Sriram Neelamegham

List of Publications by Year
in descending order

110 papers	4,335 citations	87888 38 h-index	128289 60 g-index
120 all docs	120 docs citations	120 times ranked	5813 citing authors

#	Article	IF	Citations
1	Human GlycoEnzymes and Related Genes. , 2023, , 452-472.		2
2	N-acetyl-Î²-D-hexosaminidases mediate the generation of paucimannosidic proteins via a putative noncanonical truncation pathway in human neutrophils. Glycobiology, 2022, 32, 218-229.	2.5	15
3	Comparative Glycomics Analysis of Mass Spectrometry Data. Methods in Molecular Biology, 2022, 2370, 97-113.	0.9	2
4	Forward Genetic Screens of Human Glycosylation Pathways Using the GlycoGene CRISPR Library. Current Protocols, 2022, 2, e402.	2.9	1
5	A GlycoGene CRISPR-Cas9 lentiviral library to study lectin binding and human glycan biosynthesis pathways. Glycobiology, 2021, 31, 173-180.	2.5	24
6	Labeling of Erythrocytes by Porphyrinâ€Phospholipid. Advanced NanoBiomed Research, 2021, 1, 2000013.	3.6	2
7	Compartmental Glycosylation Flux Analysis. IFAC-PapersOnLine, 2021, 54, 287-293.	0.9	0
8	Identification of cell-surface glycans that mediate motility-dependent binding and internalization of Pseudomonas aeruginosa by phagocytes. Molecular Immunology, 2021, 131, 68-77.	2.2	6
9	Efficient inhibition of O-glycan biosynthesis using the hexosamine analog Ac5GalNTGc. Cell Chemical Biology, 2021, 28, 699-710.e5.	5.2	11
10	A systems-based framework to computationally describe putative transcription factors and signaling pathways regulating glycan biosynthesis. Beilstein Journal of Organic Chemistry, 2021, 17, 1712-1724.	2.2	7
11	Neutrophils aid cellular therapeutics by enhancing glycoengineered stem cell recruitment and retention at sites of inflammation. Biomaterials, 2021, 276, 121048.	11.4	1
12	Local complement factor H protects kidney endothelial cell structure and function. Kidney International, 2021, 100, 824-836.	5.2	12
13	Cellular and Molecular Engineering of Glycan Sialylation in Heterologous Systems. Molecules, 2021, 26, 5950.	3.8	4
14	Community evaluation of glycoproteomics informatics solutions reveals high-performance search strategies for serum glycopeptide analysis. Nature Methods, 2021, 18, 1304-1316.	19.0	74
15	DrawGlycan-SNFG and gpAnnotate: rendering glycans and annotating glycopeptide mass spectra. Bioinformatics, 2020, 36, 1942-1943.	4.1	10
16	Doxycycline-Dependent Self-Inactivation of CRISPR-Cas9 to Temporally Regulate On- and Off-Target Editing. Molecular Therapy, 2020, 28, 29-41.	8.2	21
17	A consensus-based and readable extension of Linear Code for Reaction Rules (LiCoRR). Beilstein Journal of Organic Chemistry, 2020, 16, 2645-2662.	2.2	14
18	Robustness in glycosylation systems: effect of modified monosaccharides, acceptor decoys and azido sugars on cellular nucleotide-sugar levels and pattern of N-linked glycosylation. Molecular Omics, 2020, 16, 377-386.	2.8	13

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19	Surfactantâ€Stripped Cabazitaxel Micelles Stabilized by Clotrimazole or Mifepristone. Advanced Therapeutics, 2020, 3, 1900161.	3.2	7
20	Inhibition of SARS-CoV-2 viral entry upon blocking N- and O-glycan elaboration. ELife, 2020, 9, .	6.0	165
21	Updates to the Symbol Nomenclature for Glycans guidelines. Glycobiology, 2019, 29, 620-624.	2.5	292
22	Microclot array elastometry for integrated measurement of thrombus formation and clot biomechanics under fluid shear. Nature Communications, 2019, 10, 2051.	12.8	44
23	von Willebrand factor self-association is regulated by the shear-dependent unfolding of the A2 domain. Blood Advances, 2019, 3, 957-968.	5.2	30
24	Recombinant Sialyltransferase Infusion Mitigates Infection-Driven Acute Lung Inflammation. Frontiers in Immunology, 2019, 10, 48.	4.8	18
25	Selectins and Immune Cells in Acute Myocardial Infarction and Post-infarction Ventricular Remodeling: Pathophysiology and Novel Treatments. Frontiers in Immunology, 2019, 10, 300.	4.8	60
26	B cells suppress medullary granulopoiesis by an extracellular glycosylation-dependent mechanism. ELife, 2019, 8, .	6.0	21
27	The microRNA regulatory landscape of MSC-derived exosomes: a systems view. Scientific Reports, 2018, 8, 1419.	3.3	266
28	Disruption of C1galt1 Gene Promotes Development and Metastasis of Pancreatic Adenocarcinomas in Mice. Gastroenterology, 2018, 155, 1608-1624.	1.3	59
29	Thioglycosides Are Efficient Metabolic Decoys of Glycosylation that Reduce Selectin Dependent Leukocyte Adhesion. Cell Chemical Biology, 2018, 25, 1519-1532.e5.	5.2	27
30	DrawGlycan-SNFG: a robust tool to render glycans and glycopeptides with fragmentation information. Glycobiology, 2017, 27, 200-205.	2.5	70
31	Application of microfluidic devices in studies of thrombosis and hemostasis. Platelets, 2017, 28, 434-440.	2.3	33
32	Bimodal Targeting Using Sulfonated, Mannosylated <scp>PEI</scp> for Combined Gene Delivery and Photodynamic Therapy. Photochemistry and Photobiology, 2017, 93, 600-608.	2.5	7
33	A Comprehensive, Open-source Platform for Mass Spectrometry-based Glycoproteomics Data Analysis. Molecular and Cellular Proteomics, 2017, 16, 2032-2047.	3.8	44
34	Current challenges for the targeted delivery and molecular imaging of stem cells in animal models. Bioengineered, 2017, 8, 316-324.	3.2	6
35	Leukocyte-borne Î±(1,3)-fucose is a negative regulator of Î²2-integrin-dependent recruitment in lung inflammation. Journal of Leukocyte Biology, 2017, 101, 459-470.	3.3	12
36	Role of calcium in regulating the intra- and extracellular cleavage of von Willebrand factor by the protease ADAMTS13. Blood Advances, 2017, 1, 2063-2074.	5.2	11

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37	Role of fluid shear stress in regulating VWF structure, function and related blood disorders. Biorheology, 2016, 52, 319-335.	0.4	82
38	Acquired von Willebrand syndrome associated with left ventricular assist device. Blood, 2016, 127, 3133-3141.	1.4	185
39	Multi-level regulation of cellular glycosylation: from genes to transcript to enzyme to structure. Current Opinion in Structural Biology, 2016, 40, 145-152.	5.7	67
40	Using CRISPR-Cas9 to quantify the contributions of O-glycans, N-glycans and Glycosphingolipids to human leukocyte-endothelium adhesion. Scientific Reports, 2016, 6, 30392.	3.3	47
41	Novel interactions of complex carbohydrates with peanut (PNA), Ricinus communis (RCA-I), Sambucus nigra (SNA-I) and wheat germ (WGA) agglutinins as revealed by the binding specificities of these lectins towards mucin core-2 O-linked and N-linked glycans and related structures. Glycoconjugate Journal, 2016, 33, 819-836.	2.7	14
42	A systematic analysis of acceptor specificity and reaction kinetics of five human Î±(2,3)sialyltransferases: Product inhibition studies illustrate reaction mechanism for ST3Gal-I. Biochemical and Biophysical Research Communications, 2016, 469, 606-612.	2.1	23
43	Glycosphingolipids on Human Myeloid Cells Stabilize E-Selectinâ€“Dependent Rolling in the Multistep Leukocyte Adhesion Cascade. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 718-727.	2.4	32
44	Cell surface glycoengineering improves selectin-mediated adhesion of mesenchymal stem cells (MSCs) and cardiosphere-derived cells (CDCs): Pilot validation in porcine ischemia-reperfusion model. Biomaterials, 2016, 74, 19-30.	11.4	41
45	ST3Gal-4 is the primary sialyltransferase regulating the synthesis of E-, P-, and L-selectin ligands on human myeloid leukocytes. Blood, 2015, 125, 687-696.	1.4	70
46	Integration of systems glycobiology with bioinformatics toolboxes, glycoinformatics resources, and glycoproteomics data. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2015, 7, 163-181.	6.6	23
47	Sulfonated Polyethylenimine for Photosensitizer Conjugation and Targeting. Bioconjugate Chemistry, 2015, 26, 1633-1639.	3.6	9
48	Functionalization of cobalt porphyrinâ€“phospholipid bilayers with his-tagged ligands and antigens. Nature Chemistry, 2015, 7, 438-446.	13.6	112
49	Detection of Plasma Protease Activity Using Microsphere-Cytometry Assays with E. coli Derived Substrates: VWF Proteolysis by ADAMTS13. PLoS ONE, 2015, 10, e0126556.	2.5	2
50	A Computational Framework for the Automated Construction of Glycosylation Reaction Networks. PLoS ONE, 2014, 9, e100939.	2.5	29
51	Overexpression of Î±2,3sialyl T-antigen in breast cancer determined by miniaturized glycosyltransferase assays and confirmed using tissue microarray immunohistochemical analysis. Glycoconjugate Journal, 2014, 31, 509-521.	2.7	26
52	Platelet GpIbÎ± Binding to von Willebrand Factor Under Fluid Shear: Contributions of the D'D3â€Domain, A1â€Domain Flanking Peptide and Oâ€Linked Glycans. Journal of the American Heart Association, 2014, 3, e001420.	3.7	22
53	The use of surface immobilization of P-selectin glycoprotein ligand-1 on mesenchymal stem cells to facilitate selectin mediated cell tethering and rolling. Biomaterials, 2013, 34, 8213-8222.	11.4	45
54	Glycosylation Network Analysis Toolbox: a MATLAB-based environment for systems glycobiology. Bioinformatics, 2013, 29, 404-406.	4.1	26

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55	Distinct glycosyltransferases synthesize E-selectin ligands in human vs. mouse leukocytes. Cell Adhesion and Migration, 2013, 7, 288-292.	2.7	18
56	Silencing Î±1,3-Fucosyltransferases in Human Leukocytes Reveals a Role for FUT9 Enzyme during E-selectin-mediated Cell Adhesion. Journal of Biological Chemistry, 2013, 288, 1620-1633.	3.4	72
57	Competition between Core-2 GlcNAc-transferase and ST6GalNAc-transferase Regulates the Synthesis of the Leukocyte Selectin Ligand on Human P-selectin Glycoprotein Ligand-1. Journal of Biological Chemistry, 2013, 288, 13974-13987.	3.4	44
58	Lipoxin A₄inhibits immune cell binding to salivary epithelium and vascular endothelium. American Journal of Physiology - Cell Physiology, 2012, 302, C968-C978.	4.6	28
59	von Willebrand factor (VWF) propeptide binding to VWF Dâ€²D3 domain attenuates platelet activation and adhesion. Blood, 2012, 119, 4769-4778.	1.4	26
60	The computing platelet: integrating environmental cues. Blood, 2012, 120, 3-4.	1.4	1
61	Characterization of Cancer Associated Mucin Type O-Glycans Using the Exchange Sialylation Properties of Mammalian Sialyltransferase ST3Gal-II. Journal of Proteome Research, 2012, 11, 2609-2618.	3.7	13
62	Understanding Glycomechanics Using Mathematical Modeling: A Review of Current Approaches to Simulate Cellular Glycosylation Reaction Networks. Annals of Biomedical Engineering, 2012, 40, 816-827.	2.5	14
63	Preface to Special Issue: â€œGlycomechanics: Sugar Coating Blood Cellâ€“Endothelial Interactions in Shear Flowâ€• Annals of Biomedical Engineering, 2012, 40, 764-765.	2.5	0
64	Scaling down the size and increasing the throughput of glycosyltransferase assays: Activity changes on stem cell differentiation. Analytical Biochemistry, 2012, 425, 135-144.	2.4	11
65	Mammalian Sialyltransferase ST3Gal-II: Its Exchange Sialylation Catalytic Properties Allow Labeling of Sialyl Residues in Mucin-Type Sialylated Glycoproteins and Specific Gangliosides. Biochemistry, 2011, 50, 9475-9487.	2.5	11
66	Escherichia coli-derived von Willebrand factor-A2 domain fluorescence/FÃ¶rster resonance energy transfer proteins that quantify ADAMTS13 activity. Analytical Biochemistry, 2011, 410, 206-213.	2.4	15
67	Peracetylated 4-Fluoro-glucosamine Reduces the Content and Repertoire of N- and O-Glycans without Direct Incorporation. Journal of Biological Chemistry, 2011, 286, 21717-21731.	3.4	59
68	Systems glycobiology: biochemical reaction networks regulating glycan structure and function. Glycobiology, 2011, 21, 1541-1553.	2.5	46
69	Fluorinated per-acetylated GalNAc metabolically alters glycan structures on leukocyte PSGL-1 and reduces cell binding to selectins. Blood, 2010, 115, 1303-1312.	1.4	59
70	von Willebrand factor self-association on platelet GpIbÎ± under hydrodynamic shear: effect on shear-induced platelet activation. Blood, 2010, 116, 3990-3998.	1.4	75
71	Disulfide trapping of protein complexes on the yeast surface. Biotechnology and Bioengineering, 2010, 106, 27-41.	3.3	10
72	Detection of siteâ€specific glycosylation in proteins using flow cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2009, 75A, 866-873.	1.5	6

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73	Fluid Shear Induces Conformation Change in Human Blood Protein von Willebrand Factor in Solution. Biophysical Journal, 2009, 96, 2313-2320.	0.5	88
74	Application of Fluorescence Spectroscopy to Quantify Shear-Induced Protein Conformation Change. Biophysical Journal, 2009, 97, 2567-2576.	0.5	29
75	Differential Regulation of Neutrophil CD18 Integrin Function by Di- and Tri-Valent Cations: Manganese vs. Gadolinium. Annals of Biomedical Engineering, 2008, 36, 647-660.	2.5	4
76	Harry L. Goldsmith, Ph.D.. Annals of Biomedical Engineering, 2008, 36, 523-526.	2.5	2
77	Reversible Sialylation:â€‰ Synthesis of Cytidine 5â€˜-Monophospho-N-acetylneuraminic Acid from Cytidine 5â€˜-Monophosphate with Î±2,3-Sialyl O-Glycan-, Glycolipid-, and Macromolecule-Based Donors Yields Diverse Sialylated Products^{â€}. Biochemistry, 2008, 47, 320-330.	2.5	24
78	In silico Biochemical Reaction Network Analysis (IBRENA): a package for simulation and analysis of reaction networks. Bioinformatics, 2008, 24, 1109-1111.	4.1	10
79	Systemsâ€level studies of glycosyltransferase gene expression and enzyme activity that are associated with the selectin binding function of human leukocytes. FASEB Journal, 2008, 22, 4154-4167.	0.5	44
80	Systems-level modeling of cellular glycosylation reaction networks: O-linked glycan formation on natural selectin ligands. Bioinformatics, 2008, 24, 2740-2747.	4.1	44
81	Immune complexes formed following the binding of antiâ€“platelet factor 4 (CXCL4) antibodies to CXCL4 stimulate human neutrophil activation and cell adhesion. Blood, 2008, 112, 1091-1100.	1.4	71
82	Quantitative Measurement of Selectin-Ligand Interactions: Assays to Identify a Sweet Pill in a Library of Carbohydrates. , 2006, 347, 343-358.		6
83	Biomechanics of P-Selectin PSGL-1 Bonds: Shear Threshold and Integrin-Independent Cell Adhesion. Biophysical Journal, 2006, 90, 2221-2234.	0.5	24
84	The pattern of glycosyl- and sulfotransferase activities in cancer cell lines: a predictor of individual cancer-associated distinct carbohydrate structures for the structural identification of signature glycans. Carbohydrate Research, 2006, 341, 983-994.	2.3	48
85	Solution Structure of Human von Willebrand Factor Studied Using Small Angle Neutron Scattering*. Journal of Biological Chemistry, 2006, 281, 38266-38275.	3.4	60
86	Solution structure of human blood protein Von Willebrand factor. FASEB Journal, 2006, 20, A657.	0.5	0
87	Affinity and kinetics of selectinâ€carbohydrate interaction. FASEB Journal, 2006, 20, .	0.5	0
88	Sensitivity, principal component and flux analysis applied to signal transduction: the case of epidermal growth factor mediated signaling. Bioinformatics, 2005, 21, 1194-1202.	4.1	58
89	Analysis of the Specificity of Sialyltransferases toward Mucin Core 2, Globo, and Related Structures. Identification of the Sialylation Sequence and the Effects of Sulfate, Fucose, Methyl, and Fluoro Substituents of the Carbohydrate Chain in the Biosynthesis of Selectin and Siglec Ligands, and Novel Sialylation by Cloned Î±2,3(O)Sialyltransferaseâ€. Biochemistry, 2005, 44, 15619-15635.	2.5	28
90	Affinity and Kinetics of Sialyl Lewis-X and Core-2 Based Oligosaccharides Binding to L- and P-Selectin. Biochemistry, 2005, 44, 9507-9519.	2.5	71

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91	Identification of Physiologically Relevant Substrates for Cloned Gal: 3-O-Sulfotransferases (Gal3STs). Journal of Biological Chemistry, 2004, 279, 10032-10041.	3.4	18
92	Cooperativity Between Selectins and Â2-Integrins Define Neutrophil Capture and Stable Adhesion in Shear Flow. Annals of Biomedical Engineering, 2004, 32, 1179-1192.	2.5	11
93	Transport Features, Reaction Kinetics and Receptor Biomechanics Controlling Selectin and Integrin Mediated Cell Adhesion. Cell Communication and Adhesion, 2004, 11, 35-50.	1.0	27
94	Hydrodynamic Forces Applied on Intercellular Bonds, Soluble Molecules, and Cell-Surface Receptors. Biophysical Journal, 2004, 86, 576-588.	0.5	57
95	An analysis tool to quantify the efficiency of cell tethering and firm-adhesion in the parallel-plate flow chamber. Journal of Immunological Methods, 2003, 278, 305-317.	1.4	10
96	PPLATE: a computer program for analysis of parallel-plate flow chamber experimental data. Journal of Immunological Methods, 2003, 278, 319-321.	1.4	2
97	Aspects of hydrodynamic shear regulating shear-induced platelet activation and self-association of von Willebrand factor in suspension. Blood, 2003, 101, 2637-2645.	1.4	210
98	Liposomes Containing Ligands: Binding Specificity to Selectins. , 2002, 199, 175-192.		2
99	Estimating the Efficiency of Cell Capture and Arrest in Flow Chambers: Study of Neutrophil Binding via E-selectin and ICAM-1. Biophysical Journal, 2002, 83, 1934-1952.	0.5	50
100	Nonlinear Flow Affects Hydrodynamic Forces and Neutrophil Adhesion Rates in Coneâ€“Plate Viscometers. Biophysical Journal, 2001, 80, 2631-2648.	0.5	27
101	Synthesis and Application of Fluorescein-Labeled Pluronic Block Copolymers to the Study of Polymerâ^'Surface Interactions. Langmuir, 2001, 17, 537-546.	3.5	49
102	The Ability of Poloxamers to Inhibit Platelet Aggregation Depends on their Physicochemical Properties. Thrombosis and Haemostasis, 2001, 86, 1532-1539.	3.4	30
103	Sequential binding of CD11a/CD18 and CD11b/CD18 defines neutrophil capture and stable adhesion to intercellular adhesion moleculeâ€“1. Blood, 2000, 95, 911-920.	1.4	123
104	Shear and Time-Dependent Changes in Mac-1, LFA-1, and ICAM-3 Binding Regulate Neutrophil Homotypic Adhesion. Journal of Immunology, 2000, 164, 3798-3805.	0.8	56
105	Venous Levels of Shear Support Neutrophil-Platelet Adhesion and Neutrophil Aggregation in Blood via P-Selectin and Î²₂-Integrin. Circulation, 1998, 98, 873-882.	1.6	146
106	The Multistep Process of Homotypic Neutrophil Aggregation: A Review of the Molecules and Effects of Hydrodynamics. Cell Adhesion and Communication, 1998, 6, 263-276.	1.7	20
107	Î²2-Integrins mediate stable adhesion in collisional interactions between neutrophils and ICAM-1-expressing cells. Journal of Leukocyte Biology, 1998, 64, 622-630.	3.3	35
108	Hydrodynamic Shear Shows Distinct Roles for LFA-1 and Mac-1 in Neutrophil Adhesion to Intercellular Adhesion Molecule-1. Blood, 1998, 92, 1626-1638.	1.4	65

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109	A quantitative assay for intercellular aggregation. Annals of Biomedical Engineering, 1997, 25, 180-189.	2.5	3
110	Induction of homotypic lymphocyte aggregation: evidence for a novel activation state of the Î²1 integrin. Journal of Leukocyte Biology, 1996, 59, 872-882.	3.3	10