Jeffrey D Esko

List of Publications by Year
in descending order

189 papers	23,818 citations	13865 67 h-index	7745 150 g-index
201 all docs	201 docs citations	201 times ranked	21988 citing authors

#	Article	IF	Citations
1	Cell surface, heparin-like molecules are required for binding of basic fibroblast growth factor to its high affinity receptor. Cell, 1991, 64, 841-848.	28.9	2,430
2	Heparan sulphate proteoglycans fine-tune mammalian physiology. Nature, 2007, 446, 1030-1037.	27.8	1,413
3	Order Out of Chaos: Assembly of Ligand Binding Sites in Heparan Sulfate. Annual Review of Biochemistry, 2002, 71, 435-471.	11.1	1,367
4	The sweet and sour of cancer: glycans as novel therapeutic targets. Nature Reviews Cancer, 2005, 5, 526-542.	28.4	1,225
5	Heparan Sulfate Proteoglycans. Cold Spring Harbor Perspectives in Biology, 2011, 3, a004952-a004952.	5.5	1,147
6	A Novel Role for 3-O-Sulfated Heparan Sulfate in Herpes Simplex Virus 1 Entry. Cell, 1999, 99, 13-22.	28.9	948
7	Dengue virus infectivity depends on envelope protein binding to target cell heparan sulfate. Nature Medicine, 1997, 3, 866-871.	30.7	914
8	SARS-CoV-2 Infection Depends on Cellular Heparan Sulfate and ACE2. Cell, 2020, 183, 1043-1057.e15.	28.9	860
9	Symbol Nomenclature for Graphical Representations of Glycans. Glycobiology, 2015, 25, 1323-1324.	2.5	818
10	Molecular diversity of heparan sulfate. Journal of Clinical Investigation, 2001, 108, 169-173.	8.2	767
11	Demystifying Heparan Sulfateâ€“Protein Interactions. Annual Review of Biochemistry, 2014, 83, 129-157.	11.1	610
12	Endothelial heparan sulfate deficiency impairs L-selectin- and chemokine-mediated neutrophil trafficking during inflammatory responses. Nature Immunology, 2005, 6, 902-910.	14.5	424
13	Disruption of Gastrulation and Heparan Sulfate Biosynthesis in EXT1-Deficient Mice. Developmental Biology, 2000, 224, 299-311.	2.0	370
14	Brown fat activation reduces hypercholesterolaemia and protects from atherosclerosis development. Nature Communications, 2015, 6, 6356.	12.8	360
15	Heparinâ€™s anti-inflammatory effects require glucosamine 6-O-sulfation and are mediated by blockade of L- and P-selectins. Journal of Clinical Investigation, 2002, 110, 127-136.	8.2	258
16	Mice deficient in Ext2 lack heparan sulfate and develop exostoses. Development (Cambridge), 2005, 132, 5055-5068.	2.5	221
17	Caenorhabditis elegans early embryogenesis and vulval morphogenesis require chondroitin biosynthesis. Nature, 2003, 423, 439-443.	27.8	205
18	Multiple Isozymes of Heparan Sulfate/Heparin GlcNAcN-Deacetylase/GlcN N-Sulfotransferase. Journal of Biological Chemistry, 2001, 276, 5876-5882.	3.4	203

#	Article	IF	Citations
19	ApoC-III inhibits clearance of triglyceride-rich lipoproteins through LDL family receptors. Journal of Clinical Investigation, 2016, 126, 2855-2866.	8.2	186
20	Heparan sulfate 3-O-sulfation: A rare modification in search of a function. Matrix Biology, 2014, 35, 60-72.	3.6	182
21	Influence of core protein sequence on glycosaminoglycan assembly. Current Opinion in Structural Biology, 1996, 6, 663-670.	5.7	179
22	Liver heparan sulfate proteoglycans mediate clearance of triglyceride-rich lipoproteins independently of LDL receptor family members. Journal of Clinical Investigation, 2007, 117, 153-164.	8.2	177
23	Cerebral hypoplasia and craniofacial defects in mice lacking heparan sulfate Ndst1 gene function. Development (Cambridge), 2005, 132, 3777-3786.	2.5	176
24	Syndecan-1 is the primary heparan sulfate proteoglycan mediating hepatic clearance of triglyceride-rich lipoproteins in mice. Journal of Clinical Investigation, 2009, 119, 3236-45.	8.2	176
25	Evolutionary Differences in Glycosaminoglycan Fine Structure Detected by Quantitative Glycan Reductive Isotope Labeling. Journal of Biological Chemistry, 2008, 283, 33674-33684.	3.4	170
26	Heparinâ€™s anti-inflammatory effects require glucosamine 6-O-sulfation and are mediated by blockade of L- and P-selectins. Journal of Clinical Investigation, 2002, 110, 127-136.	8.2	163
27	Symbol nomenclature for glycan representation. Proteomics, 2009, 9, 5398-5399.	2.2	162
28	A focused microarray approach to functional glycomics: transcriptional regulation of the glycome. Glycobiology, 2006, 16, 117-131.	2.5	161
29	Biosynthesis of the Linkage Region of Glycosaminoglycans. Journal of Biological Chemistry, 2001, 276, 48189-48195.	3.4	158
30	Hereditary multiple exostoses and heparan sulfate polymerization. Biochimica Et Biophysica Acta - General Subjects, 2002, 1573, 346-355.	2.4	157
31	Surfen, a small molecule antagonist of heparan sulfate. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 13075-13080.	7.1	152
32	Clofazimine broadly inhibits coronaviruses including SARS-CoV-2. Nature, 2021, 593, 418-423.	27.8	151
33	Heparan sulfate and development: differential roles of the N-acetylglucosamine N-deacetylase/N-sulfotransferase isozymes. Biochimica Et Biophysica Acta - General Subjects, 2002, 1573, 209-215.	2.4	143
34	Molecular Cloning and Expression of a Third Member of the Heparan Sulfate/Heparin GlcNAcN-Deacetylase/N-Sulfotransferase Family. Journal of Biological Chemistry, 1999, 274, 2690-2695.	3.4	140
35	Heparan sulfate and syndecan-1 are essential in maintaining murine and human intestinal epithelial barrier function. Journal of Clinical Investigation, 2008, 118, 229-238.	8.2	131
36	Disaccharide structure code for the easy representation of constituent oligosaccharides from glycosaminoglycans. Nature Methods, 2008, 5, 291-292.	19.0	130

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37	An Animal Cell Mutant Defective in Heparan Sulfate Hexuronic Acid 2- -Sulfation. Journal of Biological Chemistry, 1996, 271, 17711-17717.	3.4	129
38	Targeting heparin and heparan sulfate protein interactions. Organic and Biomolecular Chemistry, 2017, 15, 5656-5668.	2.8	128
39	Repetitive Ser-Gly Sequences Enhance Heparan Sulfate Assembly in Proteoglycans. Journal of Biological Chemistry, 1995, 270, 27127-27135.	3.4	127
40	Essential Alterations of Heparan Sulfate During the Differentiation of Embryonic Stem Cells to Sox1-Enhanced Green Fluorescent Protein-Expressing Neural Progenitor Cells. Stem Cells, 2007, 25, 1913-1923.	3.2	126
41	Disease-specific nonâ€“reducing end carbohydrate biomarkers for mucopolysaccharidoses. Nature Chemical Biology, 2012, 8, 197-204.	8.0	124
42	The GPIHBP1â€“LPL Complex Is Responsible for the Margination of Triglyceride-Rich Lipoproteins in Capillaries. Cell Metabolism, 2014, 19, 849-860.	16.2	124
43	Tumor attenuation by combined heparan sulfate and polyamine depletion. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 371-376.	7.1	114
44	Biallelic mutations in SNX14 cause a syndromic form of cerebellar atrophy and lysosome-autophagosome dysfunction. Nature Genetics, 2015, 47, 528-534.	21.4	111
45	Identification of novel chondroitin proteoglycans in Caenorhabditis elegans: embryonic cell division depends on CPG-1 and CPG-2. Journal of Cell Biology, 2006, 173, 985-994.	5.2	109
46	Genetic alteration of endothelial heparan sulfate selectively inhibits tumor angiogenesis. Journal of Cell Biology, 2007, 177, 539-549.	5.2	107
47	Role of the endothelial surface layer in neutrophil recruitment. Journal of Leukocyte Biology, 2015, 98, 503-515.	3.3	104
48	Chinese Hamster Ovary Cell Mutants Defective in Glycosaminoglycan Assembly and Glucuronosyltransferase I. Journal of Biological Chemistry, 1999, 274, 13017-13024.	3.4	101
49	Cellular internalization of alpha-synuclein aggregates by cell surface heparan sulfate depends on aggregate conformation and cell type. Scientific Reports, 2017, 7, 9008.	3.3	101
50	Heparan sulfate biosynthetic gene Ndst1 is required for FGF signaling in early lens development. Development (Cambridge), 2006, 133, 4933-4944.	2.5	96
51	Xylose phosphorylation functions as a molecular switch to regulate proteoglycan biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15723-15728.	7.1	94
52	Fucosylation of Disaccharide Precursors of Sialyl LewisX Inhibit Selectin-mediated Cell Adhesion. Journal of Biological Chemistry, 1997, 272, 25608-25616.	3.4	92
53	Human Xylosyltransferase II Is Involved in the Biosynthesis of the Uniform Tetrasaccharide Linkage Region in Chondroitin Sulfate and Heparan Sulfate Proteoglycans*. Journal of Biological Chemistry, 2007, 282, 5201-5206.	3.4	91
54	Bud specific N-sulfation of heparan sulfate regulates<i>Shp2</i>-dependent FGF signaling during lacrimal gland induction. Development (Cambridge), 2008, 135, 301-310.	2.5	91

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55	Heparan Sulfate Regulates VEGF165- and VEGF121-mediated Vascular Hyperpermeability. Journal of Biological Chemistry, 2011, 286, 737-745.	3.4	80
56	Inactivation of heparan sulfate 2-O-sulfotransferase accentuates neutrophil infiltration during acute inflammation in mice. Blood, 2012, 120, 1742-1751.	1.4	80
57	Heparan 2-O-sulfotransferase, hst-2, is essential for normal cell migration in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 1507-1512.	7.1	78
58	Heparan Sulfate Is Essential for High Mobility Group Protein 1 (HMGB1) Signaling by the Receptor for Advanced Glycation End Products (RAGE). Journal of Biological Chemistry, 2011, 286, 41736-41744.	3.4	77
59	Heparan Sulfate 2-O-Sulfotransferase Is Required for Triglyceride-rich Lipoprotein Clearance*. Journal of Biological Chemistry, 2010, 285, 286-294.	3.4	76
60	The Caenorhabditis elegans Genes sqv-2and sqv-6, Which Are Required for Vulval Morphogenesis, Encode Glycosaminoglycan Galactosyltransferase II and Xylosyltransferase. Journal of Biological Chemistry, 2003, 278, 11735-11738.	3.4	75
61	Glycan Antagonists and Inhibitors: A Fount for Drug Discovery. Critical Reviews in Biochemistry and Molecular Biology, 2007, 42, 481-515.	5.2	75
62	PinAPL-Py: A comprehensive web-application for the analysis of CRISPR/Cas9 screens. Scientific Reports, 2017, 7, 15854.	3.3	75
63	Location of the Glucuronosyltransferase Domain in the Heparan Sulfate Copolymerase EXT1 by Analysis of Chinese Hamster Ovary Cell Mutants. Journal of Biological Chemistry, 2000, 275, 27733-27740.	3.4	74
64	Lacrimal Gland Development and Fgf10-Fgfr2b Signaling Are Controlled by 2-O- and 6-O-sulfated Heparan Sulfate. Journal of Biological Chemistry, 2011, 286, 14435-14444.	3.4	72
65	Etiological Point Mutations in the Hereditary Multiple Exostoses Gene EXT1: A Functional Analysis of Heparan Sulfate Polymerase Activity. American Journal of Human Genetics, 2001, 69, 55-66.	6.2	71
66	Stable RAGE-Heparan Sulfate Complexes Are Essential for Signal Transduction. ACS Chemical Biology, 2013, 8, 1611-1620.	3.4	71
67	On Guanidinium and Cellular Uptake. Journal of Organic Chemistry, 2014, 79, 6766-6774.	3.2	71
68	A mutant-cell library for systematic analysis of heparan sulfate structureâ€“function relationships. Nature Methods, 2018, 15, 889-899.	19.0	71
69	Guanidinylated Neomycin Delivers Large, Bioactive Cargo into Cells through a Heparan Sulfate-dependent Pathway. Journal of Biological Chemistry, 2007, 282, 13585-13591.	3.4	69
70	Hepatic Remnant Lipoprotein Clearance by Heparan Sulfate Proteoglycans and Low-Density Lipoprotein Receptors Depend on Dietary Conditions in Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 2065-2074.	2.4	69
71	Turnover of Heparan Sulfate Depends on 2-O-Sulfation of Uronic Acids. Journal of Biological Chemistry, 1997, 272, 23172-23179.	3.4	68
72	Regulated Translation of Heparan SulfateN-Acetylglucosamine N-Deacetylase/N-Sulfotransferase Isozymes by Structured 5â€²-Untranslated Regions and Internal Ribosome Entry Sites. Journal of Biological Chemistry, 2002, 277, 30699-30706.	3.4	67

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73	Metabolic engineering of Chinese hamster ovary cells: Towards a bioengineered heparin. Metabolic Engineering, 2012, 14, 81-90.	7.0	67
74	Glycan-based biomarkers for mucopolysaccharidoses. Molecular Genetics and Metabolism, 2014, 111, 73-83.	1.1	67
75	The Effect of Precursor Structures on the Action of Glucosaminyl 3-O-Sulfotransferase-1 and the Biosynthesis of Anticoagulant Heparan Sulfate. Journal of Biological Chemistry, 2001, 276, 28806-28813.	3.4	65
76	Apolipoproteins E and AV mediate lipoprotein clearance by hepatic proteoglycans. Journal of Clinical Investigation, 2013, 123, 2742-2751.	8.2	65
77	Reducing Macrophage Proteoglycan Sulfation Increases Atherosclerosis and Obesity through Enhanced Type I Interferon Signaling. Cell Metabolism, 2014, 20, 813-826.	16.2	65
78	Abnormal Patterns of Lipoprotein Lipase Release into the Plasma in GPIHBP1-deficient Mice. Journal of Biological Chemistry, 2008, 283, 34511-34518.	3.4	64
79	Altered Heparan Sulfate Structure in Mice with Deleted NDST3 Gene Function. Journal of Biological Chemistry, 2008, 283, 16885-16894.	3.4	63
80	Heparan sulfate Ndst1 gene function variably regulates multiple signaling pathways during mouse development. Developmental Dynamics, 2007, 236, 556-563.	1.8	62
81	Functional Overlap Between Chondroitin and Heparan Sulfate Proteoglycans During VEGF-Induced Sprouting Angiogenesis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 1255-1263.	2.4	62
82	Arylsulfatase G inactivation causes loss of heparan sulfate 3- <i>O</i> -sulfatase activity and mucopolysaccharidosis in mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10310-10315.	7.1	61
83	Compound heterozygous loss of Ext1 and Ext2 is sufficient for formation of multiple exostoses in mouse ribs and long bones. Bone, 2011, 48, 979-987.	2.9	57
84	Expanding the 3-<i>O</i>-Sulfate Proteomeâ€"Enhanced Binding of Neuropilin-1 to 3-<i>O</i>-Sulfated Heparan Sulfate Modulates Its Activity. ACS Chemical Biology, 2016, 11, 971-980.	3.4	57
85	Heparan sulfate deficiency disrupts developmental angiogenesis and causes congenital diaphragmatic hernia. Journal of Clinical Investigation, 2014, 124, 209-221.	8.2	53
86	Formation of HNK-1 Determinants and the Glycosaminoglycan Tetrasaccharide Linkage Region by UDP-GlcUA:Galactose Î²1,3-Glucuronosyltransferases. Journal of Biological Chemistry, 1999, 274, 7857-7864.	3.4	52
87	Cloning, Golgi Localization, and Enzyme Activity of the Full-length Heparin/Heparan Sulfate-Glucuronic Acid C5-epimerase. Journal of Biological Chemistry, 2001, 276, 21538-21543.	3.4	50
88	Glycosaminoglycan Binding Facilitates Entry of a Bacterial Pathogen into Central Nervous Systems. PLoS Pathogens, 2011, 7, e1002082.	4.7	50
89	Deficiency of Endothelial Heparan Sulfates Attenuates Allergic Airway Inflammation. Journal of Immunology, 2009, 183, 3971-3979.	0.8	48
90	ApoC-III ASO promotes tissue LPL activity in the absence of apoE-mediated TRL clearance. Journal of Lipid Research, 2019, 60, 1379-1395.	4.2	48

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91	CHO Glycosylation Mutants: Proteoglycans. Methods in Enzymology, 2006, 416, 205-221.	1.0	47
92	Heparan sulfate proteoglycans and triglyceride-rich lipoprotein metabolism. Current Opinion in Lipidology, 2008, 19, 307-313.	2.7	47
93	Deletion of the Basement Membrane Heparan Sulfate Proteoglycan Type XVIII Collagen Causes Hypertriglyceridemia in Mice and Humans. PLoS ONE, 2010, 5, e13919.	2.5	46
94	Stage-dependent regulation of mammary ductal branching by heparan sulfate and HGF-cMet signaling. Developmental Biology, 2011, 355, 394-403.	2.0	46
95	Secondary Storage of Dermatan Sulfate in Sanfilippo Disease. Journal of Biological Chemistry, 2011, 286, 6955-6962.	3.4	46
96	Proteomic atlas of organ vasculopathies triggered by Staphylococcus aureus sepsis. Nature Communications, 2019, 10, 4656.	12.8	46
97	Targeting phosphatase-dependent proteoglycan switch for rheumatoid arthritis therapy. Science Translational Medicine, 2015, 7, 288ra76.	12.4	44
98	A Systems View of the Heparan Sulfate Interactome. Journal of Histochemistry and Cytochemistry, 2021, 69, 105-119.	2.5	44
99	Synthesis and glycan priming activity of acetylated disaccharides. Carbohydrate Research, 2000, 329, 287-300.	2.3	42
100	Hepatic Heparan Sulfate Proteoglycans and Endocytic Clearance of Triglyceride-Rich Lipoproteins. Progress in Molecular Biology and Translational Science, 2010, 93, 213-233.	1.7	42
101	Heparan Sulfate Regulates Hair Follicle and Sebaceous Gland Morphogenesis and Homeostasis. Journal of Biological Chemistry, 2014, 289, 25211-25226.	3.4	42
102	Modulation of heparan sulfate in the glomerular endothelial glycocalyx decreases leukocyte influx during experimental glomerulonephritis. Kidney International, 2014, 86, 932-942.	5.2	39
103	Loss of the Heparan Sulfate Sulfotransferase, Ndst1, in Mammary Epithelial Cells Selectively Blocks Lobuloalveolar Development in Mice. PLoS ONE, 2010, 5, e10691.	2.5	36
104	Loss of Corneal Epithelial Heparan Sulfate Leads to Corneal Degeneration and Impaired Wound Healing. , 2015, 56, 3004.		36
105	Glycan susceptibility factors in autism spectrum disorders. Molecular Aspects of Medicine, 2016, 51, 104-114.	6.4	36
106	Whole-Genome Sequencing of Invasion-Resistant Cells Identifies Laminin Î±2 as a Host Factor for Bacterial Invasion. MBio, 2017, 8, .	4.1	36
107	The heparan sulfate proteoglycan grip on hyperlipidemia and atherosclerosis. Matrix Biology, 2018, 71-72, 262-282.	3.6	36
108	Shedding of syndecan-1 from human hepatocytes alters very low density lipoprotein clearance. Hepatology, 2012, 55, 277-286.	7.3	35

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109	Stem domains of heparan sulfate 6-O-sulfotransferase are required for Golgi localization, oligomer formation and enzyme activity. Journal of Cell Science, 2004, 117, 3331-3341.	2.0	34
110	Heparan sulfate primed on Î²-D-xylosides restores binding of basic fibroblast growth factor. Journal of Cellular Biochemistry, 1995, 57, 173-184.	2.6	33
111	Guanidinylated Neomycin Mediates Heparan Sulfateâ€"dependent Transport of Active Enzymes to Lysosomes. Molecular Therapy, 2010, 18, 1268-1274.	8.2	32
112	Prion protein glycans reduce intracerebral fibril formation and spongiosis in prion disease. Journal of Clinical Investigation, 2020, 130, 1350-1362.	8.2	32
113	Heparan Sulfate Modulates Neutrophil and Endothelial Function in Antibacterial Innate Immunity. Infection and Immunity, 2015, 83, 3648-3656.	2.2	30
114	Hepatocyte Heparan Sulfate Is Required for Adeno-Associated Virus 2 but Dispensable for Adenovirus 5 Liver Transduction In Vivo. Journal of Virology, 2016, 90, 412-420.	3.4	30
115	ZNF263 is a transcriptional regulator of heparin and heparan sulfate biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9311-9317.	7.1	30
116	Cooperative, Heparan Sulfateâ€Đependent Cellular Uptake of Dimeric Guanidinoglycosides. ChemBioChem, 2010, 11, 2302-2310.	2.6	29
117	Neurodevelopmental Changes in Excitatory Synaptic Structure and Function in the Cerebral Cortex of Sanfilippo Syndrome IIIA Mice. Scientific Reports, 2017, 7, 46576.	3.3	29
118	Elongated neutrophil-derived structures are blood-borne microparticles formed by rolling neutrophils during sepsis. Journal of Experimental Medicine, 2021, 218, .	8.5	29
119	Cancer-cell-secreted miR-122 suppresses O-GlcNAcylation to promote skeletal muscle proteolysis. Nature Cell Biology, 2022, 24, 793-804.	10.3	29
120	Synthesis and biological evaluation of gem-diamine 1-N-iminosugars related to l-iduronic acid as inhibitors of heparan sulfate 2-O-sulfotransferase. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 532-536.	2.2	27
121	Inhibitory Peptides of the Sulfotransferase Domain of the Heparan Sulfate Enzyme, N-Deacetylase-N-sulfotransferase-1. Journal of Biological Chemistry, 2011, 286, 5338-5346.	3.4	27
122	Surfen and oxalyl surfen decrease tau hyperphosphorylation and mitigate neuron deficits in vivo in a zebrafish model of tauopathy. Translational Neurodegeneration, 2018, 7, 6.	8.0	26
123	Differentiation of 3-O-sulfated heparin disaccharide isomers: Identification of structural aspects of the heparin CCL2 binding motif. Journal of the American Society for Mass Spectrometry, 2009, 20, 652-657.	2.8	24
124	Cell Surface Heparan Sulfate Promotes Replication of <i>Toxoplasma gondii</i>. Infection and Immunity, 2005, 73, 5395-5401.	2.2	23
125	Shortening heparan sulfate chains prolongs survival and reduces parenchymal plaques in prion disease caused by mobile, ADAM10-cleaved prions. Acta Neuropathologica, 2020, 139, 527-546.	7.7	23
126	Dissecting structure-function of 3-O-sulfated heparin and engineered heparan sulfates. Science Advances, 2021, 7, eabl6026.	10.3	23

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127	Synthesis of N-Acetyllactosamine Derivatives with Variation in the Aglycon Moiety for the Study of Inhibition of Sialyl Lewis x Expression. ChemBioChem, 2003, 4, 835-840.	2.6	22
128	Heparan sulfate Ndst1 regulates vascular smooth muscle cell proliferation, vessel size and vascular remodeling. Journal of Molecular and Cellular Cardiology, 2010, 49, 287-293.	1.9	22
129	Loss of Î²-Catenin Induces Multifocal Periosteal Chondroma-Like Masses in Mice. American Journal of Pathology, 2013, 182, 917-927.	3.8	22
130	Glycoside Primers ofPsittacanthus cucullaris. Journal of Natural Products, 1999, 62, 1036-1038.	3.0	21
131	A Genetic Model of Substrate Reduction Therapy for Mucopolysaccharidosis. Journal of Biological Chemistry, 2012, 287, 36283-36290.	3.4	21
132	Small molecule antagonists of cell-surface heparan sulfate and heparinâ€“protein interactions. Chemical Science, 2015, 6, 5984-5993.	7.4	21
133	Heparan sulfate proteoglycans fine-tune macrophage inflammation via IFN-Î². Cytokine, 2015, 72, 118-119.	3.2	21
134	Partial purification and substrate specificity of heparan sulfate Î±-N-acetylglucosaminyltransferase I: synthesis, NMR spectroscopic characterization and in vitro assays of two aryl tetrasaccharides. Glycobiology, 1997, 7, 587-595.	2.5	20
135	Aggregation-Mediated Macromolecular Uptake by a Molecular Transporter. ACS Chemical Biology, 2013, 8, 1383-1388.	3.4	20
136	ApoC-III Glycoforms Are Differentially Cleared by Hepatic TRL (Triglyceride-Rich Lipoprotein) Receptors. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 2145-2156.	2.4	20
137	Podocyte-specific deletion of NDST1, a key enzyme in the sulfation of heparan sulfate glycosaminoglycans, leads to abnormalities in podocyte organization in vivo. Kidney International, 2014, 85, 307-318.	5.2	19
138	Heparan sulfate expression in the neural crest is essential for mouse cardiogenesis. Matrix Biology, 2014, 35, 253-265.	3.6	19
139	Asparagine 405 of heparin lyase II prevents the cleavage of glycosidic linkages proximate to a 3â€<i>O</i>â€sulfoglucosamine residue. FEBS Letters, 2011, 585, 2461-2466.	2.8	18
140	Endothelial and leukocyte heparan sulfates regulate the development of allergen-induced airway remodeling in a mouse model. Glycobiology, 2014, 24, 715-727.	2.5	18
141	Proteomics-based screening of the endothelial heparan sulfate interactome reveals that C-type lectin 14a (CLEC14A) is a heparin-binding protein. Journal of Biological Chemistry, 2020, 295, 2804-2821.	3.4	18
142	Differential Effects of Murine and Human Factor X on Adenovirus Transduction via Cell-surface Heparan Sulfate. Journal of Biological Chemistry, 2011, 286, 24535-24543.	3.4	17
143	GNeosomes: Highly Lysosomotropic Nanoassemblies for Lysosomal Delivery. ACS Nano, 2015, 9, 3961-3968.	14.6	17
144	Plasma Proteome Signature of Sepsis: a Functionally Connected Protein Network. Proteomics, 2019, 19, e1800389.	2.2	17

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145	Insulin-dependent Diabetes Mellitus in Mice Does Not Alter Liver Heparan Sulfate. Journal of Biological Chemistry, 2010, 285, 14658-14662.	3.4	16
146	An affinity chromatography and glycoproteomics workflow to profile the chondroitin sulfate proteoglycans that interact with malarial VAR2CSA in the placenta and in cancer. Glycobiology, 2020, 30, 989-1002.	2.5	16
147	Arylsulfatase K inactivation causes mucopolysaccharidosis due to deficient glucuronate desulfation of heparan and chondroitin sulfate. Biochemical Journal, 2020, 477, 3433-3451.	3.7	16
148	Accumulation of a Pentasaccharide Terminating in Î±-N-Acetylglucosamine in an Animal Cell Mutant Defective in Heparan Sulfate Biosynthesis. Journal of Biological Chemistry, 1995, 270, 12557-12562.	3.4	15
149	Hepatic heparan sulfate is a master regulator of hepcidin expression and iron homeostasis in human hepatocytes and mice. Journal of Biological Chemistry, 2019, 294, 13292-13303.	3.4	15
150	A Golgi-on-a-chip for glycan synthesis. Nature Chemical Biology, 2009, 5, 612-613.	8.0	14
151	Bioengineering murine mastocytoma cells to produce anticoagulant heparin. Glycobiology, 2014, 24, 272-280.	2.5	14
152	Genome-wide screens uncover KDM2B as a modifier of protein binding to heparan sulfate. Nature Chemical Biology, 2021, 17, 684-692.	8.0	14
153	Intra-articular enzyme replacement therapy with rhIDUA is safe, well-tolerated, and reduces articular GAG storage in the canine model of mucopolysaccharidosis type I. Molecular Genetics and Metabolism, 2014, 112, 286-293.	1.1	13
154	Triglyceride-rich lipoprotein binding and uptake by heparan sulfate proteoglycan receptors in a CRISPR/Cas9 library of Hep3B mutants. Glycobiology, 2019, 29, 582-592.	2.5	13
155	Chondrocytes respond to an altered heparan sulfate composition with distinct changes of heparan sulfate structure and increased levels of chondroitin sulfate. Matrix Biology, 2020, 93, 43-59.	3.6	13
156	An altered heparan sulfate structure in the articular cartilage protects against osteoarthritis. Osteoarthritis and Cartilage, 2020, 28, 977-987.	1.3	13
157	Arylsulfatase K is the Lysosomal 2-Sulfoglucuronate Sulfatase. ACS Chemical Biology, 2017, 12, 367-373.	3.4	12
158	Carriers of Loss-of-Function Mutations in EXT Display Impaired Pancreatic Beta-Cell Reserve Due to Smaller Pancreas Volume. PLoS ONE, 2014, 9, e115662.	2.5	12
159	Special Considerations for Proteoglycans and Glycosaminoglycans and Their Purification. Current Protocols in Molecular Biology, 1993, 22, Unit17.2.	2.9	11
160	Downstream Products are Potent Inhibitors of the Heparan Sulfate 2-O-Sulfotransferase. Scientific Reports, 2018, 8, 11832.	3.3	11
161	Delivery of an active lysosomal enzyme using GNeosomes. Journal of Materials Chemistry B, 2016, 4, 5794-5797.	5.8	10
162	Guanidinylated Neomycin Conjugation Enhances Intranasal Enzyme Replacement in the Brain. Molecular Therapy, 2017, 25, 2743-2752.	8.2	10

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163	Regulation of eosinophil recruitment and allergic airway inflammation by heparan sulfate proteoglycan (HSPG) modifying enzymes. Experimental Lung Research, 2018, 44, 98-112.	1.2	10
164	The specificity of the malarial VAR2CSA protein for chondroitin sulfate depends on 4-O-sulfation and ligand accessibility. Journal of Biological Chemistry, 2021, 297, 101391.	3.4	10
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