

## JOB DESCRIPTION

**JOB TITLE:** **Postdoctoral Training Fellow:  
Protein Crystallography**

**DIVISION & TEAM:** Division of Cancer Therapeutics  
Cancer Research UK Cancer Therapeutics Unit

- Hit Discovery & Structural Design Team

**GRADE:** Post Doctoral Training Fellow

**RESPONSIBLE TO:** Team Leader (Rob van Montfort)

### OBJECTIVE OF THE POST:

#### General

To apply X-ray crystallography and fragment screening to guide drug discovery at the CTU.

#### Specific

Protein expression, protein purification, crystallisation and structural analysis of protein-ligand complexes for one of the cancer targets studied at the CTU. Integration of protein-ligand crystallography with other biochemical and biophysical methods that are available at the CTU.

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### KEY DUTIES & RESPONSIBILITIES

- Expression of crystallography constructs of one or more protein targets selected for structure-based drug discovery and subsequent protein purification.
- Establish robust and scalable crystallisation conditions for these protein targets.
- Obtain protein-ligand complexes by soaking or co-crystallisation methods.
- X-ray diffraction data collection and processing.
- Structure determination, analysis and communication of results to multidisciplinary project teams.

#### General

- Maintain accurate records in laboratory notebooks and electronically
- Become familiar with the use and maintenance of specialised laboratory equipment.
- Initiate laboratory procedures to ensure smooth running of experimental work and liaise with others to ensure that housekeeping tasks are performed on a regular basis.
- Initiate purchase of consumable items and minor equipment within budgetary limits.
- Work in a flexible but organised manner to meet objectives/deadlines.
- Work and communicate effectively with other members of the Project Team, Unit and external collaborators.
- Prepare reports of results for oral or written presentations at internal and external meetings and for publication in scientific journals or patents.

- Work independently on a defined project and consult when appropriate.
- Contribute to the supervision and training of junior staff.
- Take an interest in the general literature.
- Comply with the ICR's guidelines, including safe working practices.
- Ensure that work conforms to the requirements of COSHH, Local Rules for Health and Safety, Home Office regulations and other Codes of Practice as required by the ICR Safety Policy.

This job description is a reflection of the present position and is subject to review and alteration in detail and emphasis in the light of future changes or development.

This post will be for 1 year, and benefits from a contributory defined benefit pension scheme and generous leave entitlement. Starting salary will be in the range of £32,844 to £40,137 (based on relevance of skills and experience). The postholder will be expected to work across both our sites in London (Chelsea and Sutton).

***Postdoctoral posts:*** *The ICR has a workforce agreement stating that Postdoctoral Training Fellows can only be employed for a maximum of 7 years, including any previous postdoctoral employment elsewhere.*

## PERSON SPECIFICATION

Criteria	Essential or Desirable?
<b>Education &amp; Knowledge</b>	
PhD in a biological or physical science*	E
First degree in a biological or physical science	E
<b>Experience</b>	
Experience in macromolecular crystallisation/crystallography	E
Experience in molecular biology, protein expression and purification	E
Experience in protein expression in insect cells	D
Experience in structure-based drug design and biophysics	D
Good publication record	D
Preparation of manuscripts	D
<b>Skills</b>	
Protein biochemistry, protein crystallisation, protein crystallography	E
Competent at laboratory techniques, trouble-shooting, etc.	E
Ability to integrate different experimental techniques for developing novel strategies	E
Good observation skills, attention to detail and ability to keep appropriate records	E
Computer literate, expert use of crystallographic software and ability to use eg. MS Office and Photoshop	E
Good communication skills and the ability to interact effectively with other team members	E
Basic molecular biology, nucleic acid biochemistry	D
<b>General</b>	
Well-organised	E
Highly self-motivated and enthusiastic, with a keen desire to produce high quality scientific data	E
Willingness to learn new techniques/approaches	E
Ability to work independently and as part of a team	E

*\*as a minimum requirement candidates must have submitted their thesis by the start date of their employment and awarded their PhD within the six month probationary period.*