

Etienne Decroly

List of Publications by Year in descending order

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102
papers

9,720
citations

50276

46
h-index

42399

92
g-index

120
all docs

120
docs citations

120
times ranked

12363
citing authors

#	ARTICLE	IF	CITATIONS
1	The spike glycoprotein of the new coronavirus 2019-nCoV contains a furin-like cleavage site absent in CoV of the same clade. <i>Antiviral Research</i> , 2020, 176, 104742.	4.1	1,450
2	One severe acute respiratory syndrome coronavirus protein complex integrates processive RNA polymerase and exonuclease activities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3900-9.	7.1	482
3	The Nonstructural Proteins Directing Coronavirus RNA Synthesis and Processing. <i>Advances in Virus Research</i> , 2016, 96, 59-126.	2.1	477
4	Conventional and unconventional mechanisms for capping viral mRNA. <i>Nature Reviews Microbiology</i> , 2012, 10, 51-65.	28.6	373
5	Structural and molecular basis of mismatch correction and ribavirin excision from coronavirus RNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E162-E171.	7.1	331
6	In Vitro Reconstitution of SARS-Coronavirus mRNA Cap Methylation. <i>PLoS Pathogens</i> , 2010, 6, e1000863.	4.7	322
7	In vitro screening of a FDA approved chemical library reveals potential inhibitors of SARS-CoV-2 replication. <i>Scientific Reports</i> , 2020, 10, 13093.	3.3	311
8	RNA 3'-end mismatch excision by the severe acute respiratory syndrome coronavirus nonstructural protein nsp10/nsp14 exonuclease complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 9372-9377.	7.1	297
9	Crystal Structure and Functional Analysis of the SARS-Coronavirus RNA Cap 2'-O-Methyltransferase nsp10/nsp16 Complex. <i>PLoS Pathogens</i> , 2011, 7, e1002059.	4.7	295
10	Structure and functionality in flavivirus NS-proteins: Perspectives for drug design. <i>Antiviral Research</i> , 2010, 87, 125-148.	4.1	289
11	Remdesivir and SARS-CoV-2: Structural requirements at both nsp12 RdRp and nsp14 Exonuclease active-sites. <i>Antiviral Research</i> , 2020, 178, 104793.	4.1	271
12	Coronavirus Nonstructural Protein 16 Is a Cap-0 Binding Enzyme Possessing (Nucleoside-2'-O-Methyltransferase) Activity. <i>Journal of Virology</i> , 2012, 86, 220-229.	3.4	220
13	Rapid incorporation of Favipiravir by the fast and permissive viral RNA polymerase complex results in SARS-CoV-2 lethal mutagenesis. <i>Nature Communications</i> , 2020, 11, 4682.	12.8	210
14	Insights into RNA synthesis, capping, and proofreading mechanisms of SARS-coronavirus. <i>Virus Research</i> , 2014, 194, 90-99.	2.2	191
15	Coronavirus Nsp10, a Critical Co-factor for Activation of Multiple Replicative Enzymes. <i>Journal of Biological Chemistry</i> , 2014, 289, 25783-25796.	3.4	178
16	SARS-CoV ORF1b-encoded nonstructural proteins 12-16: Replicative enzymes as antiviral targets. <i>Antiviral Research</i> , 2014, 101, 122-130.	4.1	153
17	Structural and Functional Analysis of Methylation and 5'-RNA Sequence Requirements of Short Capped RNAs by the Methyltransferase Domain of Dengue Virus NS5. <i>Journal of Molecular Biology</i> , 2007, 372, 723-736.	4.2	152
18	FTSJ3 is an RNA 2'-O-methyltransferase recruited by HIV to avoid innate immune sensing. <i>Nature</i> , 2019, 565, 500-504.	27.8	151

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19	The Pore-forming Toxin Proaerolysin Is Activated by Furin. <i>Journal of Biological Chemistry</i> , 1998, 273, 32656-32661.	3.4	130
20	The Curious Case of the Nidovirus Exoribonuclease: Its Role in RNA Synthesis and Replication Fidelity. <i>Frontiers in Microbiology</i> , 2019, 10, 1813.	3.5	130
21	The Prosegments of Furin and PC7 as Potent Inhibitors of Proprotein Convertases. <i>Journal of Biological Chemistry</i> , 1999, 274, 33913-33920.	3.4	122
22	Maturation of HIV envelope glycoprotein precursors by cellular endoproteases. <i>BBA - Biomembranes</i> , 2000, 1469, 121-132.	8.0	118
23	Identification of the Paired Basic Convertases Implicated in HIV gp160 Processing Based on in Vitro Assays and Expression in CD4+ Cell Lines. <i>Journal of Biological Chemistry</i> , 1996, 271, 30442-30450.	3.4	109
24	Zika Virus Methyltransferase: Structure and Functions for Drug Design Perspectives. <i>Journal of Virology</i> , 2017, 91, .	3.4	109
25	Structure of the Respiratory Syncytial Virus Polymerase Complex. <i>Cell</i> , 2019, 179, 193-204.e14.	28.9	108
26	Comparative cellular processing of the human immunodeficiency virus (HIV-1) envelope glycoprotein gp160 by the mammalian subtilisin/kexin-like convertases. <i>Biochemical Journal</i> , 1996, 314, 521-532.	3.7	105
27	Orientation and structure of the NH2-terminal HIV-1 gp41 peptide in fused and aggregated liposomes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1993, 1145, 124-133.	2.6	99
28	HIV-1 and MLV Gag proteins are sufficient to recruit APOBEC3G into virus-like particles. <i>Biochemical and Biophysical Research Communications</i> , 2004, 321, 566-573.	2.1	88
29	The viral RNA capping machinery as a target for antiviral drugs. <i>Antiviral Research</i> , 2012, 96, 21-31.	4.1	79
30	Recognition of RNA Cap in the Wesselsbron Virus NS5 Methyltransferase Domain: Implications for RNA-Capping Mechanisms in Flavivirus. <i>Journal of Molecular Biology</i> , 2009, 385, 140-152.	4.2	78
31	Discovery of novel dengue virus NS5 methyltransferase non-nucleoside inhibitors by fragment-based drug design. <i>European Journal of Medicinal Chemistry</i> , 2017, 125, 865-880.	5.5	74
32	Virtual screening and bioassay study of novel inhibitors for dengue virus mRNA cap (nucleoside-2'-O)-methyltransferase. <i>Bioorganic and Medicinal Chemistry</i> , 2007, 15, 7795-7802.	3.0	72
33	Flaviviral methyltransferase/RNA interaction: Structural basis for enzyme inhibition. <i>Antiviral Research</i> , 2009, 83, 28-34.	4.1	64
34	Distinctive Roles of Furin and TMPRSS2 in SARS-CoV-2 Infectivity. <i>Journal of Virology</i> , 2022, 96, e0012822.	3.4	64
35	The methyltransferase domain of dengue virus protein NS5 ensures efficient RNA synthesis initiation and elongation by the polymerase domain. <i>Nucleic Acids Research</i> , 2014, 42, 11642-11656.	14.5	61
36	Binding of the Methyl Donor S-Adenosyl-Methionine to Middle East Respiratory Syndrome Coronavirus 2'-O-Methyltransferase nsp16 Promotes Recruitment of the Allosteric Activator nsp10. <i>Journal of Virology</i> , 2017, 91, .	3.4	61

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37	Processing of alpha4 integrin by the proprotein convertases: histidine at position P6 regulates cleavage. <i>Biochemical Journal</i> , 2003, 373, 475-484.	3.7	56
38	Molecular Mapping of the RNA Cap 2'-O-Methyltransferase Activation Interface between Severe Acute Respiratory Syndrome Coronavirus nsp10 and nsp16*. <i>Journal of Biological Chemistry</i> , 2010, 285, 33230-33241.	3.4	56
39	Synthesis of adenine dinucleosides SAM analogs as specific inhibitors of SARS-CoV nsp14 RNA cap guanine-N7-methyltransferase. <i>European Journal of Medicinal Chemistry</i> , 2020, 201, 112557.	5.5	56
40	The Tyrosine Kinase Hck Is an Inhibitor of HIV-1 Replication Counteracted by the Viral Vif Protein. <i>Journal of Biological Chemistry</i> , 2001, 276, 16885-16893.	3.4	55
41	Assessment of Dengue virus helicase and methyltransferase as targets for fragment-based drug discovery. <i>Antiviral Research</i> , 2014, 106, 61-70.	4.1	55
42	Comparative functional role of PC7 and furin in the processing of the HIV envelope glycoprotein gp160. <i>FEBS Letters</i> , 1997, 405, 68-72.	2.8	54
43	Tracing the origins of SARS-COV-2 in coronavirus phylogenies: a review. <i>Environmental Chemistry Letters</i> , 2021, 19, 769-785.	16.2	53
44	High-yield production of short GpppA- and 7MeGpppA-capped RNAs and HPLC-monitoring of methyltransfer reactions at the guanine-N7 and adenosine-2'O positions. <i>Nucleic Acids Research</i> , 2007, 35, e26-e26.	14.5	52
45	mRNA Capping by Venezuelan Equine Encephalitis Virus nsP1: Functional Characterization and Implications for Antiviral Research. <i>Journal of Virology</i> , 2015, 89, 8292-8303.	3.4	52
46	A dual mechanism of action of AT-527 against SARS-CoV-2 polymerase. <i>Nature Communications</i> , 2022, 13, 621.	12.8	52
47	Biochemical characterization of the (nucleoside-2'O)-methyltransferase activity of dengue virus protein NS5 using purified capped RNA oligonucleotides 7MeGpppACn and GpppACn. <i>Journal of General Virology</i> , 2010, 91, 112-121.	2.9	51
48	X-ray structure and activities of an essential Mononegavirales L-protein domain. <i>Nature Communications</i> , 2015, 6, 8749.	12.8	49
49	Synthesis of 5' cap-0 and cap-1 RNAs using solid-phase chemistry coupled with enzymatic methylation by human (guanine-7-methyl transferase. <i>Rna</i> , 2012, 18, 856-868.	3.5	47
50	Cooperative and Specific Binding of Vif to the 5' Region of HIV-1 Genomic RNA. <i>Journal of Molecular Biology</i> , 2005, 354, 55-72.	4.2	46
51	Antiviral activity of [1,2,3]triazolo[4,5-d]pyrimidin-7(6H)-ones against chikungunya virus targeting the viral capping nsP1. <i>Antiviral Research</i> , 2017, 144, 216-222.	4.1	44
52	Toward the identification of viral cap-methyltransferase inhibitors by fluorescence screening assay. <i>Antiviral Research</i> , 2017, 144, 330-339.	4.1	43
53	Structure-based drug repositioning over the human TMPRSS2 protease domain: search for chemical probes able to repress SARS-CoV-2 Spike protein cleavages. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 153, 105495.	4.0	40
54	Furin and proprotein convertase 7 (PC7)/lymphoma PC endogenously expressed in rat liver can be resolved into distinct post-Golgi compartments. <i>Biochemical Journal</i> , 1998, 336, 311-316.	3.7	39

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55	Development of specific dengue virus 2'-O- and N7-methyltransferase assays for antiviral drug screening. <i>Antiviral Research</i> , 2013, 99, 292-300.	4.1	39
56	The methyltransferase domain of the Sudan ebolavirus L protein specifically targets internal adenosines of RNA substrates, in addition to the cap structure. <i>Nucleic Acids Research</i> , 2018, 46, 7902-7912.	14.5	39
57	Interaction of human immunodeficiency virus type 1 Vif with Gag and Gag-Pol precursors: co-encapsidation and interference with viral protease-mediated Gag processing. <i>Journal of General Virology</i> , 2001, 82, 2719-2733.	2.9	37
58	Filovirus proteins for antiviral drug discovery: A structure/function analysis of surface glycoproteins and virus entry. <i>Antiviral Research</i> , 2016, 135, 1-14.	4.1	33
59	Biochemical principles and inhibitors to interfere with viral capping pathways. <i>Current Opinion in Virology</i> , 2017, 24, 87-96.	5.4	32
60	The Vif protein of human immunodeficiency virus type 1 is posttranslationally modified by ubiquitin. <i>Biochemical and Biophysical Research Communications</i> , 2004, 315, 66-72.	2.1	30
61	Drugs against SARS-CoV-2: What do we know about their mode of action?. <i>Reviews in Medical Virology</i> , 2020, 30, 1-10.	8.3	30
62	Filovirus proteins for antiviral drug discovery: Structure/function bases of the replication cycle. <i>Antiviral Research</i> , 2017, 141, 48-61.	4.1	29
63	Structure-function analysis of the nsp14 N7-guanine methyltransferase reveals an essential role in Betacoronavirus replication. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	26
64	The tyrosine kinases Fyn and Hck favor the recruitment of tyrosine-phosphorylated APOBEC3G into vif-defective HIV-1 particles. <i>Biochemical and Biophysical Research Communications</i> , 2005, 329, 917-924.	2.1	24
65	Hijacking DNA methyltransferase transition state analogues to produce chemical scaffolds for PRMT inhibitors. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170072.	4.0	24
66	Potent Inhibition of SARS-CoV-2 nsp14 N7-Methyltransferase by Sulfonamide-Based Bisubstrate Analogues. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 6231-6249.	6.4	24
67	Comparative processing of bovine leukemia virus envelope glycoprotein gp72 by subtilisin/kexin-like mammalian convertases. <i>FEBS Letters</i> , 1997, 406, 205-210.	2.8	23
68	COVID-19 epidemiologic surveillance using wastewater. <i>Environmental Chemistry Letters</i> , 2021, 19, 1911-1915.	16.2	22
69	Human Discs Large Is a New Negative Regulator of Human Immunodeficiency Virus-1 Infectivity. <i>Molecular Biology of the Cell</i> , 2009, 20, 498-508.	2.1	21
70	Involvement of an Arginine Triplet in M1 Matrix Protein Interaction with Membranes and in M1 Recruitment into Virus-Like Particles of the Influenza A(H1N1)pdm09 Virus. <i>PLoS ONE</i> , 2016, 11, e0165421.	2.5	20
71	Synthesis and biological evaluation of novel flexible nucleoside analogues that inhibit flavivirus replication in vitro. <i>Bioorganic and Medicinal Chemistry</i> , 2020, 28, 115713.	3.0	19
72	Filovirus proteins for antiviral drug discovery: Structure/function of proteins involved in assembly and budding. <i>Antiviral Research</i> , 2018, 150, 183-192.	4.1	18

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73	Optimization of a fragment linking hit toward Dengue and Zika virus NS5 methyltransferases inhibitors. <i>European Journal of Medicinal Chemistry</i> , 2019, 161, 323-333.	5.5	18
74	Occurrence of an HIV-1 gp160 endoproteolytic activity in low-density vesicles and evidence for a distinct density distribution from endogenously expressed furin and PC7/LPC convertases. <i>FEBS Letters</i> , 1999, 456, 97-102.	2.8	17
75	An appeal for an objective, open, and transparent scientific debate about the origin of SARS-CoV-2. <i>Lancet, The</i> , 2021, 398, 1402-1404.	13.7	17
76	Design, Synthesis and Discovery of <i>N,N</i> -Carbazoyl- <i>l</i> -Proline Inhibitors of Zika NS5 Methyltransferase and Virus Replication. <i>ChemMedChem</i> , 2020, 15, 385-390.	3.2	16
77	Secondary structure of gp160 and gp120 envelope glycoproteins of human immunodeficiency virus type 1: a Fourier transform infrared spectroscopic study. <i>Journal of Virology</i> , 1993, 67, 3552-3560.	3.4	16
78	Crystallization and diffraction analysis of the SARS coronavirus nsp10-nsp16 complex. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2011, 67, 404-408.	0.7	15
79	C3P3-G1: first generation of a eukaryotic artificial cytoplasmic expression system. <i>Nucleic Acids Research</i> , 2019, 47, 2681-2698.	14.5	15
80	Approved drugs screening against the nsP1 capping enzyme of Venezuelan equine encephalitis virus using an immuno-based assay. <i>Antiviral Research</i> , 2019, 163, 59-69.	4.1	15
81	Novel Class of Chikungunya Virus Small Molecule Inhibitors That Targets the Viral Capping Machinery. <i>Antimicrobial Agents and Chemotherapy</i> , 2020, 64, .	3.2	15
82	First insights into the structural features of Ebola virus methyltransferase activities. <i>Nucleic Acids Research</i> , 2021, 49, 1737-1748.	14.5	14
83	APOBEC3G Ubiquitination by Nedd4-1 Favors its Packaging into HIV-1 Particles. <i>Journal of Molecular Biology</i> , 2005, 345, 547-558.	4.2	13
84	Evaluation of Adamantane Derivatives as Inhibitors of Dengue Virus mRNA Cap Methyltransferase by Docking and Molecular Dynamics Simulations. <i>Molecular Informatics</i> , 2013, 32, 155-164.	2.5	12
85	The C-Terminal Domain of the Sudan Ebolavirus L Protein Is Essential for RNA Binding and Methylation. <i>Journal of Virology</i> , 2020, 94, .	3.4	12
86	An Anti-Human Immunodeficiency Virus Multiple Antigen Peptide Encompassing the Cleavage Region of the Env Precursor Interferes With Membrane Fusion at a Post-CD4 Binding Step. <i>Virology</i> , 2000, 273, 169-177.	2.4	11
87	The methyltransferase domain of the Respiratory Syncytial Virus L protein catalyzes cap N7 and 2'-O-methylation. <i>PLoS Pathogens</i> , 2021, 17, e1009562.	4.7	11
88	Fluoxetine targets an allosteric site in the enterovirus 2C AAA+ ATPase and stabilizes a ring-shaped hexameric complex. <i>Science Advances</i> , 2022, 8, eabj7615.	10.3	11
89	A N7-guanine RNA cap methyltransferase signature-sequence as a genetic marker of large genome, non-mammalian Tobnaviridae. <i>NAR Genomics and Bioinformatics</i> , 2020, 2, lqz022.	3.2	10
90	The enzymes for genome size increase and maintenance of large (+)RNA viruses. <i>Trends in Biochemical Sciences</i> , 2021, 46, 866-877.	7.5	9

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91	System-oriented optimization of multi-target 2,6-diaminopurine derivatives: Easily accessible broad-spectrum antivirals active against flaviviruses, influenza virus and SARS-CoV-2. <i>European Journal of Medicinal Chemistry</i> , 2021, 224, 113683.	5.5	9
92	Properties of HIV Membrane Reconstituted from Its Recombinant gp160 Envelope Glycoprotein. <i>AIDS Research and Human Retroviruses</i> , 1992, 8, 1823-1831.	1.1	7
93	Reevaluation of possible outcomes of infections with human immunodeficiency virus. <i>Clinical Microbiology and Infection</i> , 2016, 22, 299-311.	6.0	7
94	Mutations on VEEV nsP1 relate RNA capping efficiency to ribavirin susceptibility. <i>Antiviral Research</i> , 2020, 182, 104883.	4.1	7
95	Synthesis of Adenine Dinucleosides 2,5-Bridged by Sulfur-Containing Linkers as Bisubstrate SAM Analogues for Viral RNA 2'-O-Methyltransferases. <i>European Journal of Organic Chemistry</i> , 2019, 2019, 6486-6495.	2.4	5
96	Synthesis, Structure-Activity Relationships, and Antiviral Profiling of 1-Heteroaryl-2-Alkoxyphenyl Analogs as Inhibitors of SARS-CoV-2 Replication. <i>Molecules</i> , 2022, 27, 1052.	3.8	4
97	Structure and Sequence Requirements for RNA Capping at the Venezuelan Equine Encephalitis Virus RNA 5' End. <i>Journal of Virology</i> , 2021, 95, e0077721.	3.4	2
98	Identification of potent inhibitors of arenavirus and SARS-CoV-2 exoribonucleases by fluorescence polarization assay. <i>Antiviral Research</i> , 2022, 204, 105364.	4.1	2
99	A closed-handed affair: positive-strand RNA virus polymerases. <i>Future Virology</i> , 2014, 9, 769-784.	1.8	1
100	Les enzymes de la r�plication/transcription chez les coronavirus. <i>Virologie</i> , 2012, 16, 199-209.	0.1	1
101	Solid-phase synthesis of 5'-capped mRNA with a methylene bridge within triphosphate chain. , 2014, , .		0
102	Structures and exoribonuclease activity fonctions in arenavirus and coronavirus. <i>Virologie</i> , 2013, 17, 317-330.	0.1	0