Alexander S Mankin

List of Publications by Year
in descending order

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129
papers

9,269
citations

28242
55
h-index

45285
90
g-index

145
all docs

145
docs citations

145
times ranked

6255
citing authors

#	ARTICLE	IF	CITATIONS
1	Identifying Small Open Reading Frames in Prokaryotes with Ribosome Profiling. Journal of Bacteriology, 2022, 204, JB0029421.	1.0	26
2	The context of the ribosome binding site in mRNAs defines specificity of action of kasugamycin, an inhibitor of translation initiation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	6
3	Structural basis for context-specific inhibition of translation by oxazolidinone antibiotics. Nature Structural and Molecular Biology, 2022, 29, 162-171.	3.6	31
4	Charting the sequence-activity landscape of peptide inhibitors of translation termination. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	10
5	Context-specific action of macrolide antibiotics on the eukaryotic ribosome. Nature Communications, 2021, 12, 2803.	5.8	18
6	Structural and mechanistic basis for translation inhibition by macrolide and ketolide antibiotics. Nature Communications, 2021, 12, 4466.	5.8	43
7	Structure of Erm-modified 70S ribosome reveals the mechanism of macrolide resistance. Nature Chemical Biology, 2021, 17, 412-420.	3.9	70
8	A synthetic antibiotic class overcoming bacterial multidrug resistance. Nature, 2021, 599, 507-512.	13.7	102
9	Dynamics of the context-specific translation arrest by chloramphenicol and linezolid. Nature Chemical Biology, 2020, 16, 310-317.	3.9	43
10	Frame-shifted proteins of a given gene are unlikely to retain the same function. Rna, 2020, 26, 1301-1302.	1.6	1
11	A long-distance rRNA base pair impacts the ability of macrolide antibiotics to kill bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1971-1975.	3.3	11
12	Mechanism of translation inhibition by type II GNAT toxin AtaT2. Nucleic Acids Research, 2020, 48, 8617-8625.	6.5	11
13	Ribosome engineering reveals the importance of 5S rRNA autonomy for ribosome assembly. Nature Communications, 2020, 11, 2900.	5.8	18
14	Editorial: Ribosome survey and summary collection 2020. Nucleic Acids Research, 2020, 48, 1011-1012.	6.5	1
15	A fully orthogonal system for protein synthesis in bacterial cells. Nature Communications, 2020, 11, 1858.	5.8	37
16	Genome-wide effects of the antimicrobial peptide apidaecin on translation termination in bacteria. ELife, 2020, 9, .	2.8	22
17	Engineered ribosomes with tethered subunits for expanding biological function. Nature Communications, 2019, 10, 3920.	5.8	52
18	Retapamulin-Assisted Ribosome Profiling Reveals the Alternative Bacterial Proteome. Molecular Cell, 2019, 74, 481-493.e6.	4.5	140

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19	Assembly and functionality of the ribosome with tethered subunits. Nature Communications, 2019, 10, 930.	5.8	39
20	Odilorhabdins, Antibacterial Agents that Cause Miscoding by Binding at a New Ribosomal Site. Molecular Cell, 2018, 70, 83-94.e7.	4.5	96
21	Binding and Action of Amino Acid Analogs of Chloramphenicol upon the Bacterial Ribosome. Journal of Molecular Biology, 2018, 430, 842-852.	2.0	47
22	Genes within Genes in Bacterial Genomes. , 2018, , 133-154.		4
23	How Macrolide Antibiotics Work. Trends in Biochemical Sciences, 2018, 43, 668-684.	3.7	206
24	Genes within Genes in Bacterial Genomes. Microbiology Spectrum, 2018, 6, .	1.2	30
25	Context-Specific Action of Ribosomal Antibiotics. Annual Review of Microbiology, 2018, 72, 185-207.	2.9	47
26	Programmed Ribosomal Frameshifting Generates a Copper Transporter and a Copper Chaperone from the Same Gene. Molecular Cell, 2017, 65, 207-219.	4.5	81
27	An antimicrobial peptide that inhibits translation by trapping release factors on the ribosome. Nature Structural and Molecular Biology, 2017, 24, 752-757.	3.6	123
28	Kinetics of drugâ€“ribosome interactions defines the cidality of macrolide antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13673-13678.	3.3	48
29	Co-produced natural ketolides methymycin and pikromycin inhibit bacterial growth by preventing synthesis of a limited number of proteins. Nucleic Acids Research, 2017, 45, 9573-9582.	6.5	29
30	Binding of Macrolide Antibiotics Leads to Ribosomal Selection against Specific Substrates Based on Their Charge and Size. Cell Reports, 2016, 16, 1789-1799.	2.9	33
31	Context-specific inhibition of translation by ribosomal antibiotics targeting the peptidyl transferase center. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 12150-12155.	3.3	130
32	Structures of proline-rich peptides bound to the ribosome reveal a common mechanism of protein synthesis inhibition. Nucleic Acids Research, 2016, 44, 2439-2450.	6.5	132
33	Nascent peptide assists the ribosome in recognizing chemically distinct small molecules. Nature Chemical Biology, 2016, 12, 153-158.	3.9	43
34	Protein synthesis by ribosomes with tethered subunits. Nature, 2015, 524, 119-124.	13.7	204
35	Resistance to ketolide antibiotics by coordinated expression of rRNA methyltransferases in a bacterial producer of natural ketolides. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12956-12961.	3.3	26
36	Interactions of the TnaC nascent peptide with rRNA in the exit tunnel enable the ribosome to respond to free tryptophan. Nucleic Acids Research, 2014, 42, 1245-1256.	6.5	41

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37	Protein Accounting in the Cellular Economy. Cell, 2014, 157, 529-531.	13.5	6
38	Amicoumacin A Inhibits Translation by Stabilizing mRNA Interaction with the Ribosome. Molecular Cell, 2014, 56, 531-540.	4.5	73
39	The general mode of translation inhibition by macrolide antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15958-15963.	3.3	142
40	Molecular basis for erythromycin-dependent ribosome stalling during translation of the ErmBL leader peptide. Nature Communications, 2014, 5, 3501.	5.8	115
41	Negamycin Interferes with Decoding and Translocation by Simultaneous Interaction with rRNA and tRNA. Molecular Cell, 2014, 56, 541-550.	4.5	41
42	Macrolide antibiotics allosterically predispose the ribosome for translation arrest. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9804-9809.	3.3	99
43	Tools for Characterizing Bacterial Protein Synthesis Inhibitors. Antimicrobial Agents and Chemotherapy, 2013, 57, 5994-6004.	1.4	81
44	Regulation of Gene Expression by Macrolide-Induced Ribosomal Frameshifting. Molecular Cell, 2013, 52, 629-642.	4.5	69
45	Deregulation of translation due to post-transcriptional modification of rRNA explains why erm genes are inducible. Nature Communications, 2013, 4, 1984.	5.8	57
46	Identifying the targets of aminoacyl-tRNA synthetase inhibitors by primer extension inhibition. Nucleic Acids Research, 2013, 41, e144-e144.	6.5	44
47	The Genetic Environment of the <i>cfr</i> Gene and the Presence of Other Mechanisms Account for the Very High Linezolid Resistance of Staphylococcus epidermidis Isolate 426-3147L. Antimicrobial Agents and Chemotherapy, 2013, 57, 1173-1179.	1.4	36
48	Genetic Environment and Stability of <i>cfr</i> in Methicillin-Resistant Staphylococcus aureus CM05. Antimicrobial Agents and Chemotherapy, 2012, 56, 332-340.	1.4	59
49	Synthesis and antibacterial activity of desosamine-modified macrolide derivatives. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 4575-4578.	1.0	25
50	Selective Protein Synthesis by Ribosomes with a Drug-Obstructed Exit Tunnel. Cell, 2012, 151, 508-520.	13.5	130
51	The Shortest Nascent Peptide That Can Direct Ribosome Stalling. FASEB Journal, 2012, 26, 550.3.	0.2	0
52	Inactivation of the Indigenous Methyltransferase RlmN in Staphylococcus aureus Increases Linezolid Resistance. Antimicrobial Agents and Chemotherapy, 2011, 55, 2989-2991.	1.4	44
53	Role of antibiotic ligand in nascent peptide-dependent ribosome stalling. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10496-10501.	3.3	60
54	Picky nascent peptides do not talk to foreign ribosomes. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5931-5932.	3.3	11

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55	Nascent Peptide in the Ribosome Exit Tunnel Affects Functional Properties of the A-Site of the Peptidyl Transferase Center. Molecular Cell, 2011, 41, 321-330.	4.5	114
56	Macrolide antibiotics in the ribosome exit tunnel: speciesâ€specific binding and action. Annals of the New York Academy of Sciences, 2011, 1241, 33-47.	1.8	91
57	Low Fitness Cost of the Multidrug Resistance Gene <i>cfr</i>. Antimicrobial Agents and Chemotherapy, 2011, 55, 3714-3719.	1.4	63
58	The key function of a conserved and modified rRNA residue in the ribosomal response to the nascent peptide. EMBO Journal, 2010, 29, 3108-3117.	3.5	138
59	Structural signatures of antibiotic binding sites on the ribosome. Nucleic Acids Research, 2010, 38, 5982-5994.	6.5	26
60	Binding and Action of CEM-101, a New Fluoroketolide Antibiotic That Inhibits Protein Synthesis. Antimicrobial Agents and Chemotherapy, 2010, 54, 4961-4970.	1.4	131
61	Structures of the <i>Escherichia coli</i> ribosome with antibiotics bound near the peptidyl transferase center explain spectra of drug action. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17152-17157.	3.3	376
62	The structure of ribosome-lankacidin complex reveals ribosomal sites for synergistic antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1983-1988.	3.3	63
63	RlmN and Cfr are Radical SAM Enzymes Involved in Methylation of Ribosomal RNA. Journal of the American Chemical Society, 2010, 132, 3953-3964.	6.6	146
64	Erythromycin- and Chloramphenicol-Induced Ribosomal Assembly Defects Are Secondary Effects of Protein Synthesis Inhibition. Antimicrobial Agents and Chemotherapy, 2009, 53, 563-571.	1.4	63
65	Fluorescently labeled ribosomes as a tool for analyzing antibiotic binding. Rna, 2009, 15, 1597-1604.	1.6	23
66	Programmed drugâ€dependent ribosome stalling. Molecular Microbiology, 2009, 71, 811-824.	1.2	145
67	Selection of Small Peptides, Inhibitors of Translation. Journal of Molecular Biology, 2009, 391, 813-819.	2.0	18
68	Nascent peptideâ€dependent regulation of protein synthesis. FASEB Journal, 2009, 23, .	0.2	0
69	Nascent peptideâ€dependent ribosome stalling in drugâ€inducible antibiotic resistance. FASEB Journal, 2009, 23, 496.5.	0.2	0
70	The methyltransferase YfgB/RlmN is responsible for modification of adenosine 2503 in 23S rRNA. Rna, 2008, 14, 98-106.	1.6	118
71	An Indigenous Posttranscriptional Modification in the Ribosomal Peptidyl Transferase Center Confers Resistance to an Array of Protein Synthesis Inhibitors. Journal of Molecular Biology, 2008, 380, 593-597.	2.0	46
72	Macrolide myths. Current Opinion in Microbiology, 2008, 11, 414-421.	2.3	84

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73	Molecular Mechanism of Drug-Dependent Ribosome Stalling. Molecular Cell, 2008, 30, 190-202.	4.5	243
74	Induction of <i>erm</i> (C) Expression by Noninducing Antibiotics. Antimicrobial Agents and Chemotherapy, 2008, 52, 866-874.	1.4	74
75	Nucleotide Biosynthesis Is Critical for Growth of Bacteria in Human Blood. PLoS Pathogens, 2008, 4, e37.	2.1	203
76	Transcriptional and Translational Control of the <i>mlr</i> Operon, Which Confers Resistance to Seven Classes of Protein Synthesis Inhibitors. Antimicrobial Agents and Chemotherapy, 2008, 52, 1703-1712.	1.4	106
77	SPARK: A New Peptidyl Transferase Activity Assay. Methods in Molecular Medicine, 2008, 142, 107-116.	0.8	5
78	Potential New Antibiotic Sites in the Ribosome Revealed by Deleterious Mutations in RNA of the Large Ribosomal Subunit. Journal of Biological Chemistry, 2007, 282, 24329-24342.	1.6	36
79	The Site of Action of Oxazolidinone Antibiotics in Living Bacteria and in Human Mitochondria. Molecular Cell, 2007, 26, 393-402.	4.5	235
80	Acquisition of a natural resistance gene renders a clinical strain of methicillin-resistantStaphylococcus aureusresistant to the synthetic antibiotic linezolid. Molecular Microbiology, 2007, 64, 1506-1514.	1.2	300
81	Antibiotics and the ribosome. Molecular Microbiology, 2006, 59, 1664-1677.	1.2	141
82	Antibiotic blocks mRNA path on the ribosome. Nature Structural and Molecular Biology, 2006, 13, 858-860.	3.6	19
83	Synthesis and biological investigation of new 4â€³-malonyl tethered derivatives of erythromycin and clarithromycin. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 1506-1509.	1.0	10
84	Nascent peptide in the â€˜birth canalâ€™ of the ribosome. Trends in Biochemical Sciences, 2006, 31, 11-13.	3.7	43
85	Chemical engineering of the peptidyl transferase center reveals an important role of the 2'-hydroxyl group of A2451. Nucleic Acids Research, 2005, 33, 1618-1627.	6.5	75
86	Binding Site of the Bridged Macrolides in the Escherichia coli Ribosome. Antimicrobial Agents and Chemotherapy, 2005, 49, 281-288.	1.4	59
87	Deleterious mutations in small subunit ribosomal RNA identify functional sites and potential targets for antibiotics. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16620-16625.	3.3	76
88	Essential Mechanisms in the Catalysis of Peptide Bond Formation on the Ribosome. Journal of Biological Chemistry, 2005, 280, 36065-36072.	1.6	77
89	A Protein Component at the Heart of an RNA Machine: The Importance of Protein L27 for the Function of the Bacterial Ribosome. Molecular Cell, 2005, 20, 427-435.	4.5	103
90	The Ribosomal Peptidyl Transferase Center: Structure, Function, Evolution, Inhibition. Critical Reviews in Biochemistry and Molecular Biology, 2005, 40, 285-311.	2.3	151

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91	Peptide-mediated macrolide resistance reveals possible specific interactions in the nascent peptide exit tunnel. Molecular Microbiology, 2004, 54, 376-385.	1.2	30
92	Nosocomial superinfections due to linezolid-resistant Enterococcus faecalis: evidence for a gene dosage effect on linezolid MICs. Diagnostic Microbiology and Infectious Disease, 2003, 47, 511-513.	0.8	58
93	The Critical Role of the Universally Conserved A2602 of 23S Ribosomal RNA in the Release of the Nascent Peptide during Translation Termination. Molecular Cell, 2003, 11, 103-112.	4.5	127
94	Cross-linking in the Living Cell Locates the Site of Action of Oxazolidinone Antibiotics. Journal of Biological Chemistry, 2003, 278, 21972-21979.	1.6	142
95	Macrolide Antibiotics: Binding Site, Mechanism of Action, Resistance. Current Topics in Medicinal Chemistry, 2003, 3, 949-960.	1.0	177
96	Short peptides conferring resistance to macrolide antibiotics. Peptides, 2001, 22, 1661-1668.	1.2	46
97	EmtA, a rRNA methyltransferase conferring high-level evernimicin resistance. Molecular Microbiology, 2001, 41, 1349-1356.	1.2	51
98	Ribosomal peptidyl transferase can withstand mutations at the putative catalytic nucleotide. Nature, 2001, 411, 498-501.	13.7	185
99	Binding Site of Macrolide Antibiotics on the Ribosome: New Resistance Mutation Identifies a Specific Interaction of Ketolides with rRNA. Journal of Bacteriology, 2001, 183, 6898-6907.	1.0	115
100	Introduction of a mini-gene encoding a five-amino acid peptide confers erythromycin resistance onBacillus subtilisand provides temporary erythromycin protection inProteus mirabilis. FEMS Microbiology Letters, 2000, 182, 213-218.	0.7	5
101	Mutations in helix 27 of the yeast Saccharomyces cerevisiae 18S rRNA affect the function of the decoding center of the ribosome. Rna, 2000, 6, 1174-1184.	1.6	45
102	Oxazolidinone Resistance Mutations in 23S rRNA ofEscherichia coli Reveal the Central Region of Domain V as the Primary Site of Drug Action. Journal of Bacteriology, 2000, 182, 5325-5331.	1.0	164
103	Peptidyl transferase activity catalyzed by protein-free 23S ribosomal RNA remains elusive. Rna, 1999, 5, 605-608.	1.6	30
104	A ketolide resistance mutation in domain II of 23S rRNA reveals the proximity of hairpin 35 to the peptidyl transferase centre. Molecular Microbiology, 1999, 31, 633-639.	1.2	169
105	Baby, don't stop!. Nature Genetics, 1999, 23, 8-10.	9.4	20
106	Effect of antibiotics on large ribosomal subunit assembly reveals possible function of 5 S rRNA. Journal of Molecular Biology, 1999, 291, 1025-1034.	2.0	37
107	Resistance mutations in 23 S rRNA identify the site of action of the protein synthesis inhibitor linezolid in the ribosomal peptidyl transferase center 1 1Edited by D. E. Draper. Journal of Molecular Biology, 1999, 294, 93-101.	2.0	198
108	Suppression of Nonsense Mutations Induced by Expression of an RNA Complementary to a Conserved Segment of 23S rRNA. Journal of Bacteriology, 1999, 181, 5257-5262.	1.0	7

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109	Inhibition of Translation and Cell Growth by Minigene Expression. Journal of Bacteriology, 1999, 181, 1617-1622.	1.0	42
110	The antibiotic thiostrepton inhibits a functional transition within protein L11 at the ribosomal GTPase centre 1 1Edited by D. E. Draper. Journal of Molecular Biology, 1998, 276, 391-404.	2.0	114
111	Ketolide Resistance Conferred by Short Peptides. Journal of Biological Chemistry, 1998, 273, 20073-20077.	1.6	40
112	An rRNA Fragment and Its Antisense Can Alter Decoding of Genetic Information. Journal of Bacteriology, 1998, 180, 2744-2748.	1.0	17
113	Erythromycin Resistance Peptides Selected from Random Peptide Libraries. Journal of Biological Chemistry, 1997, 272, 17425-17430.	1.6	58
114	Pactamycin resistance mutations in functional sites of 16 S rRNA. Journal of Molecular Biology, 1997, 274, 8-15.	2.0	50
115	Mutations in Domain II of 23 S rRNA Facilitate Translation of a 23 S rRNA-encoded Pentapeptide Conferring Erythromycin Resistance. Journal of Molecular Biology, 1996, 259, 1-6.	2.0	39
116	Mutations in the Peptidyl Transferase Center of 23 S rRNA Reveal the Site of Action of Sparsomycin, a Universal Inhibitor of Translation. Journal of Molecular Biology, 1996, 261, 222-230.	2.0	52
117	Structure and function of ribosomal RNA. Biochemistry and Cell Biology, 1995, 73, 997-1009.	0.9	59
118	Comparison of functional peptide encoded in the<i>Escherichia coli</i>23S rRNA with other peptides involved in<i>cis</i>-regulation of translation. Biochemistry and Cell Biology, 1995, 73, 1061-1070.	0.9	20
119	Cross-hypersensitivity Effects of Mutations in 23 S rRNA Yield Insight into Aminoacyl-tRNA Binding. Journal of Molecular Biology, 1994, 244, 151-157.	2.0	34
120	Archaeal rRNA operons. Trends in Biochemical Sciences, 1991, 16, 22-26.	3.7	75
121	The nucleotide sequence of the genes coding for the S19 and L22 equivalent ribosomal proteins from Halobacterium halobium. FEBS Letters, 1989, 246, 13-16.	1.3	15
122	[29] Surface topography of ribosomal RNA. Methods in Enzymology, 1988, 164, 440-456.	0.4	9
123	Identification of ten additional nucleotides in the primary structure of yeast 18S rRNA. Gene, 1986, 44, 143-145.	1.0	147
124	Complete nucleotide sequence of the single ribosomal RNA operon of Halobacterium halobium: secondary structure of the archaebacterial 23S rRNA. Molecular Genetics and Genomics, 1986, 202, 152-161.	2.4	46
125	Specific fragmentation of tRNA and rRNA at a 7-methylguanine residue in the presence of methylated carrier RNA. FEBS Journal, 1985, 146, 679-687.	0.2	50
126	The nucleotide sequence of the gene coding for the 16S rRNA from the archaebacterium Halobacterium halobium. Gene, 1985, 37, 181-189.	1.0	47

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127	Occurrence and location of 7-methylguanine residues in small-subunit ribosomal RNAs from eubacteria, archaebacteria and eukaryotes. FEBS Letters, 1985, 188, 233-238.	1.3	13
128	The primary and secondary structure of the 5'-end region of encephalomyocarditis virus RNA a novel approach to sequencing long RNA molecules. Gene, 1983, 26, 189-195.	1.0	27
129	Reconstitution of the 50S Subunit with In Vitro-Transcribed 23S rRNA: a New Tool for Studying Peptidyltransferase. , 0, , 229-243.		3