

Robin J Leatherbarrow

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1529875/publications.pdf>

Version: 2024-02-01

113
papers

5,308
citations

53794

45
h-index

91884

69
g-index

116
all docs

116
docs citations

116
times ranked

4451
citing authors

#	ARTICLE	IF	CITATIONS
1	Effector functions of a monoclonal aglycosylated mouse IgG2a: Binding and activation of complement component C1 and interaction with human monocyte Fc receptor. <i>Molecular Immunology</i> , 1985, 22, 407-415.	2.2	199
2	Validation of N-myristoyltransferase as an antimalarial drug target using an integrated chemical biology approach. <i>Nature Chemistry</i> , 2014, 6, 112-121.	13.6	196
3	Using linear and non-linear regression to fit biochemical data. <i>Trends in Biochemical Sciences</i> , 1990, 15, 455-458.	7.5	192
4	Kinetics of Protein-Protein Interactions at the Surface of an Optical Biosensor. <i>Analytical Biochemistry</i> , 1995, 231, 210-217.	2.4	187
5	Transition-state stabilization in the mechanism of tyrosyl-tRNA synthetase revealed by protein engineering.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1985, 82, 7840-7844.	7.1	180
6	Structure-activity relationships in engineered proteins: analysis of use of binding energy by linear free energy relationships. <i>Biochemistry</i> , 1987, 26, 6030-6038.	2.5	155
7	Chemical and biomimetic total syntheses of natural and engineered MCoTI cyclotides. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 1462.	2.8	148
8	N-Myristoyl transferase-mediated protein labelling in vivo. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 2308.	2.8	128
9	Crystal Structure of Foot-and-Mouth Disease Virus 3C Protease. <i>Journal of Biological Chemistry</i> , 2005, 280, 11520-11527.	3.4	126
10	Potent Inhibitors of \hat{I}^2 -Trypsin and Human Leukocyte Elastase Based on the MCoTI-II Scaffold. <i>Journal of Medicinal Chemistry</i> , 2009, 52, 6197-6200.	6.4	126
11	Quantitative analysis of structure-activity relationships in engineered proteins by linear free-energy relationships. <i>Nature</i> , 1986, 322, 284-286.	27.8	111
12	Protein engineering. <i>Protein Engineering, Design and Selection</i> , 1986, 1, 7-16.	2.1	99
13	N-Myristoyltransferase from <i>Leishmania donovani</i> : Structural and Functional Characterisation of a Potential Drug Target for Visceral Leishmaniasis. <i>Journal of Molecular Biology</i> , 2010, 396, 985-999.	4.2	98
14	Fragment-derived inhibitors of human N-myristoyltransferase block capsid assembly and replication of the common cold virus. <i>Nature Chemistry</i> , 2018, 10, 599-606.	13.6	96
15	Peptide mimics of the Bowman-Birk inhibitor reactive site loop. <i>Biopolymers</i> , 2002, 66, 79-92.	2.4	86
16	Binding energy and catalysis: a lesson from protein engineering of the tyrosyl-tRNA synthetase. <i>Trends in Biochemical Sciences</i> , 1986, 11, 321-325.	7.5	84
17	Structural and Mutagenic Analysis of Foot-and-Mouth Disease Virus 3C Protease Reveals the Role of the \hat{I}^2 -Ribbon in Proteolysis. <i>Journal of Virology</i> , 2007, 81, 115-124.	3.4	81
18	Selective Inhibitors of Protozoan Protein N-myristoyltransferases as Starting Points for Tropical Disease Medicinal Chemistry Programs. <i>PLoS Neglected Tropical Diseases</i> , 2012, 6, e1625.	3.0	79

#	ARTICLE	IF	CITATIONS
19	Site-specific N-terminal labelling of proteins <i>in vitro</i> and <i>in vivo</i> using N-myristoyl transferase and bioorthogonal ligation chemistry. <i>Chemical Communications</i> , 2008, , 480-482.	4.1	78
20	Reagent-Controlled Stereoselective Synthesis of Lignan-Related Tetrahydrofurans. <i>Journal of Organic Chemistry</i> , 2004, 69, 6874-6882.	3.2	76
21	Determination of Association Rate Constants by an Optical Biosensor Using Initial Rate Analysis. <i>Analytical Biochemistry</i> , 1997, 246, 1-6.	2.4	74
22	Comparing experimental and computational alanine scanning techniques for probing a prototypical protein-protein interaction. <i>Protein Engineering, Design and Selection</i> , 2011, 24, 197-207.	2.1	73
23	Selection of Chymotrypsin Inhibitors from a Conformationally-constrained Combinatorial Peptide Library. <i>Journal of Molecular Biology</i> , 1996, 259, 819-827.	4.2	71
24	A fluorescence-based assay for N-myristoyltransferase activity. <i>Analytical Biochemistry</i> , 2012, 421, 342-344.	2.4	69
25	Diversification of the IgG molecule by oligosaccharides. <i>Molecular Immunology</i> , 1991, 28, 1369-1378.	2.2	67
26	Effect of Osmolytes on the Exchange Rates of Backbone Amide Protons in Proteins. <i>Biochemistry</i> , 1998, 37, 2969-2978.	2.5	66
27	Discovery of Plasmodium vivax N-Myristoyltransferase Inhibitors: Screening, Synthesis, and Structural Characterization of their Binding Mode. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 3578-3582.	6.4	65
28	Insights into Cleavage Specificity from the Crystal Structure of Foot-and-Mouth Disease Virus 3C Protease Complexed with a Peptide Substrate. <i>Journal of Molecular Biology</i> , 2010, 395, 375-389.	4.2	63
29	Design and Synthesis of High Affinity Inhibitors of Plasmodium falciparum and Plasmodium vivax N-Myristoyltransferases Directed by Ligand Efficiency Dependent Lipophilicity (LELP). <i>Journal of Medicinal Chemistry</i> , 2014, 57, 2773-2788.	6.4	63
30	Analysis of molecular recognition using optical biosensors. <i>Current Opinion in Chemical Biology</i> , 1999, 3, 544-547.	6.1	62
31	Synchronized Optical and Electronic Detection of Biomolecules Using a Low Noise Nanopore Platform. <i>ACS Nano</i> , 2015, 9, 1740-1748.	14.6	62
32	Molecules incorporating a benzothiazole core scaffold inhibit the N-myristoyltransferase of Plasmodium falciparum. <i>Biochemical Journal</i> , 2007, 408, 173-180.	3.7	61
33	N-Myristoyltransferase: a Prospective Drug Target for Protozoan Parasites. <i>ChemMedChem</i> , 2008, 3, 402-408.	3.2	60
34	Analysis of Protein-Protein Interactions by Using Droplet-Based Microfluidics. <i>ChemBioChem</i> , 2009, 10, 1605-1611.	2.6	60
35	Foot-and-mouth disease virus 3C protease: Recent structural and functional insights into an antiviral target. <i>International Journal of Biochemistry and Cell Biology</i> , 2007, 39, 1-6.	2.8	58
36	Discovery of Novel and Ligand-Efficient Inhibitors of Plasmodium falciparum and Plasmodium vivax N-Myristoyltransferase. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 371-375.	6.4	58

#	ARTICLE	IF	CITATIONS
37	Characterization and selective inhibition of myristoyl-CoA:protein N-myristoyltransferase from <i>Trypanosoma brucei</i> and <i>Leishmania major</i> . <i>Biochemical Journal</i> , 2006, 396, 277-285.	3.7	57
38	Design and Synthesis of Inhibitors of <i>Plasmodium falciparum</i> N-Myristoyltransferase, A Promising Target for Antimalarial Drug Discovery. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 8879-8890.	6.4	56
39	Structure-Based Design of Potent and Selective <i>Leishmania</i> N-Myristoyltransferase Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2014, 57, 8664-8670.	6.4	56
40	Total synthesis of the macrocyclic cysteine knot microprotein MCoTI-II. <i>Chemical Communications</i> , 2006, , 2848.	4.1	55
41	A Conserved cis Peptide Bond Is Necessary for the Activity of Bowman-Birk Inhibitor Protein. <i>Biochemistry</i> , 2002, 41, 10608-10615.	2.5	54
42	Role of arginine 67 in the stabilization of chymotrypsin inhibitor 2: examination of amide proton exchange rates and denaturation thermodynamics of an engineered protein. <i>Biochemistry</i> , 1990, 29, 6264-6269.	2.5	50
43	Synthetic Peptide Mimics of the Bowman-Birk Inhibitor Protein. <i>Current Medicinal Chemistry</i> , 2001, 8, 909-917.	2.4	50
44	Binding of complement subcomponent Clq to mouse IgG1, IgG2a AND IgG2b: A novel Clq binding assay. <i>Molecular Immunology</i> , 1984, 21, 321-327.	2.2	47
45	Immobilized Protease-Assisted Synthesis of Engineered Cysteine-Knot Microproteins. <i>ChemBioChem</i> , 2007, 8, 1107-1109.	2.6	46
46	Second-Order Kinetic Analysis of IAsys Biosensor Data: Its Use and Applicability. <i>Analytical Biochemistry</i> , 1998, 263, 1-12.	2.4	45
47	The Bowman-Birk inhibitor reactive site loop sequence represents an independent structural β^2 -hairpin motif. <i>Journal of Molecular Biology</i> , 2001, 306, 799-807.	4.2	45
48	Organic Solvent Nanofiltration: A New Paradigm in Peptide Synthesis. <i>Organic Process Research and Development</i> , 2010, 14, 1313-1325.	2.7	45
49	The role of threonine in the P 2 position of bowman-birk proteinase inhibitors: studies on P 2 variation in cyclic peptides encompassing the reactive site loop 1 Edited by A. R. Fersht. <i>Journal of Molecular Biology</i> , 1998, 282, 447-457.	4.2	44
50	Structure of immunoglobulin G by scanning tunnelling microscopy. <i>Journal of Molecular Biology</i> , 1991, 221, 361-365.	4.2	43
51	Investigation of transition-state stabilization by residues histidine-45 and threonine-40 in the tyrosyl-tRNA synthetase. <i>Biochemistry</i> , 1987, 26, 8524-8528.	2.5	42
52	Selection of human elastase inhibitors from a conformationally constrained combinatorial peptide library. <i>FEBS Journal</i> , 1999, 266, 403-412.	0.2	42
53	Membrane enhanced peptide synthesis. <i>Chemical Communications</i> , 2010, 46, 2808.	4.1	42
54	Synthesis of a mixture of cyclic peptides based on the Bowman-Birk reactive site loop to screen for serine protease inhibitors. <i>International Journal of Peptide and Protein Research</i> , 1995, 46, 79-87.	0.1	39

#	ARTICLE	IF	CITATIONS
55	The role of the P2 position of Bowman-Birk proteinase inhibitor in the inhibition of trypsin. <i>BBA - Proteins and Proteomics</i> , 1999, 1431, 232-237.	2.1	38
56	Diverse modes of binding in structures of <i>Leishmania major</i> N-myristoyltransferase with selective inhibitors. <i>IUCr</i> , 2014, 1, 250-260.	2.2	38
57	The effect of aglycosylation on the binding of mouse IgG to staphylococcal protein A. <i>FEBS Letters</i> , 1983, 164, 227-230.	2.8	37
58	Design, synthesis and analysis of novel bicyclic and bifunctional protease inhibitors. <i>Protein Engineering, Design and Selection</i> , 2004, 17, 681-687.	2.1	33
59	Use of nonlinear regression to analyze enzyme kinetic data: Application to situations of substrate contamination and background subtraction. <i>Analytical Biochemistry</i> , 1990, 184, 274-278.	2.4	31
60	Total synthesis of (±)-aspercyclide A and its C19 methyl ether. <i>Chemical Communications</i> , 2010, 46, 1824-1826.	4.1	31
61	Peptidomimetic inhibitors of N-myristoyltransferase from human malaria and leishmaniasis parasites. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 8132-8137.	2.8	30
62	Discovery of high affinity inhibitors of <i>Leishmania donovani</i> N-myristoyltransferase. <i>MedChemComm</i> , 2015, 6, 1761-1766.	3.4	30
63	Synthesis and bio-assay of RCM-derived Bowman-Birk inhibitor analogues. <i>Organic and Biomolecular Chemistry</i> , 2004, 2, 281-283.	2.8	29
64	Specific N-terminal protein labelling: use of FMDV 3Cpro protease and native chemical ligation. <i>Chemical Communications</i> , 2008, , 3369.	4.1	27
65	Potent and specific inhibition of the biological activity of the type-II transmembrane serine protease matriptase by the cyclic microprotein MCoTI-II. <i>Thrombosis and Haemostasis</i> , 2014, 112, 402-411.	3.4	27
66	A Two-step Mechanism for the Folding of Actin by the Yeast Cytosolic Chaperonin. <i>Journal of Biological Chemistry</i> , 2011, 286, 178-184.	3.4	26
67	The 1H-NMR Solution Structure of the Antitryptic Core Peptide of Bowman-Birk Inhibitor Proteins: A Minimal Canonical Loop™. <i>Journal of Biomolecular Structure and Dynamics</i> , 2002, 20, 59-70.	3.5	25
68	Stability of protease inhibitors based on the Bowman-Birk reactive site loop to hydrolysis by proteases. <i>Chemical Biology and Drug Design</i> , 1997, 49, 467-475.	1.1	25
69	Bovine dopamine .beta.-hydroxylase, primary structure determined by cDNA cloning and amino acid sequencing. <i>Biochemistry</i> , 1990, 29, 6466-6474.	2.5	22
70	Design of a small peptide-based proteinase inhibitor by modeling the active-site region of barley chymotrypsin inhibitor 2. <i>Biochemistry</i> , 1991, 30, 10717-10721.	2.5	22
71	Carbon-13 NMR study of the effects of mutation on the tryptophan dynamics in chymotrypsin inhibitor 2: correlations with structure and stability. <i>Biochemistry</i> , 1993, 32, 657-662.	2.5	22
72	Analysis of kinetic data of antibody-antigen interaction from an optical biosensor by exponential curve fitting. <i>Journal of Biotechnology</i> , 1996, 48, 117-127.	3.8	22

#	ARTICLE	IF	CITATIONS
73	Synthesis and Incorporation into Cyclic Peptides of Tolan Amino Acids and Their Hydrogenated Congeners: Construction of an Array of A β -loop Mimetics of the C μ 3 Domain of Human IgE. <i>Journal of Organic Chemistry</i> , 2012, 77, 3197-3214.	3.2	21
74	Structure and activity of the tyrosyl-tRNA synthetase: the hydrogen bond in catalysis and specificity. <i>Philosophical Transactions of the Royal Society A</i> , 1986, 317, 305-320.	1.1	20
75	Inhibition of human β -tryptase by Bowman-Birk inhibitor derived peptides: creation of a new tri-functional inhibitor. <i>Bioorganic and Medicinal Chemistry</i> , 2004, 12, 6045-6052.	3.0	20
76	Identification of chymotrypsin inhibitors from a second-generation template assisted combinatorial peptide library. <i>Journal of Peptide Science</i> , 2000, 6, 446-452.	1.4	19
77	Droplet dispensing in digital microfluidic devices: Assessment of long-term reproducibility. <i>Biomicrofluidics</i> , 2012, 6, 22003-2200310.	2.4	19
78	Introduction of the new dipeptide isostere 7-endo-BtA as reverse turn inducer in a Bowman-Birk proteinase inhibitor. <i>Bioorganic and Medicinal Chemistry</i> , 2001, 9, 1625-1632.	3.0	18
79	A continuous assay for foot-and-mouth disease virus 3C protease activity. <i>Analytical Biochemistry</i> , 2007, 368, 130-137.	2.4	16
80	Using a Non-Image-Based Medium-Throughput Assay for Screening Compounds Targeting N-myristoylation in Intracellular <i>Leishmania</i> Amastigotes. <i>PLoS Neglected Tropical Diseases</i> , 2014, 8, e3363.	3.0	16
81	Novel Thienopyrimidine Inhibitors of <i>Leishmania</i> N-Myristoyltransferase with On-Target Activity in Intracellular Amastigotes. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 7740-7765.	6.4	15
82	The conserved P1 ² Ser of Bowman-Birk-type proteinase inhibitors is not essential for the integrity of the reactive site loop. <i>Biochemical and Biophysical Research Communications</i> , 2003, 308, 300-305.	2.1	14
83	Structure-guided optimization of quinoline inhibitors of Plasmodium N-myristoyltransferase. <i>MedChemComm</i> , 2017, 8, 191-197.	3.4	14
84	Discovery of pyridyl-based inhibitors of Plasmodium falciparum N-myristoyltransferase. <i>MedChemComm</i> , 2015, 6, 1767-1772.	3.4	13
85	Role of tyrosines in the combining site of the dinitrophenyl-binding IgA myeloma M315: specific nitration and high-resolution proton nuclear magnetic resonance studies. <i>Biochemistry</i> , 1982, 21, 5124-5129.	2.5	12
86	Solution Structure of a Novel C2-Symmetrical Bifunctional Bicyclic Inhibitor Based on SFTI-1. <i>Journal of Biomolecular NMR</i> , 2005, 33, 57-62.	2.8	12
87	Development of small molecules to target the IgE:Fc μ R1 protein-protein interaction in allergies. <i>Future Medicinal Chemistry</i> , 2013, 5, 1423-1435.	2.3	12
88	A novel, stereoselective and convergent synthesis of aryltetralins. <i>Chemical Communications</i> , 2004, , 2292.	4.1	11
89	A combined proton and phosphorus-31 nuclear magnetic resonance investigation of the combining site of M603, a phosphocholine-binding myeloma protein. <i>Biochemistry</i> , 1982, 21, 4927-4931.	2.5	10
90	Metal ion dependence of phosphorothioate ATP analogs in the <i>Bacillus stearothermophilus</i> tyrosyl-tRNA synthetase. <i>Biochemistry</i> , 1990, 29, 1643-1648.	2.5	10

#	ARTICLE	IF	CITATIONS
91	The Structural Basis of a Conserved P2 Threonine in Canonical Serine Proteinase Inhibitors. <i>Journal of Biomolecular Structure and Dynamics</i> , 2003, 20, 645-655.	3.5	10
92	Synthesis of the C19 methyl ether of aspercyclide A via germyl-Stille macrocyclisation and ELISA evaluation of both enantiomers following optical resolution. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 6814.	2.8	10
93	Enantioselective synthesis of (+)-aspercyclide A. <i>Tetrahedron Letters</i> , 2013, 54, 4970-4972.	1.4	10
94	Imaging of proteins by scanning tunnelling microscopy. <i>Ultramicroscopy</i> , 1992, 42-44, 1200-1203.	1.9	8
95	Expression and kinetic characterization of barley chymotrypsin inhibitors 1a and 1b. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1994, 1222, 179-186.	4.1	8
96	Inhibition of human β -tryptase by Bowman-Birk inhibitor derived peptides. <i>Chemical Biology and Drug Design</i> , 2002, 59, 90-93.	1.1	7
97	Design and synthesis of irreversible inhibitors of foot-and-mouth disease virus 3C protease. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 490-494.	2.2	7
98	Antibody specificity: a 270-MHz hydrogen-1 nuclear magnetic resonance study of the binding of dinitrophenyl compounds to the VL dimer of protein 315. <i>Biochemistry</i> , 1981, 20, 2339-2345.	2.5	6
99	Analysis of calibration methodologies for solvent effects in drug discovery studies using evanescent wave biosensors. <i>Biosensors and Bioelectronics</i> , 2005, 21, 128-134.	10.1	6
100	A tri-functional vanadium(IV) complex to detect cysteine oxidation. <i>Dalton Transactions</i> , 2017, 46, 6994-7004.	3.3	6
101	Peptide-based inhibitors of N-myristoyl transferase generated from a lipid/combinatorial peptide chimera library. <i>Signal Transduction</i> , 2006, 6, 160-166.	0.4	5
102	Resisting degradation by human elastase: Commonality of design features shared by "canonical" plant and bacterial macrocyclic protease inhibitor scaffolds. <i>Bioorganic and Medicinal Chemistry</i> , 2007, 15, 4618-4628.	3.0	5
103	Vanadyl complexes with dansyl-labelled di-picolinic acid ligands: synthesis, phosphatase inhibition activity and cellular uptake studies. <i>Dalton Transactions</i> , 2016, 45, 7104-7113.	3.3	4
104	Designer catalytic antibodies. <i>Nature</i> , 1989, 338, 206-207.	27.8	3
105	Carbon-13 nuclear magnetic resonance relaxation study of chymotrypsin inhibitor 2 (CI-2). <i>Magnetic Resonance in Chemistry</i> , 1992, 30, 1255-1260.	1.9	3
106	A study of the specificity of barley chymotrypsin inhibitor 2 by cysteine engineering of the P1 residue. <i>BBA - Proteins and Proteomics</i> , 1998, 1384, 325-334.	2.1	3
107	Mutational Locally Enhanced Sampling (MULES) for quantitative prediction of the effects of mutations at protein-protein interfaces. <i>Chemical Science</i> , 2012, 3, 1503.	7.4	2
108	Synthesis and Activity of a Small Cyclic Protease Inhibitor from Sunflower Seeds, SFTI-1. , 2001, , 547-548.		1

#	ARTICLE	IF	CITATIONS
109	Carbon-13 NMR study of the effects of mutation on the tryptophan dynamics in chymotrypsin inhibitor 2: correlations with structure and stability. [Erratum to document cited in CA118(5):34967r]. <i>Biochemistry</i> , 1993, 32, 4474-4474.	2.5	0
110	Reagent-Controlled Stereoselective Synthesis of Lignan-Related Tetrahydrofurans.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
111	A Novel, Stereoselective and Convergent Synthesis of Aryltetralins.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
112	Screening and Synthesis of a Positional Scanning Library Based on the Bowman-Birk Reactive Site Loop. , 2001, , 196-197.		0
113	Identification of chymotrypsin inhibitors from a second-generation template assisted combinatorial peptide library. <i>Journal of Peptide Science</i> , 2000, 6, 446.	1.4	0