David J Thornton

List of Publications by Year
in descending order

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139 papers	9,408 citations	34493 54 h-index	48101 92 g-index
145 all docs	145 docs citations	145 times ranked	9953 citing authors

#	Article	IF	Citations
1	Sputum biomarkers during acute severe asthma attacks in childrenâ€"a caseâ€control study. Acta Paediatrica, International Journal of Paediatrics, 2022, 111, 620-627.	0.7	1
2	Defining the early stages of intestinal colonisation by whipworms. Nature Communications, 2022, 13, 1725.	5.8	18
3	The lipophilic cyclic peptide cyclosporin A induces aggregation of gel-forming mucins. Scientific Reports, 2022, 12, 6153.	1.6	2
4	Disulfide disruption reverses mucus dysfunction in allergic airway disease. Nature Communications, 2021, 12, 249.	5.8	36
5	Mucus. Current Biology, 2021, 31, R938-R945.	1.8	53
6	Assembly and organization of the N-terminal region of mucin MUC5AC: Indications for structural and functional distinction from MUC5B. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	32
7	Airway Mucus Hyperconcentration in Nonâ€"Cystic Fibrosis Bronchiectasis. American Journal of Respiratory and Critical Care Medicine, 2020, 201, 661-670.	2.5	64
8	Mucins and their receptors in chronic lung disease. Clinical and Translational Immunology, 2020, 9, e01120.	1.7	25
9	The C-terminal dimerization domain of the respiratory mucin MUC5B functions in mucin stability and intracellular packaging before secretion. Journal of Biological Chemistry, 2019, 294, 17105-17116.	1.6	19
10	The major secreted protein of the whipworm parasite tethers to matrix and inhibits interleukin-13 function. Nature Communications, 2019, 10, 2344.	5.8	48
11	The lung environment controls alveolar macrophage metabolism and responsiveness in type 2 inflammation. Nature Immunology, 2019, 20, 571-580.	7.0	140
12	ILC2s mediate systemic innate protection by priming mucus production at distal mucosal sites. Journal of Experimental Medicine, 2019, 216, 2714-2723.	4.2	52
13	The MUC5B mucin polymer is dominated by repeating structural motifs and its topology is regulated by calcium and pH. Scientific Reports, 2019, 9, 17350.	1.6	45
14	Trickle infection and immunity to Trichuris muris. PLoS Pathogens, 2019, 15, e1007926.	2.1	35
15	A glycopolymer improves vascoelasticity and mucociliary transport of abnormal cystic fibrosis mucus. JCI Insight, 2019, 4, .	2.3	35
16	Trickle infection and immunity to Trichuris muris. , 2019, 15, e1007926.		0
17	Trickle infection and immunity to Trichuris muris. , 2019, 15, e1007926.		0
18	Trickle infection and immunity to Trichuris muris. , 2019, 15, e1007926.		0

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19	Trickle infection and immunity to Trichuris muris. , 2019, 15, e1007926.		0
20	Trickle infection and immunity to Trichuris muris. , 2019, 15, e1007926.		0
21	MUB40 Binds to Lactoferrin and Stands as a Specific Neutrophil Marker. Cell Chemical Biology, 2018, 25, 483-493.e9.	2.5	13
22	Granule-stored MUC5B mucins are packed by the non-covalent formation of N-terminal head-to-head tetramers. Journal of Biological Chemistry, 2018, 293, 5746-5754.	1.6	50
23	Functional characterization of the mucus barrier on the Xenopus tropicalis skin surface. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 726-731.	3.3	27
24	A sticky end for gastrointestinal helminths; the role of the mucus barrier. Parasite Immunology, 2018, 40, e12517.	0.7	93
25	Intestinal mucin activates human dendritic cells and IL-8 production in a glycan-specific manner. Journal of Biological Chemistry, 2018, 293, 8543-8553.	1.6	23
26	Vaccination Against Whipworm: Identification of Potential Immunogenic Proteins in Trichuris muris Excretory/Secretory Material. Scientific Reports, 2018, 8, 4508.	1.6	19
27	Intracellular Processing of Human Secreted Polymeric Airway Mucins. Annals of the American Thoracic Society, 2018, 15, S154-S158.	1.5	17
28	Dropping acid: why is cystic fibrosis mucus abnormal?. European Respiratory Journal, 2018, 52, 1802057.	3.1	5
29	Mucins: the frontline defence of the lung. Biochemical Society Transactions, 2018, 46, 1099-1106.	1.6	134
30	Extracellular vesicles induce protective immunity against Trichuris muris. Parasite Immunology, 2018, 40, e12536.	0.7	72
31	A detection and quantification label-free tool to speed up downstream processing of model mucins. PLoS ONE, 2018, 13, e0190974.	1.1	15
32	The normal trachea is cleaned by MUC5B mucin bundles from the submucosal glands coated with the MUC5AC mucin. Biochemical and Biophysical Research Communications, 2017, 492, 331-337.	1.0	92
33	MUC5AC and a Glycosylated Variant of MUC5B Alter Mucin Composition in Children With Acute Asthma. Chest, 2017, 152, 771-779.	0.4	70
34	Aspergillosis and the role of mucins in cystic fibrosis. Pediatric Pulmonology, 2017, 52, 548-555.	1.0	28
35	Immune-driven alterations in mucin sulphation is an important mediator of Trichuris muris helminth expulsion. PLoS Pathogens, 2017, 13, e1006218.	2.1	35
36	Measuring Airway Mucin 2 in Patients with Severe Chronic Obstructive Pulmonary Disease with Bacterial Colonization. Annals of the American Thoracic Society, 2016, 13, 2103-2104.	1.5	6

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37	Biosynthesis of the polymeric gel-forming mucin MUC5B. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 310, L993-L1002.	1.3	17
38	Characterization of neopeptides in equine articular cartilage degradation. Journal of Orthopaedic Research, 2016, 34, 106-120.	1.2	20
39	Secondary Structure and Glycosylation of Mucus Glycoproteins by Raman Spectroscopies. Analytical Chemistry, 2016, 88, 11609-11615.	3.2	38
40	New Role of Nod Proteins in Regulation of Intestinal Goblet Cell Response in the Context of Innate Host Defense in an Enteric Parasite Infection. Infection and Immunity, 2016, 84, 275-285.	1.0	25
41	Mucins and Mucus. , 2015, , 231-250.		19
42	Tea Derived Galloylated Polyphenols Cross-Link Purified Gastrointestinal Mucins. PLoS ONE, 2014, 9, e105302.	1.1	48
43	Assembly of the Respiratory Mucin MUC5B. Journal of Biological Chemistry, 2014, 289, 16409-16420.	1.6	76
44	A secretory cell type develops alongside multiciliated cells, ionocytes and goblet cells, and provides a protective, anti-infective function in the frog embryonic mucociliary epidermis. Development (Cambridge), 2014, 141, 1514-1525.	1.2	70
45	Particle tracking microrheology of purified gastrointestinal mucins. Biopolymers, 2014, 101, 366-377.	1.2	107
46	Reassessment of the importance of mucins in determining sputum properties in cystic fibrosis. Journal of Cystic Fibrosis, 2014, 13, 260-266.	0.3	18
47	Cystic fibrosis: An inherited disease affecting mucin-producing organs. International Journal of Biochemistry and Cell Biology, 2014, 52, 136-145.	1.2	87
48	Muc5b is required for airway defence. Nature, 2014, 505, 412-416.	13.7	617
49	A combined smallâ€angle Xâ€ray and neutron scattering study of the structure of purified soluble gastrointestinal mucins. Biopolymers, 2014, 101, 1154-1164.	1.2	23
50	Reorganisation of the Salivary Mucin Network by Dietary Components: Insights from Green Tea Polyphenols. PLoS ONE, 2014, 9, e108372.	1.1	53
51	TGF-Î²2decreases baseline and IL-13-stimulated mucin production by primary human bronchial epithelial cells. Experimental Lung Research, 2013, 39, 39-47.	0.5	23
52	The expression of mucin genes and the presence of mucin gene products in the equine endometrium. Research in Veterinary Science, 2013, 95, 169-175.	0.9	2
53	A new role for mucins in immunity: Insights from gastrointestinal nematode infection. International Journal of Biochemistry and Cell Biology, 2013, 45, 364-374.	1.2	91
54	Analysis of the cartilage proteome from three different mouse models of genetic skeletal diseases reveals common and discrete disease signatures. Biology Open, 2013, 2, 802-811.	0.6	12

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55	Serine Protease(s) Secreted by the Nematode Trichuris muris Degrade the Mucus Barrier. PLoS Neglected Tropical Diseases, 2012, 6, e1856.	1.3	99
56	Desulfurization of mucin by Pseudomonas aeruginosa: influence of sulfate in the lungs of cystic fibrosis patients. Journal of Medical Microbiology, 2012, 61, 1644-1653.	0.7	40
57	Expression and secretion of Aspergillus fumigatus proteases are regulated in response to different protein substrates. Fungal Biology, 2012, 116, 1003-1012.	1.1	60
58	Influenza A Induces the Major Secreted Airway Mucin MUC5AC in a Proteaseâ€“EGFRâ€“Extracellular Regulated Kinaseâ€“Sp1â€“Dependent Pathway. American Journal of Respiratory Cell and Molecular Biology, 2012, 47, 149-157.	1.4	76
59	Gel-Forming and Cell-Associated Mucins: Preparation for Structural and Functional Studies. Methods in Molecular Biology, 2012, 842, 27-47.	0.4	23
60	Loss of matrilin 1 does not exacerbate the skeletal phenotype in a mouse model of multiple epiphyseal dysplasia caused by a Matn3 V194D mutation. Arthritis and Rheumatism, 2012, 64, 1529-1539.	6.7	9
61	Detecting, Visualising, and Quantifying Mucins. Methods in Molecular Biology, 2012, 842, 49-66.	0.4	21
62	Muc5b Is the Major Polymeric Mucin in Mucus from Thoroughbred Horses With and Without Airway Mucus Accumulation. PLoS ONE, 2011, 6, e19678.	1.1	6
63	Changes in the mucosal barrier during acute and chronic Trichuris muris infection. Parasite Immunology, 2011, 33, 45-55.	0.7	74
64	Muc5ac: a critical component mediating the rejection of enteric nematodes. Journal of Experimental Medicine, 2011, 208, 893-900.	4.2	265
65	An unfolded protein response is the initial cellular response to the expression of mutant matrilin-3 in a mouse model of multiple epiphyseal dysplasia. Cell Stress and Chaperones, 2010, 15, 835-849.	1.2	59
66	Mucin Gene Deficiency in Mice Impairs Host Resistance to an Enteric Parasitic Infection. Gastroenterology, 2010, 138, 1763-1771.e5.	0.6	162
67	A novel role for Gtb1p in glucose trimming of N-linked glycans. Glycobiology, 2009, 19, 1408-1416.	1.3	17
68	Ex VivoSputum Analysis Reveals Impairment of Protease-dependent Mucus Degradation by Plasma Proteins in Acute Asthma. American Journal of Respiratory and Critical Care Medicine, 2009, 180, 203-210.	2.5	104
69	Targeted Induction of Endoplasmic Reticulum Stress Induces Cartilage Pathology. PLoS Genetics, 2009, 5, e1000691.	1.5	127
70	Identification of salivary mucin MUC7 binding proteins from Streptococcus gordonii. BMC Microbiology, 2009, 9, 163.	1.3	48
71	Tracheobronchial air-liquid interface cell culture: a model for innate mucosal defense of the upper airways?. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2009, 296, L92-L100.	1.3	160
72	Structure and Function of the Polymeric Mucins in Airways Mucus. Annual Review of Physiology, 2008, 70, 459-486.	5.6	671

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73	Aberrant Mucin Assembly in Mice Causes Endoplasmic Reticulum Stress and Spontaneous Inflammation Resembling Ulcerative Colitis. PLoS Medicine, 2008, 5, e54.	3.9	602
74	MUC5B Is the Major Mucin in the Gel Phase of Sputum in Chronic Obstructive Pulmonary Disease. American Journal of Respiratory and Critical Care Medicine, 2008, 178, 1033-1039.	2.5	120
75	Proteomic analysis of polymeric salivary mucins: no evidence for MUC19 in human saliva. Biochemical Journal, 2008, 413, 545-552.	1.7	23
76	Structural and Functional Characterization of Recombinant Matrilin-3 A-domain and Implications for Human Genetic Bone Diseases. Journal of Biological Chemistry, 2007, 282, 34634-34643.	1.6	39
77	Muc5b and Muc5ac are the major oligomeric mucins in equine airway mucus. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2007, 292, L1396-L1404.	1.3	29
78	Reduced cell proliferation and increased apoptosis are significant pathological mechanisms in a murine model of mild pseudoachondroplasia resulting from a mutation in the C-terminal domain of COMP. Human Molecular Genetics, 2007, 16, 2072-2088.	1.4	84
79	Decreased chondrocyte proliferation and dysregulated apoptosis in the cartilage growth plate are key features of a murine model of epiphyseal dysplasia caused by a matn3 mutation. Human Molecular Genetics, 2007, 16, 1728-1741.	1.4	67
80	Collagen XXVII Is Developmentally Regulated and Forms Thin Fibrillar Structures Distinct from Those of Classical Vertebrate Fibrillar Collagens. Journal of Biological Chemistry, 2007, 282, 12791-12795.	1.6	59
81	MUC16 is produced in tracheal surface epithelium and submucosal glands and is present in secretions from normal human airway and cultured bronchial epithelial cells. International Journal of Biochemistry and Cell Biology, 2007, 39, 1943-1954.	1.2	78
82	The alternatively spliced type III connecting segment of fibronectin is a zinc-binding module. Matrix Biology, 2007, 26, 485-493.	1.5	5
83	Proteomic analysis of mouse growth plate cartilage. Proteomics, 2006, 6, 6549-6553.	1.3	32
84	Regulation of MUC5AC mucin secretion and airway surface liquid metabolism by IL-1Î² in human bronchial epithelia. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2004, 286, L320-L330.	1.3	94
85	Identification of Molecular Intermediates in the Assembly Pathway of the MUC5AC Mucin. Journal of Biological Chemistry, 2004, 279, 15698-15705.	1.6	86
86	Site-specific N-linked glycosylation analysis on the human salivary mucin MUC5B using Precursor Ion Discovery on the CAPLC Q-TOF system. International Journal of Experimental Pathology, 2004, 85, A71-A72.	0.6	0
87	From Mucins to Mucus: Toward a More Coherent Understanding of This Essential Barrier. Proceedings of the American Thoracic Society, 2004, 1, 54-61.	3.5	302
88	Partial characterisation of high-molecular weight glycoconjugates in the trail mucus of the freshwater pond snail Lymnaea stagnalis. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2004, 137, 475-486.	0.7	16
89	INTERACTION BETWEEN MYCOBACTERIA AND MUCUS ON A HUMAN RESPIRATORY TISSUE ORGAN CULTURE MODEL WITH AN AIR INTERFACE. Experimental Lung Research, 2004, 30, 17-29.	0.5	12
90	A reproducible protocol for analysis of the proteome of Trypanosoma brucei by 2-dimensional gel electrophoresis. Molecular and Biochemical Parasitology, 2003, 128, 107-110.	0.5	20

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91	Calcium-dependent Protein Interactions in MUC5B Provide Reversible Cross-links in Salivary Mucus. Journal of Biological Chemistry, 2003, 278, 28703-28710.	1.6	120
92	Juxtaposition of the Two Distal CX3C Motifs via Intrachain Disulfide Bonding Is Essential for the Folding of Tim10. Journal of Biological Chemistry, 2003, 278, 38505-38513.	1.6	76
93	Assembly of Tim9 and Tim10 into a Functional Chaperone. Journal of Biological Chemistry, 2002, 277, 36100-36108.	1.6	65
94	Heterogeneity of airways mucus: variations in the amounts and glycoforms of the major oligomeric mucins MUC5AC and MUC5B. Biochemical Journal, 2002, 361, 537.	1.7	204
95	Concentrated solutions of salivary MUC5B mucin do not replicate the gel-forming properties of saliva. Biochemical Journal, 2002, 362, 289.	1.7	46
96	Concentrated solutions of salivary MUC5B mucin do not replicate the gel-forming properties of saliva. Biochemical Journal, 2002, 362, 289-296.	1.7	66
97	Heterogeneity of airways mucus: variations in the amounts and glycoforms of the major oligomeric mucins MUC5AC and MUC5B. Biochemical Journal, 2002, 361, 537-546.	1.7	284
98	Identification of a nonmucin glycoprotein (gp-340) from a purified respiratory mucin preparation: evidence for an association involving the MUC5B mucin. Glycobiology, 2001, 11, 969-977.	1.3	51
99	Physical characterization of the MUC5AC mucin: a highly oligomeric glycoprotein whether isolated from cell culture or in vivo from respiratory mucous secretions. Biochemical Journal, 2000, 347, 37.	1.7	29
100	The biochemical characterization of aggrecan from normal and tibial-dyschondroplastic chicken growth-plate cartilage. Biochemical Journal, 2000, 351, 517.	1.7	2
101	Physical characterization of the MUC5AC mucin: a highly oligomeric glycoprotein whether isolated from cell culture or in vivo from respiratory mucous secretions. Biochemical Journal, 2000, 347, 37-44.	1.7	73
102	Separation and Identification of Mucins and Their Glycoforms. , 2000, 125, 77-85.		16
103	The biochemical characterization of aggrecan from normal and tibial-dyschondroplastic chicken growth-plate cartilage. Biochemical Journal, 2000, 351, 517-525.	1.7	3
104	Characterization of mucins from cultured normal human tracheobronchial epithelial cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2000, 278, L1118-L1128.	1.3	82
105	Detection and Quantitation of Mucins Using Chemical, Lectin, and Antibody Methods. , 2000, 125, 45-55.		8
106	Heterogeneity and Size Distribution of Gel-Forming Mucins. , 2000, 125, 87-96.		13
107	Identification in Vitreous and Molecular Cloning of Opticin, a Novel Member of the Family of Leucine-rich Repeat Proteins of the Extracellular Matrix. Journal of Biological Chemistry, 2000, 275, 2123-2129.	1.6	89
108	Physical characterization of the MUC5AC mucin: a highly oligomeric glycoprotein whether isolated from cell culture or in vivo from respiratory mucous secretions. Biochemical Journal, 2000, 347 Pt 1, 37-44.	1.7	34

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109	A study of the intracellular and secreted forms of the MUC2 mucin from the PC/AA intestinal cell line. Glycobiology, 1999, 9, 739-746.	1.3	32
110	Physical characterization of a low-charge glycoform of the MUC5B mucin comprising the gel-phase of an asthmatic respiratory mucous plug. Biochemical Journal, 1999, 338, 507-513.	1.7	93
111	Physical characterization of a low-charge glycoform of the MUC5B mucin comprising the gel-phase of an asthmatic respiratory mucous plug. Biochemical Journal, 1999, 338, 507.	1.7	40
112	Salivary mucin MG1 is comprised almost entirely of different glycosylated forms of the MUC5B gene product. Glycobiology, 1999, 9, 293-302.	1.3	183
113	Physical characterization of a low-charge glycoform of the MUC5B mucin comprising the gel-phase of an asthmatic respiratory mucous plug. Biochemical Journal, 1999, 338 (Pt 2), 507-13.	1.7	30
114	Isolation and physical characterization of the MUC7 (MG2) mucin from saliva: evidence for self-association. Biochemical Journal, 1998, 334, 415-422.	1.7	69
115	Monoclonal Antibody Recognizing a Core Epitope on Mucin. Disease Markers, 1998, 14, 99-112.	0.6	0
116	Identification of Two Glycoforms of the MUC5B Mucin in Human Respiratory Mucus. Journal of Biological Chemistry, 1997, 272, 9561-9566.	1.6	164
117	Structure and Biochemistry of Human Respiratory Mucins. , 1997, , 19-39.		4
118	Biosynthesis of the MUC2 mucin: evidence for a slow assembly of fully glycosylated units. Biochemical Journal, 1996, 315, 1055-1060.	1.7	46
119	Respiratory mucins: identification of core proteins and glycoforms. Biochemical Journal, 1996, 316, 967-975.	1.7	184
120	Identification of glycoproteins on nitrocellulose membranes and gels. Molecular Biotechnology, 1996, 5, 171-176.	1.3	72
121	Mucin biosynthesis and macromolecular assembly. Biochemical Society Transactions, 1995, 23, 819-821.	1.6	16
122	Methods for Separation and Deglycosylation of Mucin Subunits. Analytical Biochemistry, 1995, 227, 162-167.	1.1	85
123	Analysis of respiratory mucus glycoproteins in asthma: a detailed study from a patient who died in status asthmaticus.. American Journal of Respiratory Cell and Molecular Biology, 1995, 13, 748-756.	1.4	120
124	Identification of two major populations of mucins in respiratory secretions.. American Journal of Respiratory and Critical Care Medicine, 1994, 150, 823-832.	2.5	54
125	Identification of Glycoproteins on Nitrocellulose Membranes and Gels. , 1994, 32, 119-128.		22
126	Evidence for shared epitopes within the â€˜nakedâ€™ protein domains of human mucus glycoproteins. A study performed by using polyclonal antibodies and electron microscopy. Biochemical Journal, 1991, 274, 293-296.	1.7	38

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127	Mucus glycoproteins from cystic fibrotic sputum. Macromolecular properties and structural â€˜architectureâ€™. Biochemical Journal, 1991, 276, 667-675.	1.7	69
128	Heterogeneity of mucus glycoproteins from cystic fibrotic sputum. Are there different families of mucins?. Biochemical Journal, 1991, 276, 677-682.	1.7	32
129	The Structure and Heterogeneity of Respiratory Mucus Glycoproteins. The American Review of Respiratory Disease, 1991, 144, S4-S9.	2.9	80
130	Mucus glycoproteins from â€˜normalâ€™ human tracheobronchial secretion. Biochemical Journal, 1990, 265, 179-186.	1.7	130
131	Histochemical methods used in biochemical approaches to mucus glycoproteins. Acta Manilana, 1990, 40, 133-5.	0.1	1
132	An investigation of a maximum entropy method for the processing of 1H and 13C nmr spectra from glycosaminoglycan oligo- and poly-saccharides. European Polymer Journal, 1989, 25, 861-869.	2.6	10
133	Quantitation of mucus glycoproteins blotted onto nitrocellulose membranes. Analytical Biochemistry, 1989, 182, 160-164.	1.1	134
134	Structural studies of two populations of keratan sulphate chains from mature bovine articular cartilage. Glycoconjugate Journal, 1989, 6, 209-218.	1.4	17
135	Structural and immunological studies of keratan sulphates from mature bovine articular cartilage. Biochemical Journal, 1989, 260, 277-282.	1.7	42
136	A study of the interaction between cartilage proteoglycan and link protein. Biochemical Journal, 1987, 248, 943-951.	1.7	8
137	An enzyme-linked immunosorbent assay (ELISA) of denatured cartilage link protein. Biochimica Et Biophysica Acta - General Subjects, 1987, 925, 347-355.	1.1	3
138	Electron-microscopic and electrophoretic studies of bovine femoral-head cartilage proteoglycan fractions. Biochemical Journal, 1986, 240, 41-48.	1.7	17
139	The glycosaminoglycans of pig colonic wall connective tissue. Biochimica Et Biophysica Acta - General Subjects, 1983, 757, 219-225.	1.1	7