

# Emily Balskus

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

103  
papers

5,412  
citations

38  
h-index

72  
g-index

126  
ext. papers

7,012  
ext. citations

13.6  
avg, IF

6.46  
L-index

#	Paper	IF	Citations
103	Minimum Information about a Biosynthetic Gene cluster. <i>Nature Chemical Biology</i> , <b>2015</b> , 11, 625-31	11.7	498
102	Microbial conversion of choline to trimethylamine requires a glycy radical enzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 21307-12	11.5	414
101	Chemical transformation of xenobiotics by the human gut microbiota. <i>Science</i> , <b>2017</b> , 356,	33.3	413
100	Predicting and manipulating cardiac drug inactivation by the human gut bacterium <i>Eggerthella lenta</i> . <i>Science</i> , <b>2013</b> , 341, 295-8	33.3	368
99	The genetic and molecular basis for sunscreen biosynthesis in cyanobacteria. <i>Science</i> , <b>2010</b> , 329, 1653-6	33.3	265
98	The human gut bacterial genotoxin colibactin alkylates DNA. <i>Science</i> , <b>2019</b> , 363,	33.3	234
97	Discovery and inhibition of an interspecies gut bacterial pathway for Levodopa metabolism. <i>Science</i> , <b>2019</b> , 364,	33.3	217
96	Alpha,beta-unsaturated beta-silyl imide substrates for catalytic, enantioselective conjugate additions: a total synthesis of (+)-lactacystin and the discovery of a new proteasome inhibitor. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 6810-2	16.4	129
95	A prodrug resistance mechanism is involved in colibactin biosynthesis and cytotoxicity. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 3359-62	16.4	125
94	Characterization and detection of a widely distributed gene cluster that predicts anaerobic choline utilization by human gut bacteria. <i>MBio</i> , <b>2015</b> , 6,	7.8	114
93	Investigating the initial steps in the biosynthesis of cyanobacterial sunscreen scytonemin. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 15260-1	16.4	106
92	Metabolic, Epigenetic, and Transgenerational Effects of Gut Bacterial Choline Consumption. <i>Cell Host and Microbe</i> , <b>2017</b> , 22, 279-290.e7	23.4	100
91	Trimethylamine N-Oxide Binds and Activates PERK to Promote Metabolic Dysfunction. <i>Cell Metabolism</i> , <b>2019</b> , 30, 1141-1151.e5	24.6	98
90	Mechanistic insight into digoxin inactivation by <i>Eggerthella lenta</i> augments our understanding of its pharmacokinetics. <i>Gut Microbes</i> , <b>2014</b> , 5, 233-8	8.8	97
89	Asymmetric catalysis of the transannular Diels-Alder reaction. <i>Science</i> , <b>2007</b> , 317, 1736-40	33.3	91
88	A prominent glycy radical enzyme in human gut microbiomes metabolizes -4-hydroxy-l-proline. <i>Science</i> , <b>2017</b> , 355,	33.3	85
87	Characterization of choline trimethylamine-lyase expands the chemistry of glycy radical enzymes. <i>ACS Chemical Biology</i> , <b>2014</b> , 9, 1408-13	4.9	84

86	Exploring and Understanding the Biochemical Diversity of the Human Microbiota. <i>Cell Chemical Biology</i> , <b>2016</b> , 23, 18-30	8.2	83
85	A glycyl radical enzyme enables hydrogen sulfide production by the human intestinal bacterium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 3171-3176	11.5	75
84	An enzymatic cyclopentyl[b]indole formation involved in scytonemin biosynthesis. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 14648-9	16.4	71
83	Colibactin: understanding an elusive gut bacterial genotoxin. <i>Natural Product Reports</i> , <b>2015</b> , 32, 1534-40	15.1	67
82	Heteroatom-Heteroatom Bond Formation in Natural Product Biosynthesis. <i>Chemical Reviews</i> , <b>2017</b> , 117, 5784-5863	68.1	66
81	An N-nitrosating metalloenzyme constructs the pharmacophore of streptozotocin. <i>Nature</i> , <b>2019</b> , 566, 94-99	50.4	62
80	Opportunities for merging chemical and biological synthesis. <i>Current Opinion in Biotechnology</i> , <b>2014</b> , 30, 1-8	11.4	61
79	Discovery and characterization of a prevalent human gut bacterial enzyme sufficient for the inactivation of a family of plant toxins. <i>ELife</i> , <b>2018</b> , 7,	8.9	60
78	Cholesterol Metabolism by Uncultured Human Gut Bacteria Influences Host Cholesterol Level. <i>Cell Host and Microbe</i> , <b>2020</b> , 28, 245-257.e6	23.4	56
77	Interfacing microbial styrene production with a biocompatible cyclopropanation reaction. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 7106-9	16.4	55
76	The biosynthesis of cyanobacterial sunscreen scytonemin in intertidal microbial mat communities. <i>FEMS Microbiology Ecology</i> , <b>2011</b> , 77, 322-32	4.3	54
75	A biocompatible alkene hydrogenation merges organic synthesis with microbial metabolism. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 7785-8	16.4	53
74	Cylindrocyclophane biosynthesis involves functionalization of an unactivated carbon center. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 18518-21	16.4	53
73	Isolation of a metabolite from the pks island provides insights into colibactin biosynthesis and activity. <i>Organic Letters</i> , <b>2015</b> , 17, 1545-8	6.2	52
72	A new strategy for aromatic ring alkylation in cylindrocyclophane biosynthesis. <i>Nature Chemical Biology</i> , <b>2017</b> , 13, 916-921	11.7	48
71	Designer Micelles Accelerate Flux Through Engineered Metabolism in E. coli and Support Biocompatible Chemistry. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6023-7	16.4	47
70	Discovery of the lomaiviticin biosynthetic gene cluster in. <i>Tetrahedron</i> , <b>2014</b> , 70, 4156-4164	2.4	46
69	Natural product discovery from the human microbiome. <i>Journal of Biological Chemistry</i> , <b>2017</b> , 292, 8546-8552	3.5	45

68	Characterization of Polyketide Synthase Machinery from the pks Island Facilitates Isolation of a Candidate Precolibactin. <i>ACS Chemical Biology</i> , <b>2016</b> , 11, 1287-95	4.9	44
67	Molecular Basis of C-N Bond Cleavage by the Glycyl Radical Enzyme Choline Trimethylamine-Lyase. <i>Cell Chemical Biology</i> , <b>2016</b> , 23, 1206-1216	8.2	41
66	Colibactin assembly line enzymes use S-adenosylmethionine to build a cyclopropane ring. <i>Nature Chemical Biology</i> , <b>2017</b> , 13, 1063-1065	11.7	40
65	Glutamic acid is a carrier for hydrazine during the biosyntheses of fosfazinomycin and kinamycin. <i>Nature Communications</i> , <b>2018</b> , 9, 3687	17.4	37
64	Metabolic functions of the human gut microbiota: the role of metalloenzymes. <i>Natural Product Reports</i> , <b>2019</b> , 36, 593-625	15.1	36
63	Structural analysis of spiro beta-lactone proteasome inhibitors. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 14981-3	16.4	36
62	Gut bacterial phospholipase Ds support disease-associated metabolism by generating choline. <i>Nature Microbiology</i> , <b>2019</b> , 4, 155-163	26.6	36
61	Biosynthesis-assisted structural elucidation of the bartolosides, chlorinated aromatic glycolipids from cyanobacteria. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 11063-7	16.4	33
60	Discovery of a Diazo-Forming Enzyme in Cremeomycin Biosynthesis. <i>Journal of Organic Chemistry</i> , <b>2018</b> , 83, 7539-7546	4.2	29
59	The Human Microbiota, Infectious Disease, and Global Health: Challenges and Opportunities. <i>ACS Infectious Diseases</i> , <b>2018</b> , 4, 14-26	5.5	27
58	Reactivity of an Unusual Amidase May Explain Colibactin's DNA Cross-Linking Activity. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11489-11496	16.4	26
57	Rescuing auxotrophic microorganisms with nonenzymatic chemistry. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 11800-3	16.4	26
56	Structure-Guided Identification of a Small Molecule That Inhibits Anaerobic Choline Metabolism by Human Gut Bacteria. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 33-37	16.4	25
55	Chemistry, bioactivity and biosynthesis of cyanobacterial alkylresorcinols. <i>Natural Product Reports</i> , <b>2019</b> , 36, 1437-1461	15.1	23
54	Characterization of 1,2-Propanediol Dehydratases Reveals Distinct Mechanisms for B-Dependent and Glycyl Radical Enzymes. <i>Biochemistry</i> , <b>2018</b> , 57, 3222-3226	3.2	23
53	Lomaiviticin biosynthesis employs a new strategy for starter unit generation. <i>Organic Letters</i> , <b>2014</b> , 16, 640-3	6.2	23
52	The Cremeomycin Biosynthetic Gene Cluster Encodes a Pathway for Diazo Formation. <i>ChemBioChem</i> , <b>2015</b> , 16, 2172-5	3.8	23
51	Anaerobic 4-hydroxyproline utilization: Discovery of a new glycyl radical enzyme in the human gut microbiome uncovers a widespread microbial metabolic activity. <i>Gut Microbes</i> , <b>2018</b> , 9, 437-451	8.8	22

50	Biocatalytic Friedel-Crafts Alkylation Using a Promiscuous Biosynthetic Enzyme. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 3151-3155	16.4	21
49	A Peroxodiiron(III/III) Intermediate Mediating Both $\alpha$ -Hydroxylation Steps in Biosynthesis of the $\alpha$ -Nitrosourea Pharmacophore of Streptozotocin by the Multi-domain Metalloenzyme SznF. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 11818-11828	16.4	21
48	Interfacing Microbial Styrene Production with a Biocompatible Cyclopropanation Reaction. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 7212-7215	3.6	21
47	Using non-enzymatic chemistry to influence microbial metabolism. <i>Current Opinion in Chemical Biology</i> , <b>2015</b> , 25, 71-9	9.7	21
46	Engineering chemical interactions in microbial communities. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 1705-1725	38.5	19
45	Designer Micelles Accelerate Flux Through Engineered Metabolism in E. coli and Support Biocompatible Chemistry. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6127-6131	3.6	18
44	Assembly line termination in cylindrocyclophane biosynthesis: discovery of an editing type II thioesterase domain in a type I polyketide synthase. <i>Chemical Science</i> , <b>2015</b> , 6, 3816-3822	9.4	17
43	Production of Stealthin C Involves an S-N-Type Smiles Rearrangement. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 2864-2867	16.4	16
42	A Genomic Toolkit for the Mechanistic Dissection of Intractable Human Gut Bacteria. <i>Cell Host and Microbe</i> , <b>2020</b> , 27, 1001-1013.e9	23.4	16
41	The l-Alanosine Gene Cluster Encodes a Pathway for Diazeniumdiolate Biosynthesis. <i>ChemBioChem</i> , <b>2020</b> , 21, 1155-1160	3.8	16
40	A Biocompatible Alkene Hydrogenation Merges Organic Synthesis with Microbial Metabolism. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 7919-7922	3.6	14
39	A widely distributed metalloenzyme class enables gut microbial metabolism of host- and diet-derived catechols. <i>ELife</i> , <b>2020</b> , 9,	8.9	14
38	Structure and assembly of the diiron cofactor in the heme-oxygenase-like domain of the $\alpha$ -nitrosourea-producing enzyme SznF. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	14
37	Deciphering Human Gut Microbiota-Nutrient Interactions: A Role for Biochemistry. <i>Biochemistry</i> , <b>2018</b> , 57, 2567-2577	3.2	12
36	Discovery of small molecule protease inhibitors by investigating a widespread human gut bacterial biosynthetic pathway. <i>Tetrahedron</i> , <b>2018</b> , 74, 3215-3230	2.4	8
35	Illuminating the microbiome's dark matter: a functional genomic toolkit for the study of human gut Actinobacteria		
34	Discovering radical-dependent enzymes in the human gut microbiota. <i>Current Opinion in Chemical Biology</i> , <b>2018</b> , 47, 86-93	9.7	8
33	Discovery of a Cyclic Choline Analog That Inhibits Anaerobic Choline Metabolism by Human Gut Bacteria. <i>ACS Medicinal Chemistry Letters</i> , <b>2020</b> , 11, 1980-1985	4.3	7

32	Rescuing Auxotrophic Microorganisms with Nonenzymatic Chemistry. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 12016-12019	3.6	7
31	The Plot Thickens: Diet Microbe Interactions May Modulate Thrombosis Risk. <i>Cell Metabolism</i> , <b>2016</b> , 23, 573-5	24.6	7
30	Using Chemical Knowledge to Uncover New Biological Function: Discovery of the Cylihydrocyclophane Biosynthetic Pathway. <i>Synlett</i> , <b>2013</b> , 24, 1464-1470	2.2	6
29	Molecular basis for catabolism of the abundant metabolite -4-hydroxy-L-proline by a microbial glycy radical enzyme. <i>ELife</i> , <b>2020</b> , 9,	8.9	6
28	Biocatalytic Friedel-Crafts Alkylation Using a Promiscuous Biosynthetic Enzyme. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 3183-3187	3.6	5
27	In Vitro Characterization of the Colibactin-Activating Peptidase ClbP Enables Development of a Fluorogenic Activity Probe. <i>ACS Chemical Biology</i> , <b>2019</b> , 14, 1097-1101	4.9	5
26	Molecular basis of C-S bond cleavage in the glycy radical enzyme isethionate sulfite-lyase. <i>Cell Chemical Biology</i> , <b>2021</b> , 28, 1333-1346.e7	8.2	5
25	Discovery of CC bond-forming and bond-breaking radical enzymes: enabling transformations for metabolic engineering. <i>Current Opinion in Biotechnology</i> , <b>2020</b> , 65, 94-101	11.4	4
24	Purification and Characterization of the Choline Trimethylamine-Lyase (CutC)-Activating Protein CutD. <i>Methods in Enzymology</i> , <b>2018</b> , 606, 73-94	1.7	4
23	Shedding light on sunscreen biosynthesis in zebrafish. <i>ELife</i> , <b>2015</b> , 4,	8.9	4
22	Elucidation of an anaerobic pathway for metabolism of l-carnitine-derived $\beta$ -butyrobetaine to trimethylamine in human gut bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
21	Natural products: Sponge symbionts play defense. <i>Nature Chemical Biology</i> , <b>2014</b> , 10, 611-2	11.7	3
20	Biosynthesis-Assisted Structural Elucidation of the Bartolosides, Chlorinated Aromatic Glycolipids from Cyanobacteria. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 11215-11219	3.6	3
19	Structure and assembly of the diiron cofactor in the heme-oxygenase-like domain of the N-nitroso-urea-producing enzyme SznF		3
18	The reactivity of an unusual amidase may explain colibactin's DNA cross-linking activity		3
17	Deciphering Human Microbiota-Host Chemical Interactions. <i>ACS Central Science</i> , <b>2021</b> , 7, 20-29	16.8	3
16	Characterization of vaginal microbial enzymes identifies amylopullulanases that support growth of <i>Lactobacillus crispatus</i> on glycogen		3
15	Cysteine dependence of <i>Lactobacillus iners</i> is a potential therapeutic target for vaginal microbiota modulation. <i>Nature Microbiology</i> , <b>2022</b> , 7, 434-450	26.6	3

14	The mysteries of macrocyclic colibactins. <i>Nature Chemistry</i> , <b>2019</b> , 11, 867-869	17.6	2
13	Gut Microbiota: Rational Manipulation of Gut Bacterial Metalloenzymes Provides Insights into Dysbiosis and Inflammation. <i>Biochemistry</i> , <b>2018</b> , 57, 2291-2293	3.2	2
12	Addressing Infectious Disease Challenges by Investigating Microbiomes. <i>ACS Infectious Diseases</i> , <b>2016</b> , 2, 453-5	5.5	2
11	Distribution and diversity of dimetal-carboxylate halogenases in cyanobacteria. <i>BMC Genomics</i> , <b>2021</b> , 22, 633	4.5	2
10	Stereocontrolled Total Synthesis of Bengazole A: A Marine Bisoxazole Natural Product Displaying Potent Antifungal Properties. <i>Angewandte Chemie</i> , <b>2006</b> , 118, 6866-6870	3.6	1
9	Structural Basis for an Unprecedented Enzymatic Alkylation in Cylindrocyclophane Biosynthesis		1
8	Extension of Diagnostic Fragmentation Filtering for Automated Discovery in DNA Adductomics. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 5754-5762	7.8	1
7	The gut bacterial natural product colibactin triggers induction of latent viruses in diverse bacteria		1
6	Leveraging Microbial Genomes and Genomic Context for Chemical Discovery. <i>Accounts of Chemical Research</i> , <b>2021</b> , 54, 2788-2797	24.3	1
5	The Stickland Reaction Precursor -4-Hydroxy-L-Proline Differentially Impacts the Metabolism of <i>Clostridioides difficile</i> and Commensal .. <i>MSphere</i> , <b>2022</b> , e0092621	5	0
4	Anaerobic 4-Hydroxyproline Metabolism by a Widespread Microbial Glycyl Radical Enzyme. <i>FASEB Journal</i> , <b>2018</b> , 32, 534.16	0.9	
3	Radical Chemistry in the Human Gut: Discovery of Choline Trimethylamine-Lyase. <i>FASEB Journal</i> , <b>2015</b> , 29, 575.15	0.9	
2	Interfacing Biocompatible Reactions with Engineered <i>Escherichia coli</i> . <i>Methods in Molecular Biology</i> , <b>2017</b> , 1586, 409-421	1.4	
1	Chemical discovery in the microbial world. <i>FASEB Journal</i> , <b>2017</b> , 31, 258.2	0.9	