



B153 Revisiting Old New York City Sexual Assaults for CODIS Purposes

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After attending this presentation, attendees will understand how one DNA lab closed a previous loophole in STR testing of sexual assault evidence, augmenting databasing and prosecutorial efforts.

Other laboratories may also choose to reexamine old cases tested in the pre-CODIS era, in order to upload profiles from such cases into the CODIS database. This presentation will impact the forensic community and/or humanity by demonstrating possible positive outcomes include more "hits" and convictions.

Prior to 1990, the New York City Office of the Chief Medical Examiner's (NYC OCME) serology lab solely performed testing on homicide cases. Sexual assault evidence was at that time the purview of the police department lab. Throughout the 1990s, technology used in the new Department of Forensic Biology evolved from DQ-alpha to RFLP to finally STRs in 1996-1997 when the British AQuad@ system and ABlue and Green@ were brought online. Concurrently, the lab staff had been growing to take on extra workload. From 2000-2004, reported sexual assaults outnumbered homicides approximately two to one in New York City.

In 1997 a pilot project was started at OCME in cooperation with the district attorneys' offices and the police department to perform DNA testing on "selected" rape cases (10 per month). By mid-1998, the project included one-third of all (then-current) sexual assault cases within the city, and by that September, 2/3 of those cases, and on January 1, 1999, all of these cases. In recent years, reported sexual assaults have outnumbered homicides, about 3:1 (5 years ago when there were more homicides, the ratio was approximately 2:1).

Lab testing on sexual assault evidence in 1999 consisted of semen identification, and then triaging based on other case information. For cases with a listed suspect, semen-positive items were STR-typed. If the kit was negative, non-kit items such as victim's clothing or bedding were examined only as needed. For cases with no suspect, Y-STR testing was performed on kit items, but additional items were not examined. Current lab procedure is to perform STR testing with the goal of developing CODIS profiles in all semen positive cases; additional evidence is generally examined if no CODIS profile is developed on kit items.

New York City began entering profiles into the New York State CODIS database in 2000. In the intervening years, approximately 11,500 evidence profiles have been uploaded, approximately 75% of which are from sexual assaults. Thousands of "hits" in the database have led to hundreds of indictments and convictions.

The New York City Backlog project, which began in 2000, used commercial DNA labs to perform DNA testing on some 16,000 sexual assault kits, which had been kept in storage from cases that had occurred before January 1, 1999. This project has been described in detail in previous AAFS posters and presentations by OCME lab members. One flaw in this project was that if the kit had been tested at OCME during the early years of OCME's testing of sexual assault items, the semen-positive stains and swabs would have been in retained storage at the OCME when the kits were shipped to the contract labs from the police property warehouse.

Many cases from 1998-99 tested by the OCME had only had semen testing; reports were issued stating semen was found, and nothing further had been done (or, when the kit was subsequently sent to the contract lab, no further testing was possible since the positive samples were not in the box). Still more had only had Quad or Blue and Green done, so although a statistical uniqueness may have been reached, these cases were not tested with CODIS-eligible systems and thus could not be uploaded.

In 2004 an effort was begun to identify cases of this sort, perform further testing as needed, and upload the cases to CODIS. Existing DNA extracts were used when possible, but if no more remained (or if no DNA testing had previously been undertaken); the retained stains were cut for differential extraction and DNA typing. Work was concentrated on non-suspect cases.

Approximately 140 such cases were identified for further testing. About one-third of the cases targeted in this project yielded a CODIS-eligible profile where none had been had before. Further information regarding upload data and prosecutorial efforts will be offered.

Sexual Assault Kit, STR Testing, Old/Cold Cases