Inspection report on compliance with HTA licensing standards
Inspection date: **14 December 2023**

Novogene (UK)

HTA licensing number 12712

Licensed under the Human Tissue Act 2004

Licensed activities

Area	Storage of relevant material which has come from a human body for use for a scheduled purpose	Removal from the body of a deceased person (otherwise than in the course of an anatomical examination or post-mortem examination) of relevant material of which the body consists or which it contains, for use for a scheduled purpose other than transplantation
Novogene (UK)	Licensed	Not licensed

Summary of inspection findings

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

Although the HTA found that Novogene (UK) ('the establishment') had met the majority of the HTA's standards, five minor shortfalls were found against standards for Governance and quality systems and Traceability. The shortfalls related to policies and procedures governing licensable activities, the establishment change control process, risk assessments, sample traceability, and sample disposal.

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 shortfalls identified during the inspection.

Compliance with HTA standards

Minor Shortfalls

Standard	Inspection findings	Level of shortfall
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.	At the time of the inspection, the establishment was in the process of reviewing and updating its governance system, policies and procedures, as part of an application process for a third-party accreditation. While there were several recently issued documents, they did not cover all licensable activities and several of the newly updated documents contradicted older documents that had not yet been updated. For example: • One document reviewed indicated that there was a -80°C freezer that could be used as contingency storage, while newer documentation indicated that an external third-party organisation was the only available contingency. • The training documentation did not include a process for training visiting staff.	**Minor**

	• There was no document available for review that detailed the procedure, or timelines, for following up with clients regarding missing documentation. • There was no document detailing the process for removing data from the quarantine spreadsheet and transferring it into the LIMS system. • There was no Standard Operating Procedure (SOP) available for the use of the temperature monitoring system.	
c) There are change control mechanisms for the implementation of new operational procedures.	The establishment recently purchased and installed a new -80°C freezer for the storage of relevant material. While there was documentation covering the installation of the new unit, there was no documentation available detailing the process that had been followed for transferring relevant material between the original and the newly installed -80°C freezer units.	**Minor**

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.	Risk assessments did not cover all risks associated with the licensable activities. For example: • The alarm monitoring system sends an email, text and call to specified individuals if there is a temperature excursion. This continues for an hour and then stops. The establishment had not assessed the risk of an alarm failing to be acknowledged. • Reviewed contingency plans for -80°C freezer failure involved a third-party attending from offsite. The risk of a catastrophic freezer failure potentially resulting in the loss of samples due to the response time of the third-party had not been assessed. • Potential traceability risks associated with the use of the quarantine spreadsheet had not been assessed. • Several fields in the LIMS were in a language that was not understood by all members of the laboratory. • The establishment had not assessed the risk of storing samples after consent has been withdrawn or storing samples beyond any time limitations specified by the donor.	**Minor**

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.	Two samples selected from the -80°C freezer were not logged into the LIMS on the day of receipt, but were logged into the LIMS 15 days and 1 day after receipt (respectively). A third set of samples was identified in the quarantine spreadsheet that had been received almost two months prior to the inspection but had not yet been logged into the LIMS as confirmation of consent had not been received. During this period, samples were moved from the 'in use' -80°C freezer to the newly purchased unit, without appropriate records of the transfer. On receipt at the establishment, shipments were reported to be checked, including a review of documentation to ensure that assurance of appropriate consent is in place. While all samples are placed into the -80°C freezer, any shipments with incomplete documentation are logged onto a quarantine spreadsheet while documentation is sought from the client. Once all required documentation is in place, the samples are logged in the establishment Laboratory Information Management System (LIMS), and the entry in the quarantine log sheet is deleted. This process does not provide an audit trail of all sample storage locations.	**Minor**

T2 Bodies and human tissue are disposed of in an appropriate manner		
b) The date, reason for disposal and the method used are documented.	The LIMS does not have a field to record the reason for disposal.	**Minor**

The HTA requires the DI to submit a completed corrective and preventative action (CAPA) plan setting out how the shortfalls 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.

Advice

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

Number	Standard	Advice
1.	C1(c)	New clients sign a Material Transfer Agreement (MTA) which is valid for 12 months. Each shipment from the client within this period is received with an assurance that appropriate consent is in place. On expiry the client has 30 days to sign a new MTA for a further 12 months, which will cover existing stored samples in addition to any samples received over the following 12 months. The DI is advised to amend the renewal MTA to specifically seek assurance that any samples currently held at the establishment are still within any limitations specified in the original donor consent, such as a maximum time in storage.
2.	GQ1(a)	The establishment identified gaps in its governance system during its ongoing audit process. As part of the audit follow-up process it developed and implemented several new, or updated, procedures and policies. The DI is advised to continue to review the establishment governance processes to ensure that the new procedures and policies have been implemented correctly and have embedded into working practice.
3.	GQ1(a)	The establishment only stores relevant material at -80°C storage. However, client agreements indicate that relevant material may be stored under other conditions, such as ambient storage, at the request of the client. While this has not yet happened, the DI is advised to develop procedures and / or policies to

		ensure that, should alternative storage arrangements be required, they are compliant with the HTA's standards.
4.	GQ2(a)	The DI is advised to consider expanding the scope of the internal audit programme to include procedural horizontal audits in addition to the vertical audits of records and samples currently undertaken. This may help to ensure that SOPs accurately reflect all steps in the practices being carried out, and that there are no steps missing between different SOPs.
5.	T1(b)	The DI is advised to consider modifying the LIMS to ensure that it has full traceability of samples from receipt through to end use and / or disposal. In addition, the DI is advised to record any limitations, such as the time the sample may be kept in storage for research use, within the LIMS. This will ensure that all information relevant to a sample is readily available in a single location.
6.	PFE2(c)	The DI is advised to implement a process for periodically manually challenging the -80°C freezer alarm to ensure it is operating as expected between maintenance visits.
7.	PFE2(c)	The DI is advised to add the temperature alarm set points to signage on the -80°C freezers, so that staff are visually reminded of minimum and maximum temperatures.
8.	PFE2(d)	The DI is advised to consider, and document, potential contingency arrangements for short term storage of samples if there is a catastrophic freezer failure. This may help to maintain sample quality while longer term contingency plans are enacted.

Background

Novogene (UK) provides genomic and bioinformatics services to a range of clients for research and diagnostic purposes. All samples received from clients are stored at -80°C until they undergo extraction for analysis.

Novogene (UK) has been licensed by the HTA since July 2021. This was the first inspection of the establishment since it was licensed.

The establishment has appointed a new DI and Corporate Licence Holder contact (CLHc) on three occasions (for each role) since it was licensed.

Description of inspection activities undertaken

The HTA's regulatory requirements are set out in Appendix 1. The Regulation Manager covered the following areas during the inspection:

Standards assessed against during inspection

There are 47 standards in the Research sector, of which 38 were assessed. Standards C1(a), C1(b), C1(d), C1(e), C1(f), C2(a), C2(b), C2(c), and PFE2(b) could not be assessed as the establishment does not directly seek consent or store the deceased (standards published 3 April 2017).

Review of governance documentation

The assessment included a review of documentation relevant to the establishment's licensed activities. This included policies and procedural documents relating to licensed activities, client agreements, equipment maintenance records, risk assessments, arrangements for temperature monitoring for the storage units, staff training records, a review of the sample quarantine spreadsheet and LIMS used to record and track relevant material, and audits.

Visual inspection

The site visit included a visual inspection of the area where samples are received into the establishment, receipted, logged into the establishment systems, and stored in the -80°C freezer.

Audit of records
During the visual inspection, records for three samples in storage were reviewed. This included a review of receipt records, physical confirmation of the freezer storage location for two of the three samples, confirmation the samples were recorded in the LIMS (two samples) or the quarantine spreadsheet (one sample), and assurance that consent was in place.

In addition, nine internal audits were reviewed, including an independent audit against the HTA standards.

Meetings with establishment staff
The inspection included discussions with the DI, the CLHc and lab manager, the project management director for Europe, and other staff working under the licence. This included the Team Lead for sample quality control, laboratory staff, and representatives from quality assurance.

Report sent to DI for factual accuracy: 10 January 2024

Report returned from DI: No factual accuracy or request for redaction comments were made by the DI

Final report issued: 30 January 2024

Completion of corrective and preventative actions (CAPA) plan

Based on information provided, the HTA is satisfied that the establishment has completed the agreed actions in the CAPA plan and in doing so has taken sufficient action to correct all shortfalls addressed in the Inspection Report.

Date: 17 May 2024

Appendix 1: The HTA's regulatory requirements

Prior to the grant of a licence, the HTA must assure itself that the DI 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 DI 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 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.

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 Human Tissue Act 2004 (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 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:

   - A notice of proposal being issued to revoke the licence
   - 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.
   - A notice of suspension of licensable activities
   - Additional conditions being proposed
   - 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 Codes of Practice, 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 review or at the time of the next inspection.

   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 the final inspection report. Establishments 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 inspection
- a request for information that shows completion of actions
- monitoring of the action plan completion
- follow up at next routine inspection.

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