Mark M Davis

List of Publications by Year
in descending order

279 papers	56,053 citations	1027 117 h-index	1484 225 g-index
302 all docs	302 docs citations	302 times ranked	53967 citing authors

#	Article	IF	Citations
1	T-cell antigen receptor genes and T-cell recognition. Nature, 1988, 334, 395-402.	13.7	3,008
2	The Immunological Synapse: A Molecular Machine Controlling T Cell Activation. Science, 1999, 285, 221-227.	6.0	2,861
3	Isolation of cDNA clones encoding T cell-specific membrane-associated proteins. Nature, 1984, 308, 149-153.	13.7	1,220
4	miR-181a Is an Intrinsic Modulator of T Cell Sensitivity and Selection. Cell, 2007, 129, 147-161.	13.5	1,088
5	Characterization of circulating T cells specific for tumor-associated antigens in melanoma patients. Nature Medicine, 1999, 5, 677-685.	15.2	1,033
6	Clonal replacement of tumor-specific T cells following PD-1 blockade. Nature Medicine, 2019, 25, 1251-1259.	15.2	974
7	Organoid Modeling of the Tumor Immune Microenvironment. Cell, 2018, 175, 1972-1988.e16.	13.5	870
8	LIGAND RECOGNITION BY Î±Î² T CELL RECEPTORS. Annual Review of Immunology, 1998, 16, 523-544.	9.5	852
9	Variation in the Human Immune System Is Largely Driven by Non-Heritable Influences. Cell, 2015, 160, 37-47.	13.5	828
10	Identifying specificity groups in the T cell receptor repertoire. Nature, 2017, 547, 94-98.	13.7	825
11	THEIMMUNOLOGICALSYNAPSE. Annual Review of Immunology, 2001, 19, 375-396.	9.5	821
12	Human Circulating PD-1+CXCR3â^'CXCR5+ Memory Tfh Cells Are Highly Functional and Correlate with Broadly Neutralizing HIV Antibody Responses. Immunity, 2013, 39, 758-769.	6.6	790
13	Sequence relationships between putative T-cell receptor polypeptides and immunoglobulins. Nature, 1984, 308, 153-158.	13.7	725
14	Direct observation of ligand recognition by T cells. Nature, 2002, 419, 845-849.	13.7	725
15	Diversity in the CDR3 Region of VH Is Sufficient for Most Antibody Specificities. Immunity, 2000, 13, 37-45.	6.6	693
16	Evidence that specific T lymphocytes may participate in the elimination of chronic myelogenous leukemia. Nature Medicine, 2000, 6, 1018-1023.	15.2	651
17	Multiple early factors anticipate post-acute COVID-19 sequelae. Cell, 2022, 185, 881-895.e20.	13.5	605
18	TCR and Lat are expressed on separate protein islands on T cell membranes and concatenate during activation. Nature Immunology, 2010, 11, 90-96.	7.0	571

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19	Systems analysis of sex differences reveals an immunosuppressive role for testosterone in the response to influenza vaccination. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 869-874.	3.3	542
20	Clonally expanded CD8 T cells patrol the cerebrospinal fluid in Alzheimerâ€™s disease. Nature, 2020, 577, 399-404.	13.7	537
21	Cytometry by Time-of-Flight Shows Combinatorial Cytokine Expression and Virus-Specific Cell Niches within a Continuum of CD8+ T Cell Phenotypes. Immunity, 2012, 36, 142-152.	6.6	534
22	Mapping T-cell receptorâ€“peptide contacts by variant peptide immunization of single-chain transgenics. Nature, 1992, 355, 224-230.	13.7	512
23	T-cell-antigen recognition and the immunological synapse. Nature Reviews Immunology, 2003, 3, 973-983.	10.6	506
24	T cell killing does not require the formation of a stable mature immunological synapse. Nature Immunology, 2004, 5, 524-530.	7.0	496
25	A third type of murine T-cell receptor gene. Nature, 1984, 312, 31-35.	13.7	494
26	Genetic and Environmental Determinants of Human NK Cell Diversity Revealed by Mass Cytometry. Science Translational Medicine, 2013, 5, 208ra145.	5.8	491
27	A Kinetic Basis For T Cell Receptor Repertoire Selection during an Immune Response. Immunity, 1999, 10, 485-492.	6.6	483
28	Deconstructing the Peptide-MHC Specificity of T Cell Recognition. Cell, 2014, 157, 1073-1087.	13.5	483
29	A new T-cell receptor gene located within the alpha locus and expressed early in T-cell differentiation. Nature, 1987, 327, 677-682.	13.7	473
30	CD95 (Fas)-dependent elimination of self-reactive B cells upon interaction with CD4+T cells. Nature, 1995, 376, 181-184.	13.7	473
31	Hypoimmunogenic derivatives of induced pluripotent stem cells evade immune rejection in fully immunocompetent allogeneic recipients. Nature Biotechnology, 2019, 37, 252-258.	9.4	470
32	Human immune system variation. Nature Reviews Immunology, 2017, 17, 21-29.	10.6	466
33	Linking T-cell receptor sequence to functional phenotype at the single-cell level. Nature Biotechnology, 2014, 32, 684-692.	9.4	457
34	TCRâ€“peptideâ€“MHC interactions in situ show accelerated kinetics and increased affinity. Nature, 2010, 463, 963-967.	13.7	449
35	Multi-Omics Resolves a Sharp Disease-State Shift between Mild and Moderate COVID-19. Cell, 2020, 183, 1479-1495.e20.	13.5	449
36	Somatic recombination in a murine T-cell receptor gene. Nature, 1984, 309, 322-326.	13.7	448

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37	Thymic Selection Determines Î³Î´ T Cell Effector Fate: Antigen-Naive Cells Make Interleukin-17 and Antigen-Experienced Cells Make Interferon Î³. Immunity, 2008, 29, 90-100.	6.6	430
38	Melanocyte Destruction after Antigen-Specific Immunotherapy of Melanoma. Journal of Experimental Medicine, 2000, 192, 1637-1644.	4.2	414
39	Virus-Specific CD4+ Memory-Phenotype T Cells Are Abundant in Unexposed Adults. Immunity, 2013, 38, 373-383.	6.6	404
40	T cells use two directionally distinct pathways for cytokine secretion. Nature Immunology, 2006, 7, 247-255.	7.0	396
41	A TCR Binds to Antagonist Ligands with Lower Affinities and Faster Dissociation Rates Than to Agonists. Immunity, 1996, 5, 53-61.	6.6	395
42	Genomic organization and sequence of T-cell receptor Î²-chain constant- and joining-region genes. Nature, 1984, 310, 387-391.	13.7	386
43	Plasma membrane-associated proteins are clustered into islands attached to the cytoskeleton. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18992-18997.	3.3	370
44	Continuous T cell receptor signaling required for synapse maintenance and full effector potential. Nature Immunology, 2003, 4, 749-755.	7.0	366
45	Differential Clustering of CD4 and CD3zeta During T Cell Recognition. Science, 2000, 289, 1349-1352.	6.0	354
46	Single-cell analysis reveals T cell infiltration in old neurogenic niches. Nature, 2019, 571, 205-210.	13.7	351
47	Initiation of Signal Transduction through the T Cell Receptor Requires the Multivalent Engagement of Peptide/MHC Ligands. Immunity, 1998, 9, 459-466.	6.6	349
48	Lineage Structure of the Human Antibody Repertoire in Response to Influenza Vaccination. Science Translational Medicine, 2013, 5, 171ra19.	5.8	339
49	The adult T-cell receptor δ-chain is diverse and distinct from that of fetal thymocytes. Nature, 1988, 331, 627-631.	13.7	333
50	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.	3.3	322
51	T-cell receptor δ gene rearrangements in early thymocytes. Nature, 1987, 330, 722-727.	13.7	319
52	A Single Peptide-Major Histocompatibility Complex Ligand Triggers Digital Cytokine Secretion in CD4+ T Cells. Immunity, 2013, 39, 846-857.	6.6	317
53	A clinically meaningful metric of immune age derived from high-dimensional longitudinal monitoring. Nature Medicine, 2019, 25, 487-495.	15.2	317
54	A Prescription for Human Immunology. Immunity, 2008, 29, 835-838.	6.6	315

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55	Agonist/endogenous peptideâ€“MHC heterodimers drive T cell activation and sensitivity. Nature, 2005, 434, 238-243.	13.7	313
56	Systems vaccinology of the BNT162b2 mRNA vaccine in humans. Nature, 2021, 596, 410-416.	13.7	313
57	The zinc finger transcriptional repressor Blimp1/Prdm1 is dispensable for early axis formation but is required for specification of primordial germ cells in the mouse. Development (Cambridge), 2005, 132, 1315-1325.	1.2	307
58	Expression of specific inflammasome gene modules stratifies older individuals into two extreme clinical and immunological states. Nature Medicine, 2017, 23, 174-184.	15.2	304
59	A human vaccine strategy based on chimpanzee adenoviral and MVA vectors that primes, boosts, and sustains functional HCV-specific T cell memory. Science Translational Medicine, 2014, 6, 261ra153.	5.8	297
60	Costimulation and endogenous MHC ligands contribute to T cell recognition. Nature Immunology, 2002, 3, 42-47.	7.0	285
61	Clinical recovery from surgery correlates with single-cell immune signatures. Science Translational Medicine, 2014, 6, 255ra131.	5.8	285
62	Cytokine signature associated with disease severity in chronic fatigue syndrome patients. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7150-E7158.	3.3	283
63	Analyzing the Mycobacterium tuberculosis immune response by T-cell receptor clustering with GLIPH2 and genome-wide antigen screening. Nature Biotechnology, 2020, 38, 1194-1202.	9.4	282
64	Cytomegalovirus infection enhances the immune response to influenza. Science Translational Medicine, 2015, 7, 281ra43.	5.8	277
65	Progenitor identification and SARS-CoV-2 infection in human distal lung organoids. Nature, 2020, 588, 670-675.	13.7	273
66	Molecular-level analysis of the serum antibody repertoire in young adults before and after seasonal influenza vaccination. Nature Medicine, 2016, 22, 1456-1464.	15.2	271
67	Limited efficacy of inactivated influenza vaccine in elderly individuals is associated with decreased production of vaccine-specific antibodies. Journal of Clinical Investigation, 2011, 121, 3109-3119.	3.9	268
68	Combinatorial tetramer staining and mass cytometry analysis facilitate T-cell epitope mapping and characterization. Nature Biotechnology, 2013, 31, 623-629.	9.4	265
69	CD161 Defines a Transcriptional and Functional Phenotype across Distinct Human T Cell Lineages. Cell Reports, 2014, 9, 1075-1088.	2.9	264
70	Two-step binding mechanism for T-cell receptor recognition of peptideâ€“MHC. Nature, 2002, 418, 552-556.	13.7	258
71	Single-Cell Chromatin Modification Profiling Reveals Increased Epigenetic Variations with Aging. Cell, 2018, 173, 1385-1397.e14.	13.5	250
72	Clonal Deletion Prunes but Does Not Eliminate Self-Specific Î±Î² CD8+ T Lymphocytes. Immunity, 2015, 42, 929-941.	6.6	248

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73	Human Responses to Influenza Vaccination Show Seroconversion Signatures and Convergent Antibody Rearrangements. Cell Host and Microbe, 2014, 16, 105-114.	5.1	246
74	Evidence that Structural Rearrangements and/or Flexibility during TCR Binding Can Contribute to T Cell Activation. Molecular Cell, 2003, 12, 1367-1378.	4.5	243
75	Immune imprinting, breadth of variant recognition, and germinal center response in human SARS-CoV-2 infection and vaccination. Cell, 2022, 185, 1025-1040.e14.	13.5	243
76	An endogenous positively selecting peptide enhances mature T cell responses and becomes an autoantigen in the absence of microRNA miR-181a. Nature Immunology, 2009, 10, 1162-1169.	7.0	235
77	Antigen presentation profiling reveals recognition of lymphoma immunoglobulin neoantigens. Nature, 2017, 543, 723-727.	13.7	232
78	High-Dimensional Phenotypic Mapping of Human Dendritic Cells Reveals Interindividual Variation and Tissue Specialization. Immunity, 2017, 47, 1037-1050.e6.	6.6	231
79	Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding. Cell, 2018, 174, 672-687.e27.	13.5	229
80	CD4 enhances T cell sensitivity to antigen by coordinating Lck accumulation at the immunological synapse. Nature Immunology, 2004, 5, 791-799.	7.0	228
81	Antigen Identification for Orphan T Cell Receptors Expressed on Tumor-Infiltrating Lymphocytes. Cell, 2018, 172, 549-563.e16.	13.5	226
82	Ligand-specific oligomerization of T-cell receptor molecules. Nature, 1997, 387, 617-620.	13.7	221
83	Automatic Classification of Cellular Expression by Nonlinear Stochastic Embedding (ACCENSE). Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 202-207.	3.3	220
84	Spatial and Temporal Dynamics of T Cell Receptor Signaling with a Photoactivatable Agonist. Immunity, 2007, 27, 76-88.	6.6	218
85	Predicting HLA class II antigen presentation through integrated deep learning. Nature Biotechnology, 2019, 37, 1332-1343.	9.4	218
86	Induction of Rapid T Cell Activation and Tolerance by Systemic Presentation of an Orally Administered Antigen. Immunity, 1998, 8, 667-673.	6.6	207
87	An inflammatory aging clock (iAge) based on deep learning tracks multimorbidity, immunosenescence, frailty and cardiovascular aging. Nature Aging, 2021, 1, 598-615.	5.3	202
88	High-throughput, high-fidelity HLA genotyping with deep sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8676-8681.	3.3	200
89	Systems immunology: just getting started. Nature Immunology, 2017, 18, 725-732.	7.0	194
90	Chronic myelogenous leukemia shapes host immunity by selective deletion of high-avidity leukemia-specific T cells. Journal of Clinical Investigation, 2003, 111, 639-647.	3.9	189

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91	Distinct TCR signaling pathways drive proliferation and cytokine production in T cells. Nature Immunology, 2013, 14, 262-270.	7.0	188
92	OpenCyto: An Open Source Infrastructure for Scalable, Robust, Reproducible, and Automated, End-to-End Flow Cytometry Data Analysis. PLoS Computational Biology, 2014, 10, e1003806.	1.5	185
93	Shouts, whispers and the kiss of death: directional secretion in T cells. Nature Immunology, 2008, 9, 1105-1111.	7.0	184
94	A multi-cohort study of the immune factors associated with M. tuberculosis infection outcomes. Nature, 2018, 560, 644-648.	13.7	184
95	â€œMIATAâ€â€”Minimal Information about T Cell Assays. Immunity, 2009, 31, 527-528.	6.6	178
96	Dietary gluten triggers concomitant activation of CD4 ⁺ and CD8 ⁺ Î±Î² T cells and Î³Î´ T cells in celiac disease. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13073-13078.	3.3	178
97	A single class II myosin modulates T cell motility and stopping, but not synapse formation. Nature Immunology, 2004, 5, 531-538.	7.0	177
98	Apoptosis and other immune biomarkers predict influenza vaccine responsiveness. Molecular Systems Biology, 2013, 9, 659.	3.2	173
99	CD4 and CD8 binding to MHC molecules primarily acts to enhance Lck delivery. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16916-16921.	3.3	167
100	Effects of Aging, Cytomegalovirus Infection, and EBV Infection on Human B Cell Repertoires. Journal of Immunology, 2014, 192, 603-611.	0.4	166
101	Adaptive Immune Receptor Repertoire Community recommendations for sharing immune-repertoire sequencing data. Nature Immunology, 2017, 18, 1274-1278.	7.0	163
102	Localization of a T-cell receptor diversity-region element. Nature, 1984, 310, 421-423.	13.7	161
103	Identification and sequence of a fourth human T cell antigen receptor chain. Nature, 1987, 330, 569-572.	13.7	161
104	An Integrated Multi-omic Single-Cell Atlas of Human B Cell Identity. Immunity, 2020, 53, 217-232.e5.	6.6	161
105	Simultaneous detection of many T-cell specificities using combinatorial tetramer staining. Nature Methods, 2009, 6, 497-499.	9.0	158
106	Dynamics of p56lck Translocation to the T Cell Immunological Synapse following Agonist and Antagonist Stimulation. Immunity, 2002, 17, 809-822.	6.6	155
107	Inhibition of T cell receptor signaling by cholesterol sulfate, a naturally occurring derivative of membrane cholesterol. Nature Immunology, 2016, 17, 844-850.	7.0	152
108	Bifidobacterium can mitigate intestinal immunopathology in the context of CTLA-4 blockade. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 157-161.	3.3	152

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109	Phenotypic differences between Î±Î² versus Î² T-cell receptor transgenic mice undergoing negative selection. Nature, 1989, 340, 559-562.	13.7	148
110	The science and medicine of human immunology. Science, 2020, 369, .	6.0	147
111	Cardiovascular Complications in Patients with COVID-19: Consequences of Viral Toxicities and Host Immune Response. Current Cardiology Reports, 2020, 22, 32.	1.3	146
112	Variability and repertoire size of T-cell receptor VÎ± gene segments. Nature, 1985, 317, 430-434.	13.7	145
113	T Cells as a Self-Referential, Sensory Organ. Annual Review of Immunology, 2007, 25, 681-695.	9.5	141
114	Opposing T cell responses in experimental autoimmune encephalomyelitis. Nature, 2019, 572, 481-487.	13.7	141
115	Comprehensive T cell repertoire characterization of non-small cell lung cancer. Nature Communications, 2020, 11, 603.	5.8	140
116	Identification of Self Through Two-Dimensional Chemistry and Synapses. Annual Review of Cell and Developmental Biology, 2001, 17, 133-157.	4.0	139
117	Mapping and Quantification of Over 2000 O-linked Glycopeptides in Activated Human T Cells with Isotope-Targeted Glycoproteomics (Isotag). Molecular and Cellular Proteomics, 2018, 17, 764-775.	2.5	138
118	Beyond model antigens: high-dimensional methods for the analysis of antigen-specific T cells. Nature Biotechnology, 2014, 32, 149-157.	9.4	135
119	Imaging Synapse Formation during Thymocyte Selection. Immunity, 2002, 16, 595-606.	6.6	134
120	Expression of genes of the T-cell antigen receptor complex in precursor thymocytes. Nature, 1985, 315, 765-768.	13.7	133
121	Bifidobacterium alters the gut microbiota and modulates the functional metabolism of T regulatory cells in the context of immune checkpoint blockade. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27509-27515.	3.3	133
122	The single-cell epigenomic and transcriptional landscape of immunity to influenza vaccination. Cell, 2021, 184, 3915-3935.e21.	13.5	133
123	Modeling human adaptive immune responses with tonsil organoids. Nature Medicine, 2021, 27, 125-135.	15.2	133
124	Human B-cell isotype switching origins of IgE. Journal of Allergy and Clinical Immunology, 2016, 137, 579-586.e7.	1.5	132
125	A model for harmonizing flow cytometry in clinical trials. Nature Immunology, 2010, 11, 975-978.	7.0	130
126	Leveraging heterogeneity across multiple datasets increases cell-mixture deconvolution accuracy and reduces biological and technical biases. Nature Communications, 2018, 9, 4735.	5.8	128

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127	Autologous iPSC-Based Vaccines Elicit Anti-tumor Responses InÂVivo. Cell Stem Cell, 2018, 22, 501-513.e7.	5.2	125
128	Transcript-indexed ATAC-seq for precision immune profiling. Nature Medicine, 2018, 24, 580-590.	15.2	124
129	Individual heritable differences result in unique cell lymphocyte receptor repertoires of naÃ¯ve and antigen-experienced cells. Nature Communications, 2016, 7, 11112.	5.8	123
130	Multicohort analysis reveals baseline transcriptional predictors of influenza vaccination responses. Science Immunology, 2017, 2, .	5.6	122
131	Emergent high fatality lung disease in systemic juvenile arthritis. Annals of the Rheumatic Diseases, 2019, 78, 1722-1731.	0.5	122
132	Phylogenetic analysis of the human antibody repertoire reveals quantitative signatures of immune senescence and aging. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1105-1110.	3.3	120
133	Successful immunotherapy induces previously unidentified allergen-specific CD4+ T-cell subsets. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1286-95.	3.3	115
134	CD8 ⁺ T cells specific for conserved coronavirus epitopes correlate with milder disease in patients with COVID-19. Science Immunology, 2021, 6, .	5.6	115
135	CD4⁺T-cell synapses involve multiple distinct stages. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17099-17104.	3.3	114
136	Lineage tracing of human B cells reveals the in vivo landscape of human antibody class switching. ELife, 2016, 5, .	2.8	113
137	Injectable Hydrogels for Sustained Codelivery of Subunit Vaccines Enhance Humoral Immunity. ACS Central Science, 2020, 6, 1800-1812.	5.3	113
138	KIR ⁺ CD8 ⁺ T cells suppress pathogenic T cells and are active in autoimmune diseases and COVID-19. Science, 2022, 376, eabi9591.	6.0	113
139	Distinct phenotype of CD4+ T cells driving celiac disease identified in multiple autoimmune conditions. Nature Medicine, 2019, 25, 734-737.	15.2	112
140	Defective Signaling in the JAK-STAT Pathway Tracks with Chronic Inflammation and Cardiovascular Risk in Aging Humans. Cell Systems, 2016, 3, 374-384.e4.	2.9	107
141	Interrogating the repertoire: broadening the scope of peptideâ€“MHC multimer analysis. Nature Reviews Immunology, 2011, 11, 551-558.	10.6	106
142	Dynamics of Cell Surface Molecules During T Cell Recognition. Annual Review of Biochemistry, 2003, 72, 717-742.	5.0	105
143	A Macrophage Colony-Stimulating-Factor-Producing Î³Î´ T Cell Subset Prevents Malarial Parasitemic Recurrence. Immunity, 2018, 48, 350-363.e7.	6.6	105
144	Continuous immunotypes describe human immune variation and predict diverse responses. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6097-E6106.	3.3	104

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145	CD4 Augments the Response of a T Cell to Agonist but Not to Antagonist Ligands. Immunity, 1997, 7, 379-385.	6.6	103
146	New approaches to understanding the immune response to vaccination and infection. Vaccine, 2015, 33, 5271-5281.	1.7	103
147	T-cell receptor ligation induces distinct signaling pathways in naÃ¯ve vs. antigen-experienced T cells. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1549-1554.	3.3	96
148	Enhanced natural killer-cell and T-cell responses to influenza A virus during pregnancy. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14506-14511.	3.3	95
149	CD4 ⁺ T cells contribute to neurodegeneration in Lewy body dementia. Science, 2021, 374, 868-874.	6.0	92
150	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.	5.8	92
151	Detection, phenotyping, and quantification of antigen-specific T cells using a peptide-MHC dodecamer. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1890-7.	3.3	90
152	A Murine T Cell Receptor Gene Complex: Isolation, Structure and Rearrangement. Immunological Reviews, 1984, 81, 235-258.	2.8	87
153	CD4 ⁺ T Cell Autoimmunity to Hypocretin/Orexin and Cross-Reactivity to a 2009 H1N1 Influenza A Epitope in Narcolepsy. Science Translational Medicine, 2013, 5, 216ra176.	5.8	83
154	How the immune system talks to itself: the varied role of synapses. Immunological Reviews, 2013, 251, 65-79.	2.8	83
155	Integrated analysis of plasma and single immune cells uncovers metabolic changes in individuals with COVID-19. Nature Biotechnology, 2022, 40, 110-120.	9.4	81
156	Global analysis of shared TÂcell specificities in human non-small cell lung cancer enables HLA inference and antigen discovery. Immunity, 2021, 54, 586-602.e8.	6.6	80
157	Marked Differences in Human Melanoma Antigen-Specific T Cell Responsiveness after Vaccination Using a Functional Microarray. PLoS Medicine, 2005, 2, e265.	3.9	77
158	IgH sequences in common variable immune deficiency reveal altered B cell development and selection. Science Translational Medicine, 2015, 7, 302ra135.	5.8	77
159	A Kinetic Window Constricts the T Cell Receptor Repertoire in the Thymus. Immunity, 2001, 14, 243-252.	6.6	73
160	Early non-neutralizing, afucosylated antibody responses are associated with COVID-19 severity. Science Translational Medicine, 2022, 14, eabm7853.	5.8	71
161	Global Analysis of O-GlcNAc Glycoproteins in Activated Human T Cells. Journal of Immunology, 2016, 197, 3086-3098.	0.4	70
162	Evidence for a functional sidedness to the Î±Î²TCR. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5094-5099.	3.3	69

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163	Rebooting Human Immunology. Annual Review of Immunology, 2018, 36, 843-864.	9.5	68
164	Advanced model systems and tools for basic and translational human immunology. Genome Medicine, 2018, 10, 73.	3.6	68
165	Select sequencing of clonally expanded CD8⁺T cells reveals limits to clonal expansion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8995-9001.	3.3	68
166	Single-cell epigenomic landscape of peripheral immune cells reveals establishment of trained immunity in individuals convalescing from COVID-19. Nature Cell Biology, 2021, 23, 620-630.	4.6	67
167	The coreceptor CD4 is expressed in distinct nanoclusters and does not colocalize with T-cell receptor and active protein tyrosine kinase p56lck. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1604-13.	3.3	66
168	Single-cell systems-level analysis of human Toll-like receptor activation defines a chemokine signature in patients with systemic lupus erythematosus. Journal of Allergy and Clinical Immunology, 2015, 136, 1326-1336.	1.5	66
169	Multicenter Systems Analysis of Human Blood Reveals Immature Neutrophils in Males and During Pregnancy. Journal of Immunology, 2017, 198, 2479-2488.	0.4	66
170	TCR Signaling Emerges from the Sum of Many Parts. Frontiers in Immunology, 2012, 3, 159.	2.2	65
171	Computational resources for high-dimensional immune analysis from the Human Immunology Project Consortium. Nature Biotechnology, 2014, 32, 146-148.	9.4	65
172	Isolation of a cDNA clone corresponding to an X-linked gene family (XLR) closely linked to the murine immunodeficiency disorder xid. Nature, 1985, 314, 369-372.	13.7	64
173	Defective T Memory Cell Differentiation after Varicella Zoster Vaccination in Older Individuals. PLoS Pathogens, 2016, 12, e1005892.	2.1	61
174	Structural Basis of Specificity and Cross-Reactivity in T Cell Receptors Specific for Cytochrome câ€“I-Ek. Journal of Immunology, 2011, 186, 5823-5832.	0.4	59
175	The evolutionary and structural â€˜logicâ€™ of antigen receptor diversity. Seminars in Immunology, 2004, 16, 239-243.	2.7	58
176	Shaping of infant B cell receptor repertoires by environmental factors and infectious disease. Science Translational Medicine, 2019, 11, .	5.8	58
177	Increased Proinflammatory Responses of Monocytes and Plasmacytoid Dendritic Cells to Influenza A Virus Infection During Pregnancy. Journal of Infectious Diseases, 2016, 214, 1666-1671.	1.9	57
178	Adenoviral Vector Vaccination Induces a Conserved Program of CD8+ T Cell Memory Differentiation in Mouse and Man. Cell Reports, 2015, 13, 1578-1588.	2.9	56
179	MHCâ€Peptide Tetramers to Visualize Antigenâ€Specific T Cells. Current Protocols in Immunology, 2016, 115, 17.3.1-17.3.44.	3.6	54
180	Expression of an X-linked gene family (XLR) in late-stage B cells and its alteration by the xid mutation. Nature, 1985, 314, 372-374.	13.7	53

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181	Humans with inherited TÂcell CD28 deficiency are susceptible to skin papillomaviruses but are otherwise healthy. Cell, 2021, 184, 3812-3828.e30.	13.5	53
182	Direct Functional Analysis of Epitope-Specific CD8+T Cells in Peripheral Blood. Viral Immunology, 2001, 14, 59-69.	0.6	52
183	Distinct Molecular Mechanisms Account for the Specificity of Two Different T-Cell Receptorsâ€. Biochemistry, 2003, 42, 4709-4716.	1.2	52
184	Peptide-MHC heterodimers show that thymic positive selection requires a more restricted set of self-peptides than negative selection. Journal of Experimental Medicine, 2010, 207, 1223-1234.	4.2	52
185	The Repertoire Dissimilarity Index as a method to compare lymphocyte receptor repertoires. BMC Bioinformatics, 2017, 18, 155.	1.2	52
186	Plasmablast-derived polyclonal antibody response after influenza vaccination. Journal of Immunological Methods, 2011, 365, 67-75.	0.6	51
187	A Population Response Analysis Approach To Assign Class II HLA-Epitope Restrictions. Journal of Immunology, 2015, 194, 6164-6176.	0.4	51
188	Comparison of CyTOF assays across sites: Results of a six-center pilot study. Journal of Immunological Methods, 2018, 453, 37-43.	0.6	50
189	Pregnancy Does Not Attenuate the Antibody or Plasmablast Response to Inactivated Influenza Vaccine. Journal of Infectious Diseases, 2015, 212, 861-870.	1.9	49
190	Enumeration and Characterization of Memory Cells in the TH Compartment. Immunological Reviews, 1996, 150, 5-21.	2.8	48
191	Kinetics of Peptide Binding to the Class II MHC Protein Iâ^'Ekâ€. Biochemistry, 2000, 39, 1048-1058.	1.2	48
192	A New Trigger for T Cells. Cell, 2002, 110, 285-287.	13.5	48
193	Low Ligand Requirement for Deletion and Lack of Synapses in Positive Selection Enforce the Gauntlet of Thymic T Cell Maturation. Immunity, 2008, 29, 734-745.	6.6	48
194	A functional subset of CD8+ T cells during chronic exhaustion is defined by SIRPÎ± expression. Nature Communications, 2019, 10, 794.	5.8	46
195	Photocrosslinkable pMHC monomers stain T cells specifically and cause ligand-bound TCRs to be 'preferentially' transported to the cSMAC. Nature Immunology, 2012, 13, 674-680.	7.0	44
196	Characterization of Influenza Vaccine Immunogenicity Using Influenza Antigen Microarrays. PLoS ONE, 2013, 8, e64555.	1.1	44
197	The Interdisciplinary Science of T-cell Recognition. Advances in Immunology, 2013, 119, 1-50.	1.1	43
198	mir-181a-1/b-1 Modulates Tolerance through Opposing Activities in Selection and Peripheral T Cell Function. Journal of Immunology, 2015, 195, 1470-1479.	0.4	43

#	Article	IF	Citations
199	SIMON, an Automated Machine Learning System, Reveals Immune Signatures of Influenza Vaccine Responses. Journal of Immunology, 2019, 203, 749-759.	0.4	42
200	T cell receptor antagonism interferes with MHC clustering and integrin patterning during immunological synapse formation. Journal of Cell Biology, 2004, 166, 579-590.	2.3	41
201	Dynamics of the human antibody repertoire after B cell depletion in systemic sclerosis. Science Immunology, 2017, 2, .	5.6	41
202	Immune Checkpoint Inhibitor Cardiotoxicity: Understanding Basic Mechanisms and Clinical Characteristics and Finding a Cure. Annual Review of Pharmacology and Toxicology, 2021, 61, 113-134.	4.2	40
203	Alloantigen-specific type 1 regulatory T cells suppress through CTLA-4 and PD-1 pathways and persist long-term in patients. Science Translational Medicine, 2021, 13, eabf5264.	5.8	40
204	Antiviral memory phenotype T cells in unexposed adults. Immunological Reviews, 2013, 255, 95-109.	2.8	39
205	In vivo clonal expansion and phenotypes of hypocretin-specific CD4+ T cells in narcolepsy patients and controls. Nature Communications, 2019, 10, 5247.	5.8	39
206	MHCâ€Peptide Tetramers to Visualize Antigenâ€Specific T Cells. Current Protocols in Immunology, 2003, 53, Unit 17.3.	3.6	38
207	Mass Cytometry Analysis Shows That a Novel Memory Phenotype B Cell Is Expanded in Multiple Myeloma. Cancer Immunology Research, 2015, 3, 650-660.	1.6	38
208	Acute myeloid leukemia immunopeptidome reveals HLA presentation of mutated nucleophosmin. PLoS ONE, 2019, 14, e0219547.	1.1	38
209	Antigen exposure shapes the ratio between antigen-specific Tregs and conventional T cells in human peripheral blood. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6192-E6198.	3.3	37
210	Determination of Interaction Kinetics between the T Cell Receptor and Peptide-Loaded MHC Class II via Single-Molecule Diffusion Measurements. Biophysical Journal, 2012, 103, L17-L19.	0.2	36
211	Distinct Roles of Cytoskeletal Components in Immunological Synapse Formation and Directed Secretion. Journal of Immunology, 2015, 195, 4117-4125.	0.4	36
212	Pregnancy-Induced Alterations in NK Cell Phenotype and Function. Frontiers in Immunology, 2019, 10, 2469.	2.2	36
213	B-cell lymphomas present immunoglobulin neoantigens. Blood, 2019, 133, 878-881.	0.6	36
214	A Large T Cell Invagination with CD2 Enrichment Resets Receptor Engagement in the Immunological Synapse. Journal of Immunology, 2006, 177, 4402-4413.	0.4	34
215	The Split Virus Influenza Vaccine rapidly activates immune cells through FcÎ³ receptors. Vaccine, 2014, 32, 5989-5997.	1.7	34
216	Durability of immune responses to the BNT162b2 mRNA vaccine. Med, 2022, 3, 25-27.	2.2	33

#	Article	IF	Citations
217	Immunology Taught by Humans. Science Translational Medicine, 2012, 4, 117fs2.	5.8	32
218	Not-So-Negative Selection. Immunity, 2015, 43, 833-835.	6.6	32
219	Recent progress in the analysis of Î±Î² T cell and B cell receptor repertoires. Current Opinion in Immunology, 2019, 59, 109-114.	2.4	31
220	Kinetic Isomers of a Class II MHCâ”Peptide Complex. Biochemistry, 1998, 37, 17371-17380.	1.2	30
221	Value of Circulating Cytokine Profiling During Submaximal Exercise Testing in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome. Scientific Reports, 2018, 8, 2779.	1.6	29
222	Upregulation of CD47 Is a Host Checkpoint Response to Pathogen Recognition. MBio, 2020, 11, .	1.8	29
223	Generation of monoclonal antibodies against soluble human T cell receptor polypeptides. European Journal of Immunology, 1991, 21, 2111-2119.	1.6	27
224	Distinct Patterns of B-Cell Activation and Priming by Natural Influenza Virus Infection Versus Inactivated Influenza Vaccination. Journal of Infectious Diseases, 2015, 211, 1051-1059.	1.9	27
225	Antigen-Specific T-Cell Activation Distinguishes between Recent and Remote Tuberculosis Infection. American Journal of Respiratory and Critical Care Medicine, 2021, 203, 1556-1565.	2.5	25
226	Human Coronary Plaque T Cells Are Clonal and Cross-React to Virus and Self. Circulation Research, 2022, 130, 1510-1530.	2.0	25
227	Histone H3 lysine 4 methylation signature associated with human undernutrition. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11264-E11273.	3.3	23
228	Tetramers reveal IL-17â€“secreting CD4⁺T cells that are specific for U1-70 in lupus and mixed connective tissue disease. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3044-3049.	3.3	22
229	Allelic resolution NGS HLA typing of Class I and Class II loci and haplotypes in Cape Town, South Africa. Human Immunology, 2018, 79, 839-847.	1.2	22
230	The problem of plain vanilla peptides. Nature Immunology, 2003, 4, 649-650.	7.0	21
231	Distinct immune characteristics distinguish hereditary and idiopathic chronic pancreatitis. Journal of Clinical Investigation, 2020, 130, 2705-2711.	3.9	21
232	Serial engagement proposed. Nature, 1995, 375, 104-104.	13.7	20
233	Allergen-specific CD8+ T cells in peanut-allergic individuals. Journal of Allergy and Clinical Immunology, 2019, 143, 1948-1952.	1.5	20
234	Plasmablast antibody repertoires in elderly influenza vaccine responders exhibit restricted diversity but increased breadth of binding across influenza strains. Clinical Immunology, 2018, 193, 70-79.	1.4	19

#	Article	IF	Citations
235	Aging and CMV discordance are associated with increased immune diversity between monozygotic twins. Immunity and Ageing, 2021, 18, 5.	1.8	19
236	Signatures of immune dysfunction in HIV and HCV infection share features with chronic inflammation in aging and persist after viral reduction or elimination. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	19
237	Integrated single-cell transcriptomics and epigenomics reveals strong germinal centerâ€“associated etiology of autoimmune risk loci. Science Immunology, 2021, 6, eabh3768.	5.6	19
238	Clonal Expansion and Interrelatedness of Distinct B-Lineage Compartments in Multiple Myeloma Bone Marrow. Cancer Immunology Research, 2017, 5, 744-754.	1.6	17
239	Single-cell sequencing unveils distinct immune microenvironments with CCR6-CCL20 crosstalk in human chronic pancreatitis. Gut, 2022, 71, 1831-1842.	6.1	17
240	The Promised Land of Human Immunology. Cold Spring Harbor Symposia on Quantitative Biology, 2013, 78, 203-213.	2.0	16
241	SIMON: Open-Source Knowledge Discovery Platform. Patterns, 2021, 2, 100178.	3.1	15
242	Increased T Cell Differentiation and Cytolytic Function in Bangladeshi Compared to American Children. Frontiers in Immunology, 2019, 10, 2239.	2.2	14
243	Nanoparticle-enabled innate immune stimulation activates endogenous tumor-infiltrating T cells with broad antigen specificities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	14
244	Immunologic Network and Response to Intramyocardial CD34+ Stem Cell Therapy in Patients With Dilated Cardiomyopathy. Journal of Cardiac Failure, 2015, 21, 572-582.	0.7	11
245	T-Cell Receptor (TCR) Clonotype-Specific Differences in Inhibitory Activity of HIV-1 Cytotoxic T-Cell Clones Is Not Mediated by TCR Alone. Journal of Virology, 2017, 91, .	1.5	11
246	The FluPRINT dataset, a multidimensional analysis of the influenza vaccine imprint on the immune system. Scientific Data, 2019, 6, 214.	2.4	11
247	Learning from HIV-1 to predict the immunogenicity of TÂcell epitopes in SARS-CoV-2. IScience, 2021, 24, 102311.	1.9	11
248	TOWARDS A CYTOKİNE-CELL INTERACTION KNOWLEDGEBASE OF THE ADAPTIVE IMMUNE SYSTEM. , 2008, , .		10
249	The Stanford Data Miner: a novel approach for integrating and exploring heterogeneous immunological data. Journal of Translational Medicine, 2012, 10, 62.	1.8	9
250	Blimp-1 over Budapest. Nature Immunology, 2007, 8, 445-447.	7.0	7
251	Apoptosis and other immune biomarkers predict influenza vaccine responsiveness. Molecular Systems Biology, 2013, 9, 680.	3.2	7
252	Systems immunology. Current Opinion in Immunology, 2020, 65, 79-82.	2.4	7

#	Article	IF	Citations
253	Systems Immunology: Revealing Influenza Immunological Imprint. Viruses, 2021, 13, 948.	1.5	7
254	Evolution of Cytomegalovirus-Responsive T Cell Clonality following Solid Organ Transplantation. Journal of Immunology, 2021, 207, 2077-2085.	0.4	7
255	Directed evolution studies with combinatorial libraries of T4 lysozyme mutants. Molecular Diversity, 1996, 1, 97-108.	2.1	6
256	Visualizing lymphocyte recognition. Immunology and Cell Biology, 1999, 77, 186-187.	1.0	6
257	Inhibition of thymocyte positive selection by natural MHC: peptide ligands. European Journal of Immunology, 1999, 29, 394-402.	1.6	6
258	Association between Latent Proviral Characteristics and Immune Activation in Antiretrovirus-Treated Human Immunodeficiency Virus Type 1-Infected Adults. Journal of Virology, 2014, 88, 8629-8639.	1.5	6
259	The Î±Î² T Cell Repertoire Comes into Focus. Immunity, 2007, 27, 179-180.	6.6	5
260	Will Systems Biology Deliver Its Promise and Contribute to the Development of New or Improved Vaccines?. Cold Spring Harbor Perspectives in Biology, 2018, 10, a028886.	2.3	5
261	Treatment With Simvastatin and Rifaximin Restores the Plasma Metabolomic Profile in Patients With Decompensated Cirrhosis. Hepatology Communications, 2022, 6, 1100-1112.	2.0	5
262	The role of the reporting framework MIATA within current efforts to advance immune monitoring. Journal of Immunological Methods, 2014, 409, 6-8.	0.6	4
263	Flexibility for specificity. Science, 2015, 347, 371-372.	6.0	4
264	T cell analysis in vaccination. Current Opinion in Immunology, 2020, 65, 70-73.	2.4	4
265	Regulation of peanut-specific CD8+ T cells from nonallergic individuals. Journal of Allergy and Clinical Immunology, 2021, 147, 385-387.e1.	1.5	3
266	Functional Consequences of Memory Inflation after Solid Organ Transplantation. Journal of Immunology, 2021, 207, ji2100405.	0.4	3
267	Mass Cytometry Defines Virus-Specific CD4+ T Cells in Influenza Vaccination. ImmunoHorizons, 2020, 4, 774-788.	0.8	3
268	In Praise of Descriptive Science: A Breath of Fresh AIRE. Cell, 2016, 166, 530-531.	13.5	2
269	Computational and Systems Immunology: A Studentâ€™s Perspective. Trends in Immunology, 2019, 40, 665-668.	2.9	2
270	Maria-I: A Deep-Learning Approach for Accurate Prediction of MHC Class I Tumor Neoantigen Presentation. Blood, 2019, 134, 84-84.	0.6	2

#	Article	IF	Citations
271	DRUG-INDUCED mRNA SIGNATURES ARE ENRICHED FOR THE MINORITY OF GENES THAT ARE HIGHLY HERITABLE. , 2014, , .		1
272	William Erwin Paul (1936-2015). Cell, 2015, 163, 529-530.	13.5	1
273	Follicular Lymphoma Organoids for Investigating the Tumor Microenvironment. Blood, 2019, 134, 2799-2799.	0.6	1
274	Response to 'Tracking synapse-associated TCRs'. Nature Immunology, 2004, 5, 117-117.	7.0	0
275	Systems Immunology. , 2013, , 481-497.		0
276	Reply to Roerink et al: Methods for recruitment, serum separation, and storage were the same for patients and controls. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9436-E9436.	3.3	0
277	Antigen Presentation Profiling Reveals T-Cell Recognition of Lymphoma Immunoglobulin Neoantigens. Blood, 2016, 128, 915-915.	0.6	0
278	146â€…Alloantigen-specific Tr1 cells designed to prevent GvHD have a distinct molecular identity and suppress through CTLA-4 and PD-1. , 2020, , .		0
279	Minimal Information about MHC Multimers (MIAMM). Journal of Immunology, 2022, 208, 531-537.	0.4	0