Vinay K Pathak

List of Publications by Year
in descending order

88 papers	5,336 citations	71102 41 h-index	88630 70 g-index
89 all docs	89 docs citations	89 times ranked	3742 citing authors

#	Article	IF	Citations
1	Intranuclear Positions of HIV-1 Proviruses Are Dynamic and Do Not Correlate with Transcriptional Activity. MBio, 2022, 13, e0325621.	4.1	5
2	Specific Guanosines in the HIV-2 Leader RNA are Essential for Efficient Viral Genome Packaging. Journal of Molecular Biology, 2021, 433, 166718.	4.2	6
3	Efficient HIV-1 in vitro reverse transcription: optimal capsid stability is required. Signal Transduction and Targeted Therapy, 2021, 6, 13.	17.1	5
4	Targeting natural splicing plasticity of APOBEC3B restricts its expression and mutagenic activity. Communications Biology, 2021, 4, 386.	4.4	7
5	HIV-1 cores retain their integrity until minutes before uncoating in the nucleus. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	79
6	Development of a Cell-Based Luciferase Complementation Assay for Identification of SARS-CoV-2 3CLpro Inhibitors. Viruses, 2021, 13, 173.	3.3	37
7	Selective packaging of HIV-1 RNA genome is guided by the stability of 5â€² untranslated region polyA stem. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	16
8	Plasma Membrane Anchoring and Gag:Gag Multimerization on Viral RNA Are Critical Properties of HIV-1 Gag Required To Mediate Efficient Genome Packaging. MBio, 2021, 12, e0325421.	4.1	12
9	Impact of Nuclear Export Pathway on Cytoplasmic HIV-1 RNA Transport Mechanism and Distribution. MBio, 2020, 11, .	4.1	8
10	Unpaired Guanosines in the 5â€² Untranslated Region of HIV-1 RNA Act Synergistically To Mediate Genome Packaging. Journal of Virology, 2020, 94, .	3.4	24
11	Crystal Structure of a Soluble APOBEC3G Variant Suggests ssDNA to Bind in a Channel that Extends between the Two Domains. Journal of Molecular Biology, 2020, 432, 6042-6060.	4.2	12
12	Structural Insights into APOBEC3-Mediated Lentiviral Restriction. Viruses, 2020, 12, 587.	3.3	22
13	HIV-1 uncoats in the nucleus near sites of integration. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5486-5493.	7.1	190
14	Development of Lentiviral Vectors for HIV-1 Gene Therapy with Vif-Resistant APOBEC3G. Molecular Therapy - Nucleic Acids, 2019, 18, 1023-1038.	5.1	15
15	Authentication Analysis of MT-4 Cells Distributed by the National Institutes of Health AIDS Reagent Program. Journal of Virology, 2019, 93, .	3.4	11
16	Structural basis of antagonism of human APOBEC3F by HIV-1 Vif. Nature Structural and Molecular Biology, 2019, 26, 1176-1183.	8.2	21
17	The roles of five conserved lentiviral RNA structures in HIV-1 replication. Virology, 2018, 514, 1-8.	2.4	10
18	Recombination is required for efficient HIV-1 replication and the maintenance of viral genome integrity. Nucleic Acids Research, 2018, 46, 10535-10545.	14.5	30

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19	Crystal structure of the catalytic domain of HIV-1 restriction factor APOBEC3G in complex with ssDNA. Nature Communications, 2018, 9, 2460.	12.8	58
20	Insights into DNA substrate selection by APOBEC3G from structural, biochemical, and functional studies. PLoS ONE, 2018, 13, e0195048.	2.5	25
21	Interactions between HIV-1 Gag and Viral RNA Genome Enhance Virion Assembly. Journal of Virology, 2017, 91, .	3.4	28
22	HIV-1 Sequence Necessary and Sufficient to Package Non-viral RNAs into HIV-1 Particles. Journal of Molecular Biology, 2017, 429, 2542-2555.	4.2	28
23	Identification of a tripartite interaction between the N-terminus of HIV-1 Vif and CBFÎ² that is critical for Vif function. Retrovirology, 2017, 14, 19.	2.0	10
24	Dynamics and regulation of nuclear import and nuclear movements of HIV-1 complexes. PLoS Pathogens, 2017, 13, e1006570.	4.7	93
25	APOBEC3 proteins can copackage and comutate HIV-1 genomes. Nucleic Acids Research, 2016, 44, 7848-7865.	14.5	41
26	HIV-1 RNA genome dimerizes on the plasma membrane in the presence of Gag protein. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E201-8.	7.1	68
27	Minimal Contribution of APOBEC3-Induced G-to-A Hypermutation to HIV-1 Recombination and Genetic Variation. PLoS Pathogens, 2016, 12, e1005646.	4.7	44
28	High recombination potential of subtype A HIV-1. Virology, 2015, 484, 334-340.	2.4	3
29	HIV-1 and HIV-2 Vif Interact with Human APOBEC3 Proteins Using Completely Different Determinants. Journal of Virology, 2014, 88, 9893-9908.	3.4	31
30	APOBEC3D and APOBEC3F Potently Promote HIV-1 Diversification and Evolution in Humanized Mouse Model. PLoS Pathogens, 2014, 10, e1004453.	4.7	79
31	Cytoplasmic HIV-1 RNA is mainly transported by diffusion in the presence or absence of Gag protein. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5205-13.	7.1	54
32	Multiple APOBEC3 Restriction Factors for HIV-1 and One Vif to Rule Them All. Journal of Molecular Biology, 2014, 426, 1220-1245.	4.2	188
33	Xenotropic MLV envelope proteins induce tumor cells to secrete factors that promote the formation of immature blood vessels. Retrovirology, 2013, 10, 34.	2.0	3
34	Connection subdomain mutations in HIV-1 subtype-C treatment-experienced patients enhance NRTI and NNRTI drug resistance. Virology, 2013, 435, 433-441.	2.4	11
35	Nuclear import of APOBEC3F-labeled HIV-1 preintegration complexes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4780-9.	7.1	63
36	Dimeric RNA Recognition Regulates HIV-1 Genome Packaging. PLoS Pathogens, 2013, 9, e1003249.	4.7	78

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37	Mov10 and APOBEC3G Localization to Processing Bodies Is Not Required for Virion Incorporation and Antiviral Activity. Journal of Virology, 2013, 87, 11047-11062.	3.4	50
38	APOBEC3G Restricts HIV-1 to a Greater Extent than APOBEC3F and APOBEC3DE in Human Primary CD4 ⁺ T Cells and Macrophages. Journal of Virology, 2013, 87, 444-453.	3.4	100
39	Generation of Multiple Replication-Competent Retroviruses through Recombination between PreXMRV-1 and PreXMRV-2. Journal of Virology, 2013, 87, 11525-11537.	3.4	12
40	Characterization, Mapping, and Distribution of the Two XMRV Parental Proviruses. Journal of Virology, 2012, 86, 328-338.	3.4	26
41	Restricted Replication of Xenotropic Murine Leukemia Virus-Related Virus in Pigtailed Macaques. Journal of Virology, 2012, 86, 3152-3166.	3.4	16
42	Biochemical, inhibition and inhibitor resistance studies of xenotropic murine leukemia virus-related virus reverse transcriptase. Nucleic Acids Research, 2012, 40, 345-359.	14.5	14
43	Recombinant origin, contamination, and de-discovery of XMRV. Current Opinion in Virology, 2012, 2, 499-507.	5.4	31
44	Multiple Barriers to Recombination between Divergent HIV-1 Variants Revealed by a Dual-Marker Recombination Assay. Journal of Molecular Biology, 2011, 407, 521-531.	4.2	19
45	Mechanisms and Factors that Influence High Frequency Retroviral Recombination. Viruses, 2011, 3, 1650-1680.	3.3	62
46	Phenotypic characterization of drug resistance-associated mutations in HIV-1 RT connection and RNase H domains and their correlation with thymidine analogue mutations. Journal of Antimicrobial Chemotherapy, 2011, 66, 702-708.	3.0	29
47	The Role of Amino-Terminal Sequences in Cellular Localization and Antiviral Activity of APOBEC3B. Journal of Virology, 2011, 85, 8538-8547.	3.4	53
48	Lack of Detection of Xenotropic Murine Leukemia Virus-Related Virus in HIV-1 Lymphoma Patients. Advances in Virology, 2011, 2011, 1-4.	1.1	6
49	Severe Restriction of Xenotropic Murine Leukemia Virus-Related Virus Replication and Spread in Cultured Human Peripheral Blood Mononuclear Cells. Journal of Virology, 2011, 85, 4888-4897.	3.4	24
50	Mechanisms of Human Immunodeficiency Virus Type 2 RNA Packaging: Efficient <i>trans</i> Packaging and Selection of RNA Copackaging Partners. Journal of Virology, 2011, 85, 7603-7612.	3.4	25
51	Recombinant Origin of the Retrovirus XMRV. Science, 2011, 333, 97-101.	12.6	220
52	APOBEC3F and APOBEC3G Inhibit HIV-1 DNA Integration by Different Mechanisms. Journal of Virology, 2010, 84, 5250-5259.	3.4	115
53	Inhibition of Xenotropic Murine Leukemia Virus-Related Virus by APOBEC3 Proteins and Antiviral Drugs. Journal of Virology, 2010, 84, 5719-5729.	3.4	74
54	P Body-Associated Protein Mov10 Inhibits HIV-1 Replication at Multiple Stages. Journal of Virology, 2010, 84, 10241-10253.	3.4	145

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55	Identification of Specific Determinants of Human APOBEC3F, APOBEC3C, and APOBEC3DE and African Green Monkey APOBEC3F That Interact with HIV-1 Vif. Journal of Virology, 2010, 84, 12599-12608.	3.4	68
56	A Novel Molecular Mechanism of Dual Resistance to Nucleoside and Nonnucleoside Reverse Transcriptase Inhibitors. Journal of Virology, 2010, 84, 5238-5249.	3.4	44
57	The â€œConnectionâ€•Between HIV Drug Resistance and RNase H. Viruses, 2010, 2, 1476-1503.	3.3	39
58	Patterns of Human Immunodeficiency Virus Type 1 Recombination Ex Vivo Provide Evidence for Coadaptation of Distant Sites, Resulting in Purifying Selection for Intersubtype Recombinants during Replication. Journal of Virology, 2010, 84, 7651-7661.	3.4	36
59	High efficiency of HIV-1 genomic RNA packaging and heterozygote formation revealed by single virion analysis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13535-13540.	7.1	190
60	Guidelines for Naming Nonprimate APOBEC3 Genes and Proteins. Journal of Virology, 2009, 83, 494-497.	3.4	217
61	Likely Role of APOBEC3G-Mediated G-to-A Mutations in HIV-1 Evolution and Drug Resistance. PLoS Pathogens, 2009, 5, e1000367.	4.7	122
62	Distinct Domains within APOBEC3G and APOBEC3F Interact with Separate Regions of Human Immunodeficiency Virus Type 1 Vif. Journal of Virology, 2009, 83, 1992-2003.	3.4	94
63	Subtype-Specific Differences in the Human Immunodeficiency Virus Type 1 Reverse Transcriptase Connection Subdomain of CRF01_AE Are Associated with Higher Levels of Resistance to 3â€²-Azido-3â€²-Deoxythymidine. Journal of Virology, 2009, 83, 8502-8513.	3.4	29
64	Multiple ways of targeting APOBEC3â€"virion infectivity factor interactions for anti-HIV-1 drug development. Trends in Pharmacological Sciences, 2009, 30, 638-646.	8.7	45
65	APOBEC3G induces a hypermutation gradient: purifying selection at multiple steps during HIV-1 replication results in levels of G-to-A mutations that are high in DNA, intermediate in cellular viral RNA, and low in virion RNA. Retrovirology, 2009, 6, 16.	2.0	67
66	Intracellular interactions between APOBEC3G, RNA, and HIV-1 Gag: APOBEC3G multimerization is dependent on its association with RNA. Retrovirology, 2009, 6, 56.	2.0	69
67	HIV-1 reverse transcriptase connection subdomain mutations reduce template RNA degradation and enhance AZT excision. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 10943-10948.	7.1	57
68	Conservation Patterns of HIV-1 RT Connection and RNase H Domains: Identification of New Mutations in NRTI-Treated Patients. PLoS ONE, 2008, 3, e1781.	2.5	47
69	Human Immunodeficiency Virus Type 1 cDNAs Produced in the Presence of APOBEC3G Exhibit Defects in Plus-Strand DNA Transfer and Integration. Journal of Virology, 2007, 81, 7099-7110.	3.4	247
70	Mutations in the connection domain of HIV-1 reverse transcriptase increase 3'-azido-3'-deoxythymidine resistance. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 317-322.	7.1	126
71	Identification of Two Distinct Human Immunodeficiency Virus Type 1 Vif Determinants Critical for Interactions with Human APOBEC3G and APOBEC3F. Journal of Virology, 2007, 81, 8201-8210.	3.4	205
72	Stoichiometry of the antiviral protein APOBEC3G in HIV-1 virions. Virology, 2007, 360, 247-256.	2.4	92

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73	Mutations in the RNase H Primer Grip Domain of Murine Leukemia Virus Reverse Transcriptase Decrease Efficiency and Accuracy of Plus-Strand DNA Transfer. Journal of Virology, 2005, 79, 419-427.	3.4	16
74	Mechanism for nucleoside analog-mediated abrogation of HIV-1 replication: Balance between RNase H activity and nucleotide excision. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 2093-2098.	7.1	121
75	A single amino acid substitution in human APOBEC3G antiretroviral enzyme confers resistance to HIV-1 virion infectivity factor-induced depletion. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5652-5657.	7.1	236
76	Antiretroviral Drug Resistance Mutations in Human Immunodeficiency Virus Type 1 Reverse Transcriptase Increase Template-Switching Frequency. Journal of Virology, 2004, 78, 8761-8770.	3.4	70
77	Human Apolipoprotein B mRNA-editing Enzyme-catalytic Polypeptide-like 3G (APOBEC3G) Is Incorporated into HIV-1 Virions through Interactions with Viral and Nonviral RNAs. Journal of Biological Chemistry, 2004, 279, 35822-35828.	3.4	250
78	Retroviral mutation rates and reverse transcriptase fidelity. Frontiers in Bioscience - Landmark, 2003, 8, d117-134.	3.0	87
79	Y586F mutation in murine leukemia virus reverse transcriptase decreases fidelity of DNA synthesis in regions associated with adenine-thymine tracts. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10090-10095.	7.1	27
80	Zinc Finger Domain of Murine Leukemia Virus Nucleocapsid Protein Enhances the Rate of Viral DNA Synthesis in Vivo. Journal of Virology, 2002, 76, 7473-7484.	3.4	37
81	Structural Determinants of Murine Leukemia Virus Reverse Transcriptase That Affect the Frequency of Template Switching. Journal of Virology, 2000, 74, 7171-7178.	3.4	73
82	Development of an In Vivo Assay To Identify Structural Determinants in Murine Leukemia Virus Reverse Transcriptase Important for Fidelity. Journal of Virology, 2000, 74, 312-319.	3.4	23
83	Wild-Type and YMDD Mutant Murine Leukemia Virus Reverse Transcriptases Are Resistant to 2â€²,3â€²-Dideoxy-3â€²-Thiacytidine. Journal of Virology, 2000, 74, 6669-6674.	3.4	18
84	Utilization of Nonviral Sequences for Minus-Strand DNA Transfer and Gene Reconstitution during Retroviral Replication. Journal of Virology, 2000, 74, 9571-9579.	3.4	22
85	Role of Murine Leukemia Virus Reverse Transcriptase Deoxyribonucleoside Triphosphate-Binding Site in Retroviral Replication and In Vivo Fidelity. Journal of Virology, 2000, 74, 10349-10358.	3.4	22
86	Effect of Distance between Homologous Sequences and 3â€² Homology on the Frequency of Retroviral Reverse Transcriptase Template Switching. Journal of Virology, 1999, 73, 7923-7932.	3.4	51
87	Development of Murine Leukemia Virus-Based Self-Activating Vectors That Efficiently Delete the Selectable Drug Resistance Gene during Reverse Transcription. Journal of Virology, 1999, 73, 8837-8842.	3.4	17
88	â€œMight as Well Jump!â€•Template Switching by Retroviral Reverse Transcriptase, Defective Genome Formation, and Recombination. Seminars in Virology, 1997, 8, 141-150.	3.9	36