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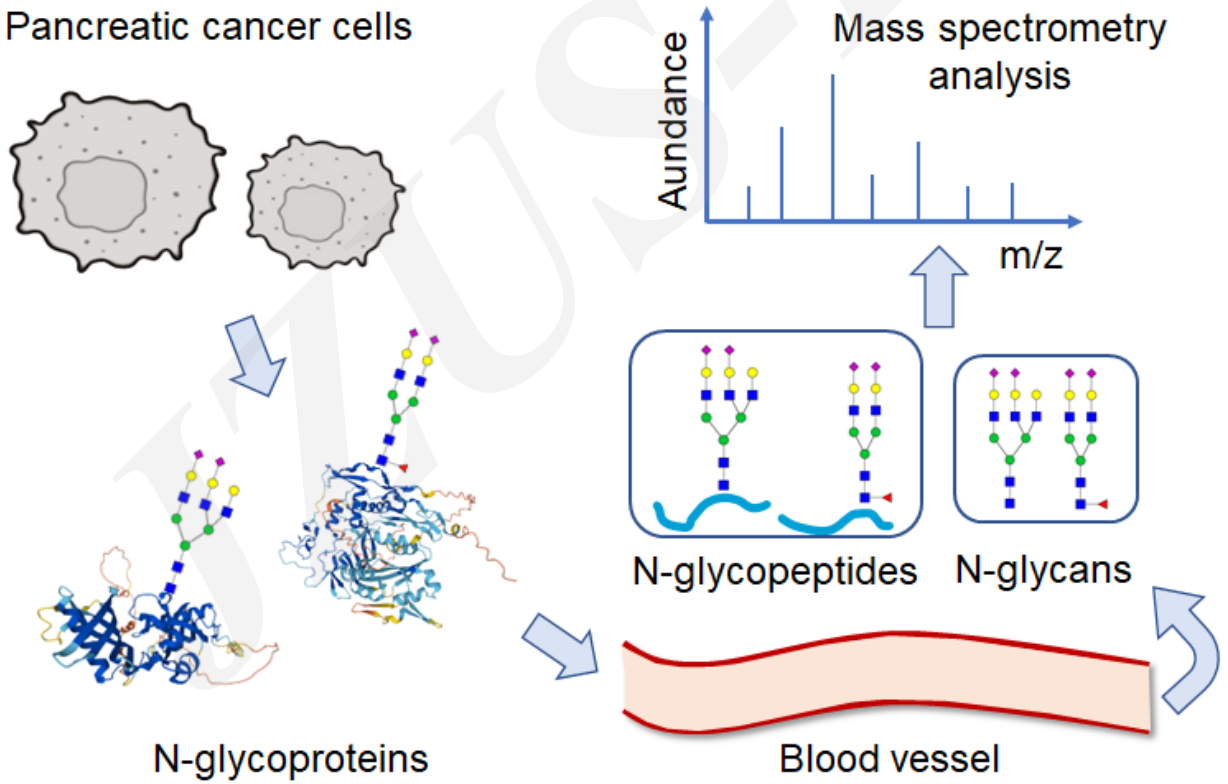
# Mass spectrometry analysis of intact protein *N*-glycosylation signatures of cells and sera in pancreatic adenocarcinomas

**Key words: Pancreatic cancer, Glycosylation, Biomarker, Glycoproteomics, Mass spectrometry**

# *Research Summary*

**A comprehensive approach involving MS analysis was conducted to elucidate detailed N-glycosylation changes in PDAC cell lines and sera:**

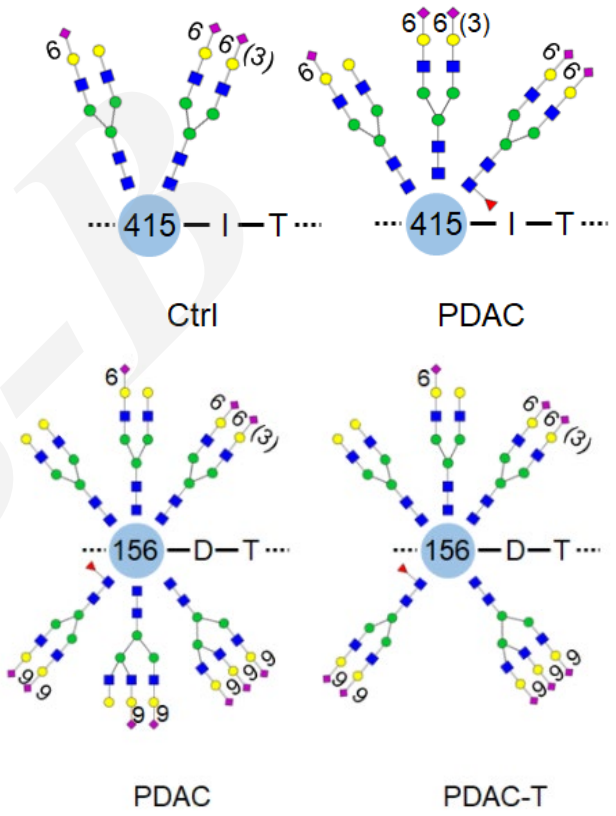


# *Innovation points*

- **PDAC-unique N-glycoforms**
  **can reflect the disease pathogenesis.**

- **Surgery and chemotherapy**
  **can inhibit N-glycosylation in PDAC patients' sera.**

- **Certain criteria was provided for the identification of ideal PDAC serum N-glycosylation biomarkers.**




Uniqueness in PDAC compared to healthy controls

The PDAC-D group is unaffected

Changes are partially or completely reversed by clinical treatment