

Timothy R Rudd

List of Publications by Year in descending order

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69
papers

2,150
citations

257357

24
h-index

265120

42
g-index

74
all docs

74
docs citations

74
times ranked

3063
citing authors

#	ARTICLE	IF	CITATIONS
1	Heparan sulfate and heparin interactions with proteins. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150589.	1.5	229
2	Heparin Inhibits Cellular Invasion by SARS-CoV-2: Structural Dependence of the Interaction of the Spike S1 Receptor-Binding Domain with Heparin. <i>Thrombosis and Haemostasis</i> , 2020, 120, 1700-1715.	1.8	228
3	N-Glycosylation of Fibroblast Growth Factor Receptor 1 Regulates Ligand and Heparan Sulfate Co-receptor Binding. <i>Journal of Biological Chemistry</i> , 2006, 281, 27178-27189.	1.6	101
4	Diversification of the Structural Determinants of Fibroblast Growth Factor-Heparin Interactions. <i>Journal of Biological Chemistry</i> , 2012, 287, 40061-40073.	1.6	69
5	Influence of substitution pattern and cation binding on conformation and activity in heparin derivatives. <i>Glycobiology</i> , 2007, 17, 983-993.	1.3	66
6	Real-time monitoring of the development and stability of biofilms of <i>Streptococcus mutans</i> using the quartz crystal microbalance with dissipation monitoring. <i>Biosensors and Bioelectronics</i> , 2007, 23, 407-413.	5.3	66
7	New Applications of Heparin and Other Glycosaminoglycans. <i>Molecules</i> , 2017, 22, 749.	1.7	60
8	<i>CDApps</i>: integrated software for experimental planning and data processing at beamline B23, Diamond Light Source. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 465-468.	1.0	58
9	The conformation and structure of GAGs: recent progress and perspectives. <i>Current Opinion in Structural Biology</i> , 2010, 20, 567-574.	2.6	51
10	Glycosaminoglycan origin and structure revealed by multivariate analysis of NMR and CD spectra. <i>Glycobiology</i> , 2009, 19, 52-67.	1.3	50
11	An unusual antithrombin-binding heparin octasaccharide with an additional 3-O-sulfated glucosamine in the active pentasaccharide sequence. <i>Biochemical Journal</i> , 2013, 449, 343-351.	1.7	49
12	Atomic Details of the Interactions of Glycosaminoglycans with Amyloid- β Fibrils. <i>Journal of the American Chemical Society</i> , 2016, 138, 8328-8331.	6.6	48
13	Human (β 2 β '6) and Avian (β 2 β '3) Sialylated Receptors of Influenza A Virus Show Distinct Conformations and Dynamics in Solution. <i>Biochemistry</i> , 2013, 52, 7217-7230.	1.2	45
14	Differentiation of Generic Enoxaparins Marketed in the United States by Employing NMR and Multivariate Analysis. <i>Analytical Chemistry</i> , 2015, 87, 8275-8283.	3.2	42
15	Inhibition of influenza H5N1 invasion by modified heparin derivatives. <i>MedChemComm</i> , 2015, 6, 640-646.	3.5	40
16	Protein-GAG interactions: new surface-based techniques, spectroscopies and nanotechnology probes. <i>Biochemical Society Transactions</i> , 2006, 34, 427-430.	1.6	38
17	The Activities of Heparan Sulfate and its Analogue Heparin are Dictated by Biosynthesis, Sequence, and Conformation. <i>Connective Tissue Research</i> , 2008, 49, 140-144.	1.1	38
18	The nature of the conserved basic amino acid sequences found among 437 heparin binding proteins determined by network analysis. <i>Molecular BioSystems</i> , 2017, 13, 852-865.	2.9	36

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19	A highly efficient tree structure for the biosynthesis of heparan sulfate accounts for the commonly observed disaccharides and suggests a mechanism for domain synthesis. <i>Molecular BioSystems</i> , 2012, 8, 1499.	2.9	33
20	Evidence of a putative glycosaminoglycan binding site on the glycosylated SARS-CoV-2 spike protein N-terminal domain. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 2806-2818.	1.9	33
21	Site-specific interactions of copper(II) ions with heparin revealed with complementary (SRCD, NMR,) Tj ETQq1 1 0.784314 rgBT /Over	1.1	32
22	Comparable stabilisation, structural changes and activities can be induced in FGF by a variety of HS and non-GAG analogues: implications for sequence-activity relationships. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 5390.	1.5	29
23	Raman and Raman optical activity of glycosaminoglycans. <i>Chemical Communications</i> , 2010, 46, 4124.	2.2	29
24	Disruption of Rosetting in Plasmodium falciparum Malaria with Chemically Modified Heparin and Low Molecular Weight Derivatives Possessing Reduced Anticoagulant and Other Serine Protease Inhibition Activities. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 1453-1458.	2.9	26
25	Construction and use of a library of bona fide heparins employing ¹ H NMR and multivariate analysis. <i>Analyst</i> , 2011, 136, 1380.	1.7	26
26	Subverting the mechanisms of cell death: flavivirus manipulation of host cell responses to infection. <i>Biochemical Society Transactions</i> , 2018, 46, 609-617.	1.6	26
27	The potential for circular dichroism as an additional facile and sensitive method of monitoring low-molecular-weight heparins and heparinoids. <i>Thrombosis and Haemostasis</i> , 2009, 102, 874-878.	1.8	25
28	Spectroscopic and Theoretical Approaches for the Determination of Heparin Saccharide Structure and the Study of Protein-Glycosaminoglycan Complexes in Solution. <i>Current Medicinal Chemistry</i> , 2009, 16, 4750-4766.	1.2	25
29	A New Approach for Heparin Standardization: Combination of Scanning UV Spectroscopy, Nuclear Magnetic Resonance and Principal Component Analysis. <i>PLoS ONE</i> , 2011, 6, e15970.	1.1	25
30	Analysis of the fibroblast growth factor receptor (<sc>FGFR</sc>) signalling network with heparin as coreceptor: evidence for the expansion of the core <sc>FGFR</sc> signalling network. <i>FEBS Journal</i> , 2013, 280, 2260-2270.	2.2	24
31	Antithrombin stabilisation by sulfated carbohydrates correlates with anticoagulant activity. <i>MedChemComm</i> , 2013, 4, 870.	3.5	24
32	Unravelling Structural Information from Complex Mixtures Utilizing Correlation Spectroscopy Applied to HSQC Spectra. <i>Analytical Chemistry</i> , 2013, 85, 7487-7493.	3.2	24
33	O-acetylation of typhoid capsular polysaccharide confers polysaccharide rigidity and immunodominance by masking additional epitopes. <i>Vaccine</i> , 2019, 37, 3866-3875.	1.7	24
34	High-sensitivity visualisation of contaminants in heparin samples by spectral filtering of ¹ H NMR spectra. <i>Analyst</i> , 2011, 136, 1390.	1.7	23
35	How To Find a Needle (or Anything Else) in a Haystack: Two-Dimensional Correlation Spectroscopy-Filtering with Iterative Random Sampling Applied to Pharmaceutical Heparin. <i>Analytical Chemistry</i> , 2012, 84, 6841-6847.	3.2	22
36	Heparin derivatives for the targeting of multiple activities in the inflammatory response. <i>Carbohydrate Polymers</i> , 2015, 117, 400-407.	5.1	22

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37	Conformational degeneracy restricts the effective information content of heparan sulfate. <i>Molecular BioSystems</i> , 2010, 6, 902.	2.9	21
38	Selective Detection of Protein Secondary Structural Changes in Solution Protein-Polysaccharide Complexes Using Vibrational Circular Dichroism (VCD). <i>Journal of the American Chemical Society</i> , 2008, 130, 2138-2139.	6.6	19
39	Cations Modulate Polysaccharide Structure To Determine FGF-FGFR Signaling: A Comparison of Signaling and Inhibitory Polysaccharide Interactions with FGF-1 in Solution. <i>Biochemistry</i> , 2009, 48, 4772-4779.	1.2	16
40	A robust method to quantify low molecular weight contaminants in heparin: detection of tris(2-n-butoxyethyl) phosphate. <i>Analyst</i> , The, 2011, 136, 2330.	1.7	16
41	Low molecular weight heparins: Structural differentiation by spectroscopic and multivariate approaches. <i>Carbohydrate Polymers</i> , 2011, 85, 903-909.	5.1	16
42	Multomics Analyses of HNF4 β Protein Domain Function during Human Pluripotent Stem Cell Differentiation. <i>Science</i> , 2019, 16, 206-217.	1.9	15
43	Insights into the Human Glycan Receptor Conformation of 1918 Pandemic Hemagglutinin-Glycan Complexes Derived from Nuclear Magnetic Resonance and Molecular Dynamics Studies. <i>Biochemistry</i> , 2014, 53, 4122-4135.	1.2	14
44	High-throughput SRCD using multi-well plates and its applications. <i>Scientific Reports</i> , 2016, 6, 38028.	1.6	14
45	Recent innovations in the structural analysis of heparin. <i>International Journal of Cardiology</i> , 2016, 212, S5-S9.	0.8	14
46	Nuclear Magnetic Resonance and Molecular Dynamics Simulation of the Interaction between Recognition Protein H7 of the Novel Influenza Virus H7N9 and Glycan Cell Surface Receptors. <i>Biochemistry</i> , 2016, 55, 6605-6616.	1.2	12
47	Survey of peptide quantification methods and comparison of their reproducibility: A case study using oxytocin. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2019, 166, 105-112.	1.4	11
48	On the catalytic mechanism of polysaccharide lyases: evidence of His and Tyr involvement in heparin lysis by heparinase I and the role of Ca ²⁺ . <i>Molecular BioSystems</i> , 2014, 10, 54-64.	2.9	9
49	Multivariate analysis applied to complex biological medicines. <i>Faraday Discussions</i> , 2019, 218, 303-316.	1.6	9
50	NMR spectroscopy and chemometric models to detect a specific non-porcine ruminant contaminant in pharmaceutical heparin. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022, 214, 114724.	1.4	9
51	Fundamental differences in model cell-surface polysaccharides revealed by complementary optical and spectroscopic techniques. <i>Soft Matter</i> , 2012, 8, 6521.	1.2	7
52	A zinc complex of heparan sulfate destabilises lysozyme and alters its conformation. <i>Biochemical and Biophysical Research Communications</i> , 2012, 425, 794-799.	1.0	7
53	Investigating the relationship between temperature, conformation and calcium binding in heparin model oligosaccharides. <i>Carbohydrate Research</i> , 2017, 438, 58-64.	1.1	7
54	Evaluation of Critical Quality Attributes of a Pentavalent (A, C, Y, W, X) Meningococcal Conjugate Vaccine for Global Use. <i>Pathogens</i> , 2021, 10, 928.	1.2	7

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55	Using NMR to Dissect the Chemical Space and <i>O</i> -Sulfation Effects within the <i>O</i> - and <i>S</i> -Glycoside Analogues of Heparan Sulfate. ACS Omega, 2022, 7, 24461-24467.	1.6	6
56	A gravimetric analysis of protein-oligosaccharide interactions. Biochemical Society Transactions, 2003, 31, 349-351.	1.6	5
57	Heparan sulphate, its derivatives and analogues share structural characteristics that can be exploited, particularly in inhibiting microbial attachment. Brazilian Journal of Medical and Biological Research, 2012, 45, 386-391.	0.7	5
58	Heparan sulfate phage display antibodies recognise epitopes defined by a combination of sugar sequence and cation binding. Organic and Biomolecular Chemistry, 2015, 13, 6066-6072.	1.5	5
59	¹⁹ F labelled glycosaminoglycan probes for solution NMR and non-linear (CARS) microscopy. Glycoconjugate Journal, 2017, 34, 405-410.	1.4	5
60	The latent ampholytic nature of glycosaminoglycan (GAG) oligosaccharides facilitates their separation by isoelectric focusing. Analytical Methods, 2010, 2, 1550.	1.3	4
61	Following Protein-Glycosaminoglycan Polysaccharide Interactions with Differential Scanning Fluorimetry. Methods in Molecular Biology, 2012, 836, 171-182.	0.4	4
62	Surface-Based Studies of Heparin/Heparan Sulfate-Protein Interactions: Considerations for Surface Immobilisation of HS/Heparin Saccharides and Monitoring Their Interactions with Binding Proteins. , 2005, , 345-366.		2
63	Data mining and visualisation: general discussion. Faraday Discussions, 2019, 218, 354-371.	1.6	2
64	MD simulation of the interaction between sialoglycans and the second sialic acid binding site of influenza A virus N1 neuraminidase. Biochemical Journal, 2021, 478, 423-441.	1.7	2
65	Detection of interaction between protein tryptophan residues and small or macromolecular ligands by synchrotron radiation magnetic circular dichroism. Analytical Methods, 2015, 7, 1667-1671.	1.3	1
66	Editorial: Heparin and Related Polysaccharides. Frontiers in Medicine, 2020, 7, 211.	1.2	1
67	CHAPTER 14. New Methods for the Analysis of Heterogeneous Polysaccharides - Lessons Learned from the Heparin Crisis. New Developments in NMR, 0, , 305-334.	0.1	1
68	NMR in the Characterization of Complex Mixture Drugs. AAPS Advances in the Pharmaceutical Sciences Series, 2019, , 115-137.	0.2	0
69	The interaction between oxytocin and heparin. RSC Advances, 2020, 10, 28300-28313.	1.7	0