



Crystallization facilities

Crystallization

NorStruct offers a unique opportunity to set up nanolitre crystallization trials with our **Phoenix RE robot** using very small quantities of protein. A minimum of 600 different conditions will be put up, along with subsequent optimization of crystallization conditions using the liquid handling **Alchemist™ II robot**.

The service is appropriate for crystallization of proteins, protein complexes and membrane proteins if soluble protein is provided.

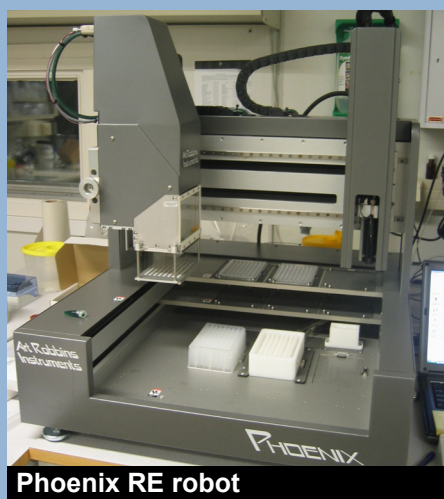


In-house X-ray system

SP1 Subcloning, small-scale expression and purification
Large scale expression and purification
Protein expression optimization and refolding

SP2 Crystallization
Quality control and buffer optimization
Data collection and structure determination

SP3 Protein ligand complexes
Molecular modeling/docking and virtual screening
Protein-ligand thermodynamic studies



Phoenix RE robot



Alchemist™ II robot

Liquid handling Alchemist™ II robot

Optimization and preparation of crystallization solutions make use of the automatic **Alchemist™ II** liquid handling system.

This ensures accurate pipetting volumes, less manpower and better reproducibility.

Hotel and Imager

Crystallization experiments are stored in the **Gallery Plate Hotel** which is coupled to our **Desktop Minstrel Imager**. Each crystallization drop is viewed automatically and digitally recorded, enabling rapid and detailed evaluation of the crystallization conditions.

Time scheduled recording of images allows electronic documentation of the progress for each crystallization experiment.



Gallery Plate Hotel

Desktop Minstrel Imager

Structure determination

When protein crystals are available the service will also cover:

- Determination of cryogenic conditions for data collection
- Diffraction tests
- X-ray data collection at the **In-house X-ray system** or at a synchrotron radiation facility.