Job Description for NIHR Academic Clinical Fellowship in Medical Oncology (Theme Clinical Therapeutics & Pharmacology & Industry) ST3

1. Job Title.
Academic Clinical Fellow in Medical Oncology

2. Duration of post.
Four years. Posts will commence at the ST3 level or above and will last for 4 years.

3. Research institutions in which training will take place
The Medical Oncology ACF trainee will undertake their medical oncology training within the Imperial Medical Oncology Training Program. This involves placements rotating between Charing Cross Hospital, Hammersmith Hospital & Chelsea & Westminster Hospital. Their academic base will be Imperial College on the Hammersmith Hospital campus.

4. Timetabling of clinical and research time
Protected research time will be guaranteed within the academic training program that will allow attainment of clinical competencies as well.

5. Description of research component of programme

The proposed fellowship will centre around the *'Therapeutics Theme'* and ongoing work in the department researching *'the modulation of AKT pathway signalling as a therapeutic strategy in the cancer clinic'*.

Background: Initial therapy for ovarian cancer involves cytoreductive surgery and platinum-based chemotherapy often followed by maintenance treatment with bevacizumab and/or PARP inhibitors. Despite initial high response rates to chemotherapy, most patients relapse and eventually become resistant to treatment. Different mechanisms underly treatment resistance including clonal diversity, alterations of platinum transport across cell membranes, effects of surrounding tumour microenvironment and over activation of PI3K/AKT/mTOR pathway signalling.

Following discovery of a new mechanism involving AKT activation in platinum resistant ovarian cancer and reversal of resistance via AKT inhibition, a collaboration was initiated between Imperial scientists and the Imperial Drug Discovery Centre (DDC). The DDC Medicinal & Computational Chemistry designed new inhibitors that target AKT and DNA-PK (dual inhibition). To our knowledge, this is a completely novel strategy to address clinical resistance to DNA-damaging agents for cancer treatment and no other compounds that inhibit both AKT and DNA-PK are known. A patent has been filed for these new compounds in UK, USA, Europe and Japan

Project hypothesis: Dual targeting of the DNA/AKT pathways simultaneously at multiple nodes will have a greater effect on the tumour cells at lower doses, permitting a more complete reversal of platinum resistance and improved overall outcomes.

Project aim: To build a portfolio of pre-clinical evidence of the efficacy of these dual AKT/DNAPK inhibitors to develop these drugs as potential clinical candidates for ovarian cancer in the first instance. In addition we will perform initial investigations in other cancer types with dysregulation of the AKT pathway. In particular the project will:

- Aim to characterise the dual inhibitors in different cell-based assays (apoptosis, viability, cell cycle progression) with different chemotherapy combinations (cisplatin/carboplatin/taxol/doxorubicin) in other ovarian cancer subtypes where the AKT pathway is dysregulated, and also cancer types (e.g. pancreatic, lung, Triple Negative Breast Cancer, Prostate)

- Use clinically relevant models of ovarian cancer to establish how effective these novel drugs are in comparison to existing drugs targeting the AKT pathway (patient-derived tumour models, mouse models)

- Aim to understand the mechanism of action of these compounds – are they correctly targeting the AKT pathway with no off-target effects due to targeting two components in the pathway? Will they only work in cancers that have dysregulation of the AKT pathway? Aim to identify biomarkers of response to show the drugs are working correctly.

The ACF will be housed jointly between the Krell and McNeish labs in the Ovarian Cancer Action Research Centre with support from Dr Paula Cunnea. Support from translational research scientists and bioinformaticians will be available to ensure the Fellow has supervision in all aspects. The analysis of the datasets produced will require innovative methodologies; collaborations with Department of Computing and the Imperial Data Science Institute are already underway.

Imperial College London has an excellent track record in supporting ACFs in a wide range of disciplines. You will have full access to the support and programmes available to current ACFs in other disciplines. The ACF will be encouraged to attend courses to provide generic research skills such as ethical aspects of research, good clinical practice and public involvement in research, time management, personal effectiveness, leadership and partner and leader roles. You will be assigned a mentor in addition to your research and clinical supervisors. You will have access to bursaries to support attendance at conferences as well as consumables for your research.

We have a track record and formula for supporting both ACF and ACL programmes in medical oncology at Imperial. We also currently have other ACF positions filled in the medical oncology training program all of whom have attained fully funded clinical fellowships and are completing PhDs in translational research within their ACF programmes. All medical oncology trainees in ACF posts have successfully undertaken and completed a PhD. 85% of Imperial ACFs have undertaken their PhDs at Imperial College and a number have obtained MRC, Chain Florey, CRUK and Wellcome Fellowships, and others have obtained funding via industry partnerships and via philanthropic funding including the first Imperial Dangoor Fellowship. Recently, two trainees who have undertaken ACL or ACF positions in the department have obtained Senior Clinical Lecturer positions in Medical Oncology at Imperial after completion of their training.

6. Description of clinical training component of programme

The on-call rota is fully compliant with the new doctors contract and involves a 1:6 split weekend rota. There will be significant opportunity to undertake clinical and basic science research within what is a very academic department. The ACF will be supported to complete the core competencies required to successfully achieve their CCT by rotating through the various medical oncology specialties on the core curriculum. This will be achieved in a four-year programme at Hammersmith, Charing Cross and Chelsea and Westminster hospitals and they will be supported to enable them to also achieve their research goals and undertake their research commitments. This process has been successfully employed by current and previous trainees.

7. Academic Programme Director name

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Dr Jonathan Krell
Associate Professor in Medical Oncology.
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8. Clinical Programme Director name

Professor Mark Bower.
Professor of Medical Oncology, Chelsea & Westminster Hospital, Fulham Road, London.
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9. Programme contact for further information (phone or email)

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10. Job description lead (contact details for queries on JD)

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11. Recruitment lead (contact details for shortlisting & interviews)

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12. NHSE contact:
Specialty Team https://lasepgmdesupport.hee.nhs.uk/support/home
Recruitment Enquiries - https://lasepgmdesupport.hee.nhs.uk/support/home

13. Useful websites for further information
https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm

14. Confirmation that the post attracts an NTN (A)
Yes

This job description was prepared on 05/08/2026