Berend Jan Bosch

List of Publications by Year
in descending order

96 papers	16,467 citations	30047 54 h-index	37183 96 g-index
106 all docs	106 docs citations	106 times ranked	22434 citing authors

#	Article	IF	Citations
1	Dipeptidyl peptidase 4 is a functional receptor for the emerging human coronavirus-EMC. Nature, 2013, 495, 251-254.	13.7	1,731
2	Severe Acute Respiratory Syndrome Coronavirus 2â^'Specific Antibody Responses in Coronavirus Disease Patients. Emerging Infectious Diseases, 2020, 26, 1478-1488.	2.0	1,389
3	The Coronavirus Spike Protein Is a Class I Virus Fusion Protein: Structural and Functional Characterization of the Fusion Core Complex. Journal of Virology, 2003, 77, 8801-8811.	1.5	1,243
4	A human monoclonal antibody blocking SARS-CoV-2 infection. Nature Communications, 2020, 11, 2251.	5.8	919
5	Middle East respiratory syndrome coronavirus neutralising serum antibodies in dromedary camels: a comparative serological study. Lancet Infectious Diseases, The, 2013, 13, 859-866.	4.6	616
6	Tectonic conformational changes of a coronavirus spike glycoprotein promote membrane fusion. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11157-11162.	3.3	501
7	Structural basis for human coronavirus attachment to sialic acid receptors. Nature Structural and Molecular Biology, 2019, 26, 481-489.	3.6	475
8	Cryo-electron microscopy structure of a coronavirus spike glycoprotein trimer. Nature, 2016, 531, 114-117.	13.7	453
9	Glycan shield and epitope masking of a coronavirus spike protein observed by cryo-electron microscopy. Nature Structural and Molecular Biology, 2016, 23, 899-905.	3.6	366
10	Severe acute respiratory syndrome coronavirus (SARS-CoV) infection inhibition using spike protein heptad repeat-derived peptides. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8455-8460.	3.3	348
11	Coronavirus Cell Entry Occurs through the Endo-/Lysosomal Pathway in a Proteolysis-Dependent Manner. PLoS Pathogens, 2014, 10, e1004502.	2.1	338
12	Transmission of MERS-Coronavirus in Household Contacts. New England Journal of Medicine, 2014, 371, 828-835.	13.9	338
13	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.	3.3	335
14	SARS Coronavirus, but Not Human Coronavirus NL63, Utilizes Cathepsin L to Infect ACE2-expressing Cells. Journal of Biological Chemistry, 2006, 281, 3198-3203.	1.6	328
15	Human Infection with MERS Coronavirus after Exposure to Infected Camels, Saudi Arabia, 2013. Emerging Infectious Diseases, 2014, 20, 1012-1015.	2.0	305
16	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.	3.3	272
17	Cathepsin L Functionally Cleaves the Severe Acute Respiratory Syndrome Coronavirus Class I Fusion Protein Upstream of Rather than Adjacent to the Fusion Peptide. Journal of Virology, 2008, 82, 8887-8890.	1.5	260
18	MERS Coronavirus Neutralizing Antibodies in Camels, Eastern Africa, 1983â€“1997. Emerging Infectious Diseases, 2014, 20, 2093-5.	2.0	249

#	Article	IF	Citations
19	Cryo-electron tomography of mouse hepatitis virus: Insights into the structure of the coronavirion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 582-587.	3.3	243
20	Quantitative and qualitative flow cytometric analysis of nanosized cell-derived membrane vesicles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2012, 8, 712-720.	1.7	221
21	Structures of MERS-CoV spike glycoprotein in complex with sialoside attachment receptors. Nature Structural and Molecular Biology, 2019, 26, 1151-1157.	3.6	218
22	Antibodies against MERS Coronavirus in Dromedary Camels, United Arab Emirates, 2003 and 2013. Emerging Infectious Diseases, 2014, 20, 552-559.	2.0	217
23	The Receptor Binding Domain of the New Middle East Respiratory Syndrome Coronavirus Maps to a 231-Residue Region in the Spike Protein That Efficiently Elicits Neutralizing Antibodies. Journal of Virology, 2013, 87, 9379-9383.	1.5	204
24	Changes in SARS-CoV-2 Spike versus Nucleoprotein Antibody Responses Impact the Estimates of Infections in Population-Based Seroprevalence Studies. Journal of Virology, 2021, 95, .	1.5	200
25	Broad receptor engagement of an emerging global coronavirus may potentiate its diverse cross-species transmissibility. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5135-E5143.	3.3	192
26	Antibodies against MERS Coronavirus in Dromedary Camels, Kenya, 1992â€“2013. Emerging Infectious Diseases, 2014, 20, 1319-22.	2.0	191
27	Middle East Respiratory Syndrome coronavirus (MERS-CoV) serology in major livestock species in an affected region in Jordan, June to September 2013. Eurosurveillance, 2013, 18, 20662.	3.9	174
28	Geographic Distribution of MERS Coronavirus among Dromedary Camels, Africa. Emerging Infectious Diseases, 2014, 20, 1370-1374.	2.0	167
29	Structural basis for broad coronavirus neutralization. Nature Structural and Molecular Biology, 2021, 28, 478-486.	3.6	152
30	Adenosine Deaminase Acts as a Natural Antagonist for Dipeptidyl Peptidase 4-Mediated Entry of the Middle East Respiratory Syndrome Coronavirus. Journal of Virology, 2014, 88, 1834-1838.	1.5	141
31	A conserved immunogenic and vulnerable site on the coronavirus spike protein delineated by cross-reactive monoclonal antibodies. Nature Communications, 2021, 12, 1715.	5.8	138
32	Cleavage Inhibition of the Murine Coronavirus Spike Protein by a Furin-Like Enzyme Affects Cell-Cell but Not Virus-Cell Fusion. Journal of Virology, 2004, 78, 6048-6054.	1.5	128
33	Cellular entry of the porcine epidemic diarrhea virus. Virus Research, 2016, 226, 117-127.	1.1	128
34	Glycan Shield and Fusion Activation of a Deltacoronavirus Spike Glycoprotein Fine-Tuned for Enteric Infections. Journal of Virology, 2018, 92, .	1.5	124
35	Murine Coronavirus with an Extended Host Range Uses Heparan Sulfate as an Entry Receptor. Journal of Virology, 2005, 79, 14451-14456.	1.5	115
36	Inhibition of Human Coronavirus NL63 Infection at Early Stages of the Replication Cycle. Antimicrobial Agents and Chemotherapy, 2006, 50, 2000-2008.	1.4	113

#	Article	IF	Citations
37	Cell Attachment Domains of the Porcine Epidemic Diarrhea Virus Spike Protein Are Key Targets of Neutralizing Antibodies. Journal of Virology, 2017, 91, .	1.5	106
38	Proteolytic Activation of the Porcine Epidemic Diarrhea Coronavirus Spike Fusion Protein by Trypsin in Cell Culture. Journal of Virology, 2014, 88, 7952-7961.	1.5	105
39	ATP1A1-Mediated Src Signaling Inhibits Coronavirus Entry into Host Cells. Journal of Virology, 2015, 89, 4434-4448.	1.5	101
40	Towards a solution to MERS: protective human monoclonal antibodies targeting different domains and functions of the MERS-coronavirus spike glycoprotein. Emerging Microbes and Infections, 2019, 8, 516-530.	3.0	99
41	Recombinant Soluble, Multimeric HA and NA Exhibit Distinctive Types of Protection against Pandemic Swine-Origin 2009 A(H1N1) Influenza Virus Infection in Ferrets. Journal of Virology, 2010, 84, 10366-10374.	1.5	96
42	Inhibition of Middle East Respiratory Syndrome Coronavirus Infection by Anti-CD26 Monoclonal Antibody. Journal of Virology, 2013, 87, 13892-13899.	1.5	85
43	Sensitive and Specific Detection of Low-Level Antibody Responses in Mild Middle East Respiratory Syndrome Coronavirus Infections. Emerging Infectious Diseases, 2019, 25, 1868-1877.	2.0	80
44	Specific serology for emerging human coronaviruses by protein microarray. Eurosurveillance, 2013, 18, 20441.	3.9	80
45	Heparan Sulfate Facilitates Rift Valley Fever Virus Entry into the Cell. Journal of Virology, 2012, 86, 13767-13771.	1.5	76
46	Aminopeptidase N is not required for porcine epidemic diarrhea virus cell entry. Virus Research, 2017, 235, 6-13.	1.1	74
47	Older adults lack SARS CoV-2 cross-reactive T lymphocytes directed to human coronaviruses OC43 and NL63. Scientific Reports, 2020, 10, 21447.	1.6	70
48	MERS-CoV Infection of Alpaca in a Region Where MERS-CoV is Endemic. Emerging Infectious Diseases, 2016, 22, 1129-1131.	2.0	67
49	Novel polymeric inhibitors of HCoV-NL63. Antiviral Research, 2013, 97, 112-121.	1.9	66
50	Occupational Exposure to Dromedaries and Risk for MERS-CoV Infection, Qatar, 2013â€"2014. Emerging Infectious Diseases, 2015, 21, 1422-1425.	2.0	66
51	A glycerophospholipid-specific pocket in the RVFV class II fusion protein drives target membrane insertion. Science, 2017, 358, 663-667.	6.0	66
52	Chimeric camel/human heavy-chain antibodies protect against MERS-CoV infection. Science Advances, 2018, 4, eaas9667.	4.7	66
53	Crimean-Congo Hemorrhagic Fever Virus Subunit Vaccines Induce High Levels of Neutralizing Antibodies But No Protection in STAT1 Knockout Mice. Vector-Borne and Zoonotic Diseases, 2015, 15, 759-764.	0.6	63
54	SARS-CoV-2 mucosal antibody development and persistence and their relation to viral load and COVID-19 symptoms. Nature Communications, 2021, 12, 5621.	5.8	63

#	Article	IF	Citations
55	Acid-Activated Structural Reorganization of the Rift Valley Fever Virus Gc Fusion Protein. Journal of Virology, 2012, 86, 13642-13652.	1.5	62
56	Manipulation of the Porcine Epidemic Diarrhea Virus Genome Using Targeted RNA Recombination. PLoS ONE, 2013, 8, e69997.	1.1	62
57	Development of a SARS-CoV-2 Total Antibody Assay and the Dynamics of Antibody Response over Time in Hospitalized and Nonhospitalized Patients with COVID-19. Journal of Immunology, 2020, 205, 3491-3499.	0.4	61
58	The carbohydrate-binding plant lectins and the non-peptidic antibiotic pradimicin A target the glycans of the coronavirus envelope glycoproteins. Journal of Antimicrobial Chemotherapy, 2007, 60, 741-749.	1.3	56
59	Spike protein assembly into the coronavirion: exploring the limits of its sequence requirements. Virology, 2005, 334, 306-318.	1.1	52
60	Serologic Screening of Severe Acute Respiratory Syndrome Coronavirus 2 Infection in Cats and Dogs during First Coronavirus Disease Wave, the Netherlands. Emerging Infectious Diseases, 2021, 27, 1362-1370.	2.0	51
61	A plug-and-play platform of ratiometric bioluminescent sensors for homogeneous immunoassays. Nature Communications, 2021, 12, 4586.	5.8	50
62	Cooperative Involvement of the S1 and S2 Subunits of the Murine Coronavirus Spike Protein in Receptor Binding and Extended Host Range. Journal of Virology, 2006, 80, 10909-10918.	1.5	49
63	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.	3.3	48
64	Accurate serology for SARS-CoV-2 and common human coronaviruses using a multiplex approach. Emerging Microbes and Infections, 2020, 9, 1965-1973.	3.0	45
65	Dynamics of antibodies to SARSâ€CoVâ€2 in convalescent plasma donors. Clinical and Translational Immunology, 2021, 10, e1285.	1.7	45
66	Targeting non-human coronaviruses to human cancer cells using a bispecific single-chain antibody. Gene Therapy, 2005, 12, 1394-1404.	2.3	42
67	Structural insights into the cross-neutralization of SARS-CoV and SARS-CoV-2 by the human monoclonal antibody 47D11. Science Advances, 2021, 7, .	4.7	42
68	A highly potent antibody effective against SARS-CoV-2 variants of concern. Cell Reports, 2021, 37, 109814.	2.9	39
69	Membrane ectopeptidases targeted by human coronaviruses. Current Opinion in Virology, 2014, 6, 55-60.	2.6	37
70	An ACE2-blocking antibody confers broad neutralization and protection against Omicron and other SARS-CoV-2 variants of concern. Science Immunology, 2022, 7, eabp9312.	5.6	35
71	A Single Point Mutation Creating a Furin Cleavage Site in the Spike Protein Renders Porcine Epidemic Diarrhea Coronavirus Trypsin Independent for Cell Entry and Fusion. Journal of Virology, 2015, 89, 8077-8081.	1.5	33
72	Species-Specific Colocalization of Middle East Respiratory Syndrome Coronavirus Attachment and Entry Receptors. Journal of Virology, 2019, 93, .	1.5	33

#	Article	IF	Citations
73	A recombinant rabies vaccine expressing the trimeric form of the glycoprotein confers enhanced immunogenicity and protection in outbred mice. Vaccine, 2014, 32, 4644-4650.	1.7	32
74	Budded baculovirus particle structure revisited. Journal of Invertebrate Pathology, 2016, 134, 15-22.	1.5	32
75	Crucial steps in the structure determination of a coronavirus spike glycoprotein using cryoâ€electron microscopy. Protein Science, 2017, 26, 113-121.	3.1	31
76	Comparative efficacy of two next-generation Rift Valley fever vaccines. Vaccine, 2014, 32, 4901-4908.	1.7	30
77	Blocking transmission of Middle East respiratory syndrome coronavirus (MERS-CoV) in llamas by vaccination with a recombinant spike protein. Emerging Microbes and Infections, 2019, 8, 1593-1603.	3.0	29
78	SARS-CoV-2 Neutralizing Human Antibodies Protect Against Lower Respiratory Tract Disease in a Hamster Model. Journal of Infectious Diseases, 2021, 223, 2020-2028.	1.9	28
79	Identification and Characterization of a Proteolytically Primed Form of the Murine Coronavirus Spike Proteins after Fusion with the Target Cell. Journal of Virology, 2014, 88, 4943-4952.	1.5	27
80	Particulate multivalent presentation of the receptor binding domain induces protective immune responses against MERS-CoV. Emerging Microbes and Infections, 2020, 9, 1080-1091.	3.0	26
81	Coronavirus Escape from Heptad Repeat 2 (HR2)-Derived Peptide Entry Inhibition as a Result of Mutations in the HR1 Domain of the Spike Fusion Protein. Journal of Virology, 2008, 82, 2580-2585.	1.5	25
82	Serological Screening for Coronavirus Infections in Cats. Viruses, 2019, 11, 743.	1.5	25
83	Spiking the MERS-coronavirus receptor. Cell Research, 2013, 23, 1069-1070.	5.7	23
84	Coronavirus Spike Glycoprotein, Extended at the Carboxy Terminus with Green Fluorescent Protein, Is Assembly Competent. Journal of Virology, 2004, 78, 7369-7378.	1.5	22
85	Porcine epidemic diarrhea virus (PEDV) introduction into a naive Dutch pig population in 2014. Veterinary Microbiology, 2018, 221, 13-18.	0.8	18
86	An alphavirus replicon-based vaccine expressing a stabilized Spike antigen induces protective immunity and prevents transmission of SARS-CoV-2 between cats. Npj Vaccines, 2021, 6, 122.	2.9	17
87	Serologic Detection of Middle East Respiratory Syndrome Coronavirus Functional Antibodies. Emerging Infectious Diseases, 2020, 26, 1024-1027.	2.0	16
88	Dissecting Virus Entry: Replication-Independent Analysis of Virus Binding, Internalization, and Penetration Using Minimal Complementation of Î²-Galactosidase. PLoS ONE, 2014, 9, e101762.	1.1	14
89	Soluble Receptor-Mediated Targeting of Mouse Hepatitis Coronavirus to the Human Epidermal Growth Factor Receptor. Journal of Virology, 2005, 79, 15314-15322.	1.5	13
90	Identification of Protein Receptors for Coronaviruses by Mass Spectrometry. Methods in Molecular Biology, 2015, 1282, 165-182.	0.4	12

#	Article	IF	Citations
91	Antigenic structure of the human coronavirus OC43 spike reveals exposed and occluded neutralizing epitopes. Nature Communications, 2022, 13, .	5.8	12
92	Development and Validation of a S1 Protein-Based ELISA for the Specific Detection of Antibodies against Equine Coronavirus. Viruses, 2019, 11, 1109.	1.5	10
93	Nidovirus Entry into Cells. , 2014, , 157-178.		6
94	Structural Studies of Coronavirus Fusion Proteins. Microscopy and Microanalysis, 2019, 25, 1300-1301.	0.2	4
95	Suitability of transiently expressed antibodies for clinical studies: product quality consistency at different production scales. MAbs, 2022, 14, 2052228.	2.6	3
96	Zoonoses Anticipation and Preparedness Initiative, stakeholders conference, February 4 & 5, 2021. Biologicals, 2021, 74, 10-15.	0.5	2