A Family Affair: Forensic DNA Databases and Privacy Implications for Biological Relatives

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Outline

• Canada’s National DNA Bank: An Overview
• Some Facts and Figures
• The Legal Evolution of the NDDB
• Un-traversed Frontiers
• Privacy Paradoxes
Police collect sample from convicted offender

NDDB create DNA profile And upload into COI

Forensic lab process sample Left at crime scene

Upload DNA profile into CSI Using CODIS

COI-CSI Matches are brought to CCRTIS for confirmation

CCRTIS confirms identity and Forwards data to local forensic lab

Local forensic lab passes CO identity to investigator, who then requires warrant For new DNA sample to be used as evidence
As at March 15, 2015:

411,938 profiles in NDDB
- 337,361 COI
- 104,947 CSI

Offender Hits 34,204
Forensic Hits 3,873
DNA warrants - *R. v. S.A.B.*

DNA databank - *R. v. Rodgers*
Un-traversed Frontiers
Privacy Paradox # 1

Restricted number of autosomal markers less privacy intrusive when running the search, but also less effective by returning a very large number of partial matches. Using additional markers in the up-front screening process, might help weed out false leads and reduce needless disruption and angst among families, but might potentially be or become more revealing depending on how the technology evolves.
Privacy Paradox # 2

At initial stage, familial searching could be restricted to X number of autosomal markers for purpose of creating a first candidate list; subsequent testing using additional markers could be reserved for purposes of confirming only and winnowing down the first list. While more privacy protective up front, also creates an incentive to keep original DNA samples indefinitely, essentially retaining a far greater amount of highly sensitive personal information.
Privacy Paradox # 3

If one can justify familial searching as acceptable expansion of offender databases, then by logical extension, there is no rational reason for objecting to a universal database containing DNA of all citizens. Unless one can demonstrate that relatives of offenders are themselves more likely to be offenders, there is nothing that distinguishes law-abiding relatives of offenders from law-abiding relatives of non-offenders, other than their accidental biological heritage.