# Ashleigh Shannon

List of Publications by Year
in descending order



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|---|---|---|---|
| 74 papers | 7,609 citations | 87888 38 h-index | 85541 71 g-index |
| 78 all docs | 78 docs citations | 78 times ranked | 8642 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | SAMHD1 restricts the replication of human immunodeficiency virus type 1 by depleting the intracellular pool of deoxynucleoside triphosphates. Nature Immunology, 2012, 13, 223-228. | 14.5 | 719 |
| 2 | Discovery of an RNA virus 3â€²â†’5â€² exoribonuclease that is critically involved in coronavirus RNA synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5108-5113. | 7.1 | 524 |
| 3 | An RNA cap (nucleoside-2'-O-)-methyltransferase in the flavivirus RNA polymerase NS5: crystal structure and functional characterization. EMBO Journal, 2002, 21, 2757-2768. | 7.8 | 520 |
| 4 | 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. | 7.1 | 482 |
| 5 | Conventional and unconventional mechanisms for capping viral mRNA. Nature Reviews Microbiology, 2012, 10, 51-65. | 28.6 | 373 |
| 6 | 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. | 7.1 | 331 |
| 7 | In Vitro Reconstitution of SARS-Coronavirus mRNA Cap Methylation. PLoS Pathogens, 2010, 6, e1000863. | 4.7 | 322 |
| 8 | RNA 3'-end 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, 9372-9377. | 7.1 | 297 |
| 9 | Crystal Structure and Functional Analysis of the SARS-Coronavirus RNA Cap 2â€²-O-Methyltransferase nsp10/nsp16 Complex. PLoS Pathogens, 2011, 7, e1002059. | 4.7 | 295 |
| 10 | Remdesivir and SARS-CoV-2: Structural requirements at both nsp12 RdRp and nsp14 Exonuclease active-sites. Antiviral Research, 2020, 178, 104793. | 4.1 | 271 |
| 11 | A second, non-canonical RNA-dependent RNA polymerase in SARS Coronavirus. EMBO Journal, 2006, 25, 4933-4942. | 7.8 | 224 |
| 12 | Coronavirus Nonstructural Protein 16 Is a Cap-0 Binding Enzyme Possessing (Nucleoside-2â€² <i>O</i>) Tj ETQq0 0 0 rgBT /Overlock 10 | 3.4 | 220 |
| 13 | 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. | 12.8 | 210 |
| 14 | The flavivirus polymerase as a target for drug discovery. Antiviral Research, 2008, 80, 23-35. | 4.1 | 167 |
| 15 | Structural disorder and modular organization in Paramyxovirinae N and P. Journal of General Virology, 2003, 84, 3239-3252. | 2.9 | 156 |
| 16 | SARS-CoV ORF1b-encoded nonstructural proteins 12â€"16: Replicative enzymes as antiviral targets. Antiviral Research, 2014, 101, 122-130. | 4.1 | 153 |
| 17 | The N-Terminal Domain of the Arenavirus L Protein Is an RNA Endonuclease Essential in mRNA Transcription. PLoS Pathogens, 2010, 6, e1001038. | 4.7 | 145 |
| 18 | Viral Macro Domains Reverse Protein ADP-Ribosylation. Journal of Virology, 2016, 90, 8478-8486. | 3.4 | 140 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | The Curious Case of the Nidovirus Exoribonuclease: Its Role in RNA Synthesis and Replication Fidelity. Frontiers in Microbiology, 2019, 10, 1813. | 3.5 | 130 |
| 20 | The SARS-Coronavirus PLnc domain of nsp3 as a replication/transcription scaffolding protein. Virus Research, 2008, 133, 136-148. | 2.2 | 122 |
| 21 | Zika Virus Methyltransferase: Structure and Functions for Drug Design Perspectives. Journal of Virology, 2017, 91, . | 3.4 | 109 |
| 22 | Comparative mechanistic studies of de novo RNA synthesis by flavivirus RNA-dependent RNA polymerases. Virology, 2006, 351, 145-158. | 2.4 | 106 |
| 23 | AT-527, a Double Prodrug of a Guanosine Nucleotide Analog, Is a Potent Inhibitor of SARS-CoV-2 <i>In Vitro</i> and a Promising Oral Antiviral for Treatment of COVID-19. Antimicrobial Agents and Chemotherapy, 2021, 65, . | 3.2 | 105 |
| 24 | Viral RNA-polymerases â€" a predicted 2â€²-O-ribose methyltransferase domain shared by all Mononegavirales. Trends in Biochemical Sciences, 2002, 27, 222-224. | 7.5 | 92 |
| 25 | The viral RNA capping machinery as a target for antiviral drugs. Antiviral Research, 2012, 96, 21-31. | 4.1 | 79 |
| 26 | Regulation of Flavivirus RNA synthesis and replication. Current Opinion in Virology, 2014, 9, 74-83. | 5.4 | 72 |
| 27 | Molecular Basis for Nucleotide Conservation at the Ends of the Dengue Virus Genome. PLoS Pathogens, 2012, 8, e1002912. | 4.7 | 66 |
| 28 | 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, . | 3.4 | 62 |
| 29 | Simeprevir Potently Suppresses SARS-CoV-2 Replication and Synergizes with Remdesivir. ACS Central Science, 2021, 7, 792-802. | 11.3 | 59 |
| 30 | Molecular Mapping of the RNA Cap 2â€²-O-Methyltransferase Activation Interface between Severe Acute Respiratory Syndrome Coronavirus nsp10 and nsp16*. Journal of Biological Chemistry, 2010, 285, 33230-33241. | 3.4 | 56 |
| 31 | Inhibition of SARS-CoV-2 polymerase by nucleotide analogs from a single-molecule perspective. ELife, 2021, 10, . | 6.0 | 53 |
| 32 | RNA-dependent RNA polymerases from flaviviruses and Picornaviridae. Current Opinion in Structural Biology, 2009, 19, 759-767. | 5.7 | 52 |
| 33 | A dual mechanism of action of AT-527 against SARS-CoV-2 polymerase. Nature Communications, 2022, 13, 621. | 12.8 | 52 |
| 34 | Structural and Functional Basis of the Fidelity of Nucleotide Selection by Flavivirus RNA-Dependent RNA Polymerases. Viruses, 2018, 10, 59. | 3.3 | 50 |
| 35 | X-ray structure and activities of an essential Mononegavirales L-protein domain. Nature Communications, 2015, 6, 8749. | 12.8 | 49 |
| 36 | Synthesis of 5â€² cap-0 and cap-1 RNAs using solid-phase chemistry coupled with enzymatic methylation by human (guanine-<i>N</i><sup>7</sup>)-methyl transferase. Rna, 2012, 18, 856-868. | 3.5 | 47 |

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|---|---|---|---|
| 37 | Combining Antivirals and Immunomodulators to Fight COVID-19. Trends in Immunology, 2021, 42, 31-44. | 6.8 | 46 |
| 38 | VaZyMolO: a tool to define and classify modularity in viral proteins. Journal of General Virology, 2005, 86, 743-749. | 2.9 | 45 |
| 39 | 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. | 14.5 | 39 |
| 40 | Substrate selectivity of Dengue and Zika virus NS5 polymerase towards 2â€²-modified nucleotide analogues. Antiviral Research, 2017, 140, 25-36. | 4.1 | 34 |
| 41 | Filovirus proteins for antiviral drug discovery: A structure/function analysis of surface glycoproteins and virus entry. Antiviral Research, 2016, 135, 1-14. | 4.1 | 33 |
| 42 | Gln151 of HIV-1 Reverse Transcriptase Acts as a Steric Gate Towards Clinically Relevant Acyclic Phosphonate Nucleotide Analogues. Antiviral Therapy, 2008, 13, 115-124. | 1.0 | 33 |
| 43 | Biochemical principles and inhibitors to interfere with viral capping pathways. Current Opinion in Virology, 2017, 24, 87-96. | 5.4 | 32 |
| 44 | Drugs against SARSâ€CoV â€2: What do we know about their mode of action?. Reviews in Medical Virology, 2020, 30, 1-10. | 8.3 | 30 |
| 45 | Filovirus proteins for antiviral drug discovery: Structure/function bases of the replication cycle. Antiviral Research, 2017, 141, 48-61. | 4.1 | 29 |
| 46 | Efficient Delivery of Dengue Virus Subunit Vaccines to the Skin by Microprojection Arrays. Vaccines, 2019, 7, 189. | 4.4 | 28 |
| 47 | Structureâ€“function analysis of the nsp14 N7â€“guanine methyltransferase reveals an essential role in<i>Betacoronavirus</i>replication. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 26 |
| 48 | 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. | 1.0 | 24 |
| 49 | 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. | 2.9 | 20 |
| 50 | Evaluation of AT-752, a Double Prodrug of a Guanosine Nucleotide Analog with <i>In Vitro</i> and <i>In Vivo</i> Activity against Dengue and Other Flaviviruses. Antimicrobial Agents and Chemotherapy, 2021, 65, e0098821. | 3.2 | 19 |
| 51 | Simultaneous uncoupled expression and purification of the Dengue virus NS3 protease and NS2B co-factor domain. Protein Expression and Purification, 2016, 119, 124-129. | 1.3 | 18 |
| 52 | The nucleotide addition cycle of the SARS-CoV-2 polymerase. Cell Reports, 2021, 36, 109650. | 6.4 | 18 |
| 53 | An appeal for an objective, open, and transparent scientific debate about the origin of SARS-CoV-2. Lancet, The, 2021, 398, 1402-1404. | 13.7 | 17 |
| 54 | The VIZIER project: Overview; expectations; and achievements. Antiviral Research, 2010, 87, 85-94. | 4.1 | 16 |

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|---|---|---|---|
| 55 | A fluorescence-based high throughput-screening assay for the SARS-CoV RNA synthesis complex. Journal of Virological Methods, 2021, 288, 114013. | 2.1 | 16 |
| 56 | First insights into the structural features of Ebola virus methyltransferase activities. Nucleic Acids Research, 2021, 49, 1737-1748. | 14.5 | 14 |
| 57 | Evaluation of Adamantane Derivatives as Inhibitors of Dengue Virus mRNA Cap Methyltransferase by Docking and Molecular Dynamics Simulations. Molecular Informatics, 2013, 32, 155-164. | 2.5 | 12 |
| 58 | Activity inhibition and crystal polymorphism induced by active-site metal swapping. Acta Crystallographica Section D: Structural Biology, 2017, 73, 641-649. | 2.3 | 12 |
| 59 | The C-Terminal Domain of the Sudan Ebolavirus L Protein Is Essential for RNA Binding and Methylation. Journal of Virology, 2020, 94, . | 3.4 | 12 |
| 60 | Coxsackievirus B3 protease 3C: expression, purification, crystallization and preliminary structural insights. Acta Crystallographica Section F, Structural Biology Communications, 2016, 72, 877-884. | 0.8 | 11 |
| 61 | Product release is rate-limiting for catalytic processing by the Dengue virus protease. Scientific Reports, 2016, 6, 37539. | 3.3 | 10 |
| 62 | A N7-guanine RNA cap methyltransferase signature-sequence as a genetic marker of large genome, non-mammalian Tobaniviridae. NAR Genomics and Bioinformatics, 2020, 2, lqz022. | 3.2 | 10 |
| 63 | The enzymes for genome size increase and maintenance of large (+)RNA viruses. Trends in Biochemical Sciences, 2021, 46, 866-877. | 7.5 | 9 |
| 64 | Preliminary insights into the non structural protein 3 macro domain of the Mayaro virus by powder diffraction. Zeitschrift FÃ¼r Kristallographie, 2010, 225, . | 1.1 | 8 |
| 65 | <i>Toscana virus</i>nucleoprotein oligomer organization observed in solution. Acta Crystallographica Section D: Structural Biology, 2017, 73, 650-659. | 2.3 | 8 |
| 66 | 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. | 0.8 | 8 |
| 67 | Metal chelators for the inhibition of the lymphocytic choriomeningitis virus endonuclease domain. Antiviral Research, 2019, 162, 79-89. | 4.1 | 8 |
| 68 | Snapshots of ADP-ribose bound to Getah virus macro domain reveal an intriguing choreography. Scientific Reports, 2020, 10, 14422. | 3.3 | 7 |
| 69 | International research networks in viral structural proteomics: Again, lessons from SARS. Antiviral Research, 2008, 78, 47-50. | 4.1 | 6 |
| 70 | Chemical Composition and Antimicrobial Activity of the Essential Oil of Saccocalyx satureioides Coss. et Dur. Natural Product Communications, 2006, 1, 1934578X0600100. | 0.5 | 5 |
| 71 | Synthesis, Structureâ€"Activity Relationships, and Antiviral Profiling of 1-Heteroaryl-2-Alkoxyphenyl Analogs as Inhibitors of SARS-CoV-2 Replication. Molecules, 2022, 27, 1052. | 3.8 | 4 |
| 72 | Les enzymes de la rÃ©plication/transcription chez les coronavirus. Virologie, 2012, 16, 199-209. | 0.1 | 1 |

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|---|---|---|---|
| 73 | Observation of arenavirus nucleoprotein heptamer assembly. FEBS Open Bio, 2021, 11, 1076-1083. | 2.3 | 0 |
| 74 | Les protÃ©ines non structurales des AlphavirusÂ: rÃ1e dans la rÃ©plication et l'interaction du virus avec la cellule hÃ´te. Virologie, 2013, 17, 31-45. | 0.1 | 0 |