Mikhail N Matrosovich

List of Publications by Year
in descending order

79 papers	9,605 citations	66234 42 h-index	60497 81 g-index
83 all docs	83 docs citations	83 times ranked	8294 citing authors

#	Article	IF	Citations
1	Early Alterations of the Receptor-Binding Properties of H1, H2, and H3 Avian Influenza Virus Hemagglutinins after Their Introduction into Mammals. Journal of Virology, 2000, 74, 8502-8512.	1.5	786
2	Human and avian influenza viruses target different cell types in cultures of human airway epithelium. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4620-4624.	3.3	677
3	Functional balance between haemagglutinin and neuraminidase in influenza virus infections. Reviews in Medical Virology, 2002, 12, 159-166.	3.9	548
4	The Surface Glycoproteins of H5 Influenza Viruses Isolated from Humans, Chickens, and Wild Aquatic Birds Have Distinguishable Properties. Journal of Virology, 1999, 73, 1146-1155.	1.5	535
5	Neuraminidase Is Important for the Initiation of Influenza Virus Infection in Human Airway Epithelium. Journal of Virology, 2004, 78, 12665-12667.	1.5	514
6	Proteolytic Activation of Influenza Viruses by Serine Proteases TMPRSS2 and HAT from Human Airway Epithelium. Journal of Virology, 2006, 80, 9896-9898.	1.5	423
7	New low-viscosity overlay medium for viral plaque assays. Virology Journal, 2006, 3, 63.	1.4	416
8	H9N2 Influenza A Viruses from Poultry in Asia Have Human Virus-like Receptor Specificity. Virology, 2001, 281, 156-162.	1.1	410
9	Balanced Hemagglutinin and Neuraminidase Activities Are Critical for Efficient Replication of Influenza A Virus. Journal of Virology, 2000, 74, 6015-6020.	1.5	352
10	Overexpression of the Î±-2,6-Sialyltransferase in MDCK Cells Increases Influenza Virus Sensitivity to Neuraminidase Inhibitors. Journal of Virology, 2003, 77, 8418-8425.	1.5	316
11	Receptor-binding specificity of pandemic influenza A (H1N1) 2009 virus determined by carbohydrate microarray. Nature Biotechnology, 2009, 27, 797-799.	9.4	299
12	Identification, Characterization, and Natural Selection of Mutations Driving Airborne Transmission of A/H5N1 Virus. Cell, 2014, 157, 329-339.	13.5	237
13	The Role of Influenza A Virus Hemagglutinin Residues 226 and 228 in Receptor Specificity and Host Range Restriction. Journal of Virology, 1998, 72, 7626-7631.	1.5	233
14	Neuraminidase Inhibitor-Resistant Influenza Viruses May Differ Substantially in Fitness and Transmissibility. Antimicrobial Agents and Chemotherapy, 2005, 49, 4075-4084.	1.4	226
15	Macrophage-expressed IFN-Î² Contributes to Apoptotic Alveolar Epithelial Cell Injury in Severe Influenza Virus Pneumonia. PLoS Pathogens, 2013, 9, e1003188.	2.1	195
16	Altered Receptor Specificity and Cell Tropism of D222G Hemagglutinin Mutants Isolated from Fatal Cases of Pandemic A(H1N1) 2009 Influenza Virus. Journal of Virology, 2010, 84, 12069-12074.	1.5	190
17	Sialic Acid Receptors of Viruses. Topics in Current Chemistry, 2013, 367, 1-28.	4.0	177
18	Synthetic Generation of Influenza Vaccine Viruses for Rapid Response to Pandemics. Science Translational Medicine, 2013, 5, 185ra68.	5.8	164

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19	Replication, Pathogenesis and Transmission of Pandemic (H1N1) 2009 Virus in Non-Immune Pigs. PLoS ONE, 2010, 5, e9068.	1.1	144
20	Natural and synthetic sialic acid-containing inhibitors of influenza virus receptor binding. Reviews in Medical Virology, 2003, 13, 85-97.	3.9	138
21	Receptor specificity of influenza viruses from birds and mammals: new data on involvement of the inner fragments of the carbohydrate chain. Virology, 2005, 334, 276-283.	1.1	138
22	Human Cell Tropism and Innate Immune System Interactions of Human Respiratory Coronavirus EMC Compared to Those of Severe Acute Respiratory Syndrome Coronavirus. Journal of Virology, 2013, 87, 5300-5304.	1.5	135
23	A solid-phase enzyme-linked assay for influenza virus receptor-binding activity. Journal of Virological Methods, 1992, 39, 111-123.	1.0	124
24	Influenza Virus Infects Epithelial Stem/Progenitor Cells of the Distal Lung: Impact on Fgfr2b-Driven Epithelial Repair. PLoS Pathogens, 2016, 12, e1005544.	2.1	113
25	6-sulfo sialyl Lewis X is the common receptor determinant recognized by H5, H6, H7 and H9 influenza viruses of terrestrial poultry. Virology Journal, 2008, 5, 85.	1.4	108
26	Receptor-Binding Profiles of H7 Subtype Influenza Viruses in Different Host Species. Journal of Virology, 2012, 86, 4370-4379.	1.5	96
27	Functional significance of the hemadsorption activity of influenza virus neuraminidase and its alteration in pandemic viruses. Archives of Virology, 2009, 154, 945-957.	0.9	93
28	The Hemagglutinin: A Determinant of Pathogenicity. Current Topics in Microbiology and Immunology, 2014, 385, 3-34.	0.7	89
29	PB2 Mutations D701N and S714R Promote Adaptation of an Influenza H5N1 Virus to a Mammalian Host. Journal of Virology, 2014, 88, 8735-8742.	1.5	87
30	Receptor-binding properties of swine influenza viruses isolated and propagated in MDCK cells. Virus Research, 2005, 114, 15-22.	1.1	86
31	The differentiated airway epithelium infected by influenza viruses maintains the barrier function despite a dramatic loss of ciliated cells. Scientific Reports, 2016, 6, 39668.	1.6	81
32	Influenza A Viruses Lacking Sialidase Activity Can Undergo Multiple Cycles of Replication in Cell Culture, Eggs, or Mice. Journal of Virology, 2000, 74, 5206-5212.	1.5	78
33	Avian-virus-like receptor specificity of the hemagglutinin impedes influenza virus replication in cultures of human airway epithelium. Virology, 2007, 361, 384-390.	1.1	74
34	Intergenic HAâ€“NA interactions in influenza A virus: postreassortment substitutions of charged amino acid in the hemagglutinin of different subtypes. Virus Research, 2000, 66, 123-129.	1.1	71
35	Hemagglutinin-Dependent Tropism of H5N1 Avian Influenza Virus for Human Endothelial Cells. Journal of Virology, 2009, 83, 12947-12955.	1.5	61
36	Solid-Phase Assays of Receptor-Binding Specificity. Methods in Molecular Biology, 2012, 865, 71-94.	0.4	58

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37	Induction of neutralising antibodies by virus-like particles harbouring surface proteins from highly pathogenic H5N1 and H7N1 influenza viruses. Virology Journal, 2006, 3, 70.	1.4	57
38	Functional Characterization of Adaptive Mutations during the West African Ebola Virus Outbreak. Journal of Virology, 2017, 91, .	1.5	56
39	pH Optimum of Hemagglutinin-Mediated Membrane Fusion Determines Sensitivity of Influenza A Viruses to the Interferon-Induced Antiviral State and IFITMs. Journal of Virology, 2017, 91, .	1.5	54
40	Molecular Mechanisms of Serum Resistance of Human Influenza H3N2 Virus and Their Involvement in Virus Adaptation in a New Host. Journal of Virology, 1998, 72, 6373-6380.	1.5	52
41	Synthesis of Sialic Acid Pseudopolysaccharides by Coupling of Spacer-Connected Neu5Ac With Activated Polymer. Journal of Carbohydrate Chemistry, 1991, 10, 691-700.	0.4	51
42	The 2nd sialic acid-binding site of influenza A virus neuraminidase is an important determinant of the hemagglutinin-neuraminidase-receptor balance. PLoS Pathogens, 2019, 15, e1007860.	2.1	45
43	Molecular mechanisms of interspecies transmission and pathogenicity of influenza viruses: Lessons from the 2009 pandemic. BioEssays, 2011, 33, 180-188.	1.2	44
44	Altered receptor specificity and fusion activity of the haemagglutinin contribute to high virulence of a mouse-adapted influenza A virus. Journal of General Virology, 2012, 93, 970-979.	1.3	44
45	Towards the development of antimicrobial drugs acting by inhibition of pathogen attachment to host cells: A need for polyvalency. FEBS Letters, 1989, 252, 1-4.	1.3	39
46	Influenza A (H1N1) infection in pigs. Veterinary Record, 2009, 164, 760-761.	0.2	38
47	A strain of human influenza A virus binds to extended but not short gangliosides as assayed by thin-layer chromatography overlay. Glycobiology, 2000, 10, 975-982.	1.3	37
48	Changes in the hemagglutinin of H5N1 viruses during human infection â€“ Influence on receptor binding. Virology, 2013, 447, 326-337.	1.1	34
49	Application of surface plasmon resonance imaging technique for the detection of single spherical biological submicrometer particles. Analytical Biochemistry, 2015, 486, 62-69.	1.1	34
50	The Avian-Origin PB1 Gene Segment Facilitated Replication and Transmissibility of the H3N2/1968 Pandemic Influenza Virus. Journal of Virology, 2015, 89, 4170-4179.	1.5	33
51	Receptor-binding properties of influenza viruses isolated from gulls. Virology, 2018, 522, 37-45.	1.1	33
52	Influenza virus budding from the tips of cellular microvilli in differentiated human airway epithelial cells. Journal of General Virology, 2013, 94, 971-976.	1.3	32
53	Receptor Specificity of Influenza Viruses and Its Alteration during Interspecies Transmission. Monographs in Virology, 2008, , 134-155.	0.6	29
54	Molecular adaptation of an H7N3 wild duck influenza virus following experimental multiple passages in quail and turkey. Virology, 2010, 408, 167-173.	1.1	28

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55	Aprotinin, a Protease Inhibitor, Suppresses Proteolytic Activation of Pandemic H1N1v Influenza Virus. Antiviral Chemistry and Chemotherapy, 2011, 21, 169-174.	0.3	27
56	H1N1 Swine Influenza Viruses Differ from Avian Precursors by a Higher pH Optimum of Membrane Fusion. Journal of Virology, 2016, 90, 1569-1577.	1.5	27
57	Influenza-derived peptides cross-react with allergens and provide asthma protection. Journal of Allergy and Clinical Immunology, 2018, 142, 804-814.	1.5	27
58	Replication and Adaptive Mutations of Low Pathogenic Avian Influenza Viruses in Tracheal Organ Cultures of Different Avian Species. PLoS ONE, 2012, 7, e42260.	1.1	26
59	Second sialic acidâ€binding site of influenza A virus neuraminidase: binding receptors for efficient release. FEBS Journal, 2021, 288, 5598-5612.	2.2	25
60	Influenza Viruses Display High-Affinity Binding to Human Polyglycosylceramides Represented on a Solid-Phase Assay Surface. Virology, 1996, 223, 413-416.	1.1	22
61	Gangliosides are not essential for influenza virus infection. Glycoconjugate Journal, 2006, 23, 107-113.	1.4	22
62	Characterization of the neuraminidase of the H1N1/09 pandemic influenza virus. Vaccine, 2012, 30, 7348-7352.	1.7	22
63	Role of Substitutions in the Hemagglutinin in the Emergence of the 1968 Pandemic Influenza Virus. Journal of Virology, 2015, 89, 12211-12216.	1.5	22
64	A Polymorphism in the Hemagglutinin of the Human Isolate of a Highly Pathogenic H5N1 Influenza Virus Determines Organ Tropism in Mice. Journal of Virology, 2010, 84, 8316-8321.	1.5	21
65	Efficient Sensing of Avian Influenza Viruses by Porcine Plasmacytoid Dendritic Cells. Viruses, 2011, 3, 312-330.	1.5	19
66	Experimental Infection of Turkeys with Pandemic (H1N1) 2009 Influenza Virus (A/H1N1/09v). Journal of Virology, 2009, 83, 13046-13047.	1.5	16
67	Alterations in Hemagglutinin Receptor-Binding Specificity Accompany the Emergence of Highly Pathogenic Avian Influenza Viruses. Journal of Virology, 2015, 89, 5395-5405.	1.5	16
68	Species-specific and individual differences in Nipah virus replication in porcine and human airway epithelial cells. Journal of General Virology, 2016, 97, 1511-1519.	1.3	14
69	Effect of receptor specificity of A/Hong Kong/1/68 (H3N2) influenza virus variants on replication and transmission in pigs. Influenza and Other Respiratory Viruses, 2013, 7, 151-159.	1.5	12
70	HA-Dependent Tropism of H5N1 and H7N9 Influenza Viruses to Human Endothelial Cells Is Determined by Reduced Stability of the HA, Which Allows the Virus To Cope with Inefficient Endosomal Acidification and Constitutively Expressed IFITM3. Journal of Virology, 2019, 94, .	1.5	12
71	Hemagglutinins of Avian Influenza Viruses Are Proteolytically Activated by TMPRSS2 in Human and Murine Airway Cells. Journal of Virology, 2021, 95, e0090621.	1.5	12
72	Diversity and Reassortment Rate of Influenza A Viruses in Wild Ducks and Gulls. Viruses, 2021, 13, 1010.	1.5	11

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73	SnapShot: Evolution of Human Influenza A Viruses. Cell Host and Microbe, 2015, 17, 416-416.e1.	5.1	9
74	Influenza A Viruses Lacking Sialidase Activity Can Undergo Multiple Cycles of Replication in Cell Culture, Eggs, or Mice. Journal of Virology, 2000, 74, 5206-5212.	1.5	6
75	Characterization of changes in the hemagglutinin that accompanied the emergence of H3N2/1968 pandemic influenza viruses. PLoS Pathogens, 2021, 17, e1009566.	2.1	5
76	Exploring synergies between academia and vaccine manufacturers: a pilot study on how to rapidly produce vaccines to combat emerging pathogens. Clinical Chemistry and Laboratory Medicine, 2012, 50, 1275-1279.	1.4	3
77	Immunization of Domestic Ducks with Live Nonpathogenic H5N3 Influenza Virus Prevents Shedding and Transmission of Highly Pathogenic H5N1 Virus to Chickens. Viruses, 2018, 10, 164.	1.5	2
78	MD simulation of the interaction between sialoglycans and the second sialic acid binding site of influenza A virus N1 neuraminidase. Biochemical Journal, 2021, 478, 423-441.	1.7	2
79	Effects of Receptor Specificity and Conformational Stability of Influenza A Virus Hemagglutinin on Infection and Activation of Different Cell Types in Human PBMCs. Frontiers in Immunology, 2022, 13, 827760.	2.2	1