

Publication List Josef Voglmeir

as of January 2024

104. Yu Y.Y., Zhang S.Y., Sun J.H., Li Y.Y., Zhang Y.Y., Lu A.M., Liu L.†, Voglmeir J.† (2024): Biocatalytic β -glucosylation/ β -galactosylation of Rebaudioside C by glycosynthases. ***Food Materials Research*** (in press).
103. Zhang X., Yu X., Voglmeir J., Wei M., Liu J., Shang Y., Jin W., Wang D, Lyu Y. (2023) Improving the thermostability of *Cyclobacterium marinum* chitin deacetylase by disulfide bond engineering. ***Process Biochemistry*** 133:142-50.
102. Cheng G., Lyu Y., Ran R., Liu L.†, Voglmeir J.† (2023) Expression and in vitro glycosylation of recombinant edible bird nest (EBN) mucin. ***Food Materials Research*** 4:e002.
101. Ahmadipour S., Winsbury R., Köhler D., Pergolizzi G., Nepogodiev S., Chessa S., Dedola S., Wang M., Voglmeir J., Field R.A. (2023): β -1,2-Oligomannan phosphorylase-mediated synthesis of potential oligosaccharide vaccine candidates. ***Carbohydrate Research*** 528, 108807.
100. Liu Y, Hu X., Voglmeir J.†, Liu L.† (2023): N-glycan profiles as a tool in qualitative and quantitative analysis of goat milk adulteration. ***Food Chemistry*** 136116.
99. Guo R.R., Lageveen-Kammeijer G.S.M., Wang W., Dalebout H., Zhang W., Wuhler M., Liu L.†, Heijs B.†, Voglmeir J.† (2023). Analysis of Immunogenic Galactose- α -1,3-galactose-Containing N-Glycans in Beef, Mutton, and Pork Tenderloin by Combining Matrix-Assisted Laser Desorption/Ionization-Mass Spectroscopy and Capillary Electrophoresis Hyphenated with Mass Spectrometry via Electrospray Ionization. ***Journal of Agricultural & Food Chemistry*** 71 (9):4184-4192.
98. Crouch L.I.†, Urbanowicz P.A., Baslé A., Cai Z.P., Liu L., Voglmeir J., Melo Diaz J.M., Benedict S.T., Spencer D.I.R., Bolam D.N.† (2022): Plant N-glycan breakdown by human gut Bacteroides. ***Proceedings of the National Academy of Sciences of the USA*** 119 (39):e2208168119.
97. Chen L.S., Laborda P., Cai Z., Hagan A.K., Lu A., Voglmeir J., Liu L.* (2022): Novel chemical- and protein-mediated methods for glucosamine detection. ***Food Materials Research*** (2), 19.
96. Ghirardello M.*, Zhang Y.Y., Voglmeir J., Galan M.C. (2022): Recent applications of ionic liquid-based tags in glycoscience. ***Carbohydrate Research*** 520:108643.
95. Guo R.R., Zhang T.C., Lambert T.O.T., Wang T., Voglmeir J.†, Rand K.D.†, Liu L.† (2022): PNGase H+ variant from *Rudaea cellulolytica* with improved deglycosylation efficiency for rapid analysis of eukaryotic N-glycans and HDX-MS analysis of glycoproteins. ***Rapid Communications in Mass Spectrometry*** 36 (21):e9376.

*Corresponding Author

†Co-corresponding Author

94. Zhang J., Xia Y., Wang D., Du Y., Chen Y., Zhang C., Mao J., Wang M., She Y.M., Peng X., Liu L., Voglmeir J., He Z., Liu L., Li J. (2022): A Predominant Role of AtEDM1 in Catalyzing a Rate-Limiting Demannosylation Step of an Arabidopsis Endoplasmic Reticulum-Associated Degradation Process. **Frontiers in Plant Science** 13:952246.
93. Gramlich M., Maier S., Kaiser P.D., Traenkle B., Wagner T.R., Voglmeir J., Stoll D., Rothbauer U., Zeck A. (2022): A Novel PNGase Rc for Improved Protein N-Deglycosylation in Bioanalytics and Hydrogen-Deuterium Exchange Coupled With Mass Spectrometry Epitope Mapping under Challenging Conditions. **Analytical Chemistry** 94 (27):9863-71.
92. Hu Z.X, Cheng C., Li Y.Q., Qi X.H., Wang T., Liu L.†, Voglmeir J.† (2022): Recombinant snail sialic acid aldolase is promiscuous towards aliphatic aldehydes. **ChemBioChem** 23(13):e202200074.
91. Cheng C., Hu Z.X., He M., Liu L.†, Voglmeir J.† (2022): Recombinant human N-acetylneuraminidase as a tool to study clinically relevant mutant variants. **Carbohydrate Research** 516: 108561.
90. Velickovic D.*, Yen-Chen L., Thibert S., Velickovic M., Anderton C., Voglmeir J., Stacey G., Zhou M. (2022): Spatial mapping of plant N-glycosylation cellular heterogeneity inside soybean root nodules provided insights into legume-rhizobia symbiosis. **Frontiers in Plant Science** 13:869281.
89. Jin-Min Shi J.M., Wu T.T., Zhou H., Zhang Y.Y., Liu L., Widmalm G.†, Voglmeir J.† (2022): Substrate promiscuities of a bacterial galactokinase and a glucose-1-phosphate uridylyltransferase enable xylose salvaging. **Green Chemistry** (24), 3717-3722.
88. Cao R., Li J.X., Chen H., Cao C., Zheng F., Huang K., Chen Y.R., Flitsch S.L., Liu L.†, Voglmeir J.† (2022): Complete shift in glycosyl donor specificity in mammalian, but not *C. elegans* β 1,4-GalT1 Y286L mutants, enables the synthesis of N,N-diacetyllactosamine. **ChemCatChem** 14, (7) e202101699.
87. Wang T., Liu L.†, Voglmeir J.† (2022): mAbs N-glycosylation: Implications for biotechnology and analytics. **Carbohydrate Research** (514), 108541.
86. Mao H., Li S., Yin B., Lin X., Guo J., Wang T., Voglmeir J.†, Liu L.† (2022). The mechanism of probiotic action of human milk N-glycome towards *B. infantis* ATCC 15697 and identification of the principal functional components. **Food Chemistry** 384, 132532.
85. Lin X., Yao H., Guo J., Huang Y., Wang W., Yin B., Li X., Wang T., Li C., Xu X., Zhou G., Voglmeir J.†, Liu L.† (2022): Protein Glycosylation and Gut Microbiota Utilization Can Limit the In Vitro and In Vivo Metabolic Cellular Incorporation of Neu5Gc. **Molecular Nutrition and Food Research** 66 (5), 2100615.
84. Comamala G., Krogh C.C., Nielsen V.S., Kutter J.P., Voglmeir J., Rand K.D. (2021): Hydrogen/Deuterium Exchange Mass Spectrometry with Integrated Electrochemical Reduction and Microchip-Enabled Deglycosylation for Epitope Mapping of Heavily

*Corresponding Author

†Co-corresponding Author

- Glycosylated and Disulfide-Bonded Proteins. **Analytical Chemistry** 31(11): 2305-2312.
83. Lyu Y., Zheng F., Qiu C., Wang M., Wang D., Zhang X., Voglmeir J., Liu L., Yu X. (2021): Heterologous Expression of a Thermostable Chitinase from *Myxococcus xanthus* and Its Application for High Yield Production of Glucosamine from Shrimp Shell. **Foods** 10(11):2808.
 82. Wang T., Jia X., Liu L.†, Voglmeir J.† (2021): Changes in protein N-glycosylation during the fruit development and ripening in melting-type peach. **Food Materials Research** 1: 2.
 81. Zhang Y.Y., Ghirardello M., Wang T., Lu A.M., Liu L., Voglmeir J.†, Galan M.C.† (2021): Imidazolium labelling permits the sensitive mass-spectrometric detection of N-glycosides directly from serum. **Chemical Communications** 57: 7003-7006.
 80. Han Y.Y., Yue H.Y., Zhang X.Y., Lyu Y.M., Liu L.†, and Voglmeir J.† (2021) Construction and Evaluation of Peptide-Linked *Lactobacillus brevis* β -Galactosidase Heterodimers. **Protein Peptide Letters** 28(2): 221-228.
 79. Cao R., Zhang T.C., Chen Y.R., Cao C., Chen H., Huang Y.F., Fujita M., Liu L.†, Voglmeir J.† (2020): Aberration of Serum and Tissue N-Glycans in Mouse β 1,4-GalT1 Y286L Mutant Variants. **Glycoconjugate Journal** 37(6): 767-775.
 78. Comamala G., Madsen J.B., Voglmeir J., Du Y.M., Jensen P.F., Østerlund E.C., Trelle M.B., Jørgensen T.J.D., Rand K.D. (2020): Deglycosylation by the Acidic Glycosidase PNGase H+ Enables Analysis of N-Linked Glycoproteins by Hydrogen/Deuterium Exchange Mass Spectrometry. **Journal of the American Society for Mass Spectrometry** 31(11): 2305-2312.
 77. Wang M.M., Zhang Y.Y., Yao H.L., Liu L.†, and Voglmeir J.† (2020): Chemoenzymatic Synthesis of a N-Propionyl-Neuraminic Acid Derivative and its Application in the Determination of the Sialic Acid Content in Poultry Eggs. **Science and Technology of Food Industry** TS253.7.
 76. Guo R.R., Comamala G., Yang. H.H., Gramlich M., Du Y.M., Wang T., Zeck A., Rand K.D., Liu L.†, and Voglmeir J.† (2020): Discovery of highly active recombinant PNGase H+ variants through the rational exploration of unstudied acidobacterial genomes. **Frontiers in Bioengineering and Biotechnology** 8:741.
 75. Laborda P., Lyu Y.M., Parmeggiani F., Lu A.M., Wang W.J., Huang Y.Y., Huang K., Guo J., Liu L.†, Flitsch S.†, and Voglmeir J.† (2020): Enzymatic N-Acylation Step Enables the Biocatalytic Synthesis of Unnatural Sialosides. **Angewandte Chemie International Edition** 59, 5308 –5312.
 74. Kulinich A., Wang Q., Duan X.C., Lyu Y.M., Zhang X.Y., Awad F.N., Liu L.†, and Voglmeir J.† (2020): Biochemical characterization of the endo- α -N-acetyl-galactosaminidase pool of the human gut symbiont *Tyzzereella nexilis*. **Carbohydrate Research** 490:107962.
 73. Zhu L., Lu X., Liu L., Voglmeir J., Zhong X., and Yu Q. (2020): *Akkermansia muciniphila* protects intestinal mucosa from damage caused by *S. pullorum* by initiating proliferation of intestinal epithelium. **BMC Veterinary Research** 51(1):34.

*Corresponding Author

†Co-corresponding Author

72. Mohseni A.H., Taghinezhad-Saroukalaei S., and Voglmeir J.* (2020): Recombinant Glycoenzyme Production in Gram-Positive Bacteria - An Overview. ***Trends in Glycoscience and Glycotechnology*** 32(187): E99-E104.
71. Wang T., Liu L., and Voglmeir J.* (2020): Chemoenzymatic synthesis of ultralow and low-molecular weight heparins. ***Biochimica et Biophysica Acta (BBA) - Proteins and Proteomics*** 1868(2): 1400301.
70. Zheng F., Du Y., Lin X., Zhou L., Bai Y., Yu X., Voglmeir J.†, and Liu L.† (2019): N-Glycosylation Plays An Essential and Species-Specific Role in Anti-Infection Function of Milk Proteins Using *Listeria monocytogenes* as the Model Pathogen. ***Journal of Agricultural & Food Chemistry*** 67(38): 10774-10781.
69. Shi Z., Yin B., Li Y., Zhou G., Li C., Xu X.L., Luo X., Zhang X., Qi J., Voglmeir J.†, and Liu L.† (2019): N-glycan profile as a tool in qualitative and quantitative analysis of meat adulteration. ***Journal of Agricultural & Food Chemistry*** 67(37): 10543-10551.
68. Matthey A.P., Birmingham W.R., Both P., Kress N., Huang K., van Munster J.M., Bulmer G.S., Parmeggiani F., Voglmeir J., Martinez J.E.R., Turner N.J., and Flitsch S.L. (2019): Selective Oxidation of N-Glycolylneuraminic Acid Using an Engineered Galactose Oxidase Variant. ***ACS Catalysis*** 9(9): 8208-8212.
67. Zhang Y.Y., Senan A.M., Wang T.†, Liu L.†, and Voglmeir J.† (2019): 1-(2-Aminoethyl)-3-methyl-1H-imidazol-3-ium tetrafluoroborate: synthesis and application in carbohydrate analysis. ***Pure and Applied Chemistry*** 91 (9), 1441-1450.
66. Guo J., Cao C. Li, Y.Q., Liu L.†, and Voglmeir J.† (2019): Heterologous Expression and Activity Study of a Novel Sialic Acid Aldolase Gene Derived from *Pedobacter heparinus*. ***Science and Technology of Food Industry*** 40(5): 136-143.
65. Cai Z.P., Conway L.P., Huang Y.Y., Wang W.J., Laborda P., Wang T., Lu A.M., Yao H.L., Huang K., Flitsch S.L., Liu L.† and Voglmeir J.† (2019): Enzymatic Synthesis of Trideuterated Sialosides. ***Molecules*** 24(7): 1368.
64. Du T., Ouyang H., Voglmeir J., Wilson I.B.H., Jin C. (2019): *Aspergillus fumigatus* Mnn9 is responsible for mannan synthesis and required for covalent linkage of mannoprotein to the cell wall. ***Fungal Genetics & Biology*** (128): 20-28.
63. Lyu Y.M., Li Y.Q., Song H.B., Guo J., Wang T., Liu L., Yedid G., and Voglmeir J.† (2019): A Converging Strategy for the Generation of a Virtually Sequenced cDNA Library from Unreferenced Pacific Oysters. ***Journal of Visualized Experiments*** (148): e59462.
62. Mu C., Cai Z., Bian G., Du Y., Ma S., Su Y., Liu L., Voglmeir J., Huang R and Zhu W. (2019): New Insights into Porcine Milk N-Glycome and the Potential Relation with Offspring Gut Microbiome. ***Journal of Proteome Research*** 18(3): 1114-1124.
61. Wang M., Zheng F., Wang T., Lyu Y.M., Alteen M.G., Cai Z.P., Cui Z.L., Liu L.†, and Voglmeir J.† (2019): Characterization of *Stackebrandtia nassauensis* GH 20 Beta-Hexosaminidase, a Versatile Biocatalyst for Chitobiose Degradation. ***International Journal of Molecular Sciences*** 20(5): 1243.

*Corresponding Author

†Co-corresponding Author

60. Hu X.C., Wang T., Cai Z.P., Liu L.†, and Voglmeir J.† (2019): Study on the Minimal Sugar Structure Substrate of N-Glycosidase PNGase. **Science and Technology of Food Industry** 40(11): 12-17.
59. Wang T., Zheng S.L., Liu L.† and Voglmeir J.† (2019): Development of a colorimetric PNGase activity assay. **Carbohydrate Research** 472: 58-64.
58. Guo B.S., Zheng F., Crouch L., Cai Z.P., Wang M., Bolam D.N., Liu L.†, and Voglmeir J.† (2018): Cloning, purification and biochemical characterisation of a GH35 beta-1,3/beta-1,6-galactosidase from the mucin-degrading gut bacterium Akkermansia muciniphila. **Glycoconjugate Journal** 35(3): 255-263.
57. Du Y.M., Zheng S.L., Liu L., Voglmeir J.†, and Yedid G.† (2018): Analysis of N-glycans from Raphanus sativus Cultivars Using PNGase H+. **Journal of Visualized Experiments** (136): e57979.
56. Song H.B., He M., Cai Z.P., Huang K., Flitsch S.L., Liu L.† and Voglmeir J.† (2018): UDP-glucose 4-epimerase and β -1,4-galactosyltransferase from the oyster *Magallana gigas* as valuable biocatalysts for the production of galactosylated products. **International Journal of Molecular Sciences** 19(6): 1600.
55. Both P., Riese M., Gray C.J., Huang K., Pallister E., Kosov I., Conway L.P., Voglmeir J. and Flitsch S.L. (2018): Applications of a highly α 2,6-selective pseudosialidase. **Glycobiology** 28 (5): 261-268.
54. Huang K., Parmeggiani F., Pallister E., Huang C.J., Liu F.F., Li Q., Birmingham W.R., Both P., Thomas B., Liu L., Voglmeir J.†, Flitsch S.† (2018): Characterisation of a bacterial galactokinase with high activity and broad substrate tolerance for chemoenzymatic synthesis of 6 - aminogalactose - 1 - phosphate and analogues. **Chembiochem: A European Journal of Chemical Biology** 19(4): 388-394.
53. Wang M., Zhang X.Y., Guo R.R., Cai Z.P., Hu X.C., Chen H., Wei S., Voglmeir J.†, Liu L.† (2018): Cloning, purification and biochemical characterization of two β -N-acetylhexosaminidases from the mucin-degrading gut bacterium Akkermansia muciniphila. **Carbohydrate Research** 457: 1-8.
52. Conway L.P., Li Q., Liu F.F., Voglmeir J.* (2018): The Shewanella woodyi galactokinase pool phosphorylates glucose at the 6-position. **Carbohydrate Research** 455: 39-44
51. Awad F.N., Laborda P., Wang M., Lu A.M., Li Q., Cai Z.P., Liu L.†, Voglmeir J.† (2017): Discovery and biochemical characterization of a mannose Phosphorylase catalyzing the synthesis of novel β -1,3-Mannosides. **Biochimica et Biophysica Acta** 1861 (12): 3231-3237.
50. Chen H., Cao C., Kulinich A., Liu L.†, Jung Y.S.†, Voglmeir J.† (2017): Engineering of an episomal plasmid suitable for high-throughput expression in Pichia pastoris. **Combinatorial Chemistry & High Throughput Screening** 20 (8): 726-733.
49. Laborda P., Wang S.Y., Lu A.M., He M., Duan X.C., Qian J.Y., Jung S.Y., Liu L.†, Voglmeir J.† (2017): Diastereoselective One-step Synthesis of 2-Keto-3-deoxy-D-

*Corresponding Author

†Co-corresponding Author

- glycero-D-galacto-nononic acid (KDN) Analogues as Templates for the Development of Influenza Drugs. **Advanced Synthesis & Catalysis** 359 (18): 3120–3125.
48. Li Q., Huang Y.Y., Conway L.P., He M., Wei S., Huang K., Duan X.C., Flitsch S.L., Voglmeir J.* (2017): Discovery and Biochemical Characterization of a Thermostable Glucose-1-phosphate Nucleotidyltransferase from *Thermodesulfatator indicus*. **Protein & Peptide Letters** 24 (8): 729-734.
 47. Wang T., Hu X.C., Cai Z.P., Voglmeir J.†, Liu L.† (2017): Qualitative and Quantitative Analysis of Carbohydrate Modification on Glycoproteins from seeds of *Ginkgo biloba*. **Journal of Agricultural and Food Chemistry** 65 (35): 7669-7679.
 46. Wang M., Wei S., Wang T., , Voglmeir J., Liu L. (2017). Gene cloning, expression, purification and characterization of a beta-N-acetylhexosaminidase from *Solitalea canadensis*. **Acta Microbiologica Sinica** 57 (8):1270-1282.
 45. Wang S.Y., Laborda P., Lu A.M, Wang M., Duan X.C, Liu L.†, Voglmeir J.† (2017). Chemo-enzymatic approach to access diastereopure α -substituted GlcNAc derivatives. **Journal of Carbohydrate Chemistry** 35: 423-434.
 44. Min Y.Q., Duan X.C., Zhou Y.D., Kulinich A., Wang M., Cai Z.P., Ma H.Y., Liu L., Zhang X.L.†, Voglmeir J.† (2017): Effects of Microvirin Mono- and Oligomers on Hepatitis C Virus. **Bioscience Reports** 37 (3): BSR20170015.
 43. Lv Y.M., Laborda P., Huang K., Cai Z.P., Wang M., Lu A.M., Doherty C., Liu L.†, Flitsch S.†, Voglmeir J.† (2017): Highly efficient and selective biocatalytic production of glucosamine from chitin. **RSC Green Chemistry** 19: 527-535.
 42. Wang W.L., Wang W., Du Y.M., Wu H., Yu X.B., Ye K.P., Li C.B., Jung Y.S., Voglmeir J.†, Liu Li.† (2017): Comparison of Anti-Pathogenic Activities of the Human and Bovine Milk N-Glycome: Fucosylation is a Key Factor. **Food Chemistry** 235: 167-174.
 41. Wang W.L., Du Y.M., Wang W., Conway L.P., Cai Z.P., Voglmeir J.† and Liu L.† (2017): Comparison of the Bifidogenic Activity of Human and Bovine Milk N-glycome. **Journal of Functional Foods** 33: 40-51.
 40. Cao C., Wang W.J., Huang Y.Y., Yao H.L., Conway L.P., Liu L.†, Voglmeir J.† (2017): Determination of Sialic Acids in Liver and Milk Samples of Wild-type and Cmah Knock-out Mice. **Journal of Visualized Experiments** (125): e56030.
 39. Cai Z.P., Wang W.L., Conway L.P., Huang K., Awad F.N., Liu L.† and Voglmeir J.† (2017): 1,3-Di(2-dipyridyl)propan-1,3-dione – a new fluorogenic labeling reagent for milk oligosaccharides. **Pure and Applied Chemistry** 89(7): 921-929.
 38. Wang S.Y., Laborda P., Lu A.M., Duan X.C., Ma H.Y., Liu L.†, Voglmeir J.† (2016): N-acetylglucosamine 2-Epimerase from *Pedobacter heparinus*: First Experimental Evidence of a Deprotonation/Reprotonation Mechanism. **Catalysts** 6: 212.
 37. Huang Y., Feng F., Jiang J., Qiao Y., Wu T., Voglmeir J., Chen Z.G. (2017): Green and efficient extraction of rutin from tartary buckwheat hull by using natural deep eutectic solvents. **Food Chemistry** 221: 1400-1405.

*Corresponding Author

†Co-corresponding Author

36. Laborda P., Wang S.Y., Voglmeir J.* (2016): Influenza neuraminidase inhibitors: synthetic approaches, derivatives and biological activity. ***Molecules*** 21(11): E1513.
35. Awad F.N., Kulinich A., Yao M.Y., Duan C.X., Cai Z.P., Gu B., Liu L.† and Voglmeir J.† (2016): Enzymatic Glycosylation of Indoxylglycosides Catalyzed by a Novel Maltose Phosphorylase from *Emericella oligotrophica*. ***Journal of Carbohydrate Chemistry*** 35 (6): 301-314.
34. Gu B., Laborda P., Wei S., Song H.B., Duan X.C., Liu L.†, Voglmeir J.† (2016): Discovery and Biochemical Characterization of the UDP-Xylose Biosynthesis Pathway in *Sphaerobacter thermophilus*. ***Protein & Peptide Letters*** 23 (12): 1103-1110.
33. Wang M.M., Laborda P., Conway L.P., Duan X.C., Huang K., Liu L.†, Voglmeir J.† (2016): An integrated 3D-printed platform for the automated isolation of N-glycans. ***Carbohydrate Research*** 433: 14-17.
32. Conway L.P., Voglmeir J.* (2016): Functional analysis of anomeric sugar kinases. ***Carbohydrate Research*** 432: 23-30.
31. Yao H.L., Conway L.P., Wang M.M., Huang K., Liu L.†, Voglmeir J.† (2016): Quantification of sialic acids in red meat by UPLC-FLD using indoxylsialosides as internal standards. ***Glycoconjugate Journal*** 33 (2): 219-226.
30. Liu S., Kulinich A., Cai Z.P., Ma H.Y., Du Y.M., Lv Y.M., Liu L.†, Voglmeir J.† (2016): The Fucosidase-Pool of *Emericella oligotrophica*: Biochemical Characterisation and Transfucosylation Potential. ***Glycobiology*** 26 (8): 871-879.
29. Liu F.F., Kulinich A., Du Y.M., Liu L.†, Voglmeir J.† (2016): Sequential processing of mannose-containing glycans by two α -mannosidases from *Solitalea canadensis*. ***Glycoconjugate Journal*** 33 (2): 159-168.
28. Du M.Y., Xia T., Gu X.Q., Wang T., Ma H.Y., Voglmeir J.†, Liu L. (2015): A rapid sample preparation methodology for plant N-glycan analysis using acid stable PNGase H[†]. ***Journal of Agricultural and Food Chemistry*** 63(48): 10550-5.
27. Hykollari A., Eckmair B., Voglmeir J., Jin C., Yan S., Vanbeselaere J., Razzazi-Fazeli E., Wilson I.B., Paschinger K. (2015): More than just oligomannose: an N-glycomic comparison of *Penicillium* species. ***Molecular & Cellular Proteomics*** 15(1):73-92
26. Kulinich A., Liu S., Ma H.Y., Lv Y.M., Liu L., Voglmeir J.† (2015): Identification and Characterization of Two Novel Alpha-D-Galactosidases from *Pedobacter heparinus*. ***Protein & Peptide Letters*** 22: 1052-1059.
25. Huang K., Wang M.M., Kulinich A., Yao H.L., Ma H.Y., Martínezc J.E.R., Duan X.C., Chen H., Cai Z.P., Flitsch S.L., Liu L., Voglmeir J.†(2015): Biochemical characterisation of the neuraminidase pool of the human gut symbiont *Akkermansia muciniphila*. ***Carbohydrate Research*** 415: 60-5.
24. Duan X.C., Chen H., Liu F.F., Conway L.P., Wei S., Cai Z.P., Liu L., Voglmeir J.† (2015): One Assay for All: Exploring Small Molecule Phosphorylation using Amylose-Polyiodide Complexes. ***Analytical Chemistry*** 87 (19): 9546-9550.

*Corresponding Author

†Co-corresponding Author

23. Wen S., Zhou G., Song S., Xu X., Voglmeir J., Liu L., Zhao F, Li M., Li L., Yu X., Bai Y., Li C. (2015): Discrimination of in vitro and in vivo digestion products of meat proteins from pork, beef, chicken and fish. **Proteomics** 15 (21): 3688-98.
22. Duan X.C., Lu A.M., Gu B., Cai Z.P., Ma H.Y., Wei S., Laborda P., Liu L., Voglmeir J.[†] (2015): Functional characterization of the UDP-xylose biosynthesis pathway in *Rhodothermus marinus*. **Applied Microbiology and Biotechnology** 99(22): 9463-72.
21. Wei S., Kulinich A., Duan X.C., Liu L. and Voglmeir J.[†] (2015): Discovery and Biochemical Characterization of UDP-Glucose Dehydrogenase from *Granulibacter bethesdensis* **Protein & Peptide Letters** 22: 628-634.
20. Voglmeir J., Laurent N., Flitsch S.L., Oelgeschläger M., Wilson I.B.H. (2015): Biological and biochemical properties of two *Xenopus laevis* N-acetylgalactosaminyltransferases with contrasting roles in embryogenesis. **Comparative Biochemistry and Physiology Part B: Biochemistry and Molecular Biology** 180: 40-47.
19. Voglmeir J. and Flitsch S.L. (2015): Glycosyltransferases. Science of Synthesis, **Biocatalysis in Organic Synthesis** (Thieme): 507-538.
18. Wang T., Cai Z.P., Ma H.Y., Du Y.M., Gu X.Q., Huang K., Voglmeir J.[†] and Liu L. (2014): Discovery and characterization of a novel extremely acidic bacterial N-glycanase with combined advantages of PNGase F and A. **Bioscience Reports** 34 (6): e00149.
17. Cai Z.P., Hagan A.K., Wang M.M., Flitsch S.L., Liu L., Voglmeir J.[†] (2014): 2-Pyridylfuran: A New Fluorescent Tag for the Analysis of Carbohydrates. **Analytical Chemistry** 86: 5179-86.
16. Wang T., Voglmeir J.* (2014): PNGases as valuable Tools in Glycoprotein Analysis. **Protein & Peptide Letters** 21: 976-85.
15. Both P., Green A.P., Gray C.J., Sardzík R., Voglmeir J., Fontana C., Austeri M., Rejzek M., Richardson D., Field R.A., Widmalm G., Flitsch S.L., Evers C.E. (2014): Discrimination of epimeric glycans and glycopeptides using IM-MS and its potential for carbohydrate sequencing. **Nature Chemistry** 6: 65-74.
14. Reyes Martínez J.E., Šardzík S., Voglmeir J., Flitsch S.L.(2013): Enzymatic synthesis of colorimetric substrates to determine α -2,3- and α -2,6-specific neuraminidase activity. **RSC Advances** 3: 21335-21338.
13. Noble G.T., Craven F.L., Voglmeir J., Sardzík R., Flitsch S.L., Webb S.J. (2012) Accelerated enzymatic galactosylation of N-acetylglucosaminolipids in lipid microdomains. **Journal of the American Chemical Society** 134: 13010-13017.
12. Sardzik R., Green A.P., Laurent N., Both P., Fontana C., Voglmeir J., Weissenborn M.J., Haddoub R., Grassi P., Haslam S.M., Widmalm G., and Flitsch S.L. (2012): *Chemoenzymatic synthesis of O-mannosylpeptides in solution and on solid phase*. **Journal of the American Chemical Society** 134: 4521-4524.

*Corresponding Author

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11. Laurent N., Haddoub R., Voglmeir J., and Flitsch S.L. (2012): *MALDI-ToF MS analysis of glycosyltransferase activities on gold surface arrays*. **Methods in Molecular Biology** 808: 269-284.
10. Voglmeir J., Kaloo S., Laurent N., Meloni M.M., Bohlmann L., Wilson I.B., and Flitsch S.L. (2011): *Biochemical correlation of activity of the alpha-dystroglycan-modifying glycosyltransferase POMGnT1 with mutations in muscle-eye-brain disease*. **Biochemical Journal** 436: 447-455.
9. Sardzik R., Sharma R., Kaloo S., Voglmeir J., Crocker P.R., and Flitsch S.L. (2011): *Chemoenzymatic synthesis of sialooligosaccharides on arrays for studies of cell surface adhesion*. **Chemical Communications** 47: 5425-5427.
8. Voglmeir J., Sardzik R., Weissenborn M.J., and Flitsch S.L. (2010): *Enzymatic glycosylations on arrays*. **Omics: A Journal of Integrative Biology** 14: 437-444.
7. Schiller B., Hykollari A., Voglmeir J., Poltl G., Hummel K., Razzazi-Fazeli E., Geyer R., and Wilson I.B. (2009): *Development of Dictyostelium discoideum is associated with alteration of fucosylated N-glycan structures*. **Biochemical Journal** 423: 41-52.
6. Zhi Z.L., Laurent N., Powell A.K., Karamanska R., Fais M., Voglmeir J., Wright A., Blackburn J.M., Crocker P.R., Russell D.A., Flitsch S., Field R.A., and Turnbull J.E. (2008): *A versatile gold surface approach for fabrication and interrogation of glycoarrays*. **ChemBioChem: A European Journal of Chemical Biology** 9: 1568-1575.
5. Laurent N., Voglmeir J., Wright A., Blackburn J., Pham N.T., Wong S.C., Gaskell S.J., and Flitsch S.L. (2008): *Enzymatic glycosylation of peptide arrays on gold surfaces*. **ChemBioChem: A European Journal of Chemical Biology** 9: 883-887.
4. Laurent N., Voglmeir J., and Flitsch S.L. (2008): *Glycoarrays--tools for determining protein-carbohydrate interactions and glycoenzyme specificity*. **Chemical Communication** 37: 4400-4412.
3. Laurent N., Haddoub R., Voglmeir J., Wong S.C., Gaskell S.J., and Flitsch S.L. (2008): *SPOT synthesis of peptide arrays on self-assembled monolayers and their evaluation as enzyme substrates*. **ChemBiochem: A European Journal of Chemical Biology** 9: 2592-2596.
2. Voglmeir J., Voglauer R., and Wilson I.B. (2007): *XT-II, the second isoform of human peptide-O-xylosyltransferase, displays enzymatic activity*. **Journal of Biological Chemistry** 282: 5984-5990.
1. Brunner A., Kolarich D., Voglmeir J., Paschinger K., and Wilson I.B. (2006): *Comparative characterisation of recombinant invertebrate and vertebrate peptide O-Xylosyltransferases*. **Glycoconjugate Journal** 23: 543-554.

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