

Glycosylation as a Tool for Biomarker Discovery in Cancer using Exosomes

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Summary

Analysis of glycans (complex carbohydrates attached to protein or lipids) is a hot scientific discipline, especially for disease diagnostics including diagnostics of various types of cancer. The main reason behind that statement is the fact that 70% of all intracellular proteins and 80% of membrane proteins are glycosylated. Thus, glycoproteins are new types of biomolecules that can be used as disease biomarkers.

The lecture will provide an introduction showing why glycans and exosomes are so promising as cancer biomarkers. For example, glycans are information-rich molecules involved in many physiological and pathological processes. Part of the lecture will be devoted to showing how new biomarkers are validated and what are the hot trends in the diagnosis of various types of cancer.

The final part of the lecture will be devoted to describing what exosomes are, and how they can be isolated and used in cancer diagnostics with a focus on glycan analysis.

Acknowledgement

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