



# Forensic Chemistry Section

## Hair Examination Method

### 1. Scope

This document outlines the method for examining hair evidence. The laboratory does not perform hair comparisons. The laboratory does determine if a hair is human or animal and suitability for DNA testing.

### 2. Safety

Disposable laboratory coats and disposable gloves will be worn when handling evidence.

### 3. Hair Examinations

- 3.1 Hairs may be examined macroscopically or microscopically using a stereomicroscope or a compound microscope.
- 3.2 Macroscopic examinations will include general color (light, medium, dark) and general characteristics such as length, curl, etc. The examiner may determine if the hair is possibly human or possibly animal.
- 3.3 The examiner may further use the stereomicroscope to determine if the hair is human or animal if sufficient microscopic detail is visible. The microscopic characteristics leading to such a determination will be noted.
- 3.4 The examiner may identify a color (brown, red, etc.) and human or animal using the compound microscope with a minimum possible magnification of 100X.
- 3.5 The examiner may use Permount, DPX or xylene substitute to mount hairs, depending on the situation. The mounting media will be noted.
- 3.6 Selected characteristics may be evaluated side by side on a comparison microscope. This evaluation will be documented with notes. The examiner may choose to also include photographs as part of the documentation.
- 3.7 When an evaluation is conducted, the examiner will note if the selected characteristics of the known and questioned hairs are similar or dissimilar.
- 3.8 When applicable, the examiner will note if a root is present and, if necessary, the growth stage (telogen, catagen, anagen) of the hair.
- 3.9 The examiner will determine which hairs, if any, will be submitted to the Forensic Biology Section of the laboratory for DNA analysis.

### 4. Submission to Forensic Biology

- 4.1 Hairs will be prepared for submission to the Forensic Biology Section of the laboratory.



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- 4.2 Xylene or xylene substitute will be used to demount hairs, when necessary. Either the entire hair or the root of the hair may be removed.
- 4.3 These hairs or hair roots should be rinsed twice with reagent water.
- 4.4 The root of the hair will be cut approximately 5mm from the end and placed in a labeled microcentrifuge tube.
- 4.5 The remaining portion of the hair should be secured to a microscope slide or placed in a druggist fold and retained with the item of evidence.