

FORENSIC BIOLOGY ADMINISTRATIVE MANUAL

Investigative Genetic Genealogy Testing		
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Investigative Genetic Genealogy Testing

1 Overview

- 1.1 Investigative genetic genealogy, “IGG” (sometimes also known as forensic investigative genetic genealogy, “FIGG”) is the science of using genetic and genealogical methods to generate leads for law enforcement entities investigating crimes and identifying human remains. Genetic genealogy uses DNA profiles from a crime scene or from unidentified human remains to identify close genetic DNA profiles or matches when compared to genealogical databases.
- 1.2 The Department of Forensic Biology does not perform IGG testing. The Department solely receives requests for IGG testing from its customers. These requests pertain to evidentiary samples or unidentified human remains previously tested by the Department or unidentified human remains never before tested by the Department. The Department acts as the liaison facilitating the transfer of samples between the IGG requesting agency and the laboratory that will perform the IGG testing.
- 1.3 Extracts of previously tested evidence samples or untested Unidentified Human Remains (UHR) samples in the custody of the Department are relinquished to the requesting customer and sent to a “wet lab” that will perform single nucleotide polymorphism or SNP testing. The results of this testing are then sent to a company where genetic genealogists will compare the results obtained from the wet lab to available genealogical databases. By evaluating the genealogy of those close familial matches, several possible close relatives of the perpetrator or victim may be established. Such efforts enable investigators or researchers to focus their investigation more closely in cold cases providing new leads.

2 Receiving Requests

- 2.1 Customer requests for extract information are sent via the OCME_IGG@ocme.nyc.gov email using the *Extract Inquiry Form* located on the NYC.Gov/OCME website. This email is monitored by the Department’s Deputy Directors, Customer Liaison, Assistant Customer Liaison, the Assistant Director who oversees the IGG requests, and the Assistant Director who oversees the Missing Person’s Group.
- 2.2 Customer requests to pick up extracts to send for IGG testing are sent via the OCME_IGG@ocme.nyc.gov email using the *Genetic Genealogy Customer Tracking Form* located on the NYC.Gov/OCME website. This email is monitored by the Department’s Deputy Directors, Customer Liaison, Assistant Customer Liaison, the Assistant Director who oversees the IGG requests, and the Assistant Director who oversees the Missing Person’s Group.
- 2.3 Once an email request to pick up extracts for IGG testing is received, the Director of Forensic Biology is informed by the Customer Liaison or the Assistant Director who oversees the IGG requests so that OCME Executive Management can be made aware of the request.

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- 2.3.1 The Customer Liaison or the Assistant Director who oversees the IGG requests will contact the NYPD and the assigned DNA Coordinator for the respective borough that the request has been received.
- 2.4 If the request is for IGG testing on Unidentified Human Remains, the request is forwarded to the Forensic Biology Missing Persons Group at FBIology_XTeam@ocme.nyc.gov by the Assistant Director for Missing Persons' Group or Missing Persons Supervisor.
- 2.4.1 The Assistant Director for the Missing Persons' Group will contact the NYPD and the assigned DNA Coordinator for the respective borough that the request has been received.
- 2.4.2 Missing Persons Supervisor will inform the OCME Cold Case Group when requests for extract information are received. If further discussion on the case is required, the case will be presented to the OCME Identification Review Committee (IRC) members.
- 2.5 If the request is for IGG testing of an extract that is on a spotted card, this request will be forwarded to the QA/QC group using the "Fbio Spotted Extract Request" Workflow in Qualtrax.

3 Fulfilling Requests

- 3.1 Once a request for information or IGG testing on evidence samples is received, the Forensic Biology IGG team will require, at a minimum, fifteen (15) business days to complete the following and respond to the requestor:
- 3.1.1 Verify the case information listed on the submitted form is correct.
- 3.1.2 Have the case file(s) pulled if it is a hardcopy case record or refers to the LIMS record if it is electronic.
- 3.1.3 Makes sure the requested sample(s) names indicated on the submitted form are correct in relation to previously tested sample name(s).
- 3.1.4 Determine if extract is still available after previous testing was concluded.
- 3.1.4.1 If the extract is on a spotted card, the sample will need to be re-extracted and quantified internally, see *Recovery of Spotted DNA Extracts from Whatman FTA Elute Microcards* in the *STR Procedures Manual*.
- 3.1.4.1.1 Should additional testing (see 3.1.4.1 above) be needed on a spotted card requested for IGG, no additional report will be issued. Information concerning that testing will be noted in the case communication log.

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- 3.1.5 Notify the NYPD and/or DNA Coordinator for the respective DAO as to how much extract is available for IGG testing.

4 Releasing Samples

- 4.1 Releasing the sample to the requesting agency for IGG testing is dependent on the initial concentration of DNA present in the sample, the volume of sample remaining and the “wet lab” that has been chosen to perform the IGG testing (some labs require a higher concentration of DNA to perform IGG testing). Both agencies must agree to submitting a sample for IGG testing as the amount needed for IGG testing may exhaust the amount remaining and will not be available for further routing forensic testing.
- 4.1.1 Upon discretion of the Director, samples may be turned over in their entirety to the requestor without first determining the volume of extract remaining due to Forensic Biology time and staffing limitations.
- 4.1.2 Packaging material for the shipment of the extracts will be provided by the requesting agency and brought to the OCME on the day the extracts will be released.
- 4.1.3 The release of the samples to the requesting agency will be done by the Assistant Customer Liaison, the Missing Persons Group, or a member of the IGG team.
- 4.1.3.1 If IGG testing has been agreed upon by all parties, a member of the IGG team or Missing Persons Group ensures that the requested case extracts are sealed with paraffin and placed in a sealed envelope/individual bag before relinquishing the sample(s) to the requestor.
- 4.1.4 For spotted extracts, complete the Spotted Extract Card Tracking Sheet, with the location of samples as needed, including any transfers to external agencies.

5 Documentation

- 5.1 The IGG team or Missing Persons Group completes the “For Internal Use Only” section of the *Extract Inquiry Form*. The form is converted to PDF and attached to the relevant LIMS record, placed in the hard copy case record, or placed in the digitized case record folder.
- 5.2 When a sample is released, the IGG team or Missing Persons Group will update the chain of custody via the *Extract Release Chain of Custody* and completes the “For Internal Use Only” section of the *Investigative Genetic Genealogy Customer Tracking Form*. These forms are converted to PDFs and attached to the relevant LIMS record, placed in the hard copy case record, or placed in the digitized case record folder.
- 5.3 The IGG database is filled out by the Assistant Customer Liaison or a designee with all relevant case and requested sample information.

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6 Follow-Up Activities

- 6.1 The Assistant Director who oversees the IGG requests, Assistant Customer Liaison or Missing Persons Group should schedule a reminder for the Department's Deputy Director, Customer Liaison, and the Assistant Director who oversees the Missing Person's Group to follow-up with DAO and NYPD six (6) months from date sample was released for IGG testing. The DNA Coordinator for each respective DAO borough should be contacted for updates on IGG testing, as well as Lt. Michael Saccone, Commanding Officer of Cold Case Homicide Squad at Michael.Saccone@NYPD.org.
- 6.2 If a potential suspect is identified through IGG testing, any exemplars submitted for testing and comparison to the associated case evidence profile(s) will be assigned to the original case analyst or technical reviewer as applicable. If neither are available, the case will be randomly assigned by the Customer Liaison.
- 6.3 Re-extraction of sample(s), other than spotted extracts, may be necessary in some cases where previous extract has evaporated, has been discarded, exhausted, or has an insufficient quantity for IGG testing. Re-extraction is sample-type dependent and will be done on a case-by-case basis upon evaluation of the case and approval by Laboratory Management.
 - 6.3.1 Evidence may be requested from the NYPD by the requestor to submit samples to its IGG laboratory.