

UK Biobank Ethics and Governance Council Thirty-fourth Meeting

Meeting at Wellcome Trust
215 Euston Road, London, NW1 2BE

Monday 4 March 2013 at 10.30am

Agenda

1. **Apologies**
2. **Minutes** of thirty-third meeting held on 10 December 2012
3. **Matters arising**
 - (i) Tracking of requests to UK Biobank
 - (ii) Subgroup reporting: Feedback – imaging meetings
 - (iii) Subgroup reporting: Access
 - (iv) Draft Memorandum of Understanding on access
4. **Draft feedback report**
5. **Draft work plan 2013 – 2015**
6. **Closed discussion on topics to discuss under item 7**
7. **Update from UK Biobank** (Professor Rory Collins, Chief Executive Officer, UK Biobank)
 - (i) Report on access applications
 - (ii) Imaging
 - (iii) Genetics proposal
 - (iv) Any other developments and outstanding recommendations from EGC33
8. **Closed discussion of matters arising under item 7**
9. **Update on the Expert Advisory Group on Data Access** (Professor Martin Bobrow, EAGDA Chair)
10. **Communications activities**
11. **Report on meetings attended**
 - (i) Communications meeting (22/01/13)
 - (ii) Imaging meetings (22/01/13 and 15/02/13)
 - (iii) Genetics meeting (28/01/13)
 - (iv) Meetings with the funders (24/01/13 and 08/02/13)
 - (v) Biobank meeting (27/02/13)
12. **Any other business**
13. **Date of next meeting** 20 May 2013 - Wellcome Trust, London

**UK Biobank Ethics and Governance Council
Thirty-fourth Meeting**

**4 March 2013
Wellcome Trust, London**

Present: Professor Roger Brownsword (Chair), Professor Martin Richards, Dr Roger Moore, Mr Andrew Russell, Ms Tracey Phillips, Dr Sheelagh McGuinness, Professor Kate Hunt and Dr Jonathan Hewitt.

In attendance from EGC Secretariat: Ms Adrienne Hunt.

Observers: Dr Catherine Moody (MRC) for items 1 – 8. Ms Katherine Littler for items 4 and 9 only (Wellcome Trust).

Speakers: Professor Rory Collins (Principal Investigator and Chief Executive, UK Biobank) for item 7 only. Professor Martin Bobrow (Chair, Expert Advisory Group on Data Access) for item 9 only.

1. Apologies

Apologies were received from Professor Søren Holm, Professor Heather Widdows and Mrs Margaret Shotter.

2. Minutes of thirty-third meeting held on 10 December 2012

The Council approved the circulated minutes.

3. Matters arising

Tracking of requests to UK Biobank

Members noted the outstanding requests to UK Biobank.

The EGC considers the Ethics and Governance Framework (EGF) to be part of the on-going 'contract' between participants and UK Biobank and, as such, the Framework should provide an up-to-date account of the project's activities and commitments. Since the EGF was last revised in 2007, there have been many developments at UK Biobank that now need to be reflected in the document. The EGC agreed that, once the immediate priority of the genotyping work is in hand (see item 7), it would like to engage with UK Biobank over the revision of the EGF.

Subgroup reporting: Feedback – imaging meetings

At the end of 2012 UK Biobank received confirmation of funding for an 18-month pilot of its imaging enhancement (subject to the preparation and funder approval of a number of materials, in particular those relating to the approach to providing feedback to participants). Recently the EGC feedback subgroup had a constructive meeting with UK Biobank and the funders to discuss the imaging proposal and feedback approach. An update on the imaging work was provided by Professor Rory Collins under item 7.

Subgroup reporting: Access

The EGC discussed the nature and scope of its oversight role in relation to access, both in the immediate and longer-term. At present the EGC has access to the lay summaries of access applications but can request the further particulars of an application on a case-by-case basis. Members discussed the circumstances in which, for oversight purposes, the EGC should request sight of further particulars. It was agreed that, if the request was not at random (on a 'dip-stick' basis) it should be for good reason (e.g. where the lay summary indicated a precedent-setting use of the resource).

Draft Memorandum of Understanding on access

The EGC Chair and Professor Collins met recently to discuss the development of the draft Memorandum of Understanding (MoU) on access. The aim of the MoU is to clarify the respective roles and responsibilities of the parties involved in access (most particularly the distinct responsibilities of UK Biobank's Access Sub-Committee (ASC) and the EGC). A further meeting is scheduled, including the funders and the ASC Chair. It was agreed that Dr Sheelagh McGuinness will also attend, as a member of the EGC access subgroup.

4. Draft feedback report

The EGC feedback subgroup's draft report provides a commentary on the literature on feedback in addition to describing the feedback policies of other biobanks. Members discussed whether sharing the draft report with UK Biobank at this stage would be useful in terms of informing the immediate development of the imaging feedback approach. Although a variety of views were expressed it was agreed that the EGC should separate out the two processes of (1) advising on feedback in relation to the imaging pilot, including specific protocols and participant materials and (2) providing UK Biobank with the EGC feedback report in time for revision of the EGF (e.g. towards the summer).

Members discussed the content of the draft feedback report and a number of revisions were proposed. A revised draft will be considered at the May EGC meeting.

Members noted that the Wellcome Trust and MRC are continuing to develop their Framework on feedback of health related findings, to serve as guidance for their

funded researchers. A meeting to consider the legal issues around feedback will be held later in March.

5. Draft work plan 2013 – 2015

The funders have offered the EGC a 2-year pro-rata extension of the existing funding envelope, subject to the submission of and acceptance by them of an updated 2-year work plan. Members discussed a draft work plan, focusing on a proposal to hold an international conference on biobank ethics and governance to mark the EGC's 10-year anniversary in 2014.

The work plan will be revised and submitted to the funders by the end of March.

6. Closed discussion on topics to discuss under item 7

No further issues were raised.

7. Update from UK Biobank (Professor Rory Collins, Chief Executive Officer, UK Biobank)

Report on access applications

The EGC noted with interest the variety of proposed uses of the resource, including the first application for whole genome sequencing of a few hundred participants.

Nearly a year into the access process UK Biobank has gained valuable experience of how the procedures work in practice and has received constructive feedback from users of the resource. In addition, UK Biobank is thinking about how to manage the inevitable increase in access applications that will occur once the genotyping and biomarker data are available.

A number of streamlining measures are being considered including the possibility of researchers being informed when their preliminary and main applications have been adjudicated by UK Biobank's research access administration team and given provisional approval. This would allow the process to move forward prior to formal approval by the ASC, for example, a researcher could move to submit a main application or the drafting of a Material Transfer Agreement could commence. Importantly, under such a process all main applications would be subject to final sign-off by the ASC.

Other streamlining measures include the creation of standardised datasets, involving the clustering of certain linked variables. To date there has been a great deal of tailoring of individual variables on a project-by-project basis and this has proved to be a time-consuming approach. In future, rather than applicants selecting individual data variables, clusters will be selected. The clustering approach presents the possible risk of giving researchers more information than they strictly need but the alternative risk is that researchers are discouraged from using the resource due to a

cumbersome process. The new approach will help UK Biobank to achieve its aim to encourage the extensive and appropriate use of the resource.

Imaging

UK Biobank has begun work on the imaging pilot, including drafting a response to the funders' request for various materials (in particular in relation to the feedback approach); drafting of the participant materials and information-gathering visits to other cohort studies that perform MRI. At this stage no materials were provided for the EGC's advice.

At the end of March, once the priority genotyping work is underway, an imaging timetable will be circulated and further meetings scheduled between UK Biobank, the EGC and the funders.

Genetics proposal

In October 2012 UK Biobank convened a meeting of leading researchers in statistical genetics and genetic epidemiology to develop a strategic approach for genotyping/sequencing of the UK Biobank DNA resource. UK Biobank's resulting proposal has received in principle funding totalling just over £20 million; £10 million each from the Department of Health and Medical Research Council and £1 million from the British Heart Foundation. The funds will be used to examine several hundred thousand genetic markers on each UK Biobank participant ('genotyping').¹

The MRC has previously committed £3 million to a genetic study of lung function which aims to genotype 50,000 UK Biobank participants. This project was approved for access late last year.² The creation of a genotyping chip for this specific study was put out to tender and the chip has subsequently been designed and ordered. UK Biobank's centralised genotyping initiative will be co-ordinated with this ongoing study-specific work so the data are compatible. UK Biobank's genotyping chip may be customised, for example, to reflect the priority areas of its funders (e.g. the MRC's interest in neurological diseases, including dementia).

UK Biobank's genotyping work has been put out to tender and a decision on the successful company is expected shortly. If plans progress as intended, the genotyping work could commence in April and conclude in 2014 (running in parallel with the biomarker work).

Discussions are ongoing regarding where the genetic data will be held. It is intended that data will be released in tranches during the course of the genotyping work (rather than all data being released at the end of the process). The genetic data will be accessed through UK Biobank's existing procedures.

The Council was very interested to hear about this major new initiative, the results of which will make the resource all the more valuable for researchers. Professor Collins

¹ For more information see www.ukbiobank.ac.uk/2013/03/genetics-study-targets-serious-disease/ (accessed 02/04/13)

² See Approved research, Professor Martin Tobin, University of Leicester (November 2012) at www.ukbiobank.ac.uk/approved-research (accessed 02/04/13)

commented that the centralised genotyping work will democratise the availability of the genetic resource. The data will be available to a wide range of researchers, under the equal terms of UK Biobank's access procedures, rather than such data only being generated by specific researchers and/or for particular diseases that are particularly well funded.

Any other developments and outstanding recommendations from EGC33

Professor Collins provided an update on a number of ongoing enhancements to the resource:

- Last year UK Biobank received confirmation of £9.4 million funding to measure a wide range of biochemical markers in the samples of all 500,000 participants. Having put this work out to tender, further due diligence is being undertaken in relation to the final list of approximately 64 biomarkers. It is intended that the work will start in April and continue through to the end of 2014.
- UK Biobank's web questionnaire on cognitive health will shortly be submitted for Research Ethics Committee approval. Professor Collins offered to provide the EGC with a copy of the submission for information. Circulation of the questionnaire to participants is scheduled from April.
- UK Biobank has piloted the activity monitor enhancement, finding that 30% of those contacted agreed to wear the device. (Participants are asked to wear the device for 24 hours a day for a week before returning it to the project.) The main phase will commence in April and is expected to run for up to eighteen months.

8. Closed discussion of matters arising under item 7

Imaging

Under item 7 Professor Collins identified that the EGC's input would be most valuable in terms of the social science research that will accompany the imaging pilot. During discussion of this point, the funders indicated that it would be inappropriate for the EGC to undertake the drafting of the tender directly; the preferred way forward would be for the funders to support UK Biobank in drafting the tender with advice from the EGC. The EGC agreed with this proposal.

In the event that UK Biobank establishes a working group to consider the feedback aspects of the imaging work (as suggested by Professor Collins), the EGC would be interested to contribute and be involved in the group's discussions.

9. Update on the Expert Advisory Group on Data Access (Professor Martin Bobrow, EAGDA Chair)

The Council was very pleased to meet the Expert Advisory Group on Data Access (EAGDA) Chair, Professor Martin Bobrow, and to receive an update on the remit and activities of the Group.

The EAGDA was established by the Wellcome Trust, Cancer Research UK, the Economic and Social Research Council, and the Medical Research Council to provide strategic advice on the emerging scientific, legal and ethical issues associated with data access for human genetics research and cohort studies. The EAGDA will serve to provide expert advice to the partner funders on key strategic issues in relation to data access, and it will support current and future study Data Access Committees (DACs) across the fields of genetics, epidemiology and the social sciences - identifying best practice and encouraging consistency in decision making.

Professor Bobrow explained that the Group will act at a strategic level: it will not make decisions on individual access applications, or monitor or scrutinise the operations of individual DACs. Rather, it will act as a recognised UK authority on the governance of data access to which both funders and study DACs can refer new and problematic issues that arise for timely and authoritative advice. It will also serve to enhance the UK's input into international policy discussions on data access.

The Group, which comprises 15 international, expert members, has been operating for one year. Over the next 18 months, the aim of the Group is to produce briefing papers on each of four key areas:

- **Data Access Committees** (e.g. to understand the current landscape and where appropriate to make recommendations/produce guidance)
- **Establishing incentives and changing cultures to support data access** (e.g. looking at ways to encourage and build-up a workforce for data generation, analysis and management)
- **Quantifying risks in data release** (e.g. examining actual (as opposed to perceived) risks to research participants, as well as looking to understand the risks associated with not sharing data)
- **Governance and mechanisms for access**

Members discussed with Professor Bobrow the pros and cons of providing feedback of genetic information and the risks and safeguards with respect to the re-identification of individual participants on the basis of their genetic data.

10. Communications activities

Members noted a number of upcoming communications activities including the EGC Chair's attendance at the Wellcome Trust and MRC 'Health related findings lawyers' meeting' later in March (the meeting is intended to inform the funders' framework on feedback). The EGC will also be represented at the 'P3G Privacy Summit: Data Sharing and Cloud Computing' in May.

11. Report on meetings attended

A number of the meetings listed under this item were reported on earlier in the meeting.

Due to time constraints only one meeting was highlighted: Dr Sheelagh McGuinness recently attended a meeting on biobanking to present a paper entitled 'Biobanking, and genetic research'. Members noted that Dr Steffen Petersen (a member of UK Biobank Expert Working Group on Imaging) also presented at the event, addressing cardiovascular MRI in population based studies and plans for UK Biobank.

12. Any other business

There was no other business

13. Date of next meeting

20 May 2013 - Wellcome Trust, London