

Bert L Semler

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3556360/publications.pdf>

Version: 2024-02-01

120
papers

6,849
citations

66343

42
h-index

74163

75
g-index

122
all docs

122
docs citations

122
times ranked

4150
citing authors

#	ARTICLE	IF	CITATIONS
1	Primary structure, gene organization and polypeptide expression of poliovirus RNA. <i>Nature</i> , 1981, 291, 547-553.	27.8	1,057
2	Protein 3CD is the major poliovirus proteinase responsible for cleavage of the p1 capsid precursor. <i>Virology</i> , 1988, 166, 265-270.	2.4	374
3	SARS Coronavirus nsp1 Protein Induces Template-Dependent Endonucleolytic Cleavage of mRNAs: Viral mRNAs Are Resistant to nsp1-Induced RNA Cleavage. <i>PLoS Pathogens</i> , 2011, 7, e1002433.	4.7	308
4	MDA5 Detects the Double-Stranded RNA Replicative Form in Picornavirus-Infected Cells. <i>Cell Reports</i> , 2012, 2, 1187-1196.	6.4	190
5	A membrane-associated precursor to poliovirus VPg identified by immunoprecipitation with antibodies directed against a synthetic heptapeptide. <i>Cell</i> , 1982, 28, 405-412.	28.9	183
6	Evolution of multiple genome mutations during long-term persistent infection by vesicular stomatitis virus. <i>Cell</i> , 1979, 16, 495-504.	28.9	180
7	Membrane fractions active in poliovirus RNA replication contain VPg precursor polypeptides. <i>Virology</i> , 1983, 128, 33-47.	2.4	178
8	A nucleo-cytoplasmic SR protein functions in viral IRES-mediated translation initiation. <i>EMBO Journal</i> , 2007, 26, 459-467.	7.8	156
9	Bridging IRES elements in mRNAs to the eukaryotic translation apparatus. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2009, 1789, 518-528.	1.9	151
10	Regulation of picornavirus gene expression. <i>Microbes and Infection</i> , 2004, 6, 702-713.	1.9	140
11	Determinants of Membrane Association for Poliovirus Protein 3AB. <i>Journal of Biological Chemistry</i> , 1996, 271, 26810-26818.	3.4	138
12	Cellular Protein Modification by Poliovirus: the Two Faces of Poly(rC)-Binding Protein. <i>Journal of Virology</i> , 2007, 81, 8919-8932.	3.4	135
13	Differential utilization of poly(rC) binding protein 2 in translation directed by picornavirus IRES elements. <i>Rna</i> , 1999, 5, 1570-1585.	3.5	133
14	Expression of a cloned gene segment of poliovirus in <i>E. coli</i> : Evidence for autocatalytic production of the viral proteinase. <i>Cell</i> , 1984, 37, 1063-1073.	28.9	126
15	Distinct Poly(rC) Binding Protein KH Domain Determinants for Poliovirus Translation Initiation and Viral RNA Replication. <i>Journal of Virology</i> , 2002, 76, 12008-12022.	3.4	126
16	Defective Interfering RNA Viruses and the Host-Cell Response. , 1980, , 137-192.		111
17	in vitromolecular genetics as a tool for determining the differential cleavage specificities of the polivirus 3C proteinase. <i>Nucleic Acids Research</i> , 1987, 15, 2069-2088.	14.5	111
18	Defined recombinants of poliovirus and coxsackievirus: Sequence-specific deletions and functional substitutions in the 5' non-coding regions of viral RNAs. <i>Virology</i> , 1988, 162, 47-57.	2.4	94

#	ARTICLE	IF	CITATIONS
19	Atomic Force Microscopy Analysis of Icosahedral Virus RNA. <i>Journal of Molecular Biology</i> , 2005, 347, 41-52.	4.2	94
20	Functional Interaction of Heterogeneous Nuclear Ribonucleoprotein C with Poliovirus RNA Synthesis Initiation Complexes. <i>Journal of Virology</i> , 2005, 79, 3254-3266.	3.4	91
21	An RNA virus hijacks an incognito function of a DNA repair enzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14634-14639.	7.1	77
22	Alphacoronavirus Transmissible Gastroenteritis Virus nsp1 Protein Suppresses Protein Translation in Mammalian Cells and in Cell-Free HeLa Cell Extracts but Not in Rabbit Reticulocyte Lysate. <i>Journal of Virology</i> , 2011, 85, 638-643.	3.4	73
23	Picornaviruses and nuclear functions: targeting a cellular compartment distinct from the replication site of a positive-strand RNA virus. <i>Frontiers in Microbiology</i> , 2015, 6, 594.	3.5	73
24	Requirements for Assembly of Poliovirus Replication Complexes and Negative-Strand RNA Synthesis. <i>Journal of Virology</i> , 2001, 75, 3841-3850.	3.4	71
25	Virus protein changes and RNA termini alterations evolving during persistent infection. <i>Cell</i> , 1980, 19, 871-880.	28.9	66
26	IRES-mediated pathways to polysomes: nuclear versus cytoplasmic routes. <i>Trends in Microbiology</i> , 2008, 16, 1-5.	7.7	64
27	Alternate poliovirus nonstructural protein processing cascades generated by primary sites of 3C proteinase cleavage. <i>Virology</i> , 1992, 191, 309-320.	2.4	63
28	Rescue of Defective Poliovirus RNA Replication by 3AB-Containing Precursor Polyproteins. <i>Journal of Virology</i> , 1998, 72, 7191-7200.	3.4	63
29	Cleavage sites in the polypeptide precursors of poliovirus protein P2-X. <i>Virology</i> , 1981, 114, 589-594.	2.4	62
30	Stress-Inducible Alternative Translation Initiation of Human Cytomegalovirus Latency Protein pUL138. <i>Journal of Virology</i> , 2010, 84, 9472-9486.	3.4	62
31	Stem-Loop Structure Synergy in Binding Cellular Proteins to the 5' UTR Noncoding Region of Poliovirus RNA. <i>Virology</i> , 1995, 206, 923-934.	2.4	60
32	An Infectious cDNA clone of the poliovirus sabin strain could be used as a stable repository and inoculum for the oral polio live vaccine. <i>Virology</i> , 1986, 151, 21-30.	2.4	59
33	RNA Determinants of Picornavirus Cap-Independent Translation Initiation. <i>Seminars in Virology</i> , 1997, 8, 242-255.	3.9	58
34	Altered interactions between stem-loop IV within the 5' UTR noncoding region of coxsackievirus RNA and poly(rC) binding protein 2: Effects on IRES-mediated translation and viral infectivity. <i>Virology</i> , 2009, 389, 45-58.	2.4	58
35	Cellular mRNA Decay Protein AUF1 Negatively Regulates Enterovirus and Human Rhinovirus Infections. <i>Journal of Virology</i> , 2013, 87, 10423-10434.	3.4	58
36	Translation and Replication Properties of the Human Rhinovirus Genome in Vivo and in Vitro. <i>Virology</i> , 1997, 229, 90-97.	2.4	56

#	ARTICLE	IF	CITATIONS
37	Mechanistic Consequences of hnRNP C Binding to Both RNA Termini of Poliovirus Negative-Strand RNA Intermediates. <i>Journal of Virology</i> , 2010, 84, 4229-4242.	3.4	56
38	Picornavirus Modification of a Host mRNA Decay Protein. <i>MBio</i> , 2012, 3, e00431-12.	4.1	56
39	Poliovirus RNA synthesis in Vitro: Structure elements and antibody inhibition. <i>Virology</i> , 1983, 126, 624-635.	2.4	55
40	Modulation of the RNA Binding and Protein Processing Activities of Poliovirus Polypeptide 3CD by the Viral RNA Polymerase Domain. <i>Journal of Biological Chemistry</i> , 1999, 274, 12867-12876.	3.4	55
41	Re-localization of Cellular Protein SRp20 during Poliovirus Infection: Bridging a Viral IRES to the Host Cell Translation Apparatus. <i>PLoS Pathogens</i> , 2011, 7, e1002127.	4.7	52
42	A Group B Coxsackievirus/Poliovirus 5' Nontranslated Region Chimera Can Act as an Attenuated Vaccine Strain in Mice. <i>Journal of Virology</i> , 2000, 74, 4047-4056.	3.4	51
43	Viral subversion of host functions for picornavirus translation and RNA replication. <i>Future Virology</i> , 2012, 7, 179-191.	1.8	50
44	Possible Unifying Mechanism of Picornavirus Genome Replication. , 0, , 225-246.		46
45	Multimerization of poly(rC) binding protein 2 is required for translation initiation mediated by a viral IRES. <i>Rna</i> , 2004, 10, 1266-1276.	3.5	44
46	Cell-Dependent Role for the Poliovirus 3' Noncoding Region in Positive-Strand RNA Synthesis. <i>Journal of Virology</i> , 2004, 78, 1344-1351.	3.4	43
47	Site-specific mutagenesis of cDNA clones expressing a poliovirus proteinase. <i>Journal of Cellular Biochemistry</i> , 1987, 33, 39-51.	2.6	40
48	Mutations in the Poliovirus 3CD Proteinase S1-Specificity Pocket Affect Substrate Recognition and RNA Binding. <i>Virology</i> , 1996, 218, 1-13.	2.4	40
49	Delayed kinetics of poliovirus RNA synthesis in a human cell line with reduced levels of hnRNP C proteins. <i>Virology</i> , 2010, 400, 240-247.	2.4	40
50	Protein-linked RNA of poliovirus is competent to form an initiation complex of translation in vitro. <i>Nature</i> , 1980, 287, 600-603.	27.8	39
51	An Authentic 3' Noncoding Region Is Necessary for Efficient Poliovirus Replication. <i>Journal of Virology</i> , 2005, 79, 11962-11973.	3.4	39
52	Enterovirus Persistence in Cardiac Cells of Patients With Idiopathic Dilated Cardiomyopathy Is Linked to 5' Terminal Genomic RNA-Deleted Viral Populations With Viral-Encoded Proteinase Activities. <i>Circulation</i> , 2019, 139, 2326-2338.	1.6	39
53	The linker domain of poly(rC) binding protein 2 is a major determinant in poliovirus cap-independent translation. <i>Virology</i> , 2008, 378, 243-253.	2.4	38
54	Viral Proteinase Requirements for the Nucleocytoplasmic Relocalization of Cellular Splicing Factor SRp20 during Picornavirus Infections. <i>Journal of Virology</i> , 2013, 87, 2390-2400.	3.4	38

#	ARTICLE	IF	CITATIONS
55	Translation Initiation of a Cardiac Voltage-gated Potassium Channel by Internal Ribosome Entry. <i>Journal of Biological Chemistry</i> , 1998, 273, 20109-20113.	3.4	36
56	Mammalian Polycistronic mRNAs and Disease. <i>Trends in Genetics</i> , 2017, 33, 129-142.	6.7	36
57	Inhibition of Poliovirus-Induced Cleavage of Cellular Protein PCBP2 Reduces the Levels of Viral RNA Replication. <i>Journal of Virology</i> , 2014, 88, 3192-3201.	3.4	34
58	An internal ribosome entry site mediates translation of lymphoid enhancer factor-1. <i>Rna</i> , 2005, 11, 1385-1399.	3.5	33
59	Requirements for RNA Replication of a Poliovirus Replicon by Coxsackievirus B3 RNA Polymerase. <i>Journal of Virology</i> , 1999, 73, 9413-9421.	3.4	32
60	Poliovirus translation initiation: Differential effects of directed and selected mutations in the 5' noncoding region of viral RNAs. <i>Virology</i> , 1991, 182, 742-752.	2.4	30
61	Processing Determinants and Functions of Cleavage Products of Picornavirus Polyproteins. , 0, , 185-197.		30
62	Expression of the poliovirus genome from infectious cDNA is dependent upon arrangements of eukaryotic and prokaryotic sequences in recombinant plasmids. <i>Virology</i> , 1987, 157, 560-564.	2.4	28
63	Viral Determinants of miR-122-Independent Hepatitis C Virus Replication. <i>MSphere</i> , 2016, 1, .	2.9	28
64	Genotoxic stress and viral infection induce transient expression of APOBEC3A and pro-inflammatory genes through two distinct pathways. <i>Nature Communications</i> , 2021, 12, 4917.	12.8	28
65	Modification of picornavirus genomic RNA using click chemistry shows that unlinking of the VPg peptide is dispensable for translation and replication of the incoming viral RNA. <i>Nucleic Acids Research</i> , 2014, 42, 2473-2482.	14.5	27
66	Functional Consequences of RNA 5'-Terminal Deletions on Coxsackievirus B3 RNA Replication and Ribonucleoprotein Complex Formation. <i>Journal of Virology</i> , 2017, 91, .	3.4	27
67	Subdomain Specific Functions of the RNA Polymerase Region of Poliovirus 3CD Polypeptide. <i>Virology</i> , 2002, 298, 200-213.	2.4	25
68	A 21st Century Perspective of Poliovirus Replication. <i>PLoS Pathogens</i> , 2015, 11, e1004825.	4.7	25
69	Allosteric Effects of Ligands and Mutations on Poliovirus RNA-Dependent RNA Polymerase. <i>Journal of Virology</i> , 2005, 79, 7803-7811.	3.4	24
70	Mechanistic Intersections Between Picornavirus Translation and RNA Replication. <i>Advances in Virus Research</i> , 2011, 80, 1-24.	2.1	24
71	Structurally Distinct Elements Mediate Internal Ribosome Entry within the 5'-Noncoding Region of a Voltage-gated Potassium Channel mRNA. <i>Journal of Biological Chemistry</i> , 2004, 279, 47419-47430.	3.4	23
72	A novel Bcr-Abl-mTOR-eIF4A axis regulates IRES-mediated translation of LEF-1. <i>Open Biology</i> , 2014, 4, 140180.	3.6	21

#	ARTICLE	IF	CITATIONS
73	Self-cleaving proteases. <i>Current Opinion in Cell Biology</i> , 1991, 3, 1039-1045.	5.4	20
74	Diverse Strategies Used by Picornaviruses to Escape Host RNA Decay Pathways. <i>Viruses</i> , 2016, 8, 335.	3.3	18
75	Structure of the PCBP2/stem-loop IV complex underlying translation initiation mediated by the poliovirus type I IRES. <i>Nucleic Acids Research</i> , 2020, 48, 8006-8021.	14.5	18
76	A genetic locus in mutant poliovirus genomes involved in overproduction of RNA polymerase and 3C proteinase. <i>Virology</i> , 1990, 174, 504-514.	2.4	17
77	Strand-Specific RNA Synthesis Determinants in the RNA-Dependent RNA Polymerase of Poliovirus. <i>Journal of Virology</i> , 2004, 78, 4397-4407.	3.4	17
78	Poliovirus infection induces the co-localization of cellular protein SRp20 with TIA-1, a cytoplasmic stress granule protein. <i>Virus Research</i> , 2013, 176, 223-231.	2.2	17
79	Picornavirus Genome: an Overview. , 0, , 125-148.		17
80	Structure and Function of Picornavirus Proteinases. , 0, , 199-212.		17
81	The nucleotide sequence of the 5' terminus of vesicular stomatitis virus RNA. <i>Nucleic Acids Research</i> , 1979, 6, 3923-3934.	14.5	16
82	Direct and Indirect Effects on Viral Translation and RNA Replication Are Required for AUF1 Restriction of Enterovirus Infections in Human Cells. <i>MBio</i> , 2018, 9, .	4.1	16
83	Exploitation of nuclear functions by human rhinovirus, a cytoplasmic RNA virus. <i>PLoS Pathogens</i> , 2018, 14, e1007277.	4.7	16
84	Picornavirus Proteinase-Mediated Shutoff of Host Cell Translation: Direct Cleavage of a Cellular Initiation Factor. , 0, , 299-311.		14
85	Differential restriction patterns of mRNA decay factor AUF1 during picornavirus infections. <i>Journal of General Virology</i> , 2014, 95, 1488-1492.	2.9	13
86	Divergent Requirement for a DNA Repair Enzyme during Enterovirus Infections. <i>MBio</i> , 2016, 7, e01931-15.	4.1	13
87	Initiation of Translation of Picornavirus RNAs: Structure and Function of the Internal Ribosome Entry Site. , 0, , 157-169.		13
88	Molecular and Biological Basis of Picornavirus Taxonomy. , 0, , 15-24.		13
89	Role of Cellular Structures in Viral RNA Replication. , 0, , 247-253.		13
90	Functional conservation of the hydrophobic domain of polypeptide 3AB between human rhinovirus and poliovirus. <i>Virology</i> , 2003, 314, 432-442.	2.4	12

#	ARTICLE	IF	CITATIONS
91	Differential Rescue of Poliovirus RNA Replication Functions by Genetically Modified RNA Polymerase Precursors. <i>Journal of Virology</i> , 2004, 78, 13007-13018.	3.4	12
92	Translation and Host Cell Shutoff. , 0, , 113-133.		12
93	Engineered Picornavirus VPg-RNA Substrates: Analysis of a Tyrosyl-RNA Phosphodiesterase Activity. <i>PLoS ONE</i> , 2011, 6, e16559.	2.5	11
94	Differential cleavage of IRES trans-acting factors (ITAFs) in cells infected by human rhinovirus. <i>Virology</i> , 2014, 449, 35-44.	2.4	9
95	Picornavirus Genetics: an Overview. , 0, , 269-284.		9
96	Poliovirus proves IRES-istible in vivo. <i>Journal of Clinical Investigation</i> , 2004, 113, 1678-1681.	8.2	9
97	Picornaviruses and RNA Metabolism: Local and Global Effects of Infection. <i>Journal of Virology</i> , 2019, 93, .	3.4	8
98	Effects of TDP2/VPg Unlinkase Activity on Picornavirus Infections Downstream of Virus Translation. <i>Viruses</i> , 2020, 12, 166.	3.3	7
99	Pyrimidine-Rich Region Mutations Compensate for a Stem-Loop V Lesion in the 5â€™ Noncoding Region of Poliovirus Genomic RNA. <i>Virology</i> , 1999, 264, 385-397.	2.4	6
100	Proteins Involved in the Function of Picornavirus Internal Ribosomal Entry Sites. , 0, , 171-183.		6
101	Effects of Viral Replication on Cellular Membrane Metabolism and Function. , 0, , 337-354.		6
102	Poliovirus RNA Replication and Genetic Complementation in Cell-Free Reactions. , 2014, , 461-469.		5
103	Picornavirus Cellular Remodeling: Doubling Down in Response to Viral-Induced Inflammation. <i>Current Clinical Microbiology Reports</i> , 2020, 7, 31-37.	3.4	5
104	Poliovirus-Mediated Shutoff of Host Translation: an Indirect Effect. , 0, , 313-320.		5
105	Resistance is futile. <i>Nature Genetics</i> , 2005, 37, 665-666.	21.4	4
106	Generation of Recombinant Polioviruses Harboring RNA Affinity Tags in the 5â€™ and 3â€™ Noncoding Regions of Genomic RNAs. <i>Viruses</i> , 2016, 8, 39.	3.3	4
107	Revelations from a bicistronic calcium channel gene. <i>Cell Cycle</i> , 2014, 13, 875-876.	2.6	3
108	VPg unlinkase/TDP2 in cardiovirus infected cells: Re-localization and proteolytic cleavage. <i>Virology</i> , 2018, 516, 139-146.	2.4	3

#	ARTICLE	IF	CITATIONS
109	Alternative polyadenylation signals in the 3' non-coding region of a voltage-gated potassium channel gene are major determinants of mRNA isoform expression. <i>Gene</i> , 2008, 408, 133-145.	2.2	2
110	History of Poliomyelitis and Poliomyelitis Research. , 2014, , 1-14.		2
111	Construction of a subgenomic CV-B3 replicon expressing emerald green fluorescent protein to assess viral replication of a cardiotropic enterovirus strain in cultured human cells. <i>Journal of Virological Methods</i> , 2016, 230, 1-8.	2.1	2
112	3CD Cleavage of the Poliovirus P1 Precursor: A Model for Complex Proteinase/Substrate Interactions. , 1993, , 225-244.		2
113	Immunology of the Coxsackieviruses. , 0, , 391-403.		2
114	The Development of New Poliovirus Vaccines Based on Molecular Cloning. , 1988, , 43-54.		2
115	Hijacking Host Functions for Translation and RNA Replication by Enteroviruses. , 2018, , .		2
116	Organization of the poliovirus genome and the sites for proteolytic processing. <i>Biochemical Society Transactions</i> , 1984, 12, 711-711.	3.4	0
117	Methods to study RNA virus molecular biology. <i>Methods</i> , 2013, 59, 165-166.	3.8	0
118	In Memoriam John J. Holland (1929-2013): a Pioneer in Molecular Virology. <i>Journal of Virology</i> , 2014, 88, 5903-5905.	3.4	0
119	Genome Replication I: the Players. , 0, , 105-125.		0
120	Genome Replication II: the Process. , 0, , 127-140.		0