HUMAN FERTILISATION & EMBRYOLOGY AUTHORITY

Research Licence Inspection Report

Project Title	In vitro Development and Implantation of Normal Human Pre-embryos and Comparison with Uni- and Poly-pronucleate Pre-embryos.
Centre Name	St Mary's Hospital, Manchester (0067), University of Manchester (0175), Manchester Fertility Services (MFS)(0033)
Centre Number	0067; 0175; 0033
Research Licence Number	R0026
Centre Address	*0067* – Department of Reproductive Medicine, St Mary's Hospital, Manchester, M13 0JH *0175* – Faculty of Life Sciences, University of Manchester, Floor 2 Core Technology Facility, 46 Grafton Street, Manchester M13 9NT *0033* – Bridgewater Hospital, 120 Princess Road, Manchester M15 5AT
Donating treatment centres	0067 & 0033
Inspection date	30 July 2009
Research Committee Date	18 November 2009
Inspector(s)	Mr Wil Lenton (Lead, HFEA Inspector) Ms Paula Nolan (HFEA Inspector)
Fee Paid – date	R0026 – Yes
Person Responsible	Prof Daniel Brison
Nominal Licensee	Dr Sue Kimber, Prof Brian Lieberman
Licence expiry date	31/01/2010

About the Inspection:
The purpose of the inspection is to ensure that centres are providing a quality service in compliance with the HF&E Act 1990, Code of Practice, licence conditions and directions.

The report is used to summarise the findings of the inspection highlighting areas of firm compliance and good practice, as well as areas where further improvement is required to improve services and meet regulatory standards. It is primarily written for the Licence Committee who make the decision about the centre's licence renewal application. The report is also available to the public following the Licence Committee meeting.

This report is of the initial inspection of new research premises.

Brief Description of the Centre and Description of the Proposed Research

The project, 'In vitro Development and Implantation of Normal Human Pre-embryos and Comparison with Uni- and Poly- pronucleate Pre-embryos (R0026)

The present licence commenced on 01 February 2007 and is due to expire on 31 January 2010.

This project is based mainly at centres 0067 and 0175, which are within five minutes walk of each other. Active research at centre 0033 has not been undertaken recently as the scientist involved has left.

The project is currently licensed for the following purposes:

- promoting advances in the treatment of infertility
  Human Fertilisation and Embryology Act 1990 Sch 2 3(2)(a)
- increasing knowledge about the causes of miscarriages
  Human Fertilisation and Embryology Act 1990 Sch 2 3(2)(c)
- increasing knowledge about the development of embryos
  Human Fertilisation and Embryology (Research Purposes) Regulations 2001 s2(a)

The lay summary is as follows:

In spite of the fact that clinical in vitro fertilisation (IVF) has been used as a treatment for infertility for more than 20 years, human embryos created by IVF continue to develop poorly in the laboratory, and the success rate of IVF is low. Only one in every 5 or 10 embryos goes on to form a baby after transfer to the womb.

The aim of this research is to investigate the way normal human embryos develop in the laboratory, and compare them to embryos which develop abnormally. This will help us to improve laboratory conditions to allow normal embryo development, which will increase success rates of IVF.

We have gathered extensive information on the types of genes which are switched on in early embryos, by analysing messenger RNA and proteins produced by these genes. We have focussed in the past on molecules involved in cell adhesion, cell-cell communication, and the regulation of cell death (apoptosis). More recently we have looked at genes that regulate cell fate, particularly the decision to remain pluripotent (i.e. remain capable of forming all tissues in the body) or differentiate. We are expanding these studies to look at many more genes simultaneously, using gene chip technology, as it is likely that genes work together in particular pathways to regulate embryo development. We continue to compare normal embryos to abnormal ones, to try to understand the molecular basis for the abnormalities. As part of this we are creating embryos for research purposes, for example from oocytes which were immature or did not fertilise in an IVF cycle and would normally have been discarded. We have recently been looking at the impact on embryo development of freezing oocytes and embryos and ovarian tissue, for the purposes of preserving the fertility of female cancer patients.

Licensed/Proposed Activities

	Activities	**Currently licensed activity**	**Proposed licence activity**
5.1.1	Storage of eggs	☐	☐
5.1.2	storage of eggs within ovarian tissue	☒	☐
5.1.3	storage of sperm	☒	☐
5.1.4	storage of sperm within testicular tissue	☐	☐
5.1.5	storage of embryos	☒	☐
5.1.6	creation of embryos *in vitro*	☒	☐
5.1.7	use of donated embryos for research	☒	☐
5.1.8	derivation of human embryonic stem cell lines	☐	☐

Changes/Improvements since last inspection

Summary for Licence Committee

This is a renewal inspection report for project R0026.

The project has received ethical approval by an appropriately-constituted local research ethics committee (LREC).

Since the last licence renewal in August 2006, research has continued to make progress in line with the stated project objectives and a number of publications, presentations and awards have been realised via data generated from the R0026 project work.

The centre has suitably qualified and trained staff with which to pursue the research objectives within secure premises.

The part-time research nurse coordinators post at 0067 has now been developed into a full time position as of February 2009.

Although the present funding is due to expire early in the next renewal period, in-house bridging funds are in place whilst other substantive grants are secured from MRC and the NIHR Manchester Biomedical research centre funding scheme.

Due to extensive refurbishment work presently underway at St Mary's (0067), between July and October 2009, egg-collections and embryo-transfers are to be performed at centres 0033 (Manchester Fertility Services - MFS) and 0185 (CARE Manchester). Patients have had prior notification of this activity and arrangements made with the other HFEA-licensed centres to provide continuity of care for St Mary's patients during this period.

Patient clinics and consenting for research will continue to take place at St Mary's via a dedicated research nurse, and all aspects of patient and egg/embryo anonymisation will take place exactly as if the patients were being treated at St Mary's. Transport of eggs/embryos from MFS and CARE to the research laboratories at centres 0067 and 0175 will continue to be via dedicated embryo shipping incubator accompanied at all times by a member of research staff.

The Executive recommend the continuation of the centres licence without additional conditions.

Report of Inspection findings

1. **Organisation**
Desired Outcome: The centre is well-organised and managed and complies with the requirements of the HFE Act.

Summary of findings from inspection
Evidence of: *(Delete areas not reporting on)*
- Leadership and management
- Organisation of the centre
- Resource management
- Staffing
- Research governance
- Funding

Full time equivalent staff

Principal investigators	2
Laboratory scientists	3
Support staff (receptionists, record managers, quality and risk managers etc)	Staff at centres 0033 and 0067

Highlighted areas of firm compliance
The PR has previously successfully completed the PREP, has extensive knowledge of the regulatory requirements of the HFEA, together with appropriate research and publishing experience and has recently been awarded a professorship. An induction programme for all new staff at centres 0033 and 0067 is currently in place which covers the regulatory requirements of the HFEA. Continuing professional development (CPD) is documented by staff. The centres' hold weekly minuted meetings which include regular updates on the research projects every 4-6 weeks. Additionally there is a minuted meeting which takes place every two weeks for all research staff. Minutes from the above research meetings were made available to the inspection team. The part-time research nurse coordinators post at 0067 has now been developed into a full time position as of February 2009. The Authority has been notified of all other staff changes. Current funding (CRUK) is due to expire early in the next renewal period, but in-house bridging funds are in place as a temporary expedient whilst other substantive grants are secured from MRC and the NIHR Manchester Biomedical research centre funding scheme. The project has received ethical approval by an appropriately-constituted local research ethics committee (LREC).

Issues for consideration
Due to extensive refurbishment work presently underway at St Mary's (0067), between July and October 2009, egg-collections and embryo-transfers are to be performed at centres 0033 (Manchester Fertility Services) and 0185 (CARE Manchester). Patients have had prior notification of this activity and arrangements made with the other Manchester HFEA-licensed centres to provide continuity of care for St Mary's patients during this period.
Executive recommendations for Licence Committee
A debate was undertaken as to the fees payable by the Manchester centres to the Authority. It was agreed that the issue would be resolved between the Executive and the PR prior to the renewal/issuing of the respective licenses. (R0170/1 – 31/12/2009 and R0026 – 31/01/2010).

2. Premises and equipment

Desired Outcome: The premises and equipment are safe, secure and suitable for their purpose.

Summary of findings from inspection: *(Delete areas not being reported on)*

- Suitability of premises
- Storage facilities
- Safety of equipment
- Servicing and maintenance of equipment

Highlighted areas of firm compliance
New purpose-built laboratories for Centre 0175 were commissioned in 2007. The inspection team were given a tour of the facilities which were located on both the second and ground floors of the Core Technology building. All access was seen to be secure via personalised/zone-programmed swipe-cards. The second floor laboratories included a stem cell culture room and space where secondary research takes place. Access to licensed material was regulated via a locked incubator. The ground floor included an administration area, microscopy suite, clean rooms and a plant unit which managed the clean room air quality. Again all access was seen to be secure. A cryo-facility for stem cell storage was also viewed. It was seen to be secure with appropriate automated monitoring of both liquid nitrogen within the tank, and oxygen levels within the room. External alarms would alert staff to any problems with either system. An automated monitoring system (monitoring stem cell incubator temperature and % carbon dioxide levels together with the cryofreezer liquid nitrogen temperature) was administered via staff in the office area on the ground floor. An out-of-hours alarm system was in place, which would alert off-site staff should an incident occur outside of normal working hours. No research work was presently being undertaken at centre 0067 laboratories due to major building works to adjacent theatre suite facilities (July- October 2009). This new facility had only been commissioned in February 2008 and was found to be compliant during the inspection of centre 0067 in October 2008.
Issues for consideration
Some critical equipment viewed during the inspection had not been serviced within the prescribed time period.
Executive recommendations for Licence Committee
All critical-use equipment should be serviced/maintained on a regular basis in order to ensure that patient donated licensed material is not lost through equipment failure.

3. Donation of material

Desired outcome: Ensure donors are recruited in a proper way and their consent is respected.

Summary of findings from inspection: *(Delete areas not being reported on)*

- Recruitment of donors
- Ensuring prospective donors have access to further guidance
- Ensuring prospective donors have time to consider donation properly
- Prevention of coercion of prospective donors
- Ensuring patient consent is not breached
- Donor and patient records

Summary

The information has not changed since the previous inspection. Thus;

Centre 0067 – All prospective patients attend a 'waiting list' meeting where they are introduced to the concept of donating gametes and embryos to research. Patients are also given the information sheets and consent forms relating to the specific research projects undertaken in the licensed centres in Manchester.

Centre 0033 - Patients are given the information sheets and consent for both research projects during their initial clinical consultation.

A medical consultant gives patients information and obtains consent from patients who wish to donate gametes and / or embryos to the embryo development project.

Approximately 70% of patients consent to the donation of gametes and embryos for use in the R0026 licensed research project.

If patients consent to the donation of gametes and / or embryos to be used in licensed research a coloured sticker (green for project R0026) is placed on the treatment cycle embryo tracking form. The transfer of gametes and / or embryos from clinical use to research is witnessed by two appropriate people and this includes checking that appropriate consent is in place.

All the fresh embryos donated to research are those that are unsuitable for use in treatment and do not meet the centre's criteria for freezing. 45% of patients who receive licensed treatment at centre 0067 have embryos frozen and more than 50% of patients receiving licensed treatment at centre 0033 have embryos cryopreserved for potential future use.

The decision of whether embryos are unsuitable for use in treatment or cryopreservation is always made by a clinical embryologist not involved in research.

Two of the embryologists at centre 0067 are involved, on a part time basis, in licensed research. However, they do not make decisions regarding the suitability of embryos for clinical use if they are going to be carrying out research on the embryos donated from these patients.

Issues for consideration
During the planned refurbishment work between July and October 2009, patient clinics and consenting for research will continue to take place at St Mary's via a dedicated research nurse, and all aspects of patient and egg/embryo anonymisation will take place exactly as if the patients were being treated at St Mary's. Transport of eggs/embryos from MFS and CARE to the research laboratories at centres 0067 and 0175 will continue to be via dedicated embryo shipping incubator accompanied at all times by a member of research staff.
Executive recommendations for Licence Committee
None

4. Patient information and consents

Desired outcome: Ensure that patients are informed in order to give informed consent

Summary of findings from inspection: *(Delete areas not being reported on)*

- Patient information
- Consent forms
- Patient information for projects deriving embryonic stem cells
- Consent forms for projects deriving embryonic stem cells

Summary
Five sets of patients notes, who had donated licensed material to research, were reviewed on the day of inspection and found to be compliant. In two of the cases the material donated to research was traced, via an audit trail from procurement, use and storage, through to donation to research and subsequent end-use in the research project. All licensed material donated to research was traceable via the audit trail. Patient information and consents comply with all of the requirements outlined in standard licence conditions and the 7th Code of Practice (CoP7).
Areas for improvement
None
Executive recommendations for Licence Committee
None

5. Scientific practice

Desired outcome: Procedures are robust to ensure material is used appropriately

Summary of findings from inspection: *(Delete areas not being reported on)*

- Standard operating procedures
- Quality assurance systems
- Minimisation of material loss and wastage
- Ability to achieve set aims and objectives

Use of material

Projected use of material for project R0026 in previous inspection report (17 October 2008)

Material	Expected usage*
Fresh Eggs	500 (immature GV/MI)
Frozen Eggs	0
Failed to Fertilise Eggs	300
Fresh Embryos	200
Frozen Embryos	100

***These figures represent maximum numbers only**

Actual use of material (from licence renewal application)

Material	0067		0033	
	Received	Used	Received	Used
Fresh Eggs*	100	100	0	0
Frozen Eggs	0	0	0	0
Failed to Fertilise Eggs	596	596	0	0
Fresh Embryos	695	695	0	0
Frozen Embryos	0	0	5	98**

**** used from previous years**

Projected use of material for project R0026 in forthcoming twelve months (2009/10)

Material	Expected usage
Fresh Eggs	500(immature)
Frozen Eggs	200
Failed to Fertilise Eggs	600
Fresh Embryos	600
Frozen Embryos	300

As has been noted by the peer reviewer, there were variations in the numbers of licensed material used, but this was explained by the PR to be due to;

i. It was originally estimated that we would use 500 immature and 300 failed to fertilise oocytes per annum. In the last 12 months we have used slightly less than this in total (696), but the majority have been failed to fertilise, rather than immature. We originally estimated that we would use 200 fresh embryos, in fact we have used 695.This is largely because the focus of the work has shifted slightly away from in vitro maturation of oocytes towards embryo development .

ii. Secondly, fewer than expected oocytes and embryos were donated to our other licence (R0171, stem cell derivation), because of the absence of a dedicated research nurse required to take consents for stem cell derivation. This has now been rectified with the appointment of a new nurse in February 2009"

Project objectives

Renewed objectives

Since our current licence was granted (January 2007), our core objectives have remained essentially unchanged, in that we continue to study normally developing human embryos, in comparison to abnormally developing embryos, with the same endpoints of regulation of gene expression, using immunocytochemistry, quantitative RT-PCR and cDNA microarrays. In the last licence period we added cryopreservation and xenografting of ovarian tissue, and cryopreservation of oocytes and embryos, as interventions. We are continuing with these objectives but do not have any new objectives to add at this moment in time as we are consolidating data from the approaches in progress.

During the summer of 2009 (July-October) we will continue to collect oocytes and embryos from Manchester Fertility Services as previously, and we will also add CARE Manchester as one of our donation sites. This is because the NHS laboratories at St Mary's Hospital are closed for a refurbishment of the hospital building, and St Mary's NHS patients will have egg recoveries and embryo transfers performed at MFS and CARE Manchester. These two centres have signed contracts with St Mary's for this work and agreed to facilitate donation of oocytes and embryos in line with patient wishes. Patient clinics and consenting for research will continue to take place at St Mary's via our dedicated research nurse, and all aspects of patient and egg/embryo anonymisation will take place exactly as if the patients were being treated at St Mary's. Transport of eggs/embryos from MFS and CARE to the research laboratories at centres 0067 and 0175 will continue to be via dedicated embryo

We have gathered extensive information on the types of genes which are switched on in early embryos, by analysing messenger RNA and proteins produced by these genes. We have focussed in the past on molecules involved in cell adhesion, cell-cell communication, and the regulation of cell death (apoptosis).

More recently we have looked at genes that regulate cell fate, particularly the decision to remain pluripotent (i.e. remain capable of forming all tissues in the body) or differentiate. We are expanding these studies to look at many more genes simultaneously, using gene chip technology, as it is likely that genes work together in particular pathways to regulate embryo development.

We continue to compare normal embryos to abnormal ones, to try to understand the molecular basis for the abnormalities. As part of this we are creating embryos for research purposes, for example from oocytes which were immature or did not fertilise in an IVF cycle and would normally have been discarded.

We have recently been looking at the impact on embryo development of freezing oocytes and embryos and ovarian tissue, for the purposes of preserving the fertility of female cancer patients.

Peer reviewers comments

The peer reviewer accepted the licence renewal application once the research PR had answered two points raised;

1) Section 7.2.1.

We apologise for omitting this paragraph, which was lost in editing. We will insert into the application form the following.

We originally estimated that we would use 500 immature and 300 failed to fertilise oocytes per annum. In the last 12 months we have used slightly less than this in total (696), but the majority have been failed to fertilise, rather than immature. We originally estimated that we would use 200 fresh embryos, in fact we have used 695. This is largely because the focus of the work has shifted slightly away from in vitro maturation of oocytes towards embryo development .

Secondly, fewer than expected oocytes and embryos were donated to our other licence (R0171, stem cell derivation), because of the absence of a dedicated research nurse required to take consents for stem cell derivation. This has now been rectified with the appointment of a new nurse in February 2009.

2) Fresh versus frozen embryo pregnancy rates.

The relevant indicator of embryo quality, which I think the referee is asking for, is the implantation rate per embryo replaced. During the period of the study this has averaged for frozen embryos about 75% that of an equivalent fresh embryo. However this does not reflect the quality of fresh embryos donated to the research programme, as of course these are poor quality surplus embryos. This will be discussed in detail in our paper being readied for submission, and subjected to appropriate peer review.

Issues for consideration

Good progress has been made on the main objectives of the project.

Since the last licence renewal in August 2006 a number of publications, presentations and awards have been realised via data generated from the R0026 project work:

Publications (*see Appendix H for manuscripts and abstracts)*:

Kimber SJ, Sneddon SF, Bloor DJ, El-Bareg AM, Hawkhead, JA, Metcalfe AD, Houghton FD, Leese HJ, Rutherford A, Lieberman BA, Brison DR (2008) Page 17
Expression of genes involved in early cell fate decisions in human embryos and their regulation by growth factors. Reproduction 135(5):635-47

Brison DR, Hollywood K, Arnesen R, Goodacre R (2007) Predicting human embryo viability: the road to non-invasive analysis of the secretome using metabolic footprinting. *Reprod Biomed. Online.* 15:296-302

Sneddon S F, DeSousa P A, Arnesen R E, Lieberman B A, Kimber S J, Brison D R.
A new source of human eggs and embryos for infertility and stem cell research (Human Reproduction, under review; appended)

Oral Presentations:
Shaw L; Gene expression profiling of single human oocyte and embryos; Society for Reproduction and Fertility, St Catherine's College Oxford, 12-14 July 2009

Posters: See Appendix I
Kerr R, Brison D R & Kimber S J, A critical Role for the PI3K/AKT pathway in self renewal and cell survival in Human Embryonal Carcinoma Cells.

Awards
Dr Robbie Kerr – Poster prize: Association of Clinical Embryologists 2008 Annual Meeting

The project work has made good progress and generated peer-reviewed scientific publications.

Report compiled by:

Name.....Wil Lenton.....

Designation..... Inspector.....

Date.....30 July 2009.....

Appendix A: Centre Staff interviewed

PR, NL and two staff members.

Appendix B: Licence history for previous 3 years

30th July 2009 – Renewal inspection

15th January 2009 – Research Committee – no issues of concern

17th October 2008 – Interim inspection

9th January 2008 – Research Committee

26th September 2007 – Interim inspection

Status	Licence	Type	Active From	Expires
Active (0175)	R0026/11/a	Research Project	01/02/2007	31/01/2010
Active (0033)	R0026/12/a	Research Project	01/02/2007	31/01/2010
Active (0067)	R0026/13/a	Research Project	01/02/2007	31/01/2010

R0026/12/a was issued with one condition:

- The creation of embryos explicitly for use in research must not be undertaken until the following have been submitted for consideration by a Licence committee of the Authority:

  (i) local ethics committee approval,

  (ii) further discussion as to why the creation of embryos specially for research is necessary or desirable for the proposed research project,

  (iii) amended patient information and consent forms for potential egg donors

  (iv) evidence of appropriate consent for the use of donor sperm for this purpose.

  (v) evidence of the availability of appropriate counselling for donors

R0026/11/a was issued with one condition:

If the inner cell mass or any cells derived from it are removed from the intact embryo, they must be fixed or lysed immediately

Appendix C:

RESPONSE OF PERSON RESPONSIBLE TO INSPECTION REPORT

Centre Number.....0067, 0033, 0175.....

Name of PR.....Daniel Brison.....

Date of Inspection.....30th July 2009.....

Date of Response.....9th October 2009.....

Please state any actions you have taken or are planning to take following the inspection with time scales

We have reviewed our equipment maintenance schedules as suggested during the inspection. This has already been, done, and maintenance will be routinely performed on all equipment within the next 12 months as required.

I have read the inspection report and agree to meet the requirements of the report.

Signed.....

Name.....Daniel Brison.....

Date.....9th October 2009.....

2. Correction of factual inaccuracies

Please let us know of any factual corrections that you believe need to be made (NB we will make any alterations to the report where there are factual inaccuracies. Any other comments about the inspection report will be appended to the report).

None.

We also welcome comments about the inspection on the inspection feedback form, a copy of which should have been handed out at the inspection. If you require a copy of the feedback form, please let us know.

Please return this section of the report to:
Dr Chris O'Toole
Head of Research Regulation, HFEA
21 Bloomsbury Street

London
WC1B 3HF

Research Licence Committee Meeting

18 November 2009
21 Bloomsbury Street London WC1B 3HF

MINUTES Item 5

Research Project R0026: In vitro development and implantation of normal human pre-embryos and comparison with uni- and poly- pronucleate pre-embryos (0067;0175;0033)
Renewal Inspection

Members of the Committee:	In Attendance:
Emily Jackson, Lay Member – Chair	Joanne Anton – Minute taker
Clare Brown, Lay Member	Maria Cesay - Observer
Neva Haites, Professor of Medical Genetics, University of Aberdeen	Providing Legal Advice to the Committee: Graham Miles, Morgan Cole

Declarations of Interest: Members of the Committee declared that they had no conflicts of interest in relation to this item.

The following papers were considered by the Committee:

- Renewal Inspection Report
- Peer review
- Application
- Publications
- Previous Research Licence Committee minutes:
- no papers were tabled.

1. The Committee noted that the renewal inspection report was submitted to cover one research project (R0036) which is currently being carried out at three separate licensed centres under different licence numbers.

2. The Committee noted that an application for renewal of the research licence had been received from centre 0175 but not from centre 0067 or centre 0033.. The Committee agreed to only consider the licence renewal for centre 0175, for which the application had been provided.

3. The Committee noted the Person Responsible's response to the inspection report that the equipment maintenance schedule has been reviewed and that maintenance will be routinely performed on all equipment within the next 12 months as required at page 8 of the inspection report.

4. The Committee noted that the peer reviewer had recommended that the application be accepted following the addition of information on the underestimates in the use of embryos in the project, at page 15 of the inspection report.

The Committee's Decision

5. The Committee applied the licensing decision tree in consideration of the application for the renewal of the licence for centre 0175.

6. The Committee identified the activities to be licensed as the storage of eggs within ovarian tissue; storage of sperm; storage of embryos; creation of embryos, and use of donated embryos. The Committee agreed that they were satisfied that these activities are not prohibited under the Human Fertilisation and Embryology Act 1990 (as amended).

7. In considering stage 18(a) of the decision tree which requires that the activity is necessary and desirable for the purposes specified in paragraph 3A(2) of Schedule 2 to the Act, the Committee considered the purposes of the research project in relation to these requirements.

8. The Committee agreed that the activities are necessary or desirable for the following specified purposes:

    - Promoting advances in the treatment of infertility *Human Fertilisation and Embryology Act 1990as amended Sch 2 3A (2)(d)*
    - Increasing knowledge about the causes of miscarriage *Human Fertilisation and Embryology Act 1990 as amended Sch 2 3A(2)(e)*
    - Increasing knowledge about the development of embryos *Human Fertilisation and Embryology Act 1990 as amended Sch 2 3A 2(h)*

9. The Committee was satisfied that the proposed use of embryos is necessary for the purposes of the research. In reaching this conclusion, the Committee took into account the opinion of the peer reviewer that the use of human embryos will assist in providing information on the molecular profile and genetic characteristics of human embryos likely to be associated with viability.

10. The Committee was satisfied that ethics committee approval for the research project has been received.

11. The Committee agreed to grant a 3 year licence for centre 0175 with no additional conditions.

12. The Committee agreed to defer consideration of centres 0067 and 0033 pending receipt of renewal application forms from those centres.

Signed..... Date 9.12.09.
Emily Jackson (Chair)