Ashleigh Shannon

List of Publications by Citations

75 papers	5,643 citations	34 h-index	75 g-index
78 ext. papers	6,830 ext. citations	8.5 avg, IF	5.67 L-index

#	Paper	IF	Citations
75	SAMHD1 restricts the replication of human immunodeficiency virus type 1 by depleting the intracellular pool of deoxynucleoside triphosphates. *Nature Immunology*, **2012**, 13, 223-228	19.1	592
74	An RNA cap (nucleoside-2R-O-)-methyltransferase in the flavivirus RNA polymerase NS5: crystal structure and functional characterization. *EMBO Journal*, **2002**, 21, 2757-68	13	433
73	Discovery of an RNA virus 3R>5Rexoribonuclease that is critically involved in coronavirus RNA synthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 5108-13	11.5	396
72	One severe acute respiratory syndrome coronavirus protein complex integrates processive RNA polymerase and exonuclease activities. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E3900-9	11.5	344
71	Conventional and unconventional mechanisms for capping viral mRNA. *Nature Reviews Microbiology* , **2011**, 10, 51-65	22.2	261
70	Structural and molecular basis of mismatch correction and ribavirin excision from coronavirus RNA. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E162-E171	11.5	230
69	Crystal structure and functional analysis of the SARS-coronavirus RNA cap 2R-O-methyltransferase nsp10/nsp16 complex. *PLoS Pathogens*, **2011**, 7, e1002059	7.6	230
68	In vitro reconstitution of SARS-coronavirus mRNA cap methylation. *PLoS Pathogens*, **2010**, 6, e1000863	7.6	228
67	Remdesivir and SARS-CoV-2: Structural requirements at both nsp12 RdRp and nsp14 Exonuclease active-sites. *Antiviral Research*, **2020**, 178, 104793	10.8	210
66	RNA 3Rend mismatch excision by the severe acute respiratory syndrome coronavirus nonstructural protein nsp10/nsp14 exoribonuclease complex. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 9372-7	11.5	209
65	A second, non-canonical RNA-dependent RNA polymerase in SARS coronavirus. *EMBO Journal*, **2006** , 25, 4933-42	13	193
64	Coronavirus nonstructural protein 16 is a cap-0 binding enzyme possessing (nucleoside-2R-O)-methyltransferase activity. *Journal of Virology*, **2008**, 82, 8071-84	6.6	177
63	The flavivirus polymerase as a target for drug discovery. *Antiviral Research*, **2008**, 80, 23-35	10.8	141
62	Structural disorder and modular organization in Paramyxovirinae N and P. *Journal of General Virology*, **2003**, 84, 3239-3252	4.9	141
61	The N-terminal domain of the arenavirus L protein is an RNA endonuclease essential in mRNA transcription. *PLoS Pathogens*, **2010**, 6, e1001038	7.6	121
60	SARS-CoV ORF1b-encoded nonstructural proteins 12-16: replicative enzymes as antiviral targets. *Antiviral Research*, **2014**, 101, 122-30	10.8	113
59	Rapid incorporation of Favipiravir by the fast and permissive viral RNA polymerase complex results in SARS-CoV-2 lethal mutagenesis. *Nature Communications*, **2020**, 11, 4682	17.4	105

58	The SARS-Coronavirus PLnc domain of nsp3 as a replication/transcription scaffolding protein. *Virus Research*, **2008**, 133, 136-48	6.4	99
57	Comparative mechanistic studies of de novo RNA synthesis by flavivirus RNA-dependent RNA polymerases. *Virology*, **2006**, 351, 145-58	3.6	98
56	Viral Macro Domains Reverse Protein ADP-Ribosylation. *Journal of Virology*, **2016**, 90, 8478-86	6.6	97
55	Viral RNA-polymerases -- a predicted 2RO-ribose methyltransferase domain shared by all Mononegavirales. *Trends in Biochemical Sciences*, **2002**, 27, 222-4	10.3	87
54	Zika Virus Methyltransferase: Structure and Functions for Drug Design Perspectives. *Journal of Virology*, **2017**, 91,	6.6	86
53	The Curious Case of the Nidovirus Exoribonuclease: Its Role in RNA Synthesis and Replication Fidelity. *Frontiers in Microbiology*, **2019**, 10, 1813	5.7	86
52	Regulation of Flavivirus RNA synthesis and replication. *Current Opinion in Virology*, **2014**, 9, 74-83	7.5	59
51	The viral RNA capping machinery as a target for antiviral drugs. *Antiviral Research*, **2012**, 96, 21-31	10.8	59
50	Molecular basis for nucleotide conservation at the ends of the dengue virus genome. *PLoS Pathogens*, **2012**, 8, e1002912	7.6	56
49	AT-527, a Double Prodrug of a Guanosine Nucleotide Analog, Is a Potent Inhibitor of SARS-CoV-2 and a Promising Oral Antiviral for Treatment of COVID-19. *Antimicrobial Agents and Chemotherapy*, **2021**, 65,	5.9	54
48	Understanding the Mechanism of the Broad-Spectrum Antiviral Activity of Favipiravir (T-705): Key Role of the F1 Motif of the Viral Polymerase. *Journal of Virology*, **2017**, 91,	6.6	49
47	Molecular mapping of the RNA Cap 2RO-methyltransferase activation interface between severe acute respiratory syndrome coronavirus nsp10 and nsp16. *Journal of Biological Chemistry*, **2010**, 285, 33230-33241	5.4	49
46	RNA-dependent RNA polymerases from flaviviruses and Picornaviridae. *Current Opinion in Structural Biology*, **2009**, 19, 759-67	8.1	48
45	VaZyMolO: a tool to define and classify modularity in viral proteins. *Journal of General Virology*, **2005**, 86, 743-749	4.9	42
44	Synthesis of 5Rcap-0 and cap-1 RNAs using solid-phase chemistry coupled with enzymatic methylation by human (guanine-N□-methyl transferase. *Rna*, **2012**, 18, 856-68	5.8	37
43	X-ray structure and activities of an essential Mononegavirales L-protein domain. *Nature Communications*, **2015**, 6, 8749	17.4	36
42	Structural and Functional Basis of the Fidelity of Nucleotide Selection by Flavivirus RNA-Dependent RNA Polymerases. *Viruses*, **2018**, 10,	6.2	34
41	Gln151 of HIV-1 Reverse Transcriptase Acts as a Steric Gate Towards Clinically Relevant Acyclic Phosphonate Nucleotide Analogues. *Antiviral Therapy*, **2008**, 13, 115-124	1.6	28

40	Substrate selectivity of Dengue and Zika virus NS5 polymerase towards 2Rmodified nucleotide analogues. *Antiviral Research*, **2017**, 140, 25-36	10.8	27
39	Filovirus proteins for antiviral drug discovery: A structure/function analysis of surface glycoproteins and virus entry. *Antiviral Research*, **2016**, 135, 1-14	10.8	27
38	The methyltransferase domain of the Sudan ebolavirus L protein specifically targets internal adenosines of RNA substrates, in addition to the cap structure. *Nucleic Acids Research*, **2018**, 46, 7902-7912	20.1	27
37	Filovirus proteins for antiviral drug discovery: Structure/function bases of the replication cycle. *Antiviral Research*, **2017**, 141, 48-61	10.8	25
36	Simeprevir Potently Suppresses SARS-CoV-2 Replication and Synergizes with Remdesivir. *ACS Central Science*, **2021**, 7, 792-802	16.8	24
35	Combining Antivirals and Immunomodulators to Fight COVID-19. *Trends in Immunology*, **2021**, 42, 31-44	14.4	21
34	Monoclonal antibodies to the West Nile virus NS5 protein map to linear and conformational epitopes in the methyltransferase and polymerase domains. *Journal of General Virology*, **2009**, 90, 2912-2922	4.9	20
33	Drugs against SARS-CoV-2: What do we know about their mode of action?. *Reviews in Medical Virology*, **2020**, 30, 1-10	11.7	20
32	Biochemical principles and inhibitors to interfere with viral capping pathways. *Current Opinion in Virology*, **2017**, 24, 87-96	7.5	19
31	Nucleotide Analogue Binding, Catalysis and Primer Unblocking in the Mechanisms of HIV-1 Reverse Transcriptase-Mediated Resistance to Nucleoside Analogues. *Antiviral Therapy*, **2003**, 8, 143-154	1.6	17
30	Simultaneous uncoupled expression and purification of the Dengue virus NS3 protease and NS2B co-factor domain. *Protein Expression and Purification*, **2016**, 119, 124-9	2	14
29	The VIZIER project: overview; expectations; and achievements. *Antiviral Research*, **2010**, 87, 85-94	10.8	13
28	Efficient Delivery of Dengue Virus Subunit Vaccines to the Skin by Microprojection Arrays. *Vaccines*, **2019**, 7,	5.3	12
27	Coxsackievirus B3 protease 3C: expression, purification, crystallization and preliminary structural insights. *Acta Crystallographica Section F, Structural Biology Communications*, **2016**, 72, 877-884	1.1	11
26	Inhibition of SARS-CoV-2 polymerase by nucleotide analogs from a single-molecule perspective. *ELife*, **2021**, 10,	8.9	11
25	Evaluation of Adamantane Derivatives as Inhibitors of Dengue Virus mRNA Cap Methyltransferase by Docking and Molecular Dynamics Simulations. *Molecular Informatics*, **2013**, 32, 155-64	3.8	9
24	Product release is rate-limiting for catalytic processing by the Dengue virus protease. *Scientific Reports*, **2016**, 6, 37539	4.9	9
23	A fluorescence-based high throughput-screening assay for the SARS-CoV RNA synthesis complex. *Journal of Virological Methods*, **2021**, 288, 114013	2.6	9

22	Preliminary insights into the non structural protein 3 macro domain of the Mayaro virus by powder diffraction. *Zeitschrift F Kristallographie*, **2010**, 225,		8
21	Inhibition of SARS-CoV-2 polymerase by nucleotide analogs: a single molecule perspective **2021**,		8
20	Dengue virus 3 NS5 methyltransferase domain: expression, purification, crystallization and first structural data from microcrystalline specimens. *Zeitschrift Fur Kristallographie - Crystalline Materials*, **2018**, 233, 309-316	1	8
19	The C-Terminal Domain of the Sudan Ebolavirus L Protein Is Essential for RNA Binding and Methylation. *Journal of Virology*, **2020**, 94,	6.6	7
18	Protein-primed RNA synthesis in SARS-CoVs and structural basis for inhibition by AT-527		7
17	A dual mechanism of action of AT-527 against SARS-CoV-2 polymerase.. *Nature Communications*, **2022**, 13, 621	17.4	6
16	The nucleotide addition cycle of the SARS-CoV-2 polymerase. *Cell Reports*, **2021**, 36, 109650	10.6	6
15	A N7-guanine RNA cap methyltransferase signature-sequence as a genetic marker of large genome, non-mammalian. *NAR Genomics and Bioinformatics*, **2020**, 2, lqz022	3.7	5
14	Activity inhibition and crystal polymorphism induced by active-site metal swapping. *Acta Crystallographica Section D: Structural Biology*, **2017**, 73, 641-649	5.5	5
13	Toscana virus nucleoprotein oligomer organization observed in solution. *Acta Crystallographica Section D: Structural Biology*, **2017**, 73, 650-659	5.5	5
12	International research networks in viral structural proteomics: again, lessons from SARS. *Antiviral Research*, **2008**, 78, 47-50	10.8	5
11	An appeal for an objective, open, and transparent scientific debate about the origin of SARS-CoV-2. *Lancet, The*, **2021**, 398, 1402-1404	40	5
10	Chemical Composition and Antimicrobial Activity of the Essential Oil of Saccocalyx satureioides Coss. et Dur. *Natural Product Communications*, **2006**, 1, 1934578X0600100	0.9	4
9	Structure-function analysis of the nsp14 N7-guanine methyltransferase reveals an essential role in replication. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
8	First insights into the structural features of Ebola virus methyltransferase activities. *Nucleic Acids Research*, **2021**, 49, 1737-1748	20.1	4
7	Evaluation of AT-752, a Double Prodrug of a Guanosine Nucleotide Analog with and Activity against Dengue and Other Flaviviruses. *Antimicrobial Agents and Chemotherapy*, **2021**, 65, e0098821	5.9	4
6	Snapshots of ADP-ribose bound to Getah virus macro domain reveal an intriguing choreography. *Scientific Reports*, **2020**, 10, 14422	4.9	3
5	Metal chelators for the inhibition of the lymphocytic choriomeningitis virus endonuclease domain. *Antiviral Research*, **2019**, 162, 79-89	10.8	3

4	The nucleotide addition cycle of the SARS-CoV-2 polymerase **2021**,		2
3	The enzymes for genome size increase and maintenance of large (+)RNA viruses. *Trends in Biochemical Sciences*, **2021**, 46, 866-877	10.3	0
2	Observation of arenavirus nucleoprotein heptamer assembly. *FEBS Open Bio*, **2021**, 11, 1076-1083	2.7	
1	Les enzymes de la r□lication/transcription chez les coronavirus. *Virologie*, **2012**, 16, 199-209	0.4	