

# Karl Klaus Conzelmann

## List of Publications by Citations

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123  
papers

11,941  
citations

57  
h-index

109  
g-index

136  
ext. papers

13,781  
ext. citations

10.8  
avg, IF

6.15  
L-index

#	Paper	IF	Citations
123	5'Triphosphate RNA is the ligand for RIG-I. <i>Science</i> , <b>2006</b> , 314, 994-7	33.3	1826
122	Monosynaptic restriction of transsynaptic tracing from single, genetically targeted neurons. <i>Neuron</i> , <b>2007</b> , 53, 639-47	13.9	811
121	Generation of bovine respiratory syncytial virus (BRSV) from cDNA: BRSV NS2 is not essential for virus replication in tissue culture, and the human RSV leader region acts as a functional BRSV genome promoter. <i>Journal of Virology</i> , <b>1999</b> , 73, 251-9	6.6	775
120	Retrograde neuronal tracing with a deletion-mutant rabies virus. <i>Nature Methods</i> , <b>2007</b> , 4, 47-9	21.6	465
119	The C-terminal regulatory domain is the RNA 5'Triphosphate sensor of RIG-I. <i>Molecular Cell</i> , <b>2008</b> , 29, 169-79	17.6	408
118	Molecular characterization of porcine reproductive and respiratory syndrome virus, a member of the arterivirus group. <i>Virology</i> , <b>1993</b> , 193, 329-39	3.6	326
117	Molecular cloning and complete nucleotide sequence of the attenuated rabies virus SAD B19. <i>Virology</i> , <b>1990</b> , 175, 485-99	3.6	281
116	Identification of the rabies virus alpha/beta interferon antagonist: phosphoprotein P interferes with phosphorylation of interferon regulatory factor 3. <i>Journal of Virology</i> , <b>2005</b> , 79, 7673-81	6.6	247
115	Budding of rabies virus particles in the absence of the spike glycoprotein. <i>Cell</i> , <b>1996</b> , 84, 941-51	56.2	228
114	Targeted ablation, silencing, and activation establish glycinergic dorsal horn neurons as key components of a spinal gate for pain and itch. <i>Neuron</i> , <b>2015</b> , 85, 1289-304	13.9	211
113	Matrix protein of rabies virus is responsible for the assembly and budding of bullet-shaped particles and interacts with the transmembrane spike glycoprotein G. <i>Journal of Virology</i> , <b>1999</b> , 73, 242-50	6.6	205
112	Inhibition of toll-like receptor 7- and 9-mediated alpha/beta interferon production in human plasmacytoid dendritic cells by respiratory syncytial virus and measles virus. <i>Journal of Virology</i> , <b>2005</b> , 79, 5507-15	6.6	196
111	Bovine respiratory syncytial virus nonstructural proteins NS1 and NS2 cooperatively antagonize alpha/beta interferon-induced antiviral response. <i>Journal of Virology</i> , <b>2000</b> , 74, 8234-42	6.6	194
110	Inhibition of interferon signaling by rabies virus phosphoprotein P: activation-dependent binding of STAT1 and STAT2. <i>Journal of Virology</i> , <b>2006</b> , 80, 2675-83	6.6	183
109	Replication-dependent potent IFN-alpha induction in human plasmacytoid dendritic cells by a single-stranded RNA virus. <i>Journal of Immunology</i> , <b>2004</b> , 173, 5935-43	5.3	175
108	Nonsegmented negative-strand RNA viruses: genetics and manipulation of viral genomes. <i>Annual Review of Genetics</i> , <b>1998</b> , 32, 123-62	14.5	173
107	Inflammation-induced alteration of astrocyte mitochondrial dynamics requires autophagy for mitochondrial network maintenance. <i>Cell Metabolism</i> , <b>2013</b> , 18, 844-59	24.6	163

106	Spread and pathogenic characteristics of a G-deficient rabies virus recombinant: an in vitro and in vivo study. <i>Journal of General Virology</i> , <b>2000</b> , 81, 2147-2153	4.9	143
105	A critical period for experience-dependent remodeling of adult-born neuron connectivity. <i>Neuron</i> , <b>2015</b> , 85, 710-7	13.9	142
104	Retrograde monosynaptic tracing reveals the temporal evolution of inputs onto new neurons in the adult dentate gyrus and olfactory bulb. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, E1152-61	11.5	139
103	Nonstructural proteins NS1 and NS2 of bovine respiratory syncytial virus block activation of interferon regulatory factor 3. <i>Journal of Virology</i> , <b>2003</b> , 77, 8661-8	6.6	139
102	PRESYNAPTIC NETWORKS. Single-cell-initiated monosynaptic tracing reveals layer-specific cortical network modules. <i>Science</i> , <b>2015</b> , 349, 70-4	33.3	137
101	Replication strategies of rabies virus. <i>Virus Research</i> , <b>2005</b> , 111, 120-31	6.4	136
100	Role of alpha/beta interferons in the attenuation and immunogenicity of recombinant bovine respiratory syncytial viruses lacking NS proteins. <i>Journal of Virology</i> , <b>2003</b> , 77, 8426-39	6.6	132
99	A CXCR4/CD4 pseudotype rhabdovirus that selectively infects HIV-1 envelope protein-expressing cells. <i>Cell</i> , <b>1997</b> , 90, 841-7	56.2	125
98	A radial glia-specific role of RhoA in double cortex formation. <i>Neuron</i> , <b>2012</b> , 73, 911-24	13.9	122
97	Highly stable expression of a foreign gene from rabies virus vectors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1996</b> , 93, 7310-4	11.5	121
96	Respiratory syncytial virus (RSV) nonstructural (NS) proteins as host range determinants: a chimeric bovine RSV with NS genes from human RSV is attenuated in interferon-competent bovine cells. <i>Journal of Virology</i> , <b>2002</b> , 76, 4287-93	6.6	116
95	Viruses know it all: new insights into IFN networks. <i>Trends in Immunology</i> , <b>2005</b> , 26, 396-401	14.4	115
94	Rabies virus matrix protein regulates the balance of virus transcription and replication. <i>Journal of General Virology</i> , <b>2003</b> , 84, 1613-1621	4.9	115
93	The first stage of cardinal direction selectivity is localized to the dendrites of retinal ganglion cells. <i>Neuron</i> , <b>2013</b> , 79, 1078-85	13.9	113
92	Central amygdala circuits modulate food consumption through a positive-valence mechanism. <i>Nature Neuroscience</i> , <b>2017</b> , 20, 1384-1394	25.5	112
91	Transcriptional activation of alpha/beta interferon genes: interference by nonsegmented negative-strand RNA viruses. <i>Journal of Virology</i> , <b>2005</b> , 79, 5241-8	6.6	103
90	Double-labeled rabies virus: live tracking of enveloped virus transport. <i>Journal of Virology</i> , <b>2008</b> , 82, 2374-5	6.6	100
89	Transplanted embryonic neurons integrate into adult neocortical circuits. <i>Nature</i> , <b>2016</b> , 539, 248-253	50.4	99

88	In vivo ligands of MDA5 and RIG-I in measles virus-infected cells. <i>PLoS Pathogens</i> , <b>2014</b> , 10, e1004081	7.6	96
87	Polymerase activity of in vitro mutated rabies virus L protein. <i>Virology</i> , <b>1995</b> , 214, 522-30	3.6	96
86	Monoclonal antibodies to the GP5 of porcine reproductive and respiratory syndrome virus are more effective in virus neutralization than monoclonal antibodies to the GP4. <i>Veterinary Microbiology</i> , <b>1999</b> , 66, 171-86	3.3	92
85	Aversive state processing in the posterior insular cortex. <i>Nature Neuroscience</i> , <b>2019</b> , 22, 1424-1437	25.5	90
84	Paramyxovirus V proteins disrupt the fold of the RNA sensor MDA5 to inhibit antiviral signaling. <i>Science</i> , <b>2013</b> , 339, 690-3	33.3	90
83	Learning-Related Plasticity in Dendrite-Targeting Layer 1 Interneurons. <i>Neuron</i> , <b>2018</b> , 100, 684-699.e6	13.9	87
82	Comparative analysis of the full genome sequence of European bat lyssavirus type 1 and type 2 with other lyssaviruses and evidence for a conserved transcription termination and polyadenylation motif in the G-L 3'non-translated region. <i>Journal of General Virology</i> , <b>2007</b> , 88, 1302-1314	4.9	83
81	Measles virus V protein is a decoy substrate for I $\kappa$ B kinase alpha and prevents Toll-like receptor 7/9-mediated interferon induction. <i>Journal of Virology</i> , <b>2008</b> , 82, 12365-73	6.6	80
80	Differential transcription attenuation of rabies virus genes by intergenic regions: generation of recombinant viruses overexpressing the polymerase gene. <i>Journal of Virology</i> , <b>2000</b> , 74, 7261-9	6.6	80
79	Dissociation of rabies virus matrix protein functions in regulation of viral RNA synthesis and virus assembly. <i>Journal of Virology</i> , <b>2003</b> , 77, 12074-82	6.6	78
78	Genetic dissection of interferon-antagonistic functions of rabies virus phosphoprotein: inhibition of interferon regulatory factor 3 activation is important for pathogenicity. <i>Journal of Virology</i> , <b>2011</b> , 85, 842-52	6.6	74
77	Tracking fluorescence-labeled rabies virus: enhanced green fluorescent protein-tagged phosphoprotein P supports virus gene expression and formation of infectious particles. <i>Journal of Virology</i> , <b>2004</b> , 78, 12333-43	6.6	69
76	Virus promoters determine interference by defective RNAs: selective amplification of mini-RNA vectors and rescue from cDNA by a 3'copy-back ambisense rabies virus. <i>Journal of Virology</i> , <b>1999</b> , 73, 3818-25	6.6	66
75	ATP hydrolysis by the viral RNA sensor RIG-I prevents unintentional recognition of self-RNA. <i>ELife</i> , <b>2015</b> , 4,	8.9	63
74	Social touch promotes interfemale communication via activation of parvocellular oxytocin neurons. <i>Nature Neuroscience</i> , <b>2020</b> , 23, 1125-1137	25.5	63
73	Systematic functional analysis of SARS-CoV-2 proteins uncovers viral innate immune antagonists and remaining vulnerabilities. <i>Cell Reports</i> , <b>2021</b> , 35, 109126	10.6	61
72	The measles virus V protein binds to p65 (RelA) to suppress NF- $\kappa$ B activity. <i>Journal of Virology</i> , <b>2011</b> , 85, 3162-71	6.6	60
71	TNF $\alpha$ drives mitochondrial stress in POMC neurons in obesity. <i>Nature Communications</i> , <b>2017</b> , 8, 15143	17.4	59

70	Click-modified anandamide siRNA enables delivery and gene silencing in neuronal and immune cells. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 12330-3	16.4	59
69	Rhabdovirus evasion of the interferon system. <i>Journal of Interferon and Cytokine Research</i> , <b>2009</b> , 29, 499-509	3.5	59
68	Respiratory syncytial virus fusion protein mediates inhibition of mitogen-induced T-cell proliferation by contact. <i>Journal of Virology</i> , <b>2002</b> , 76, 1163-70	6.6	59
67	Specific infection of CD4+ target cells by recombinant rabies virus pseudotypes carrying the HIV-1 envelope spike protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1996</b> , 93, 11366-70	11.5	58
66	Guanylate-Binding Proteins 2 and 5 Exert Broad Antiviral Activity by Inhibiting Furin-Mediated Processing of Viral Envelope Proteins. <i>Cell Reports</i> , <b>2019</b> , 27, 2092-2104.e10	10.6	53
65	Measles virus C protein interferes with Beta interferon transcription in the nucleus. <i>Journal of Virology</i> , <b>2012</b> , 86, 796-805	6.6	53
64	Nucleotide sequence and expression of two beta-tubulin genes in <i>Stylonychia lemnae</i> . <i>Journal of Molecular Biology</i> , <b>1987</b> , 198, 643-53	6.5	53
63	Respiratory syncytial virus (RSV) fusion protein subunit F2, not attachment protein G, determines the specificity of RSV infection. <i>Journal of Virology</i> , <b>2003</b> , 77, 4609-16	6.6	52
62	Abortively Infected Astrocytes Appear To Represent the Main Source of Interferon Beta in the Virus-Infected Brain. <i>Journal of Virology</i> , <b>2016</b> , 90, 2031-8	6.6	51
61	Significantly improved rescue of rabies virus from cDNA plasmids. <i>European Journal of Cell Biology</i> , <b>2012</b> , 91, 10-6	6.1	50
60	Xenotransplanted Human Cortical Neurons Reveal Species-Specific Development and Functional Integration into Mouse Visual Circuits. <i>Neuron</i> , <b>2019</b> , 104, 972-986.e6	13.9	45
59	Porcine reproductive and respiratory syndrome virus (PRRSV): monoclonal antibodies detect common epitopes on two viral proteins of European and U.S. isolates. <i>Veterinary Microbiology</i> , <b>1996</b> , 51, 257-66	3.3	44
58	Revealing the secrets of neuronal circuits with recombinant rabies virus technology. <i>Frontiers in Neural Circuits</i> , <b>2013</b> , 7, 2	3.5	43
57	Virokinin, a bioactive peptide of the tachykinin family, is released from the fusion protein of bovine respiratory syncytial virus. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 46854-61	5.4	41
56	Melanocortin 3 Receptor Signaling in Midbrain Dopamine Neurons Increases the Motivation for Food Reward. <i>Neuropsychopharmacology</i> , <b>2016</b> , 41, 2241-51	8.7	40
55	Charting monosynaptic connectivity maps by two-color light-sheet fluorescence microscopy. <i>Cell Reports</i> , <b>2012</b> , 2, 1375-86	10.6	40
54	Pre-existing astrocytes form functional perisynaptic processes on neurons generated in the adult hippocampus. <i>Brain Structure and Function</i> , <b>2015</b> , 220, 2027-42	4	36
53	Cell-penetrating and neurotargeting dendritic siRNA nanostructures. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 1946-9	16.4	35

52	Mitochondria-Endoplasmic Reticulum Contacts in Reactive Astrocytes Promote Vascular Remodeling. <i>Cell Metabolism</i> , <b>2020</b> , 31, 791-808.e8	24.6	33
51	A whole-brain connectivity map of mouse insular cortex. <i>ELife</i> , <b>2020</b> , 9,	8.9	33
50	Virus stamping for targeted single-cell infection in vitro and in vivo. <i>Nature Biotechnology</i> , <b>2018</b> , 36, 81-88	14.5	31
49	Respiratory syncytial virus potentiates ABCA3 mutation-induced loss of lung epithelial cell differentiation. <i>Human Molecular Genetics</i> , <b>2012</b> , 21, 2793-806	5.6	31
48	An L (polymerase)-deficient rabies virus defective interfering particle RNA is replicated and transcribed by heterologous helper virus L proteins. <i>Virology</i> , <b>1991</b> , 184, 655-63	3.6	30
47	Genetic engineering of animal RNA viruses. <i>Trends in Microbiology</i> , <b>1996</b> , 4, 386-93	12.4	28
46	G gene-deficient single-round rabies viruses for neuronal circuit analysis. <i>Virus Research</i> , <b>2016</b> , 216, 41-56	6.4	27
45	An anterograde rabies virus vector for high-resolution large-scale reconstruction of 3D neuron morphology. <i>Brain Structure and Function</i> , <b>2015</b> , 220, 1369-79	4	27
44	Interferon in rabies virus infection. <i>Advances in Virus Research</i> , <b>2011</b> , 79, 91-114	10.7	27
43	Myelinosome formation represents an early stage of oligodendrocyte damage in multiple sclerosis and its animal model. <i>Nature Communications</i> , <b>2016</b> , 7, 13275	17.4	26
42	Attenuation of rabies virus replication and virulence by picornavirus internal ribosome entry site elements. <i>Journal of Virology</i> , <b>2009</b> , 83, 1911-9	6.6	26
41	Cleavage at the furin consensus sequence RAR/KR(109) and presence of the intervening peptide of the respiratory syncytial virus fusion protein are dispensable for virus replication in cell culture. <i>Journal of Virology</i> , <b>2002</b> , 76, 9218-24	6.6	26
40	Identification of Two Classes of Somatosensory Neurons That Display Resistance to Retrograde Infection by Rabies Virus. <i>Journal of Neuroscience</i> , <b>2017</b> , 37, 10358-10371	6.6	24
39	Mapping Brain-Wide Afferent Inputs of Parvalbumin-Expressing GABAergic Neurons in Barrel Cortex Reveals Local and Long-Range Circuit Motifs. <i>Cell Reports</i> , <b>2019</b> , 28, 3450-3461.e8	10.6	21
38	Quantification of Lyssavirus-Neutralizing Antibodies Using Vesicular Stomatitis Virus Pseudotype Particles. <i>Viruses</i> , <b>2016</b> , 8,	6.2	19
37	Regulatory structures of gene expression, DNA-replication and DNA-rearrangement in macronuclear genes of <i>Stylonychia lemnae</i> , a hypotrichous ciliate. <i>European Journal of Protistology</i> , <b>1989</b> , 25, 158-67	3.6	17
36	Infection characteristics of rabies virus variants with deletion or insertion in the pseudogene sequence. <i>Journal of NeuroVirology</i> , <b>1998</b> , 4, 115-9	3.9	15
35	Neuronal LRP4 regulates synapse formation in the developing CNS. <i>Development (Cambridge)</i> , <b>2017</b> , 144, 4604-4615	6.6	14

34	The importance of being short: the role of rabies virus phosphoprotein isoforms assessed by differential IRES translation initiation. <i>European Journal of Cell Biology</i> , <b>2012</b> , 91, 17-23	6.1	14
33	Cryo EM structure of the rabies virus ribonucleoprotein complex. <i>Scientific Reports</i> , <b>2019</b> , 9, 9639	4.9	13
32	Membrane and inclusion body targeting of lyssavirus matrix proteins. <i>Cellular Microbiology</i> , <b>2013</b> , 15, 200-12	3.9	13
31	Rabies Virus <b>2013</b> , 17-60		12
30	The microtubule motor protein KIF13A is involved in intracellular trafficking of the Lassa virus matrix protein Z. <i>Cellular Microbiology</i> , <b>2013</b> , 15, 315-34	3.9	10
29	Anatomical projections of the dorsomedial hypothalamus to the periaqueductal grey and their role in thermoregulation: a cautionary note. <i>Physiological Reports</i> , <b>2018</b> , 6, e13807	2.6	9
28	Reprogramming reactive glia into interneurons reduces chronic seizure activity in a mouse model of mesial temporal lobe epilepsy. <i>Cell Stem Cell</i> , <b>2021</b> , 28, 2104-2121.e10	18	9
27	Immunogenicity studies in carnivores using a rabies virus construct with a site-directed deletion in the phosphoprotein. <i>Advances in Preventive Medicine</i> , <b>2011</b> , 2011, 898171	1.7	7
26	Safe and effective two-in-one replicon-and-VLP minispike vaccine for COVID-19: Protection of mice after a single immunization. <i>PLoS Pathogens</i> , <b>2021</b> , 17, e1009064	7.6	7
25	Chimeric rabies viruses for trans-species comparison of lyssavirus glycoprotein ectodomain functions in virus replication and pathogenesis. <i>Berliner Und Munchener Tierarztliche Wochenschrift</i> , <b>2012</b> , 125, 219-27		7
24	Signal transduction in the type I interferon system and viral countermeasures. <i>Signal Transduction</i> , <b>2007</b> , 7, 5-19		6
23	Dendritische Nanostrukturen zur rezeptorvermittelten Aufnahme von siRNA in neurale Zellen. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 1968-1971	3.6	5
22	Recombinant Fluorescent Rabies Virus Vectors for Tracing Neurons and Synaptic Connections. <i>Cold Spring Harbor Protocols</i> , <b>2015</b> , 2015, pdb.top089391	1.2	5
21	Formation of somatosensory detour circuits mediates functional recovery following dorsal column injury. <i>Scientific Reports</i> , <b>2020</b> , 10, 10953	4.9	5
20	The Insula Cortex Contacts Distinct Output Streams of the Central Amygdala. <i>Journal of Neuroscience</i> , <b>2020</b> , 40, 8870-8882	6.6	4
19	Pseudotyping of G-Gene-Deficient Rabies Virus. <i>Cold Spring Harbor Protocols</i> , <b>2015</b> , 2015, pdb.prot0894172		3
18	Spike residue 403 affects binding of coronavirus spikes to human ACE2. <i>Nature Communications</i> , <b>2021</b> , 12, 6855	17.4	3
17	Complete Genome Sequence of a Wild-Type Measles Virus Isolated during the Spring 2013 Epidemic in Germany. <i>Genome Announcements</i> , <b>2014</b> , 2,		2



16	Reverse Genetics of Rhabdoviruses <b>2012</b> , 113-149		2
15	A whole-brain connectivity map of mouse insular cortex		2
14	Safe and effective two-in-one replicon-and-VLP minispikes vaccine for COVID-19		2
13	Imperfect innate immune antagonism renders SARS-CoV-2 vulnerable towards IFN- $\lambda$ and - $\alpha$		2
12	Components and Architecture of the Rhabdovirus Ribonucleoprotein Complex. <i>Viruses</i> , <b>2020</b> , 12,	6.2	2
11	Interferon in lyssavirus infection. <i>Berliner Und Munchener Tierarztliche Wochenschrift</i> , <b>2012</b> , 125, 209-18		2
10	Rabies virus <b>2020</b> , 43-81		1
9	Recovery of Replication-Competent and G-Gene-Deleted Rabies Viruses from cDNA. <i>Cold Spring Harbor Protocols</i> , <b>2015</b> , 2015, pdb.prot089409	1.2	1
8	Central amygdala circuits modulate food consumption through a positive valence mechanism		1
7	Optimization of whole-brain rabies virus tracing technology for small cell populations. <i>Scientific Reports</i> , <b>2021</b> , 11, 10400	4.9	1
6	Genetic Dissection of Interferon-Antagonistic Functions of Rabies Virus Phosphoprotein: Inhibition of Interferon Regulatory Factor 3 Activation Is Important for Pathogenicity. <i>Journal of Virology</i> , <b>2012</b> , 86, 4720-4720	6.6	0
5	Selective plasticity of callosal neurons in the adult contralesional cortex following murine traumatic brain injury.. <i>Nature Communications</i> , <b>2022</b> , 13, 2659	17.4	0
4	ACTIVATION AND EVASION OF INNATE IMMUNE RESPONSE BY RHABDOVIRUSES <b>2015</b> , 353-385		
3	Reverse Genetics of Mononegavirales: The Rabies Virus Paradigm <b>2013</b> , 1-20		
2	Rhabdoviruses and Mechanisms of Type I Interferon Antagonism 211-227		
1	A modified screening system for loss-of-function and dominant negative alleles of essential MCMV genes. <i>PLoS ONE</i> , <b>2014</b> , 9, e94918		3.7