



# Bionanoparticle Process Development

Vaccines have great importance for public health. In order to meet short time lines for providing sufficient amounts of vaccine during times of pandemics it is crucial to have fast and efficient production processes in place.

acib has expertise and infrastructure in place to develop production/purification processes for all kinds of bionanoparticles.

## BACKGROUND

Bionanoparticles, i.e. viruses, virus-like particles (VLP) or extra-cellular particles such as exosomes, are the next generation of biopharmaceuticals used for vaccines, gene therapy and immunotherapy. Bottleneck in rapid development of these advanced medicines are the lack of understanding of the process mechanisms, best choice of process units and scale-up of up- and downstream production processes, as well as the lack of high-throughput analytical tools for bionanoparticle detection and identification in complex mixtures.

## TECHNOLOGY

At acib, in collaboration with BOKU, we established a full set of instruments and expertise to develop integrated bioprocessing and analytical methods for generation of process understanding and characterization of bionanoparticle production and purification. Sophisticated infrastructure is established in a BSL2 facility at acib/BOKU which can be made available to partners in collaborative projects and also to external users.

## OFFER

We provide you with professional strategies and infrastructure to develop in-process control tools and production/purification processes for modern vaccines and gene therapy vehicles based on different types of bionanoparticles.

## EXPERTS

Prof. Dr. Alois Jungbauer  
Dr. Gerald Striedner  
Dr. Patricia Pereira Aguilar  
Dr. Peter Satzer  
Dr. Verena Beck

## AVAILABLE FOR

Joint Research Projects

## 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
- Bionanoparticle
- Process development
- Vaccine
- Gene therapy

## CONTACT

**acib GmbH, Krenngasse 37, 8010 Graz**

☎ +43 316 873 9316

✉ [bd@acib.at](mailto:bd@acib.at)

🌐 [www.acib.at](http://www.acib.at)



Image: Pixabay