

Processing of viral vectors and vaccines

Vaccines and gene therapy vectors are in high demand leading to challenging timelines for delivering sufficient amounts in highest quality. acib has both, the facilities and the expertise to provide you with fast and efficient production processes ...

BACKGROUND

The critical and cost driving step in the development of viral and virus like particles, is the production process which requires not only a deep understanding of the process mechanisms, but also high-throughput analytical tools, and state-of-the-art up- and downstream processing equipment. acib has everything you need and in addition to expertise in viral vectors and particle expression in cell culture, also extensive know-how in purification processes for virus-like particles (VLPs) and other bionano-particles such as extra-cellular vesicles (e.g. exosomes).

TECHNOLOGY

acib's upstream processing infrastructure consists of bioreactor systems configured for cell culture (mammalian or insect cells) and virus applications up to 10L and a parallel multibioreactor system. Both can be combined with an alternating tangential flow system to deliver high cell concentrations and process intensification. For downstream processing we provide a pilot-scale continuous ultracentrifuge with a fluid handling system and a preparative chromatography with MALS detector. This equipment is complemented by advanced analytical tools like nanoparticle tracking analysis, microflow cytometer, asymmetric flow field-flow fractionation and analytic HPLC with UV-MALS-DLS-RI detector. All equipment is in a dedicated BSL2 facility and can be made available for joint projects or to external users!

Detailed information on our equipment and expertise is available here: https://www.acib.at/wp-content/uploads/BNP_Folder_Ir.pdf

OFFER

We provide you with professional strategies and infrastructure to develop the best in-process control tools and production/purification processes for your vaccines and gene therapy vehicles.

EXPERTS

Dr. Patricia Pereira Aguilar

Prof. Dr. Alois Jungbauer

Prof. Dr. Reingard Grabherr

Prof. Dr. Gerald Striedner

Dr. Peter Satzer

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AVAILABLE FOR

- Investments
- Joint Research Projects
- Contract Research

DEVELOPMENT STATUS

Status of the project proposal – Technology Readiness Level TRL 4 – 6 (Prototype System validated and available in BSL2 environment)

KEYWORDS

- Virus
- Virus-like particle (VLP)
- Viral Vector
- Vaccine
- Process development
- Vaccine
- Gene therapy

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