Dahai Luo

List of Publications by Year
in descending order

64 papers	3,972 citations	117625 34 h-index	128289 60 g-index
72 all docs	72 docs citations	72 times ranked	3980 citing authors

#	Article	IF	Citations
1	Structural Insights into RNA Recognition by RIG-I. Cell, 2011, 147, 409-422.	28.9	337
2	Crystal Structure of the NS3 Protease-Helicase from Dengue Virus. Journal of Virology, 2008, 82, 173-183.	3.4	241
3	The flavivirus NS2Bâ€"NS3 proteaseâ€"helicase as a target for antiviral drug development. Antiviral Research, 2015, 118, 148-158.	4.1	226
4	Insights into RNA unwinding and ATP hydrolysis by the flavivirus NS3 protein. EMBO Journal, 2008, 27, 3209-3219.	7.8	221
5	Towards the design of antiviral inhibitors against flaviviruses: The case for the multifunctional NS3 protein from Dengue virus as a target. Antiviral Research, 2008, 80, 94-101.	4.1	184
6	A Crystal Structure of the Dengue Virus NS5 Protein Reveals a Novel Inter-domain Interface Essential for Protein Flexibility and Virus Replication. PLoS Pathogens, 2015, 11, e1004682.	4.7	180
7	Structure of the NS2B-NS3 protease from Zika virus after self-cleavage. Nature Communications, 2016, 7, 13410.	12.8	169
8	Crystal structure of unlinked NS2B-NS3 protease from Zika virus. Science, 2016, 354, 1597-1600.	12.6	156
9	Quantifying the RNA cap epitranscriptome reveals novel caps in cellular and viral RNA. Nucleic Acids Research, 2019, 47, e130-e130.	14.5	124
10	Flexibility between the Protease and Helicase Domains of the Dengue Virus NS3 Protein Conferred by the Linker Region and Its Functional Implications. Journal of Biological Chemistry, 2010, 285, 18817-18827.	3.4	120
11	The C-terminal 50 Amino Acid Residues of Dengue NS3 Protein Are Important for NS3-NS5 Interaction and Viral Replication. Journal of Biological Chemistry, 2015, 290, 2379-2394.	3.4	105
12	Defining the functional determinants for RNA surveillance by RIGâ€I. EMBO Reports, 2013, 14, 772-779.	4.5	97
13	The Hexamer Structure of the Rift Valley Fever Virus Nucleoprotein Suggests a Mechanism for its Assembly into Ribonucleoprotein Complexes. PLoS Pathogens, 2011, 7, e1002030.	4.7	93
14	Molecular basis for specific viral RNA recognition and 2â€²-O-ribose methylation by the dengue virus nonstructural protein 5 (NS5). Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14834-14839.	7.1	89
15	Luteolin restricts dengue virus replication through inhibition of the proprotein convertase furin. Antiviral Research, 2017, 143, 176-185.	4.1	86
16	Structural Dynamics of Zika Virus NS2B-NS3 Protease Binding to Dipeptide Inhibitors. Structure, 2017, 25, 1242-1250.e3.	3.3	83
17	Zika Virus Protease: An Antiviral Drug Target. Trends in Microbiology, 2017, 25, 797-808.	7.7	80
18	Visualizing the Determinants of Viral RNA Recognition by Innate Immune Sensor RIG-I. Structure, 2012, 20, 1983-1988.	3.3	73

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19	Structural Insights into the Inhibition of Zika Virus NS2B-NS3 Protease by a Small-Molecule Inhibitor. Structure, 2018, 26, 555-564.e3.	3.3	70
20	The C-terminal 18 Amino Acid Region of Dengue Virus NS5 Regulates its Subcellular Localization and Contains a Conserved Arginine Residue Essential for Infectious Virus Production. PLoS Pathogens, 2016, 12, e1005886.	4.7	66
21	Structure-Based Mutational Analysis of the NS3 Helicase from Dengue Virus. Journal of Virology, 2006, 80, 6686-6690.	3.4	62
22	NS3 helicase from dengue virus specifically recognizes viral RNA sequence to ensure optimal replication. Nucleic Acids Research, 2017, 45, 12904-12920.	14.5	61
23	Duplex RNA activated ATPases (DRAs). RNA Biology, 2013, 10, 111-120.	3.1	59
24	Structures of Zika virus NS2B-NS3 protease in complex with peptidomimetic inhibitors. Antiviral Research, 2018, 160, 17-24.	4.1	52
25	Complementary regulation of caspase-1 and IL-1Î² reveals additional mechanisms of dampened inflammation in bats. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28939-28949.	7.1	51
26	Structural insights into RNA recognition by the Chikungunya virus nsP2 helicase. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9558-9567.	7.1	50
27	Biocompatible Macrocyclization between Cysteine and 2-Cyanopyridine Generates Stable Peptide Inhibitors. Organic Letters, 2019, 21, 4709-4712.	4.6	46
28	High-resolution HDX-MS reveals distinct mechanisms of RNA recognition and activation by RIG-I and MDA5. Nucleic Acids Research, 2015, 43, 1216-1230.	14.5	45
29	RIG-I-Like Receptors as Novel Targets for Pan-Antivirals and Vaccine Adjuvants Against Emerging and Re-Emerging Viral Infections. Frontiers in Immunology, 2018, 9, 1379.	4.8	44
30	A Short Chemically Modified dsRNA-Binding PNA (dbPNA) Inhibits Influenza Viral Replication by Targeting Viral RNA Panhandle Structure. Bioconjugate Chemistry, 2019, 30, 931-943.	3.6	44
31	Functional interplay among the flavivirus NS3 protease, helicase, and cofactors. Virologica Sinica, 2014, 29, 74-85.	3.0	43
32	Structural insights into viral RNA capping and plasma membrane targeting by Chikungunya virus nonstructural protein 1. Cell Host and Microbe, 2021, 29, 757-764.e3.	11.0	43
33	Flexibility of NS5 Methyltransferase-Polymerase Linker Region Is Essential for Dengue Virus Replication. Journal of Virology, 2015, 89, 10717-10721.	3.4	41
34	Chikungunya virus nsP4 RNA-dependent RNA polymerase core domain displays detergent-sensitive primer extension and terminal adenylyltransferase activities. Antiviral Research, 2017, 143, 38-47.	4.1	39
35	Structural characterization of the linked <scp>NS</scp>2Bâ€<scp>NS</scp>3 protease of Zika virus. FEBS Letters, 2017, 591, 2338-2347.	2.8	35
36	Crystal Structure of the Dengue Virus Methyltransferase Bound to a 5â€²-Capped Octameric RNA. PLoS ONE, 2010, 5, e12836.	2.5	34

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37	Robust delivery of RIGâ€I agonists using extracellular vesicles for antiâ€cancer immunotherapy. Journal of Extracellular Vesicles, 2022, 11, e12187.	12.2	33
38	Molecular Insights into the Flavivirus Replication Complex. Viruses, 2021, 13, 956.	3.3	31
39	Structureâ€Based Macrocyclization of Substrate Analogue NS2Bâ€NS3 Protease Inhibitors of Zika, West Nile and Dengue viruses. ChemMedChem, 2020, 15, 1439-1452.	3.2	29
40	The RIG-I ATPase core has evolved a functional requirement for allosteric stabilization by the Pincer domain. Nucleic Acids Research, 2014, 42, 11601-11611.	14.5	23
41	Ordered assembly of the cytosolic RNA-sensing MDA5-MAVS signaling complex via binding to unanchored K63-linked poly-ubiquitin chains. Immunity, 2021, 54, 2218-2230.e5.	14.3	23
42	Cell-active carbazole derivatives as inhibitors of the zika virus protease. European Journal of Medicinal Chemistry, 2019, 180, 536-545.	5.5	21
43	2-Cyanoisonicotinamide Conjugation: A Facile Approach to Generate Potent Peptide Inhibitors of the Zika Virus Protease. ACS Medicinal Chemistry Letters, 2021, 12, 732-737.	2.8	21
44	Crystal structures of alphavirus nonstructural protein 4 (nsP4) reveal an intrinsically dynamic RNA-dependent RNA polymerase fold. Nucleic Acids Research, 2022, 50, 1000-1016.	14.5	20
45	Towards the Design of Flavivirus Helicase/NTPase Inhibitors: Crystallographic and Mutagenesis Studies of the Dengue Virus NS3 Helicase Catalytic Domain. Novartis Foundation Symposium, 2008, 277, 87-101.	1.1	19
46	The Linker Region of NS3 Plays a Critical Role in the Replication and Infectivity of Hepatitis C Virus. Journal of Virology, 2014, 88, 10970-10974.	3.4	19
47	Luteolin escape mutants of dengue virus map to prM and NS2B and reveal viral plasticity during maturation. Antiviral Research, 2018, 154, 87-96.	4.1	18
48	Modulation of Lymphocyte Potassium Channel K_V1.3 by Membrane-Penetrating, Joint-Targeting Immunomodulatory Plant Defensin. ACS Pharmacology and Translational Science, 2020, 3, 720-736.	4.9	18
49	Interdomain Flexibility of Chikungunya Virus nsP2 Helicase-Protease Differentially Influences Viral RNA Replication and Infectivity. Journal of Virology, 2021, 95, .	3.4	18
50	Toward a crystal-clear view of the viral RNA sensing and response by RIG-I-like receptors. RNA Biology, 2014, 11, 25-32.	3.1	16
51	Identification and structural characterization of small molecule fragments targeting Zika virus NS2B-NS3 protease. Antiviral Research, 2020, 175, 104707.	4.1	15
52	Crystal structures of full length DENV4 NS2B-NS3 reveal the dynamic interaction between NS2B and NS3. Antiviral Research, 2020, 182, 104900.	4.1	12
53	RIG-I Activation by a Designer Short RNA Ligand Protects Human Immune Cells against Dengue Virus Infection without Causing Cytotoxicity. Journal of Virology, 2019, 93, .	3.4	11
54	Sex Steroids Induce Membrane Stress Responses and Virulence Properties in Pseudomonas aeruginosa. MBio, 2020, 11, .	4.1	10

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55	A loosened gating mechanism of RIG-I leads to autoimmune disorders. Nucleic Acids Research, 2022, 50, 5850-5863.	14.5	9
56	Amidoxime prodrugs convert to potent cell-active multimodal inhibitors of the dengue virus protease. European Journal of Medicinal Chemistry, 2021, 224, 113695.	5.5	7
57	A conserved arginine in NS5 binds genomic 3â€² stemâ€“loop RNA for primer-independent initiation of flavivirus RNA replication. Rna, 2022, 28, 177-193.	3.5	7
58	Structure-Based Optimization and Characterization of Macrocyclic Zika Virus NS2B-NS3 Protease Inhibitors. Journal of Medicinal Chemistry, 2022, 65, 6555-6572.	6.4	7
59	Structureâ€guided design of immunomodulatory RNA s specifically targeting the cytoplasmic viral RNA sensor RIG â€I. FEBS Letters, 2019, 593, 3003-3014.	2.8	6
60	LCâ€MS assay targeting the mycobacterial indirect aminoacylation pathway uncovers glutaminase activities of the nondiscriminating aspartylâ€synthetase. FEBS Letters, 2020, 594, 2159-2167.	2.8	4
61	Insights into the structure and RNA-binding specificity of <i>Caenorhabditis elegans</i> Dicer-related helicase 3 (DRH-3). Nucleic Acids Research, 2021, 49, 9978-9991.	14.5	4
62	Dynamic Interactions of Post Cleaved NS2B Cofactor and NS3 Protease Identified by Integrative Structural Approaches. Viruses, 2022, 14, 1440.	3.3	4
63	Crystal structure of the Rubella virus protease reveals a unique papain-like protease fold. Journal of Biological Chemistry, 2022, 298, 102250.	3.4	4
64	Intranasal Delivery of RIG-I Agonist Drives Pulmonary Myeloid Cell Activation in Mice. Frontiers in Immunology, 0, 13, .	4.8	2