

Irwin Chaiken

List of Publications by Year in descending order

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53
papers

1,275
citations

394421

19
h-index

377865

34
g-index

56
all docs

56
docs citations

56
times ranked

1133
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of macromolecular interactions using immobilized ligands. <i>Analytical Biochemistry</i> , 1992, 201, 197-210.	2.4	195
2	Conformational Changes of gp120 in Epitopes near the CCR5 Binding Site Are Induced by CD4 and a CD4 Mini-protein Mimetic. <i>Biochemistry</i> , 1999, 38, 9405-9416.	2.5	96
3	Binding Interactions of Human Interleukin 5 with Its Receptor α Subunit. <i>Journal of Biological Chemistry</i> , 1995, 270, 9459-9471.	3.4	91
4	The Case for S2: The Potential Benefits of the S2 Subunit of the SARS-CoV-2 Spike Protein as an Immunogen in Fighting the COVID-19 Pandemic. <i>Frontiers in Immunology</i> , 2021, 12, 637651.	4.8	86
5	Mechanism of Multivalent Nanoparticle Encounter with HIV-1 for Potency Enhancement of Peptide Triazole Virus Inactivation. <i>Journal of Biological Chemistry</i> , 2015, 290, 529-543.	3.4	46
6	Structural Determinants for Affinity Enhancement of a Dual Antagonist Peptide Entry Inhibitor of Human Immunodeficiency Virus Type-1. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 2638-2647.	6.4	45
7	Peptide Triazole Inactivators of HIV-1 Utilize a Conserved Two-Cavity Binding Site at the Junction of the Inner and Outer Domains of Env gp120. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 3843-3858.	6.4	41
8	Kinetic Interaction Analysis of Human Interleukin 5 Receptor α Mutants Reveals a Unique Binding Topology and Charge Distribution for Cytokine Recognition. <i>Journal of Biological Chemistry</i> , 2004, 279, 9547-9556.	3.4	39
9	Mechanical characterization of HIV-1 with a solid-state nanopore sensor. <i>Electrophoresis</i> , 2019, 40, 776-783.	2.4	38
10	The Active Core in a Triazole Peptide Dual-Site Antagonist of HIV-1 gp120. <i>ChemMedChem</i> , 2010, 5, 1871-1879.	3.2	37
11	The HIV-1 Env gp120 Inner Domain Shapes the Phe43 Cavity and the CD4 Binding Site. <i>MBio</i> , 2020, 11, .	4.1	37
12	Cell-Free HIV-1 Virucidal Action by Modified Peptide Triazole Inhibitors of Env gp120. <i>ChemMedChem</i> , 2011, 6, 1335-1339.	3.2	36
13	Antiviral Breadth and Combination Potential of Peptide Triazole HIV-1 Entry Inhibitors. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 1073-1080.	3.2	33
14	Interactions of peptide triazole thiols with Env gp120 induce irreversible breakdown and inactivation of HIV-1 virions. <i>Retrovirology</i> , 2013, 10, 153.	2.0	32
15	Single Chain Human Interleukin 5 and Its Asymmetric Mutagenesis for Mapping Receptor Binding Sites. <i>Journal of Biological Chemistry</i> , 1996, 271, 1817-1820.	3.4	29
16	Macrocyclic Envelope Glycoprotein Antagonists that Irreversibly Inactivate HIV-1 <i>before</i> Host Cell Encounter. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 7603-7608.	6.4	27
17	Modular, self-assembling peptide linkers for stable and regenerable carbon nanotube biosensor interfaces. <i>Journal of Molecular Recognition</i> , 2006, 19, 363-371.	2.1	21
18	Mutants of Single Chain Interleukin 5 Show Asymmetric Recruitment of Receptor α and β Subunits. <i>Journal of Biological Chemistry</i> , 1996, 271, 31729-31734.	3.4	20

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19	Chimeric Cyanovirin-MPER Recombinantly Engineered Proteins Cause Cell-Free Virolysis of HIV-1. <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 4743-4750.	3.2	20
20	Randomization of the Receptor $\hat{1}$ Chain Recruitment Epitope Reveals a Functional Interleukin-5 with Charge Depletion in the CD Loop. <i>Journal of Biological Chemistry</i> , 1999, 274, 20479-20488.	3.4	19
21	Asymmetric Usage of Antagonist Charged Residues Drives Interleukin-5 Receptor Recruitment but Is Insufficient for Receptor Activation. <i>Biochemistry</i> , 2006, 45, 1106-1115.	2.5	18
22	A recombinant allosteric lectin antagonist of HIV-1 envelope gp120 interactions. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 67, 617-629.	2.6	18
23	Chemical optimization of macrocyclic HIV-1 inactivators for improving potency and increasing the structural diversity at the triazole ring. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 7770-7782.	2.8	18
24	HIV-1 ENV gp120 structural determinants for peptide triazole dual receptor site antagonism. <i>Proteins: Structure, Function and Bioinformatics</i> , 2013, 81, 271-290.	2.6	17
25	Restricted HIV-1 Env glycan engagement by lectin-reengineered DAVEI protein chimera is sufficient for lytic inactivation of the virus. <i>Biochemical Journal</i> , 2018, 475, 931-957.	3.7	15
26	Multisite Mutagenesis of Interleukin 5 Differentiates Sites for Receptor Recognition and Receptor Activation. <i>Biochemistry</i> , 2000, 39, 14939-14949.	2.5	13
27	Structure-Based Rationale for Interleukin 5 Receptor Antagonism. <i>Current Pharmaceutical Design</i> , 2008, 14, 1231-1239.	1.9	13
28	Disulfide Sensitivity in the Env Protein Underlies Lytic Inactivation of HIV-1 by Peptide Triazole Thiols. <i>ACS Chemical Biology</i> , 2015, 10, 2861-2873.	3.4	13
29	Epitope Randomization Redefines the Functional Role of Glutamic Acid 110 in Interleukin-5 Receptor Activation. <i>Journal of Biological Chemistry</i> , 2000, 275, 7351-7358.	3.4	12
30	Receptor Epitope Usage by an Interleukin-5 Mimetic Peptide. <i>Journal of Biological Chemistry</i> , 2005, 280, 22951-22961.	3.4	12
31	Slow-dissociation effect of common signaling subunit $\hat{2}$ on IL5 and GM-CSF receptor assembly. <i>Cytokine</i> , 2008, 42, 179-190.	3.2	12
32	Cyclic peptide interleukin 5 antagonists mimic CD turn recognition epitope for receptor ?. <i>Biopolymers</i> , 2004, 73, 556-568.	2.4	11
33	Pharmacokinetic stability of macrocyclic peptide triazole HIV-1 inactivators alone and in liposomes. <i>Journal of Peptide Science</i> , 2019, 25, e3155.	1.4	11
34	Impact of HIV-1 Membrane Cholesterol on Cell-Independent Lytic Inactivation and Cellular Infectivity. <i>Biochemistry</i> , 2016, 55, 447-458.	2.5	10
35	Short Communication: Inhibition of DC-SIGN-Mediated HIV-1 Infection by Complementary Actions of Dendritic Cell Receptor Antagonists and Env-Targeting Virus Inactivators. <i>AIDS Research and Human Retroviruses</i> , 2016, 32, 93-100.	1.1	10
36	Peptide triazole inactivators of HIV-1: how do they work and what is their potential?. <i>Future Medicinal Chemistry</i> , 2015, 7, 2305-2310.	2.3	9

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37	Computational Evaluation of HIV-1 gp120 Conformations of Soluble Trimeric gp140 Structures as Targets for de Novo Docking of First- and Second-Generation Small-Molecule CD4 Mimics. <i>Journal of Chemical Information and Modeling</i> , 2016, 56, 2069-2079.	5.4	9
38	Bifunctional Chimera That Coordinately Targets Human Immunodeficiency Virus 1 Envelope gp120 and the Host-Cell CCR5 Coreceptor at the Virus-Cell Interface. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 5020-5033.	6.4	8
39	Metastable HIV-1 Surface Protein Env Sensitizes Cell Membranes to Transformation and Poration by Dual-Acting Virucidal Entry Inhibitors. <i>Biochemistry</i> , 2020, 59, 818-828.	2.5	8
40	Cytokine Recognition by Human Interleukin 5 Receptor. <i>Vitamins and Hormones</i> , 2005, 71, 321-344.	1.7	7
41	Recognition of HIV-inactivating peptide triazoles by the recombinant soluble Env trimer, BG505 SOSIP.664. <i>Proteins: Structure, Function and Bioinformatics</i> , 2017, 85, 843-851.	2.6	7
42	Proteins, recognition networks and developing interfaces for macromolecular biosensing. <i>Journal of Molecular Recognition</i> , 2004, 17, 198-208.	2.1	6
43	Recruitment pharmacophore for interleukin 5 receptor \pm antagonism. <i>Biopolymers</i> , 2007, 88, 83-93.	2.4	6
44	Targeting cell surface HIV-1 Env protein to suppress infectious virus formation. <i>Virus Research</i> , 2017, 235, 33-36.	2.2	6
45	Coiled coil miniprotein randomization on phage leads to charge pattern mimicry of the receptor recognition determinant of interleukin 5. <i>Journal of Molecular Recognition</i> , 2002, 15, 33-43.	2.1	5
46	Roles of conserved tryptophans in trimerization of HIV-1 membrane-proximal external regions: Implications for virucidal design via alchemical free energy molecular simulations. <i>Proteins: Structure, Function and Bioinformatics</i> , 2018, 86, 707-711.	2.6	4
47	HIV-1 Env-Dependent Cell Killing by Bifunctional Small-Molecule/Peptide Conjugates. <i>ACS Chemical Biology</i> , 2021, 16, 193-204.	3.4	4
48	Roles of variable linker length in dual acting virucidal entry inhibitors on HIV-1 potency via on-the-fly free energy molecular simulations. <i>Protein Science</i> , 2020, 29, 2304-2310.	7.6	3
49	Isotropic Display of Biomolecules on CNT-Arrayed Nanostructures. , 0, , 39-65.		1
50	Real-Time Salmonella Detection Using Lead Zirconate Titanate-Titanium Microcantilevers. <i>Materials Research Society Symposia Proceedings</i> , 2004, 845, 87.	0.1	0
51	Chimeric Cyanovirin-MPER Recombinantly Engineered Proteins Cause Cell-Free Virolysis of HIV-1. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 4249-4249.	3.2	0
52	Identification of a glycan cluster in gp120 essential for irreversible HIV-1 lytic inactivation by a lectin-based recombinantly engineered protein conjugate. <i>Biochemical Journal</i> , 2020, 477, 4263-4280.	3.7	0
53	Anti-S2 Protection in COVID-19 Infection and SARS-CoV-2 Spike Vaccination. <i>FASEB Journal</i> , 2022, 36, .	0.5	0