Forensic Science Oversight Board
Working Group on Familial DNA Searching

Report on S.2480, "An Act Permitting Familial Searching and Partial DNA Matches in Investigating Certain Unsolved Crimes" and Related Recommendations Pertaining to G.L. c.22E Governing the Massachusetts Statewide DNA Database

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EXECUTIVE SUMMARY

In January 2020, Senator Gobi and Representative Smola introduced S.2480, "An Act Permitting Familial Searching and Partial DNA Matches in Investigating Certain Unsolved Crimes." The bill sought to amend G.L. c.22E, the statute that governs the statewide DNA database, by requiring the lab director to promulgate regulations that permit familial searching. It sought to establish a process overseen by the judiciary, akin to that of a search warrant application, whereby law enforcement entities seek judicial approval of an order requiring the lab to perform a familial search of the DNA database and to furnish them with the records related to that search.

Familial DNA searching is the deliberate searching of a DNA database for *partial* matches between a crime scene sample and offender profiles in the database. The goal of a familial search is to identify database profiles that are *not* a match to the evidence profile, but that share a sufficient degree of genetic similarity with the evidence profile to suggest a possible *familial relationship* (e.g. parent-child, full sibling) to the evidence profile.

Over the course of several meetings in 2020, the Forensic Science Oversight Board discussed this proposed statutory framework for implementing familial searching as an investigatory tool. The Board identified a number of concerns with the bill as drafted, and ultimately agreed that it should engage in a deeper study of relevant constitutional, scientific, and policy considerations. A subcommittee formed to review available research and prepare a Report that explores these considerations and recommends changes to the existing statutory framework.

Part A summarizes the constitutional and privacy issues surrounding DNA testing and its development for use in criminal cases. It explains why *familial* searching illustrates both the investigative promise of forensic DNA testing and the need for tight regulation of the conduct and reporting of familial searches, should such searches be authorized by the legislature.

Part B describes the legislative history that led to the establishment of a statewide DNA database in Massachusetts and to the development of a regulatory structure to contain and responsibly oversee that database. This section also highlights several unanticipated potential dangers of the statutory scheme that created our state's database, namely, that it (1) directs the lab director to provide DNA records to law enforcement entities "upon request," (2) fails to explicitly curtail the end uses of those DNA records by requesting entities, and (3) has been interpreted by several District Attorneys to permit the aggregation of those DNA records in an unregulated secondary database.

Part C explains the scientific underpinnings of familial DNA searches, highlighting the importance of caution in their use for forensic casework. This section also articulates the

scientific and regulatory concerns - including accreditation and CODIS compliance implications - surrounding the potential creation of an unregulated secondary database of aggregated DNA records.

Part D discusses a number of issues with S.2480 as presently formulated. It recommends that G.L. c.22E should be amended to (1) explicitly prohibit the aggregation of DNA records outside of CODIS and the proliferation of unregulated secondary DNA databases; (2) clarify that familial DNA searches should be reserved for use as a tool of last resort in the most serious crimes of violence where stringent requirements are met; (3) consider whether to replace S.2480's blueprint for a search warrant application process that is overseen by individual judges with a centralized approval process overseen by a Committee of individuals who are trained in the scientific, constitutional and policy considerations underlying any decision to pursue familial searching; and (4) require centralized oversight and data collection of all requests for familial searches and the results of those searches, with periodic reporting by the Committee of anonymized information concerning this data, so that the public can understand the manner in which this new investigatory tool is being employed.

Familial DNA searching necessarily implicates the privacy of persons who are not in the database of convicted offenders. As outlined more fully in this report, the Forensic Science Oversight Board recommends that familial DNA searching should be utilized only as a tool of last resort in the investigation of the most serious crimes of violence. Experiences of other jurisdictions demonstrate that familial DNA searching can be used as a valid tool to generate investigative leads, including by identifying suspects in previously unsolved crimes. However, those experiences also highlight the necessity for strict protocols, including training of all persons seeking a familial DNA database search on the limitations of the search process as well as the related constitutional, privacy and policy concerns. These safeguards are not adequately addressed by S.2480.[1]

Additionally, the board takes the position that G.L. c. 22E must be amended in order to expressly prohibit the aggregation of DNA records by law enforcement entities outside of the state police crime laboratory and/or the development of secondary, unregulated DNA databases that threaten to sidestep the carefully crafted regulatory scheme for DNA testing in Massachusetts.

[1] It is noted that a new version of the proposed legislation has been filed in the 2021 legislative session, SD.1685, and that this newly filed bill incorporates many of the recommendations and concerns outlined herein.

A. <u>The constitutional and privacy concerns surrounding DNA testing and its development for use in criminal cases highlight the importance of proceeding with caution in expanding the permissible uses of the statewide DNA database to include familial DNA searches</u>.

DNA testing in criminal case investigations reflects both the extraordinary promise of the science and the necessity for strict adherence to guidelines to assure the quality of testing and protect the security and confidentiality of DNA records. The establishment of DNA databases to aggregate DNA information at the local, state or federal level for use in criminal investigations, has unquestionably expanded the investigatory power of DNA testing. However, the collection of private genetic information in centralized databases necessarily implicate the constitutional right to privacy, including the right to control one's personal data.[2] For this reason, participation in the national Combined Offender DNA Indexing System (CODIS) has always been conditioned on strict adherence to FBI quality assurance standards and data security measures.

Applying the framework of the Fourth Amendment to the United States Constitution to the question of who can be compelled to contribute to DNA databases, courts have been clear: Convicted offenders and arrestees can be compelled to provide such samples, but *only* because they have a reduced expectation of privacy.[3] Massachusetts takes an even more restrictive view of who may be compelled to provide a DNA sample, limiting compulsory DNA collection to only those persons who are convicted of offenses that are punishable by state prison.[4]

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[2] Commission on Life Sciences, Committee on DNA Technology in Forensic Science, Board on Biology, *DNA Technology in Forensic Science*, 113-114 (1992).

[3] *Maryland v. King*, 569 U.S. 435 (2013)("The arrestee is already in valid police custody for a serious offense supported by probable cause. The DNA collection is not subject to the judgment of officers whose perspective might be 'colored by their primary involvement in "the often competitive enterprise of ferreting out crime."'") *quoting* *People* v. *Chiagles*, 237 N.Y. 193, 197, 142 N. E. 583, 584 (1923)("the interests are further different when an individual is formally processed into police custody. Then 'the law is in the act of subjecting the body of the accused to its physical dominion.'"). It should be noted that, while the Supreme Court explicitly included arrestees in the category of persons who can be compelled to contribute their DNA to a database, this Commonwealth has been more protective of the rights of arrestees; it has not required arrestees to provide DNA to the state database.

[4] As originally enacted, G.L. c. 22E required only those with certain enumerated felonies to submit a DNA sample. It has since been amended to require DNA samples from all persons convicted of offenses punishable by state prison, including juveniles who are adjudicated as youthful offenders for offenses that would be punishable by state prison if committed by an adult. However, the legislature has repeatedly declined to require DNA samples from arrestees or those convicted only of a misdemeanor offense.

Familial searches constitute a significant expansion of the traditional investigatory uses of DNA database profiles. Traditional database searches aim to identify a perpetrator by looking for a *direct* match between a questioned evidence profile and an offender profile. *Familial* database searches, by contrast, intentionally look for *partial* matches in the database, with the goal of identifying potential relatives of the perpetrator from the database. Familial searches offer an important opportunity to generate leads that can help solve crimes that have eluded law enforcement efforts, and thus have powerful public safety implications. However, they necessarily expose individuals whose profiles are *not* stored in the database to suspicion, solely due to their potential biological relationship to an offender profile from the database. The process of investigating the potential leads that are generated by a familial search can place intense burdens on those who come under suspicion in the course of that investigation, sometimes with real and devastating financial, emotional and liberty implications.[5]

Massachusetts courts have yet to consider the constitutionality of familial searching. However, legal challenges to the aggregation of DNA information in other non-database contexts offer an important window into the potential privacy implications of this investigatory tool. In *Amato v. District Attorney for Cape and Islands*,[6] for example, the Court denied a motion to dismiss brought by a plaintiff who had voluntarily agreed to DNA sampling in a high-profile murder investigation, on the condition that his sample would be returned when the prosecution of the murder was over.[7] When the District Attorney refused, Amato sued under the Fair Information Practices Act, G.L. c. 66A § 2(*l*), which provides that government agencies shall "not collect or maintain more personal data than are reasonably necessary for the performance of [their] statutory functions."[8] In addition, the Court agreed that retaining Amato's samples could violate the invasion of privacy statute, G.L. c. 214, §1 B. *Amato* clarified that the invasion of privacy statute and FIPA in effect codify a citizen's expectation of privacy in this information.

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[5] Erin Murphy and Jennifer Mnookin argue that familial searches are discriminatory because they "unjustly distinguish between innocent persons related to convicted offenders and innocent persons unrelated to convicted offenders." Jennifer Mnookin, *Devil in the DNA Database, L.A. Times*, at A-23 (Apr. 5, 2007); Erin Murphy, *Relative Doubt: Familial Searches of DNA Databases*, 109 Mich. L. Rev. 291, 305 (November 2, 2009)(unpublished manuscript). *See* Jim Mustian, *New Orleans filmmaker cleared in cold case murder: false positive highlights limits of DNA searching*, Nov. 20, 2019.

[6] *Amato v. District Attorney for Cape and Islands*, 80 Mass. App. Ct. 230, 235-36, 952 N.E.2d 400, 406 (Mass. App. Ct. 2011). While Amato's profile was not uploaded to the offender section of the CODIS database, and the state database in Massachusetts does not include consent samples, the broader controversy surrounding the handling of Amato's DNA records illustrate some of the privacy concerns at stake, particularly in the context of familial searching of local databases.

[7] *Id.*

[8] *Id.*

As the *Amato* court noted, the retention of records like those obtained voluntarily from the plaintiff threatens to produce "a shadow DNA database outside the statutorily authorized State convicted offender database governed by G.L. c. 22E and the FBI's CODIS database."[9] The *Amato* court specifically analogized the DNA database to a kind of contract – submitting samples to the government, on the condition that they be returned after the case was over. Amato's concerns can be generalized to a broader social contract involving DNA databases: Databases of genetic material are permitted only on the condition that the government restrain the use of genetic data to what is necessary and consistent with constitutional and statutory protections.

Beyond the general privacy considerations surrounding familial DNA searches, there are also broader concerns about the racially disparate impact of this expanded use of DNA databases. As with any database, the nature of the information that is derived from data depends upon the information that is inputted. Given the nature of the databases, any expansion of permissible database searches is likely to have a disproportionate impact on communities of color, exacerbating concerns about racial discrimination in the criminal justice system. As one scholar has observed, familial searches are already discriminatory in that they condition criminal suspicion on nothing more than "the bad luck [of having] a close relative who has been convicted."[10] This effect, she notes, is "exacerbated" among certain populations, "because African-Americans and Latinos make up an outsized portion of the DNA database compared with their proportion in the population at large."[11]

The overrepresentation of minorities in the criminal justice system correlates with their overrepresentation in databases; they have a greater chance of having their DNA collected and stored in databases, thus greater exposure to the privacy and autonomy risks associated with these databases. This overrepresentation does not invalidate the scientific validity of the search, nor does it suggest bias in the actual search. Nevertheless, concerns about the disparate impact of familial searching on minority communities highlight the importance of strictly regulating the use of this investigatory tool, as well as mandating data collection and transparency in its implementation and use. These considerations are discussed more fully in **Part D** of this Report.

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[9] *Amato*, 80 Mass. App. Ct. at 36, 952 N.E.2d at 407.
[10] Jennifer Mnookin, *The perils of expanding DNA searches to relatives*, UCLA Today, May 8, 2007. *See* Stephen Mercer & Jessica Gabel, *Shadow Dwellers: The Underregulated World of State and Local DNA Databases*, 69 N.Y.U. Ann. Surv. Am. L. 639,687 n.306 (2014)(Jennifer Mnookin *The perils of expanding DNA searches to relatives*, UCLA Today, May 8, 2007).
[11] *Id*.

B. An examination of the current legal landscape governing the statewide DNA database in Massachusetts reveals the need for reforms to ensure the continued oversight by the lab director of all DNA testing and database searches conducted in the Commonwealth, including familial searching and searches of Y-STR profiles.

1. Legislative landscape of Chapter 22E, and its application to familial searches.

Present day efforts to authorize familial DNA searching in Massachusetts must be understood against the statutory backdrop of G.L. c.22E, which first established our statewide DNA database. At the time of the law's enactment, in September 1997, Massachusetts was one of only three states in the country that had yet to establish a centralized DNA database or to mandate the collection of DNA samples. Proponents expressly framed the law as a necessary prerequisite to participation in the FBI's Combined DNA Index System (CODIS) and to the receipt of federal funding for DNA testing.[12] Proposals to amend G.L. c. 22E must be evaluated with a careful eye toward the state lab's accreditation status and continued ability to participate in CODIS.

G.L. c.22E envisioned the creation of a single, centralized database of DNA records that is maintained within the state police department and overseen by a lab director who is "knowledgeable in the field of forensic science." The law enumerates the categories of persons who are required to submit a DNA sample. It mandates the establishment of an electronic notification system to ensure the orderly implementation of this requirement. It directs the lab to promulgate regulations for the orderly collection, receipt and analysis of DNA samples; filing and storage of DNA records derived from such analysis.[13] And it entrusts the lab director with responsibility not only for the quality of DNA analysis, but also for the security and privacy of DNA records, both of which are essential to satisfy the FBI requirements that govern participation in CODIS.[14]

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[12] H.R. 4646, 1997 Gen. Assemb., Reg. Sess. (Mass. June, 1997); H.R. 4646, Gen. Assemb., Reg. Sess. (Mass. Sep., 1997).

[13] 515 Mass. Code Regs. 1.00, 2.00 (2013).

[14] Significantly, failure to comply with CODIS requirements could result in Massachusetts losing the ability to access that database altogether. Mindful of this danger, G.L. c. 22E was written to comply with 42 U.S.C. 14132, which specifies that Federal, State and local criminal justice agencies may only maintain DNA data subject to carefully drawn rules that prescribe the circumstances in which stored DNA samples and analyses may be disclosed to criminal justice agencies for law enforcement purposes. *The Privacy Act Notice (Federal Register Vol. 61. No. 139)* has since added the clarification that, where direct disclosure of NDIS records is made as the result of an NDIS search and a potential match, NDIS participating agencies may make secondary disclosure to criminal justice agencies. This clarification was needed in order to authorize disclosures of inter-jurisdictional matches, so that in the scenario where a match is

Although G.L. c. 22E does not expressly address the legality of familial searches of the state database, the lab director and state CODIS administrator have expressed a preference for clear statutory authority to conduct such searches, and at present the lab does not perform any familial searches. The lab's approach is consistent with the legislative history of the statute, which reflects a cautious balancing of law enforcement and privacy considerations in Massachusetts.[15] It is also consistent with FBI guidance on this issue, insofar as the FBI has declined to authorize familial searching of NDIS and has provided detailed guidance on how and whether state and local agencies can perform such searches.[16] The FSOB endorses the lab's interpretation of the statute, and concludes that unless the legislature expressly amends the statute to authorize familial searching, *no* law enforcement entity – including but not limited to the state crime lab – may utilize this investigatory tool.

2. <u>The need for an express statutory prohibition of local, unregulated databases.</u>

In the course of preparing this Report on the proposal to authorize familial searching, the FSOB learned of an ongoing effort by several elected district attorneys to compel the state police crime laboratory to produce aggregated Y-STR records from past forensic casework across those counties in the state that agree to participate in the database. Y-STR is genetic information from the male chromosome. These are lineage markers that do not distinguish between family members in the same paternal line. Y-STR testing necessarily conveys less individualized information concerning the source of the profile, because every member of a paternal lineage shares the same Y-STR profile, absent mutations.

Although the particulars of the planned effort to compel production of Y-STR records from the lab are beyond the scope of this Report, it is evident that the primary goal of this effort is to establish a local, unregulated database of Y-STR profiles that can be utilized to investigate unsolved cases. The existence of a plan to establish a database that is wholly outside of the

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made within NDIS between, e.g., a MA case and a NY offender, the Massachusetts lab can report that hit to the investigatory agency (say, the Cambridge Police Department) and provide that agency with the NY offender information (secondary disclosure). The web of rules surrounding secondary disclosure make clear the lengths to which the FBI requires participating labs to go to protect the privacy of the genetic information from offender profiles that are stored within NDIS.

[15] Esther Scott, Kennedy School of Government Case Program, *The Massachusetts DNA Database: Getting Started* (2000); Statehouse News Service, SHNS Advances, *DNA Database* (Sep. 22, 1997).

[16] SWGDAM Ad Hoc Working Group, *Recommendations from the SWGDAM Ad Hoc Working Group on Familial Searching*.

purview and oversight of CODIS necessitates a closer examination of the law's provisions governing the confidentiality, security and end uses of DNA records.

Sections 9 and 10 of G.L. c. 22E, which govern the confidentiality of DNA records and the manner in which they can be requested by law enforcement entities, appear to be most directly pertinent to the District Attorney's planned Y-STR database. In particular, Section 10(a) states as follows:

> The director shall furnish records in his possession, including DNA records and analysis, to police departments in cities and towns, to the department of correction, to a sheriff's department, to the parole board or to prosecuting officers within the commonwealth upon request in writing or electronically.[17]

G.L. c. 22E, §10(a). Unlike the many other provisions of the statute that highlight the importance of a single, centralized database overseen by an experienced scientist and that emphasize the lab's exclusive responsibility to maintain DNA records,[18] section 10(a) places no explicit restrictions on the scope or purpose of a section 10 request. This section also contains no explicit guidance or limitations on the manner in which an entity can *use* the DNA records that are furnished by the lab, whether obtained by way of a section 10 request or in the ordinary course of a criminal prosecution. Instead, it appears to compel the lab director to provide law enforcement entities with seemingly unfettered access to any and all DNA records and analysis in the lab's possession, *without retaining any regulatory authority for the lab and without requiring judicial authorization*.

However, in the view of the FSOB, there is every reason to believe that the legislature intended to create a structure that carefully limits access to DNA records.[19] In addition, there is no indication that the legislature intended to authorize access to non-CODIS DNA records. After all, it makes little sense for the legislature to take such pains to safeguard the confidentiality of

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[17] It is likely that this wording was thought, at the time, to comport with the Federal DNA Identification Act at that time, the idea being that, in the event of a match, another CODIS participating law enforcement agency could ask for the release of the name of the offender involved in the match. For this reason, it is reasonable to infer that the legislature did not and could not have possibly anticipated that this language might also be used as a foundational tool for the development of local, unregulated databases.

[18] G.L. c. 22E, § 9, for example, prohibits the storage of DNA records within the criminal offender record system operated by the department of criminal justice information services.

[19] In particular, G.L. c. 22E, §10(b) limits the purpose for which law enforcement and prosecuting agencies can access DNA records, and further specifies that "any DNA sample obtained directly from a person not otherwise required to provide a DNA sample under this chapter and delivered to the director for comparison with DNA records in the state DNA database shall have been obtained pursuant to a warrant."

offender profiles in the database by requiring the lab to maintain those profiles under strict conditions of confidentiality and security, only to authorize disclosure of all other categories of DNA records - such as Y-STR profiles of consensual sexual partners in a rape case, for exclusionary purposes - without equal or *superior* confidentiality and security measures.[20]

The FSOB directs the legislature's attention to two letters that were submitted to the board on the issue of whether G.L. c. 22E, as presently drafted, supports the view that the lab can be compelled to provide aggregated Y-STR records for inclusion in a multi-county secondary database. On February 10, 2021, the FSOB held a meeting in order to discuss the potential ramifications of the planned database for the lab's accreditation status and compliance with FBI requirements for CODIS participation. At this meeting, the FSOB learned that the issue of access to aggregated Y-STR records is the subject of pending litigation initiated by the Bristol District Attorney in the context of a grand jury investigation. The following motion was made:

> *That the board takes a position against the lab providing the YSTR information requested, because interpreting the statute to authorize or compel the release of YSTR records risks the MSPCL's loss of accreditation status and risks being out of compliance with NDIS and risks violation of the plain language of 22E and 66A and we urge the AGO to bring the FSOB's position before the court hearing the subpoena. The board is in the midst of studying these issues and the legal and scientific implications and attaches MACDL/ACLU and the DAO's letter.*[21]

Two members abstained from voting on the motion; all remaining board members voted in favor.

As outlined herein, the FSOB cautions that the Bristol County District Attorney's plan to establish a county-based Y-STR database reveals an alarming potential vulnerability in the present statutory framework of G.L. c. 22E. While the current planned database would be limited to Y-STR profiles, which are not currently part of the state CODIS database, its successful implementation could easily pave the way for the establishment of other local unregulated databases of autosomal DNA profiles[22] that operate independently of the centralized architecture

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[20] Notably, the statute defines "DNA record" as "information that is derived from a DNA sample and DNA analysis and is stored in the state DNA database." Although it is true that most Y-STR profiles are not in the state database, and thus are not explicitly covered by this definition, the lab is still subject to quality assurance standards for accreditation, including Quality Assurance Standard 11.3, which require the lab to keep *all* DNA records confidential, not just those within CODIS.

[21] The vote and letters submitted to the FSOB are attached to this Report at Appendix B.

[22] Human DNA is arranged in 23 pairs of chromosomes within a cell. The autosomes are the 22 pairs of chromosomes that are not the gender determining chromosomes (the X and Y chromosomes). The DNA from chromosome pairs 1 to 22 is the autosomal DNA. The forensic

of CODIS regulations embodied in G.L. c. 22E. As one author notes, "local rogue databases circumvent all the legal restrictions placed on DNA samples collected in the ordinary way,"[23] including by (a) retaining and uploading DNA records from crime victims, from persons who voluntarily provide their DNA in order to rule themselves out of a police investigation, or from profiles developed through DNA sweeps or "dragnets"; (b) uploading incomplete profiles, profiles processed at unaccredited labs, or profiles developed using procedures that have not been validated for CODIS**;** and (c) eluding state rules on data collection and reporting, as well as those governing expungement of DNA records.

In light of the apparent ambiguity in the statutory language - as reflected by the ongoing litigation over whether the lab can be compelled to produce Y-STR records - the legislature should consider enacting a provision such as that found in the Vermont database statute. That statute explicitly states that, except as authorized by statute for purposes of developing a population database, "no DNA records derived from DNA samples shall be aggregated or stored in any database, other than in CODIS and the state DNA database, that is accessible to any person other than by the department for the purpose for which the samples were collected."[24]

In sum, to the extent the legislature is inclined to amend G.L. c. 22E to authorize *any* use of familial searching in Massachusetts, this expansion should not occur without robust public debate and full consideration *not only* of the legal, scientific and policy issues surrounding this investigatory tool, *but also* of whether additional amendments are needed to prevent the proliferation of non-regulated local databases.

C. Scientific Context of Familial Testing and Concerns Surrounding the Development and Use of Unregulated DNA Databases.

In recent years, jurisdictions across the United States have expressed a growing interest in the use of familial DNA searching ("FDS") to aid in criminal investigations. Proponents of FDS have cited its potential to aid the identification of putative perpetrators, prevent crime, resolve cold cases, exonerate wrongfully convicted individuals and improve public safety.[25]

In response to the growing interest in familial searches, the scientific community has been reviewing and evaluating the use of FDS as an investigative tool. Validation studies have been performed to evaluate the available FDS software and the parameters for the search. These

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STRs tested can be located either on the autosomal chromosomes or the gender determining chromosomes, X and Y.

[23] Erin Murphy, *Inside the Cell: The Dark Side of Forensic DNA* 185 (2015).

[24] 20 V.S.A. sec. 1938(c). A copy of the Vermont law appears in Appendix B to this report.

[25] Sara Debus-Sherrill & Michael B. Field, *Understanding Familial DNA Searching: Policies, Procedures, and Potential Impact* (2017).

parameters include the minimum number of loci needed for a search, the likelihood ratio and minimum shared allele thresholds used, whether female candidates can be included in the search and the populations used as reference samples when calculating the likelihood ratios.

The use of FDS raises a number of concerns. *The first concern* is whether STR-based familial search procedures are implemented in way that ensures any release of information to law enforcement agencies meets a threshold level of certainty. *The second set of concerns* arises from the development of secondary, unregulated databases within local law enforcement departments, through which familial and other forms of searching occur without any of the quality and privacy safeguards required for state participation in CODIS and without oversight or guidance by experienced scientists. As discussed more fully herein, the FSOB concludes the FDS should be allowed *if and only if* there are clear guidelines for the implementation of familial DNA searching policies and procedures, and centralized oversight by experienced scientists.

1. Validation of STR-based familial search procedures.

STR-based familial search procedures are validated procedures that have gained widespread acceptance in the scientific community. As with other emerging technologies, familial DNA searching has been evaluated for scientific validity and has been found to be based on sound scientific principles so long as certain conditions are met.[26] Numerous studies have been conducted to validate the STR-based familial searching procedures.[27]

Genetic associations are routinely made between known DNA profiles and DNA profiles obtained from evidence. Forensic DNA testing has gained widespread acceptance in United States courts because scientists can represent the probability of that match through appropriate statistics. The same principles apply to familial DNA searching (FDS). Forensic scientists can determine the probability that two DNA profiles are from related individuals based upon principles of genetic inheritance, combined with the frequency of different alleles. An individual shares one allele at each area tested with a biological parent. If the evidence profile is not an exact match, but it shares one allele at each area tested, the probability that the donor of the sample is either a parent or child of the individual in the database can be calculated and expressed as a likelihood ratio. Similarly, the probability that two profiles are from full siblings

[26] John M. Butler, *Advanced Topics in Forensic DNA Typing: Methodology* 603-610 (2012).
[27] Steven P. Myers, et al., *Searching for first-degree familial relationships in California's offender DNA database: Validation of a likelihood ratio-based approach*, For. Sci. Int. Genet. (2010). *See also* Debus-Sherrill and Field, *supra*; Efthymia Karantzali, et al., *The effect of FBI CODIS core STR loci expansion of familial DNA database searching*, 43 For. Sci. Int. Genet. (2019); Michael Field, et al, *Study of Familial DNA searching Policies and Practices: Case Study Brief Series*, National Criminal Justice Reference Service, Office of Justice Programs (2017); Ray Wickenheiser, *Familial Searching Internal Validation and Implementation*, For. Sci. Int. Synergy, S6, S6-S7 (2019).

can be expressed in terms of a likelihood ratio for sibship vs no relationship or another relationship. The likelihood of sibship increases as the total number of shared alleles increases and the frequency of those alleles decreases. Of course, many biological relationships result in at least some shared DNA by descent. However, the number of alleles shared by distant relatives (such as second or third degree relatives) quickly decreases such that the probability of identifying a true relative becomes extremely small.[28] Notably, while alleles can be shared due to biological familial relationships, they can also be shared by chance, especially when alleles are common in a population group.[29]

Before a lab conducts a familial search, it must first search the candidate pool of known profiles for exact matches to the questioned sample. A search for close biological relatives may only be conducted if the initial database search produces no exact matches and the lab determines that the forensic profile meets an enumerated list of the FDS search requirements.[30] Once these conditions are met, the sample is run through software utilized for familial DNA searching. The forensic profile is again compared to all candidate profiles, but this time looking to identify close biological relatives of the source of the forensic profile. Thus, while the candidate pool for both a standard identity search and a familial search is the same (e.g. DNA profiles contained within the offender database), the familial search implicitly includes close relatives of the candidate pool. Thus, a familial search inherently casts a far wider investigatory net than does an identity search.

For each comparison between the forensic profile and a candidate profile, the lab must calculate a likelihood ratio for both types of first-degree relationships, parent/child and full-sibling. When ordered by relationship and rank, this process provides a list of potential parents and children and a list of potential full siblings. Because the population frequency of alleles is integrated into the LR calculations, sharing of alleles due to relatedness versus sharing alleles by chance is evaluated.[31] The previously wide net becomes more restricted when a threshold ratio is established, below which all candidates (and thus their relatives) can be eliminated. The goal in

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[28] Myers, supra.

[29] Butler (2012), supra at 605 ("Alleles can be shared between samples due to common ancestry (identical by descent, IBD) or have the same characteristics (e.g., repeat number) by chance (identical by state, IBS). Alleles that are more common (i.e. have a higher frequency) will have a greater chance of being IBS. When rare alleles are present in a DNA profile, there is a greater chance of them being IBD with a matching profile and thus useful in familial searching."). *See* Joyce Kim, et al., *Investigative genetics, Policy implications for familial searching*, 2, 22 (2011).

[30] Search requirements often include: (a) a complete, single source or deduced single source profile that has been searched at NDIS with no matches; (b) a showing by law enforcement that the case involves a serious violent felony and that all other leads have been exhausted; (c) certification that genealogy searching is not being pursued simultaneously, and (d) a commitment to follow leads.

[31] Butler (2012), supra at 605. *See* Frederick Bieber, et al., *Human Genetics. Finding Criminals Through DNA of Their Relatives*, 312 *Sci. Mag.* 1315 (2006).

calculating and applying these ratios is to eliminate the majority of non-relatives from the candidate list and to reduce the number of profiles subjected to the next step in the process.[32]

After the above steps are taken, scientists then conduct additional genetic testing to strengthen or refute the association for those candidates that pass the likelihood ratio threshold. If available, this would include lineage (Y-STR) testing. This is critical, as additional data such as Y-STR profiles or additional autosomal STR loci can eliminate additional non-relatives from the investigative process. Evaluation and validation of the search-software and protocols have been conducted to ensure that authentic relationships are found instead of individuals only coincidentally associated (false positives).[33] The potential for false negatives exists for the population of profiles that do not undergo this additional Y-STR testing.[34]

Once the potential familial association is confirmed through genetics, law enforcement conducts a fact investigation, including by developing a family tree, to determine if a close biological relative of the individual could have committed the crime. This is a critical test: Familial DNA searching is not conducted in a vacuum and given its limitations it is only one piece of the investigative puzzle. Traditional investigations, those not involving DNA, frequently use familial associations. Detectives investigating a homicide routinely talk to relatives of a suspect and if the relative has a criminal history, deem that individual a suspect.

Familial DNA searching will become more effective as DNA databases age. For example, in 20 years, more parent-child relationships will exist between an individual in the database and the individual who left DNA at the crime scene. As time goes on, the databases will start to span across generations, as exhibited by the recent success of familial DNA searching in helping to solve the decades-old "Grim Sleeper" case in California.[35] Also, since the expansion of the CODIS core from 13 to 20 loci in 2017, databases have steadily become more amenable to familial searching as the percentage of profiles with the additional 7 loci increases. These 7 loci, and the highly polymorphic SE33 (while not a CODIS core locus is in the most widely used STR multiplexes in the U.S.), provide significantly more information with which to discriminate between relatives and non-relatives.

In sum, familial DNA searching unquestionably adds to the investigative process, but only when its use is carefully regulated.

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[32] Bieber, supra.
[33] For an in-depth discussion of the software and protocol validation for the largest familial search program in the country, *see* Myers, et al., supra.
[34] Butler (2012), supra at 607.
[35] Amy Liberty, *Defending the Black Sheep of the Forensic DNA family: The Case for Implementing Familial DNA Searches in Minnesota*, 38 Hamline L. Rev. 467 (2015).

2. Problems associated with use and proliferation of local, unregulated databases.

Although the methodology of familial DNA searching has been scientifically validated, it is essential that these searches are confined to CODIS-approved databases. However, a growing number of local law enforcement agencies now maintain their own DNA databases that operate wholly outside of CODIS. Significantly, the FBI has not approved of or certified any of these databases. Indeed, their proliferation without regulation poses a significant risk to the delicate balance of privacy interests at stake in the CODIS system, as well as to the overall integrity of DNA records within that system. Any legislation that seeks to regulate familial searching in CODIS without also limiting the proliferation of unregulated, non-CODIS, DNA databases risks the significant possibility that local law enforcement entities will sidestep the oversight and quality control of the centralized state lab in order to perform their own familial searching.

Moreover, databases created outside of CODIS cannot exchange data with, or be linked to, CODIS. This could indirectly dilute the power of CODIS, preventing critical inter-agency and inter-state hits from occurring. Databases such as CODIS (DNA), NIBIN (Ballistics) and AFIS (Fingerprints) have had a profound impact on crime solving precisely because they allow for the sharing of data between agencies and across jurisdictional boundaries. This is especially true in New England where the 6 states exist in an area 1/3 the size of Texas.

CODIS has its own Local DNA Index System (LDIS) that allows local law enforcement agencies (such as the Boston Police Department) to maintain their own DNA databases within the CODIS framework. The Boston Police Department has an accredited, NDIS approved, laboratory that is part of the State DNA Index System (SDIS). As such, this LDIS shares data with both SDIS and NDIS and benefits from the ability to search the (approximately) 160,000 profiles at SDIS and more than 18 million profiles at NDIS.

Unregulated databases are also not governed by the same (or even similar) standards, rules, or safeguards that are in place for the use of CODIS databases. As a result, they may contain profiles from classes of individuals who are otherwise prohibited from being entered into CODIS according to state or federal law. Depending on the jurisdiction, this could include victims, suspects, or anyone asked to provide a sample for elimination purposes. Surreptitiously collected samples, for instance from a soda offered to a suspect during an interview, have also been used to populate these databases.[36] Additionally, to the extent local entities develop the ability to conduct DNA testing independently of an accredited lab, this could lead to unregulated exhaustive testing of an entire evidentiary sample.

[36] Jan Ransom & Ashley Southall, *NYPD Detectives Gave a Boy, 12, a soda. He landed in a DNA database*, N.Y. Times (Aug.15, 2019).

The proliferation of local, unregulated databases raises substantial risk of error due to reliance on methods that may not be scientifically sound or may be premised on biased assumptions. As one commentator noted:

> "For example, a reference population must be used to assess the likelihood of a coincidental partial match between unrelated individuals. If the reference population does not accurately represent the genetic background of the individuals in question, a partial match may appear to be more suggestive than it actually is, leading to the inappropriate investigation of unrelated individuals. Typical population assumptions used in such work appear to have a disproportionate impact on individuals from groups that are not always represented by the reference populations, such as Native Americans."[37]

In sum, the concerns outlined herein support the FSOB's recommendation that the legislature explicitly prohibit the establishment of secondary, unregulated DNA databases.

D. Discussion of S.2480 and proposed framework to authorize familial searching.

S.2480, entitled "An Act Permitting Familial Searching and Partial DNA Matches in Investigating Certain Unsolved Crimes," seeks to amend G.L. c.22E sec. 10 in order to compel the state police crime lab director to "promulgate regulations that permit familial searching and the release of partial matches." The bill envisions a formal, written application process akin to that of a search warrant application, overseen by the judiciary.

Although the FBI has yet to authorize familial searching at the federal level, given the expansive size of the national database,[38] a growing number of states[39] have begun to do so within their state databases. The experiences of these jurisdictions are instructive. They demonstrate that, while familial DNA searching can indeed be used to solve cases by generating new leads in unsolved crimes, there are a number of potential issues associated with this powerful investigatory tool. These experiences demonstrate that familial searches, if authorized at all,

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[37] Nanibaa' A. Garrison, et al., *Forensic familial searching: scientific and social implications*, Nat. Rev. Genet. 14, 445 (July, 2013).

[38] SWGDAM Ad Hoc Working Group, *Recommendations from the SWGDAM Ad Hoc Working Group on Familial Searching*, Recommendation 1.4, p. 2-3;19. The size of the national database makes the process of conducting a familial search unwieldy and expensive.

[39] A survey reveals that all of the following states have implemented some form of familial searching: Arizona, Arkansas, Colorado, Florida, Kentucky, Louisiana, Michigan, Minnesota, New York, North Carolina, Ohio, South Dakota, Texas, Utah, Virginia and Wisconsin. Appendix C includes links to available information concerning each state that performs familial searches and highlights key provisions of each.

should be subject to strict guidelines and restrictions to achieve a balance between the potential investigatory benefits for serious and unsolved criminal cases and the rights of third parties whose DNA profiles are not in the CODIS database but come to the attention of law enforcement due to a potential biological relationship with someone in the database. While some members of the FSOB oppose adoption of familial searching and others support its adoption, the board is unanimous in its view that further study of the following issues should be undertaken prior to the passage of any authorizing legislation:

1. Should Massachusetts limit familial searches to the most serious violent felony cases?

S.2480 specified that familial searches may only be sought for "violent felony offenses, homicides and burglary" that remain unsolved after all practicable investigative leads have been exhausted. A survey of other states using familial searches reveals the following crime eligibility requirements:

- *Arizona*: "unsolved crime against a person" "case has significant public safety concerns."
- *Arkansas*: "unsolved homicide or sexual assault."
- *California*: "crime is serious and has critical public safety implications."
- *Florida*: majority are unsolved murders and sexual assaults.
- *Kentucky*: limited to violent crime, sexual assaults and those crimes where public safety is a top concern. Will consider unidentified remains if all alternative methods of identification have been exhausted.
- *Louisiana*: limited to violent crimes or crimes posing a significant threat to public safety.
- *Michigan*: an unsolved violent crime against a person or there are critical public safety implications.
- *Minnesota*: must be a crime against the person.
- *New York*: unsolved homicides, violent sexual offenses, class A felony kidnapping, class A felony arson, and class A felony terrorism.
- *Ohio*: a violent crime, causing serious injury or death, or which demonstrates a continuing threat of imminent or serious harm to one or more members of the community. Allows for an exception for a matter of extreme public safety (e.g., on-going present crime spree).
- *Texas*: an unsolved homicide, sexual assault or other violent crime that have significant public safety concerns. Property crimes will not be considered.
- *Virginia*: unsolved violent crime against the person, critical public safety concerns.
- *Wisconsin*: unsolved violent crime.

Several states allow familial searching for crimes that currently present a continuing threat of imminent and serious harm to an individual or the community.[40]

All states require that all other investigative leads have been exhausted. California requires that all reasonable and viable investigative strategies must first be pursued with negative results. California also specifies that familial searches cannot be pursued if genealogical testing is or may be pursued (because all investigative leads are not considered exhausted), and it specifies that if a case is solved while the familial search process is underway, the familial search will terminate immediately. Ohio requires that the crime has not been solvable through traditional methods.

In light of both the privacy concerns and the extensive resources needed in order to effectively and responsibly investigate the leads that are generated by familial searches, the legislature should consider reserving familial searches *only for use in the most serious violent crimes*, such as unsolved homicides and a list of enumerated serious violent felonies, including rape.

2. Should Massachusetts designate a more limited number of agencies that can apply for familial searches, and should the legislature specify that the state crime laboratory is the only agency with the authority to perform familial searches?

As presently worded, S.2480 authorizes not only police officers and prosecutors, but also the department of correction, individual sheriff departments, and the parole board, to request that the lab conduct a familial search. *This list is overbroad in this context.* For example, it grants correctional entities (with no formal role in the investigation process of serious violent crimes) access to the confidential DNA records of persons who are identified as potential relatives of the source of the unidentified evidence sample. The FSOB recommends that the legislature consider incorporating language authorizing federal agents investigating qualified Massachusetts crimes to apply for familial searching by the state lab.

S.2480 also fails to require the involvement of prosecuting officers in the request process. Most other states authorizing familial searches, by contrast, explicitly reference the involvement of police investigators and prosecuting officers in the search application process. Most other states likewise limit access to the resultant records to the state or local police investigators and prosecutors tasked with handling any follow-up investigation.

[40] *See, e.g.*, Arizona, California, Louisiana, Michigan, Texas and Virginia, all of which allow FDS in the context of investigating an on-going public safety crime spree, such as identical crime scene profiles from multiple rape cases (revealing the involvement of a serial rapist) but no CODIS matches.

*The statute also fails to explicitly state that the state lab is the **only** entity that may properly conduct familial searches.* In light of the discussions elsewhere in this report concerning planned and possible proliferation of local DNA databases, the legislature *must* clarify this point. It should explicitly prohibit any entities other than the state laboratory from conducting familial searches.

3. Should the legislature consider authorizing a separate process whereby attorneys conducting post-conviction review of potential wrongful conviction cases may apply to use this investigatory tool?

S.2480 does not presently contemplate any post-conviction uses of familial searches. Of the states that presently authorize familial searches, only two – New York and California – expressly contemplate or authorize post-conviction familial searches. New York's regulation only appears to contemplate law enforcement driven requests for post-conviction familial searches, while California expressly authorizes requests by the defense (provided that DNA evidence did not play a role in the original trial resulting in conviction).

However, the FSOB is aware that post-conviction DNA testing can and does play an important role in exonerating innocent persons who are wrongfully convicted of crimes they did not commit. The legislature should consider including a provision in G.L. c.22E to expressly authorize conviction integrity units or defendants to request a familial search of the database in the context of a post-conviction review. Such requests could conceivably be built into the framework of G.L. c. 278A, which more broadly governs the process whereby convicted defendants who assert factual innocence can seek post-conviction DNA testing. One possible mechanism for making such a request would be to allow the defendant to file a motion which should include a showing that the evidence profile is of suitable quality for familial DNA searching, that DNA evidence is material to the determination of the guilt or innocence in the particular case, and that access to familial searching is not available in any other way. Laboratory personnel would have an opportunity to be heard on their position concerning the case specific evidence's suitability for a familial search of the database.

4. What application and data collection mechanisms will best ensure that familial searches are only used as a tool of last resort in the most serious of unsolved violent felony cases in a consistent manner?

As presently drafted, S.2480 contemplates that familial search requests will be made by way of a written search warrant application that is submitted to a judge. Most of the states conducting familial searches do so through laboratory policy and procedures. New York authorizes the same, by way of Regulation rather than laboratory policy. See 9 CRR-NY 6192.3(h) through (k).

The proposed framework in S. 2480 appears to be closely modeled on a piece of proposed legislation that was filed in Pennsylvania but never enacted into law.

S.2480 envisions that the judge to whom an application is made will make findings that address the following issues:[41]

(i) That there is reasonable cause to believe that a familial search using the DNA profile derived from a crime scene sample[42] may result in a partial match;
(ii) That the crime scene DNA profile derives from a single source[43] and contains not less than 10 of the CODIS core loci;[44]
(iii) That the crime is unsolved, and all practicable investigative leads have been exhausted;
(iv) That the state crime lab has already searched the database for an "exact match" to the crime scene DNA profile, with negative results;
(v) That the request is made by one of the enumerated law enforcement or correctional entities, and seeks a familial search of crime scene DNA;
(vi) That the requesting agency commits to conduct a further investigation of the case if the name of "potentially related offender" is released, and agrees to treat the name of the "potentially related offender"[45] as a confidential, non-public investigative lead;

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[41] The FSOB notes that several of these enumerated considerations may more appropriately be addressed by way of lab regulation, rather than by statute. In particular, determining (i) whether there is "reasonable cause" to believe that a familial search may result in a partial DNA match, or (i) whether the crime scene profile "derives from a single source" and has the minimum number of CODIS core loci for eligibility, both appear to involve inherently scientific judgments that may be more appropriately regulated by the lab, rather than legislated by statute.

[42] The phrase "crime scene sample" may be too limiting or ambiguous. In the view of the FSOB, it may be more appropriate to state, "DNA profile of unknown origin from evidence associated with the alleged crime." This phraseology better captures the range of evidence samples that might be suitable for inclusion in a familial search effort, which includes samples collected from the body of the alleged victim (e.g. sexual assault collection kit or autopsy), clothing, vehicles, residences, and the like.

[43] If the phrase "single source profile" remains in the statute, it should be expanded to explicitly allow for familial searches using a fully deduced profile from a mixture.

[44] S.2480 does not specify the scientific basis for requiring a minimum of 10 core CODIS loci. It should be noted that the SWGDAM Ad Hoc Working Group on Familial Searching actually recommends that familial searches be limited to DNA profiles with the *complete 13 core CODIS loci*. *Recommendations from the SWGDAM Ad Hoc Working Group on Familial Searching*, p.1.

[45] The phrase "potentially related offender" may lead to confusion. While it is true that *all* of the profiles contained in the database are those of "offenders" who were required to submit a DNA sample, the persons who are identified through a familial search of that database are *innocent* of

(vii) That an LDIS[46] search of the crime scene profile has been performed in the forensic unknown index;
(viii) That the agency or person submitting the request has committed to pursue further investigation of the case if the name is released; and
(ix) That the submitting laboratory has confirmed that the release of the name will be followed by a report to the investigating agency, provided that the report will indicate that the match was indirect and will also indicate that the available data suggests that the source of the evidentiary DNA profile is potentially a relative of the convicted offender.

The above framework does not explicitly reference G. L. c. 276, §1, which sets forth the framework for the issuance of search warrants. If a familial search was merely a matter of searching a database for a record, it might be appropriate to utilize the existing search warrant framework. However, that is not at all what a familial search of a database entails; it therefore appears to the FSOB that a familial search request falls outside the scope of the search warrant statute. The contemplated framework is more akin to the application and warrant for court authorized interception of wire and oral communications under G.L. c. 272, § 99 F through N. However, a familial search is different in kind from the secret recording of a communication and requires specialized knowledge of the scientific underpinning of familial DNA and its nuances.

At least some members of the FSOB believe that there are important policy reasons to require some degree of judicial oversight of the familial search process. However, there are also potential separation of powers issues with active participation of judges that should be considered carefully. Moreover, it is noted that none of the surveyed states currently performing familial DNA database searches include judicial involvement in the process. Rather, a majority of jurisdictions that perform familial searches have adopted an approval process that is overseen by a committee of qualified reviewers, rather than by the judiciary.[47]

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the unsolved crime that is being investigated, and are merely *potentially related* to the person who committed that crime. Moreover, it is anticipated that familial searches may produce a list of *several* potential match candidates, not necessarily *one* potential relative, although it is also possible that a search will not produce any reportable results. For this reason, it might be better to refer to "potential relative of the source of the evidence profile" rather than "potentially related offender."

[46] LDIS profiles that are stored in the Boston Police Crime Laboratory's CODIS database are also stored in the state CODIS database. The acronym "LDIS" should therefore be replaced with the acronym "NDIS."

[47] The list of states that administer the familial DNA search process by way of a committee includes: Arizona, Arkansas, California, Florida, Kentucky, Louisiana, Minnesota, Texas and Wisconsin. A handful of other states - notably Michigan, New York, Ohio and Virginia - leave

One advantage of a centralized committee is that it ensures that all decisions about the quality of an evidence profile, whether there has been a prior unsuccessful CODIS search, the seriousness of the crime under investigation, and whether all practicable investigative leads have been exhausted, are made by the same group of committee members statewide, rather than by any one of the hundreds of district or superior court judges. Relatedly, it may be easier to mandate regular training of committee members on the forensic and policy considerations surrounding the use of familial searches than it would be to require such training of all judges across the state who may be required to evaluate a familial search request.

A committee (or the laboratory itself) would also likely be better positioned than individual judges to collect and maintain data pertaining to the implementation of this new investigatory tool. In the view of the FSOB, data collection and transparency are important components of any effort to expand the investigatory uses of the statewide DNA database, and must be included in any legislation authorizing the use of familial searches. S.2480 does not require any centralized data collection of familial search requests or to create a mechanism whereby the public can understand the frequency with which this tool is being utilized, in what communities it is being sought, and with what degree of success. A familial DNA search approval committee would be well positioned to track, in coordination with the crime laboratory:

- The frequency and nature of applications for familial searches;
- The approval/denial rates of such applications, and, if denied, why the application was denied;
- Whether the search yielded potential candidates;
- Whether confirmatory testing was conducted;
- Whether any names were released to investigators as a result of the search; and
- Whether the results of the release led to an identification/arrest.

A committee could also more readily track demographic data – including race – related to requests and search results. Collecting this information will enable public scrutiny of the manner in which this expanded investigatory tool is utilized, including whether it has a disparate impact on particular communities.

In the event that the legislature is inclined to adopt a committee model, however, efforts should be made to determine the appropriate composition of the committee. A review of the committees

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the decision whether to allow a familial search up to the director of the state crime lab or a functional equivalent of that role.

as constituted in other states found the following:[48]

- *Arizona*: Crime Laboratory superintendent, DNA casework technical leader and any other personnel deemed necessary; ultimate decision made by Crime Laboratory Director;
- *California*: Director and Assistant Director of the Department of Justice Bureau of Forensic Science, deputy attorney general, CODIS director, and three senior criminalists with experience in both casework and database;
- *Florida*: CODIS administrator, supervisor of Database, Special Agent in Charge of the Tallahassee Region of the Department of Law Enforcement, Chief of the Laboratory, technical leader, attorney from the Laboratory's General Counsel Office (part of the Department of Enforcement);
- *Kentucky*: Application screened by CODIS administrator and CODIS supervisor. If approved, referred to Familial Search Committee consisting of the CODIS administrator, the CODIS supervisor, the DNA technical leader, the Laboratory Director, the Laboratory Commander, a Kentucky State Police legal representative, and other persons who may be asked to join on a case by case basis, e.g., DNA analyst assigned to the case;
- *Louisiana*: CODIS administrator, laboratory legal counsel, and alternate CODIS administrator;
- *Michigan*: Director of the Forensic Science Division of the State Police, the Director of Biometrics, the Biology Program Coordinator, and the state CODIS administrator meet with the applicants (police and prosecutor). Decision is made by the Directors of the Forensic Science Division and the Director of Biometrics and Identification;
- *Minnesota*: Laboratory Director or Assistant Laboratory Director, CODIS administrator, DNA supervisor or technical leader, Bureau of Criminal Apprehension Superintendent of Investigations or Special Agent in Charge, and representative from the Minnesota County Attorneys Association. Final decision made by Superintendent of the Bureau of Criminal Apprehension;
- *New York*: Application screened by CODIS Administrator. Commissioner of the Division of Criminal Justice Services reviews and decides;
- *Ohio*: Laboratory Director and the CODIS Administrator; if the request is an on-going matter of public safety the Bureau of Criminal Investigation Superintendent decides;

[48] It is also noted that in most states, once an application for a familial search is approved, the parties must execute a Memorandum of Understanding that outlines the search process and specifies the responsibilities and obligations of all parties. This documentation serves to guide and circumscribe the follow up investigation of potential leads.

- *Texas*: CODIS program manager, CODIS section supervisor, technical leader and program coordinator. If further consultation is needed, a Department of Public Safety general counsel representative or a Texas Ranger representative may be included, Department of Public Safety Division Chief or their designee decides;
- *Virginia*: Director of the Division of Forensic Science, the Division of Forensic Biology Program manager, the requesting chief law enforcement officer, Commonwealth's attorney for the prosecuting jurisdiction and any other personnel deemed necessary. The Director of the Division of Forensic Science makes the ultimate decision.

After reviewing the available models from other jurisdictions, the FSOB recommends that in the event the legislature chooses to incorporate a familial search committee into the approval process, that committee should include, at a minimum: the state CODIS administrator; additional scientists from the state police and/or Boston Police crime laboratories; and an attorney for the crime lab or Department of Public Safety, and/or a prosecutor designated by the Massachusetts District Attorneys Association who, as a group, can review new applications against the backdrop of all statewide applications and can help the lab to prioritize the best uses of this limited resource.

To the extent that the legislature wishes to include a role for the judiciary in the familial search authorization process, it may wish to consider a hybrid or tiered approach, under which a familial search approval committee would review the application and then submit the application (once approved) to a judge. The judge could continue to monitor the ensuing familial search through periodic reports, and could ultimately determine whether to authorize the release of any familial leads to law enforcement. Alternatively, the legislature could consider whether it wants to recommend or require that one of the committee members should be a retired judge to serve on the familial search committee, in order to include someone with judicial background in the search process.

5. Should the legislature clarify that a database search for partial matches indicative of a familial relationship to the source of a crime scene profile is one step in a much longer forensic and investigatory process, and consider replacing sections 10A(e)-(g) of S.2480 with language requiring the laboratory to develop detailed regulations that address the matters addressed therein?

As presently worded, S.2480 is both over and under-inclusive in its discussion of the steps involved in implementing a familial search process. Many of the matters that are presently addressed in sections 10(A)(e) – (g) of the bill may be more appropriately addressed by way of regulations governing the conduct of the laboratory. Shifting responsibility to the laboratory to promulgate regulations governing familial searches will also ensure that this tool is developed

and implemented in a way that complies with the FBI's requirements for participation in the federal CODIS database.

In particular, the FSOB recommends that the legislature require the lab director to promulgate regulations that address the following matters, and strike any overlapping requirements from the present version of S.2480:

- Eligibility requirements for profiles to be used for familial searches;
- Confirmatory steps that the lab must take in order to narrow the list of potential relatives of the suspect before providing DNA records to the requesting law enforcement entity. These steps include the calculation of kinship analysis likelihood ratios, additional sample testing using Y-STR, mtDNA or expanded core loci kits to further narrow the list of potential relatives of the suspect;
- Measures needed to restrict law enforcement use of any profiles disclosed by the lab as a result of the above search steps and to ensure the privacy of any individuals who are identified by the lab as potential familial leads;
- The circumstances in which out-of-state and/or in state federal requests for DNA searches may be approved.

6. <u>Should the legislature more clearly specify the anticipated investigation steps that law enforcement investigators will take in order to determine whether there are any viable leads based on the results of a familial search?</u>

As presently worded, S.2480 paints an incomplete picture of the investigatory steps needed to determine – based on the results of an initial familial search – whether there is evidence, in public and law enforcement intelligence databases, to support or refute a possible relationship to the source of the crime scene profile. In some jurisdictions, the background investigation of potential familial relationships is done by the case investigators, but only after the name is released. However, several jurisdictions require the background investigation to be handled by analysts or investigators who are not directly involved in the underlying investigation that led to the familial search request.

- In California, the task of supporting or refuting a familial relationship is handled by crime analysts in the California Department of Justice;
- In Kentucky, this work is handled by crime analysts with the Kentucky State Police.
- In Michigan, the Michigan State Police District Detective Lieutenant initiates a background investigation of each candidate to determine whether they can be eliminated by historical facts, relationship or circumstances as being a potential relative of the perpetrator. If no connection can be established, the name is not released.

Separating the investigators responsible for determining whether or not a familial relationship exists from those responsible for investigating the underlying crime has the benefit of minimizing the potential for cognitive bias in the search process. Whether identified as a preferred practice or a requirement, the legislature and/or laboratory should consider the potential benefits of tasking investigators who are *not* involved in the investigation of the unsolved crime to perform this aspect of the familial search process.

Investigation of familial search leads also typically includes a number of other steps. First, it may be necessary to construct a family tree to determine whether there are any potential relatives who could be the sources of the crime scene DNA. If any names of potential leads are released after this step in the process, the follow-up investigation would require obtaining a DNA sample from those persons, in order to identify or exclude them as the source. Significantly, the period of time and investigative steps that follow the release of a potential lead represent an extremely sensitive stage of the familial DNA search process. In particular, obtaining a DNA sample from a potential relative of the database lead should come at the end of a thorough investigation into information in public and law enforcement databases and the historical records that support rather than refute a familial relationship between the database lead and the individual. Some jurisdictions expressly caution against contacting family members of a named lead until all other avenues have been fully explored. Minnesota for example, states, "Unless absolutely necessary, investigators should not contact family members and relatives of the named individual until all public and law enforcement resources have been utilized in the investigative process."

In the view of the FSOB, the legislature should mandate that all requesting investigating agencies attend training on familial searches that covers the following topics:

- Scientific premise of familial searches;
- What is and is not possible using these searches;
- Enumerated responsibilities of all parties in the process;
- Requirements for safeguarding the privacy and confidentiality interests of the individuals who are identified through a familial search process;
- The legal consequences of misusing information provided to them as part of the familial DNA search process.

The above training could be accomplished by an in-person meeting, video webcast, or other forms of on-line training.[49]

[49] *See*, for example, California, Kentucky, Minnesota, New York and Texas procedures.

7. Should the legislature mandate complete record retention and data collection to monitor familial search requests, and further mandate regular reporting of that data to the FSOB and/or another entity with oversight responsibility for forensic science in Massachusetts?

In the view of the FSOB, the privacy concerns raised by familial DNA testing cannot be adequately addressed without requiring careful data collection and public disclosure of basic information about the use and frequency of such searches and how many investigations such searches provided leads. As discussed supra, data collection should include but not be limited to the following metrics: (1) the frequency and nature of applications for familial searches; (2) the approval/denial rates of such applications, and if denied, why the application was denied; (3) whether the search yielded potential candidates; (4) whether confirmatory testing was conducted; (5) whether any names were released to investigators as a result of the search; and (6) whether the results of the release led to an identification/arrest. The legislature should also consider mandating the collection and regular reporting of demographic data – including race – that is related to requests and search results.

In the event that the legislature elects to implement a committee-based process for approving familial searches, that committee would be the natural entity to oversee this data collection. Additionally, the crime laboratory – as the agency responsible for conducting familial searches – would likely be in the best position to track and report on this data.

The legislation, or the regulations promulgated pursuant to that legislation, should also require the involved entities to retain a complete record of the entire application and investigation process, including the names and agency affiliations of all parties who had access to the application and to the DNA profile and results of the familial search conducted as a result of an approved application. Retention of a complete record of this process is essential to any post hoc review of the familial search process, and can be used to confirm – among other things – that the baseline criteria for case and sample eligibility are being met prior to authorization of a search and that the parties involved in follow-up investigation related to a familial search have exercised due diligence in all aspects of the law.

The requirement of record retention can provide a method of post-hoc confirmation that all persons or entitles who request a familial search have first completed a training about familial DNA searches. In this way, the legislature can better ensure that all parties to a familial search understand and respect their obligations with respect to the entire process, and also assess the expenditure of public funds and resources is warranted based on how many searches are conducted and the success rate of this process in terms of providing investigative leads and leading to prosecution.

CONCLUSION

The FSOB urges the legislature to evaluate whether the above vulnerabilities in G.L. c. 22E and in S.2480 seeking to amend that statute are addressed in the revised and refiled version of this bill, SD.1685.

INDEX OF APPENDICES

Appendix A: Bibliography of Cited Resources and Additional Suggested Resources.

Appendix B: Selected Documents Cited within Familial Search Report:

1. February 10, 2021 FSOB Vote and Supporting Documentation;
2. August 3, 2020 Presentation on Familial DNA Searching by Sarah Chu;
3. 20 V.S.A. §1938.

Appendix C: Familial DNA State References.

APPENDIX A: BIBLIOGRAPHY AND SUPPLEMENTAL RESOURCES

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APPENDIX B: SELECTED DOCUMENTS CITED WITHIN REPORT

1. February 10, 2021 FSOB Vote and Supporting Documentation;

2. August 3, 2020 Presentation on Familial DNA Searching, Sarah Chu;

3. 20 V.S.A. §1938.

Forensic Science Oversight Board

February 10, 2021

Motion that the board takes a position against the lab providing the YSTR information requested because interpreting the statute to authorize or compel the release of YSTR records risks the MSPCL's loss of accreditation status and risks being out of compliance with NDIS and risks violation of the plain language of 22E and 66A and we urge the AGO to bring the FSOB's position before the court hearing the subpoena. The board is in the midst of studying these issues and the legal and scientific implications and attaches MACDL/ACLU and the DAO's letter.

Motion was made by Judge Gertner. Lisa Kavanaugh seconds the motion. Two members abstained from voting. The remaining members voted in favor of the motion.

February 10, 2021

Kerry A. Collins, Chair
Forensic Science Oversight Board
Undersecretary of Forensic Science and Technology
Executive Office of Public Safety and Security
1 Ashburton Place
Boston, MA 02108

Dear Chair Collins and Board Members:

We write on behalf of the Massachusetts Association of Criminal Defense Lawyers (MACDL) and the American Civil Liberties Union of Massachusetts (ACLUM) to express our alarm about the legal and policy implications of an effort by several district attorneys that, if successful, would effectuate an end run around the statutory framework that protects genetic data and privacy. We understand that the Forensic Science Oversight Board has scheduled an emergency meeting on February 10, 2021, to address a pending effort by six district attorneys to compel the Massachusetts State Police Crime Laboratory (MSP Lab) to produce multi-county, aggregated DNA/Y-STR profiles. The question for the Board, as we understand it, is whether granting this request would raise legal concerns under G.L. c. 22E, the State DNA Database statute, and G.L. c. 66A, the Fair Information Practices Act. It would.

MACDL and ACLUM were involved in *Landry v. Attorney General*, 429 Mass. 336 (1999), which considered the constitutionality of G.L. c. 22E, and ACLUM served as counsel for the plaintiff in *Amato v. District Attorney for Cape and Dist.*, 80 Mass. App. Ct. 230 (2011), which challenged the legality of the MSP lab's retention of an individual's DNA profile that was collected voluntarily (for elimination purposes) as part of a criminal investigation. As described below, neither case supports the district attorneys' position.

This Board has broad authority to provide enhanced, objective and independent auditing and oversight of forensic evidence and forensic services in criminal matters in the Commonwealth. G.L. c. 6, sec. 184(A)(a). For the reasons below, we urge the Board to exercise that authority to formally oppose the requested disclosure of aggregated Y-STR records.

1. The District Attorneys' reliance on G.L. c. 22E is misplaced.

Chapter 22E of the Massachusetts General Laws, entitled "STATE DNA DATABASE," confers upon the Massachusetts State Police—and no other entity—the authority to maintain and implement rules regarding a state DNA database. Like its title, the Act's structure sets forth various rules governing the creation, maintenance, confidentiality, and security of the DNA database. Nevertheless, six district attorneys now argue that *one* phrase in *one* subsection of this Act has the effect of compelling the state's DNA database director to enable any law enforcement or prosecuting agency in Massachusetts to create their own database of genetic material, specifically Y-STR reports. This reading of Chapter 22E is at odds with the statute's structure and could undermine its constitutionality.

The six district attorneys focus on G.L. 22E, § 10(a), which states that the DNA database director "shall furnish records in his possession, including DNA records," to law enforcement and prosecutors. The district attorneys state that they wish to "pool" thousands of Y-STR reports into a spreadsheet—this appears to be a way of saying "database of genetic material"—which they would then use to develop investigative leads.

However, in interpreting a subsection of a larger legislative act, courts "'do[] not determine the plain meaning of a statute in isolation' but rather in 'consideration of the surrounding text, structure, and purpose of the Massachusetts act' from which th[e] subsection is derived." *New England Power Generators Ass'n, Inc. v. Dep't of Envtl. Prot.*, 480 Mass. 398, 410–11 (2018) (quoting *ENGIE Gas & LNG LLC v. Department of Pub. Utils.*, 475 Mass. 191, 199 (2016). Thus, rather than interpret bits of text in isolation, the Supreme Judicial Court may seek guidance in its "surrounding text and structure." *Id.* at 411.

These principles cut against the district attorneys' proposed interpretation of Subsection 10(a). Nothing in the text, structure, and purpose of Chapter 22E as a whole suggests that, in empowering the MSP to maintain a state DNA database, the legislature also commanded the MSP to assist individual law enforcement and prosecuting agencies to create *altogether different* genetic databases of their choosing nor to release, *en masse*, the type of records the district attorneys now seek. None of the other subsections of Chapter 22E mention such a database or indiscriminate records release, let alone say what rules would govern it.

Thus, not surprisingly, the Supreme Judicial Court has already looked to the "surrounding text, structure, and purpose" of Chapter 22E when reviewing Subsection 10(a). In *Landry*, the Supreme Judicial Court held that the involuntary collection of blood samples of certain convicted offenders, pursuant to G.L. c. 22E, § 3, did not violate constitutional protections against unreasonable searches and seizures, "in light of [a convicted person's] diminished privacy rights." *Landry*, 429 Mass. at 347. In its opinion, the Court noted that Subsection 10(a) referenced the distribution of "records in [the director's] possession, including DNA records and analysis." *Id.* at 353 n.18. But the Court rejected an expansive reading of that phrase. Consistent with the surrounding, text, structure, and purpose of Chapter 22E, the Court "rest[ed] on the assumption that, because an analysis and record, by definition, may only consist of 'numerical identification information,' derived from a DNA sample*, a department's request for any reason cannot reveal other private and protected information*." *Id.* (emphasis added)

This language from *Landry* signals that, in light of Chapter 22E as a whole, the distribution command in Subsection 10(a) compels the director of the state DNA database to distribute records only if they are "derived from a DNA sample," and only if they "cannot reveal other private and protected information."

A contrary conclusion would put Chapter 22E's constitutionality in serious doubt. As the district attorneys appear to acknowledge, they seek Y-STR reports that are not limited to individuals who have been convicted of an offense enumerated in G.L. c. 22E, § 3, and whose expectations of privacy therefore have been deemed to be diminished under *Landry*. In fact, the district attorneys forthrightly say that Y-STR analysis is used at the *investigatory* stage of a case, and presumably would include the following classes of persons, *none of whom* are required to provide DNA for the database:

- *Suspects* who have not yet been convicted of a crime, including those who are ultimately *excluded* as the source of male DNA and/or acquitted of the underlying crime.
- Male *victims* who voluntarily provide elimination samples.
- Male *family members, co-habitants, and other individuals* who voluntarily provide elimination samples.
- Male EMTs, police, medical examiners, crime scene responders, and other individuals who are required to provide elimination samples due to possible contact with the crime scene evidence.

Moreover, Y-STR analysis necessarily implicates the privacy of a much larger group of people than autosomal STR testing, because all males from the same paternal lineage (brothers, fathers, sons, cousins) share the same Y-STR profile. Thus, obtaining Y-STR records could give the district attorneys the genetic information of many more people than just convicted offenders. Because the resultant ad hoc Y-STR would raise serious constitutional questions, the district attorney's preferred interpretation of Subsection 10(a) should be rejected if it is "fairly possible" to do so. *Commonwealth v. Jones*, 471 Mass. 138, 143 (2015) (quoting *United States v. X–Citement Video, Inc.,* 513 U.S. 64, 69 (1994)).[1]

2. The District Attorneys' request has serious privacy implications and threatens to create the very sort of "shadow database" at the heart of the controversy surrounding the *Amato* case.

In *Amato*, the Appeals Court held that the plaintiff stated claims against the state defendants for "in essence, maintain[ing] a shadow DNA database outside the statutorily authorized State convicted offender database governed by G.L. c. 22E, and the FBI's CODIS database." 80 Mass. App. Ct. at 236. Amato was one of between 150 and 200 men who conditionally and voluntarily provided DNA samples as part of a criminal investigation. *Id.* at 232. After the perpetrator was identified, charged and convicted, Amato sought to have his DNA sample destroyed and his profile permanently removed from the MSP lab's

[1] We acknowledge that the lab may have separate obligations, *see, e.g.,* Mass. R. Crim. P. 14, to provide results of a Y-STR analysis as exculpatory evidence to prosecuting agencies and defendants in individual criminal cases. However, neither these obligations nor Chapter 22E would seem to authorize the wholesale release of aggregated Y-STR data nor the retention of those records in a separate, unregulated database.

records. *Id.* at 233. On appeal, the court concluded that the maintenance of Amato's DNA sample raised concerns under the Fair Information Practices Act, G.L. c. 66A, § 2(l), and the Privacy Act, G.L. c. 214, § 1B. *Id.* at 236-41. In so doing, the Court noted the lack of safeguards against the disclosure of Amato's DNA information, such as the criminal sanctions for the unauthorized disclosure, as provided by G.L. c. 22E, §§ 12-13. *Id.* at 241 n.21.

The district attorneys' request for aggregated Y-STR records resembles the "shadow database" at issue in *Amato*. The district attorneys seek to create apparently unregulated databases of sensitive Y-STR records in order to conduct forensic searches for investigatory links to unsolved crimes. But, as in *Amato*, retaining "highly sensitive DNA records . . . for nonconsensual use in other criminal investigations" may give rise to claims for "an unreasonable, substantial, and serious interference" with privacy. *Id.* at 241.

And for good reason. The district attorneys describe the database as a spreadsheet that will contain the numerical data provided by the lab, but it is unclear what rules, in their view, would govern questions like the following:

- How will data be imported or entered into the spreadsheet?
- Who will have access to the spreadsheet?
- Will there be different levels of access, as there are at the lab, with only certain personnel who are authorized to edit/alter data in the spreadsheet?
- How will new information and data be integrated into the spreadsheet over time?
- How will information be removed from the spreadsheet? Is there a method for an individual to have their Y-Profile expunged?
- Will those with access to the spreadsheet be required to undergo training?
- What, if any, verification procedures will there be to ensure the accuracy of data?
- What measures are in place to ensure that personal identifying information is shielded from those with access to the data? (akin to CODIS, where the known profiles developed from offender profiles are assigned unique identifying numbers)
- If there is a database breach, will people in the database be notified?
- How will a defendant know if they became a suspect as a result of a search in this database? Would it be subject to discovery? If an adjudicated case hit to a known that does not match the defendant are they notified?
- What measures are in place to ensure that information in the database is not used for purposes other than investigation into unsolved crimes?

As in *Amato*, the records sought by the District Attorney are not "offender" records and are not part of the statewide CODIS database. Given *Amato*'s recognition of the privacy implications that flowed from the *lab's* retention of non-database DNA records, it is unclear, especially based on the limited information presently available to MACDL and ACLUM, how

the district attorneys' proposed course of action will respect all potentially applicable privacy laws.

Respectfully submitted,

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(508) 362-8113

January 27, 2021

Kerry A. Collins, Chair
Forensic Science Oversight Board
Undersecretary of Forensic Science and Technology
Executive Office of Public Safety and Security
1 Ashburton Place
Boston, MA 02108

Dear Chair Collins and Board Members,

We understand that the Forensic Science Oversight Board's (FSOB) has been asked to weigh in on specific familial DNA legislation, and in the process, was discussing the use of Y-STR testing. Thank you for the opportunity to provide information relative this important investigative tool that helps bring justice to victims of unsolved violent crimes.

Since 2003, the Massachusetts State Police Crime Laboratory, (MSPCL), has been conducting Y-STR testing on thousands of biological samples submitted to the lab. This biological evidence is frequently recovered from a victim's body using a sexual assault collection kit and/or recovered from other evidence left at a crime scene. In many sexual assault cases, traditional STR testing is not effective because the samples produce a mixture of the victim's DNA and the perpetrator's DNA. In traditional STR analysis, the victim's DNA can overwhelm the male perpetrator's DNA and the perpetrator's STR profile cannot be determined. In those cases, Y-STR is used instead as it allows the analyst to extract the Y (male) DNA from the mixture and develop a profile for just the male perpetrator. This type of testing has been scientifically accepted and used in the courts across the country, including Massachusetts, for the last eighteen years. During this time, the MSPCL has provided, as required, a copy of Y-STR reports to the submitting police department and/or the District Attorney's Office. However, these Y-STR reports, which contain a series of sixteen numbers, are not useful to investigators attempting to identify an unknown/unidentified suspect. Until now, no effort has been made to attempt to use the information provided in these reports to compare it to the thousands of other unknown profiles from biological material where similar Y-STR testing was performed. The time is long overdue for our investigators to make use of these Y-STR reports for their intended purpose, i.e. to identify unknown perpetrators of violent crimes.

The Lab's obligation to furnish the reports to the District Attorney's Offices is clear. ("The director shall furnish records in his possession, including DNA records and analysis, to police departments in cities and towns, to the department, to the department of correction, to a sheriff's department, to the parole board or to prosecuting officers within the commonwealth upon request in writing or electronically.") The Commonwealth's District Attorneys' Offices are

criminal justice agencies seeking the Y-STR reports for legitimate law enforcement purposes. Specifically it is our goal to identify the perpetrators of sexual assaults in unsolved investigations in the Commonwealth.

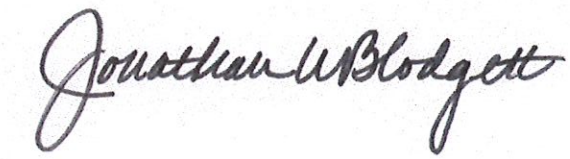
The use of a spread sheet to compare Y-STR reports does not violate M.G. L. c. 22E. That statute pertains to the state maintained STR database which is made up of STR records. The District Attorneys have repeatedly indicated that the use of Y-STR information is for investigative leads in unsolved homicides, rapes, and other serious violent crimes. These Y-STR reports have been provided to the police and District Attorneys' Offices for years but the information has largely been unusable except when a suspect has been identified. As a result, Y-STR reports have not been effectively used to identify the unknown perpetrators responsible for the thousands of unsolved violent crimes. To date, the involved District Attorneys' Offices have made a request for all of their Y-STR reports to get an accurate list of every case where this testing was used. The District Attorneys are not asking the lab to do anything other than provide these readily available Y-STR reports. The District Attorneys have made it perfectly clear that their intent is to pool resources to use this, already tested and available information, to solve these crimes.

These District Attorneys have a shared interest in identifying unknown perpetrators of violent crimes in their respective counties. The Y-STR reports have simply been placed in a searchable spreadsheet so that unknown individuals can now be identified or connected to other unsolved cases. There is nothing inappropriate with compiling this information in this manner to make it usable and efficient. The searchable Y-STR spreadsheet is needed so that Y-STR information can actually be used for its intended purpose, i.e. to assist in identifying the unknown perpetrators of these violent crimes. To date, only one unknown Y-STR profile from a different county was compared with the Bristol District Attorney's searchable spreadsheet. In that case, although the unknown perpetrator was linked through CODIS to multiple rapes and the homicides of two women, he was not identified. As a result, this case has remained unsolved for several years as there was no other way to identify him. However, within seconds of submitting the Y-STR profile of this individual to the Bristol County Y-STR spreadsheet, his profile was matched to a Bristol County rapist. This simple and undoubtedly proper comparison has now provided investigators with a significant investigative lead to pursue in that case.

Sincerely,

Michael O'Keefe

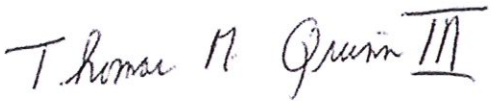
Cape and Islands District Attorney



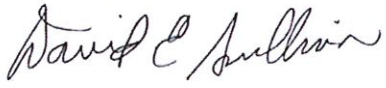
Jonathan W. Blodgett
Essex District Attorney

Timothy Cruz
Plymouth District Attorney

Joseph D. Early, Jr.
Worcester District Attorney



Thomas M. Quinn III
Bristol District Attorney



David E. Sullivan
Northwestern District Attorney

Familial Searching

Photo Credi: Irish Times https://www.irishtimes.com/life-and-style/abroad/why-did-i-risk-my-privacy-with-home-dna-testing-1.3459546

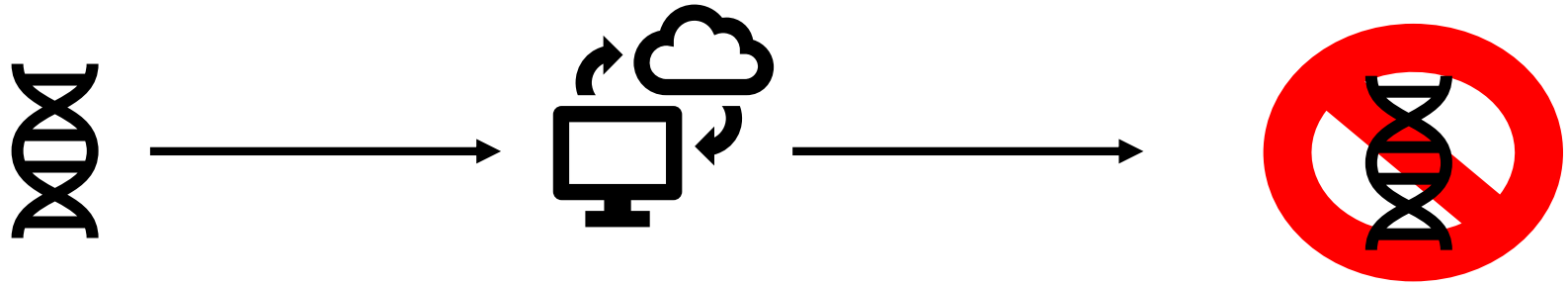
Today

I. Familial Searching
II. S2480
III. Policy Recommendations

I. Familial Searching

The Process

Step 1

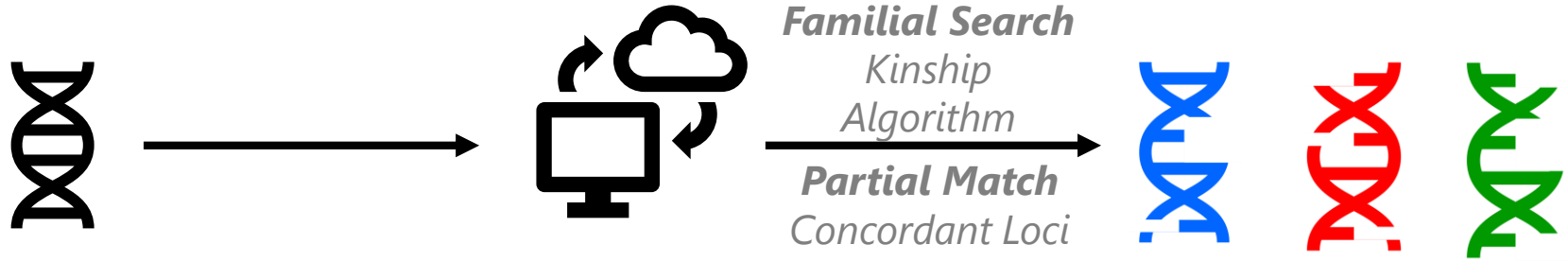


Crime Scene Sample

DNA Database

No Direct Association

Step 2

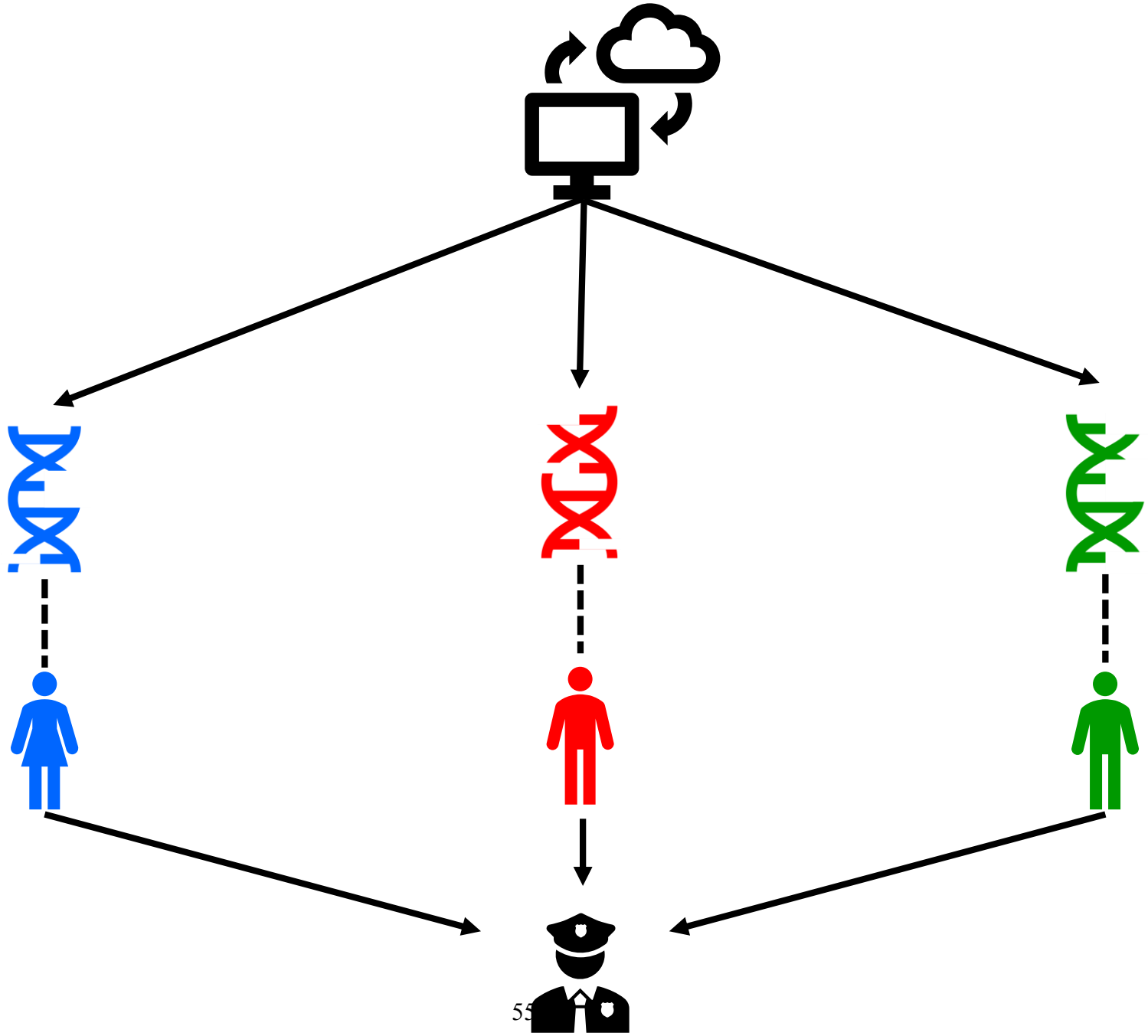


Crime Scene Sample

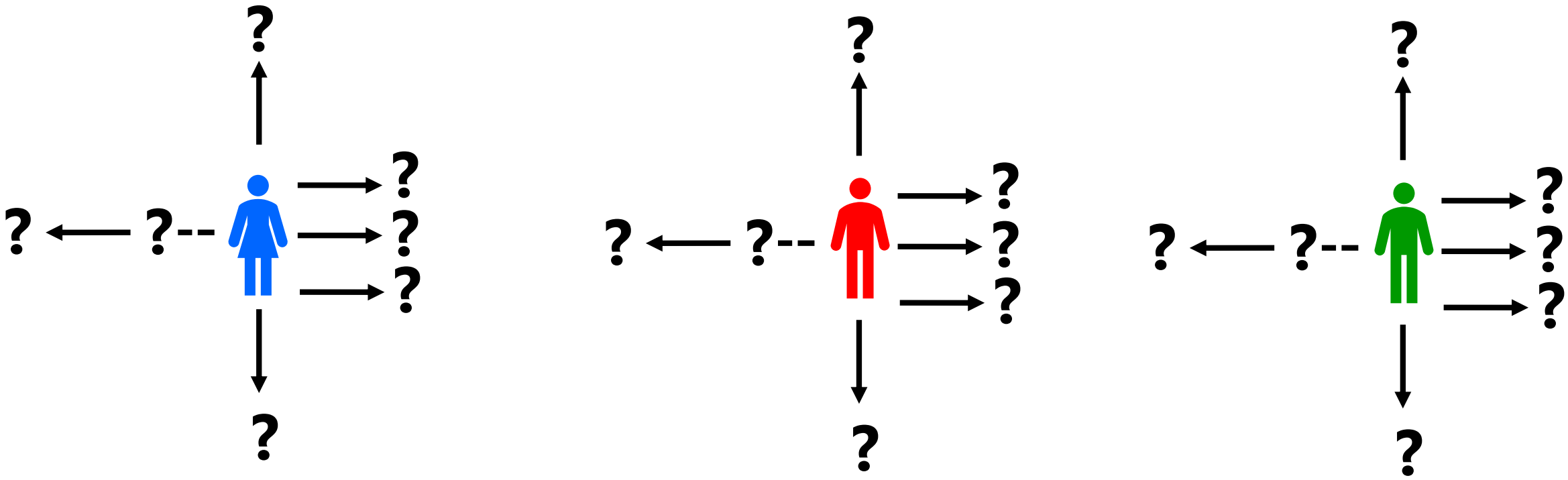
DNA Database

Indirect Associations

Step 3



Step 4

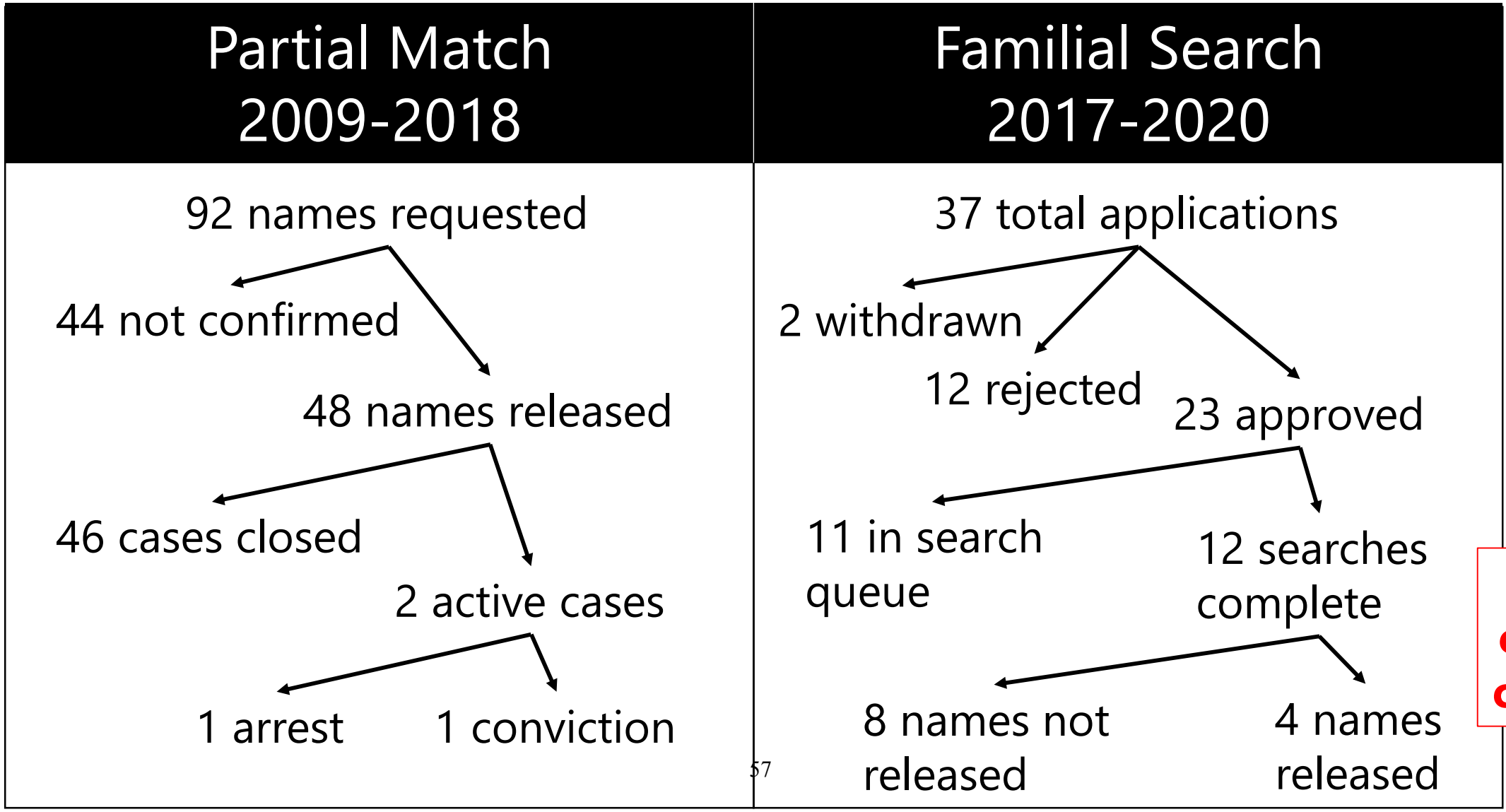


Government records searches
Criminal record searches
Police questioning
Covert DNA testing

?

Crime Scene Sample

New York State Experience



Trade-off between False Positives and False Negatives

Source: Kristen O'Connor, Familial Searching of Forensic DNA Databases, ICFIS 2011

1. Set LR threshold to filter ranked list of potential relatives.
2. **What is the probability that a true relative is in this filtered list (PT)?**
3. How many false positives will be included in filtered list (FP)?

LR Threshold	Parent-Offspring		Full Siblings		Half Siblings	
	PT	FP	PT	FP	PT	FP
100	0.95	18	0.70	5	0.03	2
10	1.00	45	0.86	60	0.27	184
1	1.00	79	0.95	440	0.73	4,570

Increasing the LR threshold makes familial searching less efficient but reduces the number of false positive leads

Assuming a database (n = 100,000) extrapolated from the NIST U.S. population data (n = 572) with 13 CODIS loci

Within-State Searches

Source: Kristen O'Connor, Familial Searching of Forensic DNA Databases, ICFIS 2011

Number of profiles that would have to be investigated for 90% chance of finding true relative*

Relationship	Median state database n=100,000	National database n=10,000,000
Parent-offspring	37	3,700
Full Siblings	134	13,400
Half Siblings	17,441	1,744,100

87% of CODIS hits are within state

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* Extrapolated results from searching the New Zealand database with 13 CODIS loci

DNA Databases were established as part of a social contract.

- People trust that the government will restrain its use of genetic data to only what is appropriate and necessary for the provision of public safety in a manner that satisfies the rule of law.
- DNA databases established for direct searches
- When DNA databases were first authorized, scientists and policymakers established the following principles:
  - Strict limitations of government use
  - Protect intensely personal information
  - Unauthorized disclosure was a crime
  - Limit to only narrowly tailored violent crimes

Familial Searching ruptures that social contract.

- Individuals who have not been convicted are legally innocent and should be treated as innocent until they are convicted.
- Places innocent people under suspicion – an intense burden with real financial, emotional, and liberty implications.
- Genetic dependence of investigations deter traditional investigatory techniques that could have demonstrated a higher rate of return.
- SDIS and LDIS profiles are not provided consensually
- Racially disparate policing results in overrepresentation of people of color and the poor in DNA databases
  - Exacerbates racial disparities
  - Promotes false notion that criminality is genetic
  - Erodes trust among communities

Indirect Partial Match and Familial Search rely on the theory that **people who are innocent** of the present crime **can be leveraged** to create an **unregulated network of potential suspects**, the vast majority of whom are also innocent.

Based on these concerns, the Innocence Project does not support Familial Search or Partial Match policies.

II. S2480

Criteria for Application are Overbroad.

- Permissible applicants:
  - Police departments
  - Corrections
  - Sheriffs
  - Parole board
  - Prosecuting officers

- Types of offenses:
  - Violent felonies
  - Homicides
  - burglaries

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Criteria for Court Approval is Not Well Defined.

1. **Reasonable cause** to believe that a familial search using the crime scene DNA profile may result in a partial DNA match
2. **Single Source** crime scene DNA sample containing at least 10 of the CODIS core loci
3. Crime is unsolved, **practicable investigative** leads have been exhausted
4. Direct search conducted with negative results;
5. Applicant makes a written request to the DNA laboratory to conduct a familial search
6. Applicant commits to further investigate the case if the potentially related person's name is released; name(s) will be treated as a confidential
7. **LDIS** search has been performed using the crime scene profile in the forensic unknown index;
8. Applicant commits to pursue further investigation of the case if the name of related person is released
9. Submitting laboratory will produce a report to the applicant with the name and state explicitly indicate that the match is indirect and will also indicate that the **available data** suggests that the source of the evidentiary DNA pattern is potentially a relative of the convicted offender

Additional Questions.

1. Why do parole boards, sheriffs, and corrections officers need familial searching?
2. Given the inefficiency of familial searching, why are burglaries included among offense types?
3. Which laboratories will be involved in familial searching?
4. Why are laboratory directors being tasked with carrying out the legal evaluations associated with the process?
5. What is **the appropriate statistical threshold**?
6. How will laboratories demonstrate competence to apply
7. Does the Commonwealth acknowledge whether it will be conducting covert DNA collection in the familial DNA process? Will it use **"voluntary"** samples?

III. Policy Recommendations

The Innocence Project does not support Familial Search or Partial Match policies.

If it is used, the following are minimal requirements that address key considerations.

Case Criteria.

- Limited to homicides and felony sexual assault
- Candidate forensic sample is believed to have been deposited by person who committed the crime and provide probative evidence of guilt.
- Single-source or simple deduced mixture in sufficient quantity
- DNA profile has been uploaded into SDIS with negative results
- Investigative leads have been exhausted (define “exhausted”)

Judicial Supervision.

- Case criteria satisfied
- Law enforcement commits to least intrusive means of investigation and trained on genetic confidentiality.
- Establish a timeframe for familial search investigation. Extensions provided for good cause only.
- Law enforcement reports back to the court every 30 days with progress.
- If DNA is needed from a third party, informed consent must be obtained.
- If a covert sample must be collected:
  - Court must be notified in advance
  - A showing must be made to justify covert collection
  - Court must oversee and approve collection and testing
- Upon completion, all biological materials and DNA information of all those investigated and not prosecuted shall be destroyed.

Ethical Safeguards.

- Policy allowing defense access to Familial Search
- Creation of Familial Search Advisory Committee
  - Legal ethicist
  - Genetic ethicist
  - Privacy expert
  - Law enforcement official
  - Defense lawyer
  - Prosecutor
  - Statistician
  - Victim of a serious crime
  - Wrongfully convicted person
- Sunset provision

Data Collection & Accountability.

Datapoints needed for evidence-based decisions:

- Number of requests for familial search and partial match
  - Number of times granted
  - Basis of each grant or denial
  - Number of potential suspects identified
  - Whether process led to arrests or convictions
- Methods used to narrow the pool of suspects and resulting pool size
  - Detail regarding the quantity and type of methods used to investigate leads (scientific, public, non-forensic) to evaluate whether "pursued reasonable investigation leads" threshold was met
  - Costs of investigations
- Race of those identified as suspects
- Number of times a third party reference sample was requested and collected
  - Manner in which DNA samples were collected (informed consent versus covert collection)
  - Number of subsequent DNA tests performed
- Number of requests made by defendants and post-conviction lawyers

In Conclusion…

There has been a collective forgetting in the criminal justice system of the serious debates that established the use of DNA databases in the first place and the substantial, personal, and fundamental information that is surrendered when a person turns over their DNA.

This discussion reminds us all of the power and responsibility that comes with the use of people's genetic information and the need to restore our collective memory.

Thank you!

Sarah Chu, MS

Sr. Advisor on Forensic Science Policy

INNOCENCE PROJECT

schu@innocenceproject.org

The Vermont Statutes Online

Title 20 : Internal Security And Public Safety

Chapter 113 : Commissioner And Members

Subchapter 004 : State Dna Database And State Data Bank

(Cite as: 20 V.S.A. § 1938)

§ 1938. Storage and use of samples and records

(a) A DNA sample and a DNA record obtained pursuant to this subchapter shall be used only for the purposes authorized in this subchapter and may be provided to law enforcement agencies for lawful law enforcement purposes.

(b) The tissue, fluid, or other substance from which the DNA is extracted shall be used only for DNA sample analysis authorized in this subchapter and may be provided to law enforcement agencies only for DNA sample analysis for use in any investigation and prosecution.

(c) Only DNA samples shall be stored in the state DNA data bank.

(d) Only DNA records derived from DNA samples shall be stored in the state DNA database.

(e) Except as provided in section 1939 of this chapter, no DNA records derived from DNA samples shall be aggregated or stored in any database, other than CODIS and the state DNA database, that is accessible by any person other than by the department for the purpose for which the samples were collected.

(f)(1) Except for forensic unknown samples, no samples of tissue, fluid or other biological substance voluntarily submitted or obtained by the execution of a nontestimonial identification order shall be entered into the state DNA data bank. However, such samples may be used for any other purpose authorized in section 1937 of this subchapter.

(2) Notwithstanding the prohibition of subdivision (1) of this subsection, any sample which may lead to an exculpatory result shall be used only for the purpose of the criminal investigation and related criminal prosecution for which the samples were obtained. Upon the conclusion of the criminal investigation and finalization of any related criminal prosecution, such samples shall be placed under seal, and shall not be used for any purpose whatsoever, except pursuant to a judicial order for good cause shown.

(3) Notwithstanding the prohibition of subdivision (1) of this subsection, any sample which may lead to an exculpatory result shall be used only for the purpose of the criminal investigation and related criminal prosecution for which the samples were obtained. Upon the conclusion of the criminal investigation and finalization of any related criminal prosecution, the genetic records shall be placed under seal, and shall not be used for any purpose whatsoever, except pursuant to a judicial order for good cause shown.

(g) Except for records obtained from forensic unknown samples, no DNA records of samples of tissue, fluid or other biological substance which were obtained as the result of either consensual submission of biological evidence or the execution of a nontestimonial identification order shall be entered into the state DNA database. (Added 1997, No. 160 (Adj. Sess.), § 1, eff. April 29, 1998.)

APPENDIX C: FAMILIAL DNA STATE REFERENCES

Arizona

Familial Searching Policy and Procedures Manual, effective 8/17/2020

https://www.azdps.gov/organization/TSD/scientific-analysis/dna#familial

Written request by the head of the investigating law enforcement agency to the Director of the Arizona Department of Public Safety

Case must be an active investigation of an unsolved crime against a person, all investigative leads must be exhausted, case has significant public safety concerns, and if a potentially related individual is identified, there is a commitment to further investigate all leads given by the laboratory

There is a Familial Search form which is reviewed by the AZ Department of Public Safety Scientific Analysis Bureau

A committee reviews the application. Committee consists of the Crime Laboratory Superintendent, a DNA case work technical leader, and any other personnel deemed necessary

Decision is made by Superintendent of the Crime Lab

For male candidates, Y-STR testing is performed; for female candidates expanded core loci are performed

CODIS confirmation process is used

If no leads, application can be researched annually

Appendix in Manual shows screenshots of the step by step process

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Arkansas

Arkansas State Crime Laboratory

CODIS Section Quality Assurance Manual, revision 2/12/2020

https://www.dps.arkansas.gov/wp-content/uploads/2020/07/CODIS-DOC-01-Quality-Manual-1754-30.pdf

Appendix C sets forth the policy. The Executive Director of the Arkansas State Crime Laboratory authorized the use of familial search on cases meeting acceptance requirements: Arkansas jurisdiction; unsolved homicide or sexual assault and case is active and under investigation. All investigative leads have been exhausted. Commitment to investigate a positive association developed; a CODIS eligible STR and a Y-STR profile has been developed from the forensic unknown; a single source profile (also allows for deduced and clearly discernible major or minor profile) and must contain 13 core loci minimum

Proposal meeting is held involving the CODIS administrator, the Physical Evidence and DNA Supervisors, the Executive and or Assistant Director of the Lab.

If the case meets the criteria for a familial search, a meeting with the law enforcement agency and the prosecuting attorney's office to review and discuss all law enforcement case files as well as the laboratory file to insure all relevant evidence is submitted. If after the meeting the case is deemed appropriate for familial search, there must be an official letter requesting the familial search and an executed Memorandum of Understanding between all parties.

Only Male candidate lists at this time. If there is a male candidate, next stage Y-STR profile developed and compared to evidence

Meta data concerning information regarding any known relatives of the candidates, e.g., age, residence, location at the crime, criminal history

Sets forth possible results and how they are reported

California

Conference call with Michael Puicci – CODIS Administrator

Call with Michael Chamberlain California Deputy AG California Department of Justice

Familial searches are conducted pursuant to authorization by the Department of Justice. When a request is made, the application is reviewed by a committee consisting of seven people all from the California Department of Justice. One member is a deputy attorney general who serves as the legal representative, another is a law enforcement representative, along with the Director and Assistant Director of the DOJ Bureau of Forensic Services and three senior criminalists with experience in both casework and database

Committee is involved in every step of the process. Every member must be in agreement before a stage of the familial search process can proceed

Memorandum of Understanding must be executed by the investigating agency the prosecuting agency and the chairperson of the DOJ's Familial Search Committee prior to any search being conducted.

Criteria:

The crime is serious and has critical public safety implications. The crime is unsolved. If it is solved while DOJ is conducting familial search protocols, the investigating agency must immediately notify DOJ and the familial search will end. All reasonable and viable investigative strategies must have been pursued with negative results. If genealogical testing is being or may be pursued, all investigative leads are <u>not</u> considered exhausted. Investigating agency has consulted with the prosecuting agency and received assurances that the case will be prosecuted if solved and sufficient proof exists; forensic unknown is a single source profile or deduced from a

mixture and a full Y-STR profile or sample remains for expanded kit testing. The sample must be in SDIS with no associated hits.

Sample will be rerun in CODIS before the familial search is initiated

Once the familial search is run, the California Department of Justice Bureau of Investigation will conduct a review of non-genetic information intended to support or dispel the hypothesis that the individual identified is related to the perpetrator. It is involves use of publically available and government databases. Before a name is released, crime analysts in the DOJ conduct public database searches to see if potential familial connections can be supported or refuted by other non-DNA material.

Female names will be released only if additional information is developed to support relatedness

The agency must provide DOJ with a written summary of all available case information that would be helpful in identifying a relative of the perpetrator. The MOU sets forth examples of the needed information.

If provided with a familial search investigative lead by DOJ, the investigating agency agrees it will take all steps to pursue and complete the investigation. If applicable, the investigating agency will submit the case to the prosecuting agency in a timely manner so that charges may be filed.

There is a required meeting between the investigating agency, the crime laboratory and the prosecuting attorney to meet with DOJ in person prior to the release of the name.

MOU also sets forth DOJ's obligations in conducting the test.

California developed its own specified software, the "Ratiometer" for conducting familial search

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Colorado

Bureau of Investigation

Forensic Services DNA 11.3 issued 9/8/2012 – CODIS Casework Database – Familial Searching

https://www.colorado.gov/pacific/cbi/dna-operation-manual

DNA Operations Manual

Document 38719

Revision #1m Issue Date 9/8/2018

Prior to a search, the laboratory must identify the profile in CODIS to be searched; confirm there have been no verified hits; confirm full STR profile; confirm that specimen is a single source or single deduced profile with at least 12 of the 13 CODIS core loci

Sets forth software utilized to conduct the familial search

State CODIS administrator will perform the familial search and provide the results to the Local CODIS administrator who will evaluate the familial search output

Requires confirmatory Y-STR testing or profile if source is a male

Confirmation of female offenders is done through SDIS.

Sets forth suggested report wording

Florida

Florida DNA Database, Tallahassee

T/C with Heather Parrish, CODIS Administrator

850-617-1300

No statute

Policies and Procedures of the Laboratory

Applications are reviewed by a committee to determine all qualifying criteria are met. Committee consists of state CODIS Administrator, Supervisor of Database, Special Agent in charge of the Tallahassee region, Chief of Lab, technical leader, attorney from general counsel of the lab (Department of Law Enforcement) and a Memorandum of Understanding

Case work in lab – requires STR with 13 CORE loci and a Y-STR profile

Case must be CODIS eligible in all respects

State Attorney with jurisdiction must confirm that leads will be followed up with a goal toward solution

Search is of Database which includes arrestees

Requires documentation that all leads have been exhausted

Majority of cases are murders and sexual assaults resulting in death

Cases that do not result in leads are rerun after a year

Estimate fifty cases have been searched pursuant to this policy/procedure to date

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Kentucky - Hard copy

Kentucky State Police

Regina Wells, CODIS Administrator

502-892-3891

Just implemented familial searching. Have done 3 cases so far, but several are in queue

Implemented by Agency Policy – Familial Searching SOP approved of the State Police Commissioner

Request is initiated by filing a Search Request form

Requires that all investigative leads have been exhausted and due to the seriousness of this crime and potential impact on public safety search is requested. Form states familial searching does not provide a named suspect but rather a potential relative. Prior to the release of a name, all parties will meet in person to reiterate what the results mean and what is required of all parties. The investigative agency agrees to investigate all leads. Agreement up front to provide updates on follow-up investigation and that should a viable potential suspect be identified, a suspect sample will be submitted

Limited to violent crime, sexual assaults and those crimes where public safety is a top concern. Will consider unidentified remains if all alternatives to identification have been exhausted. All leads must be exhausted before a case is considered

The CODIS administrator and supervisor review the profile to determine whether it is suitable for submission to the Familial Search Committee for a determination of whether the case meets specific criteria. The Committee consists of the state CODIS administrator, KSP DNA Technical Leaders, KSP Lab director, KSP Lab Commander, KSP legal representative and other persons who may asked to join on a case by case basis such as the DNA analyst assigned to that case

Case profile must have at a minimum a profile of the 13 original core loci, must be a single source, with no partial results at multiple STR loci, there must be a Y-STR single source profile

Prerequisite is SDIS and NDIS searches with negative results

Kentucky State Police criminal intelligence analysts conduct additional investigations into any potential offenders identified as having a potential relationship to the source of the evidence sample. Search for possible parent/offspring and full sibling relationship identified as having a possible relationship to the source of the sample

Once there is a list, Y-STRs are run for all candidate offenders

Concordant Y-STRs will be reviewed and additional calculations will be conducted to verify kinship. If no concordance, search ends

If concordant, KSP criminal intelligence analysts will conduct additional investigation into any offenders

After reviewing all available information and a determination is made that there is a high probability that the offender is a relative of the unknown perpetrator, the laboratory will release the name of the offender along with the information gathered by the crime intelligence analyst.

If this is an agency's first case, before results are released, an in person meeting is required to spell out what is being provided, the need for additional research and the limits of the process

If the search is negative, a letter is sent out informing no match as of a date specified and that the agency can request another search every twelve months until the case is solved.

Cases can be initiated by agency on their own or after it is identified as a possible case by the DNA case analyst.

Records kept on a spread sheet

KSP will be provided with updates on the investigation and should a suspect be developed, suspect standards will be submitted to the lab for comparison to the evidence profile.

Louisiana

Louisiana Department of Public Safety and Corrections – Spoke to Phillip Simmers – CODIS Administrator

LA SP – Pubic Safety Services

Administrative Policy/Procedure

In place since 2018

4 searches done to date, others in queue

Form filed with agency

If approved MOU explicitly stating that any name provided is not the offender

Limited to violent crimes or crimes posing a significant threat to public safety

Committee reviews application to determine whether to accept case

Committee consists of CODIS Administrator, lab legal counsel, alternate COIDS administrator,

Cases can be re-run after one calendar year if no matches

Michigan

Michigan Familial Search Request form

https://www.michigan.gov/documents/msp/2012-08-22_V2_fsd-053_437115_7.pdf

FSd-053 (11/20/18) Michigan State Police Forensic Science Division

Authority: 1935PA59 as amended

Form must be signed by the Chief Law Enforcement Officer for the Investigating Agency, the prosecuting attorney of the county where the crime occurred, the Director of the MSP Biometrics and Identification Division and the Director of the MSP Forensic Science Division.

DNA Procedures Manual

BIO-PM2.7 – Familial Search and Partial Matches

Document #1875, Revision #2, Issued 11/21/2017

https://www.michigan.gov/msp/0,4643,7-123-72297_60141_100424-531719--,00.html

2.7.1 – Familial Search Policy

Searching criteria – may be conducted at the direction of the Director of the Forensic Science Division and the Director of the Biometrics and Identification Division of the MSSP

Written request by the chief law enforcement officer in the investigating jurisdiction

Must be an active investigation of an unsolved violent crime against a person or there are critical public safety implications; all other investigative leads have been exhausted and critical public safety concerns remain

Profile must be single source CODIS profile that has been searched in SDIS and NDIS with no match. Partial profiles will be considered on a case by case basis

Conference with the Director of the Forensic Science Division, the Director of Biometrics and Identification, the FSD Biology Program Coordinator, the State CODIS administrator, the requesting chief law enforcement officer and the prosecuting attorney concerning the request, the criteria and the use of any lead provided. The chief law enforcement officer and the prosecuting attorney agree in writing that all criteria have been satisfied and commit to further investigate if potentially related individuals are identified.

If all case criteria are met, the Directors of the BID and the FSD may approve the request

Strict confidentiality of the results

Once results are obtained, the names are provided to the MSP District Detective Lieutenant who initiates a background investigation of each candidate to determine whether they can be eliminated by historical facts, relationship or circumstances as being a potential relative of the true perpetrator. Upon return of this background investigation, the Directors of the BID and the FSD will meet and confer. Unless there is a reason not to do so, the Directors will authorize release.

Also sets forth requirements for the MSP or the investigating agency follow-up once lead is released

Minnesota **Hard copy**

Department of Public Safety - Bureau of Criminal Apprehension

651-793-7000

Familial Search Implemented by policy – Partial Matches and Familial DNA Searches

Criteria require a full or nearly full single source or deduced major. Must be a crime against persons, cold case involving heightened public safety concerns. Requires that all leads have been exhausted. The Superintendent of the Bureau of Criminal Apprehension will decide if a case merits familial searching.

Profile must be 13 CORE loci – originally required a Y-STR profile. However, if there is a partial Y-STR profile or if a complete Y-STR profile can be obtained from the same evidence or another evidence item linked to the STR profile is acceptable. In case of female candidates, the lab performs mitochondrial testing

The investigating agency must file a familial search request with the BCA Lab Director which must outline how other investigative leads have been exhausted and why a familial search is the best alternative. The county attorney must also opine that a successful familial search would result in the case successfully moving forward with prosecution. Must include the current investigative state of the case, the anticipated benefit to the case, and the charging potential for any perpetrator identified from the search. The law enforcement agency must provide available information about the putative perpetrator to assist with evaluation of possible associations with search leads

Presented to a committee consisting of BCA Lab Director or Assistant Lab Director, CODIS administrator, DNA Supervisor or technical leader section, BCA Deputy Superintendent of Investigations or Special Agent in Charge, and a representative from the Minnesota County attorneys and investigators involved meet to affirm that leads will be followed and case prosecuted if feasible

Final decision is made by the Superintendent of the BCA

If accepted a Memorandum of Understanding is executed.

If the results show a possible paternal/maternal relationship, the lab schedules a meeting with the lead investigator, the CODIS state administrator or designee, DNA scientist and/or DNA supervisor the Special Agent in Charge (SAC) of the appropriate BCA office and if possible a representative of the County Attorney. The report will be released at the meeting. They will be informed of the nature of the lead and the requirement of a reference sample.

BCA will provide investigative assistance and will assign an investigator as a liaison.

If the search yields no leads, on an annual basis, it may be re-run if case remains unsolved.

Unless absolutely necessary, investigators should not contact family members and relatives of the named individuals until all public and law enforcement resources have been used in the investigative process

Committee will also entertain out of state requests

New York

Division of Criminal Justice Services

https://www.criminaljustice.ny.gov//forensic/familialsearch.htm

Application

https://www.criminaljustice.ny.gov/forensic/forms/FS/FS.Application.pdf

Supplemental information form

https://www.criminaljustice.ny.gov/forensic/forms/FS/FS.Supplemental.Information.pdf

Investigative Update Form – to be filed post-disclosure of candidates

https://www.criminaljustice.ny.gov/forensic/forms/FS/FS.Investigative.Update.pdf

Familial Search Request Renewal form

https://www.criminaljustice.ny.gov/forensic/forms/FS/FS.Request.Renewal.pdf

Sample Application

https://www.criminaljustice.ny.gov/forensic/forms/FS/Sample.Application.pdf

9 CRR-NY 6193.3 (h) through (k) inclusive

https://govt.westlaw.com/nycrr/Document/I4fa8d749cd1711dda432a117e6e0f345?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default)

Allows searches for enumerated crimes and "crime presenting a significant public safety threat"

The investigating agency and the prosecutor must certify that in the form and manner required by the Division of Criminal Justice Services that reasonable investigative efforts have been taken in the case or exigent circumstances exist warranting a familial search.

Explicitly states that an investigative agency and the appropriate prosecuting attorney may request a familial search of an unidentified profile associated with a case in which a defendant was previously convicted, if it meets criteria.

Profile must be single source of deduced profile from a mixture, must appear to have a direct connection with the putative perpetrator of the crime, reside in SDIS and have been searched in the DNA databanks offender index.

Requires a joint application by the investigating agency and the prosecutor

Upon receipt CODIS administrator must confirm case and profile requirements are met

The commissioner will review all completed applications. If approved, an MOU must be entered into by the law enforcement agency, the district attorney, the Director of the NY State Police Crime Laboratory or designee, and the Commissioner of the division or designee

If lead is to be released the requestors must complete and demonstrate an understanding of the mandatory, in person or video conference training. Training includes how to follow-up on lead, confidentiality requirements, requirement to withdraw a request if suspect is identified by other means and to provide follow up to the laboratory.

If no leads, sample can be re-searched upon renewal of the request every six months

Informational PowerPoint - https://www.criminaljustice.ny.gov/forensic/forms/FS/FS.Presentation.pdf

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Ohio

BCI Crime Laboratory

CODIS Familial Search Policy and Procedures

Issuing Authority: Lab Director

Effective 6/14/19

https://www.ohioattorneygeneral.gov/Files/Law-Enforcement/BCI/Laboratory-Division/LM-CODIS-Familial-Search-Policy-and-Procedures-Rev.aspx

(3) Ohio case type – violent crime, causing serious injury or death, or which demonstrates a continuing threat of imminent and serious harm to one or more members of the community, not solvable by traditional methods and all leads exhausted. Exception for matter of extreme public safety – decision to be made by the BCI Superintendent

Requires a Y-STR profile

Must be a crime committed in Ohio

Written application

Lab Director along with the CODIS administrator will determine which cases are searched and in what order once application is received.

Once a case is selected to be searched within three months of the search an MOU must be filed

Application may be renewed after 12 months if a search yields no results

Confidentiality – results disclosed on a need-to-know basis – Only law enforcement with direct involvement will have access to the information

Training

May be subject to criminal penalties for unlawful dissemination

Documentation - approved application and MOU, list of potential relatives, batch information, copy of non-match letter or lead letter; Criminal Intelligence Unit (CIU) does background investigation and issues a report. All communications will be in writing

(8) Annual Reporting to BCI Superintendent

Appendix contains MOU

Texas

https://txdps.labs.qualtraxcloud.com/showdocument.aspx?ID=43050

Effective Date: 10/1/2020

CO-05-04 Partial Matches and Familial Searches

CODIS Manual Pages 154-158

Review Committee: CODIS program manager, CODIS section supervisor, technical leader and program coordinator. If further consultation is needed, involvement of DPS general counsel representative and/or Texas Ranger representative may be requested. Committee forwards decision to DPS Division Chief or designee for approval

Section 6. Familial Search Policy

Offense must be an unsolved homicide, sexual assault or other violent crime that has significant public policy concerns. Property crimes will not be considered.

Only profiles residing in CODIS at the NDIS level will be considered

Evidentiary profile must be from an item having unambiguous connection to the crime and a satisfactory level of confidence that the crime scene profile is relevant to the perpetrator. Profile must be a single source profile containing at a minimum 13 CODIS core loci and deduced profiles from a mixture

Request must be jointly made by a Texas law enforcement agency and the corresponding district attorney's office and submitted through the local CODIS administrator. Request should include: a statement that all investigative leads have been exhausted; the case has significant public safety concerns; or a specific exception to those two conditions; a case summary; identifying

information concerning the profile; statement that the agencies agree to further investigate the case after investigative information is released; a completed CODIS Laboratory Familial Search Request Checklist and STR and Y-STR electropherograms.

Out of state requests may be considered if circumstances show a connection to the state of Texas

Sets forth how the search is to be conducted and the reporting requirements.

Prior to release of an individual's identifying information, the state CODIS laboratory shall verbally discuss limitations and meaning of the results with the requesting agencies. May take place in person or via conference call. Results shall be made in writing and emailed or delivered in person. Requires secure email, no public domain email addresses.

Texas Directory of Forms:

Familial Search Document Checklist Lab CO 23

Familial Search Request Lab CO 43

Local CODIS Lab Familial Search Request Checklist – 48

Virginia

Department of Forensic Science

DFS Familial Search Policy

109-D100 Familial Search Case Acceptance Policy

Policy Relating to Acceptance of Cases for Performance of Familial DNA Searching

Issued April 6, 2018

https://www.dfs.virginia.gov/wp-content/uploads/2018/05/109-D100-Familial-Search-Case-Acceptance-Policy.pdf

May be conducted at the direction of the Director of the Virginia Department of Forensic Science in case in which all listed criteria are satisfied: request is made by the chief law enforcement officer of the investigating law enforcement agency; the case involved an active investigation of an unsolved violent crime against a person; other investigative leads have been exhausted and critical public safety concerns remain; single source or a deduced single source profile, which when searched against SDIS and NDIS yielded no results, the evidence exhibits a full profile, although partial results will be considered on a case by case basis.

Director of the Division of Forensic Science (DFS), DFS Biology program manager, the requesting chief law enforcement officer, Commonwealth's attorney for the investigating jurisdiction and any other personnel deemed necessary shall have conferred regarding the request

Director may approve the request which is to be performed in conformance with departmental scientific protocols.

Wisconsin

Department of Justice – Division of Forensic Science

https://www.doj.state.wi.us/dfs/familial-dna-search

Started as a pilot project before becoming fully implemented program in 2018

According to web site they conduct six searches a year

Only used in cases of unsolved violent crimes where all investigative leads have been exhausted.

Requires STR and Y-STR profile

Search request form must be filed

https://www.doj.state.wi.us/sites/default/files/dles/clab-forms/2020-03_DB%20Form%2020a%20Familial%20Search%20Form-7396-6-fillable%20PDF.pdf

Application is reviewed by the Familial Search Committee which is tasked with triaging among other requests based on public safety threat.

Requires for all approved applications, a meeting with the requesting agency to received training on the process prior to testing and report.

No information from:

(1) North Carolina State Crime Laboratory – 919-582-8700
(2) South Dakota Attorney General Forensic Lab – 605-773-5658
(3) Utah Department of Forensic Services Central Lab – Salt Lake City – +DNA/Serology – 801-965-3870 or 801-964-4581