

# Satish K Nair

## List of Publications by Year in descending order

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95  
papers

5,897  
citations

126708

33  
h-index

79541

73  
g-index

104  
all docs

104  
docs citations

104  
times ranked

5106  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structure and mechanism for iterative amide <i>N</i> -methylation in the biosynthesis of channel-forming peptide cytotoxins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2116578119.	3.3	4
2	Control of Nucleophile Chemoselectivity in Cyanobactin YcaO Heterocyclases PatD and TruD. <i>ACS Chemical Biology</i> , 2022, 17, 1215-1225.	1.6	3
3	Catalysts for the Enzymatic Lipidation of Peptides. <i>Accounts of Chemical Research</i> , 2022, 55, 1313-1323.	7.6	14
4	New developments in RiPP discovery, enzymology and engineering. <i>Natural Product Reports</i> , 2021, 38, 130-239.	5.2	412
5	Functional elucidation of TfuA in peptide backbone thioamidation. <i>Nature Chemical Biology</i> , 2021, 17, 585-592.	3.9	21
6	Characterization of a Glyphosate-Tolerant Enzyme from <i>Streptomyces svecicus</i> : A Distinct Class of 5-Enolpyruvylshikimate-3-phosphate Synthases. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 5096-5104.	2.4	6
7	Identification and characterization of andalusicin: N-terminally dimethylated class III lantibiotic from <i>Bacillus thuringiensis</i> sv. <i>andalousiensis</i> . <i>IScience</i> , 2021, 24, 102480.	1.9	18
8	LanCLs add glutathione to dehydroamino acids generated at phosphorylated sites in the proteome. <i>Cell</i> , 2021, 184, 2680-2695.e26.	13.5	34
9	Biosynthesis of fosfomicin in pseudomonads reveals an unexpected enzymatic activity in the metallohydrolase superfamily. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	7
10	Structural and mechanistic investigations of protein S-glycosyltransferases. <i>Cell Chemical Biology</i> , 2021, 28, 1740-1749.e6.	2.5	8
11	Characterization of a Dehydratase and Methyltransferase in the Biosynthesis of Ribosomally Synthesized and Posttranslationally Modified Peptides in <i>Lachnospiraceae</i> . <i>ChemBioChem</i> , 2020, 21, 190-199.	1.3	17
12	Natural product biosynthesis: What's next? An introduction to the JBC Reviews Thematic Series. <i>Journal of Biological Chemistry</i> , 2020, 295, 335-336.	1.6	6
13	Structural Basis for Enzymatic Off-Loading of Hybrid Polyketides by Dieckmann Condensation. <i>ACS Chemical Biology</i> , 2020, 15, 2783-2791.	1.6	11
14	Functional interactions between posttranslationally modified amino acids of methyl-coenzyme M reductase in <i>Methanosarcina acetivorans</i> . <i>PLoS Biology</i> , 2020, 18, e3000507.	2.6	29
15	Interception of the Bycroft-Gowland Intermediate in the Enzymatic Macrocyclization of Thiopeptides. <i>Journal of the American Chemical Society</i> , 2020, 142, 13170-13179.	6.6	10
16	Structure-Guided Biochemical Analysis of Quorum Signal Synthase Specificities. <i>ACS Chemical Biology</i> , 2020, 15, 1497-1504.	1.6	6
17	Biochemical basis for the regulation of biosynthesis of antiparasitics by bacterial hormones. <i>ELife</i> , 2020, 9, .	2.8	3
18	Structural Biology of RiPP Natural Products Biosynthesis. , 2020, , 17-48.		0

#	ARTICLE	IF	CITATIONS
19	Title is missing!. , 2020, 18, e3000507.		0
20	Title is missing!. , 2020, 18, e3000507.		0
21	Title is missing!. , 2020, 18, e3000507.		0
22	Title is missing!. , 2020, 18, e3000507.		0
23	Title is missing!. , 2020, 18, e3000507.		0
24	Title is missing!. , 2020, 18, e3000507.		0
25	Steric complementarity directs sequence promiscuous leader binding in RiPP biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24049-24055.	3.3	40
26	Characterization of glutamyl-tRNAâ€‘dependent dehydratases using nonreactive substrate mimics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17245-17250.	3.3	42
27	Characterization of the flavin monooxygenase involved in biosynthesis of the antimalarial FR-900098. Organic and Biomolecular Chemistry, 2019, 17, 1506-1518.	1.5	4
28	Biosynthesis of the RiPP trojan horse nucleotide antibiotic microcin C is directed by the <i>N</i>-formyl of the peptide precursor. Chemical Science, 2019, 10, 2391-2395.	3.7	16
29	Molecular basis for enantioselective herbicide degradation imparted by aryloxyalkanoate dioxygenases in transgenic plants. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13299-13304.	3.3	17
30	Reiterative Synthesis by the Ribosome and Recognition of the N-Terminal Formyl Group by Biosynthetic Machinery Contribute to Evolutionary Conservation of the Length of Antibiotic Microcin C Peptide Precursor. MBio, 2019, 10, .	1.8	6
31	Mechanistic Basis for Ribosomal Peptide Backbone Modifications. ACS Central Science, 2019, 5, 842-851.	5.3	35
32	Molecular Basis of <i>Bacillus subtilis</i> ATCC 6633 Self-Resistance to the Phosphono-oligopeptide Antibiotic Rhizocticin. ACS Chemical Biology, 2019, 14, 742-750.	1.6	9
33	Insights into AMS/PCAT transporters from biochemical and structural characterization of a double Glycine motif protease. ELife, 2019, 8, .	2.8	63
34	Enzymatic reconstitution of ribosomal peptide backbone thioamidation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3030-3035.	3.3	73
35	Loganic Acid Methyltransferase: Insights into the Specificity of Methylation on an Iridoid Glycoside. ChemBioChem, 2018, 19, 784-788.	1.3	14
36	Post-Translational Tyrosine Geranylation in Cyanobactin Biosynthesis. Journal of the American Chemical Society, 2018, 140, 6044-6048.	6.6	31

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37	Biosynthetic Proteases That Catalyze the Macrocyclization of Ribosomally Synthesized Linear Peptides. <i>Biochemistry</i> , 2018, 57, 3201-3209.	1.2	18
38	Molecular Basis for Autocatalytic Backbone N-Methylation in RiPP Natural Product Biosynthesis. <i>ACS Chemical Biology</i> , 2018, 13, 2989-2999.	1.6	30
39	Substrate-assisted enzymatic formation of lysinoalanine in duramycin. <i>Nature Chemical Biology</i> , 2018, 14, 928-933.	3.9	25
40	Structural and Biochemical Studies of a Biocatalyst for the Enzymatic Production of Wax Esters. <i>ACS Catalysis</i> , 2018, 8, 6334-6344.	5.5	15
41	Structural and Biochemical Studies of Non-native Agonists of the LasR Quorum-Sensing Receptor Reveal an L3 Loop Out-Conformation for LasR. <i>Cell Chemical Biology</i> , 2018, 25, 1128-1139.e3.	2.5	43
42	Structure-Guided Analyses of a Key Enzyme Involved in the Biosynthesis of an Antivitamin. <i>Biochemistry</i> , 2018, 57, 5282-5288.	1.2	5
43	The Biochemistry and Structural Biology of Cyanobactin Pathways: Enabling Combinatorial Biosynthesis. <i>Methods in Enzymology</i> , 2018, 604, 113-163.	0.4	50
44	A Single Amino Acid Switch Alters the Isoprene Donor Specificity in Ribosomally Synthesized and Post-Translationally Modified Peptide Prenyltransferases. <i>Journal of the American Chemical Society</i> , 2018, 140, 8124-8127.	6.6	26
45	Mechanistic Understanding of Lanthipeptide Biosynthetic Enzymes. <i>Chemical Reviews</i> , 2017, 117, 5457-5520.	23.0	375
46	Enzymatic N- and C-Protection in Cyanobactin RiPP Natural Products. <i>Journal of the American Chemical Society</i> , 2017, 139, 2884-2887.	6.6	43
47	The pimeloyl-CoA synthetase BioW defines a new fold for adenylate-forming enzymes. <i>Nature Chemical Biology</i> , 2017, 13, 668-674.	3.9	30
48	Two Flavoenzymes Catalyze the Post-Translational Generation of 5-Chlorotryptophan and 2-Aminovinyl-Cysteine during NAI-107 Biosynthesis. <i>ACS Chemical Biology</i> , 2017, 12, 548-557.	1.6	64
49	Characterization of Two Late-Stage Enzymes Involved in Fosfomycin Biosynthesis in Pseudomonads. <i>ACS Chemical Biology</i> , 2017, 12, 456-463.	1.6	17
50	Molecular basis for the substrate specificity of quorum signal synthases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9092-9097.	3.3	58
51	Structural insights into enzymatic [4+2] azo-cycloaddition in thiopeptide antibiotic biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12928-12933.	3.3	70
52	Characterization of the macrocyclase involved in the biosynthesis of RiPP cyclic peptides in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 6551-6556.	3.3	49
53	Structure of the Lasso Peptide Isopeptidase Identifies a Topology for Processing Threaded Substrates. <i>Journal of the American Chemical Society</i> , 2016, 138, 16452-16458.	6.6	29
54	Molecular basis for the broad substrate selectivity of a peptide prenyltransferase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14037-14042.	3.3	45

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55	Structure and tRNA Specificity of MibB, a Lantibiotic Dehydratase from Actinobacteria Involved in NAI-107 Biosynthesis. <i>Cell Chemical Biology</i> , 2016, 23, 370-380.	2.5	64
56	Molecular basis for resistance against phosphonate antibiotics and herbicides. <i>MedChemComm</i> , 2016, 7, 28-36.	3.5	25
57	Applications of the class II lanthipeptide protease LicP for sequence-specific, traceless peptide bond cleavage. <i>Chemical Science</i> , 2015, 6, 6270-6279.	3.7	22
58	Insights into Methyltransferase Specificity and Bioactivity of Derivatives of the Antibiotic Plantazolicin. <i>ACS Chemical Biology</i> , 2015, 10, 1209-1216.	1.6	16
59	Biochemical Studies of Mycobacterial Fatty Acid Methyltransferase: A Catalyst for the Enzymatic Production of Biodiesel. <i>Chemistry and Biology</i> , 2015, 22, 1480-1490.	6.2	17
60	Structure, Function and Inhibition of the Phosphoethanolamine Methyltransferases of the Human Malaria Parasites <i>Plasmodium vivax</i> and <i>Plasmodium knowlesi</i> . <i>Scientific Reports</i> , 2015, 5, 9064.	1.6	23
61	Structural Basis for Specificity and Flexibility in a Plant 4-Coumarate:CoA Ligase. <i>Structure</i> , 2015, 23, 2032-2042.	1.6	58
62	Structure and mechanism of the tRNA-dependent lantibiotic dehydratase NisB. <i>Nature</i> , 2015, 517, 509-512.	13.7	278
63	The enterococcal cytolysin synthetase has an unanticipated lipid kinase fold. <i>ELife</i> , 2015, 4, .	2.8	73
64	Chemical Rescue and Inhibition Studies to Determine the Role of Arg301 in Phosphite Dehydrogenase. <i>PLoS ONE</i> , 2014, 9, e87134.	1.1	12
65	Structural and Biochemical Basis for Mannan Utilization by <i>Caldanaerobius polysaccharolyticus</i> Strain ATCC BAA-17. <i>Journal of Biological Chemistry</i> , 2014, 289, 34965-34977.	1.6	13
66	Substrate Specificity of the Lanthipeptide Peptidase ElxP and the Oxidoreductase ElxO. <i>ACS Chemical Biology</i> , 2014, 9, 1718-1725.	1.6	34
67	Exploring the substrate promiscuity of an antibiotic inactivating enzyme. <i>MedChemComm</i> , 2014, 5, 1567-1570.	3.5	3
68	Discovery of a new ATP-binding motif involved in peptidic azoline biosynthesis. <i>Nature Chemical Biology</i> , 2014, 10, 823-829.	3.9	77
69	Structure and mechanism of lanthipeptide biosynthetic enzymes. <i>Current Opinion in Structural Biology</i> , 2014, 29, 58-66.	2.6	45
70	Xylan utilization in human gut commensal bacteria is orchestrated by unique modular organization of polysaccharide-degrading enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E3708-17.	3.3	137
71	Structure and Function of Phosphonoacetaldehyde Dehydrogenase: The Missing Link in Phosphonoacetate Formation. <i>Chemistry and Biology</i> , 2014, 21, 125-135.	6.2	24
72	Ribosomally synthesized and post-translationally modified peptide natural products: overview and recommendations for a universal nomenclature. <i>Natural Product Reports</i> , 2013, 30, 108-160.	5.2	1,692

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73	Structural and functional insight into an unexpectedly selective <i>N</i> -methyltransferase involved in plantazolicin biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12954-12959.	3.3	42
74	Biochemical and Structural Insights into Xylan Utilization by the Thermophilic Bacterium <i>Caldanaerobius polysaccharolyticus</i> . Journal of Biological Chemistry, 2012, 287, 34946-34960.	1.6	47
75	Aminoacyl tRNA synthetases as targets for antibiotic development. MedChemComm, 2012, 3, 887.	3.5	26
76	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.	3.3	87
77	Structures of Cyanobactin Maturation Enzymes Define a Family of Transamidating Proteases. Chemistry and Biology, 2012, 19, 1411-1422.	6.2	62
78	Quorum sensing: How bacteria can coordinate activity and synchronize their response to external signals?. Protein Science, 2012, 21, 1403-1417.	3.1	164
79	Microcin C: biosynthesis and mechanisms of bacterial resistance. Future Microbiology, 2012, 7, 281-289.	1.0	51
80	Structure and function of a serine carboxypeptidase adapted for degradation of the protein synthesis antibiotic microcin C7. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4425-4430.	3.3	27
81	Lantibiotics from <i>Geobacillus thermodenitrificans</i> . Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5241-5246.	3.3	129
82	Enzymatic Basis of Ribosomal Peptide Prenylation in Cyanobacteria. Journal of the American Chemical Society, 2011, 133, 13698-13705.	6.6	113
83	Structure and mechanism of enzymes involved in biosynthesis and breakdown of the phosphonates fosfomycin, dehydrophos, and phosphinothricin. Archives of Biochemistry and Biophysics, 2011, 505, 13-21.	1.4	21
84	Structural Basis for Microcin C7 Inactivation by the MccE Acetyltransferase. Journal of Biological Chemistry, 2011, 286, 21295-21303.	1.6	32
85	New N-Acetyltransferase Fold in the Structure and Mechanism of the Phosphonate Biosynthetic Enzyme FrbF. Journal of Biological Chemistry, 2011, 286, 36132-36141.	1.6	11
86	Characterization and structure of Dhpl, a phosphonate <i>O</i> -methyltransferase involved in dehydrophos biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17557-17562.	3.3	41
87	Circular Logic: Nonribosomal Peptide-like Macrocyclization with a Ribosomal Peptide Catalyst. Journal of the American Chemical Society, 2010, 132, 15499-15501.	6.6	93
88	Self immunity and resistance mechanisms against trojan horse antibiotic $\epsilon$ -Microcin C7. FASEB Journal, 2010, 24, lb201.	0.2	0
89	Structural studies in the biosynthesis of the glycopeptide antibiotic teicoplanin. FASEB Journal, 2010, 24, lb211.	0.2	0
90	Structural description of enzyme catalysing unusual modification in lantibiotic biosynthesis. FASEB Journal, 2010, 24, lb205.	0.2	0

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91	An unusual carbon-carbon bond cleavage reaction during phosphinothricin biosynthesis. Nature, 2009, 459, 871-874.	13.7	111
92	Structure and Mechanism of the Lantibiotic Cyclase Involved in Nisin Biosynthesis. Science, 2006, 311, 1464-1467.	6.0	275
93	Metal ion mediated reduction in surface entropy and a putative phosphorylation site of the IRAK4 death domain. FASEB Journal, 2006, 20, A498.	0.2	0
94	Biochemical Studies of Nisin Biosynthesis and Autoimmunity. FASEB Journal, 2006, 20, A477.	0.2	0
95	Crystal Structure of an Archaeal Replication Protein A Homolog. FASEB Journal, 2006, 20, LB56.	0.2	0