John E Cronan

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5776552/publications.pdf

Version: 2024-02-01

196 papers	12,700 citations	17440 63 h-index	30922 102 g-index
199 all docs	199 docs citations	199 times ranked	9213 citing authors

#	Article	IF	Citations
1	Bacterial Fatty Acid Biosynthesis: Targets for Antibacterial Drug Discovery. Annual Review of Microbiology, 2001, 55, 305-332.	7.3	425
2	Overproduction of Acetyl-CoA Carboxylase Activity Increases the Rate of Fatty Acid Biosynthesis in Escherichia coli. Journal of Biological Chemistry, 2000, 275, 28593-28598.	3.4	395
3	Membrane cyclopropane fatty acid content is a major factor in acid resistance of Escherichia coli. Molecular Microbiology, 1999, 33, 249-259.	2.5	373
4	Multi-subunit acetyl-CoA carboxylases. Progress in Lipid Research, 2002, 41, 407-435.	11.6	363
5	Bacterial Membrane Lipids: Where Do We Stand?. Annual Review of Microbiology, 2003, 57, 203-224.	7.3	310
6	Phospholipid Alterations During Growth of Escherichia coli. Journal of Bacteriology, 1968, 95, 2054-2061.	2.2	258
7	Chapter 17 Bacterial Fatty Acid Synthesis and its Relationships with Polyketide Synthetic Pathways. Methods in Enzymology, 2009, 459, 395-433.	1.0	241
8	The enzymatic biotinylation of proteins: a post-translational modification of exceptional specificity. Trends in Biochemical Sciences, 1999, 24, 359-363.	7.5	224
9	A Bacillus subtilis Gene Induced by Cold Shock Encodes a Membrane Phospholipid Desaturase. Journal of Bacteriology, 1998, 180, 2194-2200.	2.2	222
10	Promiscuous protein biotinylation by Escherichia coli biotin protein ligase. Protein Science, 2008, 13, 3043-3050.	7.6	213
11	Escherichia coli LipA Is a Lipoyl Synthase:â€‰ In Vitro Biosynthesis of Lipoylated Pyruvate Dehydrogenase Complex from Octanoyl-Acyl Carrier Protein. Biochemistry, 2000, 39, 15166-15178.	2.5	199
12	A new Escherichia coli metabolic competency: growth on fatty acids by a novel anaerobic Î²-oxidation pathway. Molecular Microbiology, 2003, 47, 793-805.	2.5	186
13	Escherichia coli Unsaturated Fatty Acid Synthesis. Journal of Biological Chemistry, 2009, 284, 29526-29535.	3.4	181
14	The E. coli bio operon: Transcriptional repression by an essential protein modification enzyme. Cell, 1989, 58, 427-429.	28.9	175
15	Biotin synthesis begins by hijacking the fatty acid synthetic pathway. Nature Chemical Biology, 2010, 6, 682-688.	8.0	170
16	Triclosan Resistance of Pseudomonas aeruginosa PAO1 Is Due to FabV, a Triclosan-Resistant Enoyl-Acyl Carrier Protein Reductase. Antimicrobial Agents and Chemotherapy, 2010, 54, 689-698.	3.2	170
17	Thermal regulation of membrane lipid fluidity in bacteria. Trends in Biochemical Sciences, 1983, 8, 49-52.	7.5	169
18	Inhibition of Escherichia coli Acetyl Coenzyme A Carboxylase by Acyl-Acyl Carrier Protein. Journal of Bacteriology, 2001, 183, 1499-1503.	2.2	159

#	Article	IF	Citations
19	Î²-Ketoacyl-Acyl Carrier Protein Synthase III (FabH) Is Essential for Bacterial Fatty Acid Synthesis. Journal of Biological Chemistry, 2003, 278, 51494-51503.	3.4	150
20	Defective Export of a Periplasmic Enzyme Disrupts Regulation of Fatty Acid Synthesis. Journal of Biological Chemistry, 1995, 270, 4216-4219.	3.4	149
21	Transcriptional patterns in both host and bacterium underlie a daily rhythm of anatomical and metabolic change in a beneficial symbiosis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2259-2264.	7.1	149
22	The growth phase-dependent synthesis of cyclopropane fatty acids in Escherichia coli is the result of an RpoS(KatF)-dependent promoter plus enzyme instability. Molecular Microbiology, 1994, 11, 1009-1017.	2.5	148
23	A New Metabolic Link. Journal of Biological Chemistry, 1997, 272, 17903-17906.	3.4	137
24	Assembly of the Covalent Linkage between Lipoic Acid and Its Cognate Enzymes. Chemistry and Biology, 2003, 10, 1293-1302.	6.0	137
25	Phospholipid modifications in bacteria. Current Opinion in Microbiology, 2002, 5, 202-205.	5.1	133
26	Evidence for Two Genes Specifically Involved in Unsaturated Fatty Acid Biosynthesis in Escherichia coli. Journal of Bacteriology, 1969, 100, 601-604.	2.2	133
27	Holo-(Acyl Carrier Protein) Synthase and Phosphopantetheinyl Transfer in Escherichia coli. Journal of Biological Chemistry, 2000, 275, 959-968.	3.4	125
28	Closing in on complete pathways of biotin biosynthesis. Molecular BioSystems, 2011, 7, 1811.	2.9	123
29	Expression of Escherichia coli pyruvate oxidase (PoxB) depends on the sigma factor encoded by the rpoS(katF) gene. Molecular Microbiology, 1994, 11, 1019-1028.	2.5	121
30	Function, Attachment and Synthesis of Lipoic Acid in Escherichia coli. Advances in Microbial Physiology, 2005, 50, 103-146.	2.4	118
31	In Vivo Evidence that S -Adenosylmethionine and Fatty Acid Synthesis Intermediates Are the Substrates for the LuxI Family of Autoinducer Synthases. Journal of Bacteriology, 1998, 180, 2644-2651.	2.2	118
32	Escherichia coli FadR Positively Regulates Transcription of the fabB Fatty Acid Biosynthetic Gene. Journal of Bacteriology, 2001, 183, 5982-5990.	2.2	117
33	[41] Acyl carrier protein from Escherichia coli. Methods in Enzymology, 1981, 71 Pt C, 341-351.	1.0	113
34	Escherichia coli transcription factor that both activates fatty acid synthesis and represses fatty acid degradation. Journal of Molecular Biology, 1991, 222, 843-849.	4.2	112
35	Assembly of Lipoic Acid on Its Cognate Enzymes: an Extraordinary and Essential Biosynthetic Pathway. Microbiology and Molecular Biology Reviews, 2016, 80, 429-450.	6.6	111
36	Vibrio cholerae FabV Defines a New Class of Enoyl-Acyl Carrier Protein Reductase. Journal of Biological Chemistry, 2008, 283, 1308-1316.	3.4	102

#	Article	IF	Citations
37	Mutant of Escherichia coli Deficient in the Synthesis of cis -Vaccenic Acid. Journal of Bacteriology, 1972, 112, 381-387.	2.2	102
38	Acylhomoserine Lactone Synthase Activity of the Vibrio fischeri AinS Protein. Journal of Bacteriology, 1999, 181, 5766-5770.	2.2	99
39	Cyclopropane fatty acid synthase of Escherichia coli: Deduced amino acid sequence, purification, and studies of the enzyme active site. Biochemistry, 1992, 31, 11020-11028.	2.5	97
40	The Unmodified (Apo) Form of Escherichia coli Acyl Carrier Protein Is a Potent Inhibitor of Cell Growth. Journal of Biological Chemistry, 1995, 270, 22229-22235.	3.4	94
41	Complex binding of the FabR repressor of bacterial unsaturated fatty acid biosynthesis to its cognate promoters. Molecular Microbiology, 2011, 80, 195-218.	2.5	92
42	An Estimate of the Minimum Amount of Unsaturated Fatty Acid Required for Growth of Escherichia coli. Journal of Biological Chemistry, 1973, 248, 1188-1195.	3.4	92
43	Functional Replacement of the FabA and FabB Proteins of Escherichia coli Fatty Acid Synthesis by Enterococcus faecalis FabZ and FabF Homologues. Journal of Biological Chemistry, 2004, 279, 34489-34495.	3.4	88
44	The chain-flipping mechanism of ACP (acyl carrier protein)-dependent enzymes appears universal. Biochemical Journal, 2014, 460, 157-163.	3.7	88
45	Structure of the enzyme-acyl carrier protein (ACP) substrate gatekeeper complex required for biotin synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17406-17411.	7.1	87
46	Mapping of the fabA Locus for Unsaturated Fatty Acid Biosynthesis in Escherichia coli. Journal of Bacteriology, 1972, 112, 206-211.	2.2	86
47	The Escherichia coli lipB Gene Encodes Lipoyl (Octanoyl)-Acyl Carrier Protein:Protein Transferase. Journal of Bacteriology, 2003, 185, 1582-1589.	2.2	85
48	The Biotin Carboxylase-Biotin Carboxyl Carrier Protein Complex of Escherichia coli Acetyl-CoA Carboxylase. Journal of Biological Chemistry, 2003, 278, 30806-30812.	3.4	84
49	Isolation and Characterization of Î²-Ketoacyl-Acyl Carrier Protein Reductase (fabG) Mutants of Escherichia coli and Salmonella enterica Serovar Typhimurium. Journal of Bacteriology, 2004, 186, 1869-1878.	2.2	84
50	The Soluble Acyl-Acyl Carrier Protein Synthetase ofVibrio harveyiB392 Is a Member of the Medium Chain Acyl-CoA Synthetase Familyâ€. Biochemistry, 2006, 45, 10008-10019.	2.5	84
51	The Enigmatic Escherichia coli fadE Gene Is yafH. Journal of Bacteriology, 2002, 184, 3759-3764.	2.2	83
52	A family of arabinose-inducible Escherichia coli expression vectors having pBR322 copy control. Plasmid, 2006, 55, 152-157.	1.4	82
53	Tricarboxylic Acid Cycle and Glyoxylate Bypass. EcoSal Plus, 2005, 1, .	5.4	81
54	The Î²-Oxidation Systems of Escherichia coli and Salmonella enterica Are Not Functionally Equivalent. Journal of Bacteriology, 2006, 188, 599-608.	2.2	80

#	Article	IF	Citations
55	Mutants of Escherichia coli Defective in Membrane Phospholipid Synthesis: Mapping of the Structural Gene for l -Glycerol 3-Phosphate Dehydrogenase. Journal of Bacteriology, 1974, 118, 598-605.	2.2	80
56	Overproduction of a Functional Fatty Acid Biosynthetic Enzyme Blocks Fatty Acid Synthesis in Escherichia coli. Journal of Bacteriology, 1998, 180, 4596-4602.	2.2	78
57	The Burkholderia cenocepacia BDSF quorum sensing fatty acid is synthesized by a bifunctional crotonase homologue having both dehydratase and thioesterase activities. Molecular Microbiology, 2012, 83, 840-855.	2.5	76
58	Solution Structures of Apo and Holo Biotinyl Domains from Acetyl Coenzyme A Carboxylase of Escherichia coli Determined by Triple-Resonance Nuclear Magnetic Resonance Spectroscopy. Biochemistry, 1999, 38, 5045-5053.	2.5	75
59	.beta.-Hydroxydecanoyl thioester dehydrase does not catalyze a rate-limiting step in Escherichia coli unsaturated fatty acid synthesis. Biochemistry, 1983, 22, 5897-5902.	2.5	72
60	A Nucleosidase Required for In Vivo Function of the S-Adenosyl-L-Methionine Radical Enzyme, Biotin Synthase. Chemistry and Biology, 2005, 12, 589-593.	6.0	71
61	Mammalian mitochondria contain a soluble acyl carrier protein. FEBS Letters, 2005, 579, 4892-4896.	2.8	70
62	In Vivo Functional Analyses of the Type II Acyl Carrier Proteins of Fatty Acid Biosynthesis*. Journal of Biological Chemistry, 2007, 282, 20319-20328.	3.4	70
63	Biosynthesis of Squalene from Farnesyl Diphosphate in Bacteria: Three Steps Catalyzed by Three Enzymes. ACS Central Science, 2015, 1, 77-82.	11.3	69
64	Mutants of Escherichia coli Defective in Membrane Phospholipid Synthesis: Mapping of sn -Glycerol 3-Phosphate Acyltransferase K _m Mutants. Journal of Bacteriology, 1974, 120, 227-233.	2.2	69
65	Genetic and Biochemical Analyses ofEscherichia coliMutants Altered in the Temperature-Dependent Regulation of Membrane Lipid Composition. Journal of Bacteriology, 1983, 154, 221-230.	2.2	69
66	Cyclopropane fatty acid synthase of Escherichia coli. Stabilization, purification, and interaction with phospholipid vesicles. Biochemistry, 1979, 18, 3292-3300.	2.5	68
67	The Mycobacterium tuberculosis LipB enzyme functions as a cysteine/lysine dyad acyltransferase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 8662-8667.	7.1	68
68	Targeted and proximity-dependent promiscuous protein biotinylation by a mutant Escherichia coli biotin protein ligase. Journal of Nutritional Biochemistry, 2005, 16, 416-418.	4.2	64
69	Molecular Recognition in a Post-translational Modification of Exceptional Specificity. Journal of Biological Chemistry, 1999, 274, 1449-1457.	3.4	63
70	The Biotinyl Domain of Escherichia coli Acetyl-CoA Carboxylase. Journal of Biological Chemistry, 2001, 276, 37355-37364.	3.4	61
71	Biotin Synthase Is Catalytic In Vivo, but Catalysis Engenders Destruction of the Protein. Chemistry and Biology, 2005, 12, 461-468.	6.0	61
72	The Reaction of LipB, the Octanoyl-[Acyl Carrier Protein]:ProteinN-Octanoyltransferase of Lipoic Acid Synthesis, Proceeds through an Acyl-Enzyme Intermediateâ€. Biochemistry, 2005, 44, 16737-16746.	2.5	61

#	Article	IF	Citations
73	Function of Escherichia coli Biotin Carboxylase Requires Catalytic Activity of Both Subunits of the Homodimer. Journal of Biological Chemistry, 2001, 276, 29864-29870.	3.4	58
74	The Escherichia coli fadK (ydiD) Gene Encodes an Anerobically Regulated Short Chain Acyl-CoA Synthetase. Journal of Biological Chemistry, 2004, 279, 37324-37333.	3.4	56
75	The Two Functional Enoyl-Acyl Carrier Protein Reductases of Enterococcus faecalis Do Not Mediate Triclosan Resistance. MBio, 2013, 4, e00613-13.	4.1	56
76	Cloning and nucleotide sequence of thefabDgene encoding malonyl coenzyme A-acyl carrier protein transacylase ofEscherichia coli. FEBS Letters, 1992, 299, 262-266.	2.8	55
77	Unexpected Functional Diversity among FadR Fatty Acid Transcriptional Regulatory Proteins. Journal of Biological Chemistry, 2005, 280, 32148-32156.	3.4	55
78	A <scp>F</scp>rancisella virulence factor catalyses an essential reaction of biotin synthesis. Molecular Microbiology, 2014, 91, 300-314.	2.5	55
79	<scp>X</scp>anthomonas campestrisâ€...<scp>RpfB</scp> is a fatty <scp>Acyl</scp>â€<scp>CoA</scp> ligase required to counteract the thioesterase activity of the <scp>RpfF</scp> diffusible signal factor (<scp>DSF</scp>) synthase. Molecular Microbiology, 2014, 93, 262-275.	2.5	55
80	The Biotin Repressor: Modulation of Allostery by Corepressor Analogs. Journal of Molecular Biology, 2004, 337, 857-869.	4.2	54
81	The BioC O-Methyltransferase Catalyzes Methyl Esterification of Malonyl-Acyl Carrier Protein, an Essential Step in Biotin Synthesis. Journal of Biological Chemistry, 2012, 287, 37010-37020.	3.4	54
82	Biotin and Lipoic Acid: Synthesis, Attachment, and Regulation. EcoSal Plus, 2014, 6, .	5.4	54
83	The Enigmatic Acyl Carrier Protein Phosphodiesterase of Escherichia coli. Journal of Biological Chemistry, 2005, 280, 34675-34683.	3.4	53
84	Overlapping Repressor Binding Sites Result in Additive Regulation ofEscherichia coliFadH by FadR and ArcA. Journal of Bacteriology, 2010, 192, 4289-4299.	2.2	53
85	[27] Biotinylation of proteins in vivo: A useful posttranslational modification for protein analysis. Methods in Enzymology, 2000, 326, 440-458.	1.0	52
86	A novel amidotransferase required for lipoic acid cofactor assembly in Bacillus subtilis. Molecular Microbiology, 2011, 80, 350-363.	2.5	51
87	Crosstalk of Escherichia coli FadR with Global Regulators in Expression of Fatty Acid Transport Genes. PLoS ONE, 2012, 7, e46275.	2.5	51
88	Two-Carbon Compounds and Fatty Acids as Carbon Sources. EcoSal Plus, 2005, 1, .	5.4	50
89	Expression of Two Escherichia coli Acetyl-CoA Carboxylase Subunits Is Autoregulated. Journal of Biological Chemistry, 2004, 279, 2520-2527.	3.4	49
90	Biosynthesis of Membrane Lipids. EcoSal Plus, 2008, 3, .	5.4	48

#	Article	IF	Citations
91	A novel twoâ€gene requirement for the octanoyltransfer reaction of Bacillus subtilis lipoic acid biosynthesis. Molecular Microbiology, 2011, 80, 335-349.	2.5	46
92	[27] Preparative enzymatic synthesis of acyl-acyl carrier protein. Methods in Enzymology, 1981, 72, 397-403.	1.0	44
93	Lipoic Acid Synthesis: A New Family of Octanoyltransferases Generally Annotated as Lipoate Protein Ligases. Biochemistry, 2010, 49, 10024-10036.	2.5	44
94	Pimelic acid, the first precursor of the <scp>B</scp>acillus subtilis biotin synthesis pathway, exists as the free acid and is assembled by fatty acid synthesis. Molecular Microbiology, 2017, 104, 595-607.	2.5	44
95	A New Member of the Escherichia coli fad Regulon: Transcriptional Regulation of fadM () Tj ETQq1 1 0.784314 rgBT /Over	2.2	42
96	Genetic Interaction Between the Escherichia coli AcpT Phosphopantetheinyl Transferase and the YejM Inner Membrane Protein. Genetics, 2008, 178, 1327-1337.	2.9	41
97	Metabolic Instability of Escherichia coli Cyclopropane Fatty Acid Synthase Is Due to RpoH-Dependent Proteolysis. Journal of Bacteriology, 2000, 182, 4288-4294.	2.2	40
98	The Vibrio cholerae fatty acid regulatory protein, FadR, represses transcription of plsB, the gene encoding the first enzyme of membrane phospholipid biosynthesis. Molecular Microbiology, 2011, 81, 1020-1033.	2.5	40
99	Altered Regulation of Escherichia coli Biotin Biosynthesis in BirA Superrepressor Mutant Strains. Journal of Bacteriology, 2012, 194, 1113-1126.	2.2	40
100	Functions of the Clostridium acetobutylicium FabF and FabZ proteins in unsaturated fatty acid biosynthesis. BMC Microbiology, 2009, 9, 119.	3.3	38
101	Expression of Vibrio harveyi Acyl-ACP Synthetase Allows Efficient Entry of Exogenous Fatty Acids into the Escherichia coli Fatty Acid and Lipid A Synthetic Pathways. Biochemistry, 2010, 49, 718-726.	2.5	38
102	Synthesis of the Î±,Ï‰-dicarboxylic acid precursor of biotin by the canonical fatty acid biosynthetic pathway. Current Opinion in Chemical Biology, 2011, 15, 407-413.	6.1	38
103	Lipoate-binding proteins and specific lipoate-protein ligases in microbial sulfur oxidation reveal an atpyical role for an old cofactor. ELife, 2018, 7, .	6.0	38
104	Biosynthesis and Function of Membrane Lipids. , 0, , 411-421.		37
105	Coordinate Expression of the Acetyl Coenzyme A Carboxylase Genes, accB and accC , Is Necessary for Normal Regulation of Biotin Synthesis in Escherichia coli. Journal of Bacteriology, 2007, 189, 369-376.	2.2	36
106	Profligate biotin synthesis in Î±â€proteobacteria â€“ a developing or degenerating regulatory system?. Molecular Microbiology, 2013, 88, 77-92.	2.5	36
107	A Biotin Biosynthesis Gene Restricted to Helicobacter. Scientific Reports, 2016, 6, 21162.	3.3	36
108	Mutational Analysis of Protein Substrate Presentation in the Post-translational Attachment of Biotin to Biotin Domains. Journal of Biological Chemistry, 2001, 276, 3037-3045.	3.4	35

#	Article	IF	Citations
109	The Lactococcus lactis FabF fatty acid synthetic enzyme can functionally replace both the FabB and FabF proteins of Escherichia coli and the FabH protein of Lactococcus lactis. Archives of Microbiology, 2008, 190, 427-437.	2.2	35
110	Remarkable Diversity in the Enzymes Catalyzing the Last Step in Synthesis of the Pimelate Moiety of Biotin. PLoS ONE, 2012, 7, e49440.	2.5	34
111	The role of the Saccharomyces cerevisiae lipoate protein ligase homologue, Lip3, in lipoic acid synthesis. Yeast, 2013, 30, 415-427.	1.7	34
112	[19] Biosynthesis of lipoic acid and posttranslational modification with lipoic acid in Escherichia coli. Methods in Enzymology, 1997, 279, 176-183.	1.0	33
113	Protein moonlighting elucidates the essential human pathway catalyzing lipoic acid assembly on its cognate enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7063-E7072.	7.1	33
114	Gene-Specific Random Mutagenesis of Escherichia coli In Vivo: Isolation of Temperature-Sensitive Mutations in the Acyl Carrier Protein of Fatty Acid Synthesis. Journal of Bacteriology, 2006, 188, 287-296.	2.2	32
115	A Complex Lipoate Utilization Pathway in Listeria monocytogenes. Journal of Biological Chemistry, 2011, 286, 31447-31456.	3.4	32
116	Putative zinc finger protein encoded by a conserved chloroplast gene is very likely a subunit of a biotin-dependent carboxylase. Plant Molecular Biology, 1992, 20, 759-761.	3.9	31
117	The Thermoplasma acidophilum LplA-LplB Complex Defines a New Class of Bipartite Lipoate-protein Ligases. Journal of Biological Chemistry, 2009, 284, 21317-21326.	3.4	31
118	Advances in synthesis of biotin and assembly of lipoic acid. Current Opinion in Chemical Biology, 2018, 47, 60-66.	6.1	31
119	Scavenging of Cytosolic Octanoic Acid by Mutant LplA Lipoate Ligases Allows Growth of Escherichia coli Strains Lacking the LipB Octanoyltransferase of Lipoic Acid Synthesis. Journal of Bacteriology, 2009, 191, 6796-6803.	2.2	30
120	The pimeloyl-CoA synthetase BioW defines a new fold for adenylate-forming enzymes. Nature Chemical Biology, 2017, 13, 668-674.	8.0	30
121	The Câ€terminal domain of biotin protein ligase from E. coli is required for catalytic activity. Protein Science, 2001, 10, 2608-2617.	7.6	29
122	Antibacterial Activity of N -Pentylpantothenamide Is Due to Inhibition of Coenzyme A Synthesis. Antimicrobial Agents and Chemotherapy, 2010, 54, 1374-1377.	3.2	29
123	Only One of the Two AnnotatedLactococcus lactis fabGGenes Encodes a Functional Î²-Ketoacylâ˜Acyl Carrier Protein Reductaseâ€. Biochemistry, 2004, 43, 11782-11789.	2.5	28
124	Biotin, a universal and essential cofactor: synthesis, ligation and regulation. FEMS Microbiology Reviews, 2021, 45, .	8.6	28
125	A bacterium that has three pathways to regulate membrane lipid fluidity. Molecular Microbiology, 2006, 60, 256-259.	2.5	26
126	Successful Conversion of the Bacillus subtilis BirA Group II Biotin Protein Ligase into a Group I Ligase. PLoS ONE, 2014, 9, e96757.	2.5	26

#	Article	IF	Citations
127	Covalent Modification of an Exposed Surface Turn Alters the Global Conformation of the Biotin Carrier Domain of Escherichia coli Acetyl-CoA Carboxylase. Journal of Biological Chemistry, 1997, 272, 26017-26022.	3.4	25
128	The Atypical Occurrence of Two Biotin Protein Ligases in Francisella novicida Is Due to Distinct Roles in Virulence and Biotin Metabolism. MBio, 2015, 6, e00591.	4.1	25
129	Progress in the Enzymology of the Mitochondrial Diseases of Lipoic Acid Requiring Enzymes. Frontiers in Genetics, 2020, 11, 510.	2.3	25
130	Protein-Protein Interactions in Assembly of Lipoic Acid on the 2-Oxoacid Dehydrogenases of Aerobic Metabolism. Journal of Biological Chemistry, 2011, 286, 8263-8276.	3.4	24
131	Interchangeable Enzyme Modules. Journal of Biological Chemistry, 2002, 277, 22520-22527.	3.4	22
132	Intein-mediated Cyclization of Bacterial Acyl Carrier Protein Stabilizes Its Folded Conformation but Does Not Abolish Function. Journal of Biological Chemistry, 2010, 285, 8605-8614.	3.4	21
133	Enterococcus faecalis Encodes an Atypical Auxiliary Acyl Carrier Protein Required for Efficient Regulation of Fatty Acid Synthesis by Exogenous Fatty Acids. MBio, 2019, 10, .	4.1	21
134	An Isoleucine to Valine Substitution in Acyl Carrier Protein Results in a Functional Protein of Decreased Molecular Radius at Elevated pH. Journal of Biological Chemistry, 1996, 271, 15905-15910.	3.4	20
135	Haemophilus influenzae Rd Lacks a Stringently Conserved Fatty Acid Biosynthetic Enzyme and Thermal Control of Membrane Lipid Composition. Journal of Bacteriology, 2003, 185, 4930-4937.	2.2	20
136	A genome rearrangement has orphaned theEscherichia coliK-12 AcpT phosphopantetheinyl transferase from its cognateEscherichia coliO157:H7 substrates. Molecular Microbiology, 2006, 61, 232-242.	2.5	20
137	Biotin and Lipoic Acid: Synthesis, Attachment, and Regulation. EcoSal Plus, 2008, 3, .	5.4	20
138	The Wing of a Winged Helix-Turn-Helix Transcription Factor Organizes the Active Site of BirA, a Bifunctional Repressor/Ligase. Journal of Biological Chemistry, 2013, 288, 36029-36039.	3.4	20
139	Development and retention of a primordial moonlighting pathway of protein modification in the absence of selection presents a puzzle. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 647-655.	7.1	20
140	An Atypical Î±/Î²-Hydrolase Fold Revealed in the Crystal Structure of Pimeloyl-Acyl Carrier Protein Methyl Esterase BioG from Haemophilus influenzae. Biochemistry, 2016, 55, 6705-6717.	2.5	19
141	Genetic characterization of the Escherichia coli cyclopropane fatty acid (cfa) locus and neighboring loci. Molecular Genetics and Genomics, 1984, 196, 367-372.	2.4	18
142	Insertional restoration of Î²-galactosidase Î±-complementation (white-to-blue colony screening) facilitates assembly of synthetic genes. Gene, 1988, 70, 161-170.	2.2	18
143	Sulfhydryl Chemistry Detects Three Conformations of the Lipid Binding Region ofEscherichia coliPyruvate Oxidaseâ€. Biochemistry, 1997, 36, 11564-11573.	2.5	18
144	Stabilization of the Biotinoyl Domain of Escherichia coli Acetyl-CoA Carboxylase by Interactions between the Attached Biotin and the Protruding â€œThumbâ€•Structure. Journal of Biological Chemistry, 2002, 277, 21604-21609.	3.4	18

#	Article	IF	Citations
145	FabQ, a Dual-Function Dehydratase/Isomerase, Circumvents the Last Step of the Classical Fatty Acid Synthesis Cycle. Chemistry and Biology, 2013, 20, 1157-1167.	6.0	18
146	Unsaturated Fatty Acid Synthesis in the Gastric Pathogen Helicobacter pylori Proceeds via a Backtracking Mechanism. Cell Chemical Biology, 2016, 23, 1480-1489.	5.2	18
147	Novel Xanthomonas campestris Long-Chain-Specific 3-Oxoacyl-Acyl Carrier Protein Reductase Involved in Diffusible Signal Factor Synthesis. MBio, 2018, 9, .	4.1	18
148	Cosmid-Based System for Transient Expression and Absolute Off-to-On Transcriptional Control of Escherichia coli Genes. Journal of Bacteriology, 2003, 185, 6522-6529.	2.2	17
149	Dephospho-CoA kinase provides a rapid and sensitive radiochemical assay for coenzyme A and its thioesters. Analytical Biochemistry, 2007, 368, 17-23.	2.4	17
150	The Staphylococcus aureus group II biotin protein ligase BirA is an effective regulator of biotin operon transcription and requires the DNA binding domain for full enzymatic activity. Molecular Microbiology, 2016, 102, 417-429.	2.5	17
151	A Canonical Biotin Synthesis Enzyme, 8-Amino-7-Oxononanoate Synthase (BioF), Utilizes Different Acyl Chain Donors in Bacillus subtilis and Escherichia coli. Applied and Environmental Microbiology, 2018, 84, .	3.1	17
152	Only One of the Five Ralstonia solanacearum Long-Chain 3-Ketoacyl-Acyl Carrier Protein Synthase Homologues Functions in Fatty Acid Synthesis. Applied and Environmental Microbiology, 2012, 78, 1563-1573.	3.1	16
153	The Conserved Modular Elements of the Acyl Carrier Proteins of Lipid Synthesis Are Only Partially Interchangeable. Journal of Biological Chemistry, 2015, 290, 13791-13799.	3.4	16
154	The Switch Regulating Transcription of the Escherichia coli Biotin Operon Does Not Require Extensive Protein-Protein Interactions. Chemistry and Biology, 2010, 17, 11-17.	6.0	15
155	Proofreading of Noncognate Acyl Adenylates by an Acyl-Coenzyme A Ligase. Chemistry and Biology, 2013, 20, 1441-1446.	6.0	15
156	Remarkable structural variation within fatty acid megasynthases. , 2006, 2, 232-234.		14
157	A new pathway of exogenous fatty acid incorporation proceeds by a classical phosphoryl transfer reaction. Molecular Microbiology, 2014, 92, 217-221.	2.5	14
158	A series of medium and high copy number arabinose-inducible Escherichia coli expression vectors compatible with pBR322 and pACYC184. Plasmid, 2015, 81, 21-26.	1.4	14
159	The Streptomyces coelicolor Lipoate-protein Ligase Is a Circularly Permuted Version of the Escherichia coli Enzyme Composed of Discrete Interacting Domains. Journal of Biological Chemistry, 2015, 290, 7280-7290.	3.4	14
160	Î±-proteobacteria synthesize biotin precursor pimeloyl-ACP using BioZ 3-ketoacyl-ACP synthase and lysine catabolism. Nature Communications, 2020, 11, 5598.	12.8	14
161	The Enterococcus faecalis FabT Transcription Factor Regulates Fatty Acid Biosynthesis in Response to Exogeneous Fatty Acids. Frontiers in Microbiology, 2022, 13, 877582.	3.5	14
162	Discovery of a cAMP Deaminase That Quenches Cyclic AMP-Dependent Regulation. ACS Chemical Biology, 2013, 8, 2622-2629.	3.4	13

#	Article	IF	Citations
163	Inefficient Translation Renders the Enterococcus faecalis fabK Enoyl-Acyl Carrier Protein Reductase Phenotypically Cryptic. Journal of Bacteriology, 2014, 196, 170-179.	2.2	13
164	An Eight-Residue Deletion in Escherichia coli FabG Causes Temperature-Sensitive Growth and Lipid Synthesis Plus Resistance to the Calmodulin Inhibitor Trifluoperazine. Journal of Bacteriology, 2017, 199, .	2.2	13
165	Enzymatic synthesis of acyl-acyl carrier protein and assay of acyl carrier protein. FEBS Letters, 1979, 101, 253-256.	2.8	11
166	Dimerization of the Bacterial Biotin Carboxylase Subunit Is Required for Acetyl Coenzyme A Carboxylase Activity In Vivo. Journal of Bacteriology, 2012, 194, 72-78.	2.2	11
167	The Escherichia coli FadR transcription factor: Too much of a good thing?. Molecular Microbiology, 2021, 115, 1080-1085.	2.5	11
168	Occurrence of cis-7-tetradecenoic acid in the envelope phospholipids of Escherichiacoli K12. Biochemical and Biophysical Research Communications, 1973, 52, 1374-1380.	2.1	10
169	Chromosomal Amplification of the Escherichia coli lipB Region Confers High-Level Resistance to Selenolipoic Acid. Journal of Bacteriology, 2002, 184, 5495-5501.	2.2	10
170	Improved plasmid-based system for fully regulated off-to-on gene expression in Escherichia coli: Application to production of toxic proteins. Plasmid, 2013, 69, 81-89.	1.4	10
171	The Structure of Mammalian Fatty Acid Synthase Turned Back to Front. Chemistry and Biology, 2004, 11, 1601-1602.	6.0	9
172	Evolution of a new function in an esterase: simple amino acid substitutions enable the activity present in the larger paralog, BioH. Protein Engineering, Design and Selection, 2012, 25, 387-395.	2.1	9
173	Evidence against Translational Repression by the Carboxyltransferase Component of Escherichia coli Acetyl Coenzyme A Carboxylase. Journal of Bacteriology, 2014, 196, 3768-3775.	2.2	9
174	Expression and Activity of the BioH Esterase of Biotin Synthesis is Independent of Genome Context. Scientific Reports, 2017, 7, 2141.	3.3	9
175	A novel synthesis of trans-unsaturated fatty acids by the Gram-positive commensal bacterium Enterococcus faecalis FA2-2. Chemistry and Physics of Lipids, 2019, 222, 23-35.	3.2	9
176	The primary step of biotin synthesis in mycobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 23794-23801.	7.1	9
177	The Classical, Yet Controversial, First Enzyme of Lipid Synthesis: Escherichia coli Acetyl-CoA Carboxylase. Microbiology and Molecular Biology Reviews, 2021, 85, e0003221.	6.6	9
178	A cryptic long-chain 3-ketoacyl-ACP synthase in the Pseudomonas putida F1 unsaturated fatty acid synthesis pathway. Journal of Biological Chemistry, 2021, 297, 100920.	3.4	9
179	Conversion of Escherichia coli pyruvate oxidase to an â€˜Î±-ketobutyrate oxidaseâ€™. Biochemical Journal, 2000, 352, 717-724.	3.7	9
180	Avant Garde Fatty Acid Synthesis by Trypanosomes. Cell, 2006, 126, 641-643.	28.9	8

#	Article	IF	Citations
181	PdhR, the pyruvate dehydrogenase repressor, does not regulate lipoic acid synthesis. Research in Microbiology, 2014, 165, 429-438.	2.1	8
182	Temperature regulation of membrane composition in the Firmicute, <scp>Enterococcus faecalis</scp>, parallels that of <scp>Escherichia coli</scp>. Environmental Microbiology, 2021, 23, 2683-2691.	3.8	8
183	Advances in the Structural Biology, Mechanism, and Physiology of Cyclopropane Fatty Acid Modifications of Bacterial Membranes. Microbiology and Molecular Biology Reviews, 2022, 86, e0001322.	6.6	8
184	In Vivo Resolution of Conflicting In Vitro Results: Synthesis of Biotin from Dethiobiotin Does Not Require Pyridoxal Phosphate. Chemistry and Biology, 2007, 14, 1215-1220.	6.0	7
185	Escherichia coli vectors having stringently repressible replication origins allow a streamlining of Crispr/Cas9 gene editing. Plasmid, 2019, 103, 53-62.	1.4	7
186	Transcriptional regulation of fatty acidcisâ€“transisomerization in the solventâ€tolerant soil bacterium,Pseudomonas putidaF1. Environmental Microbiology, 2019, 21, 1659-1676.	3.8	7
187	Loss of Î²-Ketoacyl Acyl Carrier Protein Synthase III Activity Restores Multidrug-Resistant Escherichia coli Sensitivity to Previously Ineffective Antibiotics. MSphere, 2022, 7, e0011722.	2.9	7
188	Helicobacter pylori FabX contains a [4Fe-4S] cluster essential for unsaturated fatty acid synthesis. Nature Communications, 2021, 12, 6932.	12.8	6
189	Enzymatic synthesis of Î²-[U-14C]alanine and d-[1,2,3-14C]pantothenate of high specific radioactivity. Analytical Biochemistry, 1980, 103, 377-380.	2.4	5
190	The structure of lipoyl synthase, a remarkable enzyme that performs the last step of an extraordinary biosynthetic pathway. Biochemical Journal, 2014, 464, e1-e3.	3.7	5
191	A division of labor between two biotin protein ligase homologs. Molecular Microbiology, 2021, 116, 648-662.	2.5	4
192	An <scp>NAD</scp> synthetic reaction bypasses the lipoate requirement for aerobic growth of <scp>E</scp>scherichia coli strains blocked in succinate catabolism. Molecular Microbiology, 2014, 94, 1134-1145.	2.5	3
193	pBR322 vectors having tetracycline-dependent replication. Plasmid, 2016, 84-85, 20-26.	1.4	3
194	Escherichia coli FabG 3-ketoacyl-ACP reductase proteins lacking the assigned catalytic triad residues are active enzymes. Journal of Biological Chemistry, 2021, 296, 100365.	3.4	3
195	Coping with inadvertent lysis of Escherichia coli cultures: Strains resistant to lysogeny and infection by the stealthy lysogenic phage Î¦80. Biotechnology and Bioengineering, 2019, 116, 1820-1826.	3.3	0
196	A Conserved and Seemingly Redundant Escherichia coli Biotin Biosynthesis Gene Expressed Only During Anaerobic Growth. Molecular Microbiology, 2021, 116, 1315-1327.	2.5	0