

# Raoul J De Groot

## List of Publications by Year in descending order

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Version: 2024-02-01

32  
papers

4,120  
citations

218677

26  
h-index

414414

32  
g-index

35  
all docs

35  
docs citations

35  
times ranked

6525  
citing authors

#	ARTICLE	IF	CITATIONS
1	Commentary: Middle East Respiratory Syndrome Coronavirus (MERS-CoV): Announcement of the Coronavirus Study Group. Journal of Virology, 2013, 87, 7790-7792.	3.4	1,012
2	Structural basis for human coronavirus attachment to sialic acid receptors. Nature Structural and Molecular Biology, 2019, 26, 481-489.	8.2	475
3	Human coronaviruses OC43 and HKU1 bind to 9- <i>O</i> -acetylated sialic acids via a conserved receptor-binding site in spike protein domain A. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2681-2690.	7.1	335
4	Identification of sialic acid-binding function for the Middle East respiratory syndrome coronavirus spike glycoprotein. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8508-E8517.	7.1	272
5	The Genome Organization of the Nidovirales: Similarities and Differences between Arteri-, Toro-, and Coronaviruses. Seminars in Virology, 1997, 8, 33-47.	3.9	244
6	Structure of coronavirus hemagglutinin-esterase offers insight into corona and influenza virus evolution. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9065-9069.	7.1	221
7	Small molecule ISRIB suppresses the integrated stress response within a defined window of activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2097-2102.	7.1	163
8	Middle East Respiratory Coronavirus Accessory Protein 4a Inhibits PKR-Mediated Antiviral Stress Responses. PLoS Pathogens, 2016, 12, e1005982.	4.7	161
9	Structure, function and evolution of the hemagglutinin-esterase proteins of corona- and toroviruses. Glycoconjugate Journal, 2006, 23, 59-72.	2.7	129
10	The influenza A virus hemagglutinin glycosylation state affects receptor-binding specificity. Virology, 2010, 403, 17-25.	2.4	108
11	Kinetic analysis of the influenza A virus HA/NA balance reveals contribution of NA to virus-receptor binding and NA-dependent rolling on receptor-containing surfaces. PLoS Pathogens, 2018, 14, e1007233.	4.7	101
12	9-O-Acetylation of sialic acids is catalysed by CASD1 via a covalent acetyl-enzyme intermediate. Nature Communications, 2015, 6, 7673.	12.8	90
13	Betacoronavirus Adaptation to Humans Involved Progressive Loss of Hemagglutinin-Esterase Lectin Activity. Cell Host and Microbe, 2017, 21, 356-366.	11.0	83
14	Foot-and-Mouth Disease Virus Leader Protease Cleaves G3BP1 and G3BP2 and Inhibits Stress Granule Formation. Journal of Virology, 2019, 93, .	3.4	72
15	Nidovirus Sialate-O-Acetylsterases. Journal of Biological Chemistry, 2005, 280, 6933-6941.	3.4	71
16	Complexity and Diversity of the Mammalian Sialome Revealed by Nidovirus Virolectins. Cell Reports, 2015, 11, 1966-1978.	6.4	62
17	Attachment of Mouse Hepatitis Virus to O-Acetylated Sialic Acid Is Mediated by Hemagglutinin-Esterase and Not by the Spike Protein. Journal of Virology, 2010, 84, 8970-8974.	3.4	52
18	Coronavirus hemagglutinin-esterase and spike proteins coevolve for functional balance and optimal virion avidity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25759-25770.	7.1	48

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19	Essential Role of Enterovirus 2A Protease in Counteracting Stress Granule Formation and the Induction of Type I Interferon. <i>Journal of Virology</i> , 2019, 93, .	3.4	47
20	Structural basis for ligand and substrate recognition by torovirus hemagglutinin esterases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 15897-15902.	7.1	46
21	The Murine Coronavirus Hemagglutinin-esterase Receptor-binding Site: A Major Shift in Ligand Specificity through Modest Changes in Architecture. <i>PLoS Pathogens</i> , 2012, 8, e1002492.	4.7	46
22	Mutation of the Second Sialic Acid-Binding Site, Resulting in Reduced Neuraminidase Activity, Preceded the Emergence of H7N9 Influenza A Virus. <i>Journal of Virology</i> , 2017, 91, .	3.4	44
23	Role of enhanced receptor engagement in the evolution of a pandemic acute hemorrhagic conjunctivitis virus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 397-402.	7.1	43
24	Inhibition of the integrated stress response by viral proteins that block p-eIF2 $\rightarrow$ eIF2B association. <i>Nature Microbiology</i> , 2020, 5, 1361-1373.	13.3	39
25	Coronavirus receptor switch explained from the stereochemistry of protein $\rightarrow$ carbohydrate interactions and a single mutation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E3111-9.	7.1	38
26	Synthetic O-acetylated sialosides facilitate functional receptor identification for human respiratory viruses. <i>Nature Chemistry</i> , 2021, 13, 496-503.	13.6	31
27	Dissecting distinct proteolytic activities of FMDV Lpro implicates cleavage and degradation of RLR signaling proteins, not its deISGylase/DUB activity, in type I interferon suppression. <i>PLoS Pathogens</i> , 2020, 16, e1008702.	4.7	26
28	Cryo-EM structure of coronavirus-HKU1 haemagglutinin esterase reveals architectural changes arising from prolonged circulation in humans. <i>Nature Communications</i> , 2020, 11, 4646.	12.8	24
29	Antigenic structure of the human coronavirus OC43 spike reveals exposed and occluded neutralizing epitopes. <i>Nature Communications</i> , 2022, 13, .	12.8	12
30	Synthetic <i>O</i> -Acetylated Sialosides and their Acetamido-deoxy Analogues as Probes for Coronavirus Hemagglutinin-esterase Recognition. <i>Journal of the American Chemical Society</i> , 2022, 144, 424-435.	13.7	4
31	Molecular Biology and Evolution of Toroviruses. , 0, , 133-146.		3
32	Synthetic <i>O</i> -Acetyl- <i>N</i> -glycolylneuraminic Acid Oligosaccharides Reveal Host-Associated Binding Patterns of Coronaviral Glycoproteins. <i>ACS Infectious Diseases</i> , 2022, 8, 1041-1050.	3.8	3