



## Editorial

## Proceedings of the 28th ISFG Congress



The 28th Congress of the International Society for Forensic Genetics (ISFG) took place in Prague, the capital of the Czech Republic. It was the first ISFG Congress held in the region of the previous Czechoslovakia and experienced a record number of attendees. Stick-on footsteps led 1018 participants from the Vyšehrad metro station to the Prague Congress Centre. These proceedings, which have been published in *Forensic Science International: Genetics Supplement Series Volume 7*, contain more than 330 articles describing work presented at the conference – another ISFG record!

The Congress was planned and organized by the ISFG Board and Scientific Committee (Walther Parson, Peter M. Schneider, John M. Butler, Mechthild Prinz, and Leonor Gusmão) in cooperation with the Local Organizing Committee (Andrea Cignová, Jiří Drábek, Veronika Gazdová, Marie Korabečná, Jana Matoušková, Martina Novotná, Tomáš Pexa, Halina Šimková, Petra Škapová, Kateřina Štaffová, Zuzana Štaffová, and Pavel Tomek), and the excellent professional conference planners (Karolína Tylšová, Soňa Horáčková, and their team from C-IN).

There were 14 pre-congress workshops involving 474 participants covering the following topics:

software and interpretation:

- Kinship Statistics using Familias and FamLink (Thore Egeland & Daniel Kling)
- Population Analysis of Forensic DNA Data using Snipper and STR-UCTURE (Christopher Phillips & Leonor Gusmão)
- Interpretation of Complex DNA Profile Mixtures using Open-Source Software including LRmix and EuroForMix (Peter Gill & Corina Benschoop & Oyvind Bleka)
- Bayesian Reasoning in the Framework of Bayesian Networks (Tomáš Fürst)

massively parallel sequencing:

- NGS Workflows for Forensic Genetics (Peter Vallone)
- Autosomal STR Genomics: Sequence Variation and Nomenclature (Katherine Gettings)

non-autosomal and non-human markers:

- Y Chromosome: YHRD, Mixture Interpretation, Kinship, and Population Differentiation (Lutz Roewer & Sascha Willuweit)
- Forensic Mitochondrial DNA Analysis: Alignment and Interpretation using the EMPOP Database (Walther Parson)
- CaDNAP Meeting – Canine DNA Profiling Group (CaDNAP Group)

intelligence from information besides the conventional DNA profile:

- Body Fluid Identification through mRNA Profiling or DNA Methylation Analysis (Titia Sijen & Hwan Young Lee)
- Forensic DNA Phenotyping: Basics of Data Acquisition and Interpretation (Wojciech Branicki)

quality, ethics, and publications:

- ISO/IEC 17025:2017 (Jiří Drábek)
- Scientific Publication: Reading, Writing, and Reviewing (John Butler)
- Making Sense of Ethical, Legal & Social Aspects of Forensic Genetics (Matthias Wienroth & Gabrielle Samuel)

In addition, during the course of the meeting, nine working groups (Polish, French, English, Spanish/Portuguese, German, Italian, Chinese, Korean, and CaDNAP) met to discuss forensic genetics in their native languages (with exception of CaDNAP that was held in English).

The Congress opened with a fluorescence mapping show illustrating “alchemy of forensic genetics” that brought a magical feeling before Václav Pačes and Tomáš Ruml greeted the attendees and ISFG president Walther Parson formally launched the meeting.

The program began with the ISFG scientific prize lecture given by **Manfred Kayser** entitled “Forensic appearance prediction from DNA: a journey through 10 years of scientific contributions.” In his presentation, Professor Kayser demonstrated both the power of sample numbers and the power of international cooperation as driving forces in growing the field of forensic DNA phenotyping. In spite of some media hype and expectation in this area, current state-of-the-art does not yet permit accurate depictions of human faces from genetic information alone.

Other invited plenary speakers included

**Lutz Roewer**, who described complications and solutions in understanding and defining the term “population” by different stakeholders,

**Halina Šimková**, who described differences in peoples’ perception of information and an approach to convey challenging concepts such as Bayes theorem using graphics of a water stream and lever,

**Yaniv Erlich**, who presented both the power of familial searches in consumer genomics databases with the scale of millions of individuals and the risk of massive genetic surveillance along with practical suggestions to reconcile the two opposite societal values of genetic privacy and fighting criminals,

**Roland van Oorschot**, who focused on expert opinion, training, and proficiency testing in DNA-related activity-level issues, involving DNA transfer, persistence, prevalence, and recovery,

**Fanny Pouyet**, who elucidated the process of purifying selection when neutral diversity linked with deleterious variants is affected by by-stander effect, and

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**Antonio Amorim**, who described the large field of using non-human DNA in the court while highlighting the lag of non-human forensic genetics in terms of adopting standards, QA/QC, guidelines, and lack of collaboration between competing laboratories.

An additional 60 oral presentations and 601 posters satisfied any curious scholar looking for a forensic genetics crash-course or update on the latest research. Scientific highlights of any conference may be subjective. However, this time popular vote (conducted via a conference software voting app) and the scientific committee vote aligned with the best oral presentation being given to **Sofie Claerhout** (for her presentation: “CSY? a panel-based MPS approach including 12,523 Y-chromosome polymorphisms”) and the best poster prize being given to **Piyamas Kanokwongnuwut** (for her poster: “Detection of cellular material within handprints”). This year two scientific prizes were awarded to **Christopher Phillips** and **Thore Egeland**, who have both provided significant contributions and collaborations over their careers. Thus, the 29th ISFG Congress in Washington, D.C., USA, to be held August 23–28, 2021 (see <https://www.isfg2021.org/>), will have two opening prize lectures.

During the ISFG General Assembly, **John Butler** was elected the new president of the society, **Leonor Gusmão** was selected as the new Representative of the Working Parties, and **Marielle Vennemann** was voted in as the new Treasurer. **Mechthild Prinz** organized a 50<sup>th</sup> Anniversary booklet for ISFG that was both factual and entertaining. As a venue for the 30th ISFG Congress in 2023, the city of Santiago de Compostela (Spain) was elected by the members of the assembly.

For those who want to remember their days in Prague, selected photos are still available online (<https://www.isfg2019.org/photo-gallery.htm>), organized in a day by day fashion.

Jiří Drábek<sup>c,\*</sup>, Mechthild Prinz<sup>b</sup>, John M. Butler<sup>a</sup>

<sup>a</sup> National Institute of Standards and Technology Special Programs Office  
100 Bureau Drive, Mail Stop 4701 Gaithersburg, MD 20899-4701 USA

<sup>b</sup> John Jay College of Criminal Justice, New York, USA 524 W. 59th St. New York, NY 10019 USA

<sup>c</sup> Institute of Molecular and Translational Medicine, Faculty of Medicine and Dentistry, Palacký University, Olomouc Czech Republic  
E-mail address: [drabekjiri@gmail.com](mailto:drabekjiri@gmail.com) (J. Drábek).

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\* Corresponding author.