



Tentative project offers for master thesis projects spring 2023 at Gyros Protein Technologies

About Gyros Protein Technologies

Gyros Protein Technologies provides enabling peptide synthesis and bioanalytical solutions, helping scientists in research through bioprocess applications. Our peptide synthesizers and chemistries deliver uncompromising purity, flexibility and quality in less time. Sensitive, accurate and robust nanoliter-scale immunoassays for pharmacokinetics/pharmacodynamics, immunogenicity and quantitating bioprocess impurities and viral titer are performed on our proprietary platforms [Gyrolab™ xPand and Gyrolab xPlore™]. Peptide synthesis and bioanalytical solutions: accelerate your discovery, development and manufacturing of safer biotherapeutics. Gyros Protein Technologies is a division of Mesa Laboratories. <https://www.gyrosproteintechnologies.com/>

Background

Gyrolab technology offers fully automated miniaturized immunoassays simplifying the workflow with increased performance. Immunoassay techniques are widely used for determination of the concentration of biomolecules in wide range of applications in life science. It has been used in established areas like drug and vaccine development and in vitro diagnostics for decades, but also it is also used in new emerging fields including cell and gene therapy. The ELISA technique has been the gold-standard but new more efficient techniques with improved performance are replacing this methodology.

Master thesis projects

3. Development of specific host cell protein assays

The manufacturing and the development of biologic drugs involves expression of the drugs in a host cell followed by purification processes. Bioanalytical methods to measure impurities (host cell proteins) to obtain a robust process and a safe drug according to regulatory requirements is necessary. There are a range of analytical methods available to detect host cell proteins including immunoassay and mass spectrometry-based technologies. Gyrolab immunoassays is suitable to detect the complete mixture of host cell proteins and supplies generic kits for this purpose. With the development of mass spectrometric technologies specific host cell proteins are identified and the need for concentration measurements of specific host cell proteins arise.

In this project a panel of specific HCP assay will be developed to complement current generic HCP assays.

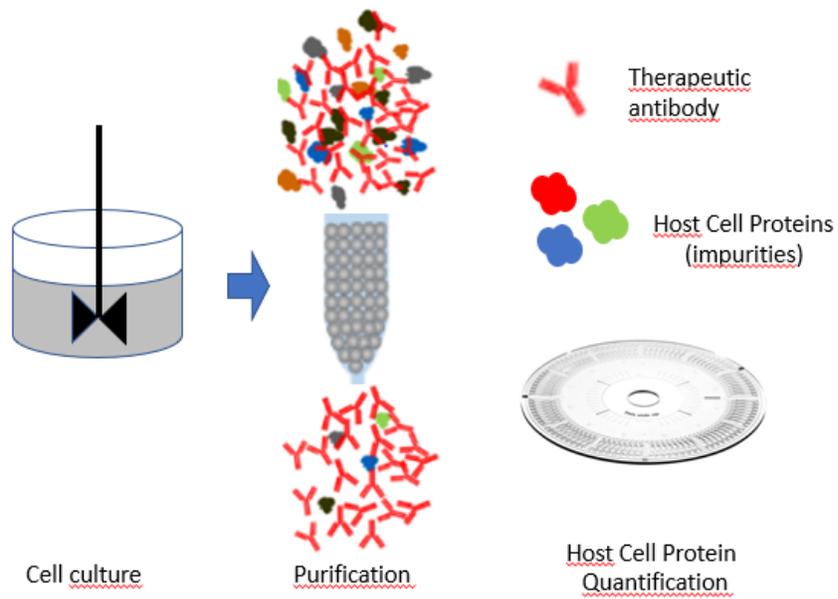


Figure 3: Workflow for therapeutic antibody production including cell culture, purification steps and host cell protein measurements.

Apply by sending your application letter and CV to sara.sandstedt@gyrosproteintech.com