

Spurenkommission

Gemeinsame Kommission der rechtsmedizinischen und kriminaltechnischen Institute

New website:
www.dgrm.de/spurenkommission/

Interim Vorsitzende / stellvertretende
Vorsitzende

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Dr. Rolf Fimmers, IMBIE Bonn

München/, den 22.06.2023

Proficiency Tests of the German Stain Commission

Dear colleagues,

The German Stain Commission is responsible for the content and technical aspects of the annual proficiency tests for quality sovereignty in forensic DNA analysis. Thus, the commission also decides who is responsible for the organisation and implementation of such tests. With this letter we would like to inform you about current and future developments.

In previous years, this responsibility had been transferred to the Institut für Forensische Genetik GmbH (IfG) with Prof. Dr. Bernd Brinkmann as manager and Dr. Carsten Hohoff as technical manager of the proficiency test, known as GEDNAP. The members of the Stain Commission express their sincere thanks to all employees and especially to Dr. Carsten Hohoff and Prof. Bernd Brinkmann for this constructive and long-term collaboration. The IfG filed for insolvency at the end of 2022. Due to this situation and the circumstances that resulted from the takeover of the GEDNAP proficiency test by external officials during insolvency, the Stain Commission has decided to take a more active role in future “proficiency tests of the German Stain Commission”, both in terms of content and organisation. The primary goal is to ensure that the responsibility and sovereignty of the commission can actually be exercised at any time (e.g., through access to user data and test result as needed).

This is why the commission has agreed on conditions for awarding the status “proficiency test of the German Stain Commission”. This document defines the rights and obligations of the commission and of laboratories organizing future proficiency tests.

Despite intensive efforts, no agreement could be reached with the newly founded company "Institut für forensische Molekulargenetik, IFMG GmbH" as the successor of IfG to carry out a proficiency test under these conditions.

According to their own account, IFMG GmbH is planning to offer a proficiency test called "GEDNAP". This test, however, will be carried out under the full and sole responsibility of the IFMG and not, as was previously the case, under the scientific supervision and with advisory support of the Stain Commission.

In this respect, the coming year represents a phase of reorientation for the Commission. We see this as an opportunity to rethink and further develop the concept of the proficiency test of the Stain Commission. For the future, we aim to adapt the samples included in the trial to correspond more closely with the reality of forensic DNA analysis of crime scene traces. The Commission has therefore decided to organize a "Proficiency Test of the Stain Commission" this year. In addition to more realistic traces, which might also contain low template DNA for STR and mtDNA typing, modules on biostatistics (incl. probabilistic genotyping), pigmentation and age estimation as well as a paper challenge for expert evaluations of forensic DNA findings will be offered. Planning and implementation of the individual test modules will be carried out by the commission with the involvement of recognized experts in the respective fields. The Institute for Legal Medicine at the University of Münster, represented by Prof. Dr. Marielle Vennemann will be responsible for the overall organization of the new proficiency test. An overview of the modules offered can be found attached to this letter.

The commission strives for transparent planning and implementation of its proficiency tests. Thus, the commission invites all interested individuals and parties to take part in an online survey. A link to this will be made available shortly. We are looking forward to your contributions!

Further information will soon be available on our new website:

www.dgrm.de/spurenkommission/.

Yours sincerely, in the name of the German Stain Commission

A handwritten signature in blue ink, appearing to read 'K. Anslinger', with a stylized, flowing script.

Katja Anslinger, Chair (interim)

Attachment: Modules of the proficiency test

Proficiency Test of the German Stain Commission

Modules

Module 1: „Advanced STR Analysis“ (chair: Prof. Dr. Marielle Vennemann)

A non-standardised DNA trace with low DNA content (swabs or items) shall be analysed by the participating laboratories. Participants are requested to give an estimation of the minimum number of contributors as well as the results of STR typing. Participants will receive an overview of all results to evaluate their own performance. Laboratories will receive a certificate of participation.

Module 2: „Advanced mtDNA Analysis“ (chair: Prof. Dr. Walther Parson)

A realistic sample (e.g. a hair shaft) shall be analysed by the participating laboratories. Participants are requested to give details on any changes to rCRS in the investigated range(s), as well as the result of an EMPOP query including the haplogroup and the biogeographic origin of the mtDNA lineage. Laboratories will receive a certificate of successful participation.

Module 3: „Paper challenge“ (chair: Prof. Dr. Marielle Vennemann)

Participating laboratories will receive analysis results of a real trace. Participants shall give an expert opinion on a question in the form of a written expertise. In this initial round of tests in 2023, this module will only be available to German speaking participants. An extension to English and other languages is planned for the upcoming years if desired.

Module 4: “Probabilistic Genotyping” (chair: Dr. Martin Eckert)

An item and a reference sample shall be analysed by the participating laboratories. Analysis results shall be used for interpretation by a fully continuous model as validated in the respective laboratory. Participants will receive an overview of all results to evaluate their own performance. Laboratories will receive a certificate of participation.

Module 5: „Forensic Phenotyping“ (chair: Prof. Dr. Katja Anslinger)

Reference samples shall be typed using the HIrisplex-S marker panel. Participating laboratories are asked to provide detailed analysis results (i.e. genotypes), as well as the results of the verbal interpretation of the probability values using relevant tools, e.g. the HIrisplex-S tool provided by Erasmus University, Rotterdam. Furthermore, an exercise covering age estimation shall be offered on reference samples using a method validated within the participating laboratory. Results shall be provided as estimated age along with specification on the model and the reference population used for validation. Participants will receive an overview of all results to evaluate their own performance. Laboratories will receive a certificate of participation.

Evaluation of results

This is a particularly challenging proficiency test that requires extensive and detailed evaluation. The stain commission is convinced that this can only be achieved as a joint effort of all its members. The commission will include further national and international experts to complement existing expertise within the commission.

Registration and expected timeline:

Registration will soon be available and we will inform you by e-mail about the details via the respective scientific organisation such as ENFSI and ISFG. We aim to send out samples in September 2023. It will be possible to return results until beginning of January 2024 and the evaluation of the results will be presented during the German Stain Workshop in Frankfurt (07.-09. of March 2024). If you have questions please contact Prof. Marielle Vennemann of the Institute of Legal Medicine in Münster, Germany. (marielle.Vennemann@ukmuenster.de).