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Lothar Elling is Head of the Laboratory for Biomaterials and a member of the Directors Board in the Helmholtz-Institute for Biomedical Engineering. His research focus lies in the area of glycobiotechnology/biocatalysis regarding the topics: - Combinatorial biocatalysis/enzyme cascades for the synthesis of glycoconjugates (The Golgi Glycan Factory) - Biofunctionalization of biomaterials with glycoconjugates as biomolecular recognition structures for lectins (The Glyco-BioInterface). He has published over 120 original papers and book chapters and filed several patents.
Lothar Elling studied Biology and received his Doctor degree (1988) from RWTH Aachen University under the supervision of Professor Dr. H. Zahn. With a post-doctoral fellowship of the German Ministry for Education and Research, he joined the Institute for Enzyme Technology of the Heinrich-Heine-University Düsseldorf in the Research Center Jülich, in 1988, working with Professor Dr. Dr. h.c. Maria-Regina Kula. In 1990, he became research associate heading the research group “Enzymes in Oligosaccharide Synthesis” at the same institute. In 1997, he finished his “Habilitation” and received the *venia legendi* for Enzyme Technology. Since October 2001, he is a Professor at RWTH Aachen University.

Selected publications:

Heinzler, R., Fischöder, T., Elling, L. and Franzreb, M. (**2019**). Toward Automated Enzymatic Glycan Synthesis in a Compartmented Flow Microreactor System. Adv. Synth. Catal. 361, 4506-4516.

Heine, V., Boesveld, S., Pelantová, H., Křen, V., Trautwein, C., Strnad, P. and Elling, L. (**2019**). Identifying Efficient Clostridium difficile Toxin A Binders with a Multivalent Neo-Glycoprotein Glycan Library. Bioconj. Chem., doi: 10.1021/acs.bioconjchem.9b00486

Fischöder, T., Wahl, C., Zerhusen, C. and Elling, L. (**2019**). Repetitive Batch Mode Facilitates Enzymatic Synthesis of the Nucleotide Sugars UDP-Gal, UDP-GlcNAc, and UDP-GalNAc on a Multi-Gram Scale. Biotechnol. J. 14, doi:10.1002/biot.201800386.

Fischöder, T., Cajic, S., Grote, V., Heinzler, R., Reichl, U., Franzreb, M., Rapp, E. and Elling, L. (**2019**). Enzymatic Cascades for Tailored ^{13}C6 and ^{15}N Enriched Human Milk Oligosaccharides. Molecules 24, 3482.

Eisele, A., Zaun, H., Kuballa, J. and Elling, L. (**2018**). In Vitro One-Pot Enzymatic Synthesis of Hyaluronic Acid from Sucrose and N-Acetylglucosamine: Optimization of the Enzyme Module System and Nucleotide Sugar Regeneration. ChemCatChem 10, 2969-2981.

Laaf, D., Bojarová, P., Pelantová, H., Křen, V. and Elling, L. (**2017**). Tailored Multivalent Neo-Glycoproteins: Synthesis, Evaluation, and Application of a Library of Galectin-3-Binding Glycan Ligands. Bioconj. Chem. 28, 2832-2840.

Wahl, C., Hirtz, D. and Elling, L. (**2016**). Multiplexed Capillary Electrophoresis as Analytical Tool for Fast Optimization of Multi-Enzyme Cascade Reactions – Synthesis of Nucleotide Sugars. Biotechnol. J. 11, 1298-1308.