Gregory B Melikyan

List of Publications by Year
in descending order

		136950	144013
57 papers	3,622 citations	32 h-index	57 g-index
63 all docs	63 docs citations	63 times ranked	3698 citing authors

#	Article	IF	Citations
1	HIV Enters Cells via Endocytosis and Dynamin-Dependent Fusion with Endosomes. Cell, 2009, 137, 433-444.	28.9	579
2	IFITM3 Restricts Influenza A Virus Entry by Blocking the Formation of Fusion Pores following Virus-Endosome Hemifusion. PLoS Pathogens, 2014, 10, e1004048.	4.7	273
3	Common principles and intermediates of viral protein-mediated fusion: the HIV-1 paradigm. Retrovirology, 2008, 5, 111.	2.0	146
4	Single HIV-1 Imaging Reveals Progression of Infection through CA-Dependent Steps of Docking at the Nuclear Pore, Uncoating, and Nuclear Transport. Cell Host and Microbe, 2018, 23, 536-548.e6.	11.0	142
5	Structural and mechanistic bases for a potent HIV-1 capsid inhibitor. Science, 2020, 370, 360-364.	12.6	114
6	SERINC5 protein inhibits HIV-1 fusion pore formation by promoting functional inactivation of envelope glycoproteins. Journal of Biological Chemistry, 2017, 292, 6014-6026.	3.4	113
7	Correlated fluorescence microscopy and cryo-electron tomography of virus-infected or transfected mammalian cells. Nature Protocols, 2017, 12, 150-167.	12.0	109
8	Fusion Stage of HIV-1 Entry Depends on Virus-Induced Cell Surface Exposure of Phosphatidylserine. Cell Host and Microbe, 2017, 22, 99-110.e7.	11.0	106
9	Time-Resolved Imaging of Single HIV-1 Uncoating In Vitro and in Living Cells. PLoS Pathogens, 2016, 12, e1005709.	4.7	104
10	HIV entry: a game of hide-and-fuse?. Current Opinion in Virology, 2014, 4, 1-7.	5.4	97
11	Imaging individual retroviral fusion events: From hemifusion to pore formation and growth. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8728-8733.	7.1	94
12	HIV-1 replication complexes accumulate in nuclear speckles and integrate into speckle-associated genomic domains. Nature Communications, 2020, 11, 3505.	12.8	93
13	Inhibition of HIV-1 endocytosis allows lipid mixing at the plasma membrane, but not complete fusion. Retrovirology, 2011, 8, 99.	2.0	89
14	Hepatitis C Virus Is Primed by CD81 Protein for Low pH-dependent Fusion. Journal of Biological Chemistry, 2011, 286, 30361-30376.	3.4	87
15	Siglec-1 initiates formation of the virus-containing compartment and enhances macrophage-to-T cell transmission of HIV-1. PLoS Pathogens, 2017, 13, e1006181.	4.7	79
16	Interferon-induced transmembrane protein 3 blocks fusion of sensitive but not resistant viruses by partitioning into virus-carrying endosomes. PLoS Pathogens, 2019, 15, e1007532.	4.7	78
17	Multifaceted Mechanisms of HIV-1 Entry Inhibition by Human Î±-Defensin. Journal of Biological Chemistry, 2012, 287, 28821-28838.	3.4	74
18	Quantitative imaging of endosome acidification and single retrovirus fusion with distinct pools of early endosomes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17627-17632.	7.1	63

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19	Early Steps of HIV-1 Fusion Define the Sensitivity to Inhibitory Peptides That Block 6-Helix Bundle Formation. PLoS Pathogens, 2009, 5, e1000585.	4.7	62
20	Membrane Fusion Mediated by Human Immunodeficiency Virus Envelope Glycoprotein. Current Topics in Membranes, 2011, 68, 81-106.	0.9	57
21	Imaging Single Retrovirus Entry through Alternative Receptor Isoforms and Intermediates of Virus-Endosome Fusion. PLoS Pathogens, 2011, 7, e1001260.	4.7	55
22	Ternary Complex Formation of Human Immunodeficiency Virus Type 1 Env, CD4, and Chemokine Receptor Captured as an Intermediate of Membrane Fusion. Journal of Virology, 2005, 79, 11161-11169.	3.4	53
23	Interferon-Induced Transmembrane Protein 3 Blocks Fusion of Diverse Enveloped Viruses by Altering Mechanical Properties of Cell Membranes. ACS Nano, 2021, 15, 8155-8170.	14.6	50
24	Fusion of Mature HIV-1 Particles Leads to Complete Release of a Gag-GFP-Based Content Marker and Raises the Intraviral pH. PLoS ONE, 2013, 8, e71002.	2.5	49
25	Membrane-Anchored Inhibitory Peptides Capture Human Immunodeficiency Virus Type 1 gp41 Conformations That Engage the Target Membrane prior to Fusion. Journal of Virology, 2006, 80, 3249-3258.	3.4	48
26	Sec24C is an HIV-1 host dependency factor crucial for virus replication. Nature Microbiology, 2021, 6, 435-444.	13.3	48
27	Anionic Lipids Are Required for Vesicular Stomatitis Virus G Protein-mediated Single Particle Fusion with Supported Lipid Bilayers. Journal of Biological Chemistry, 2013, 288, 12416-12425.	3.4	46
28	Super-Resolution Fluorescence Imaging Reveals That Serine Incorporator Protein 5 Inhibits Human Immunodeficiency Virus Fusion by Disrupting Envelope Glycoprotein Clusters. ACS Nano, 2020, 14, 10929-10943.	14.6	45
29	HIV-1 integrase tetramers are the antiviral target of pyridine-based allosteric integrase inhibitors. ELife, 2019, 8, .	6.0	41
30	Distinct Requirements for HIV-Cell Fusion and HIV-mediated Cell-Cell Fusion. Journal of Biological Chemistry, 2015, 290, 6558-6573.	3.4	38
31	Fluorescent protein-tagged Vpr dissociates from HIV-1 core after viral fusion and rapidly enters the cell nucleus. Retrovirology, 2015, 12, 88.	2.0	37
32	Visualization of retrovirus uptake and delivery into acidic endosomes. Biochemical Journal, 2011, 434, 559-569.	3.7	35
33	HIV-1 Uncoating and Nuclear Import Precede the Completion of Reverse Transcription in Cell Lines and in Primary Macrophages. Viruses, 2020, 12, 1234.	3.3	35
34	Human Defensins Inhibit SARS-CoV-2 Infection by Blocking Viral Entry. Viruses, 2021, 13, 1246.	3.3	35
35	Induction of Cell-Cell Fusion by Ebola Virus Glycoprotein: Low pH Is Not a Trigger. PLoS Pathogens, 2016, 12, e1005373.	4.7	34
36	High-Throughput HIVâ€"Cell Fusion Assay for Discovery of Virus Entry Inhibitors. Assay and Drug Development Technologies, 2015, 13, 155-166.	1.2	31

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37	Live-Cell Imaging of Early Steps of Single HIV-1 Infection. Viruses, 2018, 10, 275.	3.3	31
38	A Novel Phenotype Links HIV-1 Capsid Stability to cGAS-Mediated DNA Sensing. Journal of Virology, 2019, 93, .	3.4	30
39	Synchronized Retrovirus Fusion in Cells Expressing Alternative Receptor Isoforms Releases the Viral Core into Distinct Sub-cellular Compartments. PLoS Pathogens, 2012, 8, e1002694.	4.7	24
40	P2X1 Receptor Antagonists Inhibit HIV-1 Fusion by Blocking Virus-Coreceptor Interactions. Journal of Virology, 2015, 89, 9368-9382.	3.4	23
41	Driving a wedge between viral lipids blocks infection. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17069-17070.	7.1	21
42	pH regulation in early endosomes and interferon-inducible transmembrane proteins control avian retrovirus fusion. Journal of Biological Chemistry, 2017, 292, 7817-7827.	3.4	21
43	An improved labeling strategy enables automated detection of single-virus fusion and assessment of HIV-1 protease activity in single virions. Journal of Biological Chemistry, 2017, 292, 20196-20207.	3.4	21
44	The late endosome-resident lipid bis(monoacylglycero)phosphate is a cofactor for Lassa virus fusion. PLoS Pathogens, 2021, 17, e1009488.	4.7	21
45	Exploring Modifications of an HIV-1 Capsid Inhibitor: Design, Synthesis, and Mechanism of Action. , 2018, 5, .		21
46	Intercellular Adhesion Molecule 1 Promotes HIV-1 Attachment but Not Fusion to Target Cells. PLoS ONE, 2012, 7, e44827.	2.5	20
47	Sub-Inhibitory Concentrations of Human Î±-defensin Potentiate Neutralizing Antibodies against HIV-1 gp41 Pre-Hairpin Intermediates in the Presence of Serum. PLoS Pathogens, 2013, 9, e1003431.	4.7	20
48	Visualization of Content Release from Cell Surface-Attached Single HIV-1 Particles Carrying an Extra-Viral Fluorescent pH-Sensor. PLoS ONE, 2016, 11, e0148944.	2.5	18
49	Pinpointing retrovirus entry sites in cells expressing alternatively spliced receptor isoforms by single virus imaging. Retrovirology, 2014, 11, 47.	2.0	16
50	The role of the N-terminal segment of CCR5 in HIV-1 Env-mediated membrane fusion and the mechanism of virus adaptation to CCR5 lacking this segment. Retrovirology, 2007, 4, 55.	2.0	14
51	Can HIV-1 Entry Sites Be Deduced by Comparing Bulk Endocytosis to Functional Readouts for Viral Fusion?. Journal of Virology, 2015, 89, 2985-2985.	3.4	13
52	HIV-1 Fusion with CD4+ T cells Is Promoted by Proteins Involved in Endocytosis and Intracellular Membrane Trafficking. Viruses, 2019, 11, 100.	3.3	13
53	Click labeling of unnatural sugars metabolically incorporated into viral envelope glycoproteins enables visualization of single particle fusion. Journal of Virological Methods, 2016, 233, 62-71.	2.1	12
54	How entry inhibitors synergize to fight HIV. Journal of Biological Chemistry, 2017, 292, 16511-16512.	3.4	10

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55	Screening and Functional Profiling of Small-Molecule HIV-1 Entry and Fusion Inhibitors. Assay and Drug Development Technologies, 2017, 15, 53-63.	1.2	6
56	Facile autofluorescence suppression enabling tracking of single viruses in live cells. Journal of Biological Chemistry, 2019, 294, 19111-19118.	3.4	6
57	SERINC5 Restricts HIV-1 Infectivity by Promoting Conformational Changes and Accelerating Functional Inactivation of Env. Viruses, 2022, 14, 1388.	3.3	6