Annabelle Varrot

List of Publications by Year
in descending order

92 papers	3,847 citations	109137 35 h-index	138251 58 g-index
99 all docs	99 docs citations	99 times ranked	3736 citing authors

#	ARTICLE	IF	CITATIONS
1	Structureâ€“function relationship of a novel fucoside-binding fruiting body lectin from <i>Coprinopsis cinerea</i> exhibiting nematotoxic activity. Glycobiology, 2022, , .	1.3	2
2	Characterization of the ganglioside recognition profile of <i>Escherichia coli</i> heat-labile enterotoxin LT-IIc. Glycobiology, 2022, 32, 391-403.	1.3	2
3	Nonâ€Carbohydrate Glycomimetics as Inhibitors of Calcium(II)â€Binding Lectins. Angewandte Chemie, 2021, 133, 8185-8195.	1.6	3
4	Nonâ€Carbohydrate Glycomimetics as Inhibitors of Calcium(II)â€Binding Lectins. Angewandte Chemie - International Edition, 2021, 60, 8104-8114.	7.2	17
5	Hexavalent thiofucosides to probe the role of the <i>Aspergillus fumigatus</i> lectin FleA in fungal pathogenicity. Organic and Biomolecular Chemistry, 2021, 19, 3234-3240.	1.5	3
6	Prediction and Validation of a Druggable Site on Virulence Factor of Drug Resistant <i>Burkholderia cenocepacia</i>**. Chemistry - A European Journal, 2021, 27, 10341-10348.	1.7	6
7	Biochemical and structural studies of target lectin SapL1 from the emerging opportunistic microfungus Scedosporium apiospermum. Scientific Reports, 2021, 11, 16109.	1.6	4
8	Structure and engineering of tandem repeat lectins. Current Opinion in Structural Biology, 2020, 62, 39-47.	2.6	29
9	Characterization of novel lectins from Burkholderia pseudomallei and Chromobacterium violaceum with seven-bladed Î²-propeller fold. International Journal of Biological Macromolecules, 2020, 152, 1113-1124.	3.6	5
10	Recombinant Lectin from Tepary Bean (Phaseolus acutifolius) with Specific Recognition for Cancer-Associated Glycans: Production, Structural Characterization, and Target Identification. Biomolecules, 2020, 10, 654.	1.8	6
11	BC2L-C N-Terminal Lectin Domain Complexed with Histo Blood Group Oligosaccharides Provides New Structural Information. Molecules, 2020, 25, 248.	1.7	5
12	Expression, Purification, and Applications of the Recombinant Lectin PVL from Psathyrella velutina Specific for Terminal N-Acetyl-Glucosamine. Methods in Molecular Biology, 2020, 2132, 421-436.	0.4	2
13	Expression, Purification, and Functional Characterization of Tectonin 2 from Laccaria bicolor: A Six-Bladed Beta-Propeller Lectin Specific for O-Methylated Glycans. Methods in Molecular Biology, 2020, 2132, 669-682.	0.4	1
14	LecB, a High Affinity Soluble Fucose-Binding Lectin from Pseudomonas aeruginosa. Methods in Molecular Biology, 2020, 2132, 475-482.	0.4	0
15	LecA (PA-IL): A Galactose-Binding Lectin from Pseudomonas aeruginosa. Methods in Molecular Biology, 2020, 2132, 257-266.	0.4	8
16	Anti-biofilm Agents against <i>Pseudomonas aeruginosa</i>: A Structureâ€“Activity Relationship Study of <i>C</i>-Glycosidic LecB Inhibitors. Journal of Medicinal Chemistry, 2019, 62, 9201-9216.	2.9	45
17	Induction of rare conformation of oligosaccharide by binding to calcium-dependent bacterial lectin: X-ray crystallography and modelling study. European Journal of Medicinal Chemistry, 2019, 177, 212-220.	2.6	6
18	Architecture and Evolution of Blade Assembly in Î²-propeller Lectins. Structure, 2019, 27, 764-775.e3.	1.6	27

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19	Crystal Structures of Fungal Tectonin in Complex with O-Methylated Glycans Suggest Key Role in Innate Immune Defense. Structure, 2018, 26, 391-402.e4.	1.6	28
20	Glycomimetic, Orally Bioavailable LecB Inhibitors Block Biofilm Formation of <i>Pseudomonas aeruginosa</i>. Journal of the American Chemical Society, 2018, 140, 2537-2545.	6.6	97
21	Multivalent Glycomimetics with Affinity and Selectivity toward Fucose-Binding Receptors from Emerging Pathogens. Bioconjugate Chemistry, 2018, 29, 83-88.	1.8	25
22	Multivalent Fucosides with Nanomolar Affinity for the <i>Aspergillus fumigatus</i> Lectin FleA Prevent Spore Adhesion to Pneumocytes. Chemistry - A European Journal, 2018, 24, 19243-19249.	1.7	15
23	Human Bronchial Epithelial Cells Inhibit Aspergillus fumigatus Germination of Extracellular Conidia via FleA Recognition. Scientific Reports, 2018, 8, 15699.	1.6	35
24	Effect of Noncanonical Amino Acids on Proteinâ€“Carbohydrate Interactions: Structure, Dynamics, and Carbohydrate Affinity of a Lectin Engineered with Fluorinated Tryptophan Analogs. ACS Chemical Biology, 2018, 13, 2211-2219.	1.6	22
25	Recognition of Complex Coreâ€Fucosylated Nâ€Glycans by a Mini Lectin. Angewandte Chemie, 2018, 130, 10335-10338.	1.6	2
26	Recognition of Complex Coreâ€Fucosylated Nâ€Glycans by a Mini Lectin. Angewandte Chemie - International Edition, 2018, 57, 10178-10181.	7.2	15
27	Biophysical characterization and structural determination of the potent cytotoxic<i>Psathyrella asperospora</i>lectin. Proteins: Structure, Function and Bioinformatics, 2017, 85, 969-975.	1.5	10
28	Histo-blood group antigens as mediators of infections. Current Opinion in Structural Biology, 2017, 44, 190-200.	2.6	72
29	Exploiting sp²â€Hybridisation in the Development of Potent 1,5â€Î±â€‹<scp>l</scp>â€Arabinanase Inhibitors. ChemBioChem, 2017, 18, 974-978.	1.3	1
30	Covalent Lectin Inhibition and Application in Bacterial Biofilm Imaging. Angewandte Chemie - International Edition, 2017, 56, 16559-16564.	7.2	56
31	Covalent Lectin Inhibition and Application in Bacterial Biofilm Imaging. Angewandte Chemie, 2017, 129, 16786-16791.	1.6	12
32	Recombinant fungal lectin as a new tool to investigate<i>O</i>-GlcNAcylation processes. Glycobiology, 2017, 27, 123-128.	1.3	22
33	<i>O</i>-Alkylated heavy atom carbohydrate probes for protein X-ray crystallography: Studies towards the synthesis of methyl 2-<i>O</i>-methyl-L-selenofucopyranoside. Beilstein Journal of Organic Chemistry, 2016, 12, 2828-2833.	1.3	6
34	Genomic Rearrangements and Functional Diversification of lecA and lecB Lectin-Coding Regions Impacting the Efficacy of Glycomimetics Directed against Pseudomonas aeruginosa. Frontiers in Microbiology, 2016, 7, 811.	1.5	39
35	Characterization of a high-affinity sialic acid-specific CBM40 from <i>Clostridium perfringens</i> and engineering of a divalent form. Biochemical Journal, 2016, 473, 2109-2118.	1.7	32
36	Dimerization of the fungal defense lectin CCL2 is essential for its toxicity against nematodes. Glycobiology, 2016, 27, 486-500.	1.3	17

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37	The virulence factor LecB varies in clinical isolates: consequences for ligand binding and drug discovery. Chemical Science, 2016, 7, 4990-5001.	3.7	50
38	Biochemical and structural characterization of the novel sialic acid-binding site of Escherichia coli heat-labile enterotoxin LT-IIb. Biochemical Journal, 2016, 473, 3923-3936.	1.7	9
39	The Hidden Conformation of Lewis x, a Human Histo-Blood Group Antigen, Is a Determinant for Recognition by Pathogen Lectins. ACS Chemical Biology, 2016, 11, 2011-2020.	1.6	37
40	Cinnamide Derivatives of <scp>d</scp> -Mannose as Inhibitors of the Bacterial Virulence Factor LecB from <i>Pseudomonas aeruginosa</i>. ChemistryOpen, 2015, 4, 756-767.	0.9	35
41	Structural insights into<i>Aspergillus fumigatus</i>lectin specificity: AFL binding sites are functionally non-equivalent. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 442-453.	2.5	27
42	Algal lectin binding to core (Î±1â€“6) fucosylated N-glycans: Structural basis for specificity and production of recombinant protein. Glycobiology, 2015, 25, 607-616.	1.3	17
43	A Recombinant Fungal Lectin for Labeling Truncated Glycans on Human Cancer Cells. PLoS ONE, 2015, 10, e0128190.	1.1	25
44	Membrane Deformation by Neolectins with Engineered Glycolipid Binding Sites. Angewandte Chemie - International Edition, 2014, 53, 9267-9270.	7.2	53
45	A LecA Ligand Identified from a Galactosideâ€Conjugate Array Inhibits Host Cell Invasion by <i>Pseudomonas aeruginosa</i>. Angewandte Chemie - International Edition, 2014, 53, 8885-8889.	7.2	85
46	Monitoring Lectin Interactions with Carbohydrates. Methods in Molecular Biology, 2014, 1149, 403-414.	0.4	6
47	Secondary sugar binding site identified for LecA lectin from <i>Pseudomonas aeruginosa</i>. Proteins: Structure, Function and Bioinformatics, 2014, 82, 1060-1065.	1.5	18
48	Fungal lectins: structure, function and potential applications. Current Opinion in Structural Biology, 2013, 23, 678-685.	2.6	116
49	Reduction of Lectin Valency Drastically Changes Glycolipid Dynamics in Membranes but Not Surface Avidity. ACS Chemical Biology, 2013, 8, 1918-1924.	1.6	39
50	Discovery of Two Classes of Potent Glycomimetic Inhibitors of <i>Pseudomonas aeruginosa</i> LecB with Distinct Binding Modes. ACS Chemical Biology, 2013, 8, 1775-1784.	1.6	83
51	Aromatic thioglycoside inhibitors against the virulence factor LecA from Pseudomonas aeruginosa. Organic and Biomolecular Chemistry, 2013, 11, 6906.	1.5	81
52	Bacteria love our sugars: Interaction between soluble lectins and human fucosylated glycans, structures, thermodynamics and design of competing glycocompounds. Comptes Rendus Chimie, 2013, 16, 482-490.	0.2	28
53	Deciphering the Glycan Preference of Bacterial Lectins by Glycan Array and Molecular Docking with Validation by Microcalorimetry and Crystallography. PLoS ONE, 2013, 8, e71149.	1.1	25
54	A Soluble Fucose-Specific Lectin from Aspergillus fumigatus Conidia - Structure, Specificity and Possible Role in Fungal Pathogenicity. PLoS ONE, 2013, 8, e83077.	1.1	87

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55	A Lectin from Platypodium elegans with Unusual Specificity and Affinity for Asymmetric Complex N-Glycans. Journal of Biological Chemistry, 2012, 287, 26352-26364.	1.6	26
56	Fucose-binding Lectin from Opportunistic Pathogen Burkholderia ambifaria Binds to Both Plant and Human Oligosaccharidic Epitopes. Journal of Biological Chemistry, 2012, 287, 4335-4347.	1.6	92
57	Î±-l-Arabinofuranosylated pyrrolidines as arabinanase inhibitors. Chemical Communications, 2011, 47, 9684.	2.2	6
58	A TNF-like Trimeric Lectin Domain from Burkholderia cenocepacia with Specificity for Fucosylated Human Histo-Blood Group Antigens. Structure, 2010, 18, 59-72.	1.6	76
59	Contactâ€Killing Polyelectrolyte Microcapsules Based on Chitosan Derivatives. Advanced Functional Materials, 2010, 20, 3303-3312.	7.8	50
60	Structural basis of the affinity for oligomannosides and analogs displayed by BC2L-A, a Burkholderia cenocepacia soluble lectin. Glycobiology, 2010, 20, 87-98.	1.3	48
61	Structure and RNA recognition by the snRNA and snoRNA transport factor PHAX. Rna, 2010, 16, 1205-1216.	1.6	18
62	Discoidin I from Dictyostelium discoideum and Interactions with Oligosaccharides: Specificity, Affinity, Crystal Structures, and Comparison with Discoidin II. Journal of Molecular Biology, 2010, 400, 540-554.	2.0	34
63	Carbohydrate binding specificities and crystal structure of the cholera toxin-like B-subunit from Citrobacter freundii. Biochimie, 2010, 92, 482-490.	1.3	15
64	Role of Water Molecules in Structure and Energetics of Pseudomonas aeruginosa Lectin I Interacting with Disaccharides. Journal of Biological Chemistry, 2010, 285, 20316-20327.	1.6	37
65	Molecular Basis of Arabinobio-hydrolase Activity in Phytopathogenic Fungi. Journal of Biological Chemistry, 2009, 284, 12285-12296.	1.6	42
66	Structure determination of discoidin II from <i>Dictyostelium discoideum</i> and carbohydrate binding properties of the lectin domain. Proteins: Structure, Function and Bioinformatics, 2008, 73, 43-52.	1.5	25
67	High Affinity Interaction between a Bivalve C-type Lectin and a Biantennary Complex-type N-Glycan Revealed by Crystallography and Microcalorimetry. Journal of Biological Chemistry, 2008, 283, 30112-30120.	1.6	35
68	Microbial recognition of human cell surface glycoconjugates. Current Opinion in Structural Biology, 2008, 18, 567-576.	2.6	253
69	Structural Basis of the Preferential Binding for Globo-Series Glycosphingolipids Displayed by Pseudomonas aeruginosa Lectin I. Journal of Molecular Biology, 2008, 383, 837-853.	2.0	133
70	Glycosylated asterisks are among the most potent low valency inducers of Concanavalin A aggregation. Chemical Communications, 2008, , 6507-6509.	2.2	28
71	Structural basis for mannose recognition by a lectin from opportunistic bacteria <i>Burkholderia cenocepacia</i>. Biochemical Journal, 2008, 411, 307-318.	1.7	74
72	Mycobacterium tuberculosis Strains Possess Functional Cellulases. Journal of Biological Chemistry, 2005, 280, 20181-20184.	1.6	62

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73	NAD+ and Metal-ion Dependent Hydrolysis by Family 4 Glycosidases: Structural Insight into Specificity for Phospho-Î²-d-glucosides. Journal of Molecular Biology, 2005, 346, 423-435.	2.0	52
74	Novel Catalytic Mechanism of Glycoside Hydrolysis Based on the Structure of an NAD+/Mn2+-Dependent Phospho-Î±-Glucosidase from Bacillus subtilis. Structure, 2004, 12, 1619-1629.	1.6	88
75	An Unusual Mechanism of Glycoside Hydrolysis Involving Redox and Elimination Steps by a Family 4 Î²-Glycosidase fromThermotoga maritima. Journal of the American Chemical Society, 2004, 126, 8354-8355.	6.6	119
76	Structural Basis for Ligand Binding and Processivity in Cellobiohydrolase Cel6A from Humicola insolens. Structure, 2003, 11, 855-864.	1.6	116
77	Direct experimental observation of the hydrogen-bonding network of a glycosidase along its reaction coordinate revealed by atomic resolution analyses of endoglucanase Cel5A. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 447-452.	2.5	29
78	Direct Observation of the Protonation State of an Imino Sugar Glycosidase Inhibitor upon Binding. Journal of the American Chemical Society, 2003, 125, 7496-7497.	6.6	84
79	Distortion of a cellobio-derived isofagomine highlights the potential conformational itinerary of inverting Î²-glucosidasesElectronic supplementary information (ESI) available: details of data and structure quality for complex of cel6A with 1. See http://www.rsc.org/suppdata/cc/b3/b301592k/. Chemical Communications, 2003, , 946-947.	2.2	38
80	Structure of theHumicola insolenscellobiohydrolase Cel6A D416A mutant in complex with a non-hydrolysable substrate analogue, methyl cellobiosyl-4-thio-Î²-cellobioside, at 1.9â€…Ã…. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 2201-2204.	2.5	25
81	Atomic resolution structure of endoglucanase Cel5A in complex with methyl 4,4II,4III,4IV-tetrathio-Î±-cellopentoside highlights the alternative binding modes targeted by substrate mimics. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1739-1742.	2.5	24
82	Mixed-Linkage Cellooligosaccharides: A New Class of Glycoside Hydrolase Inhibitors. ChemBioChem, 2001, 2, 319-325.	1.3	20
83	Structure and function of Humicola insolens family 6 cellulases: structure of the endoglucanase, Cel6B, at 1.6ÂÅ resolution. Biochemical Journal, 2000, 348, 201.	1.7	24
84	Structure and function of Humicola insolens family 6 cellulases: structure of the endoglucanase, Cel6B, at 1.6ÂÅ resolution. Biochemical Journal, 2000, 348, 201-207.	1.7	61
85	Insights into ligand-induced conformational change in Cel5A from Bacillus agaradhaerens revealed by a catalytically active crystal form. Journal of Molecular Biology, 2000, 297, 819-828.	2.0	46
86	Crystallization and preliminary X-ray analysis of the 6-phospho-Î±-glucosidase from Bacillus subtilis. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1212-1214.	2.5	10
87	Structure of the specificity domain of the Dorsal homologue Gambif1 bound to DNA. Structure, 1999, 7, 841-852.	1.6	26
88	Structural Changes of the Active Site Tunnel of Humicola insolens Cellobiohydrolase, Cel6A, upon Oligosaccharide Binding,. Biochemistry, 1999, 38, 8884-8891.	1.2	83
89	Lateral Protonation of a Glycosidase Inhibitor. Structure of theBacillusagaradhaerensCel5A in Complex with a Cellobiose-Derived Imidazole at 0.97 Å… Resolution. Journal of the American Chemical Society, 1999, 121, 2621-2622.	6.6	55
90	Crystal structure of the catalytic core domain of the family 6 cellobiohydrolase II, Cel6A, from Humicola insolens, at 1.92ÂÅ resolution. Biochemical Journal, 1999, 337, 297.	1.7	31

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91	Crystal structure of the catalytic core domain of the family 6 cellobiohydrolase II, Cel6A, from Humicola insolens, at 1.92ÂÅ... resolution. Biochemical Journal, 1999, 337, 297-304.	1.7	74
92	Snapshots along an Enzymatic Reaction Coordinate:Â Analysis of a Retaining Î²-Glycoside Hydrolaseâ€,â€¡. Biochemistry, 1998, 37, 11707-11713.	1.2	255