

MMI CSFP: Review of Progress and Recommendations for the Future.

Dr Diana Dunstan, Prof John Iredale 12th June 2009

Introduction:

This report was prepared by DD and JPI over two days, during which we had the opportunity to speak to all parties involved in establishing and delivering the MMI programme for Clinician Scientists, including: MMI Fellows, MMI supervisors, MMI Management team members, other important stakeholders such as research Deans, HEA, HRB and HSE representatives. See Annexe for list.

Information about the context of the MMI CSFP in relationship to other schemes was provided in the discussions, this was very helpful in informing our recommendations in respect of the development of future schemes and the development of clinical research career structures in the Ireland in the wider context. The reviewers identified three further complementary schemes available to medical graduates: ad hoc fellowships from the HRB and Wellcome Trust (under used) and HRB/HSE integrated PhD fellowships.

Each of these schemes makes its own contribution to the cadre of clinical translational researchers equipped to deliver high quality research at a senior level. It has been recognised (in the UK) that the development of a sustainable cadre of clinical translational scientists is important for the delivery of healthcare, for driving improvements and efficiencies in health care, for the introduction and delivery of state of the art treatments and for prevention and strategic health delivery and wealth generation in the wider health and bioscience sector. Such a cadre does not currently exist in Ireland.

In this context the MMI CSFP scheme was a timely initiative as it sought to address the deficit in Clinical Translational Investigators in Ireland thereby creating this cadre essential for translational research and future health and wealth benefit.

Review of Progress:

- The reviewers were impressed with the vision, and delivery of an exciting and bold initiative with significant potential. In particular the reviewers felt that the cohesion MMI had achieved between the direct stakeholders involved in this scheme across Ireland was highly impressive and felt that this could form the basis of a robust sustainable model of clinician scientist training in Ireland with inclusion of further important stakeholders (see wider considerations below).
- The reviewers recognise that because funding is not linked to particular specialities, departments or Professorial groups, the scheme has been able to support excellent junior clinical scientists wherever they arise. We strongly support the flexibility that this model brings.

- The Reviewers were impressed with the uniformly positive views expressed by the stakeholders in the MMI CSFP scheme. Particular strengths were identified as:
 - The appointment of a high quality well motivated and dedicated cohort of junior clinicians keen to develop their research careers.
 - The structured training modules were considered to be a particular strength (see taught components below).
 - The importance of co supervision, in bringing together basic and clinical scientists. Moreover we identified that this aspect of the scheme catalysed additional interactions that would ultimately benefit translational research in the wider arena in Ireland. (see retreat below).
- The cohort was clearly developing a cohesive identity and would form a nucleus for the wider cadre of clinical scientists in training in this and other schemes (see retreat below).
- The reviewers noted that despite the potential difficulties associated with devolvement of budgets to HEIs and local recruitment, the centralised appointments process was perceived to be fair and proved to be essential in assuring excellence and quality (see appointments below).

Recommendations:

Moving forward, the reviewers have the following recommendations for the MMI CSFP scheme. Additionally, because the MMI CSFP scheme is set within a wider training and research agenda in Ireland we have identified a series of issues that need to be addressed in order to develop the careers of Clinician Scientists in training optimally and, importantly, to position Ireland as a high quality training environment.

Recommendations for MMI:

- Sustainability. Taking into account the other schemes, attrition rates and for the Ireland to develop an effective cadre of translational Clinician Scientists as described in the introduction; we recommend that, over a period of 10 years, between 5 and 10 CFSP be appointed pa. To not capitalise on the initial success of MMI CSFP by establishing sustainability risks squandering the investment to date.
- Career Track. The reviewers were concerned that there has not yet been sufficient attention paid to the future academic career track for these Fellows. Moreover we identified that this deficiency was not limited to the MMI CFSP scheme and that the opportunity to develop a high level initiative to create a “joined up” academic career track for Irish translational Clinician Scientists has not yet been taken (see wider considerations below). In the interim, we recommend that appropriate long term clinical academic mentors be appointed

within the MMI CSFP for each Fellow. We feel that this is the most effective way of supporting the onward and post doctoral careers of this highly valuable cohort as they return to the clinical arena and have to balance their research aspirations with completing clinical training. The scheme established and run by the Academy of Medical Sciences provides an excellent model for this type of mentorship.

- Supervisors. The extra synergy resulting from co supervision described above would be to likely develop on a trans-Ireland basis and would encourage further interaction and ownership of the programme. This would facilitate the development of collaborative projects within and between areas of scientific excellence in Irish HEIs. Supervisor induction and the retreat referred to below would further catalyse such interactions.
- Taught component. The reviewers were highly impressed with the taught components of the programme and consider that these attributes will make a major contribution to its overall success. However, we felt that consideration should be given to using distance learning modules. This would create a programme that was more flexible and adaptable to individual needs and therefore more widely applicable. The reviewers were particularly impressed that a clinician on the recently appointed HRB scheme has taken advantage of the taught component. We perceive that this resource, if properly developed, should be widely used to enhance training across all Irish Clinician Scientist training schemes. Furthermore achieving this would create a training environment for clinicians unique to Ireland.
- Retreat. The reviewers recommend that MMI establish an annual retreat for its Fellows and supervisors. This would facilitate the development of cross links, enhance existing and establish new scientific synergies, facilitate exchange of best practice and encourage the development of a self supporting group of high quality clinicians in training. Furthermore we perceive that with time the more senior Fellows would, at such retreats, offer support and mentoring to new CSFP Fellows. Additionally, we would strongly recommend that Fellows and supervisors on other complementary schemes, such as the HRB/HSE integrated programme be included.
- Appointments. We recommend that the HEA makes arrangements for future fellowships to be funded directly by MMI and that only those Fellows that succeed in the central competition should be appointed.
- Achieving uniformity. The reviewers recommend that the widest possible use is made of the internet in addition to more traditional methods of advertising to ensure that future calls are visible to all potential clinical academics in training. The use of an e-mail cascade by the training bodies and faculties should also be considered. Further the reviewers suggest that a more uniform salary structure is introduced, likely based on the starting point of the Registrar grade.
- Externally funded Fellowships. The reviewers recommend that MMI CSFP Fellows be encouraged to apply for Wellcome Trust Intermediate and Senior

Clinical Fellowships as their careers progress. Moreover we would view the award of such Fellowships as an important metric for the success of the CSFP.

Wider considerations for Clinical Academic Training in Ireland:

- Critical Retention Issues. We have identified that, at present, the range of PhD schemes including MMI CSFP will create a high quality cadre of Clinician Scientists who have limited career opportunities at the early Post Doctoral/Specialist Registrar training stage and at the Senior lecturer/Hon Consultant level. Urgent attention needs to be given to creating schemes to provide an appropriate career pathway for these individuals. Without this, current and future investment will be diluted by unnecessary attrition of quality Clinician Scientists who find onward career progression difficult or impossible (see Stakeholders below).
- Stakeholders. There are a number of stakeholders with varying inputs into the above schemes (eg HEIs, HRB, MMI, HSE, HEA). Whilst there are specific benefits to this model, clinical academic training in Ireland lacks a uniform voice and a champion for the research training agenda. We strongly recommend the identification of a Research Training Tsar who should be a leading academic able to bring the stakeholders together in a positive and collaborative manner. This individual should have credibility with external funding bodies such The Wellcome Trust and the Gates Foundation. We would envisage that this individual lead an executive and have the explicit aim of developing a “joined up” clinical academic track for Ireland ensuring that there is the development of appropriate positions from intermediate through to Consultant/Senior Lecturer level. By developing an executive and bringing together the best attributes that have evolved from the MMI CSFP scheme and the HRB/HSE schemes, a collaborative training network would be created which is hardwired to the training needs of the individual Fellows and the service delivery and development needs of the Health Service. Such an approach should ensure that best value is obtained from the funds invested and that best practice is shared and assured (for example the trans-Ireland development of the taught components as described above).
- Branding. By bringing together the schemes and stakeholders, an executive such as that described above will create a high quality brand that is recognised by the profession and the Health Service and is therefore particularly attractive to aspiring Clinical Scientists.
- External Funding Opportunities. External funding bodies such the Wellcome Trust and EU periodically advertise portfolio schemes to fund research training for clinicians. By establishing the executive, career track and collaborative training network Ireland would be optimally placed to bid successfully for one or more of these schemes.

Conclusion:

We consider the MMI CSFP to be an important component in the portfolio of research opportunities for aspiring Irish Clinical Scientists. Serious attention now needs to be given to the onward career pathway for these and other medically qualified doctoral scientists in Ireland. We conclude that MMI should be congratulated on establishing an excellent and innovative scheme. The further development of this scheme, with a long term sustainable funding model will make a major contribution to health and wealth generation within Ireland.

DD and JPI, Dublin 12th June 2009.

Annexe to External Review of the MMI Clinician Scientist Fellowship Programme

Reviewers

Professor John P Iredale is Professor of Medicine at the MRC Centre for Inflammation Research, University of Edinburgh and Director of the Wellcome Trust funded Clinician Scientist Training Programme. He combines clinical practice in hepatology with research in the pathogenesis of hepatic fibrosis.

Dr Diana Dunstan was formerly Director of Research & Training at the Medical Research Council. She now works for the UK Research Councils part time advising on links with the EU Member States and the Commission. She is also Chair of the European and Developing Countries Clinical Trials Partnership.

Contributors

To enable the reviewers to probe issues in the design, delivery, and future of the MMI Clinician Scientist Fellowship Programme (CSFP), MMI scheduled meetings (11-12 June 2009) with fellows, supervisors, others closely involved in the programme and those with key knowledge of the education and research environment in which the programme operates.

Academic Leads

Professor Dermot Kelleher (Head of the School of Medicine & Director of the Institute of Molecular Medicine, Trinity College Dublin & St James's Hospital).

Professor David Kerins (Associate Professor of Therapeutics at University College Cork, Consultant Physician at Mercy University Hospital, Dean of the Medical School of UCC and Vice Head of the College of Medicine and Health).

Professor Gerry McElvaney (Professor of Medicine, Chairman of the Department of Medicine, Royal College of Surgeons in Ireland).

Professor Larry Egan (Professor of Clinical Pharmacology, Head of the Dept of Pharmacology and Therapeutics at NUI Galway, Consultant Clinical Pharmacologist with the HSE Western Region).

Professor Tim O'Brien (Professor of Medicine and Director of the Regenerative Medicine Institute, NUI Galway). *Professor O'Brien was a member of the MMI Executive Management Team during the earlier stages of the CSFP. Professor Egan became the NUI Galway EMT member in December 2008.*

CSFP Education Committee Members

Dr Ruth Barrington (Chief Executive Officer, Molecular Medicine Ireland; Chair of Education Committee).

Dr Geraldine Boylan (Senior Lecturer, Department of Paediatrics & Child Health, UCC).

Dr Ross McManus (Senior Lecturer & Director of the PhD in Molecular Medicine, TCD).

Dr Helen McVeigh (Postgraduate Programmes Manager, RCSI).

Dr Mark Watson (Programme Manager – Education & Training, MMI).

MMI Administrative Staff

Dr Claire Twomey (Programme Officer – Education & Training).

Mr Gaël Parent (Administrator – Education & Training).

Dr Aideen O Doherty (Programme Coordinator - Molecular Medicine Ireland, NUI Galway).

Funders and Medical Training Organisation Representatives

Professor Gerry Bury (Director of Medical Education and Training, Health Service Executive).

Professor Muiris FitzGerald (Advisor to the HSE on Medical Education, Training and Research).

Mr Leo Kearns (CEO of the Royal College of Physicians of Ireland and Secretary to the Forum of Irish Postgraduate Medical Training Bodies).

Dr Eucharía Meehan (Head of Research Programmes, Higher Education Authority).

Ms Ciara Mellett (Business Manager, Medical Education, Training & Research, Health Service Executive).

Dr Mairéad O'Driscoll (Director, Research Strategy and Funding Directorate, Health Research Board).