

# CSSB Protein Production Core Facility

## Welcome to the Protein Production Core Facility

The **Protein Production Core Facility** offers all steps of protein production consisting of the mutagenesis and cloning of target genes in expression vectors, their heterologous expression in prokaryotic and eukaryotic hosts, as well as the subsequent purification of the corresponding proteins as a service. In addition to the full service, in which the employees of the facility carry out the work, the users can carry out the work in the facility under the supervision of the facility team. The service includes advice on the selection of suitable strategies, the provision and optimization of suitable protocols, the instruction and use of the required equipment and the provision of the required vectors, cell lines, chromatography materials and all necessary consumables.

Specifically, the following services are provided:

- Cloning and mutagenesis
- Protein purification using Äkta Pure chromatography devices
- Cultivation of prokaryotic and eukaryotic cells of risk group R2 or security level S2
- Development and optimization of protein purification protocols
- Transformation of prokaryotic cells
- Automation of protein purification protocols
- Transfection of insect cells and mammalian cells
- Biochemical characterization (SDS/native PAGE, IEF, Western Blotting)
- High-throughput heterologous expression screening in *E. coli* and insect cells in plate format
- Biophysical characterization (stability measurements using microscale thermophoresis)
- Heterologous expression in *E. coli*, insect cells and mammalian cells
- *E. coli* strain collection
- Cell harvest and cell lysis
- Expression vector library
- Ultracentrifugation and cell membrane isolation
- NEB freezer

The facility is a fee-for-service (non-profit) technology platform. We provide support and expertise for local scientists, the international research community and users from industry. All users must follow a safety training before working in our laboratories. All users are required to undergo training before access to the individual instruments is granted. Currently the biosafety training is given onsite. Please get in touch with us to discuss your specific needs. More information can be found in the [User Guidelines](#) section.

Please acknowledge any substantial contributions of the PPCF to your research in publications. Please state the following in the acknowledgement section of your publication: "We acknowledge technical support by the PP facility at CSSB Hamburg". Please don't forget to let us know when you publish papers that acknowledge us. This will help us keep track and to justify the existence of the facility to funding bodies.

## Our Team

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### Frequently asked questions

- **How to use our confluence...**
- **Highlight important documentation.**

### Need more help?

- **Link to resources such as your service desk, questions & answers or a forum.**
- **List contacts for getting additional help.**



- **Book all our equipment online [here](#)**

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