John T Patton

List of Publications by Year
in descending order

135 papers	9,519 citations	47006 47 h-index	42399 92 g-index
142 all docs	142 docs citations	142 times ranked	5494 citing authors

#	Article	IF	Citations
1	Uniformity of rotavirus strain nomenclature proposed by the Rotavirus Classification Working Group (RCWG). Archives of Virology, 2011, 156, 1397-1413.	2.1	827
2	Full Genome-Based Classification of Rotaviruses Reveals a Common Origin between Human Wa-Like and Porcine Rotavirus Strains and Human DS-1-Like and Bovine Rotavirus Strains. Journal of Virology, 2008, 82, 3204-3219.	3.4	791
3	Recommendations for the classification of group A rotaviruses using all 11 genomic RNA segments. Archives of Virology, 2008, 153, 1621-1629.	2.1	642
4	Critical Role for Cryopyrin/Nalp3 in Activation of Caspase-1 in Response to Viral Infection and Double-stranded RNA. Journal of Biological Chemistry, 2006, 281, 36560-36568.	3.4	598
5	Reassortment in segmented RNA viruses: mechanisms and outcomes. Nature Reviews Microbiology, 2016, 14, 448-460.	28.6	259
6	Rotavirus nonstructural protein 1 subverts innate immune response by inducing degradation of IFN regulatory factor 3. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4114-4119.	7.1	233
7	Vesicle-Cloaked Virus Clusters Are Optimal Units for Inter-organismal Viral Transmission. Cell Host and Microbe, 2018, 24, 208-220.e8.	11.0	209
8	Rotavirus Replication: Plus-Sense Templates for Double-Stranded RNA Synthesis Are Made in Viroplasms. Journal of Virology, 2004, 78, 7763-7774.	3.4	197
9	Rotavirus NSP1 Inhibits Expression of Type I Interferon by Antagonizing the Function of Interferon Regulatory Factors IRF3, IRF5, and IRF7. Journal of Virology, 2007, 81, 4473-4481.	3.4	190
10	Structural insights into the coupling of virion assembly and rotavirus replication. Nature Reviews Microbiology, 2012, 10, 165-177.	28.6	182
11	Evolutionary Dynamics of Human Rotaviruses: Balancing Reassortment with Preferred Genome Constellations. PLoS Pathogens, 2009, 5, e1000634.	4.7	178
12	Genetic Analyses Reveal Differences in the VP7 and VP4 Antigenic Epitopes between Human Rotaviruses Circulating in Belgium and Rotaviruses in Rotarix and RotaTeq. Journal of Clinical Microbiology, 2012, 50, 966-976.	3.9	160
13	Group A Human Rotavirus Genomics: Evidence that Gene Constellations Are Influenced by Viral Protein Interactions. Journal of Virology, 2008, 82, 11106-11116.	3.4	156
14	Characterization of rotavirus replication intermediates: A model for the assembly of single-shelled particles. Virology, 1989, 172, 616-627.	2.4	151
15	Mechanism for Coordinated RNA Packaging and Genome Replication by Rotavirus Polymerase VP1. Structure, 2008, 16, 1678-1688.	3.3	148
16	Genome Replication and Packaging of Segmented Double-Stranded RNA Viruses. Virology, 2000, 277, 217-225.	2.4	130
17	Culturing, Storage, and Quantification of Rotaviruses. Current Protocols in Microbiology, 2009, 15, Unit 15C.3.	6.5	126
18	Homologous 2â€²,5â€²-phosphodiesterases from disparate RNA viruses antagonize antiviral innate immunity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13114-13119.	7.1	118

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19	Assortment and packaging of the segmented rotavirus genome. Trends in Microbiology, 2011, 19, 136-144.	7.7	113
20	Multimers Formed by the Rotavirus Nonstructural Protein NSP2 Bind to RNA and Have Nucleoside Triphosphatase Activity. Journal of Virology, 1999, 73, 9934-9943.	3.4	107
21	Rotavirus protein involved in genome replication and packaging exhibits a HIT-like fold. Nature, 2002, 417, 311-315.	27.8	93
22	Rotavirus diversity and evolution in the post-vaccine world. Discovery Medicine, 2012, 13, 85-97.	0.5	89
23	Rotavirus Nonstructural Protein NSP2 Self-assembles into Octamers That Undergo Ligand-induced Conformational Changes. Journal of Biological Chemistry, 2001, 276, 9679-9687.	3.4	88
24	The Battle between Rotavirus and Its Host for Control of the Interferon Signaling Pathway. PLoS Pathogens, 2013, 9, e1003064.	4.7	88
25	Rotavirus Open Cores Catalyze 5â€²-Capping and Methylation of Exogenous RNA: Evidence That VP3 Is a Methyltransferase. Virology, 1999, 265, 120-130.	2.4	82
26	Identification and Characterization of the Helix-Destabilizing Activity of Rotavirus Nonstructural Protein NSP2. Journal of Virology, 2001, 75, 4519-4527.	3.4	82
27	Dual selection mechanisms drive efficient single-gene reverse genetics for rotavirus. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18652-18657.	7.1	81
28	Diversity of Interferon Antagonist Activities Mediated by NSP1 Proteins of Different Rotavirus Strains. Journal of Virology, 2011, 85, 1970-1979.	3.4	78
29	Nonstructural proteins involved in genome packaging and replication of rotaviruses and other members of the Reoviridae. Virus Research, 2004, 101, 57-66.	2.2	72
30	The Rotavirus RNA-Binding Protein NS35 (NSP2) Forms 10S Multimers and Interacts with the Viral RNA Polymerase. Virology, 1994, 202, 803-813.	2.4	71
31	Comparative Analysis of the Rotavirus NS53 Gene: Conservation of Basic and Cysteine-Rich Regions in the Protein and Possible Stem-Loop Structures in the RNA. Virology, 1993, 196, 372-378.	2.4	68
32	Rotavirus RNA Replication Requires a Single-Stranded 3â€² End for Efficient Minus-Strand Synthesis. Journal of Virology, 1998, 72, 7387-7396.	3.4	68
33	Vaccine-derived NSP2 segment in rotaviruses from vaccinated children with gastroenteritis in Nicaragua. Infection, Genetics and Evolution, 2012, 12, 1282-1294.	2.3	67
34	Structure and protein composition of the rotavirus replicase particle. Virology, 1988, 166, 358-365.	2.4	66
35	The rotavirus nonstructural protein, NS35, possesses RNA-binding activity in vitro and in vivo. Virology, 1992, 191, 698-708.	2.4	65
36	The Carboxyl-Half of the Rotavirus Nonstructural Protein NS53 (NSP1) Is Not Required for Virus Replication. Virology, 1994, 198, 567-576.	2.4	63

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37	Genome packaging in multi-segmented dsRNA viruses: distinct mechanisms with similar outcomes. Current Opinion in Virology, 2018, 33, 106-112.	5.4	62
38	Template Recognition and Formation of Initiation Complexes by the Replicase of a Segmented Double-stranded RNA Virus. Journal of Biological Chemistry, 2003, 278, 32673-32682.	3.4	61
39	Simian Rotaviruses Possess Divergent Gene Constellations That Originated from Interspecies Transmission and Reassortment. Journal of Virology, 2010, 84, 2013-2026.	3.4	60
40	Effect of Intragenic Rearrangement and Changes in the 3â€² Consensus Sequence on NSP1 Expression and Rotavirus Replication. Journal of Virology, 2001, 75, 2076-2086.	3.4	59
41	Comparative Proteomics Reveals Strain-Specific Î²-TrCP Degradation via Rotavirus NSP1 Hijacking a Host Cullin-3-Rbx1 Complex. PLoS Pathogens, 2016, 12, e1005929.	4.7	59
42	Rotavirus VP2 Core Shell Regions Critical for Viral Polymerase Activation. Journal of Virology, 2011, 85, 3095-3105.	3.4	57
43	Rotavirus NSP1 Mediates Degradation of Interferon Regulatory Factors through Targeting of the Dimerization Domain. Journal of Virology, 2013, 87, 9813-9821.	3.4	57
44	Characterization of subviral particles in cells infected with simian rotavirus SA11. Virology, 1986, 155, 655-665.	2.4	56
45	Synthesis of simian rotavirus SA11 double-stranded RNA in a cell-free system. Virus Research, 1986, 6, 217-233.	2.2	56
46	Putative E3 Ubiquitin Ligase of Human Rotavirus Inhibits NF-Î°B Activation by Using Molecular Mimicry To Target Î²-TrCP. MBio, 2015, 6, .	4.1	56
47	Mechanism of Intraparticle Synthesis of the Rotavirus Double-stranded RNA Genome. Journal of Biological Chemistry, 2010, 285, 18123-18128.	3.4	55
48	De novo synthesis of minus strand RNA by the rotavirus RNA polymerase in a cell-free system involves a novel mechanism of initiation. Rna, 2000, 6, 1455-1467.	3.5	53
49	Nucleotide and Amino Acid Sequence Analysis of the Rotavirus Nonstructural RNA-Binding Protein NS35. Virology, 1993, 192, 438-446.	2.4	52
50	Reverse Transcriptase Adds Nontemplated Nucleotides to cDNAs During 5â€²-RACE and Primer Extension. BioTechniques, 2001, 30, 574-582.	1.8	52
51	Molecular Epidemiology of Contemporary G2P[4] Human Rotaviruses Cocirculating in a Single U.S. Community: Footprints of a Globally Transitioning Genotype. Journal of Virology, 2014, 88, 3789-3801.	3.4	52
52	RNA-Binding Activity of the Rotavirus Phosphoprotein NSP5 Includes Affinity for Double-Stranded RNA. Journal of Virology, 2002, 76, 5291-5299.	3.4	51
53	Rotavirus Calcium Dysregulation Manifests as Dynamic Calcium Signaling in the Cytoplasm and Endoplasmic Reticulum. Scientific Reports, 2019, 9, 10822.	3.3	50
54	RNA-Binding and Capping Activities of Proteins in Rotavirus Open Cores. Journal of Virology, 1999, 73, 1382-1391.	3.4	50

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55	Structure-Function Analysis of Rotavirus NSP2 Octamer by Using a Novel Complementation System. Journal of Virology, 2006, 80, 7984-7994.	3.4	49
56	Drebrin restricts rotavirus entry by inhibiting dynamin-mediated endocytosis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3642-E3651.	7.1	49
57	The ins and outs of four-tunneled Reoviridae RNA-dependent RNA polymerases. Current Opinion in Structural Biology, 2009, 19, 775-782.	5.7	48
58	A base-specific recognition signal in the 5' consensus sequence of rotavirus plus-strand RNAs promotes replication of the double-stranded RNA genome segments. Rna, 2006, 12, 133-146.	3.5	45
59	Shared and Group-Specific Features of the Rotavirus RNA Polymerase Reveal Potential Determinants of Gene Reassortment Restriction. Journal of Virology, 2009, 83, 6135-6148.	3.4	45
60	Diversity and Relationships of Cocirculating Modern Human Rotaviruses Revealed Using Large-Scale Comparative Genomics. Journal of Virology, 2012, 86, 9148-9162.	3.4	45
61	Generation of Recombinant Rotavirus Expressing NSP3-UnaG Fusion Protein by a Simplified Reverse Genetics System. Journal of Virology, 2019, 93, .	3.4	45
62	Histidine Triad-like Motif of the Rotavirus NSP2 Octamer Mediates both RTPase and NTPase Activities. Journal of Molecular Biology, 2006, 362, 539-554.	4.2	44
63	Rotavirus morphogenesis: Domains in the major inner capsid protein essential for binding to single-shelled particles and for trimerization. Virology, 1991, 180, 697-708.	2.4	43
64	Rotavirus Glycoprotein NSP4 Is a Modulator of Viral Transcription in the Infected Cell. Journal of Virology, 2005, 79, 15165-15174.	3.4	42
65	A four-nucleotide translation enhancer in the 3â€²-terminal consensus sequence of the nonpolyadenylated mRNAs of rotavirus. Rna, 2000, 6, 814-825.	3.5	41
66	Multimers of the Bluetongue Virus Nonstructural Protein, NS2, Possess Nucleotidyl Phosphatase Activity: Similarities between NS2 and Rotavirus NSP2. Virology, 2001, 280, 221-231.	2.4	41
67	Coupling of Rotavirus Genome Replication and Capsid Assembly. Advances in Virus Research, 2006, 69, 167-201.	2.1	41
68	Analysis of a Temperature-Sensitive Mutant Rotavirus Indicates that NSP2 Octamers Are the Functional Form of the Protein. Journal of Virology, 2002, 76, 7082-7093.	3.4	40
69	Crystallographic and Biochemical Analysis of Rotavirus NSP2 with Nucleotides Reveals a Nucleoside Diphosphate Kinase-Like Activity. Journal of Virology, 2007, 81, 12272-12284.	3.4	39
70	Generation of Genetically Stable Recombinant Rotaviruses Containing Novel Genome Rearrangements and Heterologous Sequences by Reverse Genetics. Journal of Virology, 2013, 87, 6211-6220.	3.4	39
71	Silencing the alarms: Innate immune antagonism by rotavirus NSP1 and VP3. Virology, 2015, 479-480, 75-84.	2.4	39
72	Complete genome sequence analysis of candidate human rotavirus vaccine strains RV3 and 116E. Virology, 2010, 405, 201-213.	2.4	38

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73	Role of the Histidine Triad-like Motif in Nucleotide Hydrolysis by the Rotavirus RNA-packaging Protein NSP2. Journal of Biological Chemistry, 2004, 279, 10624-10633.	3.4	36
74	Features of the 3â€²-Consensus Sequence of Rotavirus mRNAs Critical to Minus Strand Synthesis. Virology, 2001, 282, 221-229.	2.4	35
75	Predicted Structure and Domain Organization of Rotavirus Capping Enzyme and Innate Immune Antagonist VP3. Journal of Virology, 2014, 88, 9072-9085.	3.4	35
76	Ulnar Collateral Ligament Reconstruction Using Bisuspensory Fixation. American Journal of Sports Medicine, 2013, 41, 1158-1164.	4.2	34
77	Interactions among capsid proteins orchestrate rotavirus particle functions. Current Opinion in Virology, 2012, 2, 373-379.	5.4	33
78	Rotavirus RNA Replication and Gene Expression. Novartis Foundation Symposium, 2008, 238, 64-81.	1.1	32
79	Synthesis and Biological Evaluation of a Potent E-Selectin Antagonist. Journal of Medicinal Chemistry, 1999, 42, 4909-4913.	6.4	31
80	Genome heterogeneity of SA11 rotavirus due to reassortment with â€œOâ€•agent. Virology, 2007, 359, 415-424.	2.4	31
81	Rotavirus variant replicates efficiently although encoding an aberrant NSP3 that fails to induce nuclear localization of poly(A)-binding protein. Journal of General Virology, 2012, 93, 1483-1494.	2.9	31
82	Multiple Introductions and Antigenic Mismatch with Vaccines May Contribute to Increased Predominance of G12P[8] Rotaviruses in the United States. Journal of Virology, 2019, 93, .	3.4	31
83	Homotypic and Heterotypic Serum Isotypeâ€“Specific Antibody Responses to Rotavirus Nonstructural Protein 4 and Viral Protein (VP) 4, VP6, and VP7 in Infants Who Received Selected Live Oral Rotavirus Vaccines. Journal of Infectious Diseases, 2004, 189, 1833-1845.	4.0	28
84	Structural Basis for 2â€²-5â€²-Oligoadenylate Binding and Enzyme Activity of a Viral RNase L Antagonist. Journal of Virology, 2015, 89, 6633-6645.	3.4	28
85	Replication and Transcription of the Rotavirus Genome. Current Pharmaceutical Design, 2004, 10, 3769-3777.	1.9	27
86	Evidence for equimolar synthesis of double-strand RNA and minus-strand RNA in rotavirus-infected cells. Virus Research, 1990, 17, 199-208.	2.2	26
87	Intra-genotypic diversity of archival G4P[8] human rotaviruses from Washington, DC. Infection, Genetics and Evolution, 2011, 11, 1586-1594.	2.3	26
88	Crystallographic Analysis of Rotavirus NSP2-RNA Complex Reveals Specific Recognition of 5â€² GG Sequence for RTPase Activity. Journal of Virology, 2012, 86, 10547-10557.	3.4	25
89	Expression of Separate Heterologous Proteins from the Rotavirus NSP3 Genome Segment Using a Translational 2A Stop-Restart Element. Journal of Virology, 2020, 94, .	3.4	25
90	Rotavirus NSP1 Requires Casein Kinase II-Mediated Phosphorylation for Hijacking of Cullin-RING Ligases. MBio, 2017, 8, .	4.1	24

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91	Analysis of Human Rotaviruses from a Single Location Over an 18-Year Time Span Suggests that Protein Coadaption Influences Gene Constellations. Journal of Virology, 2014, 88, 9842-9863.	3.4	23
92	Electrophoretic separation of the plus and minus strands of rotavirus SA11 double-stranded RNAs. Journal of Virological Methods, 1986, 13, 185-190.	2.1	22
93	Rotavirus Antagonism of the Innate Immune Response. Viruses, 2009, 1, 1035-1056.	3.3	22
94	Mutational analysis of residues involved in nucleotide and divalent cation stabilization in the rotavirus RNA-dependent RNA polymerase catalytic pocket. Virology, 2012, 431, 12-20.	2.4	19
95	Rotavirus Species B Encodes a Functional Fusion-Associated Small Transmembrane Protein. Journal of Virology, 2019, 93, .	3.4	19
96	Collection of Recombinant Rotaviruses Expressing Fluorescent Reporter Proteins. Microbiology Resource Announcements, 2019, 8, .	0.6	19
97	Open Reading Frame in Rotavirus mRNA Specifically Promotes Synthesis of Double-Stranded RNA: Template Size Also Affects Replication Efficiency. Virology, 1999, 264, 167-180.	2.4	18
98	Molecular Characterization of a Subgroup Specificity Associated with the Rotavirus Inner Capsid Protein VP2. Journal of Virology, 2008, 82, 2752-2764.	3.4	18
99	Virus Replication. , 2000, 34, 33-66.		17
100	Cell-line-induced mutation of the rotavirus genome alters expression of an IRF3-interacting protein. EMBO Journal, 2004, 23, 4072-4081.	7.8	17
101	Rotavirus RNA polymerases resolve into two phylogenetically distinct classes that differ in their mechanism of template recognition. Virology, 2012, 431, 50-57.	2.4	17
102	Prevalence of Groups A and C Rotavirus Antibodies in Infants with Biliary Atresia and Cholestatic Controls. Journal of Pediatrics, 2015, 166, 79-84.e1.	1.8	17
103	Rotavirus as an Expression Platform of Domains of the SARS-CoV-2 Spike Protein. Vaccines, 2021, 9, 449.	4.4	17
104	Nonâ€structural protein NSP2 induces heterotypic antibody responses during primary rotavirus infection and reinfection in children. Journal of Medical Virology, 2008, 80, 1090-1098.	5.0	16
105	Residues of the Rotavirus RNA-Dependent RNA Polymerase Template Entry Tunnel That Mediate RNA Recognition and Genome Replication. Journal of Virology, 2011, 85, 1958-1969.	3.4	15
106	Rotavirus Infects Human Biliary Epithelial Cells and Stimulates Secretion of Cytokines IL-6 and IL-8 via MAPK Pathway. BioMed Research International, 2015, 2015, 1-9.	1.9	15
107	Identification of Sequences in Rotavirus mRNAs Important for Minus Strand Synthesis Using Antisense Oligonucleotides. Virology, 2001, 288, 71-80.	2.4	14
108	Comparative analysis of Reoviridae reverse genetics methods. Methods, 2013, 59, 199-206.	3.8	14

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109	Simplified Reverse Genetics Method to Recover Recombinant Rotaviruses Expressing Reporter Proteins. Journal of Visualized Experiments, 2020, , .	0.3	13
110	Shutdown of interferon signaling by a viral-hijacked E3 ubiquitin ligase. Microbial Cell, 2017, 4, 387-389.	3.2	13
111	Rotavirus NSP2 interferes with the core lattice protein VP2 in initiation of minus-strand synthesis. Virology, 2003, 313, 261-273.	2.4	12
112	Regulation of rotavirus polymerase activity by inner capsid proteins. Current Opinion in Virology, 2014, 9, 31-38.	5.4	12
113	Absence of Genetic Differences among G10P[11] Rotaviruses Associated with Asymptomatic and Symptomatic Neonatal Infections in Vellore, India. Journal of Virology, 2014, 88, 9060-9071.	3.4	12
114	The Switch from Transcription to Replication of a Negative-strand RNA Virus. Cold Spring Harbor Symposia on Quantitative Biology, 1987, 52, 367-371.	1.1	12
115	An ATPase activity associated with the rotavirus phosphoprotein NSP5. Virology, 2007, 369, 389-399.	2.4	11
116	Replication of Nondefective Parvoviruses: Lack of a Virion-Associated DNA Polymerase. Journal of Virology, 1978, 28, 20-27.	3.4	11
117	Translation enhancer in the 3?-untranslated region of rotavirus gene 6 mRNA promotes expression of the major capsid protein VP6. Archives of Virology, 2004, 149, 303-321.	2.1	10
118	II, 4. Rotavirus genome replication: role of the RNA-binding proteins. Perspectives in Medical Virology, 2003, 9, 165-183.	0.1	8
119	Mutations in the rotavirus spike protein VP4 reduce trypsin sensitivity but not viral spread. Journal of General Virology, 2013, 94, 1296-1300.	2.9	7
120	Modeling of the rotavirus group C capsid predicts a surface topology distinct from other rotavirus species. Virology, 2016, 487, 150-162.	2.4	7
121	Rotavirus assembly - interaction of surface protein VP7 with middle layer protein VP6. Archives of Virology, 2001, 146, 1155-1171.	2.1	6
122	Rotavirus Replication and Reverse Genetics. , 2016, , 121-143.		5
123	Rotaviruses as Neonatal Vaccine Expression Vectors against Other Enteric Pathogens. Proceedings (mdpi), 2020, 50, 53.	0.2	4
124	Primed for Discovery: Atomic-Resolution Cryo-EM Structure of a Reovirus Entry Intermediate. Viruses, 2010, 2, 1340-1346.	3.3	2
125	[24] Using the RNA-capture assay to assess the RNA-binding activity of viral proteins. Methods in Molecular Genetics, 1995, 7, 373-387.	0.6	1
126	Species A rotavirus reverse genetics: Achievements and prospects. Virus Research, 2021, 306, 198583.	2.2	1

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127	Viral factories in rotavirus-infected cells: interactions between protein and RNA components. Future Virology, 2007, 2, 157-161.	1.8	0
128	Core-Associated Genome Replication Mechanisms of dsRNA Viruses. , 2009, , 201-224.		0
129	824 Humoral Immunity to Rotavirus-Infected Human Cholangiocytes in Biliary Atresia. Gastroenterology, 2009, 136, A-808.	1.3	0
130	4 Prevalence of Acute Asymptomatic Group a Rotavirus Infection in Cholestatic Infants Enrolled in the Biliary Atresia Research Consortium (BARC). Gastroenterology, 2010, 138, S-773.	1.3	0
131	345 Rotavirus (RV) Infection of Human Cholangiocytes Results in Release of IL-6 and IL-8. Gastroenterology, 2010, 138, S-785-S-786.	1.3	0
132	Functions of the Rotavirus RNA Polymerase in Virus Replication. , 2010, , 31-40.		0
133	Rotavirus Antagonism of the Host Innate Immune Response. , 2009, , 655-677.		0
134	Innate Immune Responses Elicited by Reovirus and Rotavirus. , 0, , 403-422.		0
135	Recovery of Recombinant Rotavirus Expressing Fluorescent Reporter Protein. SSRN Electronic Journal, 0, , .	0.4	0