State Regulations on Low Stringency / Familial Searches of DNA Databases

Seth Axelrad, ASLME Research Assistant

The National DNA Index System ("NDIS") is the central repository of DNA records generated by NDIS-participating state forensic laboratories. DNA records must meet NDIS standards in order to be included into the database. Specifically, laboratories must type (or profile) DNA at 13 designated loci and submit conclusive results for all 13 loci in order for a convicted offender's DNA profile to be included in the NDIS database. Analysis at all 13 loci must be attempted for forensic samples and unidentified human remains, but only conclusive results for 10 loci are required for search purposes.[1] Requiring a minimum number of loci for typed DNA samples greatly reduces the possibility of a false positive match between a forensic sample and a convicted offender sample. Due to relatedness or chance, any two samples may share DNA sequences at a certain locus; comparing DNA at a larger number of loci helps to ensure that two different samples in the database can be distinguished from each other.

"Low stringency" or "familial" searches of the DNA database are not premised upon finding a perfect match between forensic and convicted offender samples, but rather upon matching only a restricted subset of the available typed loci. Such searches may be performed when the convicted offenders included in the database have been excluded as matches to a forensic sample, and when the police suspect that one of the offenders' relatives may be the source of the sample. Effectively, low stringency searches broaden the inclusion criteria of the convicted offender DNA database from offenders to offenders and their close relatives. Low stringency searches may provide a helpful investigative tool in some cases. Critics of this technique, however, argue that low stringency searches infringe upon the privacy interests of innocent individuals. As the stringency search criteria—i.e., the minimum number of loci required per search—decrease, database searches increasingly implicate a larger number of offenders and, consequently, a larger number of relatives.

Massachusetts and New York have regulations that explicitly address the issue of low stringency searches. Both states require that a minimum of four loci be provided for a forensic search against the DNA database; both states, however, grant exceptions to this requirement. Massachusetts provides that "the laboratory…may, at its discretion, request that a search be performed using fewer loci if there are scientific reasons which support using fewer than four loci in a particular case, including but not limited to the apparent presence of mixtures, sample degradation, limited sample availability, or the possible involvement of relatives."[2] New York also grants exceptions when they are scientifically justified, but does not explicitly include (or exclude) the possible involvement of relatives.[3]

The New York and Massachusetts regulations provide a legal background from which to consider the policy issues surrounding the use of low stringency or familial searches. The regulations are reproduced below. Asterisks (***) indicate that the regulations have

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1 U.S. Department of Justice, Federal Bureau of Investigation, "NDIS Standards for Acceptance of DNA Data", (January 11, 2000) (online at http://www.ncjrs.org/pdffiles1/nij/sl413apb.pdf).

2 Mass. Regs. Code 515 § 2.14

3 N.Y. Comp. Codes R. & Regs. 9 § 6192.3

been edited to exclude irrelevant portions. The regulations are current as of June 29, 2004.

Massachusetts

Mass. Regs. Code 515 § 2.04: Forensic DNA Testing and Analysis

(1) STR Testing. The DNA Database shall be comprised of data generated from STR testing. The specific tests to be adopted for such use shall include all STR loci approved for use by the Director. The FBI-sponsored Short Tandem Repeat (STR) Standardization Project's set of core loci, required for participation in NDIS, is required for inclusion of a DNA profile for a convicted offender in the DNA Database.

(2) Analysis. Forensic DNA profiles to be maintained in the DNA Database must be comprised of information for at least six of the set of core loci. This requirement for a minimum of six loci applies only to those forensic DNA profiles which the Crime Laboratory desires to have maintained in the forensic index of the DNA Database. The requirements for a minimum number of loci needed to perform a casework search of the DNA Database are set forth herein at 515 CMR 2.14. The Crime Laboratory shall only add to the DNA Database Casework Evidence DNA Profiles, Convicted Offender DNA profiles, or profiles generated from analyses of DNA recovered from unidentified human remains.

Mass. Regs. Code 515 § 2.14: Mutual Exchange, Use and Storage of DNA Records

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(2) Loci Requirements. For purposes of searches of the DNA Database, a minimum of four loci shall be provided by a laboratory or other authorized agency requesting a casework (forensic) search against the DNA Database. Notwithstanding this requirement, the laboratory or other authorized agency may, at its discretion, request that a search be performed using fewer loci if there are scientific reasons which support using fewer than four loci in a particular case, including but not limited to the apparent presence of mixtures, sample degradation, limited sample availability, or the possible involvement of relatives. The opinion that such "scientific reason(s)" are operative in a case must be affirmed on the search request form whenever fewer than four loci are provided with a casework search request.

New York

N.Y. Comp. Codes R. & Regs. 9 § 6192.3: Forensic DNA methodology.

The DNA databank shall be comprised of data generated from DNA testing methods approved in the NDIS Standards for Acceptance of DNA Data. Loci required for the upload of convicted offender and casework evidence DNA profiles to the national system shall be in accordance with the NDIS Standards for Acceptance of DNA Data. Casework evidence DNA profiles to be maintained in the DNA databank shall be comprised of information for at least six of the STR loci or other combinations of loci using alternative technologies approved for use in the NDIS Standards for Acceptance of DNA Data. This requirement for a minimum number of loci applies only to those casework evidence DNA profiles which an authorized laboratory desires to have maintained in the forensic index of the DNA databank. For purposes of searches of the DNA databank, a minimum of four loci shall be provided by a laboratory requesting a casework search against the DNA databank. Generally, all available loci associated with a casework evidence DNA profile shall be searched in the DNA databank. Notwithstanding this requirement, the laboratory may, at its discretion, request that a casework search be performed using fewer loci if there is an investigative need and sufficient scientific reasons which support using fewer than four loci in a particular case. The scientific reasons shall include, but not be limited to, the apparent presence of mixtures, sample degradation or limited sample availability. The basis of the

scientific reason(s) must be summarized on the search request form whenever fewer than four loci are provided with a casework search request. Forensic DNA laboratories shall only add to the DNA databank casework evidence DNA profiles, NYS convicted offender DNA profiles, or DNA profiles of missing persons or relatives of individuals reported missing.