

# Vinay K Pathak

## List of Publications by Year in descending order

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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	Human Apolipoprotein B mRNA-editing Enzyme-catalytic Polypeptide-like 3G (APOBEC3G) Is Incorporated into HIV-1 Virions through Interactions with Viral and Nonviral RNAs. <i>Journal of Biological Chemistry</i> , 2004, 279, 35822-35828.	3.4	250
2	Human Immunodeficiency Virus Type 1 cDNAs Produced in the Presence of APOBEC3G Exhibit Defects in Plus-Strand DNA Transfer and Integration. <i>Journal of Virology</i> , 2007, 81, 7099-7110.	3.4	247
3	A single amino acid substitution in human APOBEC3G antiretroviral enzyme confers resistance to HIV-1 virion infectivity factor-induced depletion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 5652-5657.	7.1	236
4	Recombinant Origin of the Retrovirus XMRV. <i>Science</i> , 2011, 333, 97-101.	12.6	220
5	Guidelines for Naming Nonprimate APOBEC3 Genes and Proteins. <i>Journal of Virology</i> , 2009, 83, 494-497.	3.4	217
6	Identification of Two Distinct Human Immunodeficiency Virus Type 1 Vif Determinants Critical for Interactions with Human APOBEC3G and APOBEC3F. <i>Journal of Virology</i> , 2007, 81, 8201-8210.	3.4	205
7	High efficiency of HIV-1 genomic RNA packaging and heterozygote formation revealed by single virion analysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 13535-13540.	7.1	190
8	HIV-1 uncoats in the nucleus near sites of integration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 5486-5493.	7.1	190
9	Multiple APOBEC3 Restriction Factors for HIV-1 and One Vif to Rule Them All. <i>Journal of Molecular Biology</i> , 2014, 426, 1220-1245.	4.2	188
10	P Body-Associated Protein Mov10 Inhibits HIV-1 Replication at Multiple Stages. <i>Journal of Virology</i> , 2010, 84, 10241-10253.	3.4	145
11	Mutations in the connection domain of HIV-1 reverse transcriptase increase 3'-azido-3'-deoxythymidine resistance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 317-322.	7.1	126
12	Likely Role of APOBEC3G-Mediated G-to-A Mutations in HIV-1 Evolution and Drug Resistance. <i>PLoS Pathogens</i> , 2009, 5, e1000367.	4.7	122
13	Mechanism for nucleoside analog-mediated abrogation of HIV-1 replication: Balance between RNase H activity and nucleotide excision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 2093-2098.	7.1	121
14	APOBEC3F and APOBEC3G Inhibit HIV-1 DNA Integration by Different Mechanisms. <i>Journal of Virology</i> , 2010, 84, 5250-5259.	3.4	115
15	APOBEC3G Restricts HIV-1 to a Greater Extent than APOBEC3F and APOBEC3DE in Human Primary CD4 <sup>+</sup> T Cells and Macrophages. <i>Journal of Virology</i> , 2013, 87, 444-453.	3.4	100
16	Distinct Domains within APOBEC3G and APOBEC3F Interact with Separate Regions of Human Immunodeficiency Virus Type 1 Vif. <i>Journal of Virology</i> , 2009, 83, 1992-2003.	3.4	94
17	Dynamics and regulation of nuclear import and nuclear movements of HIV-1 complexes. <i>PLoS Pathogens</i> , 2017, 13, e1006570.	4.7	93
18	Stoichiometry of the antiviral protein APOBEC3G in HIV-1 virions. <i>Virology</i> , 2007, 360, 247-256.	2.4	92

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19	Retroviral mutation rates and reverse transcriptase fidelity. <i>Frontiers in Bioscience - Landmark</i> , 2003, 8, d117-134.	3.0	87
20	APOBEC3D and APOBEC3F Potently Promote HIV-1 Diversification and Evolution in Humanized Mouse Model. <i>PLoS Pathogens</i> , 2014, 10, e1004453.	4.7	79
21	HIV-1 cores retain their integrity until minutes before uncoating in the nucleus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	79
22	Dimeric RNA Recognition Regulates HIV-1 Genome Packaging. <i>PLoS Pathogens</i> , 2013, 9, e1003249.	4.7	78
23	Inhibition of Xenotropic Murine Leukemia Virus-Related Virus by APOBEC3 Proteins and Antiviral Drugs. <i>Journal of Virology</i> , 2010, 84, 5719-5729.	3.4	74
24	Structural Determinants of Murine Leukemia Virus Reverse Transcriptase That Affect the Frequency of Template Switching. <i>Journal of Virology</i> , 2000, 74, 7171-7178.	3.4	73
25	Antiretroviral Drug Resistance Mutations in Human Immunodeficiency Virus Type 1 Reverse Transcriptase Increase Template-Switching Frequency. <i>Journal of Virology</i> , 2004, 78, 8761-8770.	3.4	70
26	Intracellular interactions between APOBEC3G, RNA, and HIV-1 Gag: APOBEC3G multimerization is dependent on its association with RNA. <i>Retrovirology</i> , 2009, 6, 56.	2.0	69
27	Identification of Specific Determinants of Human APOBEC3F, APOBEC3C, and APOBEC3DE and African Green Monkey APOBEC3F That Interact with HIV-1 Vif. <i>Journal of Virology</i> , 2010, 84, 12599-12608.	3.4	68
28	HIV-1 RNA genome dimerizes on the plasma membrane in the presence of Gag protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E201-8.	7.1	68
29	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. <i>Retrovirology</i> , 2009, 6, 16.	2.0	67
30	Nuclear import of APOBEC3F-labeled HIV-1 preintegration complexes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E4780-9.	7.1	63
31	Mechanisms and Factors that Influence High Frequency Retroviral Recombination. <i>Viruses</i> , 2011, 3, 1650-1680.	3.3	62
32	Crystal structure of the catalytic domain of HIV-1 restriction factor APOBEC3G in complex with ssDNA. <i>Nature Communications</i> , 2018, 9, 2460.	12.8	58
33	HIV-1 reverse transcriptase connection subdomain mutations reduce template RNA degradation and enhance AZT excision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 10943-10948.	7.1	57
34	Cytoplasmic HIV-1 RNA is mainly transported by diffusion in the presence or absence of Gag protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E5205-13.	7.1	54
35	The Role of Amino-Terminal Sequences in Cellular Localization and Antiviral Activity of APOBEC3B. <i>Journal of Virology</i> , 2011, 85, 8538-8547.	3.4	53
36	Effect of Distance between Homologous Sequences and 3' Homology on the Frequency of Retroviral Reverse Transcriptase Template Switching. <i>Journal of Virology</i> , 1999, 73, 7923-7932.	3.4	51

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37	Mov10 and APOBEC3G Localization to Processing Bodies Is Not Required for Virion Incorporation and Antiviral Activity. <i>Journal of Virology</i> , 2013, 87, 11047-11062.	3.4	50
38	Conservation Patterns of HIV-1 RT Connection and RNase H Domains: Identification of New Mutations in NRTI-Treated Patients. <i>PLoS ONE</i> , 2008, 3, e1781.	2.5	47
39	Multiple ways of targeting APOBEC3-virion infectivity factor interactions for anti-HIV-1 drug development. <i>Trends in Pharmacological Sciences</i> , 2009, 30, 638-646.	8.7	45
40	A Novel Molecular Mechanism of Dual Resistance to Nucleoside and Nonnucleoside Reverse Transcriptase Inhibitors. <i>Journal of Virology</i> , 2010, 84, 5238-5249.	3.4	44
41	Minimal Contribution of APOBEC3-Induced G-to-A Hypermutation to HIV-1 Recombination and Genetic Variation. <i>PLoS Pathogens</i> , 2016, 12, e1005646.	4.7	44
42	APOBEC3 proteins can copackage and comutate HIV-1 genomes. <i>Nucleic Acids Research</i> , 2016, 44, 7848-7865.	14.5	41
43	The "Connection" Between HIV Drug Resistance and RNase H. <i>Viruses</i> , 2010, 2, 1476-1503.	3.3	39
44	Zinc Finger Domain of Murine Leukemia Virus Nucleocapsid Protein Enhances the Rate of Viral DNA Synthesis in Vivo. <i>Journal of Virology</i> , 2002, 76, 7473-7484.	3.4	37
45	Development of a Cell-Based Luciferase Complementation Assay for Identification of SARS-CoV-2 3CLpro Inhibitors. <i>Viruses</i> , 2021, 13, 173.	3.3	37
46	"Might as Well Jump!" Template Switching by Retroviral Reverse Transcriptase, Defective Genome Formation, and Recombination. <i>Seminars in Virology</i> , 1997, 8, 141-150.	3.9	36
47	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. <i>Journal of Virology</i> , 2010, 84, 7651-7661.	3.4	36
48	Recombinant origin, contamination, and de-discovery of XMRV. <i>Current Opinion in Virology</i> , 2012, 2, 499-507.	5.4	31
49	HIV-1 and HIV-2 Vif Interact with Human APOBEC3 Proteins Using Completely Different Determinants. <i>Journal of Virology</i> , 2014, 88, 9893-9908.	3.4	31
50	Recombination is required for efficient HIV-1 replication and the maintenance of viral genome integrity. <i>Nucleic Acids Research</i> , 2018, 46, 10535-10545.	14.5	30
51	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 3'-Azido-2-Deoxythymidine. <i>Journal of Virology</i> , 2009, 83, 8502-8513.	3.4	29
52	Phenotypic characterization of drug resistance-associated mutations in HIV-1 RT connection and RNase H domains and their correlation with thymidine analogue mutations. <i>Journal of Antimicrobial Chemotherapy</i> , 2011, 66, 702-708.	3.0	29
53	Interactions between HIV-1 Gag and Viral RNA Genome Enhance Virion Assembly. <i>Journal of Virology</i> , 2017, 91, .	3.4	28
54	HIV-1 Sequence Necessary and Sufficient to Package Non-viral RNAs into HIV-1 Particles. <i>Journal of Molecular Biology</i> , 2017, 429, 2542-2555.	4.2	28

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55	Y586F mutation in murine leukemia virus reverse transcriptase decreases fidelity of DNA synthesis in regions associated with adenine-thymine tracts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 10090-10095.	7.1	27
56	Characterization, Mapping, and Distribution of the Two XMRV Parental Proviruses. <i>Journal of Virology</i> , 2012, 86, 328-338.	3.4	26
57	Mechanisms of Human Immunodeficiency Virus Type 2 RNA Packaging: Efficient <i>trans</i> Packaging and Selection of RNA Copackaging Partners. <i>Journal of Virology</i> , 2011, 85, 7603-7612.	3.4	25
58	Insights into DNA substrate selection by APOBEC3G from structural, biochemical, and functional studies. <i>PLoS ONE</i> , 2018, 13, e0195048.	2.5	25
59	Severe Restriction of Xenotropic Murine Leukemia Virus-Related Virus Replication and Spread in Cultured Human Peripheral Blood Mononuclear Cells. <i>Journal of Virology</i> , 2011, 85, 4888-4897.	3.4	24
60	Unpaired Guanosines in the 5' Untranslated Region of HIV-1 RNA Act Synergistically To Mediate Genome Packaging. <i>Journal of Virology</i> , 2020, 94, .	3.4	24
61	Development of an In Vivo Assay To Identify Structural Determinants in Murine Leukemia Virus Reverse Transcriptase Important for Fidelity. <i>Journal of Virology</i> , 2000, 74, 312-319.	3.4	23
62	Utilization of Nonviral Sequences for Minus-Strand DNA Transfer and Gene Reconstitution during Retroviral Replication. <i>Journal of Virology</i> , 2000, 74, 9571-9579.	3.4	22
63	Role of Murine Leukemia Virus Reverse Transcriptase Deoxyribonucleoside Triphosphate-Binding Site in Retroviral Replication and In Vivo Fidelity. <i>Journal of Virology</i> , 2000, 74, 10349-10358.	3.4	22
64	Structural Insights into APOBEC3-Mediated Lentiviral Restriction. <i>Viruses</i> , 2020, 12, 587.	3.3	22
65	Structural basis of antagonism of human APOBEC3F by HIV-1 Vif. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 1176-1183.	8.2	21
66	Multiple Barriers to Recombination between Divergent HIV-1 Variants Revealed by a Dual-Marker Recombination Assay. <i>Journal of Molecular Biology</i> , 2011, 407, 521-531.	4.2	19
67	Wild-Type and YMDD Mutant Murine Leukemia Virus Reverse Transcriptases Are Resistant to 2',3'-Dideoxy-3'-Thiacytidine. <i>Journal of Virology</i> , 2000, 74, 6669-6674.	3.4	18
68	Development of Murine Leukemia Virus-Based Self-Activating Vectors That Efficiently Delete the Selectable Drug Resistance Gene during Reverse Transcription. <i>Journal of Virology</i> , 1999, 73, 8837-8842.	3.4	17
69	Mutations in the RNase H Primer Grip Domain of Murine Leukemia Virus Reverse Transcriptase Decrease Efficiency and Accuracy of Plus-Strand DNA Transfer. <i>Journal of Virology</i> , 2005, 79, 419-427.	3.4	16
70	Restricted Replication of Xenotropic Murine Leukemia Virus-Related Virus in Pigtailed Macaques. <i>Journal of Virology</i> , 2012, 86, 3152-3166.	3.4	16
71	Selective packaging of HIV-1 RNA genome is guided by the stability of 5' untranslated region polyA stem. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	16
72	Development of Lentiviral Vectors for HIV-1 Gene Therapy with Vif-Resistant APOBEC3G. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 18, 1023-1038.	5.1	15

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73	Biochemical, inhibition and inhibitor resistance studies of xenotropic murine leukemia virus-related virus reverse transcriptase. <i>Nucleic Acids Research</i> , 2012, 40, 345-359.	14.5	14
74	Generation of Multiple Replication-Competent Retroviruses through Recombination between PreXMRV-1 and PreXMRV-2. <i>Journal of Virology</i> , 2013, 87, 11525-11537.	3.4	12
75	Crystal Structure of a Soluble APOBEC3G Variant Suggests ssDNA to Bind in a Channel that Extends between the Two Domains. <i>Journal of Molecular Biology</i> , 2020, 432, 6042-6060.	4.2	12
76	Plasma Membrane Anchoring and Gag:Gag Multimerization on Viral RNA Are Critical Properties of HIV-1 Gag Required To Mediate Efficient Genome Packaging. <i>MBio</i> , 2021, 12, e0325421.	4.1	12
77	Connection subdomain mutations in HIV-1 subtype-C treatment-experienced patients enhance NRTI and NNRTI drug resistance. <i>Virology</i> , 2013, 435, 433-441.	2.4	11
78	Authentication Analysis of MT-4 Cells Distributed by the National Institutes of Health AIDS Reagent Program. <i>Journal of Virology</i> , 2019, 93, .	3.4	11
79	Identification of a tripartite interaction between the N-terminus of HIV-1 Vif and CBF $\beta$ that is critical for Vif function. <i>Retrovirology</i> , 2017, 14, 19.	2.0	10
80	The roles of five conserved lentiviral RNA structures in HIV-1 replication. <i>Virology</i> , 2018, 514, 1-8.	2.4	10
81	Impact of Nuclear Export Pathway on Cytoplasmic HIV-1 RNA Transport Mechanism and Distribution. <i>MBio</i> , 2020, 11, .	4.1	8
82	Targeting natural splicing plasticity of APOBEC3B restricts its expression and mutagenic activity. <i>Communications Biology</i> , 2021, 4, 386.	4.4	7
83	Lack of Detection of Xenotropic Murine Leukemia Virus-Related Virus in HIV-1 Lymphoma Patients. <i>Advances in Virology</i> , 2011, 2011, 1-4.	1.1	6
84	Specific Guanosines in the HIV-2 Leader RNA are Essential for Efficient Viral Genome Packaging. <i>Journal of Molecular Biology</i> , 2021, 433, 166718.	4.2	6
85	Efficient HIV-1 in vitro reverse transcription: optimal capsid stability is required. <i>Signal Transduction and Targeted Therapy</i> , 2021, 6, 13.	17.1	5
86	Intranuclear Positions of HIV-1 Proviruses Are Dynamic and Do Not Correlate with Transcriptional Activity. <i>MBio</i> , 2022, 13, e0325621.	4.1	5
87	Xenotropic MLV envelope proteins induce tumor cells to secrete factors that promote the formation of immature blood vessels. <i>Retrovirology</i> , 2013, 10, 34.	2.0	3
88	High recombination potential of subtype A HIV-1. <i>Virology</i> , 2015, 484, 334-340.	2.4	3