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Bioprocess facility for test of Engineered CHO cell lines in Single-use bioreactors

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The CHO project group

CHO project group (Scientific and CORE sections) focus is to develop new cell lines with improved homogenous glycosylation of product, titer/yield, growth profile, together with improved downstream processing. In the CORE section the findings of the CHO scientific sections are translated into an industrial relevant context by high throughput generation and screening of genetically manipulated CHO cell lines through an iterative loop. To evaluate whether or not the genetic manipulations improved cell performance, the cell are rigorously tested within the Bioprocess facility.

The iterative loop

Cell lines tested in 250 mL DASgip Bioreactors

Viable cell conc. and IgG conc. in WT and KO CHO cells

Key Activities/Deliveries of the Bioprocess Facility

- Development and description of standard fed-batch bioprocess for test.
- Verification of new cell performance including: bioprocess reproducibility, cell line robustness, product quality (product stability and glycosylation pattern) and yield/titer.
- To generate cultivations data for mathematical modelling of growth, morphology, apoptosis, transcript-omics, metabolomics, proteomics, glycomics, fluxomics.

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