Volker Thiel

List of Publications by Year in Descending Order

116 papers	11,711 citations	49 h-index	108 g-index
130 ext. papers	15,046 ext. citations	11.6 avg, IF	6.7 L-index

#	Paper	IF	Citations
116	N7-Methylation of the Coronavirus RNA Cap Is Required for Maximal Virulence by Preventing Innate Immune Recognition.. *MBio*, **2022**, e0366221	7.8	8
115	Non-covalent SARS-CoV-2 M inhibitors developed from in silico screen hits.. *Scientific Reports*, **2022**, 12, 2505	4.9	4
114	Efficient recovery of attenuated canine distemper virus from cDNA.. *Virus Research*, **2022**, 316, 198796	6.4	0
113	Effective Interferon Lambda Treatment Regimen To Control Lethal MERS-CoV Infection in Mice.. *Journal of Virology*, **2022**, e0036422	6.6	0
112	Enhanced fitness of SARS-CoV-2 variant of concern Alpha but not Beta.. *Nature*, **2021**,	50.4	12
111	Live attenuated virus vaccine protects against SARS-CoV-2 variants of concern B.1.1.7 (Alpha) and B.1.351 (Beta). *Science Advances*, **2021**, 7, eabk0172	14.3	6
110	A genome-wide CRISPR screen identifies interactors of the autophagy pathway as conserved coronavirus targets.. *PLoS Biology*, **2021**, 19, e3001490	9.7	3
109	SARS-CoV-2 can infect and propagate in human placenta explants. *Cell Reports Medicine*, **2021**, 100456	18	4
108	Structure-function analysis of the nsp14 N7-guanine methyltransferase reveals an essential role in replication. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
107	Replication and single-cycle delivery of SARS-CoV-2 replicons. *Science*, **2021**, 374, 1099-1106	33.3	7
106	SARS-CoV-2 mutations in MHC-I-restricted epitopes evade CD8 T cell responses. *Science Immunology*, **2021**, 6,	28	58
105	Disparate temperature-dependent virus-host dynamics for SARS-CoV-2 and SARS-CoV in the human respiratory epithelium. *PLoS Biology*, **2021**, 19, e3001158	9.7	36
104	No Evidence for Human Monocyte-Derived Macrophage Infection and Antibody-Mediated Enhancement of SARS-CoV-2 Infection. *Frontiers in Cellular and Infection Microbiology*, **2021**, 11, 644574	5.9	12
103	Multilevel proteomics reveals host perturbations by SARS-CoV-2 and SARS-CoV. *Nature*, **2021**, 594, 246-252	50.4	150
102	Betulonic Acid Derivatives Interfering with Human Coronavirus 229E Replication via the nsp15 Endoribonuclease. *Journal of Medicinal Chemistry*, **2021**, 64, 5632-5644	8.3	9
101	The SARS-unique domain (SUD) of SARS-CoV and SARS-CoV-2 interacts with human Paip1 to enhance viral RNA translation. *EMBO Journal*, **2021**, 40, e102277	13	12
100	Structural basis of ribosomal frameshifting during translation of the SARS-CoV-2 RNA genome. *Science*, **2021**, 372, 1306-1313	33.3	49

99	Establishment of caprine airway epithelial cells grown in an air-liquid interface system to study caprine respiratory viruses and bacteria. *Veterinary Microbiology*, **2021**, 257, 109067	3.3	0
98	SARS-CoV-2 Variants of Interest and Concern naming scheme conducive for global discourse. *Nature Microbiology*, **2021**, 6, 821-823	26.6	91
97	Susceptibility of Well-Differentiated Airway Epithelial Cell Cultures from Domestic and Wild Animals to Severe Acute Respiratory Syndrome Coronavirus 2. *Emerging Infectious Diseases*, **2021**, 27, 1811-1820	10.2	5
96	Coronavirus biology and replication: implications for SARS-CoV-2. *Nature Reviews Microbiology*, **2021**, 19, 155-170	22.2	830
95	SARS-CoV-2 spike D614G change enhances replication and transmission. *Nature*, **2021**, 592, 122-127	50.4	214
94	Development of safe and highly protective live-attenuated SARS-CoV-2 vaccine candidates by genome recoding. *Cell Reports*, **2021**, 36, 109493	10.6	13
93	Functional comparison of MERS-coronavirus lineages reveals increased replicative fitness of the recombinant lineage 5. *Nature Communications*, **2021**, 12, 5324	17.4	0
92	A highly potent antibody effective against SARS-CoV-2 variants of concern. *Cell Reports*, **2021**, 37, 109814	10.6	9
91	Convergent use of phosphatidic acid for hepatitis C virus and SARS-CoV-2 replication organelle formation.. *Nature Communications*, **2021**, 12, 7276	17.4	1
90	The International Virus Bioinformatics Meeting 2020. *Viruses*, **2020**, 12,	6.2	1
89	Temperature-dependent surface stability of SARS-CoV-2. *Journal of Infection*, **2020**, 81, 452-482	18.9	55
88	Rapid reconstruction of SARS-CoV-2 using a synthetic genomics platform. *Nature*, **2020**, 582, 561-565	50.4	205
87	Inactivation of Severe Acute Respiratory Syndrome Coronavirus 2 by WHO-Recommended Hand Rub Formulations and Alcohols. *Emerging Infectious Diseases*, **2020**, 26, 1592-1595	10.2	194
86	Labyrinthopeptins as virolytic inhibitors of respiratory syncytial virus cell entry. *Antiviral Research*, **2020**, 177, 104774	10.8	19
85	Viral RNA in an mA disguise. *Nature Microbiology*, **2020**, 5, 531-532	26.6	3
84	Nucleocapsid Protein Recruitment to Replication-Transcription Complexes Plays a Crucial Role in Coronaviral Life Cycle. *Journal of Virology*, **2020**, 94,	6.6	174
83	Physiologic RNA targets and refined sequence specificity of coronavirus EndoU. *Rna*, **2020**, 26, 1976-1998	5.8	11
82	LY6E impairs coronavirus fusion and confers immune control of viral disease **2020**,		12

81	SARS-CoV-2 spike D614G variant confers enhanced replication and transmissibility **2020**,		38
80	Identification of an Antiviral Compound from the Pandemic Response Box that Efficiently Inhibits SARS-CoV-2 Infection In Vitro. *Microorganisms*, **2020**, 8,	4.9	14
79	SARS-CoV-2 Inhibition by Sulfonated Compounds. *Microorganisms*, **2020**, 8,	4.9	9
78	LY6E impairs coronavirus fusion and confers immune control of viral disease. *Nature Microbiology*, **2020**, 5, 1330-1339	26.6	98
77	SARS-CoV-2 Nsp1 binds the ribosomal mRNA channel to inhibit translation. *Nature Structural and Molecular Biology*, **2020**, 27, 959-966	17.6	207
76	In-Yeast Assembly of Coronavirus Infectious cDNA Clones Using a Synthetic Genomics Pipeline. *Methods in Molecular Biology*, **2020**, 2203, 167-184	1.4	4
75	Proximity Labeling for the Identification of Coronavirus-Host Protein Interactions. *Methods in Molecular Biology*, **2020**, 2203, 187-204	1.4	2
74	Establishment of Primary Transgenic Human Airway Epithelial Cell Cultures to Study Respiratory Virus-Host Interactions. *Viruses*, **2019**, 11,	6.2	7
73	Successful establishment of a reverse genetic system for QX-type infectious bronchitis virus and technical improvement of the rescue procedure. *Virus Research*, **2019**, 272, 197726	6.4	3
72	Determination of host proteins composing the microenvironment of coronavirus replicase complexes by proximity-labeling. *ELife*, **2019**, 8,	8.9	105
71	The Role of Stress Granules and the Nonsense-mediated mRNA Decay Pathway in Antiviral Defence. *Chimia*, **2019**, 73, 374-379	1.3	7
70	Antiviral activity of K22 against members of the order Nidovirales. *Virus Research*, **2018**, 246, 28-34	6.4	14
69	A new era of virus bioinformatics. *Virus Research*, **2018**, 251, 86-90	6.4	21
68	Virologists-Heroes need weapons. *PLoS Pathogens*, **2018**, 14, e1006771	7.6	7
67	Synthetic viruses-Anything new?. *PLoS Pathogens*, **2018**, 14, e1007019	7.6	5
66	Host switching pathogens, infectious outbreaks and zoonosis: A Marie Skłodowska-Curie innovative training network (HONOURs). *Virus Research*, **2018**, 257, 120-124	6.4	1
65	Research Models and Tools for the Identification of Antivirals and Therapeutics against Zika Virus Infection. *Viruses*, **2018**, 10,	6.2	14
64	Attenuation of replication by a 29 nucleotide deletion in SARS-coronavirus acquired during the early stages of human-to-human transmission. *Scientific Reports*, **2018**, 8, 15177	4.9	130

63	The Small-Compound Inhibitor K22 Displays Broad Antiviral Activity against Different Members of the Family Flaviviridae and Offers Potential as a Panviral Inhibitor. *Antimicrobial Agents and Chemotherapy*, **2018**, 62,	5.9	8
62	Virucidal Activity of World Health Organization-Recommended Formulations Against Enveloped Viruses, Including Zika, Ebola, and Emerging Coronaviruses. *Journal of Infectious Diseases*, **2017**, 215, 902-906	7	110
61	Pentagalloylglucose, a highly bioavailable polyphenolic compound present in Cortex moutan, efficiently blocks hepatitis C virus entry. *Antiviral Research*, **2017**, 147, 19-28	10.8	18
60	Inactivation of Zika virus in human breast milk by prolonged storage or pasteurization. *Virus Research*, **2017**, 228, 58-60	6.4	24
59	Early endonuclease-mediated evasion of RNA sensing ensures efficient coronavirus replication. *PLoS Pathogens*, **2017**, 13, e1006195	7.6	131
58	Link of a ubiquitous human coronavirus to dromedary camels. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 9864-9	11.5	84
57	The differentiated airway epithelium infected by influenza viruses maintains the barrier function despite a dramatic loss of ciliated cells. *Scientific Reports*, **2016**, 6, 39668	4.9	57
56	SARS-CoV and IFN: Too Little, Too Late. *Cell Host and Microbe*, **2016**, 19, 139-41	23.4	72
55	Murine coronavirus ubiquitin-like domain is important for papain-like protease stability and viral pathogenesis. *Journal of Virology*, **2015**, 89, 4907-17	6.6	38
54	Evidence for an Ancestral Association of Human Coronavirus 229E with Bats. *Journal of Virology*, **2015**, 89, 11858-70	6.6	147
53	First international external quality assessment of molecular diagnostics for Mers-CoV. *Journal of Clinical Virology*, **2015**, 69, 81-5	14.5	24
52	New insights on the role of paired membrane structures in coronavirus replication. *Virus Research*, **2015**, 202, 33-40	6.4	15
51	To sense or not to sense viral RNA--essentials of coronavirus innate immune evasion. *Current Opinion in Microbiology*, **2014**, 20, 69-75	7.9	69
50	Targeting membrane-bound viral RNA synthesis reveals potent inhibition of diverse coronaviruses including the middle East respiratory syndrome virus. *PLoS Pathogens*, **2014**, 10, e1004166	7.6	113
49	Competitive fitness in coronaviruses is not correlated with size or number of double-membrane vesicles under reduced-temperature growth conditions. *MBio*, **2014**, 5, e01107-13	7.8	23
48	Dipeptidyl peptidase 4 is a functional receptor for the emerging human coronavirus-EMC. *Nature*, **2013**, 495, 251-4	50.4	1362
47	Efficient replication of the novel human betacoronavirus EMC on primary human epithelium highlights its zoonotic potential. *MBio*, **2013**, 4, e00611-12	7.8	151
46	Sequestration by IFIT1 impairs translation of 2'O-unmethylated capped RNA. *PLoS Pathogens*, **2013**, 9, e1003663	7.6	139

45	Isolation and characterization of current human coronavirus strains in primary human epithelial cell cultures reveal differences in target cell tropism. *Journal of Virology*, **2013**, 87, 6081-90	6.6	107
44	TMPRSS2 activates the human coronavirus 229E for cathepsin-independent host cell entry and is expressed in viral target cells in the respiratory epithelium. *Journal of Virology*, **2013**, 87, 6150-60	6.6	215
43	Replication of human coronaviruses SARS-CoV, HCoV-NL63 and HCoV-229E is inhibited by the drug FK506. *Virus Research*, **2012**, 165, 112-7	6.4	155
42	Reverse genetics of SARS-related coronavirus using vaccinia virus-based recombination. *PLoS ONE*, **2012**, 7, e32857	3.7	49
41	Ribose 2′-O-methylation provides a molecular signature for the distinction of self and non-self mRNA dependent on the RNA sensor Mda5. *Nature Immunology*, **2011**, 12, 137-43	19.1	511
40	The ADP-ribose-1′-monophosphatase domains of severe acute respiratory syndrome coronavirus and human coronavirus 229E mediate resistance to antiviral interferon responses. *Journal of General Virology*, **2011**, 92, 1899-1905	4.9	67
39	Cyclosporin A inhibits the replication of diverse coronaviruses. *Journal of General Virology*, **2011**, 92, 2542-2548	4.9	170
38	The SARS-coronavirus-host interactome: identification of cyclophilins as target for pan-coronavirus inhibitors. *PLoS Pathogens*, **2011**, 7, e1002331	7.6	292
37	2′-O methylation of the viral mRNA cap evades host restriction by IFIT family members. *Nature*, **2010**, 468, 452-6	50.4	579
36	Dendritic cell-specific antigen delivery by coronavirus vaccine vectors induces long-lasting protective antiviral and antitumor immunity. *MBio*, **2010**, 1,	7.8	32
35	Type I IFN-mediated protection of macrophages and dendritic cells secures control of murine coronavirus infection. *Journal of Immunology*, **2009**, 182, 1099-106	5.3	97
34	Organ-specific attenuation of murine hepatitis virus strain A59 by replacement of catalytic residues in the putative viral cyclic phosphodiesterase ns2. *Journal of Virology*, **2009**, 83, 3743-53	6.6	35
33	Genome organization and reverse genetic analysis of a type I feline coronavirus. *Journal of Virology*, **2008**, 82, 1851-9	6.6	47
32	Genetic interactions between an essential 3′ cis-acting RNA pseudoknot, replicase gene products, and the extreme 3′ end of the mouse coronavirus genome. *Journal of Virology*, **2008**, 82, 1214-28	6.6	71
31	Mouse hepatitis virus liver pathology is dependent on ADP-ribose-1′-phosphatase, a viral function conserved in the alpha-like supergroup. *Journal of Virology*, **2008**, 82, 12325-34	6.6	113
30	Generation of recombinant coronaviruses using vaccinia virus as the cloning vector and stable cell lines containing coronaviral replicon RNAs. *Methods in Molecular Biology*, **2008**, 454, 237-54	1.4	24
29	Coronavirus non-structural protein 1 is a major pathogenicity factor: implications for the rational design of coronavirus vaccines. *PLoS Pathogens*, **2007**, 3, e109	7.6	167
28	Control of coronavirus infection through plasmacytoid dendritic-cell-derived type I interferon. *Blood*, **2007**, 109, 1131-7	2.2	296

27	Functional and genetic analysis of coronavirus replicase-transcriptase proteins. *PLoS Pathogens*, **2005**, 1, e39	7.6	109
26	Selective replication of coronavirus genomes that express nucleocapsid protein. *Journal of Virology*, **2005**, 79, 6620-30	6.6	117
25	Recombinant mouse hepatitis virus strain A59 from cloned, full-length cDNA replicates to high titers in vitro and is fully pathogenic in vivo. *Journal of Virology*, **2005**, 79, 3097-106	6.6	86
24	Multiple enzymatic activities associated with severe acute respiratory syndrome coronavirus helicase. *Journal of Virology*, **2004**, 78, 5619-32	6.6	293
23	Major genetic marker of nidoviruses encodes a replicative endoribonuclease. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 12694-9	11.5	210
22	Rapid identification of coronavirus replicase inhibitors using a selectable replicon RNA. *Journal of General Virology*, **2004**, 85, 1717-1725	4.9	64
21	Unique and conserved features of genome and proteome of SARS-coronavirus, an early split-off from the coronavirus group 2 lineage. *Journal of Molecular Biology*, **2003**, 331, 991-1004	6.5	947
20	Mechanisms and enzymes involved in SARS coronavirus genome expression. *Journal of General Virology*, **2003**, 84, 2305-2315	4.9	641
19	Multigene RNA vector based on coronavirus transcription. *Journal of Virology*, **2003**, 77, 9790-8	6.6	40
18	Long distance reverse-transcription PCR. *Methods in Molecular Biology*, **2002**, 192, 59-66	1.4	2
17	Viral replicase gene products suffice for coronavirus discontinuous transcription. *Journal of Virology*, **2001**, 75, 6676-81	6.6	122
16	Reverse genetics system for the avian coronavirus infectious bronchitis virus. *Journal of Virology*, **2001**, 75, 12359-69	6.6	207
15	Infectious RNA transcribed in vitro from a cDNA copy of the human coronavirus genome cloned in vaccinia virus. *Journal of General Virology*, **2001**, 82, 1273-1281	4.9	200
14	Rapid reconstruction of SARS-CoV-2 using a synthetic genomics platform		7
13	Comprehensive single cell analysis of pandemic influenza A virus infection in the human airways uncovers cell-type specific host transcriptional signatures relevant for disease progression and pathogenesis		4
12	Disparate temperature-dependent virus host dynamics for SARS-CoV-2 and SARS-CoV in the human respiratory epithelium		23
11	Identification of five antiviral compounds from the Pandemic Response Box targeting SARS-CoV-2		7
10	Physiologic RNA Targets and Refined Sequence Specificity of Coronavirus EndoU		2

9	Multilevel proteomics reveals host perturbations by SARS-CoV-2 and SARS-CoV		79
8	Structural basis of ribosomal frameshifting during translation of the SARS-CoV-2 RNA genome		8
7	Susceptibility of well-differentiated airway epithelial cell cultures from domestic and wildlife animals to SARS-CoV-2		4
6	Betulonic acid derivatives inhibiting coronavirus replication in cell culture via the nsp15 endoribonuclease		3
5	Enhanced fitness of SARS-CoV-2 variant of concern B.1.1.7, but not B.1.351, in animal models		6
4	A genome-wide CRISPR screen identifies interactors of the autophagy pathway as conserved coronavirus targets		4
3	Recombinant Lloviu virus as a model to study inaccessible zoonotic viruses		1
2	The spike gene is a major determinant for the SARS-CoV-2 Omicron-BA.1 phenotype		1
1	An early warning system for emerging SARS-CoV-2 variants. *Nature Medicine*,	50.5	2