

Omer Dushek

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

3,700
citations

159525

30
h-index

149623

56
g-index

84
all docs

84
docs citations

84
times ranked

4519
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluctuations in T cell receptor and pMHC interactions regulate T cell activation. <i>Journal of the Royal Society Interface</i> , 2022, 19, 20210589.	1.5	4
2	Dephosphorylation accelerates the dissociation of ZAP70 from the T cell receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	6
3	Missense variants in human ACE2 strongly affect binding to SARS-CoV-2 Spike providing a mechanism for ACE2 mediated genetic risk in Covid-19: A case study in affinity predictions of interface variants. <i>PLoS Computational Biology</i> , 2022, 18, e1009922.	1.5	9
4	T-cell trans-synaptic vesicles are distinct and carry greater effector content than constitutive extracellular vesicles. <i>Nature Communications</i> , 2022, 13, .	5.8	18
5	Mathematical Modelling of T Cell Activation. , 2021, , 223-240.		2
6	Perfect adaptation of CD8 ⁺ T cell responses to constant antigen input over a wide range of affinities is overcome by costimulation. <i>Science Signaling</i> , 2021, 14, eaay9363.	1.6	19
7	Intrinsic Disorder in the T Cell Receptor Creates Cooperativity and Controls ZAP70 Binding. <i>Biophysical Journal</i> , 2021, 120, 379-392.	0.2	8
8	The discriminatory power of the T cell receptor. <i>ELife</i> , 2021, 10, .	2.8	52
9	Determination of the molecular reach of the protein tyrosine phosphatase SHP-1. <i>Biophysical Journal</i> , 2021, 120, 2054-2066.	0.2	10
10	Allosteric activation of T cell antigen receptor signaling by quaternary structure relaxation. <i>Cell Reports</i> , 2021, 36, 109375.	2.9	23
11	Effects of common mutations in the SARS-CoV-2 Spike RBD and its ligand, the human ACE2 receptor on binding affinity and kinetics. <i>ELife</i> , 2021, 10, .	2.8	267
12	Quantitative contributions of TNF receptor superfamily members to CD8 ⁺ T cell responses. <i>Molecular Systems Biology</i> , 2021, 17, e10560.	3.2	7
13	Human CD8 ⁺ T Cells Exhibit a Shared Antigen Threshold for Different Effector Responses. <i>Journal of Immunology</i> , 2020, 205, 1503-1512.	0.4	24
14	Engineering AvidCARs for combinatorial antigen recognition and reversible control of CAR function. <i>Nature Communications</i> , 2020, 11, 4166.	5.8	53
15	Molecular flexibility of DNA as a key determinant of RAD51 recruitment. <i>EMBO Journal</i> , 2020, 39, e103002.	3.5	13
16	TCR-pMHC kinetics under force in a cell-free system show no intrinsic catch bond, but a minimal encounter duration before binding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 16943-16948.	3.3	69
17	The Influence of Molecular Reach and Diffusivity on the Efficacy of Membrane-Confined Reactions. <i>Biophysical Journal</i> , 2019, 117, 1189-1201.	0.2	10
18	A cell topography-based mechanism for ligand discrimination by the T cell receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14002-14010.	3.3	60

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19	MHC binding affects the dynamics of different T-cell receptors in different ways. <i>PLoS Computational Biology</i> , 2019, 15, e1007338.	1.5	13
20	A tissue-like platform for studying engineered quiescent human T-cells'™ interactions with dendritic cells. <i>ELife</i> , 2019, 8, .	2.8	14
21	Comparison of T Cell Activities Mediated by Human TCRs and CARs That Use the Same Recognition Domains. <i>Journal of Immunology</i> , 2018, 200, 1088-1100.	0.4	119
22	CD8 helps TCR catch slippery self pMHC. <i>Nature Immunology</i> , 2018, 19, 1280-1281.	7.0	2
23	Membrane Ultrastructure and T Cell Activation. <i>Frontiers in Immunology</i> , 2018, 9, 2152.	2.2	42
24	Molecular mechanisms of T cell sensitivity to antigen. <i>Immunological Reviews</i> , 2018, 285, 194-205.	2.8	47
25	Biophysical assay for tethered signaling reactions reveals tether-controlled activity for the phosphatase SHP-1. <i>Science Advances</i> , 2017, 3, e1601692.	4.7	28
26	<sc>PD</sc> Æ1 blockade enhances response of pancreatic ductal adenocarcinoma to radiotherapy. <i>EMBO Molecular Medicine</i> , 2017, 9, 167-180.	3.3	172
27	Dynamic regulation of CD28 conformation and signaling by charged lipids and ions. <i>Nature Structural and Molecular Biology</i> , 2017, 24, 1081-1092.	3.6	46
28	Remarkably low affinity of CD4/peptide-major histocompatibility complex class II protein interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 5682-5687.	3.3	51
29	Architecture of a minimal signaling pathway explains the T-cell response to a 1 million-fold variation in antigen affinity and dose. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E6630-E6638.	3.3	79
30	Homodimerization of the Lymph Vessel Endothelial Receptor LYVE-1 through a Redox-labile Disulfide Is Critical for Hyaluronan Binding in Lymphatic Endothelium. <i>Journal of Biological Chemistry</i> , 2016, 291, 25004-25018.	1.6	28
31	The contribution of major histocompatibility complex contacts to the affinity and kinetics of T cell receptor binding. <i>Scientific Reports</i> , 2016, 6, 35326.	1.6	18
32	Multisite Phosphorylation Modulates the T Cell Receptor Æ-Chain Potency but not the Switchlike Response. <i>Biophysical Journal</i> , 2016, 110, 1896-1906.	0.2	23
33	Costimulation of IL-2 Production through CD28 Is Dependent on the Size of Its Ligand. <i>Journal of Immunology</i> , 2015, 195, 5432-5439.	0.4	12
34	A <sc>THEMIS</sc> : <sc>SHP</sc> 1 complex promotes TÆcell survival. <i>EMBO Journal</i> , 2015, 34, 393-409.	3.5	84
35	An induced rebinding model of antigen discrimination. <i>Trends in Immunology</i> , 2014, 35, 153-158.	2.9	61
36	Biosensor Architectures for High-Fidelity Reporting of Cellular Signaling. <i>Biophysical Journal</i> , 2014, 107, 773-782.	0.2	5

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37	Phenotypic models of T cell activation. <i>Nature Reviews Immunology</i> , 2014, 14, 619-629.	10.6	135
38	SpyAvidin Hubs Enable Precise and Ultrastable Orthogonal Nanoassembly. <i>Journal of the American Chemical Society</i> , 2014, 136, 12355-12363.	6.6	62
39	Measuring Compressional Resistance in Large Surface Molecules. <i>Biophysical Journal</i> , 2014, 106, 235a.	0.2	0
40	Saposins modulate human invariant Natural Killer T cells self-reactivity and facilitate lipid exchange with CD1d molecules during antigen presentation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E4753-61.	3.3	37
41	Systems Model of T Cell Receptor Proximal Signaling Reveals Emergent Ultrasensitivity. <i>PLoS Computational Biology</i> , 2013, 9, e1003004.	1.5	44
42	Quantitative Phosphoproteome Analysis Unveils LAT as a Modulator of CD3 ζ and ZAP-70 Tyrosine Phosphorylation. <i>PLoS ONE</i> , 2013, 8, e77423.	1.1	27
43	Non-catalytic tyrosine-phosphorylated receptors. <i>Immunological Reviews</i> , 2012, 250, 258-276.	2.8	74
44	Kinetics and Mechanics of Two-Dimensional Interactions between T Cell Receptors and Different Activating Ligands. <i>Biophysical Journal</i> , 2012, 102, 248-257.	0.2	68
45	Mechanical Modulation of Receptor-Ligand Interactions at Cell-Cell Interfaces. <i>Biophysical Journal</i> , 2012, 102, 1265-1273.	0.2	68
46	Ultrasensitivity in Multisite Phosphorylation of Membrane-Anchored Proteins. <i>Biophysical Journal</i> , 2011, 100, 1189-1197.	0.2	49
47	Mechanisms for T cell receptor triggering. <i>Nature Reviews Immunology</i> , 2011, 11, 47-55.	10.6	388
48	Antigen Potency and Maximal Efficacy Reveal a Mechanism of Efficient T Cell Activation. <i>Science Signaling</i> , 2011, 4, ra39.	1.6	71
49	Basic residues in the T-cell receptor ζ cytoplasmic domain mediate membrane association and modulate signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 19323-19328.	3.3	118
50	Elementary Steps in T Cell Receptor Triggering. <i>Frontiers in Immunology</i> , 2011, 2, 91.	2.2	10
51	Dependence of T Cell Antigen Recognition on T Cell Receptor-Peptide MHC Confinement Time. <i>Immunity</i> , 2010, 32, 163-174.	6.6	214
52	The Membrane Skeleton Controls Diffusion Dynamics and Signaling through the B Cell Receptor. <i>Immunity</i> , 2010, 32, 187-199.	6.6	314
53	Constitutively Active Lck Kinase in T Cells Drives Antigen Receptor Signal Transduction. <i>Immunity</i> , 2010, 32, 766-777.	6.6	300
54	A Role for Rebinding in Rapid and Reliable T Cell Responses to Antigen. <i>PLoS Computational Biology</i> , 2009, 5, e1000578.	1.5	63

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55	Analysis of membrane-localized binding kinetics with FRAP. European Biophysics Journal, 2008, 37, 627-638.	1.2	18
56	Analysis of Serial Engagement and Peptide-MHC Transport in T Cell Receptor Microclusters. Biophysical Journal, 2008, 94, 3447-3460.	0.2	28
57	Improving parameter estimation for cell surface FRAP data. Journal of Proteomics, 2008, 70, 1224-1231.	2.4	11
58	Effects of Intracellular Calcium and Actin Cytoskeleton on TCR Mobility Measured by Fluorescence Recovery. PLoS ONE, 2008, 3, e3913.	1.1	41
59	The fields of a moving point charge: a new derivation from Jefimenko's equations. European Journal of Physics, 2004, 25, 343-350.	0.3	3