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Law Enforcement Use of DNA

Regulation and Practice in Switzerland

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Workshop on Law Enforcement Use of DNA Technologies

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Regulation of Forensic DNA Technology

Three levels in Switzerland:

Criminal Procedure Code:

- Competences, general requirements for compulsory measures.

DNA Profiles Act:

- Formal law (debated and passed by parliament).

Two ordinances:

- Technical, directly drafted by executive.

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Forensic DNA Phenotyping (FDP)

- Restricted to **serious offenses against physical and sexual integrity** (Art. 285b CPC).
- Must be ordered by the **public prosecutor** (Art. 198 CPC).
- Evaluation after 5 years: All cases registered with the Federal Police Department (Art. 20a DNA Profiles Act).

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Scope of FDP in Switzerland

Art. 2b DNA Profiles Act:

1. *Phenotyping is the analysis of special DNA markers which are used to obtain information about **externally visible characteristics** of a person to whom forensic evidence pertains.*
2. *The following may be ascertained:*
 - *a. **eye, hair and skin color**;*
 - *b. **biogeographical origin**;*
 - *c. **age**.*
3. ***Neither health-related nor personal characteristics** such as character, behavior and intelligence may be evaluated.*

Critical points

- Delegated law making (Art. 2b(4) DNA Profiles Act):

*The **Federal Council** may specify **further** externally visible **traits** [...] if **practical reliability** is given.*

- FDP can lead to minorities becoming the focus of DNA mass testing more frequently (Art. 256(1) CPC):

*[...] The group of persons to be investigated may be **more strictly defined** by means of phenotyping [...]*

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FDP in practice

- Permitted since August 1st, 2023.
- To my knowledge, used only once in Switzerland until March 2024.
- No requests to our lab.

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Forensic Investigative Genetic Genealogy

- FIGG is not regulated: deemed inadmissible.
- Absent from political debate.
- Act on Human Genetic Testing defines data concerning one's origin as requiring **special protection**: Consumer information, license for lab and personal identification required. No direct web ordering.

Familial Searching in CODIS is permitted (2015) and regulated (2023):
up to now ~20 cases, one success.

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Probabilistic Genotyping (PG)

- Not mentioned in the law.
- All lab procedures are subject to control by the Swiss Accreditation Service SAS.
- Guidelines of the Swiss Society of Legal Medicine do not prescribe a calculation method.
- To my knowledge, only 2 out of 7 labs use PG, one operational.

u^b Key Recommendations

FDP:

- DNA mass tests should not be permitted based on FDP alone.

FDP and FIGG:

- Rules for data access and the handling of incidental findings.

PG:

- Know the limits: Software validation and proper training is key.

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Thank you for listening.