# Simon J Davis

## List of Publications by Citations



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|---|---|---|---|
| 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 | The kinetic-segregation model: TCR triggering and beyond. *Nature Immunology*, **2006**, 7, 803-9 | 19.1 | 374 |
| 84 | Crystal structure of the B7-1/CTLA-4 complex that inhibits human immune responses. *Nature*, **2001**, 410, 608-11 | 50.4 | 371 |
| 83 | The structure and ligand interactions of CD2: implications for T-cell function. *Trends in Immunology*, **1996**, 17, 177-87 | | 348 |
| 82 | 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 |
| 81 | TNF receptor 1 genetic risk mirrors outcome of anti-TNF therapy in multiple sclerosis. *Nature*, **2012**, 488, 508-511 | 50.4 | 269 |
| 80 | The immunological synapse and CD28-CD80 interactions. *Nature Immunology*, **2001**, 2, 1159-66 | 19.1 | 248 |
| 79 | Colonic epithelial cell diversity in health and inflammatory bowel disease. *Nature*, **2019**, 567, 49-55 | 50.4 | 213 |
| 78 | The nature of molecular recognition by T cells. *Nature Immunology*, **2003**, 4, 217-24 | 19.1 | 179 |
| 77 | Initiation of T cell signaling by CD45 segregation at 'close contacts' *Nature Immunology*, **2016**, 17, 574-582 | 19.1 | 160 |
| 76 | Topological requirements and signaling properties of T cell-activating, anti-CD28 antibody superagonists. *Journal of Experimental Medicine*, **2003**, 197, 955-66 | 16.6 | 153 |
| 75 | CD2 and the nature of protein interactions mediating cell-cell recognition. *Immunological Reviews*, **1998**, 163, 217-36 | 11.3 | 133 |
| 74 | Crystal structure of a soluble CD28-Fab complex. *Nature Immunology*, **2005**, 6, 271-9 | 19.1 | 129 |
| 73 | 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 |
| 72 | Cytoskeletal actin dynamics shape a ramifying actin network underpinning immunological synapse formation. *Science Advances*, **2017**, 3, e1603032 | 14.3 | 98 |
| 71 | 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 |
| 70 | Monomeric TCRs drive T cell antigen recognition. *Nature Immunology*, **2018**, 19, 487-496 | 19.1 | 74 |
| 69 | 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 |

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|---|---|---|---|
| 68 | 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 |
| 67 | DySCo: quantitating associations of membrane proteins using two-color single-molecule tracking. *Biophysical Journal*, **2009**, 97, L5-7 | 2.9 | 58 |
| 66 | Immune Checkpoints as Therapeutic Targets in Autoimmunity. *Frontiers in Immunology*, **2018**, 9, 2306 | 8.4 | 58 |
| 65 | 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 |
| 64 | 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 |
| 63 | Glycoprotein VI oligomerization in cell lines and platelets. *Journal of Thrombosis and Haemostasis*, **2007**, 5, 1026-1033 | 15.4 | 46 |
| 62 | The T cell receptor triggering apparatus is composed of monovalent or monomeric proteins. *Journal of Biological Chemistry*, **2011**, 286, 31993-2001 | 5.4 | 41 |
| 61 | Capturing resting T cells: the perils of PLL. *Nature Immunology*, **2018**, 19, 203-205 | 19.1 | 38 |
| 60 | Lck and the nature of the T cell receptor trigger. *Trends in Immunology*, **2011**, 32, 1-5 | 14.4 | 37 |
| 59 | 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 |
| 58 | Inflammatory Stroke Extracellular Vesicles Induce Macrophage Activation. *Stroke*, **2017**, 48, 2292-2296 | 6.7 | 36 |
| 57 | 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 |
| 56 | 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 |
| 55 | 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 |
| 54 | What controls T cell receptor phosphorylation?. *Cell*, **2010**, 142, 668-9 | 56.2 | 31 |
| 53 | USP30 sets a trigger threshold for PINK1-PARKIN amplification of mitochondrial ubiquitylation. *Life Science Alliance*, **2020**, 3, | 5.8 | 31 |
| 52 | 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 |
| 51 | 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 |

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|---|---|---|---|
| 50 | Membrane Ultrastructure and T Cell Activation. *Frontiers in Immunology*, **2018**, 9, 2152 | 8.4 | 27 |
| 49 | Three-Dimensional Super-Resolution in Eukaryotic Cells Using the Double-Helix Point Spread Function. *Biophysical Journal*, **2017**, 112, 1444-1454 | 2.9 | 26 |
| 48 | Receptor Quaternary Organization Explains G Protein-Coupled Receptor Family Structure. *Cell Reports*, **2017**, 20, 2654-2665 | 10.6 | 26 |
| 47 | 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 |
| 46 | Expression cloning of an equine T-lymphocyte glycoprotein CD2 cDNA. Structure-based analysis of conserved sequence elements. *FEBS Journal*, **1994**, 219, 969-76 | | 23 |
| 45 | Referenced Single-Molecule Measurements Differentiate between GPCR Oligomerization States. *Biophysical Journal*, **2015**, 109, 1798-806 | 2.9 | 20 |
| 44 | CD2F-10: a new member of the CD2 subset of the immunoglobulin superfamily. *Immunogenetics*, **2001**, 53, 599-602 | 3.2 | 20 |
| 43 | LAG-3: a very singular immune checkpoint. *Nature Immunology*, **2018**, 19, 1278-1279 | 19.1 | 20 |
| 42 | 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 |
| 41 | Single-Molecule Light-Sheet Imaging of Suspended T Cells. *Biophysical Journal*, **2018**, 114, 2200-2211 | 2.9 | 19 |
| 40 | Reconstitution of immune cell interactions in free-standing membranes. *Journal of Cell Science*, **2018**, 132, | 5.3 | 17 |
| 39 | Analysis of the structure and interactions of CD2. *Biochemical Society Transactions*, **1993**, 21, 952-8 | 5.1 | 16 |
| 38 | CD45 exclusion- and cross-linking-based receptor signaling together broaden FcRI reactivity. *Science Signaling*, **2018**, 11, | 8.8 | 16 |
| 37 | Type-3 BRET, an improved competition-based bioluminescence resonance energy transfer assay. *Biophysical Journal*, **2014**, 106, L41-3 | 2.9 | 15 |
| 36 | TCR signaling: the barrier within. *Nature Immunology*, **2014**, 15, 136-7 | 19.1 | 12 |
| 35 | Glycosylation and Lipids Working in Concert Direct CD2 Ectodomain Orientation and Presentation. *Journal of Physical Chemistry Letters*, **2017**, 8, 1060-1066 | 6.4 | 10 |
| 34 | 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 |
| 33 | A robust mass spectrometry method for rapid profiling of erythrocyte ghost membrane proteomes. *Clinical Proteomics*, **2018**, 15, 14 | 5 | 10 |

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| 32 | Constraints on GPCR Heterodimerization Revealed by the Type-4 Induced-Association BRET Assay. *Biophysical Journal*, **2019**, 116, 31-41 | 2.9 | 10 |
| 31 | Single-Molecule Analysis of G Protein-Coupled Receptor Stoichiometry: Approaches and Limitations. *Trends in Pharmacological Sciences*, **2018**, 39, 96-108 | 13.2 | 10 |
| 30 | CalQuo: automated, simultaneous single-cell and population-level quantification of global intracellular Ca2+ responses. *Scientific Reports*, **2015**, 5, 16487 | 4.9 | 9 |
| 29 | The discriminatory power of the T cell receptor. *ELife*, **2021**, 10, | 8.9 | 9 |
| 28 | PD-1 suppresses TCR-CD8 cooperativity during T-cell antigen recognition. *Nature Communications*, **2021**, 12, 2746 | 17.4 | 8 |
| 27 | Dimensions and Interactions of Large T-Cell Surface Proteins. *Frontiers in Immunology*, **2018**, 9, 2215 | 8.4 | 8 |
| 26 | Hydrodynamic trapping measures the interaction between membrane-associated molecules. *Scientific Reports*, **2018**, 8, 12479 | 4.9 | 8 |
| 25 | Membrane nanoclusters-tails of the unexpected. *Cell*, **2015**, 161, 433-434 | 56.2 | 7 |
| 24 | vLUME: 3D virtual reality for single-molecule localization microscopy. *Nature Methods*, **2020**, 17, 1097-1099 | 22.6 | 7 |
| 23 | Extracellular vesicle integrins act as a nexus for platelet adhesion in cerebral microvessels. *Scientific Reports*, **2019**, 9, 15847 | 4.9 | 6 |
| 22 | Coreceptors and TCR Signaling - the Strong and the Weak of It. *Frontiers in Cell and Developmental Biology*, **2020**, 8, 597627 | 5.7 | 6 |
| 21 | The deubiquitylase USP9X controls ribosomal stalling. *Journal of Cell Biology*, **2021**, 220, | 7.3 | 6 |
| 20 | Age-dependent changes in protein incorporation into collagen-rich tissues of mice by in vivo pulsed SILAC labelling. *ELife*, **2021**, 10, | 8.9 | 6 |
| 19 | 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 |
| 18 | HLA-E-restricted, Gag-specific CD8 T cells can suppress HIV-1 infection, offering vaccine opportunities. *Science Immunology*, **2021**, 6, | 28 | 5 |
| 17 | The deubiquitinase TRABID stabilizes the K29/K48-specific E3 ubiquitin ligase HECTD1. *Journal of Biological Chemistry*, **2021**, 296, 100246 | 5.4 | 5 |
| 16 | Tetrahydrobiopterin modulates ubiquitin conjugation to UBC13/UBE2N and proteasome activity by S-nitrosation. *Scientific Reports*, **2018**, 8, 14310 | 4.9 | 5 |
| 15 | Detection of Cell Surface Ligands for Human Synovial γδ T Cells. *Journal of Immunology*, **2019**, 203, 2369-2376 | 5.3 | 4 |

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| 14 | Soft Polydimethylsiloxane-Supported Lipid Bilayers for Studying T Cell Interactions. *Biophysical Journal*, **2021**, 120, 35-45 | 2.9 | 4 |
| 13 | BRET analysis of GPCR oligomerization: newer does not mean better. *Nature Methods*, **2007**, 4, 4-4 | 21.6 | 3 |
| 12 | Reply to: Experimental challenge to a ŚigorousSBRET analysis of GPCR oligomerization. *Nature Methods*, **2007**, 4, 601-601 | 21.6 | 3 |
| 11 | The Costs of Close Contacts: Visualizing the Energy Landscape of Cell Contacts at the Nanoscale. *Biophysical Journal*, **2020**, 118, 1261-1269 | 2.9 | 1 |
| 10 | Single-cell measurements of two-dimensional binding affinity across cell contacts. *Biophysical Journal*, **2021**, 120, 5032-5040 | 2.9 | 1 |
| 9 | Phagocytes Get Close to Their Enemies. *Developmental Cell*, **2016**, 36, 131-2 | 10.2 | 1 |
| 8 | 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 |
| 7 | The chaperonin CCT8 controls proteostasis essential for T cell maturation, selection, and function. *Communications Biology*, **2021**, 4, 681 | 6.7 | 0 |
| 6 | A Protein Expression Toolkit for Studying Signaling in T Cells. *Methods in Molecular Biology*, **2017**, 1584, 451-472 | 1.4 | |
| 5 | Macrophages: micromanagers of antagonistic signaling nanoclusters. *Journal of Cell Biology*, **2017**, 216, 871-873 | 7.3 | |
| 4 | 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 | |
| 3 | T-Cell Receptor Ligands: Every which Way They Can. *Biophysical Journal*, **2020**, 118, 2867-2869 | 2.9 | |
| 2 | Estimation of the dissociation constant of the cell adhesion molecules srCD2 and srCD48 using analytical ultracentrifugation. *Biochemical Society Transactions*, **1995**, 23, 435S | 5.1 | |
| 1 | Mimicking ligands. *Nature*, **1993**, 361, 212-212 | 50.4 | |