THE 28th CONGRESS OF THE INTERNATIONAL SOCIETY FOR FORENSIC GENETICS

9 – 13th SEPTEMBER 2019

PRAGUE CONGRESS CENTRE, THE CZECH REPUBLIC

www.isfg2019.org

PROGRAMME BOOK

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ISFG 2019

28th Congress of the International Society for Forensic Genetics

9 – 13th September 2019

Prague Congress Centre, the Czech Republic

Hosted by

International Society for Forensic Genetics

Czechoslovak Society for Forensic Genetics

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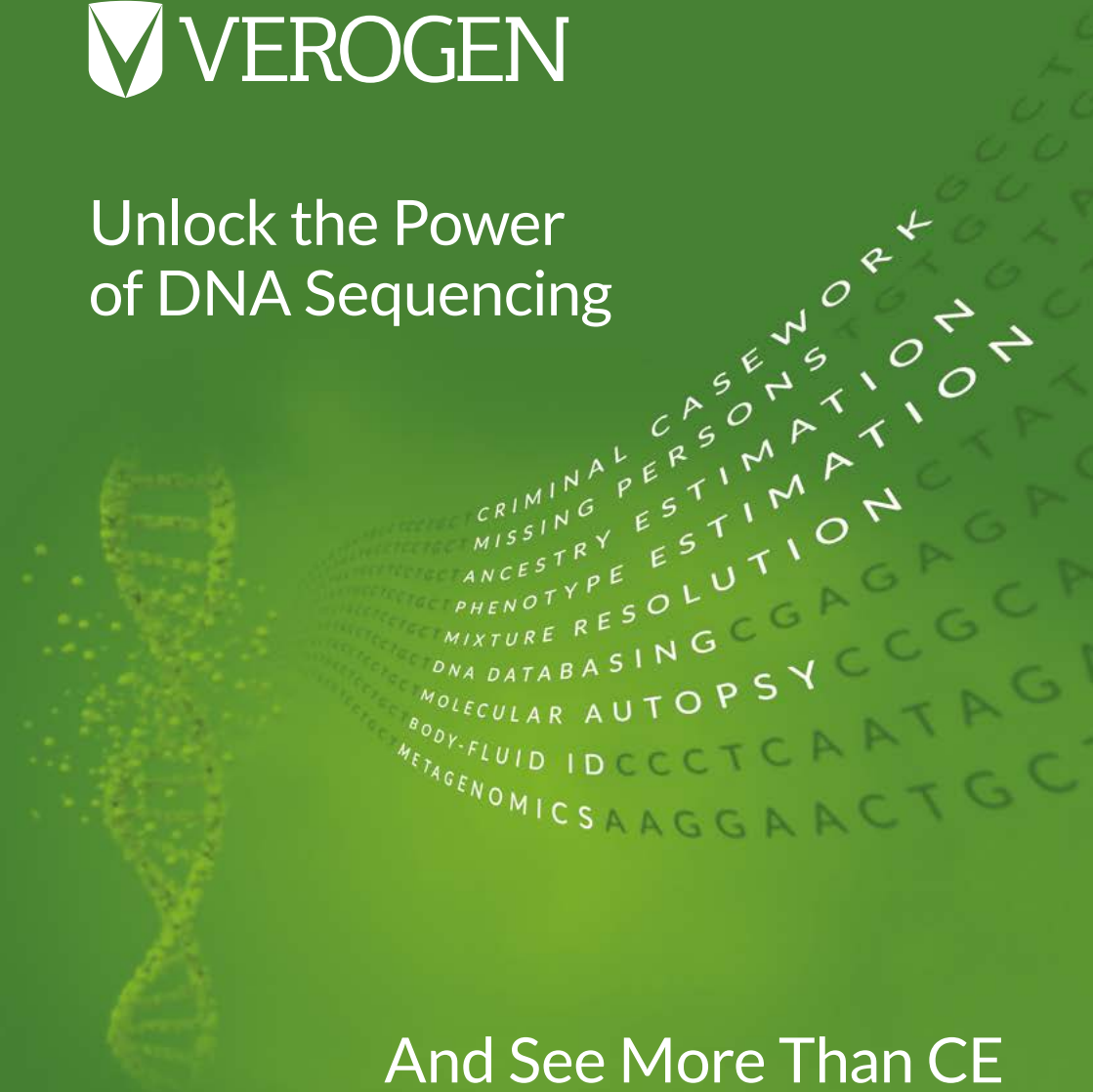

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Visit us at **Booth 2** to learn more

Content

Welcome Words

Dear Colleagues,

preparation for the 28th International Congress of International Society for Forensic Genetics (ISFG) is approaching its climax. Online registration is running, promising to beat the record from Seoul in number of participants. Program is ready, featuring hands-on and ear-on workshops, meetings of national or topical societies, lectures from renowned and rising scientists, austere and lavish posters, and last but not least, accompanying social programme.

It is possible that for ISFG executive committee and professional congress organiser C-IN it is just another event in the row. However, for me and members of local organizing committee it was so far thrilling experience, different in quantity and quality from our biannual Forensica conference. We hope that congress itself will be not only thrilling, but also congenial and seminal experience for all of you.

What can you expect?

Pre-congress workshop leaders will teach you, how to use software flawlessly, semicontinuously, continuously, FAMILIarly, or STRUCTURally, how to handle mixture, pristine, and canine samples in seamless workflow, how to recognize body fluid or phenotype, how to publish your findings using correct nomenclature, how to do everything while networking, and with high quality and ethics mark.

Keynote speakers Drs. Erlich, Kayser, Metcalf, van Oorschot, Pouyet, Roewer, Šimková will set the pace and roll the canvas out, on which 60+ other speakers will glue their stone to create the final scientific mosaic where topics of Forensic DNA Phenotyping, Probabilistic Reasoning, Genealogy, DNA transfer, Population Genetics, and Microbiome will have chance to shine like gem. For those whom auditory stimulation does not suffice, hundreds of posters will feed and please their eyes.

Sponzoring companies will try to catch your attention to secure future deals, musicians and chefs will try to evoke cordial and cooperative atmosphere. If you will be attentive, you may be rewarded by topics of voodoo or mammoths that sneaked into the program as well.

In epitome, we tried to blend cornucopian cuvée that will make alchemy of Prague memorable and will stay on your palate for long time.

It is my great honour to welcome you in Prague, to greet you all!

Jiří Drábek
ISFG2019 Congress President

Committees

Local Organizing Committee

Jiří Drábek
Andrea Cignová
Veronika Gazdová
Marie Korabečná
Jana Matoušková
Martina Novotná
Tomáš Pexa
Halina Šimková
Petra Škapová
Kateřina Štaffová
Zuzana Štaffová
Pavel Tomek

ISFG Board and Scientific Committee

Walther Parson
Peter M. Schneider
John Butler
Mechthild Prinz
Leonor Gusmão

About ISFG

The International Society for Forensic Genetics is an international association promoting scientific knowledge in the field of genetic markers analyzed for forensic purposes. The ISFG has been founded in 1968 and represents more than 1100 members from over 60 countries. Regular meetings are held at a regional and international level. Scientific recommendations on relevant forensic genetic issues are developed and published by expert commissions of the ISFG.

Programme at a Glance

	Monday	Tuesday	Wednesday	Thursday	Friday
	9 September 2019	10 September 2019	11 September 2019	12 September 2019	13 September 2019
	Pre-Congress Programme		Congress Programme		
8:30			Scientific Session 1	Scientific Session 5	Scientific Session 9
9:00	Pre-Congress Workshops	Pre-Congress Workshops			
9:30					
10:00			Coffee Break & Poster Session	Coffee Break & Poster Session	Coffee Break & Poster Session
10:30	Coffee Break	Coffee Break			
11:00	Pre-Congress Workshops	Pre-Congress Workshops	Scientific Session 2	Scientific Session 6	Scientific Session 10
11:30					
12:00					
12:30			Company Symposium – Thermo Fisher Scientific (12:30 – 13:20)	Company Symposium – Promega (12:30 – 13:20)	Lunch
13:00	Lunch	Lunch	Company Symposium – QIAGEN (13:30 – 14:20)	Lunch	
13:30			Lunch		
14:00	Pre-Congress Workshops	Pre-Congress Workshops			Scientific Session 11
14:30			Scientific Session 3	Scientific Session 7	
15:00					
15:30					Coffee Break
16:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Scientific Session 12
16:30	Pre-Congress Workshops	Pre-Congress Workshops	Scientific Session 4	Scientific Session 8	
17:00					
17:30					
18:00			Working Groups Meetings	General Assembly	
18:30		Opening Ceremony & Scientific Prize Lecture			
19:00					
19:30					Closing Ceremony & Congress Dinner
20:00		Welcome Cocktail			
20:30					
21:00					
21:30					
22:00					
22:30					
23:00					
23:30					

Guidelines for Authors

The ISFG board and the local organizing committee have carefully reviewed a lot of abstracts of high quality. All authors of oral and poster presentations are kindly required to follow the instruction as below.

Oral Presentation Guidelines

Oral presentations are always accompanied by PowerPoint presentations. The speakers are entirely responsible for the presentation content (order, graphics etc…). All presentations and questions must be delivered in English. Time reserved for scientific presentation is:

- **Keynote presentation** 40 min + 5 min discussion
- **Presentation** 12 min + 3 min discussion
- **Presentation** 10 min + 2 min discussion

Presentation format

Please prepare your presentation preferably using up to date version of Microsoft PowerPoint; however older versions are also supported. Screens' aspect ratio will be 16:9.

Please note that Apple Keynote and Prezi presentations are not supported and they have to be converted into PDF files.

When saving your final presentation to the USB stick, do not forget to make sure to include your video files and all links to these multimedia files.

As no presentation template is prepared, you are welcome to use your own. Please restrain inviting to other scientific conferences, if any, to the last slide of your presentation.

Depositing the File

Presentations must be handed over to the personnel in **the SPEAKERS' PREVIEW ROOM**, with USB stick, as far in advance as possible and **TWO hours before the start of entire session**, where the presentation is to be displayed. The presentation for an early morning session should be handed over the evening before.

SPEAKERS' PREVIEW ROOM will be located in **on 1st floor in room 1.1**, clearly marked and will be available in following times:

Monday 9th, September	8:00 – 18:00
Tuesday 10th, September	8:00 – 20:00
Wednesday 11th, September	7:30 – 19:00
Thursday 12th, September	7:30 – 19:00
Friday 13th, September	7:30 – 17:00

In the Lecture Room

All presentations will be sent directly to the lecture room through the internal computer network. Please, we kindly ask all authors NOT to come at the last minute with their own computer into the lecture room. All presentations must be downloaded in the **SPEAKERS' PREVIEW ROOM** beforehand.

Poster Dimensions, Mounting & Removing

The presenting authors are entirely responsible for the poster content (order, graphics etc…).

All posters must be delivered in English.

Kindly note the posters **should not exceed the given dimensions, which are 120 × 90 cm, portrait orientation**. Posters will be hanged on a standard poster boards. The organizer will provide suitable fixing material.

Poster Mounting

Tuesday, 11th September 2019, 17:30 – 21:30
Wednesday, 12th September 2019, 7:30 – 10:00

Each poster board was given a specific number. Authors are kindly asked to make sure to mount their poster on the poster board with the number corresponding to the number assigned to their poster presentation (e. g. P 01, P 02 etc…).

Poster Dismantling

Friday, 13th September 16:30 – 19:00

Poster shall remain displayed within the whole meeting period and be removed by their authors at the end of the meeting. Posters left behind after 19:00, Friday 13th September will be discarded by organizers without notice. Organizing committee is not responsible for any loss or damage to your poster if it is not removed by the notified time. Posters not dismantled by their authors by the end of the Congress will be removed by the organizers and discarded.
Storage for poster cases is not available.

Poster Sessions

Presenting authors should be available at their poster (Poster Area, South Hall 2) to explain and discuss their work to interested participants during the attended poster sessions listed below:

Wednesday 11th, September	10:00 – 11:00
Thursday 12th, September	10:00 – 11:00
Friday 13th, September	10:00 – 11:00

Pre-Congress Workshops

FW1 – Interpretation of complex DNA profile mixtures using open-source software including LRmix and EuroForMix

Organisers: Peter Gill & Corina Benschop & Oyvind Bleka

Type: Full Day Workshop, Hands-on

Room: Club B

Date & Time: Monday, 9th September 2019 (9:00 – 18:00)

Aim: To provide participants with necessary skills to carry out probabilistic genotyping of complex mixtures using open-source programs to calculate the strength of evidence of complex mixtures.

Target Group: Law enforcement forensic experts – experienced reporting officers who deal routinely with DNA profiling evidence and are required to interpret complex mixtures in casework.

General Learning Outcomes:

- Understand the theory behind using likelihood ratios to interpret evidence
- Discuss the theory used to interpret complex mixtures of two or more contributors where the samples may be compromised - partial, degraded
- Describe best practice in relation to the ISFG DNA commission recommendations
- Be proficient in the use of open source software in order to carry out the calculations (LRmix Studio, EuroForMix)
- Write court going statements
- Describe the limitations of methods
- New developments will be presented, including DNAxs, a new package for reporting officers
- Participants will be provided with necessary tools to carry out cascade training at a national level

Organisation of the course:

The course is practically orientated. The participants must bring their own laptop. Approximately one month before the course, participants will be provided with pre-course material and links that will enable them to download necessary software. Participants are encouraged to view the training videos on the EuroForMix website

Software:

All softwares are open-source and freely available for users. Free support is provided to users via help desks found on the web-sites.

LRmix studio is a commonly used qualitative program that utilises the peak designation only http://lrmixstudio.org/.

EuroForMix is a more complicated quantitative program. Its development was supported by a EU-FP7 inititative (EuroForGen-NOE). Peak height, stutter and degradation are incorporated into the model. This package is 'state of the art', and is also used for analysis of massive parallel sequencing data http://www.euroformix.com/.

DNAxs is a new program under development by the NFI. EuroForMix will be integrated into this package, along with a host of features designed to assist the reporting officer to interpret complex DNA profiles. Corina Benschop will provide feedback and demonstrate program features.

FW2 – Kinship statistics using Familias and FamLink

Organisers: Thore Egeland & Daniel Kling
Type: Full Day Workshop, Hands-on
Room: Club B
Date & Time: Tuesday, 10th September (9:00 – 18:00)

The workshop provides the necessary background for relationship inference using autosomal markers. Statistical methods are introduced and the likelihood ratio based approach is emphasized. Models for linked markers are discussed and their relevance for recent forensic applications are illustrated. The freely available softwares Familias and FamLink are exemplified. The former software is restricted to unlinked autosomal markers. However, the functionality goes beyond standard kinship problems and includes modules for simulation, disaster victim identification and familial searching. The program FamLink has recently been extended to deal with any number of linked markers (STR-s or SNP-s). The open software R is introduced, and the relevance for plotting of pedigrees and estimation of haplotype frequencies is demonstrated. The participants should bring a laptop with the mentioned software installed.

FW3 – Population analysis of forensic DNA data using Snipper and STRUCTURE

Organisers: Christopher Phillips & Leonor Gusmao
Type: Full Day Workshop, Hands-on
Room: Club E
Date & Time: Monday, 9th September (14:00 – 18:00), Tuesday, 10 September (9:00 – 13:00)

This workshop will cover the preparation of reference population data and forensic profile data for analysis with Snipper-based Bayes likelihood ratio tests and Principal Component Analysis; and STRUCTURE-based genetic cluster analysis. Such tests are gaining increasing interest as a way to estimate the possible bio-geographical ancestry of DNA recovered from forensic samples.

Students will run all three analyses with autosomal STR and SNP genotypes generated from both capillary electrophoresis and massively parallel sequencing assays typing established forensic panels. STRUCTURE tests of medium-scale population data will be run 'overnight' between the pm and am sessions of the workshop, which is divided across two half-days. Students will be required to pre-install STRUCTURE software and allow their laptops to run STRUCTURE in the background overnight. Students are invited to bring their own data, which could be analysed during the workshop.

HW1 – NGS Workflows for forensic genetics

Organiser: Pete Vallone
Type: Half Day Workshop, Lecture
Room: Club E
Date & Time: Monday, 9th September (9:00 – 13:00)

This workshop aims to review and explore the details of various NGS/MPS sequencing methods. Common sequencing methods and platforms that may be applied to forensic genetic analyses will be discussed. The laboratory workflow steps involved in library preparation and their specific purposes will be presented. Examples of the process will be illustrated through forensically-relevant workflows for the sequencing of STRs, SNPs and the mitochondrial genome. Examination of the resulting sequence data will be demonstrated by the instructor using open source and commercial software tools.

This workshop is intended as an introduction to those attendees interested in the basic and practical aspects of carrying out sequencing experiments and considerations in adopting this method of genetic analysis in their laboratory. Questions related to the scope of the workshop can be directed to the instructor (peter.vallone@nist.gov)

HW2 – Y chromosome: YHRD, mixture interpretation, kinship, population differentiation

Organisers: Lutz Roewer & Sascha Willuweit
Type: Half Day Workshop, Hands-on
Room: Club C
Date & Time: Monday, 9th September (9:00 – 13:00)

Program:

09:00 – 09:15	Introduction
09:15 – 10:30	Current national and international guidelines on interpretation of Y-STRs and reporting to court (Germany, USA, ISFG)
10:30 – 11:30	Use of YHRD to generate match statistics (Augmented counting, Discrete Laplace method, Meta- and Suspect population)
11:30 – 11:45	Break
11:45 – 13:00	Casework challenge (Match probability, Mixture and Kinship analysis, Ancestry inference using Y-SNPs) Note: We will bring casework examples, but please bring your own and enter discussion!

HW3 – Body fluid identification through mRNA profiling or DNA methylation analysis

Organisers: Titia Sijen & Hwan Young Lee
Type: Half Day Workshop, Lecture
Room: Club H
Date & Time: Monday, 9th September (9:00 – 13:00)

Human DNA profiling has the potential to present strong evidence for placing a suspect at a crime scene. Increasingly, forensic questions that go beyond the identity of the donor of a sample are asked. Knowledge regarding the cell types residing in an evidentiary trace can facilitate inference of activities. Body fluids such as blood, saliva, semen, vaginal mucosa and menstrual secretion are mostly assessed in both sexual assaults and violent crimes. The inference of organ tissues such as brain, lung, kidney, liver, heart and skeletal muscle can also be useful. Tissue identification may be achieved through various marker types: mRNAs, miRNAs, DNA methylation or microbial markers.

In this workshop, we will focus on mRNA profiling and DNA methylation analysis. mRNA profiling has been studied at the Netherlands Forensic Institute since 2009 and the mRNA assays have been applied to over 250 forensic cases. Around the same time, research on tissue-specific DNA methylation begun in several research groups, and the multiplex assays developed by Lee's group have been validated for practical application in forensic casework samples.

We will explain the foundations of assay design, share how the assays were developed and demonstrate the basic procedures regarding the application of the assays. We will discuss technical issues that may occur with compromised forensic samples and explain how data interpretation is achieved considering an accompanying DNA profile and the context of a case. Through casework examples we will illustrate the forensic possibilities and opportunities. Issues that were raised in court will also be discussed.

Participants will actively work with exemplar results to gain hands-on experience. An interactive format will be used throughout the session to stimulate discussions.

HW4 – Forensic mitochondrial DNA analysis: Alignment and interpretation using the EMPOP database

Organiser: Walther Parson
Type: Half Day Workshop, Hands-on
Room: Club C
Date & Time: Monday, 9th September (14:00-18:00)

This is a practical workshop using EMPOP tools to better understand the mitochondrial phylogeny in the context of

- database queries for frequency estimations
- retrieving statistical information on common and rare haplotypes
- forensic reporting of mtDNA data

- searching and interpreting point and length heteroplasmy
- estimating the haplogroup status of an mtDNA sequence
- interpreting geographic distribution of haplotypes and haplogroups

We try to make the workshop as practical as possible and present/discuss forensic examples. You are invited to contribute to the workshop by bringing your own mtDNA sequences. These can involve haplotypes from research projects, from practical forensic work or your own mtDNA. Also feel free to bring challenging haplotypes that you would like to have discussed at the workshop.

You can bring your own laptop but it is not necessary! In case you plan to use your own laptop, please make sure you are a registered EMPOP user (via https://empop.online).

Please send questions that you may have also before the meeting to walther.parson@gmail.com

HW5 – ISO/IEC 17025:2017

Organiser: Jiri Drabek

Type: Half Day Workshop, Lecture

Room: Club H

Date & Time: Monday, 9th September (14:00 – 18:00)

The basic requirements for a management system for forensic genetics laboratories are based on the international standard ISO/IEC 17025. This standard is used for the assessment and accreditation of laboratories worldwide by Accreditation Bodies in order to enhance the confidence of the clients for the competence, impartiality, and consistently high performance of these laboratories, producing high quality results.

The ISO/IEC 17025 was revised in 2017 in order to reflect the risk-based thinking, the latest version of ISO9001 norm stressing process approach in quality management, changes in IT and other technologies available for laboratories, and changes in client requirements. Laboratories already accredited to ISO/IEC 17025:2005 will need to transition their processes to the new version till November 2020.

Workshop on accreditation according to ISO/IEC 17025:2017 norm in forensic genetics laboratory is aimed at all levels of competent personnel, involved with establishing, implementing and maintaining laboratory quality and technical systems.

Workshop will cover topics of:
- Terminology, scope, definition, and normative references
- Requirements regarding management, training, and laboratory work
- Records, documents and procedures
- Internal Audit Assessment and Proficiency Testing / Interlaboratory Programs
- Method validation and conducting testing.

Upon successful completion of the course, learners will be able to:
- Identify and understand the general requirements of ISO/IEC 17025:2017, its principles and concepts
- Understand processes for controlling risks associated with the laboratory's testing processes
- Plan method validation
- Apply the requirements of ISO/IEC 17025 to their laboratory systems.

HW6 – Scientific publication: Reading, writing, and reviewing

Organiser: John Butler
Type: Half Day Workshop, Lecture
Room: Club C
Date & Time: Tuesday, 10th September (9:00 – 13:00)

Science benefits from effective communication of ideas. Research results are shared with others through publications and presentations. Scientific publication involves efforts in reading, writing, and reviewing the literature. Editors of peer-reviewed journals rely on input from scientific colleagues to judge the merits of submitted manuscripts. Knowledgeable reviewers providing timely feedback are important for a successful peer-review process. This workshop will share insights based upon editorial experience with Forensic Science International: Genetics as well as extensive writing practice in preparing five textbooks and over 170 research articles and invited book chapters. Reviewing manuscripts is a chance to provide an important service and to influence the scientific community for good. In addition to discussing approaches to reading, writing, and reviewing relevant literature, some recent articles covering forensic genetics will be considered and examined.

HW7 – CaDNAP Meeting – Canine DNA Profiling group

Organisers: CaDNAP Group
Type: Half Day Workshop
Room: Club H
Date & Time: Tuesday, 10th September (9:00 – 13:00)

Preliminary Agenda:

CaDNAP - a brief historical sketch
Walther Parson[1, 5] on behalf of the CaDNAP group

The CaDNAP 13-STR panel: a tool for identification and breed assignment
Burkhard Berger[1], Cordula Berger[1], Josephin Heinrich[1], Andreas Hellmann[3], Uwe Schleenbecker[3], Udo Rohleder[3], Werner Hecht[2], Nadja V. Morf[4], Walther Parson[1, 5]

The CaDNAP proficiency test
Werner Hecht[2], Burkhard Berger[1], Cordula Berger[1], Andreas Hellmann[3], Uwe Schleenbecker[3], Udo Rohleder[3], Nadja V. Morf[4], Walther Parson[1, 5]

Population structure, mating strategies and generation interval in dogs: Implications for forensic profiling?
Werner Hecht[2]

Detecting the DNA from poached and poachers
Adrian Linacre[6]

Forensic genetics and taxonomic identification
Antonio Amorim[7, 8]

Dog attacks, voodoo and mammoth cases at Zurich Institute of Forensic Medicine
Nadja V. Morf[4], Pamela Voegeli[4], Adelgunde Kratzer[4]

History of origins of the non-human DNA department of the Bundeskriminalamt Wiesbaden (BKA)
Andreas Hellmann[3], Uwe Schleenbecker[3], Udo Rohleder[3]

Canine mitochondrial DNA analysis – casework tool of last resort and reference databases
Cordula Berger[1], Werner Hecht[2], Walther Parson[1, 5]

Genetic drawing of dog identikit pictures – Canine DNA phenotyping for forensic applications
Cordula Berger[1], Josephin Heinrich[1], Werner Hecht[2], Burkhard Berger[1], Walther Parson[1, 5]

Affiliations:

1 Institute of Legal Medicine, Medical University of Innsbruck, Austria
2 Institute of Veterinary Pathology, Justus-Liebig-University Giessen, Germany
3 Bundeskriminalamt, Kriminaltechnisches Institut, Wiesbaden, Germany
4 Zurich Institute of Forensic Medicine, University of Zurich, Switzerland
5 Forensic Science Program, The Pennsylvania State University, University Park, PA, USA
6 School of Biological Sciences, Flinders University, Adelaide, Australia
7 Faculdade de Ciências da Universidade do Porto, Instituto de Investigação, Portugal
8 Inovação em Saúde, Universidade do Porto, Portugal

HW8 – Autosomal STR Genomics 101: Sequence variation and nomenclature

Organiser: Katherine Gettings
Type: Half Day Workshop, Lecture
Room: Club H
Date & Time: Tuesday, 10th September (14:00 – 18:00)

This workshop will introduce attendees to autosomal STR sequences, with a target audience of students and practitioners having minimal sequencing experience or background knowledge. The workshop will be divided into three modules: 1) Anatomy of an STR Locus, 2) Historical and Modern STR Sequencing, and 3) STR Sequencing Quality Control and Nomenclature.

In the first module, we will begin by dissecting the sequences of autosomal STR loci in the traditional categories of simple, compound, and complex repeat motifs. We will use these example loci to explore the concept of bracketing (e.g. [GATA]8), considering historical precedent, modern guidance, and issues of CE backward compatibility. Then we will venture out into the flanking regions to find examples of SNPs and Indels, exemplifying their role in concordance between both length- and sequence-based assays.

In the second module, we will consider historical STR sequencing challenges and the benefits of modern sequencing platforms. We will review commercial STR sequencing assays and bioinformatic tools designed specifically for the forensic community, as well as bioinformatics geared toward STR analysis in whole genome sequence data. Lastly in this module, we will discuss

the proliferation of STR population sequence data, following an example of how a lab could implement such data to generate match statistics.

Finally, in the third module, we will explore interpretation issues specific to STR sequencing, and additional quality control measures which may be useful. Quality control and guidance initiatives expected to be discussed in the congress session will be described and contextualized so that attendees will have a firm foundation for the coming days. Lastly, we will discuss examples of early adopter casework implementation.

HW9 – Forensic DNA Phenotyping: basics of data acquisition and interpretation

Organiser: Wojciech Branicki
Type: Half Day Workshop, Lecture
Room: Club E
Date & Time: Tuesday, 10th September (14:00 – 18:00)

Forensic DNA Phenotyping (FDP) is a relatively new area in the filed of forensic genetics that utilizes the potential of DNA to predict ancestry, appearance and age. The obtained predictions can be used for intelligence purposes to track unknown individuals and speed up the investigation. This workshop will introduce the entire concept of FDP including theoretical aspects of marker selection, prediction modelling and practical application. Participants will get acquainted with technologies, assays and mathematical models available for predictive DNA analysis in forensics. They will also learn about the principles of data interpretation, accuracy parameters like AUC and MAE and prediction error related to different FDP methods. Much attention will be placed to the prediction of pigmentation traits and forensic implementation of the new system HIrisPlex-S for simultaneous prediction of eye, hair and skin colour. The workshop will also address the issue of epigenetic age prediction in the forensic field. Participants will learn about the current problems of age estimation by DNA methylation analysis including tissue specificity of age markers, sensitivity of the assays and sources of prediction errors. The available methods of age prediction will be reviewed and the concept of biological age and age acceleration will be introduced. Participants will get acquainted with the importance of combining information about gender, ancestry, and age for appearance prediction. The lectures will be illustrated with practical examples and participants will have opportunity to familiarize themselves with the methods currently used in FDP.

HW10 – Making sense of Ethical, Legal & Social Aspects of forensic genetics

Organisers: Matthias Wienroth & Gabrielle Samuel
Type: Half Day Workshop, Lecture
Room: Club C
Date & Time: Tuesday, 10th September (14:00 – 18:00)

The aim of the workshop is to make accessible to forensic stakeholders the concept of 'ethical, legal and social aspects' of science and technology. We will not discuss ethics approval procedures or health & safety concerns, but instead look at the type of knowledge that ethical, legal and social aspects represent. The ideas of anticipation and responsibility will guide this workshop. In order to equip participants with the tools to explore how such understanding can be applied in making forensic genetics research and technology uses societally and ethically more robust, participants will be supported in engaging in case study work, exploring two very topical emerging forensic technologies and applications in (1) forensic DNA phenotyping, and (2) the searching of public and private genetic databases for investigative purposes.

Methods:
- Introductory lectures
- Case study work

Objectives:
- To provide participants with tools for understanding and assessing ethical, legal and social aspects of the development and use of forensic genetics technologies.
- To encourage participants to adopt the principles of anticipation and responsibility
- To support the management of dilemmas in researching and applying new technologies.

HW11 – Bayesian reasoning in the framework of Bayesian Networks

Organiser: Tomas Furst
Type: Half Day Workshop, Lecture
Room: Club D
Date & Time: Tuesday, 10th September (14:00 – 18:00)

Bayesian networks represent a universal framework for almost any inference tasks.

BN is a network of nodes connected by directed links such that the resulting graph contains no loops. The nodes represent random variables (e.g. an action of a suspect, or the presence of a trace) whose state may be either known or unknown.

The links represent causal relations (e.g. the presence of the suspect causes the occurrence of a trace). In each node, a probability distribution conditional on the parent nodes is given (e.g. the presence of a suspect leads to the occurrence of a particular trace with the probability of 0.7). The network is used for making inference about unobserved nodes (e.g. on the activity level

on hierarchy of propositions) conditional on the values of observed nodes (usually the evidence nodes).

In the workshop, fundamentals of Bayesian inference will be explained and various examples of their usage in forensic context will be given. The examples will be illustrated in freely available software (unbbayes.sourceforge.net), so that the participants may explore the behavior of the network themselves. The examples will go from a really trivial case all the way to a rather involved illustration of BN usage in forensic practice.

Scientific Prize Lecture

Prof. Dr. Manfred Kayser

Department of Genetic Identification, Erasmus MC University Medical Center Rotterdam
ROTTERDAM, THE NETHERLANDS

Date & time of the presentation: 10th September 2019, 18:45 – 19:30, Forum Hall

Manfred Kayser is (full) Professor of Forensic Molecular Biology at Erasmus University Rotterdam and (founding) Head of the Department of Genetic Identification at Erasmus University Medical Center. He obtained his diploma in biology with magna cum laude from University of Leipzig, his doctorate degree in biology/genetics with summa cum laude from Humboldt University Berlin, and his habilitation in genetics from University of Leipzig. After postdoctoral research at the Department of Anthropology, Pennsylvania State University, he was staff scientist, later Heisenberg Fellow of the German Research Council, at the Department of Evolutionary Genetics, Max Planck Institute for Evolutionary Anthropology Leipzig, before he accepted his professorship appointment in Rotterdam. His research interest is in various aspects of forensic and anthropological genetics. In the forensic field, he is well known for his pioneering work on forensic DNA phenotyping and his contributions to the introduction and further development of forensic Y-chromosome analysis, while also published on various other forensic genetic topics. As of early 2019, he authored 240 articles (60 % as leading author) in peer-reviewed scientific journals that were cited 14,000 times; his h-index is 67. He received the Scientific Price 1998 of the German Society of Legal Medicine and the Biennial Scientific Price 2017 of the International Society for Forensic Genetics. He serves/d as editor-in-chief, academic editor, section editor, guest editor, and editorial board member of several forensic and human genetic journals, and is regular ad-hoc reviewer for various scientific journals and research funding agencies in different countries and the EU.

Keynote Speakers

Prof. Dr. Lutz Roewer, PhD

Institute of Legal Medicine and Forensic Sciences, Charité -Universitätsmedizin
BERLIN, GERMANY

Date & time of the presentation: 11th September 2019, 08:30 – 09:15, Forum Hall

Lutz Roewer studied biochemistry in Leipzig and received his PhD in molecular biology in 1990 at the Charité in Berlin. His early work encompassed the application of oligonucleotide probes for forensic DNA fingerprinting and the development of PCR-based methods to analyze autosomal and Y-chromosomal microsatellites. Since 2008 he is professor for forensic genetics at the Institute of Legal Medicine and Forensic Sciences, Charité -Universitätsmedizin Berlin, Germany and head of the Department of Forensic Genetics. His laboratory with 14 staff members processes several thousand crime cases per year. Lutz was awarded the scientific price of the DGRM (Deutsche Gesellschaft für Rechtsmedizin) in 1990 and 1998 and the scientific prize of the ISFG (International Society of Forensic Genetics) in 1999 for the development of the Y chromosome STR haplotyping method.
Lutz Roewer is founder and curator of the largest forensic reference database for Y chromosome profiles, the YHRD (https://yhrd.org). His major research interest is the molecular and population genetics of the Y chromosome with regard to its forensic application. Another research line is the evolution and demography of world populations. He studied indigenous populations in Europe, Asia and the Americas and authored large multi-centred studies on this topic.
He is co-beneficiary of a grant of the European Union to develop autosomal/Y-chromosomal STR prototypes for massive parallel sequencing analysis (MPS) in forensics.

Mgr. Halina Šimková

Faculty of Science, Charles University
PRAGUE, THE CZECH REPUBLIC

Date & time of the presentation: 11th September 2019, 14:30 – 15:15, Forum Hall

Forensic geneticist, lecturer and science popularizer.

Halina Šimková graduated in Anthropology and Human Genetics at the Faculty of Science at Charles University in Prague and in Scenography at Master School of Art Design in Prague. During her studies at the Faculty of Science, Charles University, she became a civilian intern at the Institute of Criminalistics in Prague, later she started working there as an expert in the field of DNA analysis. She co-founded the Czechoslovak Society for Forensic Genetics, and has been Vice-Chair since 2008. In order to demonstrate her generally declared love of uncertainty, she left her stable position to become freelancer in 2016 and her interest gradually shifted mainly to promote the use of Bayesian inference in the field of forensic expertise and within other disciplines working with probabilistic conclusions.

She enjoys lecturing and popularization very much, emphasizing the use of non-verbal and combined teaching tools. She is the author of the educational book Breviary of Forensic Genetics, in 2016 she won the Neuron Prima ZOOM award for the best popular science video. She regards Bayesian inference as beautiful, brilliant and logical, and it bothers her that the vast majority of people do not know Bayesian inference at all – not even those whose decisions cannot be properly made without it. She wants to change it.

Dr. Yaniv Erlich

Data Science Institute, Colombia University
NEW YORK, USA

Date & time of the presentation: 12th September 2019, 08:30 – 09:15, Forum Hall

Dr. Yaniv Erlich is the Chief Science Officer of MyHeritage.com and an Associate Professor of Computer Science and Computational Biology at Columbia University (leave of absence). Prior to these positions, he was a Fellow at the Whitehead Institute, MIT. Dr. Erlich received his bachelor's degree from Tel-Aviv University, Israel (2006) and a PhD from the Watson School of Biological Sciences at Cold Spring Harbor Laboratory (2010). Dr. Erlich's research interests are computational human genetics. Dr. Erlich is a TEDMED speaker (2018), the recipient of DARPA's Young Faculty Award (2017), the Burroughs Wellcome Career Award (2013), Harold M. Weintraub award (2010), the IEEE/ACM-CS HPC award (2008), and he was selected as one of 2010 Tomorrow's PIs team of Genome Technology.

Assoc. Prof. Roland van Oorschot

School of Molecular Sciences, La Trobe University
MELBOURNE, AUSTRALIA

Date & time of the presentation: 12th September, 14:30 – 15:15, Forum Hall

After acquiring an Agricultural science and engineering degree in the Netherlands, a PhD from Macquarie University in Australia on marsupial genetics, postdoctoral positions at the Southwest Foundation for Biomedical Research in San Antonio, Texas on genemapping and at the Centre for Animal Biotechnology at Melbourne University in Australia on genetics of disease resistance in sheep, Roland started working, in 1992, at the Forensic Services Department of Victoria Police where he is currently a Principal RD&I Specialist. He is also an Adjunct Professor in the School of Molecular Sciences at La Trobe University.

Roland has over 160 publications in scientific journals and books. Including an article in Nature (in 1997) regarding the ability to retrieve directly and indirectly deposited DNA from touched objects that helped revolutionise forensic investigations. Roland has supervised over 90 post-graduate students, examined several theses, sits on University course advisory committees and has reviewed manuscripts for several journals. His current interests include the areas of: 'DNA transfer, persistence prevalence, and recovery', 'contamination minimisation' and 'acquiring more information from available biological samples to assist investigations of criminal activity'.

Fanny Pouyet, PhD

Institute of Ecology and Evolution, University of Bern
BERN, SWITZERLAND

Date & time of the presentation: 13th September, 08:30 – 09:15, Forum Hall

Fanny Pouyet received a MSc degree in Biology from the Ecole Normale Supérieure de Lyon and a MSc in Bioinformatics from the University of Paris VI. During my PhD in Lyon, I quantified the importance of both adaptive and non-adaptive processes on the evolution of codon usage in genes in Human.

I have currently a postdoctoral position at the University of Bern since October 2016 in the laboratory of Prof. Laurent Excoffier. My research focus on disentangling the impact of evolutionary mechanisms that constrain the genome-wide diversity in humans as a population geneticist. I am particularly interested in understanding the links between such evolutionary processes and recombination across the genome.

Dr. Jessica Metcalf

Department of Animal Sciences, Colorado State University
FORT COLLINS, COLORADO, USA

Date & time of the presentation: 13th September, 14:30 – 15:15, Forum Hall

Dr. Jessica L. Metcalf is a microbiome scientist who leads highly interdisciplinary, innovative research projects that span the fields of forensics, animal science, and health by combining experimental ecology, large genomic datasets, and bioinformatics tools. Her lab studies the complex suite of microorganisms (bacteria, archaea, fungi, protists, etc) driving decomposition of postmortem vertebrate animals. Over the past several years, she has been developing a microbial clock to estimate how long vertebrate (including human) remains have been decomposing. Along with several collaborators, she is developing the microbial clock into a new forensic science tool to help investigators estimate the postmortem interval (PMI) for cases with unknown PMIs. She also studies the gastrointestinal tract of vertebrate animals with a focus on the effects of captivity and domestication on animal health. In a similar vein, she also studies the loss of microbial diversity in the human gastrointestinal tract associated with the industrialization/urbanization of human populations.

Metcalf earned a Bachelor of Science in chemistry from University of Georgia and a Ph.D. in ecology and evolution from University of Colorado Boulder. She completed postdoctoral positions in ancient DNA at the University of Adelaide in South Australia and in microbiome science at UC San Diego. She joined Colorado State University in 2016 as part of the Microbiome Systems Cluster Hire Initiative. She is an Associate Professor in the Department of Animal Sciences.

Detailed Scientific Programme

Tuesday 10th September 2019, Forum Hall

18:30 **OPENING CEREMONY**

19:00 **OPENING CEREMONY & SCIENTIFIC PRIZE LECTURE**
FORENSIC APPEARANCE PREDICTION FROM DNA: A JOURNEY THROUGH 10 YEARS OF SCIENTIFIC CONTRIBUTIONS
Kayer, Manfred

20:00 **WELCOME COCKTAIL (FOYER)**

Wednesday 11th September, Forum Hall

Session 1

Chairs: Walther Parson, Marie Korabečná

08:30 **KEYNOTE LECTURE**
THE WHITE ELEPHANT IN THE FIELD – WHAT MEANS "POPULATION" IN FORENSIC GENETICS?
Roewer, Lutz

09:15 **DEVELOPMENT AND OPTIMIZATION OF THE VISAGE PROTOTYPE TOOLS FOR BIO-GEOGRAPHIC ANCESTRY AND APPEARANCE TRAITS INFERENCE USING TARGETED MPS**
Xavier, Catarina

09:30 **APPROACHES TO EXPLAIN AND POTENTIALLY PREDICT THE COMPLEX ARCHITECTURE OF THE HUMAN FACE**
Walsh, Susan

09:45 **INTRODUCTION OF A PREDICTIVE DNA TEST FOR THE OCCURRENCE OF FRECKLES**
Branicki, Wojciech

10:00 **COFFEE BREAK (FOYER) & POSTER SESSION (SOUTH HALL 2)**

Session 2

Chairs: Walther Parson, Marie Korabečná

11:00 **FORENSIC DNA PHENOTYPING: A SERVICE PROVIDER TRIAL**
Raymond, Jennifer

11:12 **COMPARISON OF CE- AND MPS-BASED ANALYSES OF FORENSIC MARKERS WITH SINGLE CELL AFTER WHOLE GENOME AMPLIFICATION**
Chen, Man

11:24 **PRESENTATION OF THE HUMAN PIGMENTATION (HUPI) AMPLISEQ CUSTOM PANEL**
Meyer, Olivia Strunge

11:36 **PREDICTIVE DNA ANALYSIS OF HUMAN HEAD HAIR GREYING USING WHOLE-EXOME AND TARGETED NGS DATA EXAMINED WITH DEEP LEARNING METHODS**
Pośpiech, Ewelina

11:48 **A COMPARISON OF DNA METHYLATION TECHNOLOGIES AND PERFORMANCE OF AGE PREDICTION MODELS**
Freire-Aradas, Ana

12:00 **A COMING OF AGE TALE**
Aliferi, Anastasia

12:12 **IN SEARCH OF CENTRAL- AND EASTERN EUROPEAN- SPECIFIC ANCESTRY INFORMATIVE MARKERS**
Woźniak, Marcin

12:30 **COMPANY SYMPOSIUM BY THERMO FISHER SCIENTIFIC**

13:00 **LUNCH**

13:30 **COMPANY SYMPOSIUM BY QIAGEN (SOUTH HALL 1B)**

Session 3

Chairs: John Butler, Manfred Kayser

14:30 **KEYNOTE LECTURE**
EXPLAINING BAYESIAN INFERENCE PRINCIPLES NONVERBALLY: HOW TO HELP NON-MATHEMATICIANS UNDERSTANDING THE WEIGHT OF EVIDENCE
Šimková, Halina

15:15 **HOW TO AVOID DRIVING DNA CASEWORKERS CRAZY: CASESOLVER, AN EXPERT SYSTEM TO INVESTIGATE COMPLEX CRIME SCENES**
Prieto, Lourdes

15:30 **COMPARISON OF CE AND MPS BASED ANALYSIS FOR THE PROBABILISTIC INTERPRETATION OF MIXED STR PROFILES**
Benschop, Corina

15:45 **USING GENETIC COMPLEXITY TO SOLVE FORENSIC COMPLEXITY: A NEW CLASS OF COMPLEX HYPERVARIABLE STR MARKERS FOR DECONVOLUTION OF COMPLEX DNA MIXTURES**
Ralf, Arwin

16:00 **COFFEE BREAK (FOYER)**

Session 4

Chairs: John Butler, Manfred Kayser

16:30 **THE FIRST MPS-STR BASED CONVICTION IN A CRIMINAL CASE?**
De Knijff, Peter

16:42 **ENHANCING STR SEQUENCE ALLELE REPRESENTATION FOR PROBABILISTIC GENOTYPING**
Just, Rebecca

16:54 **A MASSIVELY PARALLEL SEQUENCING ASSAY OF MICROHAPLOTYPES FOR MIXTURE DECONVOLUTION**
Oldoni, Fabio

17:06 **A TOP-DOWN APPROACH TO MIXTURE EVALUATION**
Slooten, Klaas

17:18 **FROM REFERENCE TO MIXTURE TO MIXTURE TO MIXTURE AND BEYOND**
Kruijver, Maarten

17:30 **EXPLORING DNA INTERPRETATION SOFTWARE USING THE PROVEDIT DATASET**
Riman, Sarah

17:42 **ARE REPORTED LIKELIHOOD RATIOS WELL CALIBRATED?**
Hannig, Jan

18:00 **WORKING GROUPS MEETINGS**

Thursday 12th September 2019, Forum Hall

Session 5

Chairs: Mechthild Prinz, Jiří Drábek

8:30 **KEYNOTE LECTURE**
FORENSIC GENETICS AND DTC GENOMICS: FRIEND OR FOE?
Erlich, Yaniv

9:15 **DEVELOPING PRIORITIES FOR DISCUSSION AND OVERSIGHT OF THE RAPIDLY EVOLVING FIELD OF GENETIC GENEALOGY**
Phillips, Christopher

9:30 **THE EFFECTIVENESS OF FORENSIC GENEALOGY TECHNIQUES IN THE UNITED KINGDOM – AN EXPERIMENTAL ASSESSMENT**
Thomson, Jim

9:45 **FORENSIC GENEALOGY – PERFORMANCE OF DENSE SNP DATA TO TRACE DISTANT RELATIVES**
Kling, Daniel

10:00 **COFFEE BREAK (FOYER) & POSTER SESSION (SOUTH HALL 2)**

Session 6

Chairs: Mechthild Prinz, Jiří Drábek

11:00 **AN INTERNATIONAL CONSIDERATION OF A STANDARDS-BASED APPROACH TO FORENSIC GENETIC GENEALOGY**
Scudder, Nathan

11:12 **WHOLE GENOME SEQUENCING OF HUMAN REMAINS TO ENABLE GENEALOGY DNA DATABASE SEARCHES – A CASE REPORT**
Tillmar, Andreas

11:24 **ETHICAL, SOCIAL AND LEGAL ISSUES OF FAMILIAL SEARCHING: NEW AND OLD DEBATES**
Granja, Rafaela

11:36 **THE GENETIC IDENTIFICATION OF DEAD MIGRANTS IN THE MEDITERRANEAN SEA: THE LAMPEDUSA 2013 SHIPWRECK**
Bertoglio, Barbara

11:48 **RE-EVALUATION OF DNA BASED IDENTIFICATION RESULTS OF VICTIMS OF A TERRORIST ATTACK 25 YEARS LATER**
Corach, Daniel

12:00 **NEW ISO STANDARDS FOR FORENSICS: DNA "FREE" CONSUMABLES AND THE FORENSIC PROCESS**
Bastisch, Ingo

12:12 **REFLECTIONS AND EXAMPLES OF PROBLEMATIC REPORTING IN DNA CASES: THE NEED FOR ACCREDITED FORMATS AND CERTIFIED REPORTING COMPETENCE**
Hicks, Tacha

12:30 **COMPANY SYMPOSIUM BY PROMEGA**

13:00 **LUNCH**

Session 7

Chairs: Peter Schneider, Titia Sijen

14:30 **KEYNOTE LECTURE**
DNA TRANSFER: ASPECTS RELEVANT TO FORENSIC INVESTIGATIONS
van Oorschot, Roland

15:15 **TRANSFER, PERSISTENCE AND RECOVERY OF EPITHELIAL CELLS ON THE SKIN IN DIRECT AND SECONDARY TRANSFER SCENARIOS**
Fonneløp, Ane Elida

15:30 **MODELLING DNA TRANSFERS IN COMPLEX SCENARIOS**
Taylor, Duncan

15:45 **ASSIGNING FORENSIC BODY FLUIDS TO DNA DONORS IN MIXED SAMPLES BY TARGETED RNA/DNA DEEP SEQUENCING OF CODING REGION SNPS USING ION TORRENT TECHNOLOGY**
Ballantyne, John

16:00 **COFFEE BREAK (FOYER)**

Session 8

Chairs: Peter Schneider, Titia Sijen

16:30 **VISUALISING DNA TRANSFER: LATENT DNA DETECTION USING DIAMOND DYE**
Champion, Jessica

16:42 **IN AND OUT OF TOUCH: RELATIVE ACCUMULATION OF CELLULAR AND ACELLULAR "TOUCH DNA" FROM ENDOGENOUS AND EXOGENOUS SOURCES ON HANDS OVER TIME**
Burrill, Julie

16:54 **CHARACTERIZATION OF TISSUE-SPECIFIC BIOMARKERS WITH THE EXPRESSION OF CIRCRNAS IN FORENSICALLY RELEVANT BODY FLUIDS**
Yang, Qinrui

17:06 **BODY FLUID IDENTIFICATION USING MRNA – BETTER, FASTER, CHEAPER – WHAT METHOD IS BEST OR SHOULD A COMBINATION OF TECHNIQUES BE USED?**
Harbison, Sallyann

17:18 **PREDICTING THE ORIGIN OF FORENSICALLY RELEVANT BIOLOGICAL MATERIAL USING A MACHINE LEARNING APPROACH**
Iacob, Diana

17:30 **DEVELOPMENT OF A MIRNA BODY FLUID PREDICTION SYSTEM USING PROBABILISTIC APPROACHES**
Li, Zhilong

17:42 **PROTEOMIC GENOTYPING: USING MASS SPECTROMETRY TO INFER SNP GENOTYPES IN A FORENSIC CONTEXT**
Parker, Glendon

18:00 **GENERAL ASSEMBLY**

Friday 13th October 2019, Forum Hall

Session 9

Chairs: Leonor Gusmão, Halina Šimková

8:30 **KEYNOTE LECTURE**
BACKGROUND SELECTION AND BIASED GENE CONVERSION AFFECT MORE THAN 95 % OF THE HUMAN GENOME AND BIAS DEMOGRAPHIC INFERENCES
Pouyet, Fanny

9:15 **Y-PROFILE EVIDENCE: CLOSE PATERNAL RELATIVES AND MIXTURES**
Andersen, Mikkel Meyer

9:30 **INFERENCE OF ADMIXED ANCESTRY WITH ANCESTRY INFORMATIVE MARKERS**
Tvedebrink, Torben

9:45 **THE IMPACT OF IGNORING INBREEDING IN KINSHIP EVALUATIONS**
Kjelgaard Brustad, Hilde

10:00 **COFFEE BREAK (FOYER) & POSTER SESSION (SOUTH HALL 2)**

Session 10

Chairs: Leonor Gusmão, Halina Šimková

11:00 **STR SEQUENCE NOMENCLATURE: PROGRESS REPORT FROM THE STRAND WORKING GROUP**
Gettings, Katherine

11:12 **THE STRIDER REPORT ON QUALITY CONTROL OF AUTOSOMAL STR DATASETS – THE GOOD, THE NOT SO GOOD AND THE UGLY**
Bodner, Martin

11:24 **ADVANCING MITOCHONDRIAL GENOME DATA INTERPRETATION IN MISSING PERSONS CASEWORK**
Marshall, Charla

11:36 **CSY? A PANEL-BASED MPS APPROACH INCLUDING 12,523 Y-CHROMOSOME POLYMORPHISMS**
Claerhout, Sofie

11:48 **ANALYSIS OF RECOMBINATION AND MUTATION EVENTS FOR 12 X-CHR STR LOCI: A COLLABORATIVE FAMILY STUDY OF THE ITALIAN SPEAKING WORKING GROUP GE.F.I.**
Bini, Carla

12:00 **GENETIC PEOPLING OF PAKISTAN AND THE IMPACT OF HISTORICAL MIGRATIONS, ETHNIC CULTURES AND THE PRACTICE OF ENDOGAMY ON THE FORENSIC MATCH PROBABILITIES**
Anwar, Ijaz

12:12 **THE SCOPE AND LIMITATIONS OF THE LIKELIHOOD RATIO METHOD APPLIED TO STR DATA FOR DETERMINING GENETIC KINSHIP IN ANCIENT OR ISOLATED HUMAN POPULATIONS**
Zvenigorosky, Vincent

12:30 **LUNCH**

Session 11

Chairs: Adrian Linacre, Eugenia D'Amato

14:00 **KEYNOTE LECTURE**
USING MICROBIOME TOOLS TO ESTIMATE THE POSTMORTEM INTERVAL OF HUMAN REMAINS
Metcalf, Jessica

14:45 **ENVIRONMENTAL DNA TO ASSIST FORENSIC INVESTIGATIONS, COUNTER-TERRORISM, FRAUDULENT MEDICINES AND DRUG SEIZURES**
Young, Jennifer

15:00 **TAXONOMY-INDEPENDENT DEEP LEARNING MICROBIOME APPROACH FOR ACCURATE CLASSIFICATION OF FORENSICALLY RELEVANT HUMAN BIOMATERIALS USING TARGETED MPS**
Díez López, Celia

15:15 **PERFORMANCE OF ENVIRONMENTAL DNA METABARCODING IN SOIL TRACE MATCHING AND PROVENANCING**
Frøslev, Tobias Guldberg

15:30 **COFFEE BREAK (FOYER)**

Session 12

Chairs: Adrian Linacre, Eugenia D'Amato

16:00 **COLLABORATION ACROSS BORDERS TO IMPLEMENT A EUROPEAN DATABASE FOR CANINE STR IDENTIFICATION MARKERS**
Giangasparo, Federica

16:12 **MULTI-LOCUS DNA METABARCODING FOR AUTHENTICATION OF HIGHLY PROCESSED MEAT PRODUCTS COLLECTED IN SOUTH AFRICA**
Pietroni, Carlotta

16:24 **SPECIES IDENTIFICATION USING MASSIVELY PARALLEL SEQUENCING – DETECTING MULTIPLE SPECIES IN MIXED SOURCES**
Dellamico, Barbara

16:36 **SPECIES IDENTIFICATION IN ROUTINE CASEWORK SAMPLES USING THE SPINDEL KIT**
Pereira, Filipe

16:48 **WHOLE-GENOME SEQUENCING OF NEISSERIA GONORRHOEAE IN A FORENSIC TRANSMISSION CASE**
Gonzalez-Candelas, Fernando

17:00 **WHOLE TRANSCRIPTOME ANALYSIS OF AGED BIOLOGICAL CRIME SCENE TRACES**
Salzmann, Andrea

17:12 **PREVALENCE OF DNA IN VEHICLES: OPTIMIZING SAMPLING STRATEGY AND ACTIVITY LEVEL EVALUATION OF DNA TYPING RESULTS**
Kokshoorn, Bas

19:30 **CLOSING CEREMONY & CONGRESS DINNER (MUNICIPAL HOUSE – SMETANA HALL)**

Company Symposia

Thermo Fisher Scientific

Date: Wednesday, 11th September, 2019
Time: 12:30–13:20
Location: Forum Hall, 2nd floor

Validation of the latest forensic genetic technologies for the solution of complex cases

Speakers: Magdalena Marcińska, Instytut Ekspertyz Sądowych, Krakow, Poland
Ten.Col. CC RT inv. sc. Andrea Berti, Reparto Carabinieri Investigazioni Scientifiche di Roma – Sezione di Biologia, Italy

During this symposium the speakers will present their validation work with the newest Applied Biosystems™ systems for forensic genetics: the SeqStudio™ HID Genetic Analyzer and the Rapid HiT™ Rapid DNA system.

QIAGEN

Date: Wednesday, 11th September 2019
Time: 13:30–14:20
Location: South Hall 1B, 1st floor

Identifying the missing

Speakers: Mrs. Ingrid Gudmundsson, Sweden
Dr. Thomas J. Parsons, Director of Science and Technology, ICMP, The Hague, Netherlands

How a new NGS workflow is enabling missing persons identification and bringing closure to families around the world.

Promega Corporation

Date: Thursday, 12th September, 2019
Time: 12:30–13:20
Location: Forum Hall, 2nd floor

Streamlined Workflows for Forensic DNA Extraction and Analysis

Speakers: Stefan Kutranov, Promega UK - Gro Bjørnstad, Oslo University Hospital, Norway – Dr. Richard Zehner, University of Frankfurt, Germany

During this symposium you will hear about the Latest advances in STR Analysis and the forensics workflow from Promega, an Evaluation of Promega's Casework Direct Kit, Custom for DNA extraction from various casework samples, including a comparison of its performance to Chelex extraction, and Validation studies with the Maxwell® RSC 48 instrument.

ISFG Working Groups Meetings

Wednesday 11th September, 18:00 – 19:30

	Room
Polish Speaking WG	Club D
French Speaking WG	ISFG Board meeting room (room number 2.3)
English Speaking WG	Forum Hall
Spanish/Portuguese (GHEP)	South Hall 1A (9th – 10th September)
German Speaking WG	Club C
Italian Speaking WG	Club A
Chinese Speaking WG	Club B
Korean Speaking WG	LOC meeting room (room number 241)

Social Programme

Opening Ceremony & Scientific Prize Lecture

Tuesday – 10th September 2019 (18:30 – 20:00)
Prague Congress Centre, 2nd floor, Forum Hall

Included in the registration fees for full delegates (all categories) and accompanying persons. NOT INCLUDED in the pre-congress workshop registrations.

The ISFG 2019 Congress will be officially opened on 10th September 2019 with the Opening Ceremony held in the Forum Hall where we will be welcome by our hosts and hosting institution representatives. We sincerely invite all our participants to take part and listen to Prof. Dr. Manfred Kayser (Scientific Prize Lecture) talking about *Forensic appearance prediction from DNA: a journey through 10 years of scientific contributions* as well as enjoy the Light Art show prepared especially for this purpose.

Welcome Cocktail

Tuesday – 10th September 2019 (20:00 – 22:00)
Prague Congress Centre, 2nd floor, exhibition foyer

Included in the registration fees for full delegates (all categories) and accompanying persons. NOT INCLUDED in the pre-congress workshop registrations.

The ISFG 2019 Congress will be officially opened with the Opening Ceremony & Scientific Prize Lecture starting at 18:30 in the Forum Hall. Afterward, all participants are kindly invited to take part in the Welcome Cocktail. It is the perfect opportunity to catch up with old acquaintances and network with your colleagues. This is an informal evening prior to the serious scientific discussions. Light cocktail refreshment will be served.

Dress code: smart casual.

Welcome Cocktail is kindly supported by the City of Prague.

Closing Ceremony & Congress Dinner

Friday – 13th September 2019 (19:30 – 23:30)
Municipal House – Smetana Hall, nam. Republiky 1090/5, 111 21 Prague 1

NOT INCLUDED in the delegate registration, pre-booking necessary

The Municipal House has been one of the most significant public buildings in Prague for over a hundred years. After the city administration had purchased the plots where the Royal Court, the medieval seat of the Bohemian kings, used to be located, they announced an architectural competition for the Municipal House in 1903. Unsatisfied with the results of the competition, the city administration awarded this project to architects Antonín Balšánek and Osvald Polívka.

Enjoy the last evening of the Congress, closing ceremony and an unforgettable cultural event in one. Experience the city of Prague while enjoying dinner and entertainment, showcasing Prague's cuisine and arts.

Dress code: business attire.

Please note that transfers from and back to the venue won't be provided. For transfers from and back to the hotels *Holiday Inn* and *Corinthia Tower*, please stop by at the registration to sign in.

© Ivan Král

How to get there:

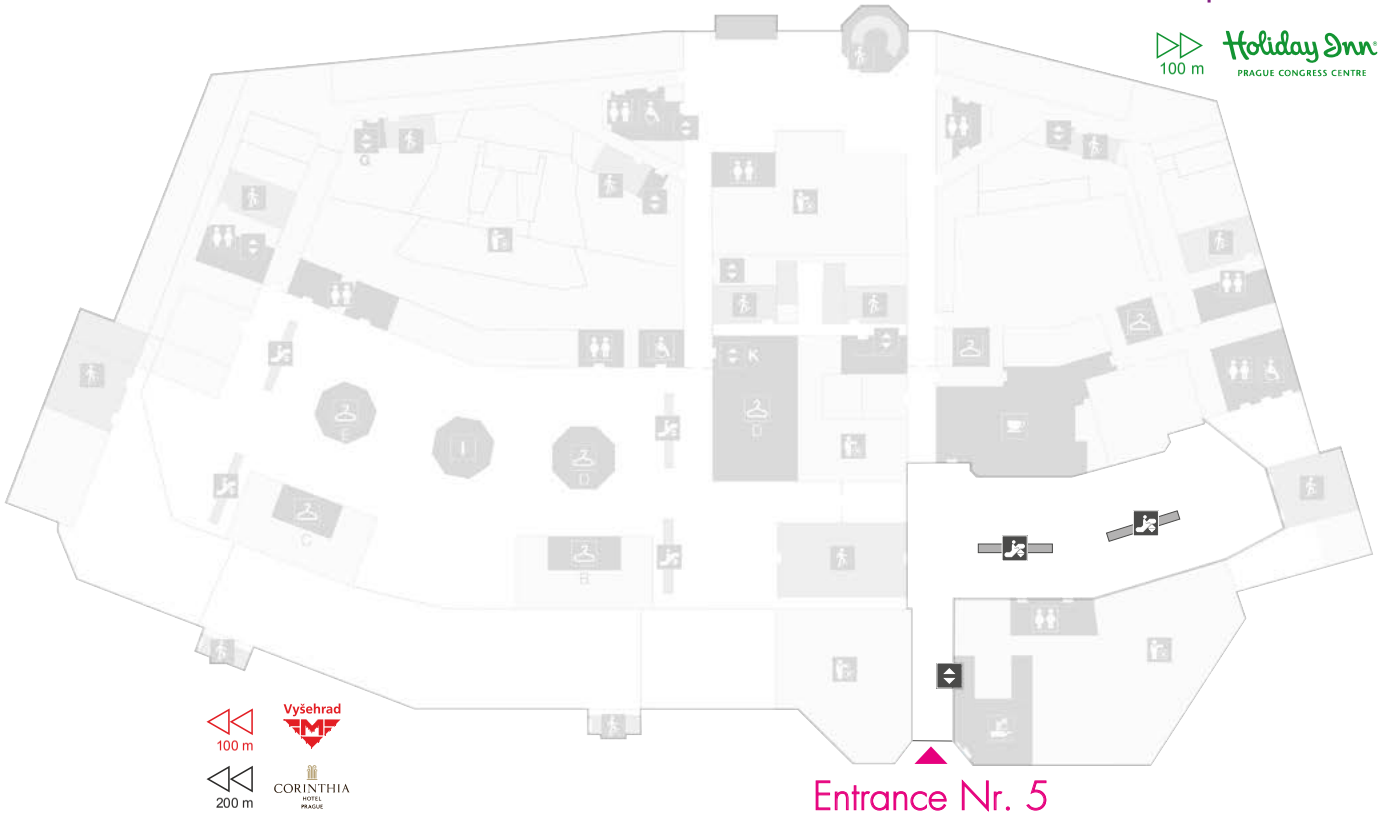
Metro C+B (15 minutes):

- *From the Prague Congress Centre take the Metro C (station Vyšehrad)*
- *to the station Florenc*
- *and change to Metro B (yellow line).*
- *Continue one stop to the station Náměstí Republiky.*
- *Walking distance to the Municipal House 150 m, 2 minutes.*

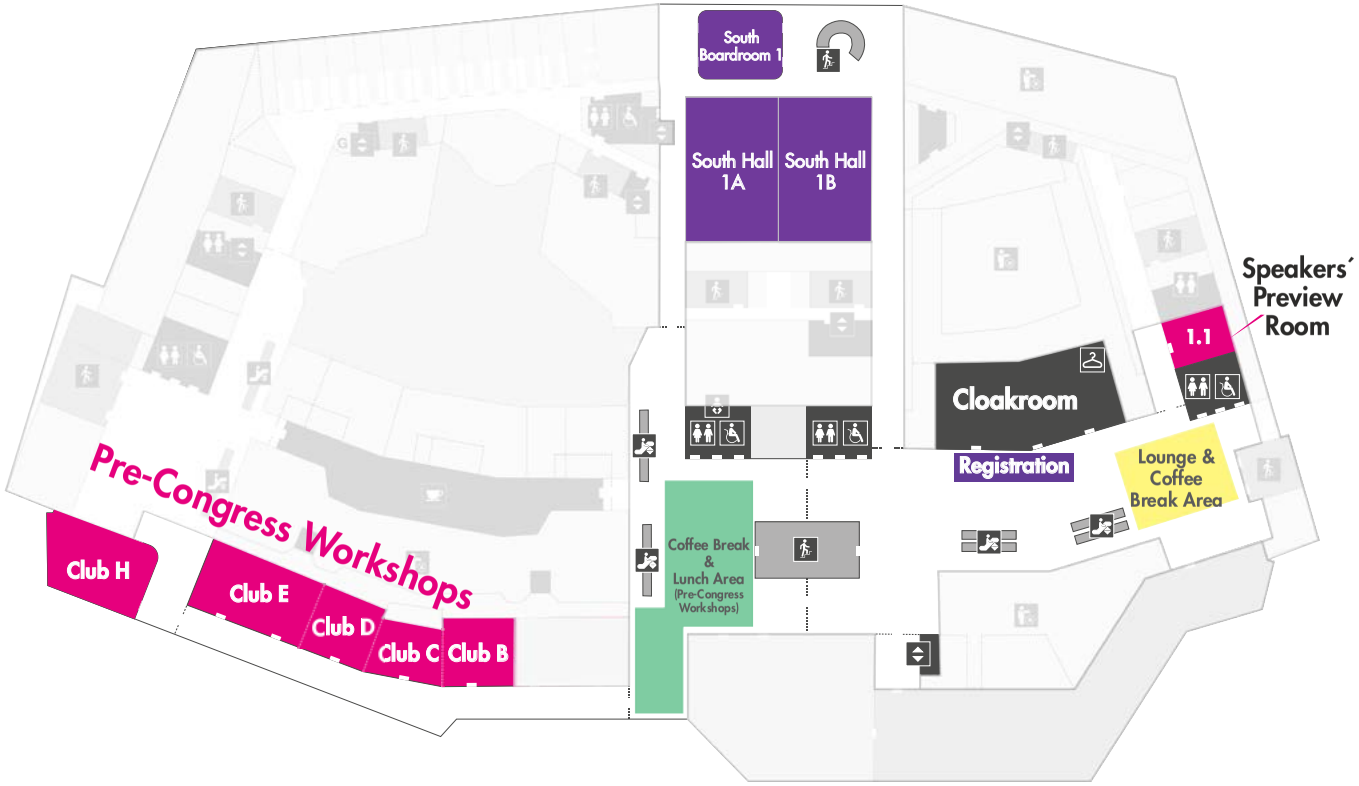
Prague City Tours

Don't forget to stop by the information kiosk of The Premiant City Tours located near the registration area. The staff will be happy to assist and inform you about the wide offer of guided tours that can be purchased separately at discounted prices.

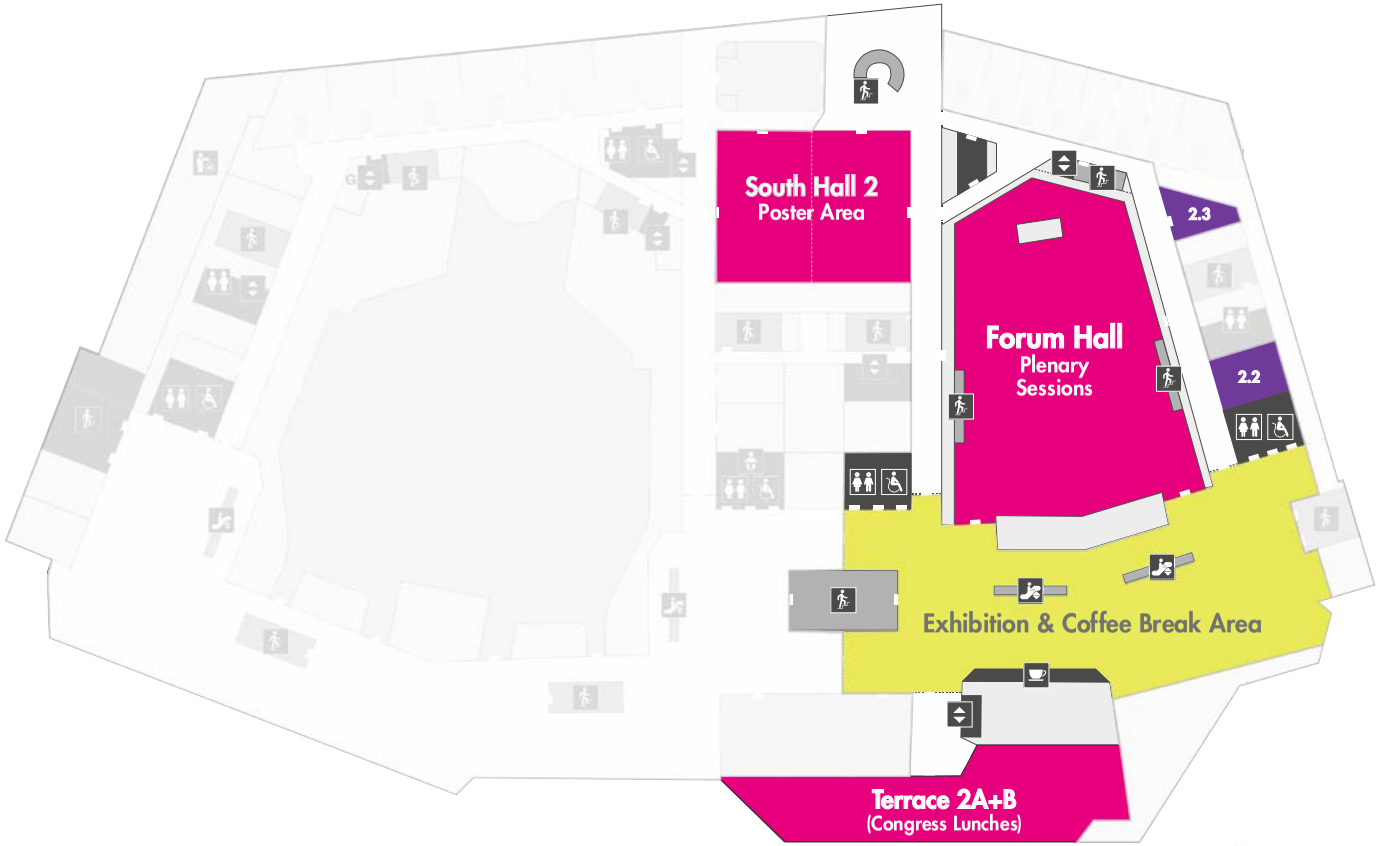
Floorplans



Ground Floor


South Boardroom 1
South Hall 1A
South Hall 1B
Speakers´ Preview Room
1.1
Cloakroom
Registration
Lounge & Coffee Break Area
Pre-Congress Workshops
Club H
Club E
Club D
Club C
Club B
Coffee Break & Lunch Area (Pre-Congress Workshops)

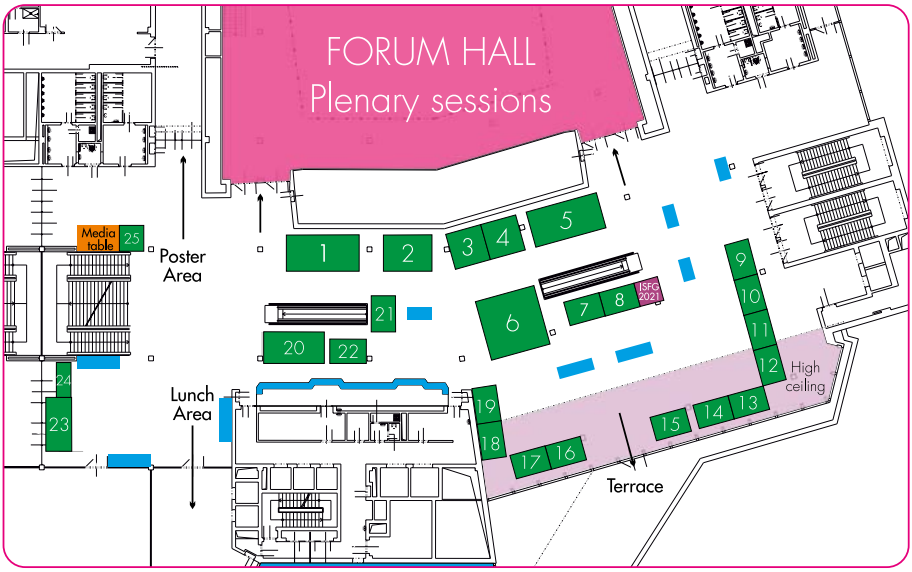
1st Floor


South Hall 2
Poster Area
Forum Hall
Plenary
Sessions
2.3
2.2
Exhibition & Coffee Break Area
Terrace 2A+B
(Congress Lunches)

2nd Floor

Exhibition Floorplan

2nd Floor



List of Exhibitors

1. QIAGEN
2. Verogen
3. Carolina Biosystems
4. MENARINI SILICON BIOSYSTEMS
5. Promega
6. Thermo Fisher Scientific
7. GENETEK BIOPHARMA
8. Qualitype GmbH
9. Purdue University Northwest
10. HEALTH Gene Technologies
11. AXO Science
12. Miltenyi Biotec GmbH
13. NicheVision Forensics LLC
14. SERATEC GmbH
15. Forensic DNA Service
16. STRmix
17. MGI
18. GORDIZ
19. Independent Forensics
20. Spot On Sciences
21. GE Healthcare
22. CLIMS - VERISIS
23. HiMedia Laboratories GmbH
24. Xceltis
25. Bio-Port

Acknowledgment

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CSSFG

PRA HA PRA GUE PRA GA PRA G

Company Profiles

Booth 1: QIAGEN

Contact Person:	Inga Gerard
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Website:	www.qiagen.com

QIAGEN is a global leader in Sample to Insight solutions in rapidly growing fields of molecular diagnostics and life sciences. We are at the forefront of human identity and forensic testing, and have actively supported the development of global forensic standards. Our product portfolio offers a full range of forensic DNA grade chemistries combined with high-quality instruments that address the diverse needs and challenges of crime scene investigation and human identification, covering every step in the workflow, from sample to result. QIAGEN quality, efficient solutions, innovative bioinformatics tools and comprehensive validation services help customers unlock valuable molecular insights. This is how we make improvements in life possible.

Booth 2: Verogen

Contact Person:	Verogen
Telephone:	+1 858 285 4101 (Global) +44 (20) 399 28411 (United Kingdom) +1 833 837 6436 toll-free (North America)
Email:	info@verogen.com
Website:	www.verogen.com

Verogen serves those who pursue the truth using genetic tools. Powered by Illumina's gold standard technology and working in partnership with forensic laboratories, we are advancing massively parallel sequencing to help unlock the true potential of forensic genomics.

Booth 3: Carolina Biosystems

Contact Person:	Marek Minarik
Telephone:	+420 226 203 536
Email:	info@carolinabiosystems.com
Website:	www.carolinabiosystems.com

We supply original consumables for DNA sequencing and fragment analysis including polymers, kits, size standards, buffers etc. We also provide top-quality service and maintenance for ABI PRISM® line of capillary genetic analyzers. As an exclusive distributor for Softgenetics in Eastern Europe, we offer dedicated bioinformatics solutions for forensics (GeneMarker®HID).

Booth 4: MENARINI SILICON MENARINI

Contact Person:	Massimo Scrobogna
Telephone:	+39 3703344705
Email:	mscrobogna@siliconbiosystems.com
Website:	www.siliconbiosystems.com/forensics

Menarini Silicon Biosystems is a biotech company, which developed the DEPArray™ system. The instrument can work with low input and separates forensic samples composed of epithelial cells, white blood cells, and sperm cells into 100% pure cell type specific preparations, enabling clear-cut genetic profiles trough Single Cell Forensics.

Booth 5: Promega Corporation

Contact Person:	Nicole Siffling
Telephone:	+49 621 8501283
Email:	nicole.siffling@promega.com
Website:	www.promega.com

Promega Corporation is a global leader in the development, distribution and sale of products for human identification. Promega offers flexible, reliable solutions for all stages in the DNA laboratory workflow, from pre-processing through STR analysis. Joining our workflow kit and reagent solutions are two CE instruments, as well as a new Maxwell instrument, our Maxwell RSC 48, which is capable of processing 48 samples in less than 30 minutes. Also available is the Maxprep Liquid Handler, which comes with all the methods preloaded and offers sample tracking and traceability through each step of the forensics workflow.

Booth 6: Thermo Fisher Scientific

Contact Person:	Caroline Reddick
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Website:	www.thermofisher.com/hid

Thermo Fisher Scientific is the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer. Through our Applied Biosystems brand, we offer an unmatched combination of innovative technologies, purchasing convenience and support. As a worldwide leader in forensics, we deliver some of the most comprehensively validated products, expertise, and application support available to the human identification community. From our trusted reagents, through high-performance genetic analyzers and software, to in-depth training and on-site technical assistance, our integrated systems work together to help maximize your productivity and enable your success.

Booth 7: GENETEK BIOPHARMA

Contact Person:	Michael Onwuatuegwu
Telephone:	+49 30 63927050
Email:	onwuatuegwu@genetek.de
Website:	www.genetek-biopharma.com

GENETEK Biopharma is located in the Science City of Adlershof in Berlin, Germany.
The scope of the company includes Development, Production, Marketing and Distribution of in-vitro diagnostic kits for detection of genetic diseases and chromosomal anomalies, Human DNA profiling kits used in forensics and/or kinship issues and Horse identification kits.

Booth 8: Qualitype GmbH

Contact Person:	Dr. Isabell Hilger
Telephone:	+49 351 88382812
Email:	i.hilger@qualitype.de info@qualitype.de
Website:	www.qualitype.de/de/start

As an internationally operating software company, we implement customised IT solutions – in use by customers in over 30 countries worldwide. These include classic off-the-shelf software, highly individualised software systems and central- or self-operated database solutions for laboratory and manufacturing applications.

Booth 9: Purdue University Northwest

Contact Person:	George F. Kacenga
Telephone:	+1-724-454-8734
Email:	gkacenga@pnw.edu
Website:	www.pnw.edu

As part of the Purdue University system, Purdue University Northwest (PNW) is a fully accredited comprehensive university proud to offer more than 70 areas of study. PNW offers one-of-a-kind proximity to active manufacturing, industry, the relaxing Lake Michigan shorefront, and the nearby opportunities of the third largest city in the United States – Chicago!

Booth 10: HEALTH Gene Technologies

Contact Person:	Ausma Bernot
Telephone:	+86 (0)574 2797 8799
Email:	ausma.b@healthgenetech.com
Website:	www.healthgenetech.net

Health Gene Technologies is a developer and manufacturer of proprietary molecular diagnostics products for forensic STR testing. Established in 2011, Health Gene Technologies has taken on the challenge to bring in further options of routine STR testing kits alongside innovative STR analysis reagents to forensic laboratories.

Booth 11: AXO Science

Contact Person:	Samuel Serraz
Telephone:	+33 6 07 44 51 10
Email:	samuel.serraz@axoscience.com
Website:	www.axoscience.com

STK Sperm Tracker is the perfect solution for semen screening both in the lab and directly on the crime scene.
STK Lab: specific, sensitive, STK Lab is NOT toxic and is ready to use.
STK Spray: spray the scene directly with and reveal unsuspected semen stains on the field.

Booth 12: Miltenyi Biotec GmbH

Contact Person:	Carola Kluefer
Telephone:	+49 2204 83066619
Email:	carolak@miltenyibiotec.de
Website:	www.miltenyibiotec.com

Miltenyi Biotec provides products that advance biomedical research and cellular therapy. Our innovative tools support research from basic research to translational research to clinical application. Our 30 years of expertise includes immunology, stem cell biology, neuroscience, and cancer. Miltenyi Biotec has 2,500 employees in 28 countries.

Booth 13: NicheVision Forensics, LLC

Contact Person:	Victor Meles
Telephone:	+1-330-252-2711
Email:	vic@nichevision.com
Website:	www.nichevision.com

NicheVision develops and commercializes software solutions for forensic DNA human identity including tools like STRmix™, ArmedXpert™ and DNAXpress™, and most recent releases including PACE™ using artificial intelligence to automatically determine number of contributors in mixture and MixtureAce™ for typing and resolving MPS mixture data.

Booth 14: SERATEC GmbH

Contact Person:	Alexander Griberman
Telephone:	+49 551 504800
Email:	contact@seratec.com
Website:	www.seratec.com

We manufacture tests for the detection of forensically relevant body fluids such as seminal fluid, saliva, blood and menstrual blood. They are rapid, easy in use and compatible with the subsequent DNA extraction and STR typing techniques.

Booth 15: Forensic DNA Service

Contact Person:	Dr. Daniel Vanek
Telephone:	+420 603 979 915
Email:	daniel.vanek@fdnas.cz
Website:	www.fdnas.cz

Forensic DNA Service provides the services of paternity and genealogical testing, forensic DNA testing, specie identification of unknown biological material, individual identification of selected species and contracted research. Forensic DNA Service distributes products of the following companies: ZymoResearch, Eppendorf, Biomatrica, Seratec, COPAN, BIOO Scientific, and NZYTech.

Booth 16: STRmix™

Contact Person:	Adam McCarthy
Telephone:	+44(0)7590 405 501
Email:	adam.mccarthy@esr.cri.nz
Website:	www.strmix.com

STRmix™ uses a world leading, fully continuous approach for the interpretation of DNA profiles and is now in over 150 laboratories globally. Recently we have released DBLR™ for the rapid calculation of likelihood ratios. Please come and see us for a demonstration of our latest release, STRmix™ v2.7, and DBLR™.

Booth 17: MGI

Contact Person:	Xiaoxi Guo
Telephone:	+86 13428999426
Email:	shirley.guo@genomics.cn
Website:	www.en.mgitech.cn

MGI Tech Co., Ltd. (MGI), a subsidiary of BGI Group, is committed to enabling effective and affordable healthcare solutions for all. Based on its proprietary technology, MGI produces sequencing devices, equipment, consumables and reagents to support life science research, medicine and healthcare.

Booth 18: GORDIZ

Contact Person:	Vladimir Orekhov
Telephone:	+7 903 799 38 72
Email:	orekhov@gordiz.ru
Website:	www.gordiz.com

GORDIZ Ltd. – biotechnology company that develops and manufactures the reagents for forensics and animal genetics. We developed a unique range of solutions in the field of DNA identification in close cooperation with forensic laboratories covering all the stages of analysis – from DNA extraction to fragment and sequencing.

Booth 19: Independent Forensics

Contact Person:	Dina Mattes
Telephone:	+1 708-234-1200
Email:	info@ifi-test.com
Website:	www.ifi-test.com

Solutions for your most difficult forensic DNA cases: touch and sexual assault evidence.
Fully accredited ISO17025 facility develops products to increase sensitivity of DNA profiling & accurately identify body fluids to triage cases. Confirmatory tests for human blood, semen, and sperm. The most sensitive/scientifically justified tests for saliva, urine and feces. ONETOUCH kits for obtaining DNA profiles from fingerprints, tape lifts, and touched items designed to fully integrate your latent section. AMPLICON Rx for repairing data from partial profiles.
On-site demonstrations/workshops/training/installations/validation/microscope systems for forensic laboratories world-wide.

Booth 20: Spot On Sciences

Contact Person:	Nathalie Donche
Telephone:	+415 347-3402
Email:	nathalie.donche@spotonsciences.com
Website:	www.spotonsciences.com

Spot On Sciences is a medical device company offering groundbreaking improvements in bio-specimen sample collection, storage, and transport. Unmatched by any other products on the market, their signature devices are unique in offering innovative sample protection, increased safety, stability, longevity, and speed. With the assistance of industry leaders, Spot On Sciences is moving toward making its devices global standard of care.

Booth 21: GE Healthcare

Contact Person:	Olga Bogonina / Inga Gerard
Email:	olga.bogonina@ge.com inga.gerard@qiagen.com
Website:	www.gehealthcare.com

GE Healthcare is excited for QIAGEN to take its Whatman FTA technology to the next level and advance the field of forensic science. Our forensic portfolio is now part of QIAGEN, and you can visit booth #1 to learn more from the experts.

Booth 22: CLIMS - VERISIS

Contact Person:	Murat Isik
Telephone:	+90 5556044010
Email:	misik@verisis.co
Website:	www.verisis.co

VERISIS A.S. is a 30 years old company mainly focused on developing solutions, consultancy and training based on Forensic Laboratories. Our main solution CLIMS – Forensic Laboratory Solutions Platform is a Case and Workflow Management solution together with DNA Banking & Matching and Kinship & Paternity Analysis.

Booth 23: HIMEDIA LABORATORIES PVT LTD

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Website:	www.himedialabs.com

HiMedia possesses excellent hi-tech expertise for manufacturing a complete range of standard microbiological, chromogenic, HiVeg™, animal & plant tissue culture media, Molecular biology, laboratory chemicals & biochemicals products. We are ISO, CE Mark, WHO-GMP certified, US-FDA registered company exporting to over 130 countries, specializing in Automated Instrumentation solutions in Molecular Biology.

Booth 24: Xceltis GmbH

Contact Person:	Steffen Roth
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Email:	info@xceltis.de
Website:	www.xceltis.de

Xceltis GmbH is a privately held company founded in 2008 and headquartered in Mannheim, Germany, that markets pioneering products for life science research and routine diagnostics. This includes both laboratory equipment and reagents. One of these innovative products is the **"Erase Sperm Isolation Kit"**, that is used for forensic investigations.

Booth 25: Bio-Port Europe

Contact Person:	Eva Mitášová, PhD.
Telephone:	+420 602 251 901
Email:	orders@bio-port.cz
Website:	www.bio-port.cz

Bio-Port Europe is the Czech distributor company of premier brands like Thermo Fisher Scientific, Bio Molecular Systems, Jena Bioscience or Apogee. We provide advancing solutions for life sciences research, medical research and clinical laboratories.

General Information

ABSTRACTS

The ISFG 2019 Abstracts USB is given to each delegate upon registration; it contains all Abstracts that were accepted by the Scientific Programme Committee as well as those submitted by keynote speakers and presenters of invited sessions.

BADGES

Along with your registration, you will receive your name badge, which must be worn when attending all sessions and official congress programme. Participants without a badge will not be allowed to enter sessions.

CASH POINTS

A Komerčni Banka cash point is located right between the venue entrances no. 5 and 6, and there is a Česká spořitelna cashpoint next to the underground station Vyšehrad.

CERTIFICATE OF ATTENDANCE

The certificates of attendance will be sent to all attending delegates by email after the congress.

CLOAKROOM

A cloakroom is located on the first floor near the registration area. The service is provided free of charge to all registered participants.

CURRENCY

The Czech currency is called the Czech crown (CZK). Exchange offices are located all around the city centre (exchange offices, banks, post offices).

CONFERENCE LANGUAGE

The congress language is English. No simultaneous translation is provided.

DISCLAIMER

The Congress Organizers have taken all reasonable care in making arrangements for the congress, including accommodation and social events. In the event of unforeseen disruptions, neither ISFG, CSSFG, and C-IN the Conference Organizer nor their agents can be held responsible for any losses or damages incurred by delegates. The programme is accurate at the time of printing, but organizers reserve the right to alter the programme if and when deemed necessary. The Congress Organizers act as agents only in securing hotels, transport and travel services and shall in no event be liable for acts or omissions in the event of injury, damage, loss, accident, delay or irregularity of any kind whatsoever during arrangements organized through contractors or by the employees of such contractors. Hotel and transportation services are subject to the terms and conditions under which they are offered to the general public. Delegates should make their own arrangements with respect to personal insurance. The Congress Organizers reserve the right to make changes as and when deemed necessary without prior notice to the parties concerned. All disputes are subject to resolution under Czech law.

DOCTOR / FIRST AID / PHARMACY

No first aid is available at the Prague Congress Centre. In case of emergency, please contact the Registration desk or dial 112 to get specialized help.

A Medical Centre (Poliklinika Budějovicka) is located at the station Budějovicka, three underground stations from the station Vyšehrad (the location of the venue).

MEDICON A. S. – POLIKLINIKA BUDĚJOVICKA

Antala Staška 1670/80
140 46 Praha 4
Tel.: +420 261 006 111

EMERGENCY PHONE NUMBERS

General emergency	112
Police	158
Fire department	150
Emergency medical service	155

EXHIBITION OPENING HOURS

Tuesday, 10th September	19:30 – 21:30
Wednesday, 11th September	09:30 – 18:00
Thursday, 12th September	09:30 – 18:00
Friday, 13th September	09:30 – 17:30

FOOD AND BEVERAGES

Coffee breaks and lunches are included in the pre-congress and congress registration fee and will be served at designated times within the coffee break and lunch stations.

INSURANCE AND LIABILITY

The Congress Organizers will accept no liability for personal injuries sustained by or for loss or damage to property belonging to conference participants, accompanying persons either during or as a result of the conference or during all tours and events. Upon registration participants accept this proviso. Participants are strongly advised to seek insurance coverage for health and accident, lost luggage and trip cancellation.

INTERNET

Free Wi-Fi internet connection is available throughout the congress premises.
Network name: **ISFG2019**
Password: **ISFG2019**

LOST & FOUND

A lost and found service is available at the information desk at the registration.

MESSAGE BOARD / JOBS BOARD

This is located on the ground floor, next to the Registration desk, and is available for all delegates to use.

MOBILE APPLICATION

CONGRESS APP

Stay updated and download the **ISFG 2019** congress app via Apple app store or Google Play Store. Once logged in, you can make use of the app every day, any time…

SEARCH THE CONGRESS PROGRAMME

- View individual abstracts
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- Search by keyword
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- See the venue floorplans
- Send messages to other congress participants
- Receive notifications from congress organizers

To use the full range of features, please note you will need to use the password/code upon the first login. The code and login procedure have been emailed to you by the congress secretariat. If you are unable to locate your login information, the registration desk staff will be happy to provide assistance.

INTERACTIVE SCIENTIFIC PROGRAMME AND INDIVIDUAL PLANNING

Full program details are available in the section: Scientific Program – Create your own personalized schedule for the ISFG 2019 Congress:

- Add session to My program
- Add the presentation to My program

To view your personalized program, use the My Program button at the bottom right corner of your screen within the Scientific Program section.

ATTENDEE PROFILES

Each pre-registered delegate is featured within the Attendee list. If you wish you can customize and update your own delegate profile by adding a website, a profile picture and short bio. To do so, click the blue "hamburger" button at the top left corner of your main screen and click the account email address (first item in the list). Speakers can also edit or delete biographies (submitted during abstract submission and published automatically from the database) as desired.

SEND MESSAGES TO OTHER PARTICIPANTS

Take advantage of networking with ISFG 2019 participants – search within the attendees and speakers list and send messages within the app to selected contacts. To send a message to selected attendee, click his name in the list and then click the blue envelope button () at the top right corner of the screen. Note: Attendees who are available and logged-in are highlighted with a blue dot beside their name in the Attendee List and are available for messaging. No contact information is visible to delegates and communications are all carried out in a closed environment only available to those with password access.

OFFLINE OPTIONS

The ISFG 2019 app is available offline except the following features:

- in-app messaging
- all external links (marked with a link icon)
- updating content
- receiving announcements

UPDATING THE APPLICATION CONTENT

The application updates the content automatically in the background upon each app restart (static meeting poster appears on the screen). Alternatively, you can force the application to update the content by pressing the last button in the list on the main screen – "Refresh event data". Each menu item containing updated data will be labelled automatically.

MOBILE PHONES

Participants are kindly requested to keep their mobile phones turned off/muted in all meeting rooms while sessions are being held.

POSTERS

The Poster Area is placed on the second floor (South Hall). For more information about Poster Sessions please check respective pages in this Programme book (page number 9).

SPEAKERS' PREVIEW ROOM – UPLOADING YOUR PRESENTATION ONSITE

Your presentation must be handed over to the technicians in the SPEAKERS' PREVIEW ROOM (located on the first floor near the registration area) as much in advance as possible, but no later than TWO HOURS BEFORE the beginning of the corresponding session. The presentation for an early morning session must be handed over the day before.

SPEAKERS' PREVIEW OPENING HOURS:

Monday 9th September	8:00 – 18:00
Tuesday 10th September	8:00 – 20:00
Wednesday 11th September	7:30 – 19:00
Thursday 12th September	7:30 – 19:00
Friday 13th September	7:30 – 17:00

PROGRAMME CHANGES

The Congress Organizers cannot assume liability for any changes in the programme due to external or unforeseen circumstances.

REGISTRATION OPENING HOURS

Monday 9th September	8:00 – 18:00
Tuesday 10th September	8:00 – 20:00
Wednesday 11th September	7:30 – 19:00
Thursday 12th September	7:30 – 19:00
Friday 13th September	7:30 – 18:00

Registration hotline: +420 724 566 445

REGISTRATION DESK

The Registration Desk is located on the first floor.

CONGRESS FEE INCLUDES:

- Admission to all scientific sessions, exhibition and poster area
- Congress bag with all materials incl. programme book, abstract book (USB)
- Admission to Welcome Cocktail
- Coffee breaks and lunches during main congress days
- Prague public transport ticket valid throughout the congress dates

WORKSHOP REGISTRATION FEE INLCUDES:

- Admission to pre-congress workshops
- Coffee breaks and lunches during pre-congress day(s)

SHOPPING HOURS

Most shops in Prague are open from 09:00 to 18:00, Monday through Saturday. Shops in the city centre are usually open from 09:00 – 20:00, Monday through Sunday.

SMOKING POLICY

Please note that smoking is not permitted in the venue.

TAXI

The most comfortable option is to use one of many taxi services mobile applications. Czech app "Liftago" connects several taxi providers in one application. Install and use it as it is safe and reliable. www.liftago.com.

Uber works in Prague properly as well.
Other: AAA (+ 420 14 014),
City Taxi (+420 257 257 257) or
Speed Cars (+420 224 234 234).
Boarding charge: approximately 40 CZK.

TRANSPORTATION

With your free ISFG transport ticket you can travel where ever you want around Prague using metro, tram, bus, train, funicular to Petrin or our nice little ferries. www.dpp.cz/en

VENUE

Prague Congress Centre
5. kvetna 65
140 21 Prague 4
Czech Republic

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Time: 13:30–14:20

Location: South Hall 1B, 1st floor, Prague Congress Centre

Agenda

13:30 – 13:35	**Welcome**
13:35 – 13:45	**How missing persons identification enables the families of the missing to move on. A personal story.** Speaker: Mrs. Ingrid Gudmundsson, Sweden
13:45 – 14:15	**Development of a large, massively parallel sequencing SNP panel for missing persons identification** Speaker: Dr. Thomas J. Parsons, Director of Science and Technology, International Commission on Missing Persons (ICMP), The Hague, Netherlands
14:15 – 14:20	**Wrap up**

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