Site visit inspection report on compliance with HTA licensing standards

Abcam plc

HTA licensing number 12506

Licensed under the Human Tissue Act 2004 for the

- **storage of relevant material which has come from a human body for use for a scheduled purpose**

14 June 2017

Summary of inspection findings

The HTA found the Designated Individual (DI), the Licence Holder (LH), the premises and the practices to be suitable in accordance with the requirements of the legislation.

Although the HTA found that Abcam plc had met the majority of the HTA's standards, one shortfall relating to audits was found.

Particular examples of strengths and good practice are included in the concluding comments section of the report.

The HTA's regulatory requirements

Prior to the grant of a licence, the HTA must assure itself that the Designated Individual is a suitable person to supervise the activity authorised by the licence and that the premises are suitable for the activity.

The statutory duties of the Designated Individual are set down in Section 18 of the Human Tissue Act 2004. They are to secure that:

- the other persons to whom the licence applies are suitable persons to participate in the carrying-on of the licensed activity;
- suitable practices are used in the course of carrying on that activity; and
- the conditions of the licence are complied with.

Its programme of site visit inspections to assess compliance with HTA licensing standards is one of the assurance mechanisms used by the HTA.

The HTA developed its licensing standards with input from its stakeholders. They are designed to ensure the safe and ethical use of human tissue and the dignified and respectful treatment of the deceased. They are grouped under four headings:

- consent
- governance and quality systems
- traceability
- premises facilities and equipment.

This is an exception-based report: only those standards that have been assessed as not met are included. Where the HTA determines that there has been a shortfall against a standard, the level of the shortfall is classified as 'Critical', 'Major' or 'Minor' (see Appendix 2: Classification of the level of shortfall). Where HTA standards are fully met, but the HTA has identified an area of practice that could be further improved, advice is provided.

HTA inspection reports are published on the HTA's website.

Background to the establishment

This report refers to activities carried out at Abcam plc (the establishment), which includes activities carried out at a satellite location on the same site. Both the hub and satellite are housed in their own dedicated facilities at the Cambridge Science Park, with staff using electronic 'key fobs' to enter the Abcam buildings. The establishment is licensed for the storage of relevant material for a scheduled purpose, under the Human Tissue Act 2004 (HT Act). The establishment has been licensed since 2008 and was last inspected in 2010. This was the second routine site visit inspection.

The Designated Individual is a Principal Imaging Scientist at the establishment. The Corporate Licence Holder is Abcam plc, and the Corporate Licence Holder contact is the Head of Antibody Characterisation. There are two Persons Designated (PD) under the licence.

Research in the establishment primarily focuses on validating antibodies using immunohistochemistry and flow cytometric techniques, however a small number of samples are stored for commercial purposes. Samples are received from a number of sources within the United Kingdom (UK) and the United States of America (USA). While consent is not sought on site, the DI ensures that appropriate consent has been sought by the establishments providing the tissue.

The hub

The establishment receives relevant material from a number of Research Tissue Banks in the UK. The DI maintains oversight of samples requested by placing all orders for new samples. To maximise the use of tissue, individual sample blocks are examined on receipt at Abcam and split into a number of blocks, allowing a single block to be used for multiple purposes, and limit the amount of tissue purchased. Currently much of the tissue is stored at ambient temperature, as formalin-fixed paraffin embedded (FFPE) blocks, but Abcam have recently expanded their use of frozen tissue blocks and lymphocytes, stored at -80°C and -150°C, respectively (see Advice, items 9 and 10).

The satellite

Abcam also source and provide a limited amount of tissue, externally, for commercial purposes. Samples are received from two suppliers in the USA. The DI ensures appropriate consent has been sought by requesting an anonymised, completed consent form from the supplier. Where the consent form is in a foreign language the DI has it translated into English. The consent forms are reviewed by the Abcam Ethics Committee, who provide final authorisation for samples to be received by the establishment.

The inspection

The inspection comprised of a roundtable discussion with members of staff working under the licence, a visual inspection of the laboratory where human tissue is stored under the licence,

interviews with the Supplier Manager (PD), a Senior Scientist (PD), the Head of Antibody Characterisation (CLHc), the Senior Team Leader and the DI, and a review of governance documentation.

In addition, traceability audits were carried out for four samples stored at room temperature, four at 4°C, three at -80°C and three at -150°C. Samples were identified from their storage location and traced to the relevant documents, in addition to being selected from the human tissue inventory and traced to the storage location. In four instances, the associated documentation had not been sent with the samples and in one case, the establishment's unique identifier had not been transcribed on to the slides (see shortfall against T1(c)).

Inspection findings

The HTA found the Licence Holder, the Designated Individual and the premises to be suitable in accordance with the requirements of the legislation.

Compliance with HTA standards

Governance and Quality

Standard	Inspection findings	Level of shortfall
T1 A coding and records system facilitates the traceability of bodies and human tissue, ensuring a robust audit trail		
c) An audit trail is maintained, which includes details of: when and where the bodies or tissue were acquired and received; the consent obtained; all sample storage locations; the uses to which any material was put; when and where the material was transferred, and to whom.	While the establishment performs stocktake audits, the establishment does not currently perform audits related to sample traceability, or associated documentation, including documentation received from suppliers which details the samples sent. *See Advice, item 3* *The establishment provided documentary evidence to address this shortfall prior to the issue of the final report. The HTA has assessed this evidence as satisfactory to address this shortfall.*	**Minor**

Advice

The HTA advises the DI to consider the following to further improve practices:

No.	Standard	Advice
1.	GQ1(b)	While the documents from the hub site were version controlled a number from the satellite did not have version control. The DI is advised to ensure all documents associated with licensable activities are version controlled to ensure the most up to date documents are being used. All documents should include the following: • Revision history and version number • Effective from date • Review date (at least every three years) • Pagination • Author and reviewer names
2.	GQ1(d)	There are a number of meetings where HTA-related matters can be discussed, however there is not a specific meeting where the HTA is a standing item on the agenda. The DI is advised to select an appropriate meeting where HTA-related issues can be discussed, including audits and follow-up actions.
3.	GQ2(a)	The establishment currently undertakes a regular stocktake audit of samples held under the licence. However, audits relating to sample traceability, including records are not currently undertaken. Such audits may have highlighted the inconsistencies in sample receipt documentation, leading to an improvement in the current process. The DI is advised to ensure audits demonstrate compliance with the HTA's standards. The establishment should have a documented schedule of audits in place which includes vertical audits of records and samples from consent to disposal. Records, including transport records, should be audited regularly to ensure completeness, accuracy and legibility. Audits should ideally include horizontal audits by staff involved in the process, to ensure that SOPs accurately reflect actual practices and to identify areas for improvement. All audit findings and related corrective and preventative actions should be recorded, including timeframes for completion of actions and confirmation that all required actions have been completed. Audits should be undertaken on a periodic basis and following changes to processes; for example the addition of frozen material being stored under the licence.
4.	GQ3(b)	The DI provides consent training to staff at the establishment and uses a questionnaire which must be completed by the supplier to ensure appropriate consent has been sought from the appropriate person in the qualifying relationship. The DI is advised to review the training and questionnaire to ensure it is clear that consent should only be sought from the person highest in the qualifying relationship.
5.	GQ5(b)	While there is a system in place for recording adverse events, the associated standard operating procedure (SOP) does not detail the types of potential incidents related to human tissue. The DI is advised to review the SOP to ensure examples of incidents are included

6.	GQ6(a)	While risk assessments are in place, the DI is advised to ensure that the full range of risks relating to premises, practices and procedures are covered, including: • specimen mix-up; • missing or incorrect documentation; • security breach; • abnormalities in storage temperature readings; • inappropriate disposal. Risk assessments should be reviewed periodically (typically, every 1-3 years) and the actions to mitigate risks updated as necessary. Risk assessments should also be reviewed following an incident. By documenting risk assessments, staff are made aware of identified risks, which helps to prevent risks materialising and informs the development of procedures and relevant documentation.
7.	T1(d)	Samples received into the establishment are not always received with supplier documentation. This poses a risk as the establishment cannot be assured that all samples have been received. The DI is advised to implement a system to ensure full traceability is maintained in instances where documentation is not received following a shipment.
8.	PFE2(b)	The establishment stores a range of biological material. To avoid the risk of sample confusion, and to ensure that human tissue samples are handled in line with the regulatory requirements under the HT Act, the DI should assure himself that all freezers and containers holding human tissue are labelled appropriately.
9.	PFE2(c)	Freezers are linked to a remote call out system which alerts relevant staff to temperature excursions. The estates group monitor the fridges and freezers, generating monthly reports that are sent to the senior team leader. The DI is advised to review these reports and individual unit temperatures for trends as this may pre-empt a freezer failure. The DI is also advised to ensure both upper and lower temperature limits are set for each unit to mitigate the risk of sample loss due to incorrect temperatures. The DI should formally document the alarm testing, and include a full test of the remote call out system to ensure the system is operating as expected.
10.	PFE2(d)	The DI is advised to risk assess the contingency arrangements in place, particularly for samples currently held at -150°C to determine if the contingency plan is appropriate. In addition, the DI should risk assess, and formally document, the contingency planning in the event of an electrical failure in the building.
11.	PFE3(b)	The DI is advised to ensure all areas where relevant material is stored have the appropriate contact details available in the event of an emergency, for example on the freezer doors.
12.	N/A	A copy of the licence is displayed in the building's central entrance area. In line with standard condition number 8 of the licence, the DI is asked to display a copy of the licence in all areas where samples are stored.

Concluding comments

During the inspection areas of good practice were noted, including:

- the use of a training video for all new starters which provides information on the HT Act and the licensing requirements
- when samples are received from overseas, the DI requests an anonymised version of the consent form to ensure appropriate consent was sought.

There are a number of areas of practice that require improvement, including one minor shortfall.

The HTA requires the Designated Individual to submit a completed corrective and preventative action (CAPA) plan setting out how the shortfall will be addressed, within 14 days of receipt of the final report (refer to Appendix 2 for recommended timeframes within which to complete actions). The HTA will then inform the establishment of the evidence required to demonstrate that the actions agreed in the plan have been completed.

The HTA has assessed the establishment as suitable to be licensed for the activities specified subject to corrective and preventative actions being implemented to meet the shortfall identified during the inspection.

Report sent to DI for factual accuracy: 5 July 2017

Report returned from DI: 17 July 2017

Final report issued: 25 July 2017

Appendix 1: HTA standards

The HTA standards applicable to this establishment are shown below; those not assessed during the inspection are shown in grey text. Individual standards which are not applicable to this establishment have been excluded.

Consent standards
C1 Consent is obtained in accordance with the requirements of the Human Tissue Act 2004 (HT Act) and as set out in the code of practice
a) Consent procedures are documented and these, along with any associated documents, comply with the HT Act and the HTA's Codes of Practice. b) Consent forms are available to those using or releasing relevant material for a scheduled purpose. c) Where applicable, there are agreements with other parties to ensure that consent is obtained in accordance with the requirements of the HT Act and the HTA's Codes of Practice. d) Written information is provided to those from whom consent is sought, which reflects the requirements of the HT Act and the HTA's Codes of Practice. e) Language translations are available when appropriate. f) Information is available in formats appropriate to the situation.
C2 Staff involved in seeking consent receive training and support in the essential requirements of taking consent
a) There is suitable training and support of staff involved in seeking consent, which addresses the requirements of the HT Act and the HTA's Codes of Practice. b) Records demonstrate up-to-date staff training. c) Competency is assessed and maintained.

Governance and quality system standards
GQ1 All aspects of the establishments work are governed by documented policies and procedures as part of the overall governance process
a) Ratified, documented and up-to-date policies and procedures are in place, covering all licensable activities. b) There is a document control system. c) There are change control mechanisms for the implementation of new operational procedures. d) Matters relating to HTA-licensed activities are discussed at regular governance meetings, involving establishment staff. e) There is a system for managing complaints.
GQ2 There is a documented system of audit
a) There is a documented schedule of audits covering licensable activities. b) Audit findings include who is responsible for follow-up actions and the timeframes for completing these.

GQ3 Staff are appropriately qualified and trained in techniques relevant to their work and are continuously updating their skills
a) Qualifications of staff and all training are recorded, records showing attendance at training.
b) There are documented induction training programmes for new staff.
c) Training provisions include those for visiting staff.
d) Staff have appraisals and personal development plans.
GQ4 There is a systematic and planned approach to the management of records
a) There are suitable systems for the creation, review, amendment, retention and destruction of records.
b) There are provisions for back-up / recovery in the event of loss of records.
c) Systems ensure data protection, confidentiality and public disclosure (whistleblowing).
GQ5 There are systems to ensure that all adverse events are investigated promptly
a) Staff are instructed in how to use incident reporting systems.
b) Effective corrective and preventive actions are taken where necessary and improvements in practice are made.
GQ6 Risk assessments of the establishment's practices and processes are completed regularly, recorded and monitored
a) There are documented risk assessments for all practices and processes requiring compliance with the HT Act and the HTA's Codes of Practice.
b) Risk assessments are reviewed regularly.
c) Staff can access risk assessments and are made aware of risks during training.

Traceability standards
T1 A coding and records system facilitates the traceability of bodies and human tissue, ensuring a robust audit trail
a) There is an identification system which assigns a unique code to each donation and to each of the products associated with it.
b) A register of donated material, and the associated products where relevant, is maintained.
c) An audit trail is maintained, which includes details of: when and where the bodies or tissue were acquired and received; the consent obtained; all sample storage locations; the uses to which any material was put; when and where the material was transferred, and to whom.
d) A system is in place to ensure that traceability of relevant material is maintained during transport.
e) Records of transportation and delivery are kept.
f) Records of any agreements with courier or transport companies are kept.
g) Records of any agreements with recipients of relevant material are kept.

T2 Bodies and human tissue are disposed of in an appropriate manner
a) Disposal is carried out in accordance with the HTA's Codes of Practice.
b) The date, reason for disposal and the method used are documented.

Premises, facilities and equipment standards
PFE1 The premises are secure and fit for purpose
a) An assessment of the premises has been carried out to ensure that they are appropriate for the purpose.
b) Arrangements are in place to ensure that the premises are secure and confidentiality is maintained.
c) There are documented cleaning and decontamination procedures.
PFE2 There are appropriate facilities for the storage of bodies and human tissue
a) There is sufficient storage capacity.
b) Where relevant, storage arrangements ensure the dignity of the deceased.
c) Storage conditions are monitored, recorded and acted on when required.
d) There are documented contingency plans in place in case of failure in storage area.
PFE3 Equipment is appropriate for use, maintained, validated and where appropriate monitored
a) Equipment is subject to recommended calibration, validation, maintenance, monitoring, and records are kept.
b) Users have access to instructions for equipment and are aware of how to report an equipment problem.
c) Staff are provided with suitable personal protective equipment.

Appendix 2: Classification of the level of shortfall

Where the HTA determines that a licensing standard is not met, the improvements required will be stated and the level of the shortfall will be classified as 'Critical', 'Major' or 'Minor'. Where the HTA is not presented with evidence that an establishment meets the requirements of an expected standard, it works on the premise that a lack of evidence indicates a shortfall.

The action an establishment will be required to make following the identification of a shortfall is based on the HTA's assessment of risk of harm and/or a breach of the HT Act or associated Directions.

1. **Critical shortfall:**

   A shortfall which poses a significant risk to human safety and/or dignity or is a breach of the Human Tissue Act 2004 (HT Act) or associated Directions

   or

   A combination of several major shortfalls, none of which is critical on its own, but which together could constitute a critical shortfall and should be explained and reported as such.

   A critical shortfall may result in one or more of the following:

   (1) A notice of proposal being issued to revoke the licence

   (2) Some or all of the licensable activity at the establishment ceasing with immediate effect until a corrective action plan is developed, agreed by the HTA and implemented.

   (3) A notice of suspension of licensable activities

   (4) Additional conditions being proposed

   (5) Directions being issued requiring specific action to be taken straightaway

2. **Major shortfall:**

   A non-critical shortfall that:

   - poses a risk to human safety and/or dignity, or
   - indicates a failure to carry out satisfactory procedures, or
   - indicates a breach of the relevant CoPs, the HT Act and other relevant professional and statutory guidelines, or
   - has the potential to become a critical shortfall unless addressed

   or

   A combination of several minor shortfalls, none of which is major on its own, but which, together, could constitute a major shortfall and should be explained and reported as such.

   In response to a major shortfall, an establishment is expected to implement corrective and preventative actions within 1-2 months of the issue of the final inspection report. Major shortfalls pose a higher level of risk and therefore a shorter deadline is given, compared to minor shortfalls, to ensure the level of risk is reduced in an appropriate timeframe.

3. **Minor shortfall:**

   A shortfall which cannot be classified as either critical or major, but which indicates a departure from expected standards.

This category of shortfall requires the development of a corrective action plan, the results of which will usually be assessed by the HTA either by desk based or site visit.

In response to a minor shortfall, an establishment is expected to implement corrective and preventative actions within 3-4 months of the issue of the final inspection report.

Follow up actions

A template corrective and preventative action plan will be sent as a separate Word document with both the draft and final inspection report. You must complete this template and return it to the HTA within 14 days of the issue of the final report.

Based on the level of the shortfall, the HTA will consider the most suitable type of follow-up of the completion of the corrective and preventative action plan. This may include a combination of

- a follow-up site-visit inspection
- a request for information that shows completion of actions
- monitoring of the action plan completion
- follow up at next desk-based or site-visit inspection.

After an assessment of your proposed action plan you will be notified of the follow-up approach the HTA will take.