



CHO-Cell Technology & Engineering

Chinese Hamster Ovary cells are the gold standard for production of biologicals. However, CHO cells can be very challenging to optimize – we can help you with our deep understanding and many years of experience!

BACKGROUND

CHO-cells produce proteins with characteristics very similar to those in humans and thus are commonly used for production of therapeutics. Despite large improvements, however, the development and optimization of CHO-cell lines is often difficult and time-consuming.

TECHNOLOGY

acib has been involved in CHO cell genomic research from the beginning, including generation of a reference genome within an International consortium (<https://chogenome.org/>). Using transcriptomics, proteomics, metabolomics and noncoding RNA-omics, acib can characterize newly generated subclones or cell lines under different process conditions. This information is used to streamline CLD or optimise processes, supported by computational predictions using a genome-scale metabolic model. We also offer tools for targeted engineering approaches, e.g. CRISPR/Cas9 based targeted integration into predicted hot spots or modulation of gene expression levels by epigenetic engineering. Combined, acib's expertise provides industrial partners with a deeper understanding of the limitations of their specific system with respect to productivity, growth and product quality, while also providing strategies to overcome these, to achieve reduced time to market and lower production costs.

More information on our CHO-cell-expertise is available here:
https://www.acib.at/downloads/Folder_CTF_2022.pdf

OFFER

Under protection of a CDA/NDA we provide detailed characterisation of your cell line and strategies for generating a tailored CHO-cell line or expression of your gene of interest. We can provide just a concept (2-3 month) or the wet-lab proof-of-concept (3-12 months). Any IP developed would fully belong to the investor/industrial partner.

EXPERTS

Prof. Dr. Nicole Borth
Dr. Martina Baumann

AVAILABLE FOR

- Investments
- Joint Research Projects
- Contract Research

DEVELOPMENT STATUS

Technology Readiness Level 1-5

IPR

Will be generated for our industrial partner / investor

KEYWORDS

- CHO-Cells
- Therapeutic Proteins
- Production Cell Line
- Reference Genome
- Epigenetics
- Metabolic Model
- Cell Engineering
- Reliability
- Stability
- Productivity

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