Glyco(proteo)mic workflows for cancer biomarker discovery

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Stellingen behorend bij het proefschrift getiteld

Glyco(proteo)mic Workflows for Cancer Biomarker Discovery

1. A mono-glycosylated protein such as prostate-specific antigen shows incredible diversity *(This thesis)*, therefore multi-glycosylated proteins must show even greater complexity.
2. Proteoform characterization at the intact protein level requires corroboration from more in-depth approaches. *(This thesis)*
3. Sialic acid derivatization of fluorescently labeled *N*-glycans followed by RPLC-MS is a “match made in heaven” for *N*-glycan analysis and isomer differentiation. *(This thesis)*
4. *N*-glycan isomer differentiation is relevant for biomarker studies. *(This thesis)*
5. Longitudinal analysis of total serum *N*-glycosylation in relation to clinical events is a useful monitoring and prognostic tool. *(This thesis)*
6. Begin at the end; biomarker translation will improve by considering the requirements of the clinical laboratory.
7. “When the student is ready, the teacher appears” (*proverb*) – previous work can highlight novel information when explored with a new mindset or technology.
8. Increasing the power of glyco(proteo)mic studies without also improving data processing throughput is like putting the cart before the horse.
9. Mass spectrometry is inherently forensic; a suspected molecule’s identity is investigated by gathering (mass) clues and questioning (separation) witnesses.
10. Asking questions is a great way to introduce oneself and find new collaborations.
11. The most dreaded yet important phrase in science is, “that’s… interesting”.
12. The self-awareness, relationships and experiences gained during a PhD are arguably as important as the PhD itself.