

WORKSHOP

Advances in Forensic Biology and Genetics



24. - 26. September 2025



Dresden, Germany



490€



Limited number of participants

"The field of forensic genetics is rapidly expanding, not only with the emergence of new technologies but also through the extension of forensic DNA analysis to include animal, plant, and microbial genetics. This workshop, planned as an annual event, aims to bring you engaging scientific insights. We hope you enjoy it!"

More information

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CHARLES
UNIVERSITY

 **SERATEC**[®]
Gesellschaft für Biotechnologie mbH



Animal DNA forensics

Sampling and sample processing

- The best practices for sample preservation and short and long-term storage
- Field sampling and testing (Bento mobile laboratory and Salux 19)
- DNA extraction strategies for different animal artefacts, the removal of inhibitors
- DNA quantitation (specific and non-specific)

Identification of unknown origin

- Rapid preliminary testing of exhibits of unknown origin
- Individual DNA identification of animal samples
- Species identification (Sanger, NGS, fragment analysis, qPCR)



Animal DNA forensics

The current recommendations for animal DNA forensics

- DNA databasing, statistical evaluation
- Laboratory set-up, LIMS (Laboratory Information and Management System)
- Case documents, reporting the results, expert testimony
- Addressing the problematic areas: inbreeding, hybrids, population data, reference samples, combined human and non-human analysis, CITES legal restrictions



Body Fluid Identification

Traditional Methods: practical exercises with hints and tips

- Analysis of body fluid mock samples
- Usage of alternative light sources (ALS), stain mapping techniques and lateral flow tests (SERATEC®)
- Protein markers: benefits and limitations, result interpretation; Multiplexing
- Quantification & documentation

Advances in Body Fluid Identification

- Validation of new protein markers (D-dimer, Statherin)
- Overview of novel techniques: mRNA, DNA methylation, Proteomics & Microbiome analysis
- Think outside the box: LAMP and NALFA potential for laboratory and field testing



GenoProof® Suite: DNA Forensic Analyses

This workshop provides both theoretical and hands-on training on the GenoProof® Suite Software for human and animal DNA forensics. Participants will gain skills in:

- **Project Management:** Managing DNA projects, population data, and test kits.
- **Raw Data Analysis:** Analyzing raw .fsa and .hid data directly from sequencers.
- **Kinship Analysis:** Conducting kinship calculations for simple and complex pedigrees.
- **Database Matching:** Identifying individuals or relatives using forensic DNA databases.

Perfect for both human or animal forensic scientists aiming to enhance their DNA forensic analysis capabilities.