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2425-2430.	7.1	249
36	Immune imprinting, breadth of variant recognition, and germinal center response in human SARS-CoV-2 infection and vaccination. Cell, 2022, 185, 1025-1040.e14.	28.9	243

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37	Metabolic Phenotypes of Response to Vaccination in Humans. Cell, 2017, 169, 862-877.e17.	28.9	234
38	The amino acid sensor GCN2 controls gut inflammation by inhibiting inflammasome activation. Nature, 2016, 531, 523-527.	27.8	221
39	Dengue Virus Infection Induces Expansion of a CD14+CD16+ Monocyte Population that Stimulates Plasmablast Differentiation. Cell Host and Microbe, 2014, 16, 115-127.	11.0	220
40	Emerging functions of the unfolded protein response in immunity. Nature Immunology, 2014, 15, 910-919.	14.5	213
41	A Versatile Role of Mammalian Target of Rapamycin in Human Dendritic Cell Function and Differentiation. Journal of Immunology, 2010, 185, 3919-3931.	0.8	205
42	Sequential Infection with Common Pathogens Promotes Human-like Immune Gene Expression and Altered Vaccine Response. Cell Host and Microbe, 2016, 19, 713-719.	11.0	189
43	Mechanisms of innate and adaptive immunity to the Pfizer-BioNTech BNT162b2 vaccine. Nature Immunology, 2022, 23, 543-555.	14.5	185
44	Vaccine Activation of the Nutrient Sensor GCN2 in Dendritic Cells Enhances Antigen Presentation. Science, 2014, 343, 313-317.	12.6	181
45	Systems biology of immunity to MF59-adjuvanted versus nonadjuvanted trivalent seasonal influenza vaccines in early childhood. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1853-1858.	7.1	176
46	Systems vaccinology: Probing humanityâ€™s diverse immune systems with vaccines. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12300-12306.	7.1	162
47	Direct Probing of Germinal Center Responses Reveals Immunological Features and Bottlenecks for Neutralizing Antibody Responses to HIV Env Trimer. Cell Reports, 2016, 17, 2195-2209.	6.4	150
48	Variegation of the Immune Response with Dendritic Cells and Pathogen Recognition Receptors. Journal of Immunology, 2005, 174, 2457-2465.	0.8	149
49	The science and medicine of human immunology. Science, 2020, 369, .	12.6	147
50	Distinct TLR adjuvants differentially stimulate systemic and local innate immune responses in nonhuman primates. Blood, 2012, 119, 2044-2055.	1.4	140
51	The single-cell epigenomic and transcriptional landscape of immunity to influenza vaccination. Cell, 2021, 184, 3915-3935.e21.	28.9	133
52	Elicitation of broadly protective sarbecovirus immunity by receptor-binding domain nanoparticle vaccines. Cell, 2021, 184, 5432-5447.e16.	28.9	131
53	Cytokine-Independent Detection of Antigen-Specific Germinal Center T Follicular Helper Cells in Immunized Nonhuman Primates Using a Live Cell Activation-Induced Marker Technique. Journal of Immunology, 2016, 197, 994-1002.	0.8	130
54	Auto-antibodies to type I IFNs can underlie adverse reactions to yellow fever live attenuated vaccine. Journal of Experimental Medicine, 2021, 218, .	8.5	130

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55	Designing spatial and temporal control of vaccine responses. Nature Reviews Materials, 2022, 7, 174-195.	48.7	130
56	T cell-inducing vaccine durably prevents mucosal SHIV infection even with lower neutralizing antibody titers. Nature Medicine, 2020, 26, 932-940.	30.7	124
57	Modulation of immune responses to vaccination by the microbiota: implications and potential mechanisms. Nature Reviews Immunology, 2022, 22, 33-46.	22.7	124
58	Multicohort analysis reveals baseline transcriptional predictors of influenza vaccination responses. Science Immunology, 2017, 2, .	11.9	122
59	Case of Yellow Fever Vaccineâ€"Associated Viscerotropic Disease with Prolonged Viremia, Robust Adaptive Immune Responses, and Polymorphisms in CCR5 and RANTES Genes. Journal of Infectious Diseases, 2008, 198, 500-507.	4.0	114
60	Chronic but Not Acute Virus Infection Induces Sustained Expansion of Myeloid Suppressor Cell Numbers that Inhibit Viral-Specific T Cell Immunity. Immunity, 2013, 38, 309-321.	14.3	113
61	Injectable Hydrogels for Sustained Codelivery of Subunit Vaccines Enhance Humoral Immunity. ACS Central Science, 2020, 6, 1800-1812.	11.3	113
62	Initial viral load determines the magnitude of the human CD8 T cell response to yellow fever vaccination. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3050-3055.	7.1	111
63	Epitopes for neutralizing antibodies induced by HIV-1 envelope glycoprotein BG505 SOSIP trimers in rabbits and macaques. PLoS Pathogens, 2018, 14, e1006913.	4.7	111
64	Systems vaccinology: Enabling rational vaccine design with systems biological approaches. Vaccine, 2015, 33, 5294-5301.	3.8	108
65	Th1/Th17 polarization persists following whole-cell pertussis vaccination despite repeated acellular boosters. Journal of Clinical Investigation, 2018, 128, 3853-3865.	8.2	107
66	The Impact of the Microbiome on Immunity to Vaccination in Humans. Cell Host and Microbe, 2020, 28, 169-179.	11.0	104
67	The Varieties of Immunological Experience: Of Pathogens, Stress, and Dendritic Cells. Annual Review of Immunology, 2015, 33, 563-606.	21.8	103
68	The science of adjuvants. Expert Review of Vaccines, 2007, 6, 673-684.	4.4	99
69	mTOR regulates metabolic adaptation of APCs in the lung and controls the outcome of allergic inflammation. Science, 2017, 357, 1014-1021.	12.6	98
70	Antibodies elicited by SARS-CoV-2 infection or mRNA vaccines have reduced neutralizing activity against Beta and Omicron pseudoviruses. Science Translational Medicine, 2022, 14, eabn7842.	12.4	92
71	3M-052, a synthetic TLR-7/8 agonist, induces durable HIV-1 envelopeâ€"specific plasma cells and humoral immunity in nonhuman primates. Science Immunology, 2020, 5, .	11.9	90
72	The immunology of SARS-CoV-2 infections and vaccines. Seminars in Immunology, 2020, 50, 101422.	5.6	85

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73	Systems vaccinology: learning to compute the behavior of vaccine induced immunity. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 193-205.	6.6	78
74	Immunity to viruses: learning from successful human vaccines. Immunological Reviews, 2013, 255, 243-255.	6.0	76
75	Adjuvanting a DNA vaccine with a TLR9 ligand plus Flt3 ligand results in enhanced cellular immunity against the simian immunodeficiency virus. Journal of Experimental Medicine, 2007, 204, 2733-2746.	8.5	74
76	The potential of the microbiota to influence vaccine responses. Journal of Leukocyte Biology, 2018, 103, 225-231.	3.3	72
77	Early non-neutralizing, afucosylated antibody responses are associated with COVID-19 severity. Science Translational Medicine, 2022, 14, eabm7853.	12.4	71
78	Adjuvanting a Simian Immunodeficiency Virus Vaccine with Toll-Like Receptor Ligands Encapsulated in Nanoparticles Induces Persistent Antibody Responses and Enhanced Protection in TRIM5Î± Restrictive Macaques. Journal of Virology, 2017, 91, .	3.4	70
79	Liver fibrosis occurs through dysregulation of MyD88â€dependent innate Bâ€cell activity. Hepatology, 2015, 61, 2067-2079.	7.3	67
80	Refined protocol for generating monoclonal antibodies from single human and murine B cells. Journal of Immunological Methods, 2016, 438, 67-70.	1.4	65
81	Direct comparison of antibody responses to four SARS-CoV-2 vaccines in Mongolia. Cell Host and Microbe, 2021, 29, 1738-1743.e4.	11.0	61
82	Low Doses of Imatinib Induce Myelopoiesis and Enhance Host Anti-microbial Immunity. PLoS Pathogens, 2015, 11, e1004770.	4.7	60
83	BALDR: a computational pipeline for paired heavy and light chain immunoglobulin reconstruction in single-cell RNA-seq data. Genome Medicine, 2018, 10, 20.	8.2	60
84	Adjuvanted H5N1 influenza vaccine enhances both cross-reactive memory B cell and strain-specific naive B cell responses in humans. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17957-17964.	7.1	57
85	Vaccinology in the era of high-throughput biology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140146.	4.0	55
86	Cell type discovery and representation in the era of high-content single cell phenotyping. BMC Bioinformatics, 2017, 18, 559.	2.6	51
87	Vaccine induction of antibodies and tissue-resident CD8+ T cells enhances protection against mucosal SHIV-infection in young macaques. JCI Insight, 2019, 4, .	5.0	50
88	Systems vaccinology. Current Opinion in HIV and AIDS, 2012, 7, 24-31.	3.8	48
89	Squalene emulsion-based vaccine adjuvants stimulate CD8 T cell, but not antibody responses, through a RIPK3-dependent pathway. ELife, 2020, 9, .	6.0	48
90	Hydrogelâ€Based Slow Release of a Receptorâ€Binding Domain Subunit Vaccine Elicits Neutralizing Antibody Responses Against SARSâ€CoVâ€2. Advanced Materials, 2021, 33, e2104362.	21.0	48

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91	Vaccine-induced plasmablast responses in rhesus macaques: Phenotypic characterization and a source for generating antigen-specific monoclonal antibodies. Journal of Immunological Methods, 2015, 416, 69-83.	1.4	43
92	B Cell Competition for Restricted T Cell Help Suppresses Rare-Epitope Responses. Cell Reports, 2018, 25, 321-327.e3.	6.4	42
93	Systems Vaccinology for a Live Attenuated Tularemia Vaccine Reveals Unique Transcriptional Signatures That Predict Humoral and Cellular Immune Responses. Vaccines, 2020, 8, 4.	4.4	40
94	Safety, immunogenicity, and protection provided by unadjuvanted and adjuvanted formulations of a recombinant plant-derived virus-like particle vaccine candidate for COVID-19 in nonhuman primates. Cellular and Molecular Immunology, 2022, 19, 222-233.	10.5	37
95	Broadly Reactive Human CD8 T Cells that Recognize an Epitope Conserved between VZV, HSV and EBV. PLoS Pathogens, 2014, 10, e1004008.	4.7	36
96	Characterization and Implementation of a Diverse Simian Immunodeficiency Virus SIVsm Envelope Panel in the Assessment of Neutralizing Antibody Breadth Elicited in Rhesus Macaques by Multimodal Vaccines Expressing the SIVmac239 Envelope. Journal of Virology, 2015, 89, 8130-8151.	3.4	35
97	Will Systems Biology Deliver Its Promise and Contribute to the Development of New or Improved Vaccines?. Cold Spring Harbor Perspectives in Biology, 2018, 10, a028894.	5.5	35
98	Virus-Like Particles Displaying Trimeric Simian Immunodeficiency Virus (SIV) Envelope gp160 Enhance the Breadth of DNA/Modified Vaccinia Virus Ankara SIV Vaccine-Induced Antibody Responses in Rhesus Macaques. Journal of Virology, 2016, 90, 8842-8854.	3.4	34
99	Activation of Toll-like Receptor-2 by Endogenous Matrix Metalloproteinase-2 Modulates Dendritic-Cell-Mediated Inflammatory Responses. Cell Reports, 2014, 9, 1856-1870.	6.4	33
100	Durability of immune responses to the BNT162b2 mRNA vaccine. Med, 2022, 3, 25-27.	4.4	33
101	Adjuvanting a subunit SARS-CoV-2 vaccine with clinically relevant adjuvants induces durable protection in mice. Npj Vaccines, 2022, 7, .	6.0	32
102	Systems Biology of Vaccination in the Elderly. Current Topics in Microbiology and Immunology, 2012, 363, 117-142.	1.1	28
103	Clade C HIV-1 Envelope Vaccination Regimens Differ in Their Ability To Elicit Antibodies with Moderate Neutralization Breadth against Genetically Diverse Tier 2 HIV-1 Envelope Variants. Journal of Virology, 2019, 93, .	3.4	24
104	Breadth and Functionality of Varicella-Zoster Virus Glycoprotein-Specific Antibodies Identified after Zostavax Vaccination in Humans. Journal of Virology, 2018, 92, .	3.4	23
105	Emerging technologies for systems vaccinology â€" multi-omics integration and single-cell (epi)genomic profiling. Current Opinion in Immunology, 2020, 65, 57-64.	5.5	23
106	The C3/465 glycan hole cluster in BG505 HIV-1 envelope is the major neutralizing target involved in preventing mucosal SHIV infection. PLoS Pathogens, 2021, 17, e1009257.	4.7	23
107	Immunology taught by vaccines. Science, 2019, 366, 1074-1075.	12.6	21
108	A molecular atlas of innate immunity to adjuvanted and live attenuated vaccines, in mice. Nature Communications, 2022, 13, 549.	12.8	21

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109	Immunophenotyping assessment in a COVID-19 cohort (IMPACC): A prospective longitudinal study. Science Immunology, 2021, 6, .	11.9	20
110	STAT5: a Target of Antagonism by Neurotropic Flaviviruses. Journal of Virology, 2019, 93, .	3.4	18
111	Understanding the immunology of the Zostavax shingles vaccine. Current Opinion in Immunology, 2019, 59, 25-30.	5.5	18
112	Identifying gnostic predictors of the vaccine response. Current Opinion in Immunology, 2012, 24, 332-336.	5.5	17
113	Natural resistance against infections: focus on COVID-19. Trends in Immunology, 2022, 43, 106-116.	6.8	17
114	Signatures in Simian Immunodeficiency Virus SIVsmE660 Envelope gp120 Are Associated with Mucosal Transmission but Not Vaccination Breakthrough in Rhesus Macaques. Journal of Virology, 2016, 90, 1880-1887.	3.4	15
115	West Nile Virus Infection Blocks Inflammatory Response and T Cell Costimulatory Capacity of Human Monocyte-Derived Dendritic Cells. Journal of Virology, 2019, 93, .	3.4	15
116	Vaccine innovations for emerging infectious diseasesâ€"a symposium report. Annals of the New York Academy of Sciences, 2020, 1462, 14-26.	3.8	15
117	Persistence of Varicella-Zoster Virus-Specific Plasma Cells in Adult Human Bone Marrow following Childhood Vaccination. Journal of Virology, 2020, 94, .	3.4	15
118	Epigenetic adjuvants: durable reprogramming of the innate immune system with adjuvants. Current Opinion in Immunology, 2022, 77, 102189.	5.5	15
119	Learning vaccinology from viral infections. Journal of Experimental Medicine, 2011, 208, 2347-2349.	8.5	12
120	Systems analysis of West Nile virus infection. Current Opinion in Virology, 2014, 6, 70-75.	5.4	12
121	Systems Biological Analysis of Immune Response to Influenza Vaccination. Cold Spring Harbor Perspectives in Medicine, 2021, 11, a038596.	6.2	11
122	A system-view of Bordetella pertussis booster vaccine responses in adults primed with whole-cell versus acellular vaccine in infancy. JCI Insight, 2021, 6, .	5.0	10
123	Systems Biological Approaches for Mucosal Vaccine Development. , 2020, , 753-772.		2
124	Response to Comment on â€œActivation of Î²-Catenin in Dendritic Cells Regulates Immunity Versus Tolerance in the Intestineâ€• Science, 2011, 333, 405-405.	12.6	0
125	Regional localization of intestinal dendritic cell subsets control Thâ€•17 responses. FASEB Journal, 2010, 24, 355.7.	0.5	0