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## **BIOLOGICAL SCIENCE CASEWORK EVIDENCE SUBMISSION & TESTING INFORMATION**

Because of advances in DNA technology and its effective use in aiding criminal investigations, forensic laboratories are experiencing increased demand for testing and thus receive a greater number of cases and evidence submissions. Prioritization of evidence submissions is essential to efficient laboratory operation to reduce interruption and provide a systematic approach to returning investigative information in a timely fashion. Prioritization practices are based on numerous factors, including an evaluation of the size and resources of the laboratory, number of agencies a laboratory serves, volume of submissions, mode of incoming submissions (i.e., common carrier vs. in-person), case type, and legislative mandates.

National best practice for forensic DNA laboratories suggest laboratories utilize data-driven decisions in selecting evidence items to test, prioritizing the analysis of the items selected, and determining the “optimal number” of items to be tested per case. This level of optimization considers the laboratory’s testing capabilities, resources, and item type success rate (i.e., blood stains vs. touch DNA).

With these practices in mind, the New York State Police Forensic Investigation Center (FIC) has developed an informed testing plan that allows it to optimize its resources to perform high quality forensic testing for the over 500 law enforcement agencies that utilize its forensic services. To maximize FIC resources, including sufficient and appropriate storage for incoming evidence submissions and evidence awaiting testing, the Biological Science Casework Section (herein after referred to as “the Section”) has established the following evidence submission and testing practices:

### **Serology & DNA Analysis**

The Section will apply its forensic expertise to select the most appropriate evidence items to test AND analytical test method(s) to apply to meet the type of examination requested (i.e., serology and/or DNA analysis). For all case submissions, the Section will limit forensic analysis to those items/samples necessary to answer the relevant forensic questions in the case.

Below are definitions of commonly used terms throughout this document:

**Item** – refers to a single piece of *evidence* submitted in a case (e.g., one piece of clothing, one swabbing from a single area from a crime scene, one weapon, etc.)

**Sample** – refers to a portion of an *evidence item* that is collected and preserved for possible DNA testing (e.g., cutting from stained area on shirt, swab of blood from handle of knife, etc.)

**Reference** – a known DNA sample from a person, also referred to as “elimination” samples. Typically, this is a collection of a swab of the inside of the mouth/cheek area referred to as a “**buccal**” swabbing.

### **The Section does not routinely accept or perform:**

- 1) Touch DNA evidence from items routinely handled by victims/complainants where there has been a minimal amount of contact by a perpetrator (e.g., swabs from window buttons, rear/side view mirrors, door handles, switches, countertops, keys, locks, dresser drawer knobs, jewelry boxes, power/cable cords, etc.). Touch DNA evidence of this type may be referred to as “brief contact” DNA. (See below section: [Touch DNA Evidence](#).)

- 2) DNA analysis on Touch DNA evidence where the evidence item(s) is known to have been handled without gloves during/after collection.
- 3) Cases where a DNA profile developed from the evidence would NOT be eligible for the Combined DNA Index System (CODIS). (See below section: [CODIS Eligibility](#).)
- 4) Re-analysis of serology/DNA evidence previously examined by another New York State Laboratory.
- 5) Examination of items like BB Guns, Pellet Guns, Air Soft Guns, Paint Ball Guns, and other guns that would not fall into the definition of a "Firearm" per Section 265 of the New York State Penal Law, in accordance with the Section's policy. These items may be swabbed, and the swabs of these items may be submitted for DNA analysis by following the guidelines listed in this document under "Criminal Possession of a Weapon."

## **Requests for Pre-Submission Consultation**

The Section and FIC Case Management will provide case review/consultation to assist an agency in identification of a subset of probative evidence to be submitted for initial and/or subsequent rounds of testing. A consultation is **strongly recommended** for **homicide** cases and **cases with numerous evidence items**. To schedule an in-person or teleconference meeting/consultation, please contact the FIC Case Management at [FICCMR@troopers.ny.gov](mailto:FICCMR@troopers.ny.gov).

To further assist us in scheduling your request, please type "**Case Review**" and the **case type** (e.g., homicide, sexual assault, robbery, etc.) in the email subject field and include a case synopsis in the body of the email. The case synopsis should outline the background information of the case (e.g., location of scene(s), origin of evidence (suspect vs. victim vs. other), relevance of subjects to the scene(s), etc.). This information is needed to make determinations pertaining to the eligibility of DNA profile(s) for entry into CODIS.

## **Evidence Submission & Testing Limits by Case Category**

The number of evidence items acceptable for submission to the FIC for serology and/or DNA testing is based on offense type, as set forth in the below chart. Additional items may be considered for testing once results from the first round of testing can be reviewed to determine whether further forensic analysis is necessary. A pre-submission consultation is recommended for cases containing numerous evidence items or multiple offense types.

**\*Reference samples (e.g., known samples from suspects, complainants, etc.) will not be counted in the number of items permitted for initial submission.\***

Except where legislative requirements exist (e.g., specified testing timeframes for sexual offense evidence collection kits), additional evidence will not be tested merely to disprove all possible scenarios as these are endless and cannot be fully ruled out by forensic testing. The Section understands that circumstances may dictate the need for additional testing **if the relevant forensic questions have not been answered from the first submission of evidence items**. Section Supervisors will review case information and seek consultation with submitters, when applicable, to make determinations as to whether the relevant forensic questions in a case have been answered. Once those determinations are made, the Section will return any untested items to the submitting agency. **The Section requires a written request from the Prosecutor and/or Investigating Officer listing the additional evidence to be tested and probative nature of each item, along with sufficient justification for the request when informative results have already been obtained.** To initiate consideration of a request for serology/DNA testing exceeding the case category specific submission limits below, the Prosecutor or Submitting Agency must fill out and submit the [Biological Science Additional Testing Request \(LAB-38\)](#). The form and previous testing results will be reviewed by Section supervisory staff before making any decisions regarding supplemental requests for testing.

Please do not submit items above these limits which do not need to be examined. A pre-submission consultation is recommended for cases containing numerous evidence items or involving multiple offense types. To request a pre-submission consultation, please contact [FICCMR@troopers.ny.gov](mailto:FICCMR@troopers.ny.gov).

| Case Category  | Evidence Item Submission Limit  |
|--|---|
| <p><b>Homicide</b></p>   | <p><b>10</b> items (as determined in the pre-submission Case Review Meeting)</p>  |
| <p><b>Attempted Murder, Assault, Robbery</b></p>   | <p><b>5</b> items</p>   |
| <p><b>Sexual Assault</b></p> <p>In July 2018, the Section implemented a Direct-to-DNA Male DNA Screening approach for evaluating evidence contained within Sexual Offense Evidence Collection Kits (SOECKs). The DNA based screening technology, paired with the confirmatory microscopic examination for spermatozoa, offers improved sensitivity with the goal of obtaining a perpetrator DNA profile from evidence items that are rich in victim/survivor DNA. Presumptive serological pre-screening (e.g., acid phosphatase and prostate specific antigen) will not be performed during the Direct-to-DNA Screening of the SOECK.</p> <p><u>Note:</u> Evidence items such as clothing and bedding, not contained within the SOECK, will be screened using traditional serological tests.</p>                         | <p><b>For assaults where a SOECK was collected and released to law enforcement:</b></p> <p><b>1</b> item – Sexual Offense Evidence Collection Kit (SOECK)</p> <p><b>For assaults where a SOECK was NOT collected or the victim did not consent to release the SOECK to law enforcement:</b></p> <p><b>4</b> items may be submitted</p> <p>Large items such as suspect’s bedding/mattress will not be accepted unless special circumstances exist and the laboratory, investigating officer, and/or prosecuting attorney discuss the submission of this additional evidence and approvals are granted.</p>         |
| <p><b>Burglary or other Property Crimes</b></p> <p><b>The Section limits testing of touch DNA evidence to swabs from forced points of entry and from stolen vehicle cases.</b><br/>Touch DNA evidence <b>will not otherwise be tested</b> if other more probative evidence items are submitted.</p> <p>See <a href="#">Touch DNA Evidence</a> section below.</p>   | <p><b>3</b> items containing apparent blood, seminal fluid, or saliva or items introduced to the scene by the perpetrator (e.g., hats, gloves, footwear, knives, pry bars, screwdrivers, beverage containers, or other similar items).</p> <p><u>Note:</u> Evidence items introduced to the scene by the perpetrator can either be swabbed directly or the entire item can be submitted (exception: see CPW section below for swabbing of Handguns/Long guns).</p> <p>See <a href="#">Video: DNA Swab Collection from Beverage Containers</a></p>   |
| <p><b>Criminal Possession of Weapon (CPW)</b></p> <p><b>The Section does not accept testing requests</b> for CPW casework for the following scenarios:</p> <ul style="list-style-type: none"> <li>• firearm removed from an individual’s person (where the only charge is CPW)</li> <li>• found firearm (with no indication that the firearm was involved in the commission of a crime)</li> </ul> <p><b>List all charges brought against the suspect(s) and describe the circumstances in which the firearm was collected.</b> In general, DNA profiles developed from evidence in CPW cases (where the only charge is CPW) are not eligible for upload into CODIS. However, the DNA profiles may be CODIS eligible if there are other (additional) charges (e.g., criminal mischief, reckless endangerment, etc.).</p> | <p><b>Handguns – Swab a maximum of 3 of the following 4 areas:</b></p> <ul style="list-style-type: none"> <li>• Grip</li> <li>• Trigger/trigger guard</li> <li>• Slide (semi-automatic) or cylinder (revolver)</li> <li>• Magazine</li> </ul> <p><b>Long guns – Swab a maximum of 4 areas</b></p> <ul style="list-style-type: none"> <li>• Grip area</li> <li>• Trigger/trigger guard</li> <li>• Fore-end/forearm or handguard</li> <li>• Bolt handle, lever, cheek plate, or an area that would be handled frequently by the user</li> </ul> <p>See <a href="#">Video: DNA Swab Collection from Firearms</a></p> |

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| <p><b>Criminal Possession of Controlled Substance (CPCS)</b></p> <p>The Section <b>does not accept testing requests</b> for CPCS casework for the following scenarios:</p> <ul style="list-style-type: none"> <li>• controlled substance removed from an individual's person</li> <li>• controlled substance obtained as part of a confidential informant/undercover drug buy</li> </ul>   | <p><b>2</b> swabs of collection areas from packaging (bag/baggies, glassine envelopes, etc.) or drug paraphernalia (pipes, bongs, etc.) <b>or</b></p> <p><b>2</b> evidence items with possible blood/saliva believed to be from the perpetrator(s)</p> <p><b>Do not submit drug packaging to the laboratory</b> unless additional testing such as latent processing or drug testing is being requested.</p>  |
| <p><b>Aggravated Harassment (Correctional Facility)</b></p> <p>The "Throwing Law" (Penal Law § 240.32 - Aggravated Harassment of an Employee by an Inmate) requires that a body fluid be identified but does not require the origin of the body fluid to be associated to an individual. Evidence items submitted for testing from cases with a charge of aggravated harassment associated with a <i>throwing offense</i> will undergo serological testing but will not proceed to DNA analysis.</p>   | <p><b>1</b> clothing item <b>and/or</b></p> <p><b>1</b> set of swabs (scene)</p> <p>Submission paperwork must include a case scenario detailing <b>the location on the clothing</b> where the suspected body fluid struck the victim. <b>This area should be circled on the garment.</b> Silver marker is appropriate for dark colored clothing.</p>   |
| <p><b>Aggravated Harassment (Non- Correctional Facility)</b></p>   | <p><b>2</b> items of <b>liquid/solid/letters, etc.</b></p> <p>Liquid/solid substances must be properly packaged. See <a href="#">Video: Biological Evidence Packaging</a> for submission of liquid items.</p> <p>Submission paperwork must include a description of events detailing the incident, location of recovery of evidence being submitted, and <b>type of suspected biological material</b> on the evidence. If this incident is being considered a hate crime, please include this information during submission.</p> |
| <p><b>Misdemeanors</b></p>   | <p><b>2</b> items containing <b>suspected biological fluid</b> (blood, semen, or saliva) or items introduced to the scene and <b>left behind by the perpetrator</b> (e.g., hats, gloves, footwear, knives, pry bars, screwdrivers, beverage containers, or other similar items) which can either be swabbed directly or the entire item can be submitted.</p>  |
| <p><u>Note:</u> If <i>serology</i> screening (body fluid testing/preservation of samples for DNA analysis) is necessary, the number of evidence items submitted above will be assigned to a serologist. Upon review of the serology test results, a <b>subset of samples</b> which indicate the highest chance of yielding useful information will be assigned for DNA testing.</p>  |  |
| <p style="text-align: center;"><b>Reference Samples</b></p> <p><b>For CODIS eligibility determinations, reference samples should be obtained and included in the submission when submitting evidence items:</b></p> <ul style="list-style-type: none"> <li>• for comparison/elimination purposes,</li> <li>• belonging to a complainant,</li> <li>• suspected to have been handled by victim/complainant/other,</li> <li>• when uncharged, known individuals are suspected to have handled the evidence,</li> <li>• when a victim is known to have engaged in consensual sexual activity within 120 hours of the incident (for sexual offense cases).</li> </ul> |  |
| <p><u>Note:</u> The Section understands that circumstances may dictate the need for additional testing <b>if the relevant forensic questions have not been answered from the first submission of evidence items.</b> Section Supervisors will review the case information and consult with submitters (when applicable) to make determinations as to whether the relevant forensic questions in a case have been answered and return untested items to the submitting agency after these determinations are made.</p>  |  |

## Case Information Requirements

See NYSP [Evidence Receiving Laboratory Submission Information](#) – Submission Forms: [DNA/Serology Submissions \(LAB-5\)](#)

## Evidence Item and Reference Sample Collection and Packaging Guidelines

See [Video: Personal Protective Equipment for DNA Swab Collection](#)

See [Video: Biological Evidence Packaging](#)

## Court Proceedings & Requests for Case Prioritization

The Section understands the nature of evolving criminal investigations and court schedules. The Section has been and will continue to be responsive to meeting requests for expedited testing (i.e., RUSH requests); however, the Section is not able to fulfill requests for extremely short turnaround times without negatively impacting the timeliness of analysis on other cases. The Section supervisors respond to legislative mandates that require testing be performed in specified timeframes (e.g., sexual offense evidence collection kits) and monitor requests for RUSH casework (e.g., cases involving a public safety concern or an imminent threat to society).

The Section requires sufficient time to perform accurate and complete analysis with additional time to review results before issuing laboratory reports. **When trial dates are known, notify the Section as soon as possible to provide sufficient time for laboratory testing, CODIS assessment, administrative processes, and discovery preparation.**

## CODIS Eligibility

See [CODIS Fact Sheet](#). CODIS related questions should be directed to the NYS Local CODIS Unit at: [NYSPCODIS-Casework@troopers.ny.gov](mailto:NYSPCODIS-Casework@troopers.ny.gov).

## Cold Cases

Analysis of Cold Cases will **be initiated by application AND will be limited to a single (1) submission of biological evidence (limited to ten (10) evidence items)**, generally associated with **Homicide or Sexual Assault** case types.

**A request for Cold Case Analysis is initiated by completing** the [Cold Casework Request \(LAB-39\)](#). If additional testing may produce probative forensic information, the Section will utilize currently validated DNA testing technology on evidence previously tested and extracted for DNA. In some instances, probative forensic information may not be obtained from retesting the original DNA extracts or the initial evidence submission (10 items; non-DNA extracts).

Note: The Section can review an application to determine if testing outside the scope of the FIC validated technology should be considered (i.e., mitochondrial DNA testing).

## Criminal Paternity

The Section offers criminal paternity testing services to law enforcement agencies. **Prior to performing DNA analysis in criminal paternity cases, submission of DNA reference samples (preferably buccal swabs) from the biological mother, alleged father, and child (or products of conception, if the child was not carried to term) are required.**

Products of conception should be collected in a sterile specimen cup (no preservative) and immediately stored frozen, including during transport. The above listed items (buccal swabs/products of conception) must be treated like items from any other criminal investigation with proper storage and chain of custody documentation. **Each specimen must be marked with the full name of the individual and their relationship to the paternity case (mother/victim, alleged father/suspect, child/products of conception).**



## Touch DNA Evidence

Touch DNA evidence, also referred to as “brief contact” DNA, is that resulting from limited contact by an individual with a surface or material. Touch DNA differs from “wearer” DNA, which is DNA recovered from an item of clothing worn by a person.

Touch DNA evidence **will not otherwise be tested** if other more probative evidence items are submitted, such as items containing suspected blood, seminal fluid, saliva, or items left at the crime scene by the perpetrator(s).

**Touch DNA evidence accepted for submission to the Section is limited to:**

- **Forced point of entry: swabs from a maximum of two (2) areas of the forced point of entry.** These swabs can be taken from windows/windowsills and door jambs/frames if such areas are identified as being forced entry points. Touch DNA swabs of items routinely handled by non-perpetrators (e.g., doorknobs, dresser drawer knobs, jewelry boxes, and cash registers) or swabs of finger smudges at the scene **will NOT be accepted** for testing. Touch DNA swabs/evidence handled without gloves by law enforcement/collector during or after collection **will NOT be** accepted for testing.
- **Stolen vehicles: one (1) swab collected from the steering wheel**, provided the steering wheel has not been contaminated by first responders, tow truck drivers, or other individuals who handled the steering wheel without wearing gloves.

**Reference samples from individuals with legitimate/routine access to the point of entry and/or vehicle are required and must be included in the same submission as the evidence.**

## Unidentified Remains / Missing Persons

**Unidentified Remains:** The Section offers nuclear DNA and Y-STR DNA testing on blood, bone, and tissue samples from unidentified remains. Non-degraded blood and tissue are the preferred sample type for evaluation; however, if unavailable, teeth and intact long bones (preferably molars and femurs, respectively) are also suitable for testing. The samples should be clearly labeled and stored frozen to maximize the potential to develop a DNA profile.

The submitting agency should provide any information about the scene or relevant notes from the agency regarding the condition of the remains: describe/attach documents/photos and include with the submission of evidence item(s). **If a presumed identity has been established for the deceased subject, the submitting agency should submit reference samples from the biological parents and/or biological children of the presumed victim and/or a personal effect item used solely by the presumed victim (e.g., toothbrush, razor, etc.) for DNA comparison.**

The remains can be forwarded to the University of North Texas, the Office of Chief Medical Examiner in New York City, or a certified anthropologist/medical examiner for mitochondrial DNA analysis.

**Missing Persons:** The Section offers forensic DNA/kinship analysis on items associated with missing individuals. Personal item(s) used solely by the missing person, such as a toothbrush/razor **or** direct reference samples (e.g., medical specimens from the missing person) can be submitted for DNA testing in active investigations.

**Reference samples from two (2) first order biological relatives (i.e., mother, father, sibling, and/or children) of the missing person are needed to perform the DNA comparison and subsequent identification of the remains.** Ensure the reference samples are labeled with the name of the individual the sample was collected from and the biological relationship to the missing person. Reference samples from the biological relatives of missing persons can also be forwarded to the University of North Texas or the Office of Chief Medical Examiner in New York City for both STR DNA and mitochondrial DNA analysis, with entry of profiles into CODIS.

If only one (1) reference sample can be provided, contact the Section at [Biosci-CMGT@troopers.ny.gov](mailto:Biosci-CMGT@troopers.ny.gov) before submitting item.

## Case Status - Return of Items Without Analysis

Section Supervisors review case information and will select a sub-set of evidence items to assign to a Forensic Scientist. In many cases, not all items submitted will be tested if the relevant forensic questions in the case are answered upon testing the sub-set of items selected for analysis. The remaining, untested evidence items will be returned to the submitting agency in this scenario.

As part of routine case management, Section Supervisors will review the case status of cases in the queue and may reach out to submitters to gather case information and/or check on the status to determine if analysis is still needed.

After placing two phone calls/emails to the agency with no response to indicate that analysis is still needed, the evidence in the case will be returned to the agency without analysis. The Section case file will indicate that items were returned and may be resubmitted along with the previously requested information if analysis is still needed. **This practice will be applied to cases retroactively.**

To provide a *point of contact* for your Agency, please email the Section Supervisors at [Biosci-CMGT@troopers.ny.gov](mailto:Biosci-CMGT@troopers.ny.gov).

**To obtain Laboratory submission forms and other Forensic Investigation Center section specific *Fact Sheets*, please visit the Crime Laboratory System web page of the New York State Police public website at <https://troopers.ny.gov/crime-laboratory-system-sections>.**

**Informational videos referenced in the document are available on the NYS Integrated Justice Portal at <https://www.ejustice.ny.gov>.**

The information contained within this document supersedes the Touch DNA and CPW Policies effective February 11, 2014 and July 27, 2016, respectively.

