Barry S Cooperman

List of Publications by Year
in descending order

59 papers	2,122 citations	218677 26 h-index	243625 44 g-index
63 all docs	63 docs citations	63 times ranked	1951 citing authors

#	Article	IF	Citations
1	Ataluren binds to multiple protein synthesis apparatus sites and competitively inhibits release factor-dependent termination. Nature Communications, 2022, 13, 2413.	12.8	19
2	Ataluren and aminoglycosides stimulate read-through of nonsense codons by orthogonal mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
3	Site-Specific Fluorescent Labeling of RNA Interior Positions. Molecules, 2021, 26, 1341.	3.8	3
4	Dynamics of intracellular stress-induced tRNA trafficking. Nucleic Acids Research, 2019, 47, 2002-2010.	14.5	14
5	New <i>in Vitro</i> Assay Measuring Direct Interaction of Nonsense Suppressors with the Eukaryotic Protein Synthesis Machinery. ACS Medicinal Chemistry Letters, 2018, 9, 1285-1291.	2.8	28
6	Translocation kinetics and structural dynamics of ribosomes are modulated by the conformational plasticity of downstream pseudoknots. Nucleic Acids Research, 2018, 46, 9736-9748.	14.5	26
7	Structural dynamics of translation elongation factor Tu during aa-tRNA delivery to the ribosome. Nucleic Acids Research, 2018, 46, 8651-8661.	14.5	17
8	E. coli elongation factor Tu bound to a GTP analogue displays an open conformation equivalent to the GDP-bound form. Nucleic Acids Research, 2018, 46, 8641-8650.	14.5	19
9	tRNA Fluctuations Observed on Stalled Ribosomes Are Suppressed during Ongoing Protein Synthesis. Biophysical Journal, 2017, 113, 2326-2335.	0.5	13
10	<i>In vivo</i>single-RNA tracking shows that most tRNA diffuses freely in live bacteria. Nucleic Acids Research, 2017, 45, 926-937.	14.5	37
11	The kinetic mechanism of bacterial ribosome recycling. Nucleic Acids Research, 2017, 45, 10168-10177.	14.5	12
12	Stringent Nucleotide Recognition by the Ribosome at the Middle Codon Position. Molecules, 2017, 22, 1427.	3.8	5
13	Probing the interaction between NatA and the ribosome for co-translational protein acetylation. PLoS ONE, 2017, 12, e0186278.	2.5	30
14	Elongation factor G initiates translocation through a power stroke. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7515-7520.	7.1	53
15	Ribosome-Templated Azideâ€“Alkyne Cycloadditions: Synthesis of Potent Macrolide Antibiotics by In Situ Click Chemistry. Journal of the American Chemical Society, 2016, 138, 3136-3144.	13.7	55
16	Electrophoretic Deformation of Individual Transfer RNA Molecules Reveals Their Identity. Nano Letters, 2016, 16, 138-144.	9.1	40
17	Kinetics of initiating polypeptide elongation in an IRES-dependent system. ELife, 2016, 5, .	6.0	25
18	EF-Tu dynamics during pre-translocation complex formation: EF-TuÂ·GDP exits the ribosome via two different pathways. Nucleic Acids Research, 2015, 43, 9519-9528.	14.5	22

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19	A dynamic RNA loop in an IRES affects multiple steps of elongation factor-mediated translation initiation. ELife, 2015, 4, .	6.0	22
20	Monitoring Collagen Synthesis in Fibroblasts Using Fluorescently Labeled tRNA Pairs. Journal of Cellular Physiology, 2014, 229, 1121-1129.	4.1	11
21	Engine out of the chassis: Cellâ€free protein synthesis and its uses. FEBS Letters, 2014, 588, 261-268.	2.8	88
22	Quantifying Elongation Rhythm during Full-Length Protein Synthesis. Journal of the American Chemical Society, 2013, 135, 11322-11329.	13.7	26
23	Dynamics of translation by single ribosomes through mRNA secondary structures. Nature Structural and Molecular Biology, 2013, 20, 582-588.	8.2	124
24	Monitoring Translation with Modified mRNAs Strategically Labeled with Isomorphic Fluorescent Guanosine Mimetics. ACS Chemical Biology, 2013, 8, 2017-2023.	3.4	26
25	Dicodon monitoring of protein synthesis (DiCoMPS) reveals levels of synthesis of a viral protein in single cells. Nucleic Acids Research, 2013, 41, e177-e177.	14.5	14
26	FRET-Based Identification of mRNAs Undergoing Translation. PLoS ONE, 2012, 7, e38344.	2.5	11
27	Single-Molecule Fluorescence Measurements of Ribosomal Translocation Dynamics. Molecular Cell, 2011, 42, 367-377.	9.7	130
28	Quantitative single cell monitoring of protein synthesis at subcellular resolution using fluorescently labeled tRNA. Nucleic Acids Research, 2011, 39, e129-e129.	14.5	36
29	Fluorescent labeling of tRNA dihydrouridine residues: Mechanism and distribution. Rna, 2011, 17, 1393-1400.	3.5	29
30	Synthesis and functional activity of tRNAs labeled with fluorescent hydrazides in the D-loop. Rna, 2009, 15, 346-354.	3.5	53
31	Perturbation of the tRNA Tertiary Core Differentially Affects Specific Steps of the Elongation Cycle. Journal of Biological Chemistry, 2008, 283, 18431-18440.	3.4	23
32	Fluorescent labeling of tRNAs for dynamics experiments. Rna, 2007, 13, 1594-1601.	3.5	35
33	A Quantitative Kinetic Scheme for 70ÂS Translation Initiation Complex Formation. Journal of Molecular Biology, 2007, 373, 562-572.	4.2	81
34	Kinetically Competent Intermediates in the Translocation Step of Protein Synthesis. Molecular Cell, 2007, 25, 519-529.	9.7	179
35	Rapid ribosomal translocation depends on the conserved 18-55 base pair in P-site transfer RNA. Nature Structural and Molecular Biology, 2006, 13, 354-359.	8.2	48
36	Peptide inhibitors of mammalian ribonucleotide reductase. Advances in Enzyme Regulation, 2005, 45, 112-125.	2.6	13

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37	A comprehensive model for the allosteric regulation of Class Ia ribonucleotide reductases. Advances in Enzyme Regulation, 2003, 43, 167-182.	2.6	33
38	Oligopeptide inhibition of class I ribonucleotide reductases. Biopolymers, 2003, 71, 117-131.	2.4	18
39	Sequencing cyclic peptide inhibitors of mammalian ribonucleotide reductase by electrospray ionization mass spectrometry. Journal of Mass Spectrometry, 2001, 36, 658-663.	1.6	19
40	Identification of 50S Components Neighboring 23S rRNA Nucleotides A2448 and U2604 within the Peptidyl Transferase Center of Escherichia coli Ribosomes. Biochemistry, 2000, 39, 183-193.	2.5	22
41	Structure-Based Optimization of Peptide Inhibitors of Mammalian Ribonucleotide Reductase,. Biochemistry, 2000, 39, 12210-12215.	2.5	22
42	Functional characterization ofEscherichiaâ€ƒcoliinorganic pyrophosphatase in zwitterionic buffers. FEBS Journal, 1999, 260, 308-317.	0.2	9
43	Evolutionary aspects of inorganic pyrophosphatase. FEBS Letters, 1999, 454, 75-80.	2.8	64
44	Synthesis and Biological Activity of Cyclic Peptide Inhibitors of Ribonucleotide Reductase. Organic Letters, 1999, 1, 1201-1204.	4.6	18
45	Ribosomal Proteins Neighboring 23 S rRNA Nucleotides 803â€“811 within the 50 S Subunitâ€. Biochemistry, 1998, 37, 1714-1721.	2.5	13
46	Evolutionary Conservation of Enzymatic Catalysis:â€‰ Quantitative Comparison of the Effects of Mutation of Aligned Residues in Saccharomyces cerevisiae and Escherichia coli Inorganic Pyrophosphatases on Enzymatic Activity. Biochemistry, 1998, 37, 1754-1761.	2.5	36
47	Effect of E20D Substitution in the Active Site ofEscherichia coliInorganic Pyrophosphatase on Its Quaternary Structure and Catalytic Propertiesâ€. Biochemistry, 1996, 35, 4662-4669.	2.5	24
48	Catalysis byEscherichia coliInorganic Pyrophosphatase:Â pH and Mg2+Dependenceâ€. Biochemistry, 1996, 35, 4655-4661.	2.5	47
49	An unusual route to thermostability disclosed by the comparison of<i>thermus thermophilus</i>and<i>escherichia coli</i>inorganic pyrophosphatases. Protein Science, 1996, 5, 1014-1025.	7.6	72
50	Arginine substitutions in the hinge region of antichymotrypsin affect serpin Î²-sheet rearrangement. Nature Structural and Molecular Biology, 1996, 3, 888-893.	8.2	35
51	NMR structure of an inhibitory R2 C-terminal peptide bound to mouse ribonucleotide reductase R1 subunit. Nature Structural and Molecular Biology, 1995, 2, 951-955.	8.2	27
52	Cold lability of the mutant forms ofEscherichia coliinorganic pyrophosphatase. FEBS Letters, 1995, 359, 20-22.	2.8	13
53	Crystal structure of an uncleaved serpin reveals the conformation of an inhibitory reactive loop. Nature Structural and Molecular Biology, 1994, 1, 251-258.	8.2	167
54	High level expression of the large subunit of mouse ribonucleotide reductase in a baculovirus system. FEBS Letters, 1993, 323, 93-95.	2.8	11

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55	Limited proteolysis of Cl-inhibitor by chymotrypsin-like proteinases. FEBS Letters, 1989, 259, 165-167.	2.8	18
56	Photoincorporation of tetracycline intoEscherichia coliribosomes. FEBS Letters, 1980, 118, 113-118.	2.8	23
57	Photoaffinity labeling ofEscherichia coliribosomes with an aryl azide analogue of puromycin. FEBS Letters, 1978, 90, 203-208.	2.8	25
58	Models for the Interpretation of Allosteric Inhibition of Candida utilis Fructose Bisphosphatase by Adenosine Monophosphate. FEBS Journal, 1972, 27, 503-512.	0.2	6
59	Applying Photolabile Derivatives of Oligonucleotides To Probe the Peptidyltransferase Center. , 0, , 271-285.		0