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PRODUCTION OF COMPLEX HUMAN GLYCOPROTEINS IN YEAST

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Recent advances in the Glycobiology field have helped to establish a relationship between therapeutic protein function and glycosylation structures. Most of these studies rely on the comparison of mixed glycoforms, which complicate the clear interpretation of distinct structure activity relationships. We describe the use of combinatorial genetic libraries to engineer yeast cells that perform entirely human-like glycosylation with exceptional fidelity and uniformity. The use of these libraries to elucidate structure function relationships of glycoproteins and the ability to manufacture complex glycoproteins with unprecedented control over glycosylation will be discussed.

John S. Axford (ed.), Glycobiology and Medicine, 139.