

Course

> CSI Innsbruck: analysis and interpretation of forensic DNA markers<

<i>Lecturer</i>	<i>Parson W, Bodner M</i>
<i>Number</i>	<i>049507</i>
<i>Type / ECTS</i>	<i>VU 2 / 1,5 ECTS</i>
<i>Date/Time</i>	<i>2.3. - 6.3. 2020 (half day; 3.3. and 4.3.: full day)</i>
<i>Location</i>	<i>MUI Course Lab (Peter-Mayr-Str. 4b) and tbd</i>
<i>Limitations</i>	<i>Min. of 4 participants; Max. of 6 participants</i>
<i>Registration</i>	<i>Register in i-med.inside</i>

Description

Forensic DNA analyses seem familiar from television series. In fact, they have revolutionized the field of legal medicine. But how does that work in real life?

This course will provide an overview of the advances and limitations of modern forensic DNA analysis. In a **theoretical introduction**, the basics of modern DNA fingerprinting will be presented and applied aspects will be discussed using examples. Two forensic markers will be examined in the **practical part**: autosomal STRs that are used to obtain individual-specific DNA profiles from biological stain material (DNA fingerprints), for matching stains and suspects, for paternity tests and the identification of human biological tissues; as well as mitochondrial DNA, which is used for the identification of maternal lineages as the most sensitive marker that is applied in samples lacking enough intact nuclear DNA for an STR profile. Crime scenes will be simulated. Participants may voluntarily generate their own DNA fingerprint. The results will be evaluated statistically using forensic DNA databases such as EMPOP and STRidER and interpreted in a forensic and in a phylogenetic context.

Aim

- > Introduction into practical basics of modern forensic genomics
- > Interpretation and discussion of molecular data generated during course
- > Knowledge of the most important databases in forensics
- > Awareness of legal and ethical framework

Miscellaneous

Detailed information will be provided in ILIAS