



## **TUESDAY, SEPTEMBER 15**

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16:00 - 18:00 **REGISTRATION**

18:00 - 18:30 **OPENING CEREMONY**

18:30 - 19:00 ISFG SCIENTIFIC PRIZE 2007 LECTURE:  
**The X-chromosome in forensic genetics.**  
*Prof. Dr. Habif Reinhard Szibor*

19:00 Welcome Reception

## **WEDNESDAY, SEPTEMBER 16**

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08:30 - 10:00 **Qiagen Symposium**

10:00 - 10:30 Coffee break

### **Session 1** | Chairperson: *Niels Morling*

10:30 - 11:15 CONFERENCE:  
**SNP analysis of ancestry and pigmentation: recent advances and caswork applications.** *Dr. Chris Phillips, PhD*

11:15 - 12:30 **POSTER SESSION 1 (P 001 - P 110)**

- P 001** A review of low template STR analysis in casework using the DNA SenCE post-PCR technique.
- P 002** Increased Capillary Electrophoresis Injection Settings as an Efficient Approach to Increase the Sensitivity of STR Typing.
- P 003** Modification of a commercially available kit for the improvement of PCR efficiency.
- P 004** When anthropometry fails: Fingerprint genotyping.
- P 005** Characteristics of a Modified STR Amplification Approach for Severely Degraded Skeletal Elements.
- P 006** Evaluation of reliability of STR typing in human colon carcinomas tissues used for identification purpose.
- P 007** Three allele pattern in immortalized cell line detected by STR typing.
- P 008** Effect of low-dose radiation on mutation rates of STR loci commonly used in forensic casework.
- P 009** Allelic Alterations of STRs in Archival Paraffin Embedded Tissue as DNA Source for Paternity Testing.

- P 010** The STR Profiling in Formalin Fixed and Paraffin Embedded Tissues.
- P 011** Forensic STR Analysis Reveals DNA Contamination Previously Undetected During Clinical Analysis of Chronically Inflamed Tissues.
- P 012** Validation of the MiniFiler Kit in archaeological samples.
- P 013** Analysis of AmpFLSTR® MiniFiler™ loci and its forensic application.
- P 014** Development of two new miniSTR multiplexes assay for typing archival Bouin's fluid-fixed paraffin-embedded tissues
- P 015** MiniSTR concept - Q11.
- P 016** Characterization of NonCodis Mini STR loci on hair, fingerprint and ancient bone samples.
- P 017** PowerPlex® 16 HS System: Increases to Genotyping Success Rates.
- P 018** Concordance Testing with New STR Kits.
- P 019** The Single Most Polymorphic STR Locus: SE33 Performance in U.S. Populations.
- P 020** Development and Validation of a Next Generation-STR Pentaplex.
- P 021** Validation of the AmpFSTR® SEfiler Plus kit for forensic STR analysis.
- P 022** Uses of the NIST 26plex STR Assay for Human Identity Testing.
- P 024** Construction of Four Fluorescence labeled Multiplex Typing System for D9S1122/D10S1435/D17S1301 MiniSTR Loci and Evaluation of Its Forensic Application.
- P 025** Construction and application of four fluorescence labeled multiplex typing system for 3 miniSTR loci.
- P 026** Development of two new autosomal STR multiplex systems as a supplemental tool with other commercial kits.
- P 027** Automation of statistical interpretation with R Software applied to validation of AmpFLSTR® Next Generation Multiplex™ (Applied Biosystems).
- P 028** Power Plex 16 HS®: Internal validation of a new tool for genetic analysis of forensic and parentage testing.
- P 029** Integration of the AmpFLSTR Identifier PCR Amplification Kit with SRY-specific primers for gender identification.
- P 030** Development of PCR Internal controls (PICs) for STR Profiling.
- P 031** Observation of triallelic patterns in autosomal STRs during routine casework.
- P 032** Characterisation of twelve new alleles in the D18S51 STR system.
- P 033** Further allelic variation at the STR-loci ACTBP2 (SE33), D3S1358, D8S1132, D18S51 and D21S11.
- P 034** A X-chromosome STR hexaplex as a powerful tool in deficiency paternity cases.
- P 035** Optimization and Validation Studies of The Mentype® Argus X-8 kit for Forensic Cases.
- P 036** Sequence polymorphisms at the DXS6789, DXS8377 and DXS101 loci in three Asian populations.
- P 037** Updated allelic structures of the DXS10135 and DXS10078 STR loci.
- P 038** Y-STR analysis of degraded DNA using a reduced size amplicon multiplex.
- P 039** Unexpected patterns in Y-STR analyses and implications for profile identification.
- P 040** Validation of the new Y-miniplex system for use in forensic casework.
- P 041** Development and evaluation of multiplex Y-STR assays for application in molecular genealogy.
- P 042** Y-STR mutational rates determination in South Portugal Caucasian population.
- P 043** Moving from male lineage characterization to male individual identification using Y-chromosome DNA-analysis.

- P 044** Adaptation and evaluation of the PrepFiler™ DNA extraction technology in an automated forensic DNA analysis process with emphasis on DNA yield, inhibitor removal and contamination security.
- P 045** Validated Automated Systems - LGC Introduces Change the Easy Way.
- P 046** A Dedicated Automated System for Extraction, Quantification and STR Amplification of Forensic Evidence Samples.
- P 047** Automated quantifiler® quantitative PCR setup, template normalization and PCR setup using HID EVOLUTION™ qPCR/STR setup on trace evidence samples.
- P 048** Automated extraction of DNA from reference samples from various types of biological materials on the Qiagen BioRobot® Ez1.
- P 049** Automated washing of FTA-card punches and PCR setup for reference samples using a LIMS-controlled Sias Xantus Automated Liquid Handler.
- P 050** Automated extraction of DNA and PCR setup using a Tecan Freedom EVO® liquid handler.
- P 051** Customizing a commercial laboratory information management system for a forensic laboratory.
- P 052** The Fully Automated DNA Extraction with the QIASymphony SP - Validation and first experiences in Forensic Case Work.
- P 053** A Production system to generate Genetic Database information from Buccal Swab cells on FTA® Paper.
- P 054** Successful STR and SNP typing of FTA-card samples with low amounts of DNA after DNA extraction using a Qiagen BioRobot® Ez1.
- P 055** Automated DNA extraction of forensic samples using the QIASymphony platform : estimations of DNA recovery and PCR inhibitor removal.
- P 056** Automated reaction setup of quantitation PCR, STR and capillary electrophoresis on the QIAgility.
- P 057** Performance evaluation of the new EZ1 Advanced XL for forensic applications.
- P 058** Efficiency of DNA IQ System in recovering semen DNA from cotton swabs.
- P 059** A Novel Platform for the Modular Integration of Forensic Assay Setup and Medium- to High-Throughput Purification of Nucleic Acids.
- P 060** Results of the 2009 Paternity Testing Workshop of the English Speaking Working Group.
- P 061** Results of the 2008 Colombian Paternity Testing Quality Control Exercise.
- P 062** Sequencing of mitochondrial DNA and the problem of human specificity.
- P 063** A new technology in mtDNA Sequencing: success rates vs time.
- P 064** Optimization and Validation of 10 Mitochondrial DNA SNPs using SNaPshot Kit.
- P 065** MTexpert™, an Automated Software System for Forensic Mitochondrial DNA Data Analysis.
- P 066** Comparison of the Plexor® HY System, Quantifiler and Quantifiler Duo Kits using the Roche LightCycler 480 System and the ABI 7900 Real time PCR Instrument.
- P 067** Quantifiler™ Human DNA Quantification Kit (AB) as a screening kit for DNA profiling.
- P 068** Direct quantitation of genomic DNA from saliva spotted FTA® by Real-Time PCR.
- P 069** Fast PCR amplification of AmpFLSTR Identifiler ( 2nd report).
- P 070** Rapid Amplification of Commercial STR Typing Kits.
- P 071** Direct Amplification of STRs from Blood or Buccal Cell Samples.

- P 072** Rapid STR analysis of single source DNA samples in 2 hours.
- P 073** Preliminary trials of low volume (1µl) PCR amplification using AmpliGrid (AG480F) slides.
- P 074** Validation of a microchip electrophoresis system as a DNA amplification control.
- P 075** MiniSTRs: a powerful tool to identify genetic profiles in samples with small amounts of DNA.
- P 076** Increased sensitivity for amplified STR alleles on capillary sequencers with BigDye® XTerminator™.
- P 077** DNA Typing From Lipstick Prints Left On The Skin.
- P 078** SNPs in Paternity Investigations: The Simple Future.
- P 079** Internal validation of 29 autosomal SNP-multiplex with ABI 310 Genetic Analyzer.
- P 080** ABO Genotyping by Duplex Amplification and Oligonucleotide Probes Hybridization.
- P 081** Comparative analysis of ABO genotyping and serological typing in Northern Chinese Han Population.
- P 082** Rapid ABO genotyping directly from fresh blood, hair and stains of blood and buccal epithelial cells.
- P 083** Trace DNA Success Rates Relating to Volume Crime Offences.
- P 084** Biological And DNA Evidence In 1000 Sexual Assault Cases.
- P 085** Male DNA recovery from different type of evidences in 300 cases of sexual assault.
- P 086** Sexual assault cases related to unknown perpetrator: almost 50% of the analyzed cases corresponded to serial offenders.
- P 087** Female DNA traces - it's not always the offender!
- P 088** Analysis of Forensic samples in Banco Nacional de Datos Geneticos.
- P 089** Paternity investigation experience with a 40 autosomal SNP panel.
- P 090** DNA profile evidence in complex disputed paternity cases: The analysis of 200 real cases.
- P 091** Supplementary Markers for Deficient Immigration Cases: Additional STRs or SNPs?
- P 092** A study of Argentinian attitudes regarding the custody and use of forensic DNA databases.
- P 093** Genotyping of DNA samples under adverse conditions of Low Copy Number - LCN (Formolisados Tissue samples and embedded in paraffin).
- P 094** STR genotyping of DNA extracted from used Triage kits.
- P 095** Post-coital vaginal sampling with nylon-flocked swabs improves DNA typing.
- P 096** Extraction of High Quality DNA from Biological Materials and Calcified Tissues.
- P 097** Effect of Blood Stained Soils and Time Period on DNA and Allele drop out using Promega 16 Powerplex® Kit.
- P 098** Prevalence of mixed DNA profiles in fingernail swabs from autoptic cases.
- P 099** Standardization of teeth sampling for DNA analysis from decomposing bodies before soft tissue removal regarding anthropological analysis.
- P 100** Analysis of DNA profiles extracted from degraded samples from archival of formalin fixed tissue included in paraffin (FFTIP) and hairs.
- P 101** Genetic identification of degraded DNA samples buried in different types of soil.
- P 102** Utility validation of extraction of genomic DNA from hard tissues, bone and nail, using PrepFiler™ Forensic DNA Extraction Kit.
- P 103** A new approach in the identification of degraded paternity samples.
- P 104** High yield DNA extraction from bones using a full demineralization approach.



- P 105** Validation of a new magnetic particle-based method (PrepFiler™ Forensic DNA Extraction Kit) for rapid extraction of high quality DNA from a wide variety of forensic samples.
- P 106** The tooth - an approach for DNA extraction.
- P 107** A small change in the standard extraction method in order to obtain better results.
- P 108** STR and SNP Analysis of human DNA from *Lucilia sericata* larvae's gut contents.
- P 109** The transfer of human DNA by *Lucilia* blowflies.
- P 110** Room temperature preservation and transportation of reference and trace DNA swabs.

12:30 - 14:00 **Promega Symposium**

## **Session 2 | Chairpersons: *Walther Parson & Leonor Gusmão***

14:00 - 14:45 CONFERENCE:

**The future of criminal DNA databases.**  
***Prof. Dr. Peter M. Schneider***

14:45 - 16:00 **ORAL PRESENTATIONS 1**

- 14:45 **O 01** **How well does your DNA predict your appearance?**  
Manfred Kayser<sup>1</sup>, <sup>1</sup>Department of Forensic Molecular Biology, Erasmus University Medical Center Rotterdam, The Netherlands, Rotterdam, Netherlands.
- 15:10 **O 02** **A new SNP multiplex assay for the determination of geographic origin and pigmentary traits to aid anthropological investigations.** Caroline Bouakaze<sup>1</sup>, Christine Keyser<sup>1</sup>, Bertrand Ludes<sup>1</sup>, <sup>1</sup>Institute of Legal Medicine, Strasbourg, France.
- 15:22 **O 03** **Highly Differentiated Autosomal SNPs to Analyze Ancestry and Infer Admixture Components in American Populations.** Christopher Phillips<sup>1</sup>, Liliana Porras-Hurtado<sup>1,2</sup>, Manuel Fondevila<sup>1</sup>, Antonio Salas<sup>1</sup>, Antonio Gomez-Tato<sup>3</sup>, Jose Alvarez-Dios<sup>3</sup>, Ana Freire-Aradas<sup>1</sup>, Adriana Castillo<sup>6</sup>, Julieta Henoa<sup>2</sup>, Guillermo Barreto<sup>4</sup>, Fernando Rondon<sup>4</sup>, William Zabala<sup>5</sup>, Lisbeth Borjas<sup>5</sup>, Angel Carracedo<sup>1</sup>, Maria Victoria Lareu<sup>1</sup>, <sup>1</sup>Forensic Genetics Unit, Institute of Legal Medicine, University of Santiago de Compostela, Santiago of Compostela, Spain, <sup>2</sup>Medical Genetic Laboratory, Technology University of Pereira, Pereira, Colombia, <sup>3</sup>Faculty of Mathematics, University of Santiago de Compostela, Santiago of Compostela, Spain, <sup>4</sup>Human Molecular Genetic Research Group, University of Valle, Cali, Colombia, <sup>5</sup>Medical Genetics Unit, University of Zulia, Zulia, Venezuela, <sup>6</sup>Industrial University, Santander, Colombia.
- 15:34 **O 04** **STRs and AIMs informativeness for forensic purposes in an admixed Brazilian population.** Silviene Fabiana Oliveira<sup>1</sup>, Neide Maria Godinho<sup>2</sup>, Carlos Eduardo Amorim<sup>1</sup>, Carolina Carvalho Gontijo<sup>1</sup>, Gabriel Falcão Alencar<sup>1</sup>, Rejane da Silva Sena Barcelos<sup>2,3</sup>, Aguinaldo Luiz Simões<sup>4</sup>, Celso Teixeira Mendes-Júnior<sup>5</sup>, <sup>1</sup>Universidade de Brasília, Brasília, Distrito Federal, Brazil, <sup>2</sup>Instituto de Criminalística de Goiás, Goiania, Goiás,

Brazil, <sup>3</sup>Universidade Católica de Goiás, Goiania, Goiás, Brazil, <sup>4</sup>Faculdade de Medicina de Ribeirão Preto, Ribeirão Preto, São Paulo, Brazil, <sup>5</sup>Faculdade de Filosofia Ciências e Letras de Ribeirão Preto, Ribeirão Preto, São Paulo, Brazil.

- 15:46 **O 05** **Insertion/Deletion Polymorphisms as Ancestry Informative Markers**  
Daniel Zaumsegl<sup>1</sup>, Markus A. Rothschild<sup>1</sup>, Peter M. Schneider<sup>1</sup>, <sup>1</sup>Institute of Legal Medicine, University Hospital Cologne, Cologne, Germany.

16:00 - 16:30 Coffee break

### **Session 3 | Chairpersons: *Mike Coble & Lutz Roewer***

16:30 - 18:00 **ORAL PRESENTATIONS 2**

- 16:30 **O 06** **The diversified genetic landscape of mountain areas: high-resolution sampling and analysis of Y-chromosomal variation in Tyrol (Austria).** Burkhard Berger<sup>1</sup>, Daniel Erhart<sup>1</sup>, Harald Niederstätter<sup>1</sup>, Christoph Gassner<sup>2</sup>, Harald Schennach<sup>2</sup>, Walther Parson<sup>1</sup>, <sup>1</sup>Institute of Legal Medicine, Innsbruck Medical University, Innsbruck Austria, <sup>2</sup>Central Institute for Blood Transfusion and Division for Immunology, University Hospital, Innsbruck, Austria.
- 16:42 **O 07** **Inferring the demographic history of the last nomad hunter-gatherer population in Ecuador - the Waorani - using lineal and recombining DNA markers** Maria Geppert<sup>1</sup>, Baeta Miriam<sup>3</sup>, Nunez Carolina<sup>3</sup>, Zweynert Sarah<sup>2</sup>, Vacas Omar<sup>4</sup>, González-Solorzano Jorge<sup>5</sup>, Willuweit Sascha<sup>1</sup>, Nagy Marion<sup>1</sup>, Martínez-Jarreta Begona<sup>3</sup>, Krawczak Michael<sup>6</sup>, Gonzalez-Andrade Fabricio<sup>5</sup>, Roewer Lutz<sup>1</sup>, <sup>1</sup>Dept. Forensic Genetics, Institute of Legal Medicine and Forensic Sciences, Charité - Universitätsmedizin Berlin, Germany, <sup>2</sup>Clinics for Psychiatry, Charité - Universitätsmedizin Berlin, Berlin, Germany, <sup>3</sup>Department of Legal Medicine, University of Zaragoza, Zaragoza, Spain, <sup>4</sup>Catholic University of Ecuador, Quito, Ecuador, <sup>5</sup>Hospital Metropolitano, Quito, Ecuador, <sup>6</sup>Institut für Medizinische Informatik und Statistik, Universitätsklinikum Schleswig-Holstein, Kiel, Germany.
- 16:58 **O 08** **Multi-Continental Genetic Contributions to the Extant Population of Argentina as detected from autosomal, Y-chromosomal and mitochondrial DNA,** Daniel Corach<sup>1</sup>, Oscar Lao<sup>2</sup>, Cecilia Bobillo<sup>1</sup>, Kristiaan Van der Gaag<sup>3</sup>, Mark Vermeulen<sup>2</sup>, Mannis Van Oven<sup>2</sup>, Kate Van Duijn<sup>2</sup>, Miriam Goedbloed<sup>2</sup>, Peter M Vallone<sup>4</sup>, Walther Parson<sup>5</sup>, Peter De Knijff<sup>3</sup>, Manfred Kayser<sup>2</sup>, <sup>1</sup>Servicio de Huellas Digitales Genéticas and Cátedra de Genética y Biología Molecular, Faculty of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina, <sup>2</sup>Department of Forensic Molecular Biology, Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands, <sup>3</sup>Department of Human Genetics, Leiden University Medical Center, Leiden, Netherlands, <sup>4</sup>Biochemical Science Division, National Institute of Standards and Technology, Gaithersburg, United States, <sup>5</sup>Institute of Legal Medicine, Innsbruck Medical University, Innsbruck, Austria.



- 17:10 **O 09** Development of a New Forensic STR Multiplex with Enhanced Performance for Degraded and Inhibited Samples, Julio Mulero<sup>1</sup>, Robert Green<sup>1</sup>, Nicola Oldroyd<sup>1</sup>, Lori Hennessy<sup>1</sup>, <sup>1</sup>Applied Biosystems, Foster City, CA, United States.
- 17:22 **O 10** A Suite of New STR Systems Designed to Meet the Changing Needs of the DNA-Typing Community Lotte Downey<sup>1</sup>, Carla Abdo<sup>1</sup>, Doug Storts<sup>1</sup>, Cindy Sprecher<sup>1</sup>, Bob McLaren<sup>1</sup>, Dawn Rabbach<sup>1</sup>, Benjamin Krenke<sup>1</sup>, Erin McCombs<sup>1</sup>, <sup>1</sup>Promega Corporation, Madison, WI, United States.
- 17:34 **O 11** Analysis of microRNA expression in forensically-relevant human body fluids, Dmitry Zubakov<sup>1</sup>, Antonius W.M. Boersma<sup>2</sup>, Ying Choi<sup>1</sup>, Erik A.C. Wiemer<sup>2</sup>, Manfred Kayser<sup>1</sup>, <sup>1</sup>Department of Forensic Molecular Biology, Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands, <sup>2</sup>Department of Medical Oncology, Erasmus University Medical Center Rotterdam, Rotterdam, Netherlands.
- 17:46 **O 12** Identification of Forensically Relevant Body Fluids Using a Panel of Differentially Expressed microRNAs, Erin Hanson<sup>1</sup>, Helge Lubenow<sup>3</sup>, Jack Ballantyne<sup>1,2</sup>, <sup>1</sup>National Center for Forensic Science, Orlando, FL, United States, <sup>2</sup>University of Central Florida, Department of Chemistry, Orlando, FL, United States, <sup>3</sup>Qiagen, Hilden, Germany.

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## THURSDAY, SEPTEMBER 17

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08:30 - 10:00 **Applied Biosystems Symposium**

10:00 - 10:30 Coffee break

### **Session 1** | Chairperson: *Daniel Corach*

10:30 - 11:15 CONFERENCE:

**Genetic Dissection of human disorders using genome-wide association studies, Dr. Luis Carvajal Carmona, PhD**

11:15 - 12:30 **POSTER SESSION 2 (P 111 - P208)**

- P 111** The problem of DNA contamination in forensic case work-How to get rid of unwanted DNA?
- P 112** An alternative strategy for whole mitochondrial genome amplification and sequencing suited for lower quality mtDNA.
- P 113** Alterations of Length Heteroplasmy in Mitochondrial DNA Under Various Amplification Conditions.
- P 114** MtSNP typing before mtDNA sequencing: Why do it?
- P 115** Collecting cell material for DNA-typing from clothing using filtertips and vacuum.

- P 116** Washing with Ethanol - a suitable Method of DNA-Extraction?
- P 117** Trace DNA collection - performance of minitape and three different swabs.
- P 118** Optimisation of Cellular DNA Recovery from Tape-Lifts.
- P 119** One method of collecting the fallen off the epithelial cells.
- P 120** The analysis of biological samples from crime scene for a future human DNA profile confrontation. Effects of presumptive test reagents on the ability to obtain STR profiles for human identification.
- P 121** Influence of the luminol chemiluminescence reaction in confirmatory tests for detection and characterization of bloodstains in forensic analysis.
- P 122** Grading a rape case followed by death from the study of autosomal STRs and STRs of the Y chromosome - Case Study.
- P 123** Case report of a homicide resolved 15 years later: the robustness of the Chelex extraction.
- P 124** Statistical analysis of DNA mixtures using peak area information in a case of savage murder.
- P 125** Identification of Gestational Trophoblastic Disease in a sexual assault case.
- P 126** Forensic application of Y chromosome SNPs in inconclusive cases.
- P 127** Traffic accident vs homicide: the contribution of DNA analysis to clarify this mystery. A case report.
- P 128** Human being eaten by his own dogs: genetic confirmation through analysis of bones recovered in a dog's stomach content.
- P 129** DNA analysis of biological material on bullets and crime scene reconstruction.
- P 130** Forensic application of mitochondrial DNA SNPs.
- P 131** Case Report: Crime investigation set on Mitochondrial DNA analysis.
- P 132** Two completely different mitochondrial genomes within blood cells of three healthy Individuals.
- P 133** An homoplasmic large deletion in mtDNA control region: case report.
- P 134** A Paternal Mutation in the Penta D STR Locus.
- P 135** Non-exclusion maternity case with two apparent genetic incompatibilities, a mutation and a null allele.
- P 136** Tetragametic Chimerism. ¿Nature rarities or not an unusual finding in paternity testing Studies?
- P 137** Chimerism Detected in Fraternal Twins using ABI AmpFLSTR® Identifier.
- P 138** A case of chimerism in a paternity study.
- P 139** Paternity Testing involving human remains identification and putative half sisters: Usefulness of an X-hexaplex STR markers.
- P 140** Prenatal Testing in Paternity Testing: A Positive Perspective.
- P 141** X-STRs analysis in paternity testing when the alleged father is related to the biological father.
- P 142** Utility of Y- and X-STRs in the research of complex biological relationship.
- P 143** DNA recovery from a 44-year old umbilical cord.
- P 144** Evaluation of deleted region from Yp11.2 of two amelogenin negative related males.
- P 145** Admissibility of Y-STRs at court: a case report from Australia.
- P 146** Kinship Matching for Mass Identification Projects.
- P 147** Disaster Carbonized Victims Identification in State of Rondonia, Brazil.



- P 148** Analysis of Complex Kinship Cases for Human Identification of Civil War Victims in Guatemala Using M-FISys Software.
- P 149** Genetic identification of fire deaths.
- P 150** Missing and Unidentified Persons Database.
- P 151** The search for missing casualties of the Korean War: Systematic approaches to DNA typing of old skeletal remains.
- P 152** Use of alternative samples in the restitution of missing persons descendants.
- P 153** Missing people: problems of identification of unknown bodies with the use of DNA database.
- P 154** Mitochondrial DNA Analysis of human skeletal remains unearthed from northern area of Kanagawa Prefecture, Japan.
- P 155** A mini primer set covering the mtDNA hypervariable regions for the genetic typing of old skeletal remains.
- P 156** Assessment of the effectiveness of human remains DNA typing: analysis of 134 cases.
- P 157** Sampling of the Cranium for Mitochondrial DNA Analysis of Human Skeletal Remains.
- P 158** First identification of human remains using mtDNA sequence analysis in Genetic Laboratory of Royal Gendarmerie in Morocco.
- P 159** The Romanovs -what did we learn?
- P 160** Mitochondrial DNA analysis in severely degraded bone samples.
- P 162** Evaluation of different DNA-based methods in identification of soldiers missing in action since the World War II.
- P 163** Population data for 12 STR loci in Northern European brown bear (*Ursus arctos*) and application of DNA-profiles for forensic case-work.
- P 164** The use of mitochondrial DNA genes to identify closely related avian species.
- P 165** Identifying NUMT contamination in mtDNA analyses.
- P 166** Human STR polymorphisms investigated in chimpanzees.
- P 167** Forensic Investigation of UK Cervus Elaphus species.
- P 168** Canine DNA profiling in forensic casework - joining efforts for standardization.
- P 169** Genetic typing of dogs' traces in biological samples.
- P 170** Belgian Dog mitochondrial DNA database for forensics.
- P 171** Genetic Diversity Analysis of 10 STR's loci used for Forensic Identification in Canine Hair Samples.
- P 172** Advances in the application of canine DNA analysis to serious crime investigation in the UK.
- P 173** Gene expression analysis as a tool for age estimation of blowfly pupae.
- P 174** The use of polymorphic DNA fragments (STRs/SNPs) to prevent counterfeiting.
- P 175** FishPopTrace - Developing SNP-based population genetic assignment methods to investigate illegal fishing.
- P 176** Application of molecular markers for detection of South American camelid illegal traffic.
- P 177** Microbial forensics: do *Aspergillus fumigatus* strains present local or regional differentiation?
- P 178** Detection of Bacterial Variation by Next Generation SOLiDTM Sequencing for Microbial Forensics Investigations.
- P 179** Simultaneous identification of multiple mammalian species from mixed forensic samples based on mtDNA control region length polymorphism.
- P 180** Identifying Endangered Species from Degraded Mixtures at Sub Cellular Levels.



- P 181** Cytochrome b or Cytochrome c Oxidase Subunit 1 for Mammalian Species Identification - An Answer to the Debate.
- P 182** Identification of sample donor in dexamethasone controversy.
- P 183** Genus identification of toxic plant by DNA.
- P 184** Forensic DNA Analysis of Botanical Evidence.
- P 185** Tiger species identification based on molecular approach.
- P 186** The Impact of Jumping Alignments on Clustering and Database Searching.
- P 187** Enhancing the Size, Sampling, and Quality of Global Forensic mtDNA Databases.
- P 188** Clustering for Forensic Mitotype Quality Analysis.
- P 189** A cost-efficient fast and reliable two-stage strategy for the high-throughput identification of samples belonging to mtDNA haplogroup K and its subhaplogroups K1 and K2.
- P 190** Mitochondrial DNA diversity in South Africa: Control and coding region data from the KhoiSan people.
- P 191** A South East Asian mtDNA population report from Laos.
- P 192** HVIII discrimination power to distinguish HVI and HVII common sequences.
- P 193** Characterization of a Native American mtDNA haplogroup C lineage.
- P 194** Haplotype diversity in human mitochondrial DNA control region in "black" and "white" individuals from the metropolitan area of São Paulo (Brazil).
- P 195** Mitochondrial DNA control region data from two population samples from West Africa and the Middle East.
- P 196** mtDNA SNP analysis in a Central Portuguese population.
- P 197** Mitochondrial DNA control region database in Banco Nacional de Datos Genéticos-Argentina.
- P 198** Preliminary results of mitochondrial DNA sequence variation in Spanish pyrenean populations.
- P 199** Mitochondrial DNA sequence data of the Waorani population - an isolated indigenous group from North West Amazonia.
- P 200** Argentinean Mitochondrial DNA sequence database.
- P 201** Common mitochondrial DNA haplogroups observed in an Argentinian population sample.
- P 202** Mitochondrial DNA Control Region sequence Analysis of Mataco-Guaicurú Speaking tribes from Argentina.
- P 203** Haplotype diversity in mitochondrial DNA hypervariable region I and II in Maracaibo population (Venezuela).
- P 204** Geographic substructure in the mitochondrial DNA distribution of U.S. "Hispanic" populations.
- P 205** Variability of mitochondrial DNA HVIII segment in a human isolate from the Pas Valley (northern Spain).
- P 206** Segments HVI and HVII of mitochondrial DNA in a population from Santa Catarina (Brazil): predominance of European lineages.
- P 207** Mitochondrial DNA control region in native population from Quebrada de Humahuaca (northwestern Argentina).
- P 208** The genetic composition of Argentina prior to the massive immigration era: insights from matrilineages of extant criollos in central-western Argentina.

12:30 - 14:00

## **Abbot Symposium**

**Session 2 | Chairpersons: *Peter Gill & Mecki Prinz***

14:00 - 14:45 CONFERENCE:

**Integrated Forensic Sciences in Missing Persons Identification  
*Dr. Tom Parsons, PhD***

14:45 - 16:00 **ORAL PRESENTATIONS 3**

- 14:45 **O 13** **New analytical tools for the YHRD: Mixture interpretation and refinement of ancestry prediction by Y-SNP inclusion** Sascha Willuweit<sup>1</sup>, Lutz Roewer<sup>1</sup>, <sup>1</sup>Institute of Legal Medicine, Dept. of Forensic Genetics, Berlin, Germany.
- 14:57 **O 14** **Resolving mtDNA Mixtures by means of Phylogenetic Software** Alexander Röck<sup>1</sup>, Arne Dür<sup>1</sup>, Cordula Berger<sup>2</sup>, Walther Parson<sup>2</sup>, <sup>1</sup>Institute of Mathematics, University of Innsbruck, Innsbruck, Austria, <sup>2</sup>Institute of Legal Medicine, Innsbruck Medical University, Innsbruck, Austria.
- 15:09 **O 15** **Performance of the Banco Nacional de Datos Geneticos in Argentina** Mariel Andrea Abovich<sup>1</sup>, Adrián Maximiliano Arellano<sup>1</sup>, Silvia Graciela Cabeller<sup>1</sup>, María Victoria Cólica<sup>1</sup>, Carlos Gregorio Echenique<sup>1</sup>, María Gabriela Fraga<sup>1</sup>, Claudia Cristina Gillo<sup>1</sup>, Hernán Eduardo Lavalle<sup>1</sup>, Luis Mariano Ochoa<sup>1</sup>, Jorge Horacio Solimine<sup>1</sup>, Andrea Hilda Szocs<sup>1</sup>, Marina Laura Bettelani<sup>1</sup>, Alejandro García Bates<sup>1</sup>, Sandra Evangelina Filippini<sup>1</sup>, Daniel Horacio Alcázar<sup>1</sup>, Florencia Liliana Gagliardi<sup>1</sup>, Oscar Santapá<sup>1</sup>, Sergio Fernando Valente<sup>1</sup>, María Belén Rodríguez Cardozo<sup>1</sup>, <sup>1</sup>Banco Nacional de Datos Genéticos, Buenos Aires, Argentina.
- 15:21 **O 16** **Investigation of illegal graves in Argentina by using STR, miniSTR, Y-STR and mitochondrial DNA analysis.** Carola Romanini<sup>1</sup>, Laura Catelli<sup>1</sup>, Magdalena Romero<sup>1</sup>, Patricia Bernardi<sup>1</sup>, Carlos Vullo<sup>2</sup>, <sup>1</sup>EAAF, Córdoba, Argentina, <sup>2</sup>LIDMO, Córdoba, Argentina.
- 15:33 **O 17** **DNA Profiling of Skeletal Samples from the Disappeared in Latin America** Steven Weitz<sup>1</sup>, Lisa Ricci<sup>1</sup>, Jon Davoren<sup>1</sup>, <sup>1</sup>Bode Technology, Lorton, Virginia, United States.
- 15:45 **O 18** **Genomic technologies in the analysis of forensic historical relics: identification of remains of all members of Nicholas II Royal family and their servants.** Evgeny Rogaev<sup>1,2</sup>, Anastasia Grigorenko<sup>2,3</sup>, Yuri Moliaka<sup>2</sup>, Gulnaz Faskhutdinova<sup>2</sup>, Ellen Kittler<sup>4</sup>, Irina Morozova<sup>1,2</sup>, <sup>1</sup>Vavilov Institute of General Genetics, Russian Academy of Science, Moscow, Russian Federation, <sup>2</sup>Brudnick Neuropsychiatric Research Institute, University of Massachusetts Medical School, Worcester, MA, United States, <sup>3</sup>Research Center of Mental Health, Russian Academy of Medical Science, Moscow, Russian Federation, <sup>4</sup>University of Massachusetts. Medical School, CFAR, Worcester, MA, United States.

16:00 - 16:30 Coffee break

**Session 3 | Chairpersons: *John Butler & Lourdes Prieto Solla***

**16:30 - 18:00 ORAL PRESENTATIONS 4**

- 16:30 **O 19** **Tri-allelic SNP markers enable analysis of mixed and degraded DNA samples**  
Antoinette Westen<sup>1</sup>, Anuska Matai<sup>1</sup>, Jeroen Laros<sup>3</sup>, Hugo Meiland<sup>2</sup>, Peter de Knijff<sup>3</sup>,  
Titia Sijen<sup>1</sup>, <sup>1</sup>Netherlands Forensic Institute, the Hague, Netherlands, <sup>2</sup>Leiden Institute  
of Advanced Computer Science, Leiden, Netherlands, <sup>3</sup>Forensic Laboratory for DNA  
Research, Leiden, Netherlands.
- 16:41 **O 20** **A New SNP Assay for Human Identification of Highly Degraded DNA**, Ana Freire-  
Aradas<sup>1</sup>, Manuel Fondevila<sup>1</sup>, Christopher Phillips<sup>1</sup>, Peter Gill<sup>2</sup>, Lourdes Prieto<sup>3</sup>, Ángel  
Carracedo<sup>1</sup>, María Victoria Lareu<sup>1</sup>, <sup>1</sup>Forensic Genetics Unit, Institute of Legal  
Medicine, University of Santiago de Compostela, Santiago de Compostela, Spain,  
<sup>2</sup>Centre for Forensic Science, University of Strathclyde, Glasgow, United Kingdom,  
<sup>3</sup>University Institute of Research Police Sciences (IUICP), DNA Laboratory, Comisaría  
General de Policía Científica, Madrid, Spain.
- 16:52 **O 21** **SNP typing of forensic samples with the GenPlex™ HID System: A collaborative  
study** Carmen Tomas<sup>1</sup>, Michael Stangegaard<sup>1</sup>, Claus Boerstring<sup>1</sup>, Helle Smidt<sup>1</sup>, Stine  
Frisk Fredslund<sup>1</sup>, Peter M Schneider<sup>2</sup>, Angel Carracedo<sup>3</sup>, Hoff-Olsen Per<sup>4</sup>, Bertil  
Lindblom<sup>5</sup>, Cordula Haas<sup>6</sup>, Ingo Bastisch<sup>7</sup>, Toineke Westen<sup>8</sup>, Denise Syndercombe  
Court<sup>9</sup>, Mechthild Prinz<sup>10</sup>, Peter M Vallone<sup>11</sup>, Rixun Fang<sup>12</sup>, Michael D Coble<sup>13</sup>, Art  
Eisenberg<sup>14</sup>, Anders J Hansen<sup>1</sup>, Niels Morling<sup>1</sup>, <sup>1</sup>Section of Forensic Genetics,  
Department of Forensic Medicine, Faculty of Health Sciences, University of  
Copenhagen and the SNPforID Consortium, Copenhagen, Denmark, <sup>2</sup>Institute of Legal  
Medicine, University Hospital, Cologne, Germany, <sup>3</sup>Facultad de Medicina y Odontología,  
Santiago de Compostela, Spain, <sup>4</sup>Institute of Forensic Medicine, University of Oslo,  
Rikshospitalet, Oslo, Norway, <sup>5</sup>Department of Forensic Genetics and Forensic  
Toxicology, Linköping, Sweden, <sup>6</sup>Institut für Rechtsmedizin, Universität Zürich,  
Zürich, Switzerland, <sup>7</sup>Bundeskriminalamt, Wiesbaden, Germany, <sup>8</sup>Human Biological  
Trace Research, NFI, The Hague, Netherlands, <sup>9</sup>Center for Haematology, Institute of  
Cell and Molecular Sciences, Bart and The London, London, United Kingdom, <sup>10</sup>New  
York City Office of Chief Medical Examiner, Department of Forensic Biology, New York,  
NY, United States, <sup>11</sup>National Institute of Standards and Technology, Gaithersburg, MD,  
United States, <sup>12</sup>Applied Biosystems, a part of Life Technologies, Foster City, CA,  
United States, <sup>13</sup>Armed Forces DNA Identification Laboratory, Armed Forces Institute  
of Pathology, Rockville, MD, United States, <sup>14</sup>UNT Center for Human ID, Fort Worth,  
TXz United States.
- 17:03 **O 22** **A panel of X chromosomal Indel-Polymorphism are useful in typing of degraded DNA**  
Sandra Hering<sup>1</sup>, Christa Augustin<sup>2</sup>, Reinhard Szibor<sup>3</sup>, Jeanett Edelmann<sup>4</sup>, <sup>1</sup>Institute of  
Legal Medicine, Technical University Dresden, Dresden, Germany, <sup>2</sup>Institute of Legal

Medicine, University-Hospital Hamburg-Eppendorf, Hamburg, Germany, <sup>3</sup>Institute of Legal Medicine, Otto-von-Guericke-University Magdeburg, Magdeburg, Germany, <sup>4</sup>Institute of Legal Medicine, University of Leipzig, Leipzig, Germany.

- 17:14 **O 23** **Insertion deletion polymorphisms: a multiplex assay and forensic applications**  
Rui Pereira<sup>1,2</sup>, Christopher Phillips<sup>2</sup>, Cíntia Alves<sup>1</sup>, António Amorim<sup>1,3</sup>, Ángel Carracedo<sup>2,4</sup>, Leonor Gusmão<sup>1</sup>, <sup>1</sup>IPATIMUP - Institute of Molecular Pathology and Immunology of the University of Porto, Porto, Portugal, <sup>2</sup>Institute of Legal Medicine, University of Santiago de Compostela, Santiago de Compostela, Spain, <sup>3</sup>Faculty of Sciences of the University of Porto, Porto, Portugal, <sup>4</sup>Genomics Medicine Group, CIBERER, University of Santiago de Compostela, Santiago de Compostela, Spain.
- 17:25 **O 24** **The Combination of Single Cell Micromanipulation with LVPCR System and Its Application in Forensic Science**, Lan Hu<sup>1</sup>, Cai-xia Li<sup>1</sup>, Bing Qi<sup>2</sup>, An-quan Ji<sup>1</sup>, Xiu-lan Xu<sup>1</sup>, <sup>1</sup>Institute of Forensic Science, Ministry of Public Security, Beijing, China, <sup>2</sup>Chinese Peoples Public Security University, Beijing, China.
- 17:36 **O 26** **Application of full mitochondrial genome sequencing using 454 GS FLX pyrosequencing** Martin Mikkelsen<sup>1</sup>, Eszter Rockenbauer<sup>1</sup>, Andrea Wächter<sup>1</sup>, Liane Fendt<sup>2</sup>, Bettina Zimmermann<sup>2</sup>, Walther Parson<sup>2</sup>, Sandra Abel Nielsen<sup>3</sup>, Tom Gilbert<sup>3</sup>, Eske Willerslev<sup>3</sup>, Niels Morling<sup>1</sup>, <sup>1</sup>Section of Forensic Genetics, Department of Forensic Medicine, Faculty of Health Sciences, University of Copenhagen, Copenhagen, Denmark, <sup>2</sup>Institute of Legal Medicine, Innsbruck Medical University, Innsbruck, Austria, <sup>3</sup>Natural History Museum of Denmark, University of Copenhagen, Copenhagen, Denmark.

18:00 - 19:00 Language Working Groups Meetings

20:30 **Gala Dinner - Alvear Palace Hotel**  
Av. Alvear 1891, Ciudad Autónoma de Buenos Aires, Argentina

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## FRIDAY, SEPTEMBER 18

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08:30 - 10:00 Language Working Groups Meetings

10:00 - 10:30 Joint EDNAP / ENFSI Meeting

### **Session 1** | Chairperson: *Wolfgang Mayr*

10:30 - 11:15 CONFERENCE:  
**Statistics of linked markers in relationship testing.**  
*Prof. Max Baur, PhD, Prof. Dr. Peter M. Schneider, Dr. Rolf Fimmers*

11:15 - 12:30 **POSTER SESSION 3 (P 209 - P 317)**

- P 209** A genetic study of the East Timor population using autosomal SNPs.
- P 210** Swedish population data on the SNPforID Consortium autosomal SNP-multiplex.
- P 211** The polymorphisms of 9 SNP loci on mitochondrial DNA in the Chinese Han population.
- P 212** 48 autosomal Single nucleotide Polymorphisms typing of a Moroccan sample using the GenPlex™ system. Population and Forensic data.
- P 213** Allele frequency investigation of an autosomal SNP by using pyrosequencing typing platform.
- P 214** The Africa male lineages of Bahia's people - Northeast Brazil - A preliminary SNP's study.
- P 215** SNPSTR rs59186128\_D7S820 in European Caucasoid, Hispanic and Afro-American Populations.
- P 216** Population Data of 52 Autosomal SNPs in Italian Populations.
- P 217** Database of the polymorphic genetic markers D19S433 and D2S1338 of the population of Buenos Aires Province, Argentina.
- P 218** A highly polymorphic STR-locus within the MHC-region close to HLA-DR/DQ: Austrian population data of DQIV (alias M2\_4\_32)
- P 219** Population genetic data for F13A01, FES/FPS, F13B and LPL in Colombia (Department of Santander).
- P 220** Genetic analysis of 9 non-CODIS miniSTR loci in the Brazilian population of Parana.
- P 221** pop.STR - an online population frequency browser for established and new forensic STRs.
- P 222** Population data for 15 STRs loci in an immigrant population sample from Northern Italy.
- P 223** Allele frequencies of six miniSTR loci (D10S1248, D14S1434, D22S1045, D4S2364, D2S441, D1S1677) in two Italian population.
- P 224** Phylogenetic position of Berber-speaking population of Azrou using 15 STRs of Identifiler.
- P 225** Allele frequencies for 15 Short Tandem Repeats loci in an Argentine population sample.
- P 226** The present of tri-allelic TPOX genotypes in Dominican Population.
- P 227** Genetic profile of Federal District of Brazil based on 18 STR autosomal loci.
- P 228** Two non-CODIS miniSTR multiplex systems for analysis of degraded DNA samples in the Chinese Han population.
- P 229** Usefulness of a hundred of autosomal tetranucleotide STR markers for genetic analysis among geographically close human regional populations in East Asia.
- P 230** Allele frequencies of three miniSTR loci (D22S1045, D14S1434 and D10S1248) in North-East Italy.
- P 231** Use of non CODIS miniSTR markers: creation of a data base in Argentina.
- P 232** Update of an on-line autosomal STR and Y-STR reference database of Argentina.
- P 233** Population data about the distribution of 15 autosomal STRs and 17 Y-STRs in South of Italy (Calabria)
- P 234** Population Data of 5 Next Generation STRs in Southern Italy.
- P 235** Forensic evaluation of 15 STR loci in Venezuelan military aircraft pilots.
- P 236** Genetic composition of Middle-West Brazilian populations, estimated with autosomics STRs, shows no difference.
- P 237** Association between STRs from the X chromosome in a sample of Portuguese Gypsies.
- P 238** Genetic data of 10 X-chromosomal loci in Vitória population (Espírito Santo State, Brazil)
- P 239** Genetic studies of eight X-STRs in a Northeast Italian population.
- P 240** Chromosome X centromere region - Haplotype frequencies for different populations.
- P 241** Analysis of 12 X-chromosomal STRs in an Algerian population sample.

- P 242** Genetic patterns of 10 X chromosome short tandem repeats in an Asian population from Macau.
- P 243** Genetic data of 10 X-STR in two Native American populations of Argentina.
- P 244** Genetic origin based on Y-specific STR haplotypes in a sample of Caucasian-Mestizo and African descent male individuals of Colombia.
- P 245** A Y-chromosome SNP multiplex for haplogroup assignment of West Eurasian men from Tyrol (Austria)
- P 246** Y-chromosome haplotype database in Venezuelan central region and its comparison with others Venezuelan populations.
- P 247** Y-chromosomal STR haplotypes in an Arab population from Somalia.
- P 248** Knowing your DNA database: issues with determining ancestral Y haplotypes in a Y-Filer database.
- P 249** Population data of 12 Y-STR loci from a Somali population.
- P 250** New single nucleotide polymorphisms on Y chromosome in the Chinese Han population.
- P 251** Evaluating Y-Chromosome STRs mutation rates: a collaborative study of the Ge.F.I.-ISFG Italian Group.
- P 252** Analysis of Y Chromosome SNPs in Alagoas, Northeastern Brazil.
- P 253** Investigation of population structure in the Victorian Italian & Greek population using Y chromosome STR haplotype analysis.
- P 254** Mutation rates at 17 Y-STR loci in father-son pairs from Southern Spain.
- P 255** Comparative Y-STR and Y-SNP analysis of the seklers and csangos to the present Hungarians.
- P 256** Banco Nacional de Datos Genéticos: YFILER Database.
- P 257** Y-Chromosome SNP analysis in the Brazilian Population of São Paulo State (Ribeirão Preto).
- P 258** Haplotyping of Y-chromosomal short tandem repeats DYS481, DYS570, DYS576 and DYS643 in three Baltic populations.
- P 259** Comparison of Y chromosome haplogroup frequencies in 8 Provinces from Argentina.
- P 260** Genetic Structure of Mendoza Province Population Inferring using Autosomal and Y-chromosome STRs.
- P 261** Distribution of Y-chromosomal SNP-haplogroups between males from Ethiopia.
- P 262** Dissecting the Finnish male uniformity: the value of additional Y-STR loci.
- P 263** Allele frequencies and population data for 17 Y-STR loci in Casablanca resident population.
- P 264** Y-STR haplotype variation in a sample from Gran Buenos Aires (Argentina)
- P 265** Phylogeography of French male lineages.
- P 266** Haplotype frequencies for 17 Y-STR loci (AmpFISTR®Y-filer™) in a Moroccan population sample.
- P 267** Analysis of Y chromosome lineages in a samples from Sub-Saharan Africa descendents in Rio de Janeiro.
- P 268** Development of Y-SNP typing assay for forensic application in Venezuelan population.
- P 269** Evaluation of extended haplotype data for the African Botswana population.
- P 270** Evaluation of 21 Y-STRs for population and forensic studies in South Africa.
- P 271** STR Allele Frequencies and Y Haplotypes in Five Chilean Sample Populations.
- P 272** South to North increasing gradient of Paternal European ancestry throughout the Mexican territory: Evidence of Y-linked Short Tandem Repeats.
- P 273** Origin of paternal lineages in an admixed population of Northern Argentina (La Esperanza, Jujuy).
- P 274** Bayes' Theorem simplified even more.
- P 275** Validation and consistency of sample sizes in forensic and population genetic studies using microsatellites markers.
- P 276** Searching a DNA Data Bank with complex mixtures from two individuals.

- P 277** Bayesian networks for victim identification on the basis of DNA profiles.
- P 278** Estimating the number of contributors to forensic DNA mixtures: does maximizing the likelihood performs better than the maximum allele count?
- P 279** Use of freeware for calculating likelihood ratio for paternity and kinship in complicated human Pedigrees.
- P 280** Analysis of complex family cases with Probabilistic Expert Systems.
- P 281** Population stratification in Argentina strongly influences likelihood ratio estimates in paternity testing as revealed by a simulation-based approach.
- P 282** A preliminary mitochondrial DNA SNP assay for inferring biogeographical ancestry.
- P 283** Partial forensic validation of a 16plex SNP assay for the inference of biogeographical ancestry.
- P 284** Forensic application of an individual ancestry index in Brazilian populations.
- P 285** DRD2TaqI haplotypes in three urban Brazilian populations.
- P 286** The Kurgan people from southern Siberia: What did they look like? Where did they come from?
- P 287** Forensic typing tests for 42 SNPs with two SNaPshot assays to predict common pigmentation trait variation in Europeans.
- P 288** Analysis of CYP2D6 gene variation in Venezuelan population: implications for forensic toxicology.
- P 289** CYP2D6 polymorphism studies: how forensic genetics helps clinical medicine.
- P 290** Genetic susceptibility for addiction: searching of risk loci for the widespread drugs of abuse.
- P 291** The Relevance Between Dopamine D3 Receptor Gene Variations and Drug Addiction.
- P 292** Genetics of addiction in legal medicine and forensic investigation: SNPs variations associated with nicotine and cannabis dependence.
- P 293** Changes of the Na<sup>+</sup> and K<sup>+</sup> channels levels in human heart failure and ischemia.
- P 294** Considerations about mRNA extraction from post-mortem human heart.
- P 295** The role of Cav3 gene in channelopathies.
- P 296** Involvement of hypertrophic cardiomyopathy genes in Sudden Infant Death Syndrome (SIDS).
- P 297** Sequenom Massarray application in the Long QT Syndrome mutation detection.
- P 298** Analysis of three major sarcomeric genes (MYH7, TNNT2, MYBPC3) in cardiomyopathy.
- P 299** Forensic mitochondrial DNA analysis in HIV-infected patients treated with nucleoside reverse transcriptase inhibitors.
- P 300** Loss of heterozygosity detected in a short tandem repeat (STR) locus in rheumatoid arthritis peripheral blood.
- P 301** Single cell gel electrophoresis in determining DNA degradation: Potential for use in postmortem interval estimation and time since the deposition of blood stains.
- P 302** Selective enrichment of human DNA from non-human DNAs for DNA typing of decomposed skeletal remains.
- P 303** Reparation of degraded DNA improves PCR amplification of larger STR loci.
- P 304** Increased discrimination power of forensic STR testing by liquid chromatography-mass spectrometry in rare autochthonous populations.
- P 305** Analysis of DNA Forensic Markers Using High Throughput Mass Spectrometry.
- P 307** Validation of Mass Spectrometry Analysis of mtDNA.
- P 308** Enhanced resolution and statistical power through evaluation of SNPs distributed within the short tandem repeats utilizing mass spectrometry.
- P 310** mRNA profiling for the identification of sperm and seminal plasma.



- P 311** How specific are the vaginal secretion mRNA-markers HBD1 and MUC4?
- P 312** Influence of different parameters on the integrity of RNA extracted from human autopsy tissue.
- P 313** RNA extraction in practice - comparison of four different RNA extraction methods and their impact on the RNA integrity in postmortem human tissue.
- P 314** Human Tissue and Body Fluid Characterization Involving DNA Methylation Methods - Towards Forensic Epigenetics.
- P 315** Multiplexed SNP Detection Panels for Human Identification.
- P 316** Investigation of SNP haplotypes in the H19 imprinted gene.
- P 317** SNPSTRs in caucasian and negroid populations.

12:30 - 14:00 Lunch break

## **Session 2 | Chairpersons: *Max Baur & Niels Morling***

14:00 - 14:45 CONFERENCE:

**"The investigation of remains of missing people in Argentina during the last 25 years". *Dr. Luis Fondebrider***

14:45 - 16:45 **ORAL PRESENTATIONS 5**

- 14:00 **O 27** X-chromosomal markers in relationship testing: The effects of linkage and linkage disequilibrium on computed likelihood ratios Andreas Tillmar<sup>1</sup>, Thore Egeland<sup>2</sup>, Bertil Lindblom<sup>1</sup>, Gunilla Holmlund<sup>1</sup>, Petter Mostad<sup>3</sup>, <sup>1</sup>National Board of Forensic Medicine, Department of Forensic Genetics and Forensic Toxicology, Linköping, Sweden, <sup>2</sup>University of Oslo, Institute of Forensic Medicine, Oslo, Norway, <sup>3</sup>Mathematical Sciences, Chalmers University of Technology, and Mathematical Sciences Göteborg University, Göteborg, Sweden.
- 14:12 **O 28** Distinguishing kinship from genealogical likelihoods Nádia Pinto<sup>1,2</sup>, Leonor Gusmão<sup>1</sup>, António Amorim<sup>1,2</sup>, <sup>1</sup>IPATIMUP, Instituto de Patologia e Imunologia Molecular da Universidade do Porto, Porto, Portugal, <sup>2</sup>Faculdade de Ciências da Universidade do Porto, Porto, Portugal.
- 14:24 **O 29** Evaluating the usage of Fst to correct for population stratification when estimating PI values, Ulises Toscanini<sup>1</sup>, Antonio Salas<sup>2</sup>, Manuel García-Magariños<sup>2</sup>, Eduardo Raimondi<sup>1</sup>, <sup>1</sup>PRICAI-FUNDACIÓN FAVALORO, Buenos Aires, Argentina, <sup>2</sup>Unidad de Xenética, Inst. Med. Leg., Univ. de Santiago de Compostela, Santiago de Compostela, Spain.

- 14:36 **O 30** **Overdispersion in allelic counts and  $\chi^2$ -correction in forensic genetics**  
Torben Tvedebrink<sup>1</sup>, <sup>1</sup>Department of Mathematical Sciences, Aalborg University, Aalborg, Denmark.
- 14:48 **O 31** **More for the same? Enhancing the investigative potential of forensic DNA databases**  
Tim Clayton<sup>1</sup>, Sue Pope<sup>1</sup>, Jonathan Whitaker<sup>1</sup>, Roberto Puch-Solis<sup>1</sup>, John Lowe<sup>1</sup>,  
<sup>1</sup>Forensic Science Service, Birmingham, United Kingdom.
- 15:00 **O 32** **Development of a quantitative method for taking account of the sizes of peaks when interpreting STR mixtures for court purposes**, Roberto Puch-Solis<sup>1</sup>, Ian Evett<sup>1</sup>, Lauren Rodgers<sup>1</sup>, <sup>1</sup>Forensic Science Service, Birmingham, United Kingdom.
- 15:12 **O 33** **Dropout for dummies -- modular methods for dropout analysis**  
Charles Brenner<sup>1</sup>, <sup>1</sup>UC Berkeley, Berkeley, CA, United States.
- 15:24 **O 34** **RMNE probability of forensic DNA profiles with allelic drop-out**  
Filip Van Nieuwerburgh<sup>1</sup>, Els Goetghebeur<sup>2</sup>, Mado Vandewoestyne<sup>1</sup>, Dieter Deforce<sup>1</sup>,  
<sup>1</sup>Laboratory for Pharmaceutical Biotechnology, Ghent University, Ghent, Belgium,  
<sup>2</sup>Department of Applied Mathematics and Computer Science, Ghent University, Ghent, Belgium.
- 15:36 Discussion - Biostatistics
- 15:48 **O 35** **Interpretation of low-copy-number DNA profile after post-PCR purification.**  
Sabine Michel<sup>1</sup>, Anne De Bast<sup>1</sup>, Olivier Froment<sup>1</sup>, <sup>1</sup>Bio.be SA - CRI, 6041 Gosselies, Belgium.

16:45 - 17:15 Coffee break

### **Session 3 | Chairpersons: *Angel Carracedo & Peter Schneider***

#### **17:15 - 18:45 ORAL PRESENTATIONS 6**

- 17:15 **O 36** **Trace DNA and street robbery: A criminalistic approach to DNA evidence.**  
Jennifer Raymond<sup>1,2</sup>, Roland van Oorschot<sup>3</sup>, Simon Walsh<sup>4</sup>, Peter Gunn<sup>2</sup>, Claude Roux<sup>1</sup>, <sup>1</sup>University of Technology, Sydney, Sydney, NSW, Australia, <sup>2</sup>NSW Police Force Forensic Services Group, Sydney, NSW, Australia, <sup>3</sup>Victoria Police Forensic Services Centre, Melbourne, VIC, Australia, <sup>4</sup>Australian Federal Police Forensic & Data Centres, Canberra, ACT, Australia.
- 17:27 **O 37** **Impact of relevant variables on the transfer of biological substances**  
Roland van Oorschot<sup>1</sup>, Mariya Goray<sup>1,2</sup>, Ece Eken<sup>1</sup>, John Mitchell<sup>2</sup>, <sup>1</sup>Victoria Police Forensic Services Department, Macleod 3085, Victoria, Australia, <sup>2</sup>Genetics Department La Trobe University, Melbourne 3086, Victoria, Australia.



- 17:39 **O 38** **Forensic DNA transfer**  
Ignacio Quinones<sup>1,2</sup>, Barbara Daniel<sup>2</sup>, <sup>1</sup>London Metropolitan Police, London, United Kingdom, <sup>2</sup>King's College London, London, United Kingdom.
- 17:51 **O 39** **Review of Low Template DNA Typing**  
Adrian Linacre<sup>1</sup>, <sup>1</sup>University of Strathclyde, Glasgow, United Kingdom.
- 18:03 **O 40** **The Challenges to the Use of Low Copy Number Analysis**  
Bruce Budowle<sup>1</sup>, Arthur Eisenberg<sup>1</sup>, Suzanne Gonzalez<sup>1</sup>, John Planz<sup>1</sup>, Rhonda Roby<sup>1</sup>, Angela van Daal<sup>1</sup>, <sup>1</sup>University of North Texas Health Science Center, Fort Worth, TX, United States, <sup>2</sup>Bond University, Gold Coast, Queensland, Australia.
- 18:15 **O 41** **The interpretation of 'low-level' DNA profiles - where next?**  
Peter Gill<sup>1,2</sup>, John Buckleton<sup>3</sup>, <sup>1</sup>University of Strathclyde, Glasgow, United Kingdom, <sup>2</sup>University of Oslo, Oslo, Norway, <sup>3</sup>ESR, Auckland, New Zealand.
- 18:27 Discussion - DNA of low quality and/or quantity

18:45 - 19:15 **Congress Highlights / Closing Ceremony**

19:15 - 20:45 **General Assembly of the ISFG**