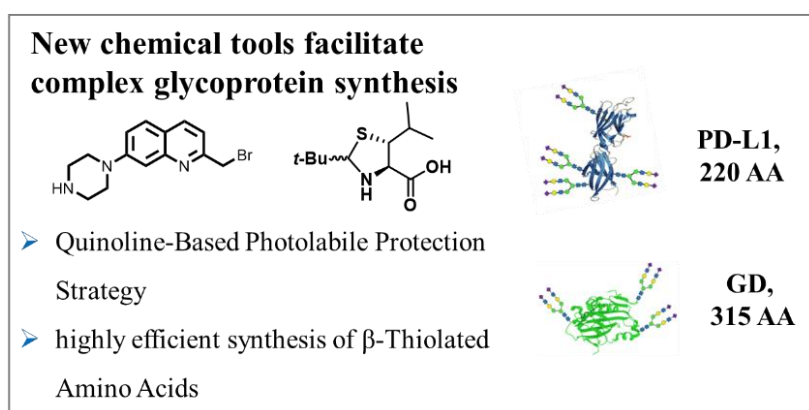


## CHEMICAL SYNTHESIS AND FUNCTIONAL STUDY OF COMPLEX GLYCOPROTEINS

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Protein glycosylation plays a key role in all aspects of life activities. Glycosylation is controlled by a variety of glycosyltransferases and glycosidases, resulting in its high heterogeneity. Chemical synthesis of glycoprotein can provide homogeneous glycoproteins. However, the process is complicated and usually provides a small amount of glycoprotein. We developed an efficient method for the preparation of thiolated amino acids and selective protection of thiol group using quinoline protecting group. These methods provide powerful solutions for the synthesis of large glycoproteins.



**Figure. 1** Chemical synthesis of complex glycoproteins

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