

David K Cole

List of Publications by Year in descending order

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110
papers

5,129
citations

87723

38
h-index

102304

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. <i>Nucleic Acids Research</i> , 2020, 48, D1057-D1062.	6.5	268
2	Control of HIV-1 immune escape by CD8 T cells expressing enhanced T-cell receptor. <i>Nature Medicine</i> , 2008, 14, 1390-1395.	15.2	224
3	Different T Cell Receptor Affinity Thresholds and CD8 Coreceptor Dependence Govern Cytotoxic T Lymphocyte Activation and Tetramer Binding Properties. <i>Journal of Biological Chemistry</i> , 2007, 282, 23799-23810.	1.6	198
4	Targeting the T cell receptor β -chain constant region for immunotherapy of T cell malignancies. <i>Nature Medicine</i> , 2017, 23, 1416-1423.	15.2	196
5	Human TCR-Binding Affinity is Governed by MHC Class Restriction. <i>Journal of Immunology</i> , 2007, 178, 5727-5734.	0.4	175
6	T Cell Receptor Cross-reactivity Directed by Antigen-Dependent Tuning of Peptide-MHC Molecular Flexibility. <i>Immunity</i> , 2009, 31, 885-896.	6.6	174
7	Tricks with tetramers: how to get the most from multimeric peptide-MHC. <i>Immunology</i> , 2009, 126, 147-164.	2.0	162
8	Coreceptor Scanning by the T Cell Receptor Provides a Mechanism for T Cell Tolerance. <i>Cell</i> , 2014, 159, 333-345.	13.5	155
9	Germ Line-governed Recognition of a Cancer Epitope by an Immunodominant Human T-cell Receptor. <i>Journal of Biological Chemistry</i> , 2009, 284, 27281-27289.	1.6	151
10	Structural basis for the killing of human beta cells by CD8+ T cells in type 1 diabetes. <i>Nature Immunology</i> , 2012, 13, 283-289.	7.0	151
11	Structural and biophysical determinants of β -cell antigen recognition. <i>Immunology</i> , 2012, 135, 9-18.	2.0	130
12	Hotspot autoimmune T cell receptor binding underlies pathogen and insulin peptide cross-reactivity. <i>Journal of Clinical Investigation</i> , 2016, 126, 2191-2204.	3.9	113
13	Modification of MHC Anchor Residues Generates Heteroclitic Peptides That Alter TCR Binding and T Cell Recognition. <i>Journal of Immunology</i> , 2010, 185, 2600-2610.	0.4	111
14	Genetic and Structural Basis for Selection of a Ubiquitous T Cell Receptor Deployed in Epstein-Barr Virus Infection. <i>PLoS Pathogens</i> , 2010, 6, e1001198.	2.1	110
15	More tricks with tetramers: a practical guide to staining T cells with peptide-MHC multimers. <i>Immunology</i> , 2015, 146, 11-22.	2.0	106
16	The promise of β T cells and the β T cell receptor for cancer immunotherapy. <i>Cellular and Molecular Immunology</i> , 2015, 12, 656-668.	4.8	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. <i>Biochemical and Biophysical Research Communications</i> , 2004, 319, 283-288.	1.0	98
18	SARS coronavirus induces apoptosis in Vero E6 Cells. <i>Journal of Medical Virology</i> , 2004, 73, 323-331.	2.5	93

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19	Peptide length determines the outcome of TCR/peptide-MHCI engagement. <i>Blood</i> , 2013, 121, 1112-1123.	0.6	89
20	Comparison of peptide-major histocompatibility complex tetramers and dextramers for the identification of antigen-specific T cells. <i>Clinical and Experimental Immunology</i> , 2014, 177, 47-63.	1.1	81
21	Direct molecular mimicry enables off-target cardiovascular toxicity by an enhanced affinity TCR designed for cancer immunotherapy. <i>Scientific Reports</i> , 2016, 6, 18851.	1.6	79
22	Metabolic Adaptation of Human CD4+ and CD8+ T-Cells to T-Cell Receptor-Mediated Stimulation. <i>Frontiers in Immunology</i> , 2017, 8, 1516.	2.2	67
23	T-cell Receptor (TCR)-Peptide Specificity Overrides Affinity-enhancing TCR-Major Histocompatibility Complex Interactions. <i>Journal of Biological Chemistry</i> , 2014, 289, 628-638.	1.6	63
24	Structural basis for ineffective T-cell responses to MHC anchor residue-improved heteroclitic peptides. <i>European Journal of Immunology</i> , 2015, 45, 584-591.	1.6	63
25	Re-Directing CD4+ T Cell Responses with the Flanking Residues of MHC Class II-Bound Peptides: The Core is Not Enough. <i>Frontiers in Immunology</i> , 2013, 4, 172.	2.2	58
26	The T cell antigen receptor: the Swiss army knife of the immune system. <i>Clinical and Experimental Immunology</i> , 2015, 181, 1-18.	1.1	57
27	Novel TCR-based biologics: mobilising T cells to warm "cold" tumours. <i>Cancer Treatment Reviews</i> , 2019, 77, 35-43.	3.4	57
28	Antibody Stabilization of Peptide-MHC Multimers Reveals Functional T Cells Bearing Extremely Low-Affinity TCRs. <i>Journal of Immunology</i> , 2015, 194, 463-474.	0.4	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) Coronavirus. <i>Biochemistry</i> , 2004, 43, 14064-14071.	1.2	54
30	Human \hat{I}^2 -Cell Killing by Autoreactive Preproinsulin-Specific CD8 T Cells Is Predominantly Granule-Mediated With the Potency Dependent Upon T-Cell Receptor Avidity. <i>Diabetes</i> , 2013, 62, 205-213.	0.3	53
31	The molecular determinants of CD8 co-receptor function. <i>Immunology</i> , 2012, 137, 139-148.	2.0	51
32	Specificity of bispecific T cell receptors and antibodies targeting peptide-HLA. <i>Journal of Clinical Investigation</i> , 2020, 130, 2673-2688.	3.9	50
33	Differential Clade-Specific HLA-B*3501 Association with HIV-1 Disease Outcome Is Linked to Immunogenicity of a Single Gag Epitope. <i>Journal of Virology</i> , 2012, 86, 12643-12654.	1.5	49
34	Peptide-Major Histocompatibility Complex Dimensions Control Proximal Kinase-Phosphatase Balance during T Cell Activation. <i>Journal of Biological Chemistry</i> , 2009, 284, 26096-26105.	1.6	48
35	Naive CD8 ⁺ T-cell precursors display structured TCR repertoires and composite antigen-driven selection dynamics. <i>Immunology and Cell Biology</i> , 2015, 93, 625-633.	1.0	48
36	Diversity within the adenovirus fiber knob hypervariable loops influences primary receptor interactions. <i>Nature Communications</i> , 2019, 10, 741.	5.8	46

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37	T cell receptor alpha variable 12â€² bias in the immunodominant response to Yellow fever virus. <i>European Journal of Immunology</i> , 2018, 48, 258-272.	1.6	44
38	Crystal structure of HLA-A*2402 complexed with a telomerase peptide. <i>European Journal of Immunology</i> , 2006, 36, 170-179.	1.6	42
39	T-cell Receptor-optimized Peptide Skewing of the T-cell Repertoire Can Enhance Antigen Targeting*. <i>Journal of Biological Chemistry</i> , 2012, 287, 37269-37281.	1.6	42
40	T cell receptor engagement of peptide-major histocompatibility complex class I does not modify CD8 binding. <i>Molecular Immunology</i> , 2008, 45, 2700-2709.	1.0	40
41	Real time detection of peptideâ€²MHC dissociation reveals that improvement of primary MHC-binding residues can have a minimal, or no, effect on stability. <i>Molecular Immunology</i> , 2011, 48, 728-732.	1.0	39
42	Modification of the carboxy-terminal flanking region of a universal influenza epitope alters CD4+ T-cell repertoire selection. <i>Nature Communications</i> , 2012, 3, 665.	5.8	36
43	T-cell Receptor Specificity Maintained by Altered Thermodynamics. <i>Journal of Biological Chemistry</i> , 2013, 288, 18766-18775.	1.6	36
44	A molecular switch in immunodominant HIV-1-specific CD8 T-cell epitopes shapes differential HLA-restricted escape. <i>Retrovirology</i> , 2015, 12, 20.	0.9	35
45	IGF-1R associates with adverse outcomes after radical radiotherapy for prostate cancer. <i>British Journal of Cancer</i> , 2017, 117, 1600-1606.	2.9	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. <i>PLoS Pathogens</i> , 2018, 14, e1007017.	2.1	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. <i>Biochemical and Biophysical Research Communications</i> , 2004, 315, 664-670.	1.0	34
48	Anti-CD8 Antibodies Can Trigger CD8+ T Cell Effector Function in the Absence of TCR Engagement and Improve Peptideâ€²MHCI Tetramer Staining. <i>Journal of Immunology</i> , 2011, 187, 654-663.	0.4	34
49	Detection of low avidity CD8+ T cell populations with coreceptor-enhanced peptide-major histocompatibility complex class I tetramers. <i>Journal of Immunological Methods</i> , 2008, 338, 31-39.	0.6	32
50	TCR/pMHC Optimized Protein crystallization Screen. <i>Journal of Immunological Methods</i> , 2012, 382, 203-210.	0.6	29
51	A Molecular Switch Abrogates Glycoprotein 100 (gp100) T-cell Receptor (TCR) Targeting of a Human Melanoma Antigen. <i>Journal of Biological Chemistry</i> , 2016, 291, 8951-8959.	1.6	29
52	Dual Molecular Mechanisms Govern Escape at Immunodominant HLA A2-Restricted HIV Epitope. <i>Frontiers in Immunology</i> , 2017, 8, 1503.	2.2	29
53	Complex assembly, crystallization and preliminary X-ray crystallographic studies of MHC H-2Kd complexed with an HBV-core nonapeptide. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2004, 60, 1473-1475.	2.5	28
54	Correlation of in situ mechanosensitive responses of the <i>Moraxella catarrhalis</i> adhesin UspA1 with fibronectin and receptor CEACAM1 binding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 15174-15178.	3.3	28

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55	Distortion of the Major Histocompatibility Complex Class I Binding Groove to Accommodate an Insulin-derived 10-Mer Peptide. <i>Journal of Biological Chemistry</i> , 2015, 290, 18924-18933.	1.6	28
56	T-cell libraries allow simple parallel generation of multiple peptide-specific human T-cell clones. <i>Journal of Immunological Methods</i> , 2016, 430, 43-50.	0.6	28
57	Increased peptide contacts govern high affinity binding of a modified TCR whilst maintaining a native pMHC docking mode. <i>Frontiers in Immunology</i> , 2013, 4, 168.	2.2	27
58	Peptide mimic for influenza vaccination using nonnatural combinatorial chemistry. <i>Journal of Clinical Investigation</i> , 2018, 128, 1569-1580.	3.9	27
59	Computational design and crystal structure of an enhanced affinity mutant human CD8 β coreceptor. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 67, 65-74.	1.5	26
60	MHC Class I Molecules with Superenhanced CD8 Binding Properties Bypass the Requirement for Cognate TCR Recognition and Nonspecifically Activate CTLs. <i>Journal of Immunology</i> , 2010, 184, 3357-3366.	0.4	26
61	Minimal conformational plasticity enables TCR cross-reactivity to different MHC class II heterodimers. <i>Scientific Reports</i> , 2012, 2, 629.	1.6	26
62	In Silico and Structural Analyses Demonstrate That Intrinsic Protein Motions Guide T Cell Receptor Complementarity Determining Region Loop Flexibility. <i>Frontiers in Immunology</i> , 2018, 9, 674.	2.2	26
63	CD8: adhesion molecule, co-receptor and immuno-modulator. <i>Cellular and Molecular Immunology</i> , 2004, 1, 81-8.	4.8	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. <i>Journal of Immunology</i> , 2014, 192, 3428-3434.	0.4	25
65	Cellular-Level Versus Receptor-Level Response Threshold Hierarchies in T-Cell Activation. <i>Frontiers in Immunology</i> , 2013, 4, 250.	2.2	24
66	Structural Mechanism Underpinning Cross-reactivity of a CD8+ T-cell Clone That Recognizes a Peptide Derived from Human Telomerase Reverse Transcriptase. <i>Journal of Biological Chemistry</i> , 2017, 292, 802-813.	1.6	23
67	TCR-induced alteration of primary MHC peptide anchor residue. <i>European Journal of Immunology</i> , 2019, 49, 1052-1066.	1.6	23
68	Allosteric activation of T cell antigen receptor signaling by quaternary structure relaxation. <i>Cell Reports</i> , 2021, 36, 109375.	2.9	23
69	Recurrence of Melanoma Following T Cell Treatment: Continued Antigen Expression in a Tumor That Evades T Cell Recruitment. <i>Molecular Therapy</i> , 2015, 23, 396-406.	3.7	22
70	Functional and biophysical characterization of an HLA-A*6801-restricted HIV-specific T cell receptor. <i>European Journal of Immunology</i> , 2007, 37, 479-486.	1.6	21
71	The multiple roles of the CD8 coreceptor in T cell biology: opportunities for the selective modulation of self-reactive cytotoxic T cells. <i>Journal of Leukocyte Biology</i> , 2011, 90, 1089-1099.	1.5	20
72	The versatility of the β 2 T cell antigen receptor. <i>Protein Science</i> , 2014, 23, 260-272.	3.1	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. <i>Journal of Biological Chemistry</i> , 2020, 295, 11486-11494.	1.6	20
74	Crystallization and preliminary crystallographic analysis of the fusion core from two new zoonotic paramyxoviruses, Nipah virus and Hendra virus. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2004, 60, 1161-1164.	2.5	18
75	Peptide Super-Agonist Enhances T-Cell Responses to Melanoma. <i>Frontiers in Immunology</i> , 2019, 10, 319.	2.2	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. <i>Journal of Virology</i> , 2018, 92, .	1.5	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. <i>Clinical and Experimental Immunology</i> , 2015, 179, 100-107.	1.1	13
78	Molecular characterization of HLA class II binding to the LAG-3 T cell co-inhibitory receptor. <i>European Journal of Immunology</i> , 2021, 51, 331-341.	1.6	13
79	Engineering soluble T cell receptors for therapy. <i>FEBS Journal</i> , 2021, 288, 6159-6173.	2.2	13
80	Enhanced Detection of Antigen-Specific CD4+ T Cells Using Altered Peptide Flanking Residue Peptide-MHC Class II Multimers. <i>Journal of Immunology</i> , 2015, 195, 5827-5836.	0.4	12
81	The Present and Future Role of Microfluidics for Protein and Peptide-Based Therapeutics and Diagnostics. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 4109.	1.3	12
82	CD4+ T Cells Recognize Conserved Influenza A Epitopes through Shared Patterns of V-Gene Usage and Complementary Biochemical Features. <i>Cell Reports</i> , 2020, 32, 107885.	2.9	11
83	Human leukocyte antigen (HLA) class II peptide flanking residues tune the immunogenicity of a human tumor-derived epitope. <i>Journal of Biological Chemistry</i> , 2019, 294, 20246-20258.	1.6	10
84	GPU-Accelerated Discovery of Pathogen-Derived Molecular Mimics of a T-Cell Insulin Epitope. <i>Frontiers in Immunology</i> , 2020, 11, 296.	2.2	10
85	Engineering and functional evaluation of a single-chain antibody against HIV-1 external glycoprotein gp120. <i>Clinical and Experimental Immunology</i> , 2005, 141, 72-80.	1.1	9
86	Molecular Rules Underpinning Enhanced Affinity Binding of Human T Cell Receptors Engineered for Immunotherapy. <i>Molecular Therapy - Oncolytics</i> , 2020, 18, 443-456.	2.0	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. <i>Journal of Virology</i> , 2021, 95, .	1.5	9
88	Reliable <i>In Silico</i> Ranking of Engineered Therapeutic TCR Binding Affinities with MMPB/GBSA. <i>Journal of Chemical Information and Modeling</i> , 2022, 62, 577-590.	2.5	8
89	Structure-guided stabilization of pathogen-derived peptide-HLA complexes using non-natural amino acids conserves native TCR recognition. <i>European Journal of Immunology</i> , 2022, 52, 618-632.	1.6	8
90	The ultimate mix and match: making sense of HLA alleles and peptide repertoires. <i>Immunology and Cell Biology</i> , 2015, 93, 515-516.	1.0	7

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91	Construct design, biophysical, and biochemical characterization of the fusion core from mouse hepatitis virus (a coronavirus) spike protein. <i>Protein Expression and Purification</i> , 2004, 38, 116-122.	0.6	6
92	Peptide cargo tunes a network of correlated motions in human leucocyte antigens. <i>FEBS Journal</i> , 2020, 287, 3777-3793.	2.2	6
93	CD8 coreceptor-mediated focusing can reorder the agonist hierarchy of peptide ligands recognized via the T cell receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	6
94	Development of a low-seroprevalence, $\alpha_6\beta_2$ integrin-selective virotherapy based on human adenovirus type 10. <i>Molecular Therapy - Oncolytics</i> , 2022, 25, 43-56.	2.0	6
95	Crystallization and preliminary X-ray structural studies of a high-affinity CD8 $\alpha\beta$ co-receptor to pMHC. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2005, 61, 285-287.	0.7	5
96	Enhanced target-specific delivery of docetaxel-loaded nanoparticles using engineered T cell receptors. <i>Nanoscale</i> , 2021, 13, 15010-15020.	2.8	5
97	Using X-ray Crystallography, Biophysics, and Functional Assays to Determine the Mechanisms Governing T-cell Receptor Recognition of Cancer Antigens. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	4
98	Thermal Stability of Heterotrimeric pMHC Proteins as Determined by Circular Dichroism Spectroscopy. <i>Bio-protocol</i> , 2017, 7, .	0.2	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.. <i>Blood</i> , 2007, 110, 1343-1343.	0.6	4
100	Synthetic Peptides with Inadvertent Chemical Modifications Can Activate Potentially Autoreactive T Cells. <i>Journal of Immunology</i> , 2021, 207, 1009-1017.	0.4	3
101	Unconventional modes of peptide-“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. <i>Journal of Immunological Methods</i> , 2009, 350, 150-160.	0.6	2
103	Real-time binding kinetic analyses of the interaction of the dietary stain orange II with dentin matrix. <i>Journal of Dentistry</i> , 2019, 80, 80-88.	1.7	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. <i>Cancers</i> , 2020, 12, 1255.	1.7	2
105	Biochemical, biophysical and preliminary X-ray crystallographic analyses of the fusion core of Sendai virus F protein. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 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. <i>Retrovirology</i> , 2009, 6, .	0.9	0
108	Identification of a superagonist variant of the immunodominant Yellow fever virus epitope NS4b 214-222 by combinatorial peptide library screening. <i>Molecular Immunology</i> , 2020, 125, 43-50.	1.0	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.	0.6	0
110	Targeting T-Cell Receptor $\hat{1}^2$ -Constant Domain for Immunotherapy of T-Cell Malignancies. Blood, 2016, 128, 811-811.	0.6	0