

UK Biobank Ethics and Governance Council Nineteenth Meeting

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

Monday 8 June 2009 at 10.30am

Agenda

1. **Apologies**
2. **Update from UK Biobank** (Professor Rory Collins, Chief Executive Officer, UK Biobank)
 - (i) General update from UK Biobank
 - (ii) Update regarding recommendations from EGC18
 - (iii) Biannual report on enquiries and complaints received by UK Biobank
 - (iv) UK Biobank's access and intellectual property procedures
 - (v) UK Biobank's IT and data management strategy
3. **Update from UK Biobank: Proposal for enhanced phenotyping of participants**
4. **Update from Funders: Proposal for enhanced phenotyping of participants**
5. **Minutes** of eighteenth meeting held on 16 March 2009
6. **Matters arising**
 - (i) Summary of decisions and recommendations from eighteenth meeting held on 16 March 2009
 - (ii) Tracking of requests to UK Biobank
 - (iii) Information Security subgroup
 - (iv) Access and IP subgroup
 - (v) Communications subgroup
 - (vi) Equality and diversity impact assessment
 - (vii) Proposal for workshop on representation
7. **Closed discussion: Proposal for enhanced phenotyping of participants**
8. **Communications activities**
 - (i) External speaking opportunities
 - (ii) External enquiries to the EGC
9. **Report on meetings attended**
 - (i) P3G and 'Harmonising biobanks' conference 25-27/03/09
 - (ii) National Research Ethics Service (Northern Chapter) annual conference 26/03/09
 - (iii) Visitor from Beijing Institute of Genomics 30/03/09
 - (iv) SCRIPTed Conference 'Governance of New Technologies: The transformation of medicine, information technology and intellectual property' 29-31/03/09
 - (v) Wellcome Trust Workshop 'Challenges beyond science; ensuring the future of genome-wide association studies and cohort studies' 11/05/09
 - (vi) GeneBanc conference 18-20/05/09
 - (vii) Polish Ministry of Science and Higher Education, Biobanking workshop 02/06/09
10. **Any other business**
11. **Date of next meetings**

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

**8 June 2009
Wellcome Trust, London**

Present: Professor Graeme Laurie (Chair), Professor Ian Hughes, Professor Paolo Vineis, Professor Erica Haines, Dr Roger Moore, Professor Roger Higgs, Professor Martin Richards, Mrs Margaret Shotter, Ms Tracey Phillips, Dr Jonathan Hewitt and Mr Andrew Russell.

In attendance from EGC Secretariat: Ms Adrienne Hunt.

Observers: Ms Katherine Littler (Wellcome Trust) and Dr Catherine Moody (Medical Research Council) for the whole day.

Speakers: Professor Rory Collins (Principal Investigator and Chief Executive, UK Biobank) for items 1 - 3 inclusive.

1. Apologies

Apologies were received from Professor Heather Widdows.

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

General update from UK Biobank

Professor Rory Collins reported that the recruitment process is working well and is on course to complete in June/July 2010. 320,000 participants have been recruited with potential participants prepared to travel up to 20km to the assessment centres.

Mr Andrew Trehearne, UK Biobank's Head of Communications, is currently developing proposals for long term communications. He is also investigating ways to increase public awareness about the project in the shorter term. A recent radio advertising campaign in Liverpool resulted, as a by-product, in the station producing a programme about the study including a phone-in involving participants and the public. Professor Collins would ask Mr Trehearne if there is a transcript of the Liverpool radio phone-in for circulation to the EGC.

No-cost enhancements

UK Biobank is currently piloting its no-cost enhancements in Middlesbrough (including a hearing test, a finger clip to test arterial stiffness, additional cognitive function tests and a diet questionnaire at the end of the assessment visit). The project is monitoring the effects of the new measures on visit times in order to avoid any unnecessary delays for participants. Subject to this piloting, the additional measures will be rolled-out to existing centres (if they have the required space for

the additional assessment stations) and to new centres as they open. The piloting has already shown that some participants skip the web-based diet questionnaire which occurs at the end of the visit. UK Biobank is investigating how the questionnaire can be more effectively integrated into the assessment visit.

UK Biobank has received Research Ethics Committee (REC) approval to re-contact participants in relation to the web-based diet questionnaire. In the first instance participants will receive an email informing them that the project will be contacting them about the further assessment and a second email will ask participants to fill in the diet questionnaire. This system of re-contact will be piloted in Middlesbrough before being rolled out to other recruitment locations.

Extra-cost enhancements

The funders of UK Biobank convened an expert Review Committee on 11th May 2009 to review the project's proposal for extra-cost enhancements. Professor Collins has received feedback regarding the Committee's recommendations although a decision on funding will not be made until the summer when the Wellcome Trust Strategic Awards Committee and the MRC Strategy Board will consider the proposal in light of the Review Committee's recommendations.

The funders' letter to UK Biobank indicates the Review Committee's strong support for the proposed enhancements to the current baseline assessment visit, with one exception. The strongly supported measures include the cardiovascular fitness assessment, the activity monitoring, the collection of blood for RNA extraction, the web-based diet questionnaire and the collection of saliva samples. Only moderate support was given to the proposal for ocular measures due to uncertainties for which further information was sought. UK Biobank has been asked to provide further justification of the value of the eye measures in terms of the development of disease during long-term follow-up (rather than as methods for detecting prevalent disease at the baseline visit) and further justification regarding the choice of equipment.

In their letter, the funders recognised that if these enhancements are to be added then it would be beneficial to make a funding decision as soon as possible. For an early decision would allow the introduction of new baseline measures for the greatest number of participants as possible (bearing in mind that approximately 1,200 people are recruited per day). Given this time pressure, UK Biobank has started to develop the IT systems and procedures to support these baseline enhancements, along with preparing a REC submission, ahead of the funding decision.

Some of UK Biobank's proposed extra-cost enhancements (e.g. MR imaging, ECG and DEXA scan measures) would involve a separate re-assessment visit. The Review Committee indicated support for the ECG element of the cardiovascular disease measures, but did not support the proposed MR imaging at this stage. A more wide-ranging consultation with the scientific community has been proposed for the MR imaging. In addition, there was felt to be a need for the development of a robust policy on feedback of incidental findings and consideration of the implications of the imaging for participants and the NHS (in terms of clinical follow-up). The funders will provide more detailed information in due course regarding the specific scientific questions which need to be addressed. Professor Collins noted that UK

Biobank had planned to pilot the separate elements of the re-assessment visit during the second half of 2010 before piloting the full re-assessment visit in the first half of 2011. In light of the Review Committee's recommendations, UK Biobank's process of consultation will continue during late 2009 with a view to a new funding submission in the first half of 2010.

Further to the recommendations arising from the Council's last meeting, Professor Collins confirmed that UK Biobank will re-visit its standard operating procedure on incidental findings for the full suite of proposed enhancements, including the baseline and re-assessment visit. The standard feedback form for participants will also be revised to reflect the additional enhancement. For example, if funded, UK Biobank will routinely provide participants with feedback on their eye pressure in a similar way to feedback given about blood pressure.

Professor Collins agreed with the funders' proposal that the EGC is given sight of the Review Committee recommendations and funders' letter.

Update regarding recommendations from EGC18

Equality and diversity

At its last meeting the Council recommended that UK Biobank publish a formal policy document confirming the inclusion and exclusion criteria for the project; prepare and implement an Equality and Diversity Impact Assessment tool and implement a comprehensive Equality and Diversity monitoring form for participants and employees/potential employees. Mr Trehearne has since reviewed UK Biobank's operations and derived a table of potential areas of inequality of access. He has also arranged to meet with an 'equality consultant' in order to discuss the ways in which UK Biobank should review the identified areas.

In terms of enabling participation of individuals in rural communities, UK Biobank has decided to build a mobile assessment centre with funding from the Welsh Government. The centre could be in place for September 2009 with a capacity to assess approximately 50 participants per day. In the first instance the mobile centre will serve Swansea before moving to other areas where travelling to a fixed, city-based assessments centre is not practical or desirable. The centre is also likely to be used for repeat assessments of participants in the future that will make it possible for researchers to make allowance for variation in measures over time. It is envisaged that 20,000–25,000 individuals will be re-assessed every few years, with about 1,000 participants drawn from each of the original assessment centre locations.

UK Biobank recently carried out a survey of its assessment centre staff which asked for ways of improving the assessment process. Feedback from staff has suggested modification of the touch-screen booths to help accommodate wheel chair access. An additional consideration arose for the Council as a result of this feedback: are the assessment centres compliant with the Disability Discrimination Act? The Council recommended a review of UK Biobank's operations in light of this Act, including the set-up of the proposed mobile unit.

As described at previous meetings, UK Biobank aims to be generalisable (rather than representative of the population) so that research using it may benefit a wide diversity of people. UK Biobank's assessment centres are being placed in areas that facilitate participation by as many groups as possible (although UK Biobank is not actively seeking to over-represent all groups in order that there are scientifically meaningful numbers). UK Biobank has reviewed the ethnicity of its participants, and has compared this with the percentage of ethnic groups in the general population. Low numbers of ethnic groups have been found in cities such as Glasgow and Edinburgh, while higher numbers are found in Stoke, Manchester and London. This has informed the choice of locations for new centres.

The Council noted that a researcher may request access to UK Biobank's data in order to make a comparison with data from similar studies which focus specifically on certain ethnic groups (for example the South London based Lollipop study which involves the South Asian community). Professor Collins confirmed that UK Biobank's questionnaire and physical measures were selected in such a way as to promote consistency, and therefore comparability, with other projects.

The Council was encouraged to learn about UK Biobank's progress with respect to equality and diversity issues.

Post-visit survey

At a previous meeting the Council strongly recommended that UK Biobank pursue the idea of a systematic post-visit survey to investigate participants' understanding and expectation of UK Biobank and their continuing involvement in the project. Professor Collins advised that Dr Tim Sprosen is now developing the survey which will focus on the issue of participants' understandings of consent. Professor Collins offered to give the Council sight of the new, draft post-visit survey before the end of July 2009 and prior to the survey being adopted and used.

ACTION: The Council has previously supplied UK Biobank with a proposed structure and questions for the survey. In the closed afternoon session the Council agreed to re-send the survey structure and questions to Professor Collins in order to re-iterate its earlier recommendation. [AH]

Biannual report on enquiries and complaints received by UK Biobank

The biannual report provides an analysis of anonymous comment cards which participants are invited to complete at the end of their assessment visit. Feedback contained within the cards has helped UK Biobank to improve the assessment visit including practical issues such as providing more clear instructions on how to find the assessment centres. The report also includes details of the number of participants who have withdrawn from the project in the reported 6 month period. The report indicated that there had been a rise in the small number of withdrawals (a total of 411 for all three options of withdrawal in the current reporting period in comparison to 193 in the previous six months). The Council and Professor Collins discussed whether or not there were geographic or other trends in relation to the withdrawals and whether UK Biobank can assess when they occur (e.g. soon after the assessment visit, or at a later time which could help to explain an increase over

time as follow-up duration increases). Initial analysis of the apparent increase in withdrawals had not identified any discernible explanations but further investigation is ongoing and will be reported to the Council in due course.

Professor Collins confirmed that UK Biobank keeps a record of withdrawals and of people who have made enquiries or expressed concerns (e.g. regarding feedback of results or commercialisation), but that the project does not routinely link the two sets of information. The Council recommended that UK Biobank cross-reference these data sets to help shed light on the recent apparent increase in withdrawals.

The biannual report provides statistics on the number of enquiries and complaints received by the project, categorised by subject matter (e.g. 'payment of expenses' or 'security of resource'). The Council noted that the current biannual report does not contain reference to the Miscellaneous category of enquiries and complaints (which was a substantial category in previous reports). Professor Collins offered to seek clarification from Dr Sprosen as to whether or not any enquiries and complaints should have been reported in this category.

The Council noted a comment in the report that the existence of the EGC is seen by participants extremely positively, particularly in relation to its independence and the fact that it will oversee the resource for the lifetime of the project.

UK Biobank's access and intellectual property procedures

It is anticipated that the collected samples will have been transferred to the project's custom-made archive facility by the end of June 2009. The facility has the capacity to retrieve about 1,000 samples per day from the storage area. Given the likelihood that researchers will request access to DNA, UK Biobank is developing automated ways to extract DNA from the samples.

Professor Collins was asked to comment on the main lessons arising from UK Biobank's review of the access and IP procedures of other projects and its recent dialogue with the coordinators of similar resources, such as the Wellcome Trust Case Control Consortium (WTCCC). He commented that the WTCCC relates to access to data only and so the issues are more straightforward than those facing UK Biobank, which require the additional consideration of access to depletable samples. UK Biobank is currently giving further thought to the procedure by which researchers might obtain access to samples and sample assays. The Avon Longitudinal Study of Pregnancy and Childhood recently initiated an open access element to its resource. UK Biobank is looking at their experience, including the types of applications that they receive and how they are managed.

When asked to comment on the move some projects are making back from 'open' to 'controlled' access to data in order to protect privacy Professor Collins indicated that UK Biobank will require prospective users to sign an agreement before being granted access to data or samples. This should help to protect privacy by including an undertaking that the researcher will not try to identify participants. UK Biobank is considering the nature and process of research ethics review that will be required of researchers who request access to the resource. For example, to promote consistency of opinion it may be an advantage that all applications are reviewed by

one Research Ethics Committee (REC). However, this may burden the REC with an unmanageable workload and result in delays in the processing of applications and the use of the resource for important research.

A Council member provided an example of the access mechanism employed by the European Prospective Study into Cancer and Nutrition (EPIC) which involves 23 centres throughout Europe. Research on this study's data has generally been conducted by the Principal Investigators involved with EPIC, but more recently external investigators have requested access to the resource. Application forms and protocols are considered on a monthly basis by the project's Steering Committee. The Committee considers two main features; first, the quality of the application including the reputation of the group that would conduct the research and second, the possibility of harmonisation by promoting collaboration between different researchers who submit independent applications on the same topic. Committee-approved applications are subsequently considered by a REC (with 23 RECs mirroring the 23 centres involved in EPIC). Professor Collins commented that a similar approach is envisaged by UK Biobank. In particular, given the costs of assays and the depletable nature of the samples, it was intended that sets of samples be retrieved and analysed to serve the requirements of several different research groups simultaneously rather than just those required by one set of researchers.

The Council reflected on its recent Cardiff public meeting and a concern amongst some attendees that international researchers might have access to UK Biobank. This topic is addressed explicitly in the participant information leaflet and a strong scientific case can be made for such access (including the ability to compare different populations). However, despite the apparent clarity in the information leaflet and consent material the Council considered that the reasons for concern might need to be teased out in more detail. For example, while a scientific case can clearly be made, there may be an underlying perception of a privacy risk for data used outside of the UK. Professor Collins commented that a recent MORI poll for the MRC found that, by contrast, respondents had been more concerned about people closer to home having access to their details (e.g. a local GP's receptionist) rather than someone distant from them.

As part of its access procedures, UK Biobank will address the requirement on researchers to publish the results of their research findings. Professor Collins confirmed that the approach will be in line with the funders' requirements (e.g. the Wellcome Trust requires its funded research to be published in open access journals). The Council re-iterated the Ethics and Governance Framework requirement that researchers report both positive and negative findings in the public domain and recommended that this requirement be kept clearly on UK Biobank's agenda.

The Council recommended that Mr Trehearne might usefully develop a method of consultation through which participants' views on the draft AIP procedures can be garnered with suitable attention to the limits of scale. It was considered advisable to factor in a stage of education prior to the consultation phase in order to promote informed views. Professor Collins commented that UK Biobank's Communications team is currently considering how the project can best keep participants informed

about the project's progress and that a consultation on access might provide a first exercise in this long-term communication strategy.

At its last meeting the Council recommended that UK Biobank might benefit from additional resources during the development of the AIP procedures (for example, hiring an expert consultant to provide input from an ethics and social science perspective). In its paper to Council, UK Biobank details a number of areas which need to be reviewed in more detail. The Council queried whether this would involve review by an external researcher or by UK Biobank. Professor Collins confirmed that the review does not include an external researcher but is an extension of the consultation that UK Biobank has been conducting with various stakeholders.

The Council plans to hold a public meeting on 15th March 2010 in Sheffield and proposes that UK Biobank's access provisions provide a focus for the meeting. Given this, the Council hopes that the current timetable for the development of the draft procedures by September 2009 will be maintained so that the materials can be used to inform its public discussion in March 2010.

The Council noted in the feedback on the enhancement proposal that the funders encouraged UK Biobank to develop its AIP procedures "as a matter of urgency" and re-iterated that it is very happy to work with UK Biobank to ensure that the timetable is met and that a robust instrument is made available for wider consultation.

UK Biobank's IT and data management strategy

The EGC Information Security subgroup recently requested information from UK Biobank regarding the nature of its relationship with the Clinical Trial Service Unit (CTSU) and regarding the steps taken by UK Biobank to assure itself that CTSU meets the project's own security standards (specifically, compliance with ISO 27001). This issue was discussed along with the UK Biobank Board's recent decision that the development of the database (which will eventually contain participants' assessment and follow-up information) and the associated user interfaces will be outsourced to academic collaborators through a tendering process which is expected to complete in the last quarter of 2009.

Subsequent to this discussion the Information Security subgroup met during the lunch break of the Council meeting and agreed a number of questions to address to UK Biobank. The following questions were agreed with the Council in the afternoon session:

- The Council endorsed UK Biobank's proposal to commission an independent external audit of CTSU's security provisions. The Council would welcome further information regarding the scope of the audit and which person/organisation will be commissioned to undertake the audit process.
- In relation to the outsourcing of the database, the Council endorsed UK Biobank's plan to have an independent audit of the IT security systems of the tenders and that an IT security expert will sit on the Commissioning Panel. The Council requests further information regarding which procedures are/will be put into place in order to ensure appropriate data security during the transition phase from having an in-house IT team to outsourcing the database development. In addition, what procedures will be employed to ensure

appropriate security during the downstream administration of the database? When will it be possible to answer the question of whether data will be held externally to UK Biobank (i.e. if UK Biobank decides that it would be an advantage for the database developer to also maintain the database) and what are the implications of this?

- How will the development of the database and user interface affect the timetable for access?
- Could UK Biobank clarify the nature of the relationships, in the medium and long term, between it and CTSU and between it and the external database developer. For example, will CTSU increasingly become a provider of services only?
- Given the role of CTSU in handling the participant invitation process and the proposed outsourcing of the database (including the uncertainty as to whether or not the management and maintenance of the database will also be outsourced), could UK Biobank clarify the scope of the ISO 27001 accreditation that it hopes to receive in September 2009, including the operations that are covered by the accreditation? Is this move to outsourcing likely to prejudice in any way the process for attaining ISO 27001 accreditation?

3. Update from UK Biobank: Proposal for enhanced phenotyping of participants

The Council discussed a paper from UK Biobank which outlined the approach determined by the project for the feedback of incidental findings that might be made during the proposed re-assessment imaging visits. UK Biobank proposes to incorporate a limited feedback loop for those incidental findings considered to be potentially “serious” (defined in this context as likely to threaten life span, quality of life or major body functions) and which are observed during the re-assessment imaging visit (subject to the outcome of further consultation and piloting). It would be made clear to participants that only those incidental findings that are noticed during the re-assessment visit and that are considered potentially “serious” (as defined above) and after further review by a reviewing expert will be reported back to the participant and their GP. The treatability (or lack thereof) of a particular incidental finding will not be a relevant factor.

The paper proposes a pre-pilot phase that will start during 2010. The pre-pilot is intended to assess the reaction of participants to certain scenarios (using specimen information materials and consent forms) and the parameters of any feedback policy. The pilot would also assess the reaction of various constituents within the medical community (GPs in particular) related to the imaging re-assessments. The pilot phase would then be conducted early 2011 to test the protocol among about 4-8,000 participants.

UK Biobank prepared the outline proposal for feedback for the 11th May Review Committee which has since recommended that the MR imaging should not be supported at this stage but that further consultation should take place (as discussed under the previous agenda item). The Chair and Secretary had previously provided comment on the outline proposal including how it might be developed further.

Professor Collins confirmed that the comments (including a question of whether or not UK Biobank should offer a right to participants not to receive feedback and whether or not a participant can decline feedback to their GP) would be borne in mind as UK Biobank consults further on the approach.

Members re-iterated the main recommendations from the last Council meeting including, overarchingly, the need for a consistent policy for the full suite of proposed enhancements in terms of the way in which incidental findings will be managed and which measures will be routinely fed back to participants (e.g. as with the routine reporting of blood pressure at the end of the current baseline assessment visit). Professor Collins confirmed that, while the outline paper refers to MR imaging only, the full suite of enhancements will be reviewed in terms of feedback of both routine and incidental findings.

Incidental findings are not anticipated for the majority of the enhancements as most measurements will be stored without analysis (e.g. the hearing test, cognitive function tests, urine sample, blood sample for RNA, photographs of the eye and the fitness test). Similarly, no incidental findings are expected for the finger clip, which produces wave forms as an indication of vessel stiffness, because the method is an uncertain predictor of disease and has no immediate clinical value. Eye pressure measurements will, if funded, be routinely reported to participants against a normal range at the end of their assessment visit.

The Council recommended that appropriate training is provided for those undertaking the scans to enable them to deal sensitively with participants (while noting that it is not the responsibility of the individual who takes the scan to provide feedback to the participant). The Council also recommended that it will be important for UK Biobank to create a communication loop back from the radiologist to the radiographer as part of an education process which should, over time, assist the radiographers in becoming more experienced at identifying potentially serious incidental findings.

Professor Collins expressed his concern that UK Biobank might make a substantial number of 'false positive' incidental findings during the MR imaging, a matter on which the literature provides little information. For clarity he defined the term 'true positive' as a truly serious finding which is likely to threaten life span, quality of life or major body functions. He described 'false positive' as findings that, on further investigation, turn out to be either normal, or 'not average' anomaly or findings that may not clearly increase the risk of an adverse outcome. Members commented that, although initial feedback regarding an abnormal finding may raise anxiety for a participant, it is quite likely that they would prefer any such potentially serious finding to be investigated. Further, the finding may turn out to be something with clinical significance although not serious in terms of being a likely threat to life span, quality of life or major body functions. Professor Collins noted that if the MR imaging is funded in the future, UK Biobank would investigate the occurrence of potentially serious incidental findings, and develop the process by which these are handled, during a pilot phase.

4. Update from Funders: Proposal for enhanced phenotyping of participants

The funders provided input during the discussion under item 3.

5. Minutes of last meeting held on 16 March 2009

The Council approved the circulated minutes.

6. Matters arising

Summary of decisions and recommendations from eighteenth meeting held on 16 March 2009

The Council approved the circulated summary of decisions and recommendations.

Tracking of requests to UK Biobank

The requests for further information were dealt with during Professor Collins' update.

The Council noted that the funders' feedback to UK Biobank on the recommendations of the Review Committee supported a number of the EGC's recent recommendations to UK Biobank. Included were the recommendations relating to the need for a robust feedback policy for incidental findings made during the proposed MR imaging and the need for UK Biobank to develop its access and IP procedures as a matter of urgency.

ACTION: The Council agreed to recommend that UK Biobank make the necessary revisions to the Ethics and Governance Framework (EGF) in time to reflect the introduction of the enhancement measures and development of the access procedures. [AH]

ACTION: 'Revision of the EGF' will be added to the tracking of requests list. [AH]

Information Security subgroup

See item 2 'UK Biobank's IT and data management strategy' for points agreed under this item.

In light of the morning's discussion regarding UK Biobank's data security provisions and outsourcing, the EGC agreed that its position on the project's data security should be: 'The Council is seeking further information regarding the nature of the relationships between UK Biobank and its contracted partners and on the scope of the project's ISO 27001 accreditation to assure itself of UK Biobank's data security provisions.'

Access and IP subgroup

The Access and IP (AIP) subgroup met with Mr Jonathan Sellors in March to discuss aspects of UK Biobank's AIP procedures. The Council's observation that there had

been some slippage in the timetable for developing the procedures was also discussed. During the subgroup meeting Mr Sellors proposed to prepare the procedures to an earlier timetable and so the EGC now expects to have sight of the procedures if they are approved for distribution by the Board of Directors at its September 2009 meeting.

The EGC Access and IP subgroup recently provided UK Biobank with a document which describes the 'Top 6' issues which the subgroup considers require immediate further investigation during the development of UK Biobank's AIP procedures. The Council agreed that it would be most helpful to UK Biobank and to the Council itself if it could receive a paper for its 7th September meeting that describes UK Biobank's proposed approach with respect to the 'Top 6' issues (including the proposed role of the EGC in the access process).

ACTION: A previous draft UK Biobank access and IP policy (written by the funders and dated January 2005) will be circulated to members for reference. [AH]

Communications subgroup

At a recent meeting the EGC Communications subgroup re-affirmed the Council's communications strategy with minor changes. The subgroup also reviewed the history, purpose and format of the Council's public meetings and agreed that the purpose of the meeting is:

- To demonstrate a commitment to engagement and openness
- To inform people in more detail about the project and the EGC's work
- To receive feedback from people regarding the project and the EGC.

The subgroup agreed that public meetings should take place in locations where UK Biobank is actively recruiting and recommended to Council that the March 2010 public meeting should be held in Sheffield. Recruitment in Sheffield is due to begin in Summer 2009 and will continue through to Summer 2010. There should be an awareness of the project in the city at the time of the Council's March meeting and there will be an opportunity to target invites to participants through the assessment centre. The March 2010 public meeting will be the last such meeting before the end of UK Biobank's recruitment phase. The subgroup agreed that future meetings might usefully tie-in to UK Biobank's re-assessment locations (if the re-assessments are funded).

The subgroup agreed that future public meetings should seek to address a specific, current topic and should aim to be more engaging and stimulating in style. In particular the subgroup recommended that the March 2010 public meeting should focus on issues around access to the resource.

ACTION: The Council will request materials from UK Biobank relating to its access and IP policy that can be used as a basis for discussion at the proposed March public meeting. [AH]

Equality and diversity impact assessment

At its last meeting the Council agreed to undertake an equality and diversity impact assessment (EDIA) of its activities. Members considered and endorsed a draft EDIA policy and tool which were prepared by the Secretary (with one minor change). The Council agreed that Ms Tracey Phillips and the Chair will assist the Secretary in undertaking the assessments and that all assessments should be circulated to the full Council.

ACTION: The Council agreed to undertake three initial assessments; its published material, its public meetings and the process by which members are recruited. [AH, TP, GL]

The Council also discussed UK Biobank's progress in relation to EDIAs of the project's activities (as discussed with Professor Collins under item 2). Members noted that it will be important for UK Biobank to evidence how it has met its commitments as articulated in the Ethics and Governance Framework (EGF):

UK Biobank will seek to recruit as widely generalisable a population sample as is practicable so that the research may ultimately benefit a wide diversity of people. UK Biobank will work to reduce barriers to participation (such as those relating to age, gender, ethnicity, social class, residence, employment, and language) through, among other things, the location and opening times of assessment centres and by translation of study materials. (EGF I.A.2)

Further, as recommended at its last meeting, the Council agreed that it will be important for UK Biobank to have an equality and diversity policy which clearly articulates the project's desire to promote equal opportunity to participate by removing barriers to participation. The policy could usefully explain that this policy does not include promoting over-participation in certain groups in an attempt to enroll scientifically meaningful numbers of participants from minority ethnic groups.

The Council agreed to re-visit this topic after UK Biobank has taken advice from the equality consultant.

Proposal for workshop on representation

In their review letter of 12th November 2008, the funders acknowledged that the Council had developed and implemented a strong public engagement programme within the UK while noting that 'for the future, it will be important for the EGC to consider which mechanisms of engagement and communication with the public are best undertaken by the EGC, which by Biobank directly and which by the funders'. The Council discussed a proposal, prepared by the Secretary and Chair, to host a workshop which aims to address this issue through a series of expert testimonies from practitioners who have worked with certain methods of public involvement (including participant panels or one-off deliberative democracy exercises) and academics who have proposed certain models in theoretical terms.

The Council agreed to hold the workshop with a few changes to the proposal: The meeting would not be open to the public but a maximum of 5 lay people should be

invited to provide input (e.g. lay representatives from other committees or participants of cohort studies who can speak from their experience of participation). Presentations of the models should be given less time (about 10 minutes) leaving more time for discussion, and agreement of, concrete outcomes. The Council will explore the possibility of holding the workshop in December 2009.

ACTION: The proposal will be amended and taken forward. [AH]

7. Closed discussion: Proposal for enhanced phenotyping of participants

Reflecting on the morning's discussion with Professor Collins regarding UK Biobank's proposed enhancements, the Council agreed to recommend that:

- UK Biobank gives full consideration to the position of the GP in the feedback process (including how information is fed back to GPs and how a GP might address the finding with the participant). A 'buddy system' might be appropriate whereby specific UK Biobank staff (e.g. the radiologists) have responsibility for communicating with GPs. The Council noted the enhancement Review Committee's recommendation that UK Biobank will need to model the predicted numbers of incidental findings arising from MRI scans in order to evaluate the cost implication to the NHS of clinical follow-up.
- UK Biobank would be advised to keep alert to the language being used regarding the re-assessment visits and how this might – or might not – be understood by participants. For example, the term 'false positive' is open to interpretation even within the scientific community and may not be readily understood by participants. The Council recommends that UK Biobank uses non-technical language. UK Biobank might also give consideration as to whether or not it should continue to call the imaging visit a 're-assessment' as this might wrongly imply that participants are being invited to a repeat of their initial baseline assessment (rather than undergoing new measurements).

8. Communications activities

External speaking opportunities

The Council noted that there are no pending speaking opportunities.

External enquiries to the EGC

The Council noted the external enquiries received by the Council since its last meeting. In particular, the Council discussed a recent enquiry which sought clarification regarding the EGC's opinion on whether or not 'consent to participate in UK Biobank' might reasonably be thought to include the creation of human or human admixed embryos from participants' samples. (In an earlier correspondence the Council had responded to the enquirer in broad terms regarding the preclusion of specific future uses of the resource, including the creation of human or human admixed embryos (see annex A for the Council's response)).

Members agreed that they cannot currently foresee the creation of human and human admixed embryos from samples held by UK Biobank as being applicable to the project's protocol. The Council acknowledged, however, that the full suite of possible future uses can not be foreseen given the long term nature of the project and the pace of scientific developments (as reflected in the model of broad consent adopted by the project).

While there were varying opinions on the Council as to whether or not participants might expect the creation of human and human admixed embryos to fall outside UK Biobank's general consent, this research use was not considered by the Council to be clearly ruled out in the broad consent model. There was a consensus that the Council should avoid making pre-emptive statements regarding hypothetical research uses which are currently unforeseen. Instead, if such an application for access were made the Council would fulfil its role in scrutinising the decision making process and would want to consider the reasonableness of the proposal against the social, legal and ethical landscape at the time the application is made.

When considering potentially controversial research uses, including the creation of human and human admixed embryos, the Council would seek to ascertain public attitudes to the research use in order to inform its advice to UK Biobank. The Council would want to establish an evidence base regarding prevailing interests in society at the time before recommending that the project adopt a particular course of action (e.g. re-consent) on the basis of the 'public interest'. The Council reiterated that the option of re-consent is always available should it be deemed necessary; for example, if such evidence showed a particular use to be controversial and one that participants might not have expected. In such a situation the Council would normally advise UK Biobank to re-consent its participants for the specific use.

In summary, the creation of human and human admixed embryos was not considered by the Council to be clearly ruled out in the broad consent model. The Council is not in favour of making a categorical statement regarding a hypothetical use of the resource which is currently unforeseen. The Council expects to monitor the types of research proposals that arise and to make recommendations while reflecting on the prevailing ethical, legal and social context and the public interest.

ACTION: A response will be drafted and sent to Council for comment. [AH]

9. Report on meetings attended

P3G and 'Harmonising biobank research' conference 25-27/03/09

The Secretary attended the conference 'Harmonising Biobank Research: Maximising Value – Maximising Use', followed by a P3G meeting. The conference was predominantly scientific with sessions addressing topics such as phenotype harmonisation and data sharing models. One parallel session addressed aspects of re-contact and re-consent while Professor Ruth Chadwick gave a plenary on the ethics of harmonisation. A representative from the Wellcome Trust Case Control Consortium spoke of the project's no feedback policy and how this policy is proving

to be ethically challenging now that the project is investigating, for example, large rare deletions that have clinical significance. He commented that such cases would ideally be considered by a dedicated ethics committee. In the context of UK Biobank he suggested that the Ethics and Governance Council would be well placed to take on this role.

The P3G meeting included a plenary session on the economics of biobanking while the international working group on ethics, governance and public engagement considered a paper that outlined the core elements of a sample and data access policy and discussed policies on the feedback of health information.

National Research Ethics Service (Northern Chapter) annual conference 26/03/09

The Chair recently presented a paper on the work of the EGC at a National Research Ethics Service (NRES) conference. He noted a shift in attitude from informed consent to broad consent within a trust model. During the meeting the Chair spoke with Mr David Neal, Head of Policy and Deputy Director of NRES, who expressed his interest in the Council and its methods of working.

Visitor from Beijing Institute of Genomics 30/03/09

The Secretary recently received a visitor from the Beijing Institute of Genomics who is working on the BIONET project. The aim of this project is to ensure that structures and procedures of ethical governance are an integrated part of international scientific collaborations, especially between Chinese and European researchers. The visitor was on a fact-finding visit in preparation for the project's four-day conference to discuss the ethical challenges surrounding biobanking.

SCRIPTed Conference 'Governance of New Technologies: The transformation of medicine, information technology and intellectual property' 29-31/03/09

The Chair presented a paper at this conference and noted that Taiwan biobank was also present at the meeting. Taiwan biobank has adopted the concept of an Ethics and Governance Framework and of a Council to oversee the project's conformance with the Framework. The Chair informed the Council that he has been invited to Taiwan later in 2009 to discuss the EGC's work.

Wellcome Trust Workshop 'Challenges beyond science; ensuring the future of genome-wide association studies and cohort studies' 11/05/09

The Chair recently attended a Wellcome Trust workshop regarding the ethics and governance aspects of genome-wide association studies and cohort studies. The workshop was organised by Ms Katherine Littler and involved many of the Wellcome Trust's Governors. Ms Littler informed the Council that the Wellcome Trust will be updating its policy on the feedback of incidental findings over the coming months.

GeneBanc conference 18-20/05/09

The Chair was recently invited to speak about the EGC at the GeneBanc project conference. This European Commission funded project aims to investigate the

ethical, legal and social issues of three types of biobanks: classical banking, population banking and forensic DNA databases.

Polish Ministry of Science and Higher Education, Biobanking workshop 02/06/09

The Council's Vice Chair, Professor Martin Richards, was recently invited to speak at a joint workshop of the British Embassy and the Polish Ministry of Science and Higher Education. The Ministry is interested in funding a biobank and would like to make use of the current collections in Poland. Professor Richards noted that the meeting, which involved the deputy ambassador, local ministers and scientists along with a number of international speakers, had a clear focus on ethics and governance issues. Attendees discussed the issue of feedback, identifiability (and how to present data in order to mitigate identification) and the possibility of participants being able to exclude certain types of research use. A key message from the meeting was the need for any future biobank to participate in European and international initiatives, such as BBMRI and P3G respectively. Professor Richards also noted that the Ministry is considering the introduction of biobanking legislation.

10. Any other business

No other business was raised.

11. Date of next meetings

7 September 2009	-	Council meeting
7 December 2009	-	Council meeting

Annex A

The purpose of UK Biobank is 'to set up a resource that will support a diverse range of health-related research intended to improve the prevention, diagnosis and treatment of illness and the promotion of health throughout society'. The EGF states that UK Biobank will not proscribe any medical or other health-related research uses at the outset but that all uses must fall within the project's purpose. Further, the EGF states that UK Biobank will act in accordance with all relevant legislation and that any research use must be scientifically and ethically approved.

The creation of human embryos and human admixed embryos is therefore not necessarily a precluded use of the samples. Any application for such a use would be vetted to be sure that the use was scientifically and ethically approved, was permitted by law and fitted the purpose of UK Biobank. Therefore, in answer to your question, the Council can not give an undertaking that, notwithstanding the powers given in the Human and Fertilisation and Embryology Act 2008, UK Biobank itself will not allow banked-tissue to be used in cell nuclear transfer unless the specific explicit consent of the donor has first been obtained.

The model of 'broad consent' adopted by UK Biobank, which can encompass a wide range of future uses of the resource, requires important, complimentary obligations on behalf of the researcher. These are, namely, but not exclusively, that: participants will be kept informed of the research being conducted on the resource (e.g. via newsletters on the project's website) and importantly, participants can withdraw at any time (for example if they become unhappy with any particular use). Crucially research must be judged to be within the stated aims of UK Biobank and in the public interest.

The Council itself was established as part of the EGF and as an additional safeguard for participants. The Council has an advisory role in relation to UK Biobank's policies, and more particularly its policy on access. One function of the Council is to keep under review applications for access to the resource with regards to the interests of research participants. In providing advice to UK Biobank it is envisaged that the Council would consider such matter as:

- Does the proposed research fit within UK Biobank's stated purpose?
- Would the proposed research be something that a participant would have envisaged when they provided consent?
- What are the interests of the participants and general public in relation to this research and are they adequately protected?

The Council has received a number of enquiries about the possibility of samples being used for the creation of embryos and these concerns will be taken into account by the Council if any such application for access is made to UK Biobank. UK Biobank has been informed about these enquiries.

I would make one final comment that the creation of embryos has never arisen as a potential use of the resource during the Council's discussions with UK Biobank. Should this become a possibility, however, the Council would direct its attention to the issue and might consider a recommendation to UK Biobank to survey the opinions of its participants before any such access request is considered.