

# Timothy R Rudd

## List of Publications by Year in descending order

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69  
papers

2,150  
citations

257450

24  
h-index

265206

42  
g-index

74  
all docs

74  
docs citations

74  
times ranked

3063  
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	2.8	9
2	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. <i>ACS Omega</i> , 2022, 7, 24461-24467.	3.5	6
3	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.	2.8	7
4	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.	4.1	33
5	MD simulation of the interaction between sialoglycans and the second sialic acid binding site of influenza A virus N1 neuraminidase. <i>Biochemical Journal</i> , 2021, 478, 423-441.	3.7	2
6	The interaction between oxytocin and heparin. <i>RSC Advances</i> , 2020, 10, 28300-28313.	3.6	0
7	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.	3.4	228
8	Editorial: Heparin and Related Polysaccharides. <i>Frontiers in Medicine</i> , 2020, 7, 211.	2.6	1
9	Data mining and visualisation: general discussion. <i>Faraday Discussions</i> , 2019, 218, 354-371.	3.2	2
10	O-acetylation of typhoid capsular polysaccharide confers polysaccharide rigidity and immunodominance by masking additional epitopes. <i>Vaccine</i> , 2019, 37, 3866-3875.	3.8	24
11	Multomics Analyses of HNF4 $\beta$ Protein Domain Function during Human Pluripotent Stem Cell Differentiation. <i>iScience</i> , 2019, 16, 206-217.	4.1	15
12	NMR in the Characterization of Complex Mixture Drugs. <i>AAPS Advances in the Pharmaceutical Sciences Series</i> , 2019, , 115-137.	0.6	0
13	Multivariate analysis applied to complex biological medicines. <i>Faraday Discussions</i> , 2019, 218, 303-316.	3.2	9
14	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.	2.8	11
15	Subverting the mechanisms of cell death: flavivirus manipulation of host cell responses to infection. <i>Biochemical Society Transactions</i> , 2018, 46, 609-617.	3.4	26
16	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
17	Investigating the relationship between temperature, conformation and calcium binding in heparin model oligosaccharides. <i>Carbohydrate Research</i> , 2017, 438, 58-64.	2.3	7
18	<sup>19</sup> F labelled glycosaminoglycan probes for solution NMR and non-linear (CARS) microscopy. <i>Glycoconjugate Journal</i> , 2017, 34, 405-410.	2.7	5

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19	New Applications of Heparin and Other Glycosaminoglycans. <i>Molecules</i> , 2017, 22, 749.	3.8	60
20	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.	2.5	12
21	High-throughput SRCD using multi-well plates and its applications. <i>Scientific Reports</i> , 2016, 6, 38028.	3.3	14
22	Atomic Details of the Interactions of Glycosaminoglycans with Amyloid- $\beta$ Fibrils. <i>Journal of the American Chemical Society</i> , 2016, 138, 8328-8331.	13.7	48
23	Recent innovations in the structural analysis of heparin. <i>International Journal of Cardiology</i> , 2016, 212, S5-S9.	1.7	14
24	Heparan sulfate and heparin interactions with proteins. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20150589.	3.4	229
25	Heparan sulfate phage display antibodies recognise epitopes defined by a combination of sugar sequence and cation binding. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 6066-6072.	2.8	5
26	<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.	2.4	58
27	Detection of interaction between protein tryptophan residues and small or macromolecular ligands by synchrotron radiation magnetic circular dichroism. <i>Analytical Methods</i> , 2015, 7, 1667-1671.	2.7	1
28	Differentiation of Generic Enoxaparins Marketed in the United States by Employing NMR and Multivariate Analysis. <i>Analytical Chemistry</i> , 2015, 87, 8275-8283.	6.5	42
29	Inhibition of influenza H5N1 invasion by modified heparin derivatives. <i>MedChemComm</i> , 2015, 6, 640-646.	3.4	40
30	Heparin derivatives for the targeting of multiple activities in the inflammatory response. <i>Carbohydrate Polymers</i> , 2015, 117, 400-407.	10.2	22
31	On the catalytic mechanism of polysaccharide lyases: evidence of His and Tyr involvement in heparin lysis by heparinase I and the role of Ca <sup>2+</sup> . <i>Molecular BioSystems</i> , 2014, 10, 54-64.	2.9	9
32	Insights into the Human Glycan Receptor Conformation of 1918 Pandemic Hemagglutininâ€“Glycan Complexes Derived from Nuclear Magnetic Resonance and Molecular Dynamics Studies. <i>Biochemistry</i> , 2014, 53, 4122-4135.	2.5	14
33	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.	4.7	24
34	Human ( $\beta$ 6) and Avian ( $\beta$ 3) Sialylated Receptors of Influenza A Virus Show Distinct Conformations and Dynamics in Solution. <i>Biochemistry</i> , 2013, 52, 7217-7230.	2.5	45
35	Antithrombin stabilisation by sulfated carbohydrates correlates with anticoagulant activity. <i>MedChemComm</i> , 2013, 4, 870.	3.4	24
36	Unravelling Structural Information from Complex Mixtures Utilizing Correlation Spectroscopy Applied to HSQC Spectra. <i>Analytical Chemistry</i> , 2013, 85, 7487-7493.	6.5	24

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37	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.	3.7	49
38	Diversification of the Structural Determinants of Fibroblast Growth Factor-Heparin Interactions. <i>Journal of Biological Chemistry</i> , 2012, 287, 40061-40073.	3.4	69
39	Fundamental differences in model cell-surface polysaccharides revealed by complementary optical and spectroscopic techniques. <i>Soft Matter</i> , 2012, 8, 6521.	2.7	7
40	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
41	A zinc complex of heparan sulfate destabilises lysozyme and alters its conformation. <i>Biochemical and Biophysical Research Communications</i> , 2012, 425, 794-799.	2.1	7
42	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.	6.5	22
43	Following Protein-Glycosaminoglycan Polysaccharide Interactions with Differential Scanning Fluorimetry. <i>Methods in Molecular Biology</i> , 2012, 836, 171-182.	0.9	4
44	Heparan sulphate, its derivatives and analogues share structural characteristics that can be exploited, particularly in inhibiting microbial attachment. <i>Brazilian Journal of Medical and Biological Research</i> , 2012, 45, 386-391.	1.5	5
45	High-sensitivity visualisation of contaminants in heparin samples by spectral filtering of <sup>1</sup> H NMR spectra. <i>Analyst</i> , The, 2011, 136, 1390.	3.5	23
46	Construction and use of a library of bona fide heparins employing <sup>1</sup> H NMR and multivariate analysis. <i>Analyst</i> , The, 2011, 136, 1380.	3.5	26
47	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.	3.5	16
48	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.	2.5	25
49	Low molecular weight heparins: Structural differentiation by spectroscopic and multivariate approaches. <i>Carbohydrate Polymers</i> , 2011, 85, 903-909.	10.2	16
50	The conformation and structure of GAGs: recent progress and perspectives. <i>Current Opinion in Structural Biology</i> , 2010, 20, 567-574.	5.7	51
51	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.	2.8	29
52	Conformational degeneracy restricts the effective information content of heparan sulfate. <i>Molecular BioSystems</i> , 2010, 6, 902.	2.9	21
53	The latent ampholytic nature of glycosaminoglycan (GAG) oligosaccharides facilitates their separation by isoelectric focusing. <i>Analytical Methods</i> , 2010, 2, 1550.	2.7	4
54	Raman and Raman optical activity of glycosaminoglycans. <i>Chemical Communications</i> , 2010, 46, 4124.	4.1	29

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55	Glycosaminoglycan origin and structure revealed by multivariate analysis of NMR and CD spectra. <i>Glycobiology</i> , 2009, 19, 52-67.	2.5	50
56	Cations Modulate Polysaccharide Structure To Determine FGF <sup>2</sup> /FGFR Signaling: A Comparison of Signaling and Inhibitory Polysaccharide Interactions with FGF-1 in Solution. <i>Biochemistry</i> , 2009, 48, 4772-4779.	2.5	16
57	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.	3.4	25
58	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.	2.4	25
59	Site-specific interactions of copper(II) ions with heparin revealed with complementary (SRCD, NMR,) Tj ETQq1 1 0.784314 rgBT /Overlo	2.3	32
60	Selective Detection of Protein Secondary Structural Changes in Solution Protein <sup>2</sup> Polysaccharide Complexes Using Vibrational Circular Dichroism (VCD). <i>Journal of the American Chemical Society</i> , 2008, 130, 2138-2139.	13.7	19
61	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.	6.4	26
62	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.	2.3	38
63	Influence of substitution pattern and cation binding on conformation and activity in heparin derivatives. <i>Glycobiology</i> , 2007, 17, 983-993.	2.5	66
64	Real-time monitoring of the development and stability of biofilms of Streptococcus mutans using the quartz crystal microbalance with dissipation monitoring. <i>Biosensors and Bioelectronics</i> , 2007, 23, 407-413.	10.1	66
65	Protein <sup>2</sup> GAG interactions: new surface-based techniques, spectroscopies and nanotechnology probes. <i>Biochemical Society Transactions</i> , 2006, 34, 427-430.	3.4	38
66	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.	3.4	101
67	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
68	A gravimetric analysis of protein <sup>2</sup> oligosaccharide interactions. <i>Biochemical Society Transactions</i> , 2003, 31, 349-351.	3.4	5
69	CHAPTER 14. New Methods for the Analysis of Heterogeneous Polysaccharides <sup>2</sup> Lessons Learned from the Heparin Crisis. <i>New Developments in NMR</i> , 0, , 305-334.	0.1	1