David K Cole

List of Publications by Year
in descending order

110 papers	5,129 citations	87888 38 h-index	102487 66 g-index
114 all docs	114 docs citations	114 times ranked	6712 citing authors

#	Article	IF	Citations
1	VDJdb in 2019: database extension, new analysis infrastructure and a T-cell receptor motif compendium. Nucleic Acids Research, 2020, 48, D1057-D1062.	14.5	268
2	Control of HIV-1 immune escape by CD8 T cells expressing enhanced T-cell receptor. Nature Medicine, 2008, 14, 1390-1395.	30.7	224
3	Different T Cell Receptor Affinity Thresholds and CD8 Coreceptor Dependence Govern Cytotoxic T Lymphocyte Activation and Tetramer Binding Properties. Journal of Biological Chemistry, 2007, 282, 23799-23810.	3.4	198
4	Targeting the T cell receptor Î²-chain constant region for immunotherapy of T cell malignancies. Nature Medicine, 2017, 23, 1416-1423.	30.7	196
5	Human TCR-Binding Affinity is Governed by MHC Class Restriction. Journal of Immunology, 2007, 178, 5727-5734.	0.8	175
6	T Cell Receptor Cross-reactivity Directed by Antigen-Dependent Tuning of Peptide-MHC Molecular Flexibility. Immunity, 2009, 31, 885-896.	14.3	174
7	Tricks with tetramers: how to get the most from multimeric peptideâ€“MHC. Immunology, 2009, 126, 147-164.	4.4	162
8	Coreceptor Scanning by the T Cell Receptor Provides a Mechanism for T Cell Tolerance. Cell, 2014, 159, 333-345.	28.9	155
9	Germ Line-governed Recognition of a Cancer Epitope by an Immunodominant Human T-cell Receptor. Journal of Biological Chemistry, 2009, 284, 27281-27289.	3.4	151
10	Structural basis for the killing of human beta cells by CD8+ T cells in type 1 diabetes. Nature Immunology, 2012, 13, 283-289.	14.5	151
11	Structural and biophysical determinants of Î±Î² Tâ€cell antigen recognition. Immunology, 2012, 135, 9-18.	4.4	130
12	Hotspot autoimmune T cell receptor binding underlies pathogen and insulin peptide cross-reactivity. Journal of Clinical Investigation, 2016, 126, 2191-2204.	8.2	113
13	Modification of MHC Anchor Residues Generates Heteroclitic Peptides That Alter TCR Binding and T Cell Recognition. Journal of Immunology, 2010, 185, 2600-2610.	0.8	111
14	Genetic and Structural Basis for Selection of a Ubiquitous T Cell Receptor Deployed in Epstein-Barr Virus Infection. PLoS Pathogens, 2010, 6, e1001198.	4.7	110
15	More tricks with tetramers: a practical guide to staining T cells with peptideâ€“<scp>MHC</scp> multimers. Immunology, 2015, 146, 11-22.	4.4	106
16	The promise of Î³Î´ T cells and the Î³Î´ T cell receptor for cancer immunotherapy. Cellular and Molecular Immunology, 2015, 12, 656-668.	10.5	102
17	Following the rule: formation of the 6-helix bundle of the fusion core from severe acute respiratory syndrome coronavirus spike protein and identification of potent peptide inhibitors. Biochemical and Biophysical Research Communications, 2004, 319, 283-288.	2.1	98
18	SARS coronavirus induces apoptosis in Vero E6 Cells. Journal of Medical Virology, 2004, 73, 323-331.	5.0	93

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19	Peptide length determines the outcome of TCR/peptide-MHCI engagement. Blood, 2013, 121, 1112-1123.	1.4	89
20	Comparison of peptideâ€“major histocompatibility complex tetramers and dextramers for the identification of antigen-specific T cells. Clinical and Experimental Immunology, 2014, 177, 47-63.	2.6	81
21	Direct molecular mimicry enables off-target cardiovascular toxicity by an enhanced affinity TCR designed for cancer immunotherapy. Scientific Reports, 2016, 6, 18851.	3.3	79
22	Metabolic Adaptation of Human CD4+ and CD8+ T-Cells to T-Cell Receptor-Mediated Stimulation. Frontiers in Immunology, 2017, 8, 1516.	4.8	67
23	T-cell Receptor (TCR)-Peptide Specificity Overrides Affinity-enhancing TCR-Major Histocompatibility Complex Interactions. Journal of Biological Chemistry, 2014, 289, 628-638.	3.4	63
24	Structural basis for ineffective Tâ€cell responses to MHC anchor residueâ€improved â€œheteroclitică€• peptides. European Journal of Immunology, 2015, 45, 584-591.	2.9	63
25	Re-Directing CD4+ T Cell Responses with the Flanking Residues of MHC Class II-Bound Peptides: The Core is Not Enough. Frontiers in Immunology, 2013, 4, 172.	4.8	58
26	The T cell antigen receptor: the Swiss army knife of the immune system. Clinical and Experimental Immunology, 2015, 181, 1-18.	2.6	57
27	Novel TCR-based biologics: mobilising T cells to warm â€˜coldâ€™ tumours. Cancer Treatment Reviews, 2019, 77, 35-43.	7.7	57
28	Antibody Stabilization of Peptideâ€“MHC Multimers Reveals Functional T Cells Bearing Extremely Low-Affinity TCRs. Journal of Immunology, 2015, 194, 463-474.	0.8	55
29	Characterization of the Heptad Repeat Regions, HR1 and HR2, and Design of a Fusion Core Structure Model of the Spike Protein from Severe Acute Respiratory Syndrome (SARS) Coronavirusâ€. Biochemistry, 2004, 43, 14064-14071.	2.5	54
30	Human Î²-Cell Killing by Autoreactive Preproinsulin-Specific CD8 T Cells Is Predominantly Granule-Mediated With the Potency Dependent Upon T-Cell Receptor Avidity. Diabetes, 2013, 62, 205-213.	0.6	53
31	The molecular determinants of <scp>CD</scp>8 coâ€receptor function. Immunology, 2012, 137, 139-148.	4.4	51
32	Specificity of bispecific T cell receptors and antibodies targeting peptide-HLA. Journal of Clinical Investigation, 2020, 130, 2673-2688.	8.2	50
33	Differential Clade-Specific HLA-B*3501 Association with HIV-1 Disease Outcome Is Linked to Immunogenicity of a Single Gag Epitope. Journal of Virology, 2012, 86, 12643-12654.	3.4	49
34	Peptide-Major Histocompatibility Complex Dimensions Control Proximal Kinase-Phosphatase Balance during T Cell Activation. Journal of Biological Chemistry, 2009, 284, 26096-26105.	3.4	48
35	Naive CD8⁺ Tâ€cell precursors display structured TCR repertoires and composite antigenâ€driven selection dynamics. Immunology and Cell Biology, 2015, 93, 625-633.	2.3	48
36	Diversity within the adenovirus fiber knob hypervariable loops influences primary receptor interactions. Nature Communications, 2019, 10, 741.	12.8	46

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37	T cell receptor alpha variable 12â€2 bias in the immunodominant response to Yellow fever virus. European Journal of Immunology, 2018, 48, 258-272.	2.9	44
38	Crystal structure of HLA-A*2402 complexed with a telomerase peptide. European Journal of Immunology, 2006, 36, 170-179.	2.9	42
39	T-cell Receptor-optimized Peptide Skewing of the T-cell Repertoire Can Enhance Antigen Targeting*. Journal of Biological Chemistry, 2012, 287, 37269-37281.	3.4	42
40	T cell receptor engagement of peptide-major histocompatibility complex class I does not modify CD8 binding. Molecular Immunology, 2008, 45, 2700-2709.	2.2	40
41	Real time detection of peptideâ€“MHC dissociation reveals that improvement of primary MHC-binding residues can have a minimal, or no, effect on stability. Molecular Immunology, 2011, 48, 728-732.	2.2	39
42	Modification of the carboxy-terminal flanking region of a universal influenza epitope alters CD4+ T-cell repertoire selection. Nature Communications, 2012, 3, 665.	12.8	36
43	T-cell Receptor Specificity Maintained by Altered Thermodynamics. Journal of Biological Chemistry, 2013, 288, 18766-18775.	3.4	36
44	A molecular switch in immunodominant HIV-1-specific CD8 T-cell epitopes shapes differential HLA-restricted escape. Retrovirology, 2015, 12, 20.	2.0	35
45	IGF-1R associates with adverse outcomes after radical radiotherapy for prostate cancer. British Journal of Cancer, 2017, 117, 1600-1606.	6.4	35
46	Induction of influenza-specific local CD8 T-cells in the respiratory tract after aerosol delivery of vaccine antigen or virus in the Babraham inbred pig. PLoS Pathogens, 2018, 14, e1007017.	4.7	35
47	Basis for fusion inhibition by peptides: analysis of the heptad repeat regions of the fusion proteins from Nipah and Hendra viruses, newly emergent zoonotic paramyxoviruses. Biochemical and Biophysical Research Communications, 2004, 315, 664-670.	2.1	34
48	Anti-CD8 Antibodies Can Trigger CD8+ T Cell Effector Function in the Absence of TCR Engagement and Improve Peptideâ€“MHCI Tetramer Staining. Journal of Immunology, 2011, 187, 654-663.	0.8	34
49	Detection of low avidity CD8+ T cell populations with coreceptor-enhanced peptide-major histocompatibility complex class I tetramers. Journal of Immunological Methods, 2008, 338, 31-39.	1.4	32
50	TCR/pMHC Optimized Protein crystallization Screen. Journal of Immunological Methods, 2012, 382, 203-210.	1.4	29
51	A Molecular Switch Abrogates Glycoprotein 100 (gp100) T-cell Receptor (TCR) Targeting of a Human Melanoma Antigen. Journal of Biological Chemistry, 2016, 291, 8951-8959.	3.4	29
52	Dual Molecular Mechanisms Govern Escape at Immunodominant HLA A2-Restricted HIV Epitope. Frontiers in Immunology, 2017, 8, 1503.	4.8	29
53	Complex assembly, crystallization and preliminary X-ray crystallographic studies of MHC H-2Kdcomplexed with an HBV-core nonapeptide. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1473-1475.	2.5	28
54	Correlation of in situ mechanosensitive responses of the Moraxella catarrhalis adhesin UspA1 with fibronectin and receptor CEACAM1 binding. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15174-15178.	7.1	28

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55	Distortion of the Major Histocompatibility Complex Class I Binding Groove to Accommodate an Insulin-derived 10-Mer Peptide. Journal of Biological Chemistry, 2015, 290, 18924-18933.	3.4	28
56	T-cell libraries allow simple parallel generation of multiple peptide-specific human T-cell clones. Journal of Immunological Methods, 2016, 430, 43-50.	1.4	28
57	Increased peptide contacts govern high affinity binding of a modified TCR whilst maintaining a native pMHC docking mode. Frontiers in Immunology, 2013, 4, 168.	4.8	27
58	Peptide mimic for influenza vaccination using nonnatural combinatorial chemistry. Journal of Clinical Investigation, 2018, 128, 1569-1580.	8.2	27
59	Computational design and crystal structure of an enhanced affinity mutant human CD8 Î±Î± coreceptor. Proteins: Structure, Function and Bioinformatics, 2007, 67, 65-74.	2.6	26
60	MHC Class I Molecules with Superenhanced CD8 Binding Properties Bypass the Requirement for Cognate TCR Recognition and Nonspecifically Activate CTLs. Journal of Immunology, 2010, 184, 3357-3366.	0.8	26
61	Minimal conformational plasticity enables TCR cross-reactivity to different MHC class II heterodimers. Scientific Reports, 2012, 2, 629.	3.3	26
62	In Silico and Structural Analyses Demonstrate That Intrinsic Protein Motions Guide T Cell Receptor Complementarity Determining Region Loop Flexibility. Frontiers in Immunology, 2018, 9, 674.	4.8	26
63	CD8: adhesion molecule, co-receptor and immuno-modulator. Cellular and Molecular Immunology, 2004, 1, 81-8.	10.5	26
64	Molecular Basis of a Dominant T Cell Response to an HIV Reverse Transcriptase 8-mer Epitope Presented by the Protective Allele HLA-B*51:01. Journal of Immunology, 2014, 192, 3428-3434.	0.8	25
65	Cellular-Level Versus Receptor-Level Response Threshold Hierarchies in T-Cell Activation. Frontiers in Immunology, 2013, 4, 250.	4.8	24
66	Structural Mechanism Underpinning Cross-reactivity of a CD8+ T-cell Clone That Recognizes a Peptide Derived from Human Telomerase Reverse Transcriptase. Journal of Biological Chemistry, 2017, 292, 802-813.	3.4	23
67	TCRâ€induced alteration of primary MHC peptide anchor residue. European Journal of Immunology, 2019, 49, 1052-1066.	2.9	23
68	Allosteric activation of TÂcell antigen receptor signaling by quaternary structure relaxation. Cell Reports, 2021, 36, 109375.	6.4	23
69	Recurrence of Melanoma Following T Cell Treatment: Continued Antigen Expression in a Tumor That Evades T Cell Recruitment. Molecular Therapy, 2015, 23, 396-406.	8.2	22
70	Functional and biophysical characterization of an HLA-A*6801-restricted HIV-specific T cell receptor. European Journal of Immunology, 2007, 37, 479-486.	2.9	21
71	The multiple roles of the CD8 coreceptor in T cell biology: opportunities for the selective modulation of self-reactive cytotoxic T cells. Journal of Leukocyte Biology, 2011, 90, 1089-1099.	3.3	20
72	The versatility of the Î±Î² Tâ€cell antigen receptor. Protein Science, 2014, 23, 260-272.	7.6	20

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73	T cell receptor interactions with human leukocyte antigen govern indirect peptide selectivity for the cancer testis antigen MAGE-A4. Journal of Biological Chemistry, 2020, 295, 11486-11494.	3.4	20
74	Crystallization and preliminary crystallographic analysis of the fusion core from two new zoonotic paramyxoviruses, Nipah virus and Hendra virus. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1161-1164.	2.5	18
75	Peptide Super-Agonist Enhances T-Cell Responses to Melanoma. Frontiers in Immunology, 2019, 10, 319.	4.8	18
76	Differential Immunodominance Hierarchy of CD8⁺T-Cell Responses in HLA-B*27:05- and -B*27:02-Mediated Control of HIV-1 Infection. Journal of Virology, 2018, 92, .	3.4	14
77	A distinct immunogenic region of glutamic acid decarboxylase 65 is naturally processed and presented by human islet cells to cytotoxic CD8 T cells. Clinical and Experimental Immunology, 2015, 179, 100-107.	2.6	13
78	Molecular characterization of HLA class II binding to the LAGâ€3 T cell coâ€inhibitory receptor. European Journal of Immunology, 2021, 51, 331-341.	2.9	13
79	Engineering soluble Tâ€cell receptors for therapy. FEBS Journal, 2021, 288, 6159-6173.	4.7	13
80	Enhanced Detection of Antigen-Specific CD4+ T Cells Using Altered Peptide Flanking Residue Peptideâ€"MHC Class II Multimers. Journal of Immunology, 2015, 195, 5827-5836.	0.8	12
81	The Present and Future Role of Microfluidics for Protein and Peptide-Based Therapeutics and Diagnostics. Applied Sciences (Switzerland), 2021, 11, 4109.	2.5	12
82	CD4+ T Cells Recognize Conserved Influenza A Epitopes through Shared Patterns of V-Gene Usage and Complementary Biochemical Features. Cell Reports, 2020, 32, 107885.	6.4	11
83	Human leukocyte antigen (HLA) class II peptide flanking residues tune the immunogenicity of a human tumor-derived epitope. Journal of Biological Chemistry, 2019, 294, 20246-20258.	3.4	10
84	GPU-Accelerated Discovery of Pathogen-Derived Molecular Mimics of a T-Cell Insulin Epitope. Frontiers in Immunology, 2020, 11, 296.	4.8	10
85	Engineering and functional evaluation of a single-chain antibody against HIV-1 external glycoprotein gp120. Clinical and Experimental Immunology, 2005, 141, 72-80.	2.6	9
86	Molecular Rules Underpinning Enhanced Affinity Binding of Human T Cell Receptors Engineered for Immunotherapy. Molecular Therapy - Oncolytics, 2020, 18, 443-456.	4.4	9
87	The Fiber Knob Protein of Human Adenovirus Type 49 Mediates Highly Efficient and Promiscuous Infection of Cancer Cell Lines Using a Novel Cell Entry Mechanism. Journal of Virology, 2021, 95, .	3.4	9
88	Reliable In Silico Ranking of Engineered Therapeutic TCR Binding Affinities with MMPB/GBSA. Journal of Chemical Information and Modeling, 2022, 62, 577-590.	5.4	8
89	Structureâ€guided stabilization of pathogenâ€derived peptideâ€HLAâ€Œ complexes using nonâ€natural amino acids conserves native TCR recognition. European Journal of Immunology, 2022, 52, 618-632.	2.9	8
90	The ultimate mix and match: making sense of HLA alleles and peptide repertoires. Immunology and Cell Biology, 2015, 93, 515-516.	2.3	7

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91	Construct design, biophysical, and biochemical characterization of the fusion core from mouse hepatitis virus (a coronavirus) spike protein. Protein Expression and Purification, 2004, 38, 116-122.	1.3	6
92	Peptide cargo tunes a network of correlated motions in human leucocyte antigens. FEBS Journal, 2020, 287, 3777-3793.	4.7	6
93	CD8 coreceptor-mediated focusing can reorder the agonist hierarchy of peptide ligands recognized via the T cell receptor. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	6
94	Development of a low-seroprevalence, Î±vÎ²6 integrin-selective virotherapy based on human adenovirus type 10. Molecular Therapy - Oncolytics, 2022, 25, 43-56.	4.4	6
95	Crystallization and preliminary X-ray structural studies of a high-affinity CD8Î±Î± co-receptor to pMHC. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 285-287.	0.7	5
96	Enhanced target-specific delivery of docetaxel-loaded nanoparticles using engineered T cell receptors. Nanoscale, 2021, 13, 15010-15020.	5.6	5
97	Using X-ray Crystallography, Biophysics, and Functional Assays to Determine the Mechanisms Governing T-cell Receptor Recognition of Cancer Antigens. Journal of Visualized Experiments, 2017, , .	0.3	4
98	Thermal Stability of Heterotrimeric pMHC Proteins as Determined by Circular Dichroism Spectroscopy. Bio-protocol, 2017, 7, .	0.4	4
99	Peptide-Major Histocompatibility Complex Class I Tetramers with Enhanced Coreceptor Binding Properties Enable Visualization of Low Avidity Leukemia-Associated Antigen-Specific CD8+ T Cells.. Blood, 2007, 110, 1343-1343.	1.4	4
100	Synthetic Peptides with Inadvertent Chemical Modifications Can Activate Potentially Autoreactive T Cells. Journal of Immunology, 2021, 207, 1009-1017.	0.8	3
101	Unconventional modes of peptideâ€“HLA-I presentation change the rules of TCR engagement. , 2022, 1, .		3
102	ELISPOT and functional T cell analyses using HLA mono-specific target cells. Journal of Immunological Methods, 2009, 350, 150-160.	1.4	2
103	Real-time binding kinetic analyses of the interaction of the dietary stain orange II with dentin matrix. Journal of Dentistry, 2019, 80, 80-88.	4.1	2
104	T Cells Expressing a TCR-Like Antibody Selected Against the Heteroclitic Variant of a Shared MAGE-A Epitope Do Not Recognise the Cognate Epitope. Cancers, 2020, 12, 1255.	3.7	2
105	Biochemical, biophysical and preliminary X-ray crystallographic analyses of the fusion core of Sendai virus F protein. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1632-1635.	2.5	1
106	The Peptide Ligands Presented by MHC Class II Molecules. , 2016, , 209-214.		1
107	P16-56 LB. Novel tetramer technology for the detection of high affinity CD8 T cells. Retrovirology, 2009, 6, .	2.0	0
108	Identification of a superagonist variant of the immunodominant Yellow fever virus epitope NS4b 214-222 by combinatorial peptide library screening. Molecular Immunology, 2020, 125, 43-50.	2.2	0

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109	HLA-Class I Alleles Impact Susceptibility To EBV+ Classical Hodgkin Lymphoma By Altering EBV Latent Antigen-Specific CD8+ T-Cell Immune Hierarchies. Blood, 2013, 122, 630-630.	1.4	0
110	Targeting T-Cell Receptor Î²-Constant Domain for Immunotherapy of T-Cell Malignancies. Blood, 2016, 128, 811-811.	1.4	0