

# FORENSIC BIOLOGY QUALITY ASSURANCE/QUALITY CONTROL MANUAL

LAB TYPES DATABASE		
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## Lab Types Database

### GUIDING PRINCIPLES AND SCOPE

“Lab Types” is a DNA database that contains the DNA profiles of individuals who have access to laboratory space and/or may come into contact with an item of evidence prior to or during processing. It contains locally- and nationally-recognized exogenous DNA profiles. This database is a part of the Quality Assurance Program of the laboratory and must be searched in order to assure that no casework DNA profile was contributed by someone during or after the investigation.

The individuals included in Lab Types include past and present personnel of the OCME, members of housekeeping staff, equipment vendors, select members of NYPD, and various visitors to the laboratory. Any DNA profiles that link cases together but are found to be exogenous will be kept in Lab Types under a contaminant listing.

This procedure describes the collection, identification, processing, and disposition of samples used to create the DNA profiles stored in the database. It also describes the processes for the operation and maintenance of the database as well as how the database is used by casework analysts.

### PROCEDURE

#### A. Sample Collection

1. All samples collected internally for Lab Types processing must be collected by an authorized individual. The OCME Human Resource Department most often collects and records each swab taken. Swabs are then sent to Forensic Biology for Processing.
2. The proper consent form must be completed by the donor prior to the collection of the swabs. This form will be stored with the Missing Persons/Exemplar Group.
3. A five-digit sample ID number is generated for each donor. The five-digit ID number meets the following conditions:
  - i. It falls within the numerical range 00000 to 99999, inclusive
  - ii. It is generated randomly each time a new swab is collected.
  - iii. It is unique to all other assigned ID numbers, past or present.
4. This number is placed on a large coin envelope that is also labeled with the donor's name. The information is recorded in Lab Types. This number becomes the sample identifier.

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5. Lab Types samples are classified as reference materials.

## B. Sample Processing

1. Lab Types samples can be processed along with casework exemplar samples.
2. After cutting, the swabs are returned to their envelopes. In most cases, these envelopes are placed in the appropriate container for long-term storage. For situations where samples are not to be stored by Forensic Biology, see the *Sample Disposition* section.
3. Extraction, quantitation, amplification, and STR analysis are performed identically to casework exemplar samples. The results are sent to the Lab Types Custodian.

## C. Sample Disposition

1. Lab Types samples and extracts are stored like all other exemplar swabs. In certain circumstances, a swab and extract may need to be destroyed or returned to an individual.
  - i. NYPD swabs and extracts will be returned to the NYPD Integrity Control Officer.
2. To return a sample, the envelope is cut open so that the Eppendorf tube containing the sample extract can be inserted along with the swabs. The five-digit ID number written on the envelope is obscured or removed.
3. In circumstances where samples need to be destroyed, the swabs and extract can be disposed of appropriately.

## D. Database Maintenance

1. The Lab Types Custodian is in charge of keeping the main Lab Types Database up to date with all relevant information as results arrive.

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2. The information is maintained as an Access database and must include, but is not limited to:
  - i. ID number
  - ii. department/agency/employer of donor
  - iii. Date of swab receipt
  - iv. Date and time of extraction, quantitation, and amplification
  - v. quantitation value
  - vi. STR run name
  - vii. DNA profile

## E. Lab Types Reference Databases

1. Due to the nature of the information kept in the main Lab Types Databank, the full version is not suitable for general usage by analysts for comparison to evidence profiles. For this reason, copies of the main Lab Types Databank are created with various data fields deleted or hidden from view.
2. Two versions of the main Lab Types Databank are periodically created for routine use by analysts or managers.
  - i. One version contains only the ID numbers and the corresponding DNA profiles and is designed for use by analysts for comparison with casework DNA profiles.
  - ii. A second version is designed for use by management, and has ID numbers, DNA profiles, and names of sample donors.
3. Each version is spot-checked and write-protected prior to placement online.
  - i. To spot-check a truncated version of the database, an authorized analyst other than the Lab Types Custodian checks the database entries against electropherograms of the samples.
  - ii. After this has been completed, the copies are created and write-protected. These copies are then directed to the Lab Types Manager for approval and placement on the network for general usage.

## F. Searching the Lab Types Database

1. The Lab Types databank in Access can be sorted by genotype at each locus.

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2. Double click *LabTypes:Table* on the left side of the screen if the table does not automatically populate.
3. There are two ways to search: manual and filtered. In both tables, profiles are automatically sorted in numerical order from top to bottom across all columns.
4. **Manual Search.** To search manually, an analyst scrolls down until they find the genotype at the locus in the first column.
5. **Filtered Search.** To perform a filtered search, click on arrow next to the locus name at the top of the column. Check each allele or allele combination you wish to search

This process can be done with as many subsequent loci as necessary. To reset the filter and display the entire database again, click *Toggle Filter* on the Home toolbar.

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