# Peter P Cherepanov

List of Publications by Year
in descending order

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| 100 | 12,745 | 30070 | 34986 |
|---|---|---|---|
| papers | citations | 54 h-index | 98 g-index |

| 116 | 116 | 116 | 13108 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Gene disruption in Escherichia coli: TcR and KmR cassettes with the option of Flp-catalyzed excision of the antibiotic-resistance determinant. Gene, 1995, 158, 9-14. | 2.2 | 1,694 |
| 2 | Preexisting and de novo humoral immunity to SARS-CoV-2 in humans. Science, 2020, 370, 1339-1343. | 12.6 | 735 |
| 3 | Retroviral intasome assembly and inhibition of DNA strand transfer. Nature, 2010, 464, 232-236. | 27.8 | 620 |
| 4 | HIV-1 Integrase Forms Stable Tetramers and Associates with LEDGF/p75 Protein in Human Cells. Journal of Biological Chemistry, 2003, 278, 372-381. | 3.4 | 608 |
| 5 | LEDGF/p75 Is Essential for Nuclear and Chromosomal Targeting of HIV-1 Integrase in Human Cells. Journal of Biological Chemistry, 2003, 278, 33528-33539. | 3.4 | 432 |
| 6 | LEDGF/p75 functions downstream from preintegration complex formation to effect gene-specific HIV-1 integration. Genes and Development, 2007, 21, 1767-1778. | 5.9 | 408 |
| 7 | Structural basis for the recognition between HIV-1 integrase and transcriptional coactivator p75. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17308-17313. | 7.1 | 379 |
| 8 | The mechanism of retroviral integration from X-ray structures of its key intermediates. Nature, 2010, 468, 326-329. | 27.8 | 280 |
| 9 | Molecular mechanisms of retroviral integrase inhibition and the evolution of viral resistance. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 20057-20062. | 7.1 | 275 |
| 10 | The structural biology of HIV-1: mechanistic and therapeutic insights. Nature Reviews Microbiology, 2012, 10, 279-290. | 28.6 | 272 |
| 11 | Identification of an Evolutionarily Conserved Domain in Human Lens Epithelium-derived Growth Factor/Transcriptional Co-activator p75 (LEDGF/p75) That Binds HIV-1 Integrase. Journal of Biological Chemistry, 2004, 279, 48883-48892. | 3.4 | 248 |
| 12 | Structural and Functional Analyses of the Second-Generation Integrase Strand Transfer Inhibitor Dolutegravir (S/GSK1349572). Molecular Pharmacology, 2011, 80, 565-572. | 2.3 | 223 |
| 13 | Solution structure of the HIV-1 integrase-binding domain in LEDGF/p75. Nature Structural and Molecular Biology, 2005, 12, 526-532. | 8.2 | 221 |
| 14 | Retroviral Integrase Structure and DNA Recombination Mechanism. Microbiology Spectrum, 2014, 2, 1-22. | 3.0 | 205 |
| 15 | The effect of spike mutations on SARS-CoV-2 neutralization. Cell Reports, 2021, 34, 108890. | 6.4 | 200 |
| 16 | The Lentiviral Integrase Binding Protein LEDGF/p75 and HIV-1 Replication. PLoS Pathogens, 2008, 4, e1000046. | 4.7 | 199 |
| 17 | Pandemic peak SARS-CoV-2 infection and seroconversion rates in London frontline health-care workers. Lancet, The, 2020, 396, e6-e7. | 13.7 | 196 |
| 18 | Structure-based modeling of the functional HIV-1 intasome and its inhibition. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15910-15915. | 7.1 | 184 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Retroviral DNA Integration. Chemical Reviews, 2016, 116, 12730-12757. | 47.7 | 177 |
| 20 | A tripartite DNA-binding element, comprised of the nuclear localization signal and two AT-hook motifs, mediates the association of LEDGF/p75 with chromatin in vivo. Nucleic Acids Research, 2006, 34, 1653-1665. | 14.5 | 166 |
| 21 | LEDGF/p75 interacts with divergent lentiviral integrases and modulates their enzymatic activity in vitro. Nucleic Acids Research, 2007, 35, 113-124. | 14.5 | 160 |
| 22 | 3â€²-Processing and strand transfer catalysed by retroviral integrasein crystallo. EMBO Journal, 2012, 31, 3020-3028. | 7.8 | 144 |
| 23 | A Novel Co-Crystal Structure Affords the Design of Gain-of-Function Lentiviral Integrase Mutants in the Presence of Modified PSIP1/LEDGF/p75. PLoS Pathogens, 2009, 5, e1000259. | 4.7 | 139 |
| 24 | Reduced neutralisation of the Delta (B.1.617.2) SARS-CoV-2 variant of concern following vaccination. PLoS Pathogens, 2021, 17, e1010022. | 4.7 | 139 |
| 25 | Bromo- and Extraterminal Domain Chromatin Regulators Serve as Cofactors for Murine Leukemia Virus Integration. Journal of Virology, 2013, 87, 12721-12736. | 3.4 | 135 |
| 26 | Structural basis for retroviral integration into nucleosomes. Nature, 2015, 523, 366-369. | 27.8 | 133 |
| 27 | Clinical and laboratory evaluation of SARS-CoV-2 lateral flow assays for use in a national COVID-19 seroprevalence survey. Thorax, 2020, 75, 1082-1088. | 5.6 | 133 |
| 28 | Centralspindlin links the mitotic spindle to the plasma membrane during cytokinesis. Nature, 2012, 492, 276-279. | 27.8 | 131 |
| 29 | Functional and structural characterization of the integrase from the prototype foamy virus. Nucleic Acids Research, 2009, 37, 243-255. | 14.5 | 130 |
| 30 | Structural basis for nuclear import of splicing factors by human Transportin 3. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2728-2733. | 7.1 | 124 |
| 31 | Human Immunodeficiency Virus Glycoprotein gp120 as the Primary Target for the Antiviral Action of AR177 (Zintevir). Molecular Pharmacology, 1998, 53, 340-345. | 2.3 | 118 |
| 32 | Class II Integrase Mutants with Changes in Putative Nuclear Localization Signals Are Primarily Blocked at a Postnuclear Entry Step of Human Immunodeficiency Virus Type 1 Replication. Journal of Virology, 2004, 78, 12735-12746. | 3.4 | 115 |
| 33 | Structural Basis for Functional Tetramerization of Lentiviral Integrase. PLoS Pathogens, 2009, 5, e1000515. | 4.7 | 113 |
| 34 | Structural insights into the retroviral DNA integration apparatus. Current Opinion in Structural Biology, 2011, 21, 249-256. | 5.7 | 112 |
| 35 | Neutralization potency of monoclonal antibodies recognizing dominant and subdominant epitopes on SARS-CoV-2 Spike is impacted by the B.1.1.7 variant. Immunity, 2021, 54, 1276-1289.e6. | 14.3 | 112 |
| 36 | SARS-CoV-2 can recruit a heme metabolite to evade antibody immunity. Science Advances, 2021, 7, . | 10.3 | 107 |

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|---|---|---|---|
| 37 | Transcriptional co-activator p75 binds and tethers the Myc-interacting protein JPO2 to chromatin. Journal of Cell Science, 2006, 119, 2563-2571. | 2.0 | 106 |
| 38 | Structural biology of retroviral DNA integration. Virology, 2011, 411, 194-205. | 2.4 | 106 |
| 39 | New Class of HIV Integrase Inhibitors that Block Viral Replication in Cell Culture. Current Biology, 2002, 12, 1169-1177. | 3.9 | 100 |
| 40 | A supramolecular assembly mediates lentiviral DNA integration. Science, 2017, 355, 93-95. | 12.6 | 96 |
| 41 | Cryo-EM reveals a novel octameric integrase structure for betaretroviral intasome function. Nature, 2016, 530, 358-361. | 27.8 | 88 |
| 42 | POLE3-POLE4 Is a Histone H3-H4 Chaperone that Maintains Chromatin Integrity during DNA Replication. Molecular Cell, 2018, 72, 112-126.e5. | 9.7 | 87 |
| 43 | Identification and Characterization of a Functional Nuclear Localization Signal in the HIV-1 Integrase Interactor LEDGF/p75. Journal of Biological Chemistry, 2004, 279, 33421-33429. | 3.4 | 86 |
| 44 | HRP2 determines the efficiency and specificity of HIV-1 integration in LEDGF/p75 knockout cells but does not contribute to the antiviral activity of a potent LEDGF/p75-binding site integrase inhibitor. Nucleic Acids Research, 2012, 40, 11518-11530. | 14.5 | 86 |
| 45 | HIV-1 exploits importin 7 to maximize nuclear import of its DNA genome. Retrovirology, 2009, 6, 11. | 2.0 | 85 |
| 46 | DNA-Dependent Protein Kinase Is Not Required for Efficient Lentivirus Integration. Journal of Virology, 2000, 74, 11278-11285. | 3.4 | 84 |
| 47 | Mode of Interaction of G-Quartets with the Integrase of Human Immunodeficiency Virus Type 1. Molecular Pharmacology, 1997, 52, 771-780. | 2.3 | 82 |
| 48 | The SET Complex Acts as a Barrier to Autointegration of HIV-1. PLoS Pathogens, 2009, 5, e1000327. | 4.7 | 82 |
| 49 | Nuclear Localization of Human Immunodeficiency Virus Type 1 Integrase Expressed as a Fusion Protein with Green Fluorescent Protein. Virology, 1999, 258, 327-332. | 2.4 | 74 |
| 50 | Structural basis of second-generation HIV integrase inhibitor action and viral resistance. Science, 2020, 367, 806-810. | 12.6 | 73 |
| 51 | Crystal structure of human CDC7 kinase in complex with its activator DBF4. Nature Structural and Molecular Biology, 2012, 19, 1101-1107. | 8.2 | 72 |
| 52 | Cdt1 stabilizes an open MCM ring for helicase loading. Nature Communications, 2017, 8, 15720. | 12.8 | 69 |
| 53 | Characterization of humoral and SARS-CoV-2 specific T cell responses in people living with HIV. Nature Communications, 2021, 12, 5839. | 12.8 | 67 |
| 54 | Structure-based mutagenesis of the integrase-LEDGF/p75 interface uncouples a strict correlation between in vitro protein binding and HIV-1 fitness. Virology, 2007, 357, 79-90. | 2.4 | 65 |

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| 55 | Integrase residues that determine nucleotide preferences at sites of HIV-1 integration: implications for the mechanism of target DNA binding. Nucleic Acids Research, 2014, 42, 5164-5176. | 14.5 | 62 |
| 56 | Transcriptional Co-activator LEDGF Interacts with Cdc7-Activator of S-phase Kinase (ASK) and Stimulates Its Enzymatic Activity. Journal of Biological Chemistry, 2010, 285, 541-554. | 3.4 | 57 |
| 57 | High-level expression of active HIV-1 integrase from a synthetic gene in human cells. FASEB Journal, 2000, 14, 1389-1399. | 0.5 | 56 |
| 58 | Key determinants of target DNA recognition by retroviral intasomes. Retrovirology, 2015, 12, 39. | 2.0 | 56 |
| 59 | Structure and function of retroviral integrase. Nature Reviews Microbiology, 2022, 20, 20-34. | 28.6 | 52 |
| 60 | Retroviral Integrase Structure and DNA Recombination Mechanism. Microbiology Spectrum, 2014, 2, . | 3.0 | 50 |
| 61 | A bipartite structural organization defines the SERINC family of HIV-1 restriction factors. Nature Structural and Molecular Biology, 2020, 27, 78-83. | 8.2 | 50 |
| 62 | SRR-SB3, a disulfide-containing macrolide that inhibits a late stage of the replicative cycle of human immunodeficiency virus. Antimicrobial Agents and Chemotherapy, 1997, 41, 262-268. | 3.2 | 47 |
| 63 | Activity of recombinant HIV-1 integrase on mini-HIV DNA. Nucleic Acids Research, 1999, 27, 2202-2210. | 14.5 | 47 |
| 64 | Highâ€level expression of active HIVâ€1 integrase from a synthetic gene in human cells. FASEB Journal, 2000, 14, 1389-1399. | 0.5 | 46 |
| 65 | Retroviral intasomes arising. Current Opinion in Structural Biology, 2017, 47, 23-29. | 5.7 | 46 |
| 66 | Structural basis for spumavirus GAG tethering to chromatin. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5509-5514. | 7.1 | 45 |
| 67 | Activities, Crystal Structures, and Molecular Dynamics of Dihydro-1H-isoindole Derivatives, Inhibitors of HIV-1 Integrase. ACS Chemical Biology, 2013, 8, 209-217. | 3.4 | 44 |
| 68 | Structure-Guided Optimization of HIV Integrase Strand Transfer Inhibitors. Journal of Medicinal Chemistry, 2017, 60, 7315-7332. | 6.4 | 44 |
| 69 | Retroviral integration into nucleosomes through DNA looping and sliding along the histone octamer. Nature Communications, 2019, 10, 4189. | 12.8 | 43 |
| 70 | env Chimeric Virus Technology for Evaluating Human Immunodeficiency Virus Susceptibility to Entry Inhibitors. Antimicrobial Agents and Chemotherapy, 2002, 46, 3954-3962. | 3.2 | 39 |
| 71 | Lys-34, Dispensable for Integrase Catalysis, Is Required for Preintegration Complex Function and Human Immunodeficiency Virus Type 1 Replication. Journal of Virology, 2005, 79, 12584-12591. | 3.4 | 38 |
| 72 | Solution Conformations of Prototype Foamy Virus Integrase and Its Stable Synaptic Complex with U5 Viral DNA. Structure, 2012, 20, 1918-1928. | 3.3 | 36 |

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| 73 | Amplification, Next-generation Sequencing, and Genomic DNA Mapping of Retroviral Integration Sites. Journal of Visualized Experiments, 2016, , . | 0.3 | 36 |
| 74 | Assays for the Evaluation of HIV-1 Integrase Inhibitors. , 2001, 160, 139-155. | | 35 |
| 75 | HIV-1 Integrase Strand Transfer Inhibitors with Reduced Susceptibility to Drug Resistant Mutant Integrases. ACS Chemical Biology, 2016, 11, 1074-1081. | 3.4 | 35 |
| 76 | Differential role for phosphorylation in alternative polyadenylation function versus nuclear import of SR-like protein CPSF6. Nucleic Acids Research, 2019, 47, 4663-4683. | 14.5 | 35 |
| 77 | Scalable and robust SARS-CoV-2 testing in an academic center. Nature Biotechnology, 2020, 38, 927-931. | 17.5 | 32 |
| 78 | In Search of Authentic Inhibitors of HIV-1 Integration. Antiviral Chemistry and Chemotherapy, 2002, 13, 1-15. | 0.6 | 29 |
| 79 | Cryo-EM structure of the deltaretroviral intasome in complex with the PP2A regulatory subunit B56Î³. Nature Communications, 2020, 11, 5043. | 12.8 | 21 |
| 80 | The Interaction Between Lentiviral Integrase and LEDGF: Structural and Functional Insights. Viruses, 2009, 1, 780-801. | 3.3 | 20 |
| 81 | Severe Acute Respiratory Syndrome Coronavirus 2 Serosurveillance in a Patient Population Reveals Differences in Virus Exposure and Antibody-Mediated Immunity According to Host Demography and Healthcare Setting. Journal of Infectious Diseases, 2021, 223, 971-980. | 4.0 | 20 |
| 82 | Characterization of a dam Mutant of Serratia marcescens and Nucleotide Sequence of the dam Region. Journal of Bacteriology, 1999, 181, 3880-3885. | 2.2 | 20 |
| 83 | Integrase illuminated. EMBO Reports, 2010, 11, 328-328. | 4.5 | 18 |
| 84 | HIV-1 Integrase Inhibitors with Modifications That Affect Their Potencies against Drug Resistant Integrase Mutants. ACS Infectious Diseases, 2021, 7, 1469-1482. | 3.8 | 14 |
| 85 | Efficient transduction of LEDGF/p75 mutant cells by complementary gain-of-function HIV-1 integrase mutant viruses. Molecular Therapy - Methods and Clinical Development, 2014, 1, 2. | 4.1 | 13 |
| 86 | Structural Basis for the Activation and Target Site Specificity of CDC7 Kinase. Structure, 2020, 28, 954-962.e4. | 3.3 | 13 |
| 87 | Neutralizing Antibody Responses After SARS-CoV-2 Infection in End-Stage Kidney Disease and Protection Against Reinfection. Kidney International Reports, 2021, 6, 1799-1809. | 0.8 | 13 |
| 88 | Application of general formulas for the correction of a lattice-translocation defect in crystals of a lentiviral integrase in complex with LEDGF. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 966-973. | 2.5 | 12 |
| 89 | Multivalent interactions essential for lentiviral integrase function. Nature Communications, 2022, 13, 2416. | 12.8 | 12 |
| 90 | Clinical outcomes of COVID-19 in long-term care facilities for people with epilepsy. Epilepsy and Behavior, 2021, 115, 107602. | 1.7 | 11 |

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|---|---|---|---|
| 91 | Structural basis for the inhibition of HTLV-1 integration inferred from cryo-EM deltaretroviral intasome structures. Nature Communications, 2021, 12, 4996. | 12.8 | 11 |
| 92 | Closeâ€up: HIV/SIV intasome structures shed new light on integrase inhibitor binding and viral escape mechanisms. FEBS Journal, 2021, 288, 427-433. | 4.7 | 9 |
| 93 | Interactions of Prototype Foamy Virus Capsids with Host Cell Polo-Like Kinases Are Important for Efficient Viral DNA Integration. PLoS Pathogens, 2016, 12, e1005860. | 4.7 | 9 |
| 94 | Detection and quantification of antibody to SARS CoV 2 receptor binding domain provides enhanced sensitivity, specificity and utility. Journal of Virological Methods, 2022, 302, 114475. | 2.1 | 8 |
| 95 | Mutations in Both env and gag genes are required for HIV-1 resistance to the polysulfonic dendrimer SPL2923, as corroborated by chimeric virus technology. Antiviral Chemistry and Chemotherapy, 2005, 16, 253-266. | 0.6 | 6 |
| 96 | Favorable antibody responses to human coronaviruses in children and adolescents with autoimmune rheumatic diseases. Med, 2021, 2, 1093-1109.e6. | 4.4 | 6 |
| 97 | Mapping of SARS-CoV-2 IgM and IgG in gingival crevicular fluid: Antibody dynamics and linkage to severity of COVID-19 in hospital inpatients. Journal of Infection, 2022, 85, 152-160. | 3.3 | 6 |
| 98 | Defining Potential Therapeutic Targets in Coronavirus Disease 2019: A Cross-Sectional Analysis of a Single-Center Cohort. , 2021, 3, e0488. | | 2 |
| 99 | Expression of HIV-1 integrase in CEM cells inhibits HIV-1 replication. Journal of Gene Medicine, 2004, 6, 268-277. | 2.8 | 1 |
| 100 | 158 The SET complex acts as a barrier to autointegration of HIV-1. Journal of Acquired Immune Deficiency Syndromes (1999), 2009, 51, . | 2.1 | 0 |