Project Name: Filling the talent pool with well-prepared future scientific leaders
(Final title: “Pathway to Independence; Developing Future Scientific Leaders”)

Project Leader: Dr Amy Moore, Institute of Cancer Research. The project is in partnership with the Wellcome Trust Sanger Institute and BBSRC

Principal activities for the period

The follow-up to the core programme has involved reflecting on the event from an organiser/observer perspective, and gathering formal feedback from participants and speakers. The outcomes have been reported back to senior management at partner organisations and recommendations for ongoing and future support made. A future event to bring the delegates and speakers back together 8 months after the core programme is being organised. The website has been updated to reflect that the event has happened and resources are being uploaded for sharing across the sector.

The milestones achieved or reasons for any delay or deviation

Evaluation of the programme took place over the first two months after the core programme (a summary is appended). This feedback was provided to all involved organisations.

The ICR's Research Directorate have commended the programme and support us running it again. The current suggestion of how to fund the programme is through individual delegates funding via research grants (approx £500 per person). Plans are ahead to run a joint workshop again with the BBSRC in Summer 2014. Furthermore, to increase the number of high-flying postdocs who can access this support (demand has so far outweighed supply), the ICR is adapting an in house version in which short sessions on the key themes of the Pathway programme will be
delivered in house over a period of months. This is much like similar models run at the LRI and Babraham.

A follow-up event has been organised to bring the original cohort back together and explore key topics that (as per the feedback), delegates wanted more information and discussion around. Two of these themes are “Starting a Lab in a university” and “managing start-up resources”. For continuity, Prof Jane Langdale (University of Oxford), who attended the full 2 day core programme in January, will also be chairing the follow-up event in September.

Any problems or obstacles encountered, and any action taken or required

Although very positive feedback was received, there are a few areas which delegates identified as further information/discussion needed. Some of these will be addressed in a future meeting, with appropriate speakers sourced. This also provides an opportunity for delegates to share experiences and lessons learned with each other.

Due to changes in the ICR Learning and Development Team (Web Developer left) there has been a delay in uploading resources to the website. This work has been incorporated to the project plan of the ICR IT department, and scheduled to be completed by January 2014. At this point, the resources will be disseminated to LFHE members and researcher development networks.

Details of any partnerships and collaborations, including dissemination work

See above re ongoing partnership and future workshops, and dissemination of work via pathways website.

Formative evaluation or feedback received, and evolution of the original thinking behind the development project – ‘learning’

Summary of feedback received can be found in Appendix 1.
**Financial expenditure (and income when appropriate)**

Q4 expenditure is outlined below. This covers cost of creating the website and updating with content. In addition, Amy Moore and Janet Storey are presenting a workshop at the national Researcher Development Vitae conference to share the learning with the sector.

<table>
<thead>
<tr>
<th>Cost (Q3)</th>
<th>Initial budget</th>
<th>Actual cost</th>
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<tbody>
<tr>
<td><strong>Costs incurred Q4</strong></td>
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<td>Online training materials to develop</td>
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<tr>
<td>Vitae Conference travel and accommodation costs</td>
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<tr>
<td><strong>Total Q4</strong></td>
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Appendix 1: Summary of feedback Pathway to Independence

**Background**

The Pathway to Independence programme was designed to assist promising scientific researchers from some of the UK’s leading research institutes in making the transition to independent researchers.

The programme was a two day workshop designed to develop the awareness of potential team leaders on the main aspects of setting up as an independent researcher, including areas such as recruiting, collaborating, generating funding and managing people.

Presentations and input came from researchers themselves who gave their own perspective on what worked for them, the challenges and the difficulties they faced.

**Programme design**

The content was informed by discussions with Post doc associations in the partner organisations and by talking to new team leaders. Secondary evidence was taken from the Principal Investigator and Research Leader Survey (PIRLS).

Once the major topics had been identified and summarised in a framework, this was circulated to the participating organisations’ science groups for feedback and to seek volunteer speakers.

**Feedback from Participants**

24 participants attended from a number of leading UK research institutes (ICR, Wellcome Trust Sanger Institute, BBSRC institutes including Babraham, John Innes, Moredun, as well as partner organisations EBI, LRI and the Paterson Institute for
Cancer Research). Participants submitted applications and were selected by research committees from their own institutions based on criteria outlined on the website (http://training.icr.ac.uk/pathway).

Participants identified the following key learning points:
- As a PI you need a scientific vision and to see the bigger picture – not just a plan for the next set of experiments you want to do.
- There are a variety of routes and approaches to securing an independent position.
- You have the right to negotiate in terms of the offer/package. Don’t rush to accept the first offer you get.
- A number noted the usefulness of individual feedback on their project proposal pre-course work.

Comments on speakers/format:
- A clear positive of the programme was having a range of speakers in attendance at different levels or stages of their career. Talks from recently appointed junior team leaders were very useful to illustrate variety of ways to achieve a team leader position.
- If the programme is run again in future it would be good to include more speakers who’ve got lectureships in universities rather than pure research institutes (the nature of the partners meant a heavy research institute bias).
- Networking with speakers and other delegates, and the collaborative aspect of the programme, was very valuable (benefit of residential programme).
- Day 1 was the most useful. The aspects of management covered on day 2 needed longer to discuss and might have benefitted from a more structured format.

Generally a number of delegates reported feeling more confident, informed and focussed on their quest to become independent researchers having attended the programme. They strongly support the running of this programme again for future cohorts. Two delegates have subsequently reported successful awards of fellowships/independent position since the course.

Feedback from Speakers
Feedback from the speakers indicates that the programme was both better than anticipated and generally ‘fitted the bill’ delivered by speakers that brought contrasting stories and different experiences. A number of speakers indicated that they would have found this opportunity highly valuable, had they had it at the start of their career as a PI (none, as far as we knew, had received any formal training in how to prepare for PI positions when they were at the stage delegates were at). Most speakers report that it was apparent that participants were finding out about aspects of becoming a group leader that they may never have considered, for example, recruitment and people management. Both speakers and organisers recognise that some of the content of the sessions overlapped and that there should be more interactive exercises. It was also suggested that speakers should be invited from Universities to help delegates see the bigger picture. A number of speakers indicated
that they themselves had also gained a lot from participating in the programme, through hearing experiences and approaches colleagues from other institutes/universities had taken,

The speaker observations suggest that whilst delegates were doing great science and were clearly talented, the workshop had illustrated to them how important it is to develop a clear, long-term vision for their research and future career, something they hadn’t seemed to have considered beforehand in much detail. The speakers also noted a perceived lack of confidence in delegates ability to sell their research to prospective funders/employers, and to negotiate for a good start up package, suggesting this might be an area to explore further in the future.

**Next steps and recommendations**

1. The interactive aspects of the programme such as the discussion of individual project proposals were rated as some of the most useful parts. Speakers and delegates recommend more interactive exercises, particularly for the management aspects on day 2.
   Action: Broaden and strengthen/encourage more interaction and participation during sessions by working with speakers to incorporate use of active exercises and keep the off-schedule times to allow for informal discussions between speakers and participants.

2. The majority of speakers on the programme worked at research institutes, so more information and experiences could have been covered around becoming a lecturer, balancing research with teaching/administration, which poses a significant challenge.
   Action: A follow-up event might delve in to this further, including more contributors who were recently appointed to university posts. Future running of the Pathway to Independence programme should involve careful consideration of the balance of speakers from universities versus research institutes.

3. Feedback from delegates indicates a bias towards biomedical research (cancer specifically).
   Action: Consideration to be given to whether it would be more useful to split biomedical and non-biomedical researchers in to separate programmes, or whether more speakers from a range of scientific disciplines could be involved.

4. Whilst delegates had a lot of knowledge about funding mechanisms they appear to be naïve about how grant committees work. This could be addressed by an appropriate speaker providing an explanation on how grant committees work and going through all sections of a grant application form.

   Action: invite speaker who is experienced at sitting on grant committees to explore this further as a follow-up event.