



Biology Services

Overview

As part of Forensic Science and Identification Services (FS&IS), the Biology Services Directorate provides biological evidence recovery, DNA analysis and reporting. Search, analysis and reporting services are provided at the Ottawa and Vancouver laboratory sites, with the addition of a third site in Edmonton by March 2009. Interpretation and reporting are also provided at the Regina and Halifax Forensic Laboratory Services (FLS) sites.

Search

The Evidence Recovery Unit recovers biological trace evidence from exhibits which is then submitted for analysis, interpretation and reporting of conclusions. Services include:

- recovery and identification of body fluids such as blood, semen and saliva
- recovery and identification of hair
- recovery of cellular material from handled objects

Analysis

Biology Services Directorate processes biological trace evidence from crime scenes to generate DNA typing profiles. The processing of biological trace evidence uses highly sophisticated automated technology to create a DNA profile that helps investigators through the association of suspects to victims and to crime scenes.

The analytical service provides:

- the extraction, amplification (i.e. polymerase chain reaction - PCR) of DNA and generation of genetic profiles
- the interpretation of results
- quality controls

Reporting

DNA reporting services include:

- comparing DNA profiles to determine if there are any forensically significant associations
- entering appropriate DNA typing profiles into the Crime Scene Index of the National DNA Data Bank of Canada
- reports containing the findings are provided to the law enforcement agency that submitted the crime scene evidence

Quick Facts

- 1989: the first DNA evidence was permitted in a Canadian court case.
- 2006/2007: the Biology Program processed over 3401 service requests.
- Each case contains, on average, 9 exhibits to be processed.