How to write a successful Clinical Fellowship, “hints and tip”, “dos and don’ts”

Darius Armstrong-James
MRC Clinician Scientist Fellow
Imperial College London
Clinical Fellowship Opportunities

• Wellcome Trust

• Medical Research Council

• NIHR

• Increasingly, Academic Health Science Centre (internal) fellowships (advertised)
Wellcome Trust

• Clinical Research Fellowships
  • Provide support for graduates with little or no research training, but who wish to develop a long-term career in academic medicine

• Post-Doctoral Research Training Fellowships
  – Provide support for clinicians wishing to obtain high-quality post-doctoral training that will lay the foundations for a successful independent career

• Intermediate Clinical Fellowships
  – Provide support for outstanding graduates to continue their research interests towards independence

• Senior Research Fellowships in Clinical Science
  – Provide support for clinical investigators to further develop their research potential and to establish themselves as leading investigators in clinical academic science
Medical Research Council

• Clinical Research Training Fellowship
  – Up to 3 years support for clinically qualified, active professionals to undertake specialised or further research training.

• Clinician Scientist Fellowship
  – To enable outstanding clinical researchers to consolidate their research skills and make transition from postdoctoral research and training to independent investigation.

• Senior Clinical Fellowship
  – Prestigious award for clinical researchers of exceptional ability.
Jointly Funded Clinical Research Training Fellowship

Charities
- Asthma UK
- British Association of Dermatologists, British Skin Foundation
- British Infection Association
- British Lung Foundation, Mick Knight Mesothelioma Fund
- Chronic Granulomatous Disorder Research Trust
- Cystic Fibrosis Trust
- Kidney Research UK
- MND Association Lady Edith Wolfson Fellowships
- Multiple Sclerosis Society
- Pancreatic Cancer UK
- Stroke Association
- Wellchild

Royal Colleges
- Royal College of Obstetricians and Gynaecologists
- Royal College of Physicians
- Royal College of Radiologists
- Royal College of Surgeons of England and Royal College of Surgeons of Edinburgh

Welsh Assembly Clinical Research Training Fellowships
National Institute of Health Research

• Academic Clinical Fellows (pre-doctoral)
• Doctoral Research Fellowships
• Clinical Lectureships
• Clinician Scientist Fellowships
• Research Professorships
NIHR Remit

• All research funded by the NIHR must fall within this remit.
• The remit of the NIHR is stated below.
• 1. NIHR supports training in clinical and applied health research, including social care research.
• 2. The proposal must have clear potential for benefitting patients and the public within 5 years of its completion (but recognising the training element of the research).
• 3. The research can involve: patients; samples or data from patients; people who are not patients; populations; health technology assessment; or health services research.
• 4. NIHR does not itself fund basic research or work involving animals and/or animal tissue.
• 5. If the work involves biomarkers:
  • i) research that tests whether application of new knowledge can improve treatment or patient outcomes, and has obvious potential benefit within years, is within remit [1]; [1] This might include application of known biomarkers, or other prognostic factors, to refine and test novel therapeutic strategies
  • ii) research that aims only to elucidate mechanisms underpinning disease, or identify risk
MRC Chain-Florey Fellowships

- Example of a locally funded fellowship
- Cross-funding through MRC, University and Academic Health Science Centre
- Provides fantastic opportunity for clinicians to work with outstanding basic sciences
- MRC Clinical Sciences Centre (Imperial)
- 3 fully funded fellowships per annum
- http://www.csc.mrc.ac.uk/Jobs/PhDStudentship/ChainFlorey/
The timings of personal fellowships are indicative – there is flexibility according to individual career progression.
Application Process

• Choose the right scheme

• Complete application form
  – Scientific case for support
  – Cost application (in conjunction with Research Organisation);
  – Obtain Head of Department approval.

• Research Organisation approval
  – Submit application to Research Organisation for final costing/approval
  – Submit to MRC

• Funding Decision
  – Peer Review application
  – Decision
Making a successful application

Planning & Preparation
  – Can take a year from submission to starting of award
  – Read & follow the instructions

Hypothesis
  – What is your hypothesis
  – Why do you want to do this research

Focus
  – Not too many unrelated questions

Case for support
  – Address all the relevant questions
  – Take account of what reviewers will be looking for
  – Write clearly and economically
Making a successful application

Killer experiment
  – Prove hypothesis
  – Conclusive approach, e.g. functional knockout

Design
  – Statistics and power

Resources
  – Fully justify resources, do not under/over fund

Last but not least - Review internally
  – Mentors for new applicants
  – Get a second opinion
  – Proof read & spell check
Elements of successful proposals

- Emphasis on potential for early career investigators
- Need a clear rationale for the research
  - Clarity & Succinctness key
- Methodology - Preliminary Data
- Collaborations
- Quality of proposed training environment
- High-risk/high pay-off research encouraged
An application will fail because

- Unfocused, overambitious project
- Unoriginal, pedestrian approach
- No clear hypothesis, or not hypothesis-driven
- Methodology not sufficiently detailed
- Project not intellectually challenging
- Training element incomplete/unclear
- Centre has no international standing in research area
- Lack of infrastructure/facilities in training environment
- Right person - wrong project!
Fellowships Process

Application

Peer Review

Shortlisting

Panel Interview
Assessment of Fellowships

• The individual – potential to develop into a competitive researcher

• The science

• The environment

• The training proposed

• Relevance / value of any proposed period overseas or in industry
Fellowships Process

Application → Peer Review → Shortlisting → Panel Interview
The Interview

• Led by designated panel members
• Collecting evidence against key criteria
• Questioning by other panel members
• Private scoring and discussion
• Review of final ranking, including strategic importance of the area for training
THANK YOU