

UK Biobank Ethics and Governance Council Seventeenth Meeting

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

Monday 8 December 2008 at 10.30am

Agenda

1. **Apologies**
2. **New members and introductions**
3. **Minutes** of sixteenth meeting held on 15 September 2008
4. **Matters arising**
 - (i) Summary of decisions and recommendations from sixteenth meeting held on 15 September 2008
 - (ii) Tracking of requests to UK Biobank
 - (iii) EGC paper: 'Advising on the public interest and the public good'
 - (iv) EGC review
5. **Guest speaker: Professor Ruth Chadwick**
6. **Update from UK Biobank** (Dr Tim Sprosen and Mr Jonathan Sellors, UK Biobank)
 - (i) General update from UK Biobank
 - (ii) Update regarding recommendations from EGC16
 - (iii) UK Biobank's post-visit survey: Final report
 - (iv) Biannual report on enquiries and complaints received by UK Biobank
 - (v) Update: Development of UK Biobank's access and intellectual property procedures
7. **Proposal for enhanced phenotyping of participants** (Dr Tim Sprosen and Mr Jonathan Sellors, UK Biobank)
8. **UK Biobank's IT and data management strategy** (Dr Tim Sprosen, UK Biobank)
9. **Communications activities**
 - (i) Public meeting on 12 February 2008
 - (ii) External speaking opportunities
 - (iii) External enquiries to the EGC
10. **Report on meetings attended**
 - (i) Seminar at University of British Columbia (27/10/08)
 - (ii) Ms Cook and Mr Trehearne meeting (7/11/08)
 - (iii) P3G meeting (10-11/11/08)
 - (iv) Presentation at PRIVILEGED workshop (13/11/08)
 - (v) Visitors from Singapore (25/11/08)
11. **EGC expenditure and budget**
12. **New members for the EGC access and intellectual property subgroup**
13. **Any other business**
14. **Date of next meetings**

**UK Biobank Ethics and Governance Council
Seventeenth Meeting**

**8 December 2008
Wellcome Trust, London**

Present: Professor Graeme Laurie (Chair), Professor Ian Hughes, Professor Anneke Lucassen, Dr Heather Widdows, Professor Erica Haines, Dr Roger Moore, Professor Roger Higgs, Professor Martin Richards, Mrs Margaret Shotter, Ms Tracey Phillips and Mr Andrew Russell.

In attendance from EGC Secretariat: Ms Adrienne Hunt.

Observers: Dr Alan Doyle (Wellcome Trust) and Dr Catherine Moody (Medical Research Council) for the whole day.

Speakers: Dr Tim Sprosen (Chief Scientific Officer, UK Biobank) for items 5, 6, 7 and 8 only. Mr Jonathan Sellors (Company Secretary, UK Biobank) for items 6, 7 and 8 only.

1. Apologies

Apologies were received from Ms Andrea Cook and Professor Paolo Vineis.

2. New members and introductions

Four new members were welcomed by the Chair and all attendees introduced themselves. The new members are:

- Tracey Phillips. Business, policy and strategy consultant
- Margaret Shotter. Formerly Associate Director for Research Ethics at the University of British Columbia, Canada
- Andrew Russell. Chief Executive of the Association for Spina Bifida and Hydrocephalus
- Paolo Vineis. Chair of Environmental Epidemiology at Imperial College London (in absentia)

3. Minutes of the last meeting held on 15 September 2008

The Council approved the circulated minutes.

4. Matters arising

Summary of decisions and recommendations from fifteenth meeting held on 15 September 2008

The Council approved the circulated summary of decisions and recommendations.

Tracking of requests to UK Biobank

The Council noted three requests for further information, all of which will be addressed by UK Biobank under agenda items 6 and 7.

EGC paper: 'Advising on the public interest and the public good'

The paper 'Advising on the public interest and the public good' summarises the findings of the EGC commissioned reports in the context of their application to its activities. The paper was developed by the Council in the interests of transparency and in order to provide public insight into its deliberations. The Council discussed a version of the paper which had been updated with information from the recently commissioned public attitude study by Professor Webster and his team.

ACTION: The paper will be revised to take account of members' comments and will be included in papers for the next Council meeting. An approved version of the paper will then be published on the Council's website. [AH]

EGC review

The Wellcome Trust and Medical Research Council ('the Funders') recently reviewed the Council resulting in further funding being confirmed until September 2010 and in a letter containing a number of recommendations. The Council discussed the recommendations and the Funders' request for an EGC workplan for 2009 - 2010.

One recommendation was for the Council to obtain additional expertise in the area of bioinformatics and IT. The Council specifically sought candidates with expertise in this area in its recent round of recruitment but it was not possible to make a suitable appointment. The Council discussed alternative strategies for enhancing its capacity to advise and monitor UK Biobank's information management provisions including the possibility of hiring a standing consultant, co-opting a new member, or creating a new EGC subgroup.

The Council agreed to establish a new subgroup to examine this area in more detail on behalf of, and reporting to, the full Council. The subgroup will develop the EGC's work in this area in the period 2009 - 2010 and, in particular, may develop a series of questions which could form the basis of an EGC commission of an IT/security expert to review UK Biobank's IT and data management strategy (i.e. reporting on UK Biobank's activities in an expert testimony to the Council). If necessary and useful, this testimony might be commissioned on an annual basis. The composition of the subgroup was discussed under item 13.

The Funders' letter confirmed that there would be no major revisions to the Council's role and activities at least until the end of the current funding period (2010). Any significant changes in the scale and function of the EGC would be further evaluated prior to any renewal of funding in 2010. The Council briefly discussed how its role may change over the coming years including what relationship, if any, it might have with other 'biobank' research projects.

ACTION: An EGC workplan for 2009 – 2010 will be developed and submitted to the Funders by 12 January 2009. [AH]

5. Guest speaker: Professor Ruth Chadwick

The Council received a presentation from Professor Ruth Chadwick, Distinguished Research Professor in Bioethics at Cardiff University and Director of the ESRC Centre for Economic and Social Aspects of Genomics (Cesagen). Professor Chadwick spoke from her experience of working on the European Commission funded project 'Ethical, Legal and Social Aspects of Human Genetic Databases' (Elsagen) and on the database project in phase 1 of Cesagen's research programme. Her talk addressed the following questions: How might the concepts of the public interest and public good be interpreted and used in the context of biobanks? To what extent has there been a move towards communal models of benefit sharing, in light of biobank research, and how might the EGC think about this in terms of UK Biobank? How best can the duty to individual participants and to the public good be balanced in biobank research? Professor Chadwick answered these questions in light of the EGC's commissioned studies.

Discussion

Professor Chadwick was asked to comment on how the substantial rhetoric surrounding the concepts of the public good and public interest can be turned into real advice and was asked if she knew of any real examples that the Council could learn from. She commented that the Human Genome Organisation (HUGO) Ethics Committee, of which she is Chair, has drawn on these concepts in its 'Statement on pharmacogenomics: Solidarity, Equity and Governance'.¹ In the statement the Committee states that 'because of shared vulnerabilities, people have common interests and moral responsibilities to each other. Willingness to share information and to participate in research is a praiseworthy contribution to society'. Further, the Committee stated that 'to reduce health inequalities between different populations, and to work towards equal access to care is an important prerequisite for implementing genomic knowledge for the benefit of society'.

The HUGO Ethics Committee has also made a practical recommendation in relation to benefit-sharing such 'that profit-making entities dedicate a percentage (e.g., 1-3%) of their annual net profit to healthcare infrastructure and/or to humanitarian efforts'.²

¹ Human Genome Organisation Ethics Committee, 'Statement on pharmacogenomics: Solidarity, Equity and Governance'. *Genomics, Society and Policy* 3 (1) p 44 - 47, 2007.

² Human Genome Organisation Ethics Committee, 'Statement on Benefit Sharing'. *Eubios Journal of Asian and International Bioethics* 10 p 70 - 2, 2000.

Sharing profits for the benefit of society was considered more practical and more equitable than compensating individuals.

Professor Chadwick was asked to comment on how individual privacy and the public good ought to be balanced. She commented that this will depend on how you conceive of the individual and stressed that it is important to think of people in relational terms. The promise of individual privacy re-enforces the idea of an autonomous individual alone to themselves. There is an increasing realisation that complete privacy (in relation to identifiability) is an unattainable ideal and this suggests that a new approach is needed. Rather than trading on consent and privacy, researchers might instead emphasis the public interest nature of their research. We may then see a shift such that people take part in research because they consider it to be a good thing (over and above any concerns they may have for their individual privacy).³ The Personal Genome Project is founded on this shift in attitude. The project aims to enrol 100,000 informed participants from the general public who are willing for their health and lifestyle information, along with their genome sequence, to be made available on a publicly accessible website and database.

In her talk Professor Chadwick discussed whether or not biobanks can be considered to be global public goods, as opposed to considering them in their local (i.e. national) context. Global public goods are those whose scope extends worldwide, are enjoyable by all with no groups excluded, and, when consumed by one individual are not depleted for others. Professor Chadwick outlined the arguments for and against considering biobanks in this context and concluded that it is not easy to move from the notion of local public goods to global public goods.⁴

The Council questioned how participants might understand the concepts of local or global public goods in the context of UK Biobank. One member commented that recent research suggests that informed trust is more important than informed consent and that consent is often located within certain (local) contexts. When deciding whether or not to participate in research individuals may invoke bodies that support their participation (e.g. a participant might consider the NHS to be a trustworthy organisation and might agree to participate in UK Biobank because the NHS supports the project). Informed trust may be harder to achieve in the global, international scene because, while people may have a concept of the national protections and trustworthy bodies, they may not have knowledge of the international protections and so be more reluctant to trust.

Professor Chadwick's talk also addressed the harmonisation of biobanking activities. She argued for a process view of harmonisation where a harmony, rather than unison, of different 'voices' is the goal. One member drew on the example of the Cochrane review and meta-analysis of clinical trials and questioned whether biobanks might move towards harmonising the way in which researchers report their findings back to the biobanks. This may result in an enhanced ability to compare

³ Jeantine Lunshof, Ruth Chadwick, Daniel Vorhaus and George Church, 'From genetic privacy to open consent' *Nature Reviews Genetics* (2008) 9: 406-411.

⁴ Ruth Chadwick and Sarah Wilson, 'Genomic Databases as Global Public Goods?' *Res Publica* (2004) 10: 23-34.

research outcomes across biobanks. Professor Chadwick commented that the HUGO Ethics Committee has recommended that HUGO set up mechanisms to oversee outcomes of association studies but it has not proposed that data be reported in such a way that the results of different studies can be compared.

6. Update from UK Biobank (Dr Tim Sprosen, Chief Scientific Officer, UK Biobank)

General update from UK Biobank

UK Biobank expects to recruit the 250,000th participant in January 2009 and is on track to achieve its target of 500,000 participants in summer 2010 (if recruitment continues at the current rate).

Dr Tim Sprosen presented the project's roll-out timetable for the assessment centres. New centres are being planned for England (including Liverpool, Sheffield, London (West) and Middlesbrough), Wales (Swansea) and Scotland (Dundee). The Council noted that UK Biobank does not plan to recruit in Northern Ireland. Dr Sprosen explained that the project relies on collaborations with local researchers who are willing to take an active role in the local recruitment process. While UK Biobank has been in contact with researchers in Northern Ireland, no collaborator has been identified. Given that, by its name, the project might be expected to include participants from all countries in the UK, the Council recommended that UK Biobank might re-assess the possibility of finding a local collaborator, and opening an assessment centre, in Northern Ireland.

The Council pointed to a discrepancy between the EGF and the participant materials which state, respectively, that UK Biobank will seek access to 'health-relevant' and 'health-related' records. The Council recommended that UK Biobank amends the materials so that they are consistent. UK Biobank would be advised to give full consideration to which phrase to adopt as there may be consequences over the difference in interpretation of the two phrases.

Update regarding recommendations from EGC16

Follow up of participants

As part of its strategy for following up participants UK Biobank will seek access to a number of health and health-related records. Dr Sprosen confirmed that he will post, on the project's website, a list of records to which UK Biobank has access and records from which UK Biobank has been denied access.

Other recommendations and requests from EGC16 were addressed by Dr Sprosen and Mr Sellors in the items that follow.

UK Biobank's post-visit survey: Final report

At its last meeting the Council reviewed the interim results of UK Biobank's post-visit survey and subsequently provided UK Biobank with a list of questions which it

proposes might usefully be explored in a new survey of participants' understandings and expectations of their future involvement in the project. The Council reviewed the final results of the current post-visit survey which involved a total of 298 participants from three different assessment centres (Stockport, Leeds and Newcastle). While informative, the Council considered the survey to provide limited depth and cautioned over using the results to validate participants' understandings and expectations.

The Council re-iterated its previous recommendation to conduct a more robust, discursive survey of participants' understandings and expectations. Dr Sprosen confirmed that UK Biobank will re-draft the previous questionnaire with a view to conducting subsequent telephone interviews with specific participants to gain greater understanding. UK Biobank will seek Research Ethics Committee approval for this further survey of participants.

Biannual report on enquiries and complaints received by UK Biobank

The Council welcomed UK Biobank's third biannual report on complaints and enquiries and was grateful that the majority of its suggested additions to the report had been incorporated. The report summarised information from the free-phone Participant Resource Centre (PRC) and other participant feedback (for example in the form of comment cards left at the assessment centre or correspondence to the co-ordinating centre in Cheadle). Dr Sprosen informed the Council that the PRC is receiving on average 1200 calls per day and that the experience of the call handlers has grown during the course of the project resulting in less calls needing to be escalated to more senior members of staff.

The Council re-iterated a request that while the report as submitted was helpful in detailing escalated queries, it would also be helpful to have some reporting on the more standard enquiries and complaints that are raised at the assessment centres. The Council requests some reporting of these standard enquiries and complaints in future reports (categorised, for example, by different aspects of the visit 'language problem', 'waiting times', 'staff behaviour' etc.). The Council is interested to learn how many individuals had a bad experience, how this was resolved and what was their experience. Dr Sprosen offered to analyse the comment cards from each assessment centre and to include additional information in the next report to Council.

The Council also re-iterated the point that the miscellaneous category contains a high proportion of responses. It would be helpful if this category could be reviewed on an ongoing basis to see if there are any significant subcategories that should be reported separately. This is important in assisting the Council to monitor complaints and enquiries over time.

Development of UK Biobank's access and intellectual property procedures

UK Biobank is consulting with a number of experts with a view to producing draft access and intellectual property procedures, ancillary documentation and a draft Material Transfer Agreement in the latter part of 2009.

The Council considers that the development of the access and intellectual property procedures represents a significant quantity of work which will inevitably require consideration of a number of ethical issues. A number of these issues have been highlighted by the Council in a list of questions sent to UK Biobank subsequent to the last Council meeting. The list includes a number of areas which the Council considers to require attention during the development of the procedures (e.g. remit of any access committee, access criteria, feedback of research results to UK Biobank etc).

The Council strongly recommended that UK Biobank dedicate sufficient time to the task of developing the procedures in advance of the completion of recruitment in Summer 2010. To this end the EGC's access and intellectual property subgroup offered to meet with Mr Sellors to discuss the Council's list of questions and to offer advice on the procedures ahead of the next full Council meeting.

ACTION: A meeting will be arranged between Mr Sellors and the EGC's access and intellectual property subgroup in January 2009. [AH]

7. UK Biobank's proposal for enhanced phenotyping of participants (Dr Tim Sprosen, Chief Scientific Officer and Mr Jonathan Sellors, Company Secretary, UK Biobank)

Dr Sprosen provided an update on UK Biobank's enhancement proposal,⁵ the final proposal for which should be received by the EGC at the end of December. He clarified that the EGC's comments on the category 1 and 2 measures would be welcome early in the New Year but that the category 3 proposal could be subject to an iterative dialogue over a longer time period.

The Council briefly discussed the category 1 and 2 measures during which the following points were raised:

- Dr Sprosen confirmed that participants would be able to opt-out of the fitness test. The Council considered that the more ambitious UK Biobank becomes in terms of the questions it asks and the measurements that it takes, the more important it will be that participants can opt-out of any particular enhancement.
- UK Biobank proposes to assess participants' activity by asking them to wear a monitor for a week after their assessment visit. The project also proposes to ask participants to complete an online diet diary. Dr Sprosen agreed with the suggestion that seasonal variation will be an important consideration for both of these proposals. He suggested that participants might be asked to wear the monitor and complete the diet diary on more than one occasion so that the project can compare data collected at different times of the year.

The Council then discussed the proposed category 3 enhancements and the question of what information, if any, should be fed back to participants. Mr Sellors

⁵ See EGC15 meeting report for details of the three categories (available at www.egcukbiobank.org.uk/meetingsandreports).

reviewed the rationale, as set out in a paper to the Council, for UK Biobank's proposed policy on feedback specifically in light of the proposed category 3 imaging enhancements (including magnetic resonance imaging (MRI) of the brain, heart and whole body). It was noted that the Board of Directors had not yet considered the paper although this would happen in short order. Mr Sellors noted that the Board would not only review the issue from an ethical perspective but also from the perspective of feasibility, liability and public communications.

UK Biobank's proposal is that there is a choice to be made between providing a certain level of incidental feedback and providing no feedback. There are pros and cons of both approaches and although UK Biobank management were leaning towards the no feedback option, it may be the case that both alternatives could be more extensively tested during the proposed pilot phase. Mr Sellors' paper argued that the position from the participant's perspective may be more readily resolvable than from the radiographers perspective. He accepted that there would be issues with a mandatory policy of no feedback and hence the suggestion that the radiographer is 'strongly recommended' not to provide any feedback (howsoever that feedback might be communicated).

UK Biobank considered that the participant issue, which (as mentioned above) may be easier to resolve than the radiographer issue, may be dealt with by providing a very comprehensive and graphic consent process. This process may include the use of scenarios to demonstrate likely outcomes. For example, in one scenario a participant is provided with no feedback for an image which, if analysed, would show an abnormality. The participant subsequently develops a serious condition and dies.

UK Biobank considered that the issues with regards to the radiographers might be more difficult to resolve and needed further investigation and study.

Discussion

The Council felt that the first consideration should be the scientific validity of the enhancement proposals, in particular the category 3 enhancements. This review process is being conducted by UK Biobank's International Scientific Advisory Board and through the usual funding peer-review process. All further discussions, e.g. regarding UK Biobank's feedback policy, follow from the scientific validity of what is proposed.

While agreeing that UK Biobank's proposed graphic consent process will be necessary if the project decides not to provide any feedback, the Council did not consider this strategy sufficient in the context of what is proposed. Mr Sellors acknowledged that the specific consent process was one, but by no means the only part of the process of providing the necessary information to participants. With regard to the radiographers, the Council considered that the proposal that the radiographer is 'strongly recommended' not to provide feedback may be problematic and result in residual uncertainty for the radiographer, in terms of if, when and to whom to provide feedback.

In moving forward, UK Biobank said that it would explore the landscape for analogous situations (including those studies which incorporate MRI but do not necessarily compare to UK Biobank in scale). The Council supported this proposal and recommended that UK Biobank could also explore whether or not the Standard Operating Procedures (SOP) for handling incidental findings made during the baseline assessment visit can be adopted for the proposed category 3 measures, and if not to explain clearly why these SOPs are not analogous or applicable to the current situation.

Finally, Mr Sellors' paper states that preliminary evidence suggests that with full body MRI the false positive rate could be up around the 25% mark. The Council recommended that UK Biobank investigates whether or not there is any literature that provides an accurate, reliable percentage incidence of false positives in scanning research, in particular for brain and heart MRI, in addition to whole body MRI.

8. UK Biobank's IT and data management strategy

The Council noted UK Biobank's update paper regarding its IT and data management strategy but discussion of the paper was postponed due to a lack of time.

9. Communications activities⁶

Public meeting on 12 February 2008

Dr Mairi Levitt (Senior Lecturer, Department of Philosophy, Lancaster University and Deputy Director of the ESRC Centre for Economic and Social Aspects of Genomics) will Chair the EGC public meeting in Cardiff on 12 February 2009. Presentations will be made by Dr Levitt, Professor Graeme Laurie and Professor Rory Collins.

External speaking opportunities

The EGC communications subgroup has agreed to investigate the possibility of participating in the 2009 Manchester Science Festival.

External enquiries to the EGC

The Secretary reported on a recent external enquiry to the EGC which related to the issue of oral privacy during the nurse interview at the assessment centre.

⁶ In the interests of time items 9 and 10 were reported to the Council by email after the meeting.

10. Report on meetings attended

Seminar at University of British Columbia (27/10/08)

Professor Martin Richards was invited to present an informal talk as part of the University of British Columbia's seminar series. The subsequent discussion included the following topics: trust, the feedback policy, the issue of involvement of ethnic minority groups in biobank research and some discussion of benefit sharing and commercial involvement in research.

Ms Cook and Mr Trehearne meeting (7/11/08)

The Chair of the EGC's communications subgroup, Ms Andrea Cook, recently met with UK Biobank's Head of Communications, Mr Andrew Trehearne, to discuss the project's communications plans. Their discussion was mainly in relation to the project contacting and communicating with ethnic minority participants and how UK Biobank might engage with participants in the future.

P3G meeting (10-11/11/08)

The Secretary recently attended the Public Population Project on Genomics (P3G) meeting at which she participated in sessions on governance and access. The governance session focused on P3G's recent comparative analysis of some of its members' governance arrangements. A model governance framework was presented and discussed. The session on access included a presentation of a typology of the access policies of 21 P3G member biobanks across America, Europe and Asia. P3G is preparing a paper on this work which will be published on its website shortly.

Presentation at PRIVILEGED workshop (13/11/08)

The PRIVILEGED project is looking to determine the ethical and legal interests in privacy and data protection for research involving the use of genetic databases and biobanks. It is funded by the European Commission from 2007 to 2009, and has 32 member institutions from the European Union, European Economic Area and three non-European countries Israel, Japan and Taiwan. As part of the project's series of workshops the EGC Chair was invited to present a talk on UK Biobank and the role of the Council.

Visitors from Singapore (25/11/08)

The Secretary recently received visitors from the Singapore Ministry of Health and Singhealth. The visitors had a broad interest in the Council's work and were interested to hear how people have been engaged and consulted on the ethical issues raised by biobanking research.

11. EGC expenditure and budget

Members noted that the total spend on EGC operations in 2007/2008 was approximately £156,925 (82% of the budget). This figure includes the cost of the commissioned public attitude survey at £56,248.

12. New members for the EGC access and intellectual property subgroup

It was agreed that Ms Margaret Shotter will join Professor Graeme Laurie and Dr Heather Widdows on the EGC's access and intellectual property subgroup.

13. Any other business

IT/Security subgroup

It was agreed that Ms Tracey Phillips, Professor Ian Hughes and Dr Roger Moore will serve on the IT/Security subgroup.

ACTION: A meeting will be arranged at which the subgroup will consider its remit and workplan. [AH]

Resignation

Professor Anneke Lucassen resigned from the Council with effect from March 2009. The Chair thanked Professor Lucassen for her contribution to the Council and wished her well for the future.

14. Date of next meetings

12 February 2009 - Public meeting (Cardiff)
16 March 2009 - Council meeting