

Facility description

Name of facility: Protein production facility, PPF

1) Services of facility

a) Deliverables:

- i) Access to the equipment of the facility (item c)
- ii) Standard protein production consumables (item d)
- iii) Initial training of users

b) Financing

- i) User access fee of currently 3000 dkr. per month, if access to the insect and HEK cell lab is required the cost is extra 2000 dkr. per month; minimum binding period 3 months.
(Bachelor students half fee)

c) Equipment

- i) PCR machines for molecular cloning
- ii) Agarose gel electrophoresis cells
- iii) Agarose gel display system
- iv) Shakers for bacterial cell culture
- v) Incubators for insect cell culture (BEVS)
- vi) Microscope and cell counting system
- vii) LAF benches including one dedicated for virus work
- viii) qPCR system for e.g. virus titer determination
- ix) CO₂ incubators for mammalian cell culture
- x) Centrifuges: Small, medium, large and high speed ultracentrifuge
- xi) French press cell disrupter
- xii) Ultra sound cell disrupter
- xiii) Native PAGE/SDS-PAGE/Western blotting equipment
- xiv) Nanodrop spectrophotometers
- xv) Systems for column based preparative protein purification (5^o C and room temperature)
- xvi) HPLC system for analytical gel filtration
- xvii) Buffer preparation laboratory
- xviii) Thermostated rooms (5^o and 20^o C) equipped with microscopes for crystallization studies
- xix) Autoclave
- xx) Crystallization robot
- xxi) Cryoplunger for grid preparation (CryoEM)

- d) Consumables provided
 - i) Standard cloning vectors
 - ii) Kits for DNA prep
 - iii) Restriction enzymes
 - iv) Polymerases (Taq and Phusion DNA polymerase)
 - v) Chemicals for standard biological buffers (MES, Tris, HEPES etc.)
 - vi) Pipet tips
 - vii) Falcon tubes
 - viii) Microtubes
 - ix) Slides for cell counting
 - x) 24 well crystallization plates for sitting/hanging drop experiments
 - xi) Siliconized plate cover slides
 - xii) Crystallization screens
 - xiii) Petri dishes
 - xiv) 96/384 well plates
 - xv) LB, TBE and autoinduction media for bacterial expression
 - xvi) Antibiotics for bacterial/cell selection
 - xvii) SOC media for bacterial transformation
 - xviii) E. coli competent cell lines
 - xix) High Five and Sf9 insect cell stocks
 - xx) Jones plasmid for virus generation
 - xxi) HEK293F cell stock
 - xxii) Nupage bistris gels (for SDS and Native PAGE)
 - xxiii) Gel Markers, sample buffer and reagents
 - xxiv) Centrifugal filters for protein concentration
 - xxv) Dialysis tubing and cassettes
 - xxvi) Filter units for syringes and vacuum system
 - xxvii) Liquid nitrogen
 - xxviii) Glassware

2) Steering committee

- a) Jette Sandholm Kastrup, Christian Adam Olsen, Kristian Strømgaard and Michael Gajhede
- b) Job description
 - i) Responsible for the facility budget
 - ii) Takes initiatives related to getting new equipment
 - iii) Overall priorities
 - iv) Reflect on feed-back from users
- c) Meeting schedule
 - i) Bi-monthly

- 3) Facility manager
 - a) Lise Baadsgaard Kristensen
 - b) Job description
 - i) Overall responsible for that the laboratory use is in accordance with general rules and regulations
 - ii) Responsible for the training of all new users
 - iii) Responsible for having all equipment fully operational
 - iv) Implement new SOPs and conduct SOP maintenance
 - v) Responsible for budget drafts, balancing accounts and payments
 - vi) Responsible for seeking feed-back from users and communicate this to the steering committee
 - vii) Responsible for overall development and efficiency of the facility and for being up to date on development of similar production facilities
 - viii) Leader for employed student laboratory assistants
 - ix) Responsible for securing tidy, secure and clean lab
 - x) Takes part in daily laboratory work and securing a service minded and user-friendly atmosphere
 - xi) Manage booking system and secure clear and communicated priorities
 - xii) Secretariat to the steering committee
 - xiii) Responsible for Homepage and Intranet pages
 - c) Job volume
 - i) One technician full research time
- 4) Associated technical staff
 - a) Cell laboratory technician
 - i) Signe Lykke Nielsen
 - ii) Job description
 - (1) Secure that insect- and mammalian-cell laboratories are used in accordance with general rules and regulations
 - (2) Cell line maintenance
 - (3) Responsible for securing tidy, secure and clean lab
 - (4) securing a service minded and user-friendly atmosphere
 - iii) Job volume
 - (1) One technician 20 hrs/week
 - b) Student laboratory assistants
 - i) Job description
 - (1) Preparing pipet tips for use
 - (2) Pipette maintenance
 - (3) Buffer preparation
 - (4) Tidying of laboratory

- ii) Job volume
 - (1) 5 hours per week
- 5) Description of user society
 - a) Kastrup group
 - b) Gloriam group
 - c) Langkilde group
 - d) Gajhede group
 - e) Mirza group
 - f) Galvagnion group
 - g) Olsen group
 - h) Strømgaard group
 - i) Other users from the Department are welcomed
 - j) External users if sufficient capacity is available. Previously users have come from Department of Biology, UCPH
- 6) Resources in Labguru
 - a) SOP's
 - b) Bookings
 - i) All users access all equipment on equal footing based on reservations in the booking system
- 7) Appendices
 - a) Total budget for facility