

# Sean F Brady

## List of Publications by Year in descending order

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99  
papers

10,545  
citations

36303

51  
h-index

33894

99  
g-index

106  
all docs

106  
docs citations

106  
times ranked

8957  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular biological access to the chemistry of unknown soil microbes: a new frontier for natural products. <i>Chemistry and Biology</i> , 1998, 5, R245-R249.	6.0	1,471
2	Cloning the Soil Metagenome: a Strategy for Accessing the Genetic and Functional Diversity of Uncultured Microorganisms. <i>Applied and Environmental Microbiology</i> , 2000, 66, 2541-2547.	3.1	1,076
3	Minimum Information about a Biosynthetic Gene cluster. <i>Nature Chemical Biology</i> , 2015, 11, 625-631.	8.0	715
4	Isolation of Antibiotics Turbomycin A and B from a Metagenomic Library of Soil Microbial DNA. <i>Applied and Environmental Microbiology</i> , 2002, 68, 4301-4306.	3.1	435
5	Commensal bacteria make GPCR ligands that mimic human signalling molecules. <i>Nature</i> , 2017, 549, 48-53.	27.8	361
6	Culture-independent discovery of the malacidins as calcium-dependent antibiotics with activity against multidrug-resistant Gram-positive pathogens. <i>Nature Microbiology</i> , 2018, 3, 415-422.	13.3	338
7	Cloning and Heterologous Expression of a Natural Product Biosynthetic Gene Cluster from eDNA. <i>Organic Letters</i> , 2001, 3, 1981-1984.	4.6	194
8	Expanding Small-Molecule Functional Metagenomics through Parallel Screening of Broad-Host-Range Cosmid Environmental DNA Libraries in Diverse <i>Proteobacteria</i> . <i>Applied and Environmental Microbiology</i> , 2010, 76, 1633-1641.	3.1	188
9	The Cytosporones, New Octaketide Antibiotics Isolated from an Endophytic Fungus. <i>Organic Letters</i> , 2000, 2, 4043-4046.	4.6	183
10	Construction of soil environmental DNA cosmid libraries and screening for clones that produce biologically active small molecules. <i>Nature Protocols</i> , 2007, 2, 1297-1305.	12.0	180
11	Mining the Metabiome: Identifying Novel Natural Products from Microbial Communities. <i>Chemistry and Biology</i> , 2014, 21, 1211-1223.	6.0	166
12	Discovery of MRSA active antibiotics using primary sequence from the human microbiome. <i>Nature Chemical Biology</i> , 2016, 12, 1004-1006.	8.0	149
13	Mapping gene clusters within arrayed metagenomic libraries to expand the structural diversity of biomedically relevant natural products. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 11797-11802.	7.1	148
14	New Natural Product Families from an Environmental DNA (eDNA) Gene Cluster. <i>Journal of the American Chemical Society</i> , 2002, 124, 9968-9969.	13.7	142
15	Long-Chain N-Acyl Amino Acid Antibiotics Isolated from Heterologously Expressed Environmental DNA. <i>Journal of the American Chemical Society</i> , 2000, 122, 12903-12904.	13.7	138
16	Functional metagenomic discovery of bacterial effectors in the human microbiome and isolation of commendamide, a GPCR G2A/132 agonist. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4825-34.	7.1	133
17	Chemical-biogeographic survey of secondary metabolism in soil. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3757-3762.	7.1	125
18	Functional analysis of environmental DNA-derived type II polyketide synthases reveals structurally diverse secondary metabolites. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 12629-12634.	7.1	124

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19	Cloning and characterization of new glycopeptide gene clusters found in an environmental DNA megalibrary. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17273-17277.	7.1	121
20	Tetarimycin A, an MRSA-Active Antibiotic Identified through Induced Expression of Environmental DNA Gene Clusters. Journal of the American Chemical Society, 2012, 134, 19552-19555.	13.7	117
21	Global biogeographic sampling of bacterial secondary metabolism. ELife, 2015, 4, e05048.	6.0	117
22	Cloning large natural product gene clusters from the environment: Piecing environmental DNA gene clusters back together with TAR. Biopolymers, 2010, 93, 833-844.	2.4	115
23	Recent application of metagenomic approaches toward the discovery of antimicrobials and other bioactive small molecules. Current Opinion in Microbiology, 2010, 13, 603-609.	5.1	115
24	Mapping Interactions of Microbial Metabolites with Human G-Protein-Coupled Receptors. Cell Host and Microbe, 2019, 26, 273-282.e7.	11.0	113
25	Metagenomic approaches to natural products from free-living and symbiotic organisms. Natural Product Reports, 2009, 26, 1488.	10.3	112
26	Culture-independent discovery of natural products from soil metagenomes. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 129-141.	3.0	109
27	Discovery of indolotryptoline antiproliferative agents by homology-guided metagenomic screening. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2478-2483.	7.1	108
28	Multiplexed metagenome mining using short DNA sequence tags facilitates targeted discovery of epoxyketone proteasome inhibitors. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4221-4226.	7.1	104
29	Cloning and Heterologous Expression of Isocyanide Biosynthetic Genes from Environmental DNA. Angewandte Chemie - International Edition, 2005, 44, 7063-7065.	13.8	103
30	Accessing Bioactive Natural Products from the Human Microbiome. Cell Host and Microbe, 2018, 23, 725-736.	11.0	101
31	Fluostatins Produced by the Heterologous Expression of a TAR Reassembled Environmental DNA Derived Type II PKS Gene Cluster. Journal of the American Chemical Society, 2010, 132, 11902-11903.	13.7	96
32	Natural Product Biosynthetic Gene Diversity in Geographically Distinct Soil Microbiomes. Applied and Environmental Microbiology, 2012, 78, 3744-3752.	3.1	96
33	Yeast homologous recombination-based promoter engineering for the activation of silent natural product biosynthetic gene clusters. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8953-8958.	7.1	96
34	Long-Chain <i>N</i> -Acyltyrosine Synthases from Environmental DNA. Applied and Environmental Microbiology, 2004, 70, 6865-6870.	3.1	95
35	A naturally inspired antibiotic to target multidrug-resistant pathogens. Nature, 2022, 601, 606-611.	27.8	92
36	Urban park soil microbiomes are a rich reservoir of natural product biosynthetic diversity. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14811-14816.	7.1	89

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37	Environmental DNA-Encoded Antibiotics Fasamycins A and B Inhibit FabF in Type II Fatty Acid Biosynthesis. <i>Journal of the American Chemical Society</i> , 2012, 134, 2981-2987.	13.7	88
38	Multiplexed CRISPR/Cas9- and TAR-Mediated Promoter Engineering of Natural Product Biosynthetic Gene Clusters in Yeast. <i>ACS Synthetic Biology</i> , 2016, 5, 1002-1010.	3.8	85
39	eSNaPD: A Versatile, Web-Based Bioinformatics Platform for Surveying and Mining Natural Product Biosynthetic Diversity from Metagenomes. <i>Chemistry and Biology</i> , 2014, 21, 1023-1033.	6.0	84
40	CR377, a New Pentaketide Antifungal Agent Isolated from an Endophytic Fungus. <i>Journal of Natural Products</i> , 2000, 63, 1447-1448.	3.0	82
41	Metagenomic small molecule discovery methods. <i>Current Opinion in Microbiology</i> , 2014, 19, 70-75.	5.1	76
42	Palmitoylputrescine, an Antibiotic Isolated from the Heterologous Expression of DNA Extracted from <i>Bromeliad</i> Tank Water. <i>Journal of Natural Products</i> , 2004, 67, 1283-1286.	3.0	74
43	Natural Products from Environmental DNA Hosted in <i>Ralstonia metallidurans</i> . <i>ACS Chemical Biology</i> , 2009, 4, 23-28.	3.4	70
44	Cloning and Characterization of an Environmental DNA-Derived Gene Cluster That Encodes the Biosynthesis of the Antitumor Substance BE-54017. <i>Journal of the American Chemical Society</i> , 2011, 133, 9996-9999.	13.7	70
45	Arixanthomycins A-C: Phylogeny-Guided Discovery of Biologically Active eDNA-Derived Pentangular Polyphenols. <i>ACS Chemical Biology</i> , 2014, 9, 1267-1272.	3.4	69
46	Natural Product Discovery through Improved Functional Metagenomics in <i>Streptomyces</i> . <i>Journal of the American Chemical Society</i> , 2016, 138, 9341-9344.	13.7	65
47	Biocatalysts and small molecule products from metagenomic studies. <i>Current Opinion in Chemical Biology</i> , 2012, 16, 109-116.	6.1	64
48	Arimetamycin A: Improving Clinically Relevant Families of Natural Products through Sequence-Guided Screening of Soil Metagenomes. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11063-11067.	13.8	64
49	Mining Soil Metagenomes to Better Understand the Evolution of Natural Product Structural Diversity: Pentangular Polyphenols as a Case Study. <i>Journal of the American Chemical Society</i> , 2014, 136, 18111-18119.	13.7	63
50	The Chemical Arsenal of <i>Burkholderia pseudomallei</i> Is Essential for Pathogenicity. <i>Journal of the American Chemical Society</i> , 2014, 136, 9484-9490.	13.7	60
51	Targeted Metagenomics: Finding Rare Tryptophan Dimer Natural Products in the Environment. <i>Journal of the American Chemical Society</i> , 2015, 137, 6044-6052.	13.7	58
52	Cadasides, Calcium-Dependent Acidic Lipopeptides from the Soil Metagenome That Are Active against Multidrug-Resistant Bacteria. <i>Journal of the American Chemical Society</i> , 2019, 141, 3910-3919.	13.7	58
53	Rifamycin congeners kanglemycins are active against rifampicin-resistant bacteria via a distinct mechanism. <i>Nature Communications</i> , 2018, 9, 4147.	12.8	57
54	Utahmycins A and B, Azaquinones Produced by an Environmental DNA Clone. <i>Journal of Natural Products</i> , 2010, 73, 976-979.	3.0	56

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55	Bacterial natural product biosynthetic domain composition in soil correlates with changes in latitude on a continent-wide scale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11615-11620.	7.1	53
56	Systematic Investigation of the <i>Escherichia coli</i> Metabolome for the Biosynthetic Origin of an Isocyanide Carbon Atom. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 7045-7048.	13.8	52
57	Antimicrobials Inspired by Nonribosomal Peptide Synthetase Gene Clusters. <i>Journal of the American Chemical Society</i> , 2017, 139, 1404-1407.	13.7	51
58	Tailoring Enzyme-Rich Environmental DNA Clones: A Source of Enzymes for Generating Libraries of Unnatural Natural Products. <i>Journal of the American Chemical Society</i> , 2010, 132, 15661-15670.	13.7	50
59	<i>N</i> -Acyl Derivatives of Arginine and Tryptophan Isolated from Environmental DNA Expressed in <i>Escherichia coli</i> . <i>Organic Letters</i> , 2005, 7, 3613-3616.	4.6	49
60	Uncovering the biosynthetic potential of rare metagenomic DNA using co-occurrence network analysis of targeted sequences. <i>Nature Communications</i> , 2019, 10, 3848.	12.8	47
61	Natural Products from <i>isnA</i> -Containing Biosynthetic Gene Clusters Recovered from the Genomes of Cultured and Uncultured Bacteria. <i>Journal of the American Chemical Society</i> , 2007, 129, 12102-12103.	13.7	46
62	Discovery and Synthetic Refactoring of Tryptophan Dimer Gene Clusters from the Environment. <i>Journal of the American Chemical Society</i> , 2013, 135, 17906-17912.	13.7	46
63	Bioinformatic prospecting and synthesis of a bifunctional lipopeptide antibiotic that evades resistance. <i>Science</i> , 2022, 376, 991-996.	12.6	44
64	An Environmental DNA-Derived Type-II Polyketide Biosynthetic Pathway Encodes the Biosynthesis of the Pentacyclic Polyketide Erdacin. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 6257-6261.	13.8	42
65	Biotechnological potential of Actinobacteria from Canadian and Azorean volcanic caves. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 843-857.	3.6	40
66	Atolypenes, Tricyclic Bacterial Sesterterpenes Discovered Using a Multiplexed <i>In Vitro</i> Cas9-TAR Gene Cluster Refactoring Approach. <i>ACS Synthetic Biology</i> , 2019, 8, 109-118.	3.8	38
67	Identification of biosynthetic gene clusters from metagenomic libraries using PPTase complementation in a <i>Streptomyces</i> host. <i>FEMS Microbiology Letters</i> , 2017, 364, .	1.8	34
68	Reassembly of Functionally Intact Environmental DNA-Derived Biosynthetic Gene Clusters. <i>Methods in Enzymology</i> , 2012, 517, 225-239.	1.0	33
69	Antibacterial enzymes from the functional screening of metagenomic libraries hosted in <i>Ralstonia metallidurans</i> . <i>FEMS Microbiology Letters</i> , 2014, 354, 19-26.	1.8	33
70	Synthetic-Bioinformatic Natural Product Antibiotics with Diverse Modes of Action. <i>Journal of the American Chemical Society</i> , 2020, 142, 14158-14168.	13.7	32
71	Human Microbiome Inspired Antibiotics with Improved $\beta$ -Lactam Synergy against MDR <i>Staphylococcus aureus</i> . <i>ACS Infectious Diseases</i> , 2018, 4, 33-38.	3.8	30
72	Long-Chain <i>N</i> -Acyl Amino Acid Synthases Are Linked to the Putative PEP-CTERM/Exosortase Protein-Sorting System in Gram-Negative Bacteria. <i>Journal of Bacteriology</i> , 2011, 193, 5707-5715.	2.2	29

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73	Selective Enrichment of Environmental DNA Libraries for Genes Encoding Nonribosomal Peptides and Polyketides by Phosphopantetheine Transferase-Dependent Complementation of Siderophore Biosynthesis. <i>ACS Chemical Biology</i> , 2013, 8, 138-143.	3.4	29
74	Bioactive Synthetic-Bioinformatic Natural Product Cyclic Peptides Inspired by Nonribosomal Peptide Synthetase Gene Clusters from the Human Microbiome. <i>Journal of the American Chemical Society</i> , 2019, 141, 15737-15741.	13.7	28
75	Refactoring biosynthetic gene clusters for heterologous production of microbial natural products. <i>Current Opinion in Biotechnology</i> , 2021, 69, 145-152.	6.6	27
76	Synthesis of Long-Chain Fatty Acid Enol Esters Isolated from an Environmental DNA Clone. <i>Organic Letters</i> , 2003, 5, 121-124.	4.6	25
77	Identification of the Colicin V Bacteriocin Gene Cluster by Functional Screening of a Human Microbiome Metagenomic Library. <i>ACS Infectious Diseases</i> , 2018, 4, 27-32.	3.8	23
78	Total Synthesis of Malacidin A by $\hat{P}$ -Hydroxyaspartic Acid Ligation-Mediated Cyclization and Absolute Structure Establishment. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 19868-19872.	13.8	22
79	Identification of structurally diverse menaquinone-binding antibiotics with in vivo activity against multidrug-resistant pathogens. <i>Nature Microbiology</i> , 2022, 7, 120-131.	13.3	22
80	Characterization of an Environmental DNA-Derived Gene Cluster that Encodes the Bisindolylmaleimide Methylarcyriarubin. <i>ChemBioChem</i> , 2014, 15, 815-821.	2.6	20
81	An Optimized Synthetic-Bioinformatic Natural Product Antibiotic Sterilizes Multidrug-Resistant <i>Acinetobacter baumannii</i> -Infected Wounds. <i>MSphere</i> , 2018, 3, .	2.9	19
82	Biosynthetic Interrogation of Soil Metagenomes Reveals Metamarin, an Uncommon Cyclomarin Congener with Activity against <i>Mycobacterium tuberculosis</i> . <i>Journal of Natural Products</i> , 2021, 84, 1056-1066.	3.0	18
83	Cyclic AMP Directly Activates NasP, an N-Acyl Amino Acid Antibiotic Biosynthetic Enzyme Cloned from an Uncultured $\hat{P}$ -Proteobacterium. <i>Journal of Bacteriology</i> , 2007, 189, 6487-6489.	2.2	17
84	Metabolites with SARS-CoV-2 Inhibitory Activity Identified from Human Microbiome Commensals. <i>MSphere</i> , 2021, 6, e0071121.	2.9	16
85	A Semisynthetic Kanglemycin Shows In Vivo Efficacy against High-Burden Rifampicin Resistant Pathogens. <i>ACS Infectious Diseases</i> , 2020, 6, 2431-2440.	3.8	15
86	Metagenome-Guided Analogue Synthesis Yields Improved Gram-Negative-Active Albicidin and Cystobactamid-Type Antibiotics. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 22172-22177.	13.8	12
87	Elucidating the Diversity and Potential Function of Nonribosomal Peptide and Polyketide Biosynthetic Gene Clusters in the Root Microbiome. <i>MSystems</i> , 2020, 5, .	3.8	12
88	Lapcin, a potent dual topoisomerase I/II inhibitor discovered by soil metagenome guided total chemical synthesis. <i>Nature Communications</i> , 2022, 13, 842.	12.8	12
89	Discovery of a Metagenome-Derived Enzyme that Produces Branched-Chain Acyl-(Acyl-Carrier-Protein)s from Branched-Chain $\hat{I}$ -Keto Acids. <i>ChemBioChem</i> , 2011, 12, 1849-1853.	2.6	8
90	Mutations in the Proteolipid Subunits of the Vacuolar H <sup>+</sup> -ATPase Provide Resistance to Indolotryptoline Natural Products. <i>Biochemistry</i> , 2014, 53, 7123-7131.	2.5	8

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91	Functional Metagenomic Screening of Human-Associated Bacteria for NF- $\kappa$ B-Inducing Bioactive Effectors. <i>MBio</i> , 2019, 10, .	4.1	8
92	Synthesis and evaluation of dual-action kanglemycin-fluoroquinolone hybrid antibiotics. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2022, 57, 128484.	2.2	7
93	Multiplexed functional metagenomic analysis of the infant microbiome identifies effectors of NF- $\kappa$ B, autophagy, and cellular redox state. <i>Cell Reports</i> , 2021, 36, 109746.	6.4	4
94	Metagenome-Guided Analogue Synthesis Yields Improved Gram-Negative-Active Albicidin and Cystobactamid-Type Antibiotics. <i>Angewandte Chemie</i> , 2021, 133, 22346-22351.	2.0	3
95	Unraveling function and diversity of bacterial lectins in the human microbiome. <i>Nature Communications</i> , 2022, 13, .	12.8	3
96	Total Synthesis of Malacidin A by $\beta$ -Hydroxyaspartic Acid Ligation-Mediated Cyclization and Absolute Structure Establishment. <i>Angewandte Chemie</i> , 2020, 132, 20040-20044.	2.0	2
97	Unlocking Environmental DNA Derived Gene Clusters Using a Metagenomics Approach. , 2010, , 455-474.		1
98	Artemetamycin A: Improving Clinically Relevant Families of Natural Products through Sequence-Guided Screening of Soil Metagenomes ( <i>Angew. Chem.</i> 42/2013). <i>Angewandte Chemie</i> , 2013, 125, 11382-11382.	2.0	0
99	General Strategies for Biosynthetic Gene Cluster Identification, Capture, and Heterologous Expression. , 2020, , 3-18.		0