Forensic Chemistry Section

Transferring Evidence Policy

1. Scope

This document details the process for transferring items to other sections of the laboratory for analysis.

2. General Guidelines

2.1 Generally, evidence requiring multiple section examinations will be processed by the Forensic Chemistry Section prior to being submitted to other sections of the laboratory.

2.2 Evidence requiring fingerprint, footwear, or other latent impression analysis will be handled in a way to protect any potential latent impressions. A latent print examiner will be consulted when necessary to determine the best mode of processing.

2.3 Firearms are rendered safe upon receipt by the laboratory, however all examiners must treat firearms evidence as if loaded. If the firearm must be manipulated for processing, a firearms examiner will be consulted. For example if bullets need to be removed from the cylinder.

2.4 Evidence being submitted to another section for additional examinations will be sealed with red tape to indicate the evidence is not ready to be returned to the investigating agency.

2.5 Receipts may be printed and signed for each person-to-person or section-to-section transfer.

2.6 The Forensic Chemist is responsible for screening biological evidence for the presence of sources of potential DNA evidence. In cases where multiple sources are identified, the examiner is responsible for choosing the best sample(s) for submission to the Forensic Biology Section for analysis.

2.7 The Forensic Chemist will determine which samples should be forwarded for DNA analysis based on the case history, evidence in question, and professional experience.

2.8 Certain evidence samples are packaged uniformly based on the type of evidence.

3. Transferring Evidence for Sperm Cell Identification / PSA Extraction

3.1 The Forensic Chemist prepares each sample for extraction by placing either a swab head or an approximately 1cm x 1cm cutting of a stain into a clear, sterile, UV-irradiated microcentrifuge tube.

3.2 Microcentrifuge tubes are separately “poured” from the container.

3.3 The sub-items will be labeled as described in the following examples:

- Samples submitted for sperm search / PSA testing:

  L10-000-1Na One vaginal swab head (will be consumed)
  L10-000-2A Cutting of stain from crotch of underpants (will be consumed)

NOTE: If the entire sample is used to create this item, then the substrate will be retained

- Cell Pellet Extracts:

  L10-000-1Na.A Vaginal swab head extract
  L10-000-2A.A Extract of cutting of stain from crotch of underpants

3.4 The tube will be labeled with the case number and item number on the top and the case number, item number, initials and date on the side using a black marker.

3.4.1 If the tube contains the only available sample, the information will be written on the tube in **blue** marker.

3.5 The tubes containing samples to be extracted at a later date by the Forensic Technician will be placed into a plastic bag, heat sealed and labeled appropriately. Sample tubes to be extracted same day may be placed in a rack with the appropriately labeled packaging.

3.5.1 If transferring samples for sperm cell search / PSA testing and samples for DNA testing at the same time, the samples will be divided into separate bags for each testing procedure.

3.6 Samples not extracted within 24 hours will be frozen until they are analyzed.

3.7 A "Sperm Search/PSA" request will be created in LIMS with the items to be examined related to the request.

3.8 If the Forensic Chemist will not be completing the request, an "Assignment Notification Report" will be submitted to the Forensic Technician. A note will be included on this report if the Forensic Technician is to retain the substrate of any sample.

3.9 Samples that are found to have sperm cells present may be submitted to the Forensic Biology Section for nuclear DNA testing at the discretion of the examiner. In the absence of sperm cells and where PSA results were positive, y-STR DNA testing may be requested.

3.10 The Forensic Chemist may choose to submit remaining swabs or cuttings to the Forensic Biology Section. In those cases, the remaining swab(s), portion of a swab or cutting of a stain, to be submitted, are placed into a glassine envelope which is sealed and labeled appropriately and then placed into a coin envelope, which is sealed and labeled appropriately. Alternatively, additional samples may be placed into microcentrifuge tubes which are then labeled appropriately and placed into a plastic bag which is heat sealed and labeled appropriately.

3.11 Microcentrifuge tubes containing victim samples will be packaged separately from microcentrifuge tubes containing suspect samples.

3.12 The coin envelope(s) or heat sealed plastic bag(s) containing additional samples to be submitted to the Forensic Biology Section will be placed into a zip-lock bag, appropriately labeled and stored frozen.

3.13 All samples will be transferred in LIMS and a receipt printed.

3.14 The description of the samples will be edited in LIMS to reflect the results of the extraction for cell debris as in the following:

L10-000-1Aa.A Vaginal swab head extract containing sperm cells
L10-000-2A.A Extract of cutting of stain from crotch of underpants containing sperm cells

4. Preparing Blood Evidence for the Forensic Biology Section

4.1 The Forensic Chemist will submit blood evidence to the Forensic Biology Section by placing the sample in a clear, sterile, UV-irradiated microcentrifuge tube. Sample size may be varied by the examiner depending on the size and concentration of the stain. However, typical sample sizes are:

- 3mm x 3mm cutting
- a thread of a bloodstain
- a swab
- a portion of a swab

4.2 Each tube is labeled on the side only with the case number, item number, initials and date.

4.3 The tubes containing samples to be tested are placed into a plastic bag, heat sealed and labeled appropriately.

4.4 Microcentrifuge tubes containing victim samples are to be packaged separately from microcentrifuge tubes containing suspect samples.

4.5 The Forensic Chemist will describe the sub-item in LIMS in such a way to indicate if a portion of the stain is being submitted or if the entire stain is being submitted for further testing.

4.6 The sealed plastic bags are placed into a zip-lock bag, which is labeled with the case number. The bag is stored frozen until time for analysis.

5. Preparing Hair Evidence for the Forensic Biology Section

5.1 The root of the hair is placed into a clear, sterile, UV-irradiated microcentrifuge tube.

5.2 The side of the tube only is labeled with the case number, item number, initials and date.

5.3 The tube(s) containing samples to be tested are placed into a plastic bag, heat sealed and labeled appropriately.

5.4 Microcentrifuge tubes containing victim samples are to be packaged separately from microcentrifuge tubes containing suspect samples.

5.5 The sealed plastic bag is placed into a zip-lock bag, which is labeled with the case number. The bag is stored frozen until time for analysis.

5.6 The remaining hair is retained with the other evidence items not transferred.

6. Transferring Items to the Forensic Biology Section

6.1 All samples are transferred in LIMS to the appropriate freezer and a receipt printed.

6.2 The Forensic Chemist transferring the evidence items signs the receipt and places the barcodes with the corresponding microcentrifuge tubes in the outer zip-lock bag. Barcodes may be directly applied to coin envelopes.

6.3 A “General Forensic DNA Analysis” request is created in LIMS and assigned to “TBD” with the items for DNA analysis related to the request. All items transferred may not be assigned a request for analysis.

6.4 The examiner initials and dates the assignment notification form and may make notes in the “Notes” field of the request or on the printed form if necessary.

6.5 The original "Assignment Notification Report" and a copy of the "Evidence Transfer/Return Receipt" are submitted to the Forensic Biology case manager.

6.6 A copy of the "Assignment Notification Report" and the original "Evidence Transfer/Return Receipt" are maintained in the Forensic Chemistry case folder.