

Omer Dushek

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/405569/publications.pdf>

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	Mechanisms for T cell receptor triggering. <i>Nature Reviews Immunology</i> , 2011, 11, 47-55.	10.6	388
2	The Membrane Skeleton Controls Diffusion Dynamics and Signaling through the B Cell Receptor. <i>Immunity</i> , 2010, 32, 187-199.	6.6	314
3	Constitutively Active Lck Kinase in T Cells Drives Antigen Receptor Signal Transduction. <i>Immunity</i> , 2010, 32, 766-777.	6.6	300
4	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
5	Dependence of T Cell Antigen Recognition on T Cell Receptor-Peptide MHC Confinement Time. <i>Immunity</i> , 2010, 32, 163-174.	6.6	214
6	PD-1 blockade enhances response of pancreatic ductal adenocarcinoma to radiotherapy. <i>EMBO Molecular Medicine</i> , 2017, 9, 167-180.	3.3	172
7	Phenotypic models of T cell activation. <i>Nature Reviews Immunology</i> , 2014, 14, 619-629.	10.6	135
8	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
9	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
10	A THEMIS : SHP-1 complex promotes T cell survival. <i>EMBO Journal</i> , 2015, 34, 393-409.	3.5	84
11	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
12	Non-catalytic tyrosine-phosphorylated receptors. <i>Immunological Reviews</i> , 2012, 250, 258-276.	2.8	74
13	Antigen Potency and Maximal Efficacy Reveal a Mechanism of Efficient T Cell Activation. <i>Science Signaling</i> , 2011, 4, ra39.	1.6	71
14	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
15	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
16	Mechanical Modulation of Receptor-Ligand Interactions at Cell-Cell Interfaces. <i>Biophysical Journal</i> , 2012, 102, 1265-1273.	0.2	68
17	A Role for Rebinding in Rapid and Reliable T Cell Responses to Antigen. <i>PLoS Computational Biology</i> , 2009, 5, e1000578.	1.5	63
18	SpyAvidin Hubs Enable Precise and Ultrastable Orthogonal Nanoassembly. <i>Journal of the American Chemical Society</i> , 2014, 136, 12355-12363.	6.6	62

#	ARTICLE	IF	CITATIONS
19	An induced rebinding model of antigen discrimination. Trends in Immunology, 2014, 35, 153-158.	2.9	61
20	A cell topography-based mechanism for ligand discrimination by the T cell receptor. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14002-14010.	3.3	60
21	Engineering AvidCARs for combinatorial antigen recognition and reversible control of CAR function. Nature Communications, 2020, 11, 4166.	5.8	53
22	The discriminatory power of the T cell receptor. ELife, 2021, 10, .	2.8	52
23	Remarkably low affinity of CD4/peptide-major histocompatibility complex class II protein interactions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5682-5687.	3.3	51
24	Ultrasensitivity in Multisite Phosphorylation of Membrane-Anchored Proteins. Biophysical Journal, 2011, 100, 1189-1197.	0.2	49
25	Molecular mechanisms of T cell sensitivity to antigen. Immunological Reviews, 2018, 285, 194-205.	2.8	47
26	Dynamic regulation of CD28 conformation and signaling by charged lipids and ions. Nature Structural and Molecular Biology, 2017, 24, 1081-1092.	3.6	46
27	Systems Model of T Cell Receptor Proximal Signaling Reveals Emergent Ultrasensitivity. PLoS Computational Biology, 2013, 9, e1003004.	1.5	44
28	Membrane Ultrastructure and T Cell Activation. Frontiers in Immunology, 2018, 9, 2152.	2.2	42
29	Effects of Intracellular Calcium and Actin Cytoskeleton on TCR Mobility Measured by Fluorescence Recovery. PLoS ONE, 2008, 3, e3913.	1.1	41
30	Saposins modulate human invariant Natural Killer T cells self-reactivity and facilitate lipid exchange with CD1d molecules during antigen presentation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4753-61.	3.3	37
31	Analysis of Serial Engagement and Peptide-MHC Transport in T Cell Receptor Microclusters. Biophysical Journal, 2008, 94, 3447-3460.	0.2	28
32	Homodimerization of the Lymph Vessel Endothelial Receptor LYVE-1 through a Redox-labile Disulfide Is Critical for Hyaluronan Binding in Lymphatic Endothelium. Journal of Biological Chemistry, 2016, 291, 25004-25018.	1.6	28
33	Biophysical assay for tethered signaling reactions reveals tether-controlled activity for the phosphatase SHP-1. Science Advances, 2017, 3, e1601692.	4.7	28
34	Quantitative Phosphoproteome Analysis Unveils LAT as a Modulator of CD3ζ and ZAP-70 Tyrosine Phosphorylation. PLoS ONE, 2013, 8, e77423.	1.1	27
35	Human CD8+ T Cells Exhibit a Shared Antigen Threshold for Different Effector Responses. Journal of Immunology, 2020, 205, 1503-1512.	0.4	24
36	Multisite Phosphorylation Modulates the T Cell Receptor ζ-Chain Potency but not the Switchlike Response. Biophysical Journal, 2016, 110, 1896-1906.	0.2	23

#	ARTICLE	IF	CITATIONS
37	Allosteric activation of T cell antigen receptor signaling by quaternary structure relaxation. Cell Reports, 2021, 36, 109375.	2.9	23
38	Perfect adaptation of CD8 ⁺ T cell responses to constant antigen input over a wide range of affinities is overcome by costimulation. Science Signaling, 2021, 14, eaay9363.	1.6	19
39	Analysis of membrane-localized binding kinetics with FRAP. European Biophysics Journal, 2008, 37, 627-638.	1.2	18
40	The contribution of major histocompatibility complex contacts to the affinity and kinetics of T cell receptor binding. Scientific Reports, 2016, 6, 35326.	1.6	18
41	T-cell trans-synaptic vesicles are distinct and carry greater effector content than constitutive extracellular vesicles. Nature Communications, 2022, 13, .	5.8	18
42	A tissue-like platform for studying engineered quiescent human T-cells' interactions with dendritic cells. ELife, 2019, 8, .	2.8	14
43	MHC binding affects the dynamics of different T-cell receptors in different ways. PLoS Computational Biology, 2019, 15, e1007338.	1.5	13
44	Molecular flexibility of DNA as a key determinant of RAD51 recruitment. EMBO Journal, 2020, 39, e103002.	3.5	13
45	Costimulation of IL-2 Production through CD28 Is Dependent on the Size of Its Ligand. Journal of Immunology, 2015, 195, 5432-5439.	0.4	12
46	Improving parameter estimation for cell surface FRAP data. Journal of Proteomics, 2008, 70, 1224-1231.	2.4	11
47	Elementary Steps in T Cell Receptor Triggering. Frontiers in Immunology, 2011, 2, 91.	2.2	10
48	The Influence of Molecular Reach and Diffusivity on the Efficacy of Membrane-Confined Reactions. Biophysical Journal, 2019, 117, 1189-1201.	0.2	10
49	Determination of the molecular reach of the protein tyrosine phosphatase SHP-1. Biophysical Journal, 2021, 120, 2054-2066.	0.2	10
50	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. PLoS Computational Biology, 2022, 18, e1009922.	1.5	9
51	Intrinsic Disorder in the T Cell Receptor Creates Cooperativity and Controls ZAP70 Binding. Biophysical Journal, 2021, 120, 379-392.	0.2	8
52	Quantitative contributions of TNF receptor superfamily members to CD8 ⁺ T cell responses. Molecular Systems Biology, 2021, 17, e10560.	3.2	7
53	Dephosphorylation accelerates the dissociation of ZAP70 from the T cell receptor. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	6
54	Biosensor Architectures for High-Fidelity Reporting of Cellular Signaling. Biophysical Journal, 2014, 107, 773-782.	0.2	5

#	ARTICLE	IF	CITATIONS
55	Fluctuations in T cell receptor and pMHC interactions regulate T cell activation. Journal of the Royal Society Interface, 2022, 19, 20210589.	1.5	4
56	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
57	CD8 helps TCR catch slippery self pMHC. Nature Immunology, 2018, 19, 1280-1281.	7.0	2
58	Mathematical Modelling of T Cell Activation. , 2021, , 223-240.		2
59	Measuring Compressional Resistance in Large Surface Molecules. Biophysical Journal, 2014, 106, 235a.	0.2	0