Walther Mothes

List of Publications by Year in Descending Order

88 papers	9,643 citations	44 h-index	98 g-index
104 ext. papers	11,222 ext. citations	15.9 avg, IF	5.74 L-index

#	Paper	IF	Citations
88	A Fc-enhanced NTD-binding non-neutralizing antibody delays virus spread and synergizes with a nAb to protect mice from lethal SARS-CoV-2 infection.. *Cell Reports*, **2022**, 110368	10.6	10
87	SARS-CoV-2 Variants Increase Kinetic Stability of Open Spike Conformations as an Evolutionary Strategy.. *MBio*, **2022**, e0322721	7.8	3
86	Antigenic analysis of the HIV-1 envelope trimer implies small differences between structural states 1 and 2.. *Journal of Biological Chemistry*, **2022**, 101819	5.4	0
85	Structural basis and mode of action for two broadly neutralizing antibodies against SARS-CoV-2 emerging variants of concern.. *Cell Reports*, **2021**, 110210	10.6	26
84	Live Imaging of SARS-CoV-2 Infection in Mice Reveals Neutralizing Antibodies Require Fc Function for Optimal Efficacy **2021**,		10
83	A single BNT162b2 mRNA dose elicits antibodies with Fc-mediated effector functions and boost pre-existing humoral and T cell responses **2021**,		19
82	In vivo imaging of retrovirus infection reveals a role for Siglec-1/CD169 in multiple routes of transmission. *ELife*, **2021**, 10,	8.9	3
81	A single dose of the SARS-CoV-2 vaccine BNT162b2 elicits Fc-mediated antibody effector functions and T cell responses. *Cell Host and Microbe*, **2021**, 29, 1137-1150.e6	23.4	68
80	Structural Basis and Mode of Action for Two Broadly Neutralizing Antibodies Against SARS-CoV-2 Emerging Variants of Concern **2021**,		5
79	Live imaging of SARS-CoV-2 infection in mice reveals that neutralizing antibodies require Fc function for optimal efficacy. *Immunity*, **2021**, 54, 2143-2158.e15	32.3	37
78	Impact of temperature on the affinity of SARS-CoV-2 Spike glycoprotein for host ACE2. *Journal of Biological Chemistry*, **2021**, 297, 101151	5.4	12
77	Shedding-Resistant HIV-1 Envelope Glycoproteins Adopt Downstream Conformations That Remain Responsive to Conformation-Preferring Ligands. *Journal of Virology*, **2020**, 94,	6.6	13
76	Subnanometer structures of HIV-1 envelope trimers on aldrithiol-2-inactivated virus particles. *Nature Structural and Molecular Biology*, **2020**, 27, 726-734	17.6	26
75	Disruption of the HIV-1 Envelope allosteric network blocks CD4-induced rearrangements. *Nature Communications*, **2020**, 11, 520	17.4	24
74	Long-Acting BMS-378806 Analogues Stabilize the State-1 Conformation of the Human Immunodeficiency Virus Type 1 Envelope Glycoproteins. *Journal of Virology*, **2020**, 94,	6.6	15
73	Real-time conformational dynamics of SARS-CoV-2 spikes on virus particles **2020**,		9
72	SV40 Polyomavirus Activates the Ras-MAPK Signaling Pathway for Vacuolization, Cell Death, and Virus Release. *Viruses*, **2020**, 12,	6.2	4

71	Real-Time Conformational Dynamics of SARS-CoV-2 Spikes on Virus Particles. *Cell Host and Microbe*, **2020**, 28, 880-891.e8	23.4	70
70	Antibody-Induced Internalization of HIV-1 Env Proteins Limits Surface Expression of the Closed Conformation of Env. *Journal of Virology*, **2019**, 93,	6.6	23
69	An Asymmetric Opening of HIV-1 Envelope Mediates Antibody-Dependent Cellular Cytotoxicity. *Cell Host and Microbe*, **2019**, 25, 578-587.e5	23.4	59
68	Associating HIV-1 envelope glycoprotein structures with states on the virus observed by smFRET. *Nature*, **2019**, 568, 415-419	50.4	92
67	Illuminating the virus life cycle with single-molecule FRET imaging. *Advances in Virus Research*, **2019**, 105, 239-273	10.7	6
66	In Vivo Imaging-Driven Approaches to Study Virus Dissemination and Pathogenesis. *Annual Review of Virology*, **2019**, 6, 501-524	14.6	5
65	Murine Leukemia Virus Exploits Innate Sensing by Toll-Like Receptor 7 in B-1 Cells To Establish Infection and Locally Spread in Mice. *Journal of Virology*, **2019**, 93,	6.6	4
64	Longitudinal bioluminescent imaging of HIV-1 infection during antiretroviral therapy and treatment interruption in humanized mice. *PLoS Pathogens*, **2019**, 15, e1008161	7.6	14
63	A Protective Role for the Lectin CD169/Siglec-1 against a Pathogenic Murine Retrovirus. *Cell Host and Microbe*, **2019**, 25, 87-100.e10	23.4	18
62	NF-B-Chromatin Interactions Drive Diverse Phenotypes by Modulating Transcriptional Noise. *Cell Reports*, **2018**, 22, 585-599	10.6	26
61	HIV-1-Infected CD4+ T Cells Facilitate Latent Infection of Resting CD4+ T Cells through Cell-Cell Contact. *Cell Reports*, **2018**, 24, 2088-2100	10.6	34
60	HIV-1 Env trimer opens through an asymmetric intermediate in which individual protomers adopt distinct conformations. *ELife*, **2018**, 7,	8.9	76
59	The 20-21 of gp120 is a regulatory switch for HIV-1 Env conformational transitions. *Nature Communications*, **2017**, 8, 1049	17.4	54
58	Mutation of the Putative Immunosuppressive Domain of the Retroviral Envelope Glycoprotein Compromises Infectivity. *Journal of Virology*, **2017**, 91,	6.6	4
57	Native structure of a retroviral envelope protein and its conformational change upon interaction with the target cell. *Journal of Structural Biology*, **2017**, 197, 172-180	3.4	23
56	TRIM5 Retroviral Restriction Activity Correlates with the Ability To Induce Innate Immune Signaling. *Journal of Virology*, **2016**, 90, 308-16	6.6	38
55	Release of gp120 Restraints Leads to an Entry-Competent Intermediate State of the HIV-1 Envelope Glycoproteins. *MBio*, **2016**, 7,	7.8	91
54	Viruses exploit the tissue physiology of the host to spread in vivo. *Current Opinion in Cell Biology*, **2016**, 41, 81-90	9	13

53	Fusion peptide of HIV-1 as a site of vulnerability to neutralizing antibody. *Science*, **2016**, 352, 828-33	33.3	218
52	Crystal structure, conformational fixation and entry-related interactions of mature ligand-free HIV-1 Env. *Nature Structural and Molecular Biology*, **2015**, 22, 522-31	17.6	254
51	HIV cell-to-cell transmission: effects on pathogenesis and antiretroviral therapy. *Trends in Microbiology*, **2015**, 23, 289-95	12.4	70
50	Retroviruses use CD169-mediated trans-infection of permissive lymphocytes to establish infection. *Science*, **2015**, 350, 563-567	33.3	118
49	Structure and Dynamics of the Native HIV-1 Env Trimer. *Journal of Virology*, **2015**, 89, 5752-5	6.6	63
48	Attachment of cell-binding ligands to arginine-rich cell-penetrating peptides enables cytosolic translocation of complexed siRNA. *Chemistry and Biology*, **2015**, 22, 50-62		33
47	A conformational transition observed in single HIV-1 Gag molecules during in vitro assembly of virus-like particles. *Journal of Virology*, **2014**, 88, 3577-85	6.6	36
46	TRIM15 is a focal adhesion protein that regulates focal adhesion disassembly. *Journal of Cell Science*, **2014**, 127, 3928-42	5.3	19
45	The HIV-1 Env trimer in HD. *Structure*, **2014**, 22, 935-6	5.2	3
44	Conformational dynamics of single HIV-1 envelope trimers on the surface of native virions. *Science*, **2014**, 346, 759-63	33.3	345
43	Structure and immune recognition of trimeric pre-fusion HIV-1 Env. *Nature*, **2014**, 514, 455-61	50.4	576
42	Highly active antiretroviral therapies are effective against HIV-1 cell-to-cell transmission. *PLoS Pathogens*, **2014**, 10, e1003982	7.6	73
41	Murine leukemia virus Gag localizes to the uropod of migrating primary lymphocytes. *Journal of Virology*, **2014**, 88, 10541-55	6.6	9
40	TRIM15 is a focal adhesion protein that regulates focal adhesion disassembly. *Development (Cambridge)*, **2014**, 141, e1906-e1906	6.6	
39	Cell-to-cell transmission of viruses. *Current Opinion in Virology*, **2013**, 3, 44-50	7.5	144
38	Video-rate nanoscopy using sCMOS camera-specific single-molecule localization algorithms. *Nature Methods*, **2013**, 10, 653-8	21.6	376
37	Basic residues in the matrix domain and multimerization target murine leukemia virus Gag to the virological synapse. *Journal of Virology*, **2013**, 87, 7113-26	6.6	10
36	TRIM protein-mediated regulation of inflammatory and innate immune signaling and its association with antiretroviral activity. *Journal of Virology*, **2013**, 87, 257-72	6.6	148

35	Cell-to-cell transmission can overcome multiple donor and target cell barriers imposed on cell-free HIV. *PLoS ONE*, **2013**, 8, e53138	3.7	98
34	Functional characterization of the putative hepatitis B virus core protein late domain using retrovirus chimeras. *PLoS ONE*, **2013**, 8, e72845	3.7	8
33	Cell-to-Cell Transmission of HIV **2013**, 167-184		1
32	In vivo imaging of virological synapses. *Nature Communications*, **2012**, 3, 1320	17.4	56
31	TRIM5 is an innate immune sensor for the retrovirus capsid lattice. *Nature*, **2011**, 472, 361-5	50.4	474
30	Viral determinants of polarized assembly for the murine leukemia virus. *Journal of Virology*, **2011**, 85, 7672-82	6.6	19
29	TRIM22 inhibits HIV-1 transcription independently of its E3 ubiquitin ligase activity, Tat, and NF-kappaB-responsive long terminal repeat elements. *Journal of Virology*, **2011**, 85, 5183-96	6.6	76
28	Directional spread of surface-associated retroviruses regulated by differential virus-cell interactions. *Journal of Virology*, **2010**, 84, 3248-58	6.6	34
27	Virus cell-to-cell transmission. *Journal of Virology*, **2010**, 84, 8360-8	6.6	236
26	Surface Transmission or Polarized Egress? Lessons Learned from HTLV Cell-to-Cell Transmission. *Viruses*, **2010**, 2, 601-5	6.2	10
25	Human TRIM gene expression in response to interferons. *PLoS ONE*, **2009**, 4, e4894	3.7	184
24	HIV-1 matrix dependent membrane targeting is regulated by Gag mRNA trafficking. *PLoS ONE*, **2009**, 4, e6551	3.7	32
23	The cationic properties of SEVI underlie its ability to enhance human immunodeficiency virus infection. *Journal of Virology*, **2009**, 83, 73-80	6.6	140
22	Assembly of the murine leukemia virus is directed towards sites of cell-cell contact. *PLoS Biology*, **2009**, 7, e1000163	9.7	76
21	HIV Entry Revisited. *Cell*, **2009**, 137, 402-4	56.2	13
20	Cytonemes and tunneling nanotubules in cell-cell communication and viral pathogenesis. *Trends in Cell Biology*, **2008**, 18, 414-20	18.3	173
19	Retroviruses human immunodeficiency virus and murine leukemia virus are enriched in phosphoinositides. *Journal of Virology*, **2008**, 82, 11228-38	6.6	219
18	TRIM E3 ligases interfere with early and late stages of the retroviral life cycle. *PLoS Pathogens*, **2008**, 4, e16	7.6	175

17	Murine leukemia virus spreading in mice impaired in the biogenesis of secretory lysosomes and Ca2+-regulated exocytosis. *PLoS ONE*, **2008**, 3, e2713	3.7	6
16	Retroviruses can establish filopodial bridges for efficient cell-to-cell transmission. *Nature Cell Biology*, **2007**, 9, 310-5	23.4	342
15	Semen-derived amyloid fibrils drastically enhance HIV infection. *Cell*, **2007**, 131, 1059-71	56.2	424
14	Ca2+ and synaptotagmin VII-dependent delivery of lysosomal membrane to nascent phagosomes. *Journal of Cell Biology*, **2006**, 174, 997-1007	7.3	118
13	Actin- and myosin-driven movement of viruses along filopodia precedes their entry into cells. *Journal of Cell Biology*, **2005**, 170, 317-25	7.3	313
12	Imaging individual retroviral fusion events: from hemifusion to pore formation and growth. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 8728-33	11.5	86
11	The mature avian leukosis virus subgroup A envelope glycoprotein is metastable, and refolding induced by the synergistic effects of receptor binding and low pH is coupled to infection. *Journal of Virology*, **2004**, 78, 1403-10	6.6	51
10	Visualization of retroviral replication in living cells reveals budding into multivesicular bodies. *Traffic*, **2003**, 4, 785-801	5.7	316
9	Neuronal loss and brain atrophy in mice lacking cathepsins B and L. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 7883-8	11.5	265
8	The Sec61p complex mediates the integration of a membrane protein by allowing lipid partitioning of the transmembrane domain. *Cell*, **2000**, 102, 233-44	56.2	217
7	Retroviral entry mediated by receptor priming and low pH triggering of an envelope glycoprotein. *Cell*, **2000**, 103, 679-89	56.2	246
6	Protein translocation: tunnel vision. *Cell*, **1998**, 92, 381-90	56.2	281
5	Signal sequence recognition in posttranslational protein transport across the yeast ER membrane. *Cell*, **1998**, 94, 795-807	56.2	285
4	Signal sequence recognition in cotranslational translocation by protein components of the endoplasmic reticulum membrane. *Journal of Cell Biology*, **1998**, 142, 355-64	7.3	59
3	Molecular mechanism of membrane protein integration into the endoplasmic reticulum. *Cell*, **1997**, 89, 523-33	56.2	179
2	Sec61-mediated transfer of a membrane protein from the endoplasmic reticulum to the proteasome for destruction. *Nature*, **1996**, 384, 432-8	50.4	970
1	An anti-SARS-CoV-2 non-neutralizing antibody with Fc-effector function defines a new NTD epitope and delays neuroinvasion and death in K18-hACE2 mice		4