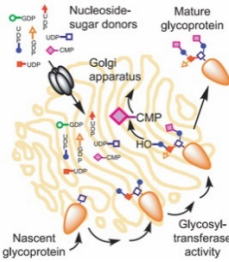


Glycomics project



Many Danish biotechnology companies develop and produce drugs in the form of hormones, antibodies and other proteins. The consortium will develop better and more stable methods for the manufacture of proteins.

Most protein-based drugs are produced in genetically modified animal cells, which can set different sugar structures on proteins - sugar structures that are essential for the functioning and effectiveness of medicines. The correct incorporation of the sugar structures (glykosylering) may however be difficult to achieve when the cell factory; pressed to high performance under large-scale production.

The development of new methods to ensure optimal incorporation of the sugar structures of protein-based medicines is considered to be crucial for Danish biotech businesses as it allows the development of new safe and effective products. A controlled, optimal production process will also meet the increasing demands for documentation of products and production processes.

The consortium will combine advanced glykobiology (University of Copenhagen) with research on modelling of cell metabolic processes (DTU). The aim is to develop a mathematical model of the glykosylering process and thereby identify essential genes, enzymes and process conditions during the production of pharmaceuticals. The developed models will be unique in this area of production and may help to ensure optimal production and hence high product quality.

Stobbe Tech was invited to participate in the project with the scope of developing a product within the CellCore technology. Numerous tests in the lab at Bioneer guided the process towards the final product – a matrix based perfusion Single-Use-Bioreactor for cultivation of mammalian cells.

Partners in “Centre for Bio manufacturing of Glycooptimized Therapeutics”:

- Biogen IDEC Aps - www.biogenidec.dk
- CMC Biopharmaceuticals A/S - www.cmcbio.com
- Glycotope GmbH
- Novo Nordisk A/S – www.novonordisk.com
- Stobbe Tech A/S – www.stobbe.com
- Symphogen A/S - www.symphogen.com
- University of Copenhagen – www.ku.dk
- DTU, Danish Technical University – www.bio.dtu.dk
- Bioneer A/S – www.bioneer.dk

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Duration: 2007-2011