Simon J Davis

List of Publications by Year in Descending Order

85 papers	4,528 citations	31 h-index	67 g-index
88 ext. papers	5,494 ext. citations	12.4 avg, IF	5.27 L-index

#	Paper	IF	Citations
85	Single-cell measurements of two-dimensional binding affinity across cell contacts. *Biophysical Journal*, **2021**, 120, 5032-5040	2.9	1
84	HLA-E-restricted, Gag-specific CD8 T cells can suppress HIV-1 infection, offering vaccine opportunities. *Science Immunology*, **2021**, 6,	28	5
83	The discriminatory power of the T cell receptor. *ELife*, **2021**, 10,	8.9	9
82	PD-1 suppresses TCR-CD8 cooperativity during T-cell antigen recognition. *Nature Communications*, **2021**, 12, 2746	17.4	8
81	The chaperonin CCT8 controls proteostasis essential for T cell maturation, selection, and function. *Communications Biology*, **2021**, 4, 681	6.7	0
80	Soft Polydimethylsiloxane-Supported Lipid Bilayers for Studying T Cell Interactions. *Biophysical Journal*, **2021**, 120, 35-45	2.9	4
79	The deubiquitylase USP9X controls ribosomal stalling. *Journal of Cell Biology*, **2021**, 220,	7.3	6
78	The deubiquitinase TRABID stabilizes the K29/K48-specific E3 ubiquitin ligase HECTD1. *Journal of Biological Chemistry*, **2021**, 296, 100246	5.4	5
77	Age-dependent changes in protein incorporation into collagen-rich tissues of mice by in vivo pulsed SILAC labelling. *ELife*, **2021**, 10,	8.9	6
76	Trapping or slowing the diffusion of T cell receptors at close contacts initiates T cell signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	1
75	T-Cell Receptor Ligands: Every which Way They Can. *Biophysical Journal*, **2020**, 118, 2867-2869	2.9	
74	Effects of a local auxiliary protein on the two-dimensional affinity of a TCR-peptide MHC interaction. *Journal of Cell Science*, **2020**, 133,	5.3	5
73	The Costs of Close Contacts: Visualizing the Energy Landscape of Cell Contacts at the Nanoscale. *Biophysical Journal*, **2020**, 118, 1261-1269	2.9	1
72	USP30 sets a trigger threshold for PINK1-PARKIN amplification of mitochondrial ubiquitylation. *Life Science Alliance*, **2020**, 3,	5.8	31
71	vLUME: 3D virtual reality for single-molecule localization microscopy. *Nature Methods*, **2020**, 17, 1097-1096	22.6	7
70	Coreceptors and TCR Signaling - the Strong and the Weak of It. *Frontiers in Cell and Developmental Biology*, **2020**, 8, 597627	5.7	6
69	Detection of Cell Surface Ligands for Human Synovial T Cells. *Journal of Immunology*, **2019**, 203, 2369-2376	5.5	4

68	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	11.5	31
67	Measuring GPCR Stoichiometry Using Types-1, -2, and -3 Bioluminescence Resonance Energy Transfer-Based Assays. *Methods in Molecular Biology*, **2019**, 1947, 183-197	1.4	
66	Development of a Sensitive, Scalable Method for Spatial, Cell-Type-Resolved Proteomics of the Human Brain. *Journal of Proteome Research*, **2019**, 18, 1787-1795	5.6	19
65	Nitric Oxide Modulates Metabolic Remodeling in Inflammatory Macrophages through TCA Cycle Regulation and Itaconate Accumulation. *Cell Reports*, **2019**, 28, 218-230.e7	10.6	77
64	Extracellular vesicle integrins act as a nexus for platelet adhesion in cerebral microvessels. *Scientific Reports*, **2019**, 9, 15847	4.9	6
63	Colonic epithelial cell diversity in health and inflammatory bowel disease. *Nature*, **2019**, 567, 49-55	50.4	213
62	Constraints on GPCR Heterodimerization Revealed by the Type-4 Induced-Association BRET Assay. *Biophysical Journal*, **2019**, 116, 31-41	2.9	10
61	Capturing resting T cells: the perils of PLL. *Nature Immunology*, **2018**, 19, 203-205	19.1	38
60	Monomeric TCRs drive T cell antigen recognition. *Nature Immunology*, **2018**, 19, 487-496	19.1	74
59	A robust mass spectrometry method for rapid profiling of erythrocyte ghost membrane proteomes. *Clinical Proteomics*, **2018**, 15, 14	5	10
58	Single-Molecule Light-Sheet Imaging of Suspended T Cells. *Biophysical Journal*, **2018**, 114, 2200-2211	2.9	19
57	Single-Molecule Analysis of G Protein-Coupled Receptor Stoichiometry: Approaches and Limitations. *Trends in Pharmacological Sciences*, **2018**, 39, 96-108	13.2	10
56	LAG-3: a very singular immune checkpoint. *Nature Immunology*, **2018**, 19, 1278-1279	19.1	20
55	CD45 exclusion- and cross-linking-based receptor signaling together broaden FcεRI reactivity. *Science Signaling*, **2018**, 11,	8.8	16
54	Dimensions and Interactions of Large T-Cell Surface Proteins. *Frontiers in Immunology*, **2018**, 9, 2215	8.4	8
53	Tetrahydrobiopterin modulates ubiquitin conjugation to UBC13/UBE2N and proteasome activity by S-nitrosation. *Scientific Reports*, **2018**, 8, 14310	4.9	5
52	Membrane Ultrastructure and T Cell Activation. *Frontiers in Immunology*, **2018**, 9, 2152	8.4	27
51	Immune Checkpoints as Therapeutic Targets in Autoimmunity. *Frontiers in Immunology*, **2018**, 9, 2306	8.4	58

50	Hydrodynamic trapping measures the interaction between membrane-associated molecules. *Scientific Reports*, **2018**, 8, 12479	4.9	8
49	Reconstitution of immune cell interactions in free-standing membranes. *Journal of Cell Science*, **2018**, 132,	5.3	17
48	Glycosylation and Lipids Working in Concert Direct CD2 Ectodomain Orientation and Presentation. *Journal of Physical Chemistry Letters*, **2017**, 8, 1060-1066	6.4	10
47	and kinetic analyses of programmed cell death-1 (PD-1) receptor, programmed cell death ligands, and B7-1 protein interaction network. *Journal of Biological Chemistry*, **2017**, 292, 6799-6809	5.4	10
46	A Protein Expression Toolkit for Studying Signaling in T Cells. *Methods in Molecular Biology*, **2017**, 1584, 451-472	1.4	
45	Expanding Proteome Coverage with CHarge Ordered Parallel Ion aNalysis (CHOPIN) Combined with Broad Specificity Proteolysis. *Journal of Proteome Research*, **2017**, 16, 1288-1299	5.6	54
44	Three-Dimensional Super-Resolution in Eukaryotic Cells Using the Double-Helix Point Spread Function. *Biophysical Journal*, **2017**, 112, 1444-1454	2.9	26
43	Cytoskeletal actin dynamics shape a ramifying actin network underpinning immunological synapse formation. *Science Advances*, **2017**, 3, e1603032	14.3	98
42	Inflammatory Stroke Extracellular Vesicles Induce Macrophage Activation. *Stroke*, **2017**, 48, 2292-2296	6.7	36
41	Macrophages: micromanagers of antagonistic signaling nanoclusters. *Journal of Cell Biology*, **2017**, 216, 871-873	7.3	
40	Receptor Quaternary Organization Explains G Protein-Coupled Receptor Family Structure. *Cell Reports*, **2017**, 20, 2654-2665	10.6	26
39	Abrogation of collagen-induced arthritis by a peptidyl arginine deiminase inhibitor is associated with modulation of T cell-mediated immune responses. *Scientific Reports*, **2016**, 6, 26430	4.9	56
38	Initiation of T cell signaling by CD45 segregation at 'close contacts' *Nature Immunology*, **2016**, 17, 574-582	29.1	160
37	Phagocytes Get Close to Their Enemies. *Developmental Cell*, **2016**, 36, 131-2	10.2	1
36	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, 5682-7	11.5	37
35	Membrane nanoclusters-tails of the unexpected. *Cell*, **2015**, 161, 433-434	56.2	7
34	CalQuo: automated, simultaneous single-cell and population-level quantification of global intracellular Ca2+ responses. *Scientific Reports*, **2015**, 5, 16487	4.9	9
33	Referenced Single-Molecule Measurements Differentiate between GPCR Oligomerization States. *Biophysical Journal*, **2015**, 109, 1798-806	2.9	20

32	TCR signaling: the barrier within. *Nature Immunology*, **2014**, 15, 136-7	19.1	12
31	Type-3 BRET, an improved competition-based bioluminescence resonance energy transfer assay. *Biophysical Journal*, **2014**, 106, L41-3	2.9	15
30	TNF receptor 1 genetic risk mirrors outcome of anti-TNF therapy in multiple sclerosis. *Nature*, **2012**, 488, 508-511	50.4	269
29	T cell receptors are structures capable of initiating signaling in the absence of large conformational rearrangements. *Journal of Biological Chemistry*, **2012**, 287, 13324-35	5.4	26
28	Lck and the nature of the T cell receptor trigger. *Trends in Immunology*, **2011**, 32, 1-5	14.4	37
27	Rigid-body ligand recognition drives cytotoxic T-lymphocyte antigen 4 (CTLA-4) receptor triggering. *Journal of Biological Chemistry*, **2011**, 286, 6685-96	5.4	29
26	The T cell receptor triggering apparatus is composed of monovalent or monomeric proteins. *Journal of Biological Chemistry*, **2011**, 286, 31993-2001	5.4	41
25	A new pathway of CD5 glycoprotein-mediated T cell inhibition dependent on inhibitory phosphorylation of Fyn kinase. *Journal of Biological Chemistry*, **2011**, 286, 30324-30336	5.4	28
24	What controls T cell receptor phosphorylation?. *Cell*, **2010**, 142, 668-9	56.2	31
23	DySCo: quantitating associations of membrane proteins using two-color single-molecule tracking. *Biophysical Journal*, **2009**, 97, L5-7	2.9	58
22	BRET analysis of GPCR oligomerization: newer does not mean better. *Nature Methods*, **2007**, 4, 4-4	21.6	3
21	Reply to: Experimental challenge to a ŚigorousSBRET analysis of GPCR oligomerization. *Nature Methods*, **2007**, 4, 601-601	21.6	3
20	Glycoprotein VI oligomerization in cell lines and platelets. *Journal of Thrombosis and Haemostasis*, **2007**, 5, 1026-1033	15.4	46
19	The kinetic-segregation model: TCR triggering and beyond. *Nature Immunology*, **2006**, 7, 803-9	19.1	374
18	Crystal structure of a soluble CD28-Fab complex. *Nature Immunology*, **2005**, 6, 271-9	19.1	129
17	The nature of molecular recognition by T cells. *Nature Immunology*, **2003**, 4, 217-24	19.1	179
16	Topological requirements and signaling properties of T cell-activating, anti-CD28 antibody superagonists. *Journal of Experimental Medicine*, **2003**, 197, 955-66	16.6	153
15	CD2F-10: a new member of the CD2 subset of the immunoglobulin superfamily. *Immunogenetics*, **2001**, 53, 599-602	3.2	20

14	The immunological synapse and CD28-CD80 interactions. *Nature Immunology*, **2001**, 2, 1159-66	19.1	248
13	Crystal structure of the B7-1/CTLA-4 complex that inhibits human immune responses. *Nature*, **2001**, 410, 608-11	50.4	371
12	Effects of N-butyldeoxynojirimycin and the Lec3.2.8.1 mutant phenotype on N-glycan processing in Chinese hamster ovary cells: application to glycoprotein crystallization. *Protein Science*, **1999**, 8, 1696-701	6.3	33
11	Oligosaccharide analysis and molecular modeling of soluble forms of glycoproteins belonging to the Ly-6, scavenger receptor, and immunoglobulin superfamilies expressed in Chinese hamster ovary cells. *Glycobiology*, **1999**, 9, 443-58	5.8	36
10	CD2 and the nature of protein interactions mediating cell-cell recognition. *Immunological Reviews*, **1998**, 163, 217-36	11.3	133
9	The structure and ligand interactions of CD2: implications for T-cell function. *Trends in Immunology*, **1996**, 17, 177-87		348
8	Estimation of the dissociation constant of the cell adhesion molecules srCD2 and srCD48 using analytical ultracentrifugation. *Biochemical Society Transactions*, **1995**, 23, 435S	5.1	
7	Topology of the CD2-CD48 cell-adhesion molecule complex: implications for antigen recognition by T cells. *Current Biology*, **1995**, 5, 74-84	6.3	114
6	Expression cloning of an equine T-lymphocyte glycoprotein CD2 cDNA. Structure-based analysis of conserved sequence elements. *FEBS Journal*, **1994**, 219, 969-76		23
5	Analysis of the structure and interactions of CD2. *Biochemical Society Transactions*, **1993**, 21, 952-8	5.1	16
4	The NH2-terminal domain of rat CD2 binds rat CD48 with a low affinity and binding does not require glycosylation of CD2. *European Journal of Immunology*, **1993**, 23, 1373-7	6.1	68
3	Mimicking ligands. *Nature*, **1993**, 361, 212-212	50.4	
2	Antibody and HIV-1 gp120 recognition of CD4 undermines the concept of mimicry between antibodies and receptors. *Nature*, **1992**, 358, 76-9	50.4	69
1	Crystal structure at 2.8 A resolution of a soluble form of the cell adhesion molecule CD2. *Nature*, **1992**, 360, 232-9	50.4	300