Colin R Parrish

List of Publications by Year
in descending order

142 papers	10,454 citations	31976 53 h-index	38395 95 g-index
154 all docs	154 docs citations	154 times ranked	8271 citing authors

#	Article	IF	Citations
1	Prediction and prevention of the next pandemic zoonosis. Lancet, The, 2012, 380, 1956-1965.	13.7	744
2	Pathways to zoonotic spillover. Nature Reviews Microbiology, 2017, 15, 502-510.	28.6	702
3	Cross-Species Virus Transmission and the Emergence of New Epidemic Diseases. Microbiology and Molecular Biology Reviews, 2008, 72, 457-470.	6.6	648
4	High rate of viral evolution associated with the emergence of carnivore parvovirus. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 379-384.	7.1	471
5	THE ORIGINS OF NEW PANDEMIC VIRUSES: The Acquisition of New Host Ranges by Canine Parvovirus and Influenza A Viruses. Annual Review of Microbiology, 2005, 59, 553-586.	7.3	246
6	Evolution of Canine Parvovirus Involved Loss and Gain of Feline Host Range. Virology, 1996, 215, 186-189.	2.4	217
7	Canine and Feline Parvoviruses Can Use Human or Feline Transferrin Receptors To Bind, Enter, and Infect Cells. Journal of Virology, 2001, 75, 3896-3902.	3.4	209
8	The Natural Host Range Shift and Subsequent Evolution of Canine Parvovirus Resulted from Virus-Specific Binding to the Canine Transferrin Receptor. Journal of Virology, 2003, 77, 1718-1726.	3.4	208
9	Mapping specific functions in the capsid structure of canine parvovirus and feline panleukopenia virus using infectious plasmid clones. Virology, 1991, 183, 195-205.	2.4	203
10	2020 taxonomic update for phylum Negarnaviricota (Riboviria: Orthornavirae), including the large orders Bunyavirales and Mononegavirales. Archives of Virology, 2020, 165, 3023-3072.	2.1	184
11	Parvovirus Infections in Wild Carnivores. Journal of Wildlife Diseases, 2001, 37, 594-607.	0.8	175
12	Parvovirus host range, cell tropism and evolution. Current Opinion in Microbiology, 2003, 6, 392-398.	5.1	169
13	Canine host range and a specific epitope map along with variant sequences in the capsid protein gene of canine parvovirus and related feline, mink, and raccoon parvoviruses. Virology, 1988, 166, 293-307.	2.4	168
14	Structure determination of feline panleukopenia virus empty particles. Proteins: Structure, Function and Bioinformatics, 1993, 16, 155-171.	2.6	167
15	Influenza Virus Reservoirs and Intermediate Hosts: Dogs, Horses, and New Possibilities for Influenza Virus Exposure of Humans. Journal of Virology, 2015, 89, 2990-2994.	3.4	156
16	Two Dominant Neutralizing Antigenic Determinants of Canine Parvovirus Are Found on the Threefold Spike of the Virus Capsid. Virology, 1994, 198, 175-184.	2.4	153
17	The emergence of parvoviruses of carnivores. Veterinary Research, 2010, 41, 39.	3.0	151
18	Emergence, Natural History, and Variation of Canine, Mink, and Feline Parvoviruses. Advances in Virus Research, 1990, 38, 403-450.	2.1	144

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19	Phylogenetic analysis reveals the emergence, evolution and dispersal of carnivore parvoviruses. Journal of General Virology, 2008, 89, 2280-2289.	2.9	137
20	The VP1 N-Terminal Sequence of Canine Parvovirus Affects Nuclear Transport of Capsids and Efficient Cell Infection. Journal of Virology, 2002, 76, 1884-1891.	3.4	125
21	Cellular Uptake and Infection by Canine Parvovirus Involves Rapid Dynamin-Regulated Clathrin-Mediated Endocytosis, Followed by Slower Intracellular Trafficking. Journal of Virology, 2000, 74, 1919-1930.	3.4	124
22	The structure of porcine parvovirus: comparison with related viruses. Journal of Molecular Biology, 2002, 315, 1189-1198.	4.2	122
23	Frequent Cross-Species Transmission of Parvoviruses among Diverse Carnivore Hosts. Journal of Virology, 2013, 87, 2342-2347.	3.4	121
24	3 Pathogenesis of feline panleukopenia virus and canine parvovirus. Best Practice and Research: Clinical Haematology, 1995, 8, 57-71.	1.1	111
25	Ecology, evolution and spillover of coronaviruses from bats. Nature Reviews Microbiology, 2022, 20, 299-314.	28.6	108
26	Host-Specific Parvovirus Evolution in Nature Is Recapitulated by In Vitro Adaptation to Different Carnivore Species. PLoS Pathogens, 2014, 10, e1004475.	4.7	104
27	Effects of Sialic Acid Modifications on Virus Binding and Infection. Trends in Microbiology, 2016, 24, 991-1001.	7.7	104
28	Capsid Antibodies to Different Adeno-Associated Virus Serotypes Bind Common Regions. Journal of Virology, 2013, 87, 9111-9124.	3.4	102
29	Host range relationships and the evolution of canine parvovirus. Veterinary Microbiology, 1999, 69, 29-40.	1.9	97
30	Intra- and Interhost Evolutionary Dynamics of Equine Influenza Virus. Journal of Virology, 2010, 84, 6943-6954.	3.4	97
31	Combinations of Two Capsid Regions Controlling Canine Host Range Determine Canine Transferrin Receptor Binding by Canine and Feline Parvoviruses. Journal of Virology, 2003, 77, 10099-10105.	3.4	92
32	Comparative analysis reveals frequent recombination in the parvoviruses. Journal of General Virology, 2007, 88, 3294-3301.	2.9	92
33	Assaying for Structural Variation in the Parvovirus Capsid and Its Role in Infection. Virology, 1998, 250, 106-117.	2.4	91
34	The structure of a neutralized virus: canine parvovirus complexed with neutralizing antibody fragment. Structure, 1994, 2, 595-607.	3.3	88
35	Characterization and recombination mapping of an antigenic and host range mutation of canine parvovirus. Virology, 1986, 148, 121-132.	2.4	86
36	Role of Multiple Hosts in the Cross-Species Transmission and Emergence of a Pandemic Parvovirus. Journal of Virology, 2012, 86, 865-872.	3.4	85

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37	Structural Analysis of a Mutation in Canine Parvovirus Which Controls Antigenicity and Host Range. Virology, 1996, 225, 65-71.	2.4	78
38	Asymmetric binding of transferrin receptor to parvovirus capsids. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6585-6589.	7.1	78
39	Structures of Host Range-Controlling Regions of the Capsids of Canine and Feline Parvoviruses and Mutants. Journal of Virology, 2003, 77, 12211-12221.	3.4	76
40	Structural Comparison of Different Antibodies Interacting with Parvovirus Capsids. Journal of Virology, 2009, 83, 5556-5566.	3.4	72
41	Host range and variability of calcium binding by surface loops in the capsids of canine and feline parvoviruses. Journal of Molecular Biology, 2000, 300, 597-610.	4.2	70
42	Evolutionary Reconstructions of the Transferrin Receptor of Caniforms Supports Canine Parvovirus Being a Re-emerged and Not a Novel Pathogen in Dogs. PLoS Pathogens, 2012, 8, e1002666.	4.7	70
43	Spread of Canine Influenza A(H3N2) Virus, United States. Emerging Infectious Diseases, 2017, 23, 1950-1957.	4.3	70
44	Mutations adjacent to the dimple of the canine parvovirus capsid structure affect sialic acid binding. Virology, 1992, 191, 301-308.	2.4	69
45	Residues in the Apical Domain of the Feline and Canine Transferrin Receptors Control Host-Specific Binding and Cell Infection of Canine and Feline Parvoviruses. Journal of Virology, 2003, 77, 8915-8923.	3.4	68
46	Cyclic Avian Mass Mortality in the Northeastern United States Is Associated with a Novel Orthomyxovirus. Journal of Virology, 2015, 89, 1389-1403.	3.4	68
47	Characterization of the Feline Host Range and a Specific Epitope of Feline Panleukopenia Virus. Virology, 1994, 200, 494-503.	2.4	67
48	Single Mutations in the VP2 300 Loop Region of the Three-Fold Spike of the Carnivore Parvovirus Capsid Can Determine Host Range. Journal of Virology, 2016, 90, 753-767.	3.4	65
49	2021 Taxonomic update of phylum Negarnaviricota (Riboviria: Orthornavirae), including the large orders Bunyavirales and Mononegavirales. Archives of Virology, 2021, 166, 3513-3566.	2.1	62
50	Intrahost Evolutionary Dynamics of Canine Influenza Virus in Naiÿve and Partially Immune Dogs. Journal of Virology, 2010, 84, 5329-5335.	3.4	61
51	Canine Parvovirus Capsid Assembly and Differences in Mammalian and Insect Cells. Virology, 2001, 279, 546-557.	2.4	58
52	The parvovirus capsid odyssey: from the cell surface to the nucleus. Trends in Microbiology, 2008, 16, 208-214.	7.7	57
53	Within-Host Genetic Diversity of Endemic and Emerging Parvoviruses of Dogs and Cats. Journal of Virology, 2008, 82, 11096-11105.	3.4	57
54	Evolutionary Dynamics of Viral Attenuation. Journal of Virology, 2002, 76, 10524-10529.	3.4	56

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55	Purified Feline and Canine Transferrin Receptors Reveal Complex Interactions with the Capsids of Canine and Feline Parvoviruses That Correspond to Their Host Ranges. Journal of Virology, 2006, 80, 8482-8492.	3.4	56
56	Distribution of O-Acetylated Sialic Acids among Target Host Tissues for Influenza Virus. MSphere, 2017, 2, .	2.9	56
57	The Canine Minute Virus (Minute Virus of Canines) Is a Distinct Parvovirus That Is Most Similar to Bovine Parvovirus. Virology, 2002, 302, 219-223.	2.4	55
58	Polymerase Chain Reaction (PCR) Amplification of Parvoviral DNA from the Brains of Dogs and Cats with Cerebellar Hypoplasia. Journal of Veterinary Internal Medicine, 2003, 17, 538-544.	1.6	54
59	Limited Transferrin Receptor Clustering Allows Rapid Diffusion of Canine Parvovirus into Clathrin Endocytic Structures. Journal of Virology, 2012, 86, 5330-5340.	3.4	54
60	Analysis of the Cell and Erythrocyte Binding Activities of the Dimple and Canyon Regions of the Canine Parvovirus Capsid. Virology, 1995, 211, 123-132.	2.4	53
61	Nonstructural Protein-2 and the Replication of Canine Parvovirus. Virology, 1998, 240, 273-281.	2.4	53
62	Improving pandemic influenza risk assessment. ELife, 2014, 3, e03883.	6.0	53
63	Parvovirus Family Conundrum: What Makes a Killer?. Annual Review of Virology, 2015, 2, 425-450.	6.7	53
64	Limited Intrahost Diversity and Background Evolution Accompany 40 Years of Canine Parvovirus Host Adaptation and Spread. Journal of Virology, 2019, 94, .	3.4	53
65	Different mechanisms of antibody-mediated neutralization of parvoviruses revealed using the Fab fragments of monoclonal antibodies. Virology, 2007, 361, 283-293.	2.4	51
66	The Role of Evolutionary Intermediates in the Host Adaptation of Canine Parvovirus. Journal of Virology, 2012, 86, 1514-1521.	3.4	49
67	Microevolution of Canine Influenza Virus in Shelters and Its Molecular Epidemiology in the United States. Journal of Virology, 2010, 84, 12636-12645.	3.4	46
68	Early Steps in Cell Infection by Parvoviruses: Host-Specific Differences in Cell Receptor Binding but Similar Endosomal Trafficking. Journal of Virology, 2009, 83, 10504-10514.	3.4	45
69	Examining the cross-reactivity and neutralization mechanisms of a panel of mAbs against adeno-associated virus serotypes 1 and 5. Journal of General Virology, 2012, 93, 347-355.	2.9	43
70	Contact Heterogeneity, Rather Than Transmission Efficiency, Limits the Emergence and Spread of Canine Influenza Virus. PLoS Pathogens, 2014, 10, e1004455.	4.7	43
71	Onward transmission of viruses: how do viruses emerge to cause epidemics after spillover?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20190017.	4.0	41
72	Feline panleukopenia virus: Its interesting evolution and current problems in immunoprophylaxis against a serious pathogen. Veterinary Microbiology, 2013, 165, 29-32.	1.9	40

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73	Canine and feline parvoviruses preferentially recognize the non-human cell surface sialic acid N-glycolylneuraminic acid. Virology, 2013, 440, 89-96.	2.4	38
74	Infection and Pathogenesis of Canine, Equine, and Human Influenza Viruses in Canine Tracheas. Journal of Virology, 2014, 88, 9208-9219.	3.4	37
75	A Chemical Biology Solution to Problems with Studying Biologically Important but Unstable 9-O-Acetyl Sialic Acids. ACS Chemical Biology, 2017, 12, 214-224.	3.4	37
76	Binding Site on the Transferrin Receptor for the Parvovirus Capsid and Effects of Altered Affinity on Cell Uptake and Infection. Journal of Virology, 2010, 84, 4969-4978.	3.4	36
77	Equine and Canine Influenza H3N8 Viruses Show Minimal Biological Differences Despite Phylogenetic Divergence. Journal of Virology, 2015, 89, 6860-6873.	3.4	36
78	Global Displacement of Canine Parvovirus by a Host-Adapted Variant: Structural Comparison between Pandemic Viruses with Distinct Host Ranges. Journal of Virology, 2015, 89, 1909-1912.	3.4	36
79	Comparison of Two Single-Chain Antibodies That Neutralize Canine Parvovirus: Analysis of an Antibody-Combining Site and Mechanisms of Neutralization. Virology, 2000, 269, 471-480.	2.4	35
80	Expression of 9- <i>O</i> - and 7,9- <i>O</i> -Acetyl Modified Sialic Acid in Cells and Their Effects on Influenza Viruses. MBio, 2019, 10, .	4.1	35
81	Modified Sialic Acids on Mucus and Erythrocytes Inhibit Influenza A Virus Hemagglutinin and Neuraminidase Functions. Journal of Virology, 2020, 94, .	3.4	35
82	Characterization of a nonhernagglutinating mutant of canine parvovirus. Virology, 1988, 163, 230-232.	2.4	34
83	Minute Virus of Mice, a Parvovirus, in Complex with the Fab Fragment of a Neutralizing Monoclonal Antibody. Journal of Virology, 2007, 81, 9851-9858.	3.4	33
84	Canine parvovirus 2c infection in a cat with severe clinical disease. Journal of Veterinary Diagnostic Investigation, 2014, 26, 462-464.	1.1	33
85	Factors affecting the occurrence of canine parvovirus in dogs. Veterinary Microbiology, 2015, 180, 59-64.	1.9	31
86	Mammalian Adaptation of an Avian Influenza A Virus Involves Stepwise Changes in NS1. Journal of Virology, 2018, 92, .	3.4	31
87	Parvovirus Infection of Cells by Using Variants of the Feline Transferrin Receptor Altering Clathrin-Mediated Endocytosis, Membrane Domain Localization, and Capsid-Binding Domains. Journal of Virology, 2004, 78, 5601-5611.	3.4	30
88	Structures and Functions of Parvovirus Capsids and the Process of Cell Infection. Current Topics in Microbiology and Immunology, 2010, 343, 149-176.	1.1	30
89	Multiple Incursions and Recurrent Epidemic Fade-Out of H3N2 Canine Influenza A Virus in the United States. Journal of Virology, 2018, 92, .	3.4	30
90	Small but mighty: old and new parvoviruses of veterinary significance. Virology Journal, 2021, 18, 210.	3.4	30

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91	Complex and Dynamic Interactions between Parvovirus Capsids, Transferrin Receptors, and Antibodies Control Cell Infection and Host Range. Journal of Virology, 2018, 92, .	3.4	29
92	Characterizing Emerging Canine H3 Influenza Viruses. PLoS Pathogens, 2020, 16, e1008409.	4.7	29
93	Epidemiological evolution of canine parvovirus in the Portuguese domestic dog population. Veterinary Microbiology, 2016, 183, 37-42.	1.9	28
94	Canine influenza viruses with modified NS1 proteins for the development of live-attenuated vaccines. Virology, 2017, 500, 1-10.	2.4	28
95	The role of 9-O-acetylated glycan receptor moieties in the typhoid toxin binding and intoxication. PLoS Pathogens, 2020, 16, e1008336.	4.7	28
96	Near-Atomic Resolution Structure of a Highly Neutralizing Fab Bound to Canine Parvovirus. Journal of Virology, 2016, 90, 9733-9742.	3.4	27
97	A live-attenuated influenza vaccine for H3N2 canine influenza virus. Virology, 2017, 504, 96-106.	2.4	27
98	Recognition of specific sialoglycan structures by oral streptococci impacts the severity of endocardial infection. PLoS Pathogens, 2019, 15, e1007896.	4.7	27
99	The K186E Amino Acid Substitution in the Canine Influenza Virus H3N8 NS1 Protein Restores Its Ability To Inhibit Host Gene Expression. Journal of Virology, 2017, 91, .	3.4	25
100	Probing Antibody Binding to Canine Parvovirus with Charge Detection Mass Spectrometry. Journal of the American Chemical Society, 2018, 140, 15701-15711.	13.7	24
101	Transferrin receptor binds virus capsid with dynamic motion. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20462-20471.	7.1	24
102	Canine and Feline Influenza. Cold Spring Harbor Perspectives in Medicine, 2021, 11, a038562.	6.2	24
103	Detecting Small Changes and Additional Peptides in the Canine Parvovirus Capsid Structure. Journal of Virology, 2008, 82, 10397-10407.	3.4	23
104	Temperature-Sensitive Live-Attenuated Canine Influenza Virus H3N8 Vaccine. Journal of Virology, 2017, 91, .	3.4	23
105	Parvovirus Capsid Structures Required for Infection: Mutations Controlling Receptor Recognition and Protease Cleavages. Journal of Virology, 2017, 91, .	3.4	23
106	A Heterogeneous Nuclear Ribonucleoprotein A/B-Related Protein Binds to Single-Stranded DNA near the 5â€² End or within the Genome of Feline Parvovirus and Can Modify Virus Replication. Journal of Virology, 1999, 73, 7761-7768.	3.4	23
107	Pregnancy enables antibody protection against intracellular infection. Nature, 2022, 606, 769-775.	27.8	22
108	Bridging Taxonomic and Disciplinary Divides in Infectious Disease. EcoHealth, 2011, 8, 261-267.	2.0	20

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109	Reversible <i>O</i>-Acetyl Migration within the Sialic Acid Side Chain and Its Influence on Protein Recognition. ACS Chemical Biology, 2021, 16, 1951-1960.	3.4	19
110	Comparing the functions of equine and canine influenza H3N8 virus PA-X proteins: Suppression of reporter gene expression and modulation of global host gene expression. Virology, 2016, 496, 138-146.	2.4	18
111	From structure of the complex to understanding of the biology. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 9-16.	2.5	17
112	Deacetylated sialic acids modulates immune mediated cytotoxicity via the sialic acid-Siglec pathway. Glycobiology, 2021, 31, 1279-1294.	2.5	17
113	Influenza Viruses in Mice: Deep Sequencing Analysis of Serial Passage and Effects of Sialic Acid Structural Variation. Journal of Virology, 2019, 93, .	3.4	15
114	A bivalent live-attenuated influenza vaccine for the control and prevention of H3N8 and H3N2 canine influenza viruses. Vaccine, 2017, 35, 4374-4381.	3.8	14
115	GENETIC CHARACTERIZATION OF CANINE PARVOVIRUS IN SYMPATRIC FREE-RANGING WILD CARNIVORES IN PORTUGAL. Journal of Wildlife Diseases, 2017, 53, 824-831.	0.8	13
116	Examination and Reconstruction of Three Ancient Endogenous Parvovirus Capsid Protein Gene Remnants Found in Rodent Genomes. Journal of Virology, 2019, 93, .	3.4	13
117	High-resolution asymmetric structure of a Fabâ€“virus complex reveals overlap with the receptor binding site. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2025452118.	7.1	12
118	Single-Particle Tracking Shows that a Point Mutation in the Carnivore Parvovirus Capsid Switches Binding between Host-Specific Transferrin Receptors. Journal of Virology, 2016, 90, 4849-4853.	3.4	11
119	Improving risk assessment of the emergence of novel influenza A viruses by incorporating environmental surveillance. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180346.	4.0	11
120	Primary Swine Respiratory Epithelial Cell Lines for the Efficient Isolation and Propagation of Influenza A Viruses. Journal of Virology, 2020, 94, .	3.4	11
121	Viral highway to nucleus exposed by image correlation analyses. Scientific Reports, 2018, 8, 1152.	3.3	10
122	Pre-B acute lymphoblastic leukemia expresses cell surface nucleolin as a 9-O-acetylated sialoglycoprotein. Scientific Reports, 2018, 8, 17174.	3.3	10
123	Parvovirus nonstructural protein 2 interacts with chromatin-regulating cellular proteins. PLoS Pathogens, 2022, 18, e1010353.	4.7	9
124	Parvovirus particles and movement in the cellular cytoplasm and effects of the cytoskeleton. Virology, 2014, 456-457, 342-352.	2.4	7
125	Asymmetry in icosahedral viruses. Current Opinion in Virology, 2019, 36, 67-73.	5.4	7
126	Method comparison of targeted influenza A virus typing and whole-genome sequencing from respiratory specimens of companion animals. Journal of Veterinary Diagnostic Investigation, 2021, 33, 191-201.	1.1	7

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127	Influenza D binding properties vary amongst the two major virus clades and wildlife species. Veterinary Microbiology, 2022, 264, 109298.	1.9	7
128	Sequence dynamics of three influenza A virus strains grown in different MDCK cell lines, including those expressing different sialic acid receptors. Journal of Evolutionary Biology, 2021, 34, 1878-1900.	1.7	5
129	Cerebellar hypoplasia and dysplasia in a juvenile raccoon with parvoviral infection. Journal of Veterinary Diagnostic Investigation, 2020, 32, 463-466.	1.1	3
130	Polymerase Chain Reaction (PCR) Amplification of Parvoviral DNA from the Brains of Dogs and Cats with Cerebellar Hypoplasia. Journal of Veterinary Internal Medicine, 2003, 17, 538.	1.6	3
131	Parvoviruses of Carnivores. , 2014, , 39-61.		1
132	Exposing a Virus Hiding in the Animal Facility. Cell, 2018, 175, 310-311.	28.9	1
133	The HIV Integrase Inhibitor Raltegravir Inhibits Felid Alphaherpesvirus 1 Replication by Targeting both DNA Replication and Late Gene Expression. Journal of Virology, 2018, 92, .	3.4	1
134	Parvovirus-induced encephalitis in a juvenile raccoon. Journal of Veterinary Diagnostic Investigation, 2021, 33, 140-143.	1.1	1
135	Parvoviruses of Carnivores, and the Emergence of Canine Parvovirus (Parvoviridae). , 2021, , 683-687.		0
136	Generation and Characterization of Single-Cycle Infectious A (sciCIV) and Its Use as Vaccine Platform. Methods in Molecular Biology, 2022, 2465, 227-255.	0.9	0
137	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0
138	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0
139	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0
140	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0
141	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0
142	Characterizing Emerging Canine H3 Influenza Viruses. , 2020, 16, e1008409.		0