

The Ninth International Symposium on Human Identification October 8-10, 1998

The *Ninth International Symposium on Human Identification* was held at the Coronado Springs Resort near Orlando, Florida. The meeting featured 29 oral presentations and 82 posters covering a wide variety of topics pertinent to DNA analysis. Oral presentations covered subjects such as STR multiplexes, DNA databanking, forensic casework, validation studies, mitochondrial DNA analysis, Y chromosome analysis and new technologies. More than 500 delegates from all over the world attended the symposium.

STR MULTIPLEXES

Several presentations focused on STR analysis using multiplex systems. Two speakers, Elizabeth Amiott (Promega Corporation) and Sean Walsh (Perkin-Elmer/Applied Biosystems), presented data on STR multiplex systems that provide all 13 loci recommended by the FBI for inclusion in the U.S. CODIS (Combined DNA Index System) database. Elizabeth Amiott provided information on the *GenePrint*[™] PowerPlex[™] 1.2 and 2.2 Systems for amplification of all 13 CODIS loci in two reactions and described a single-reaction system containing 16 loci that is planned for the summer of 1999. Sean Walsh spoke on the continuous evolution of the AmpFISTR[®] Profiler Plus[™] and COfiler[™] Systems for amplification of the 13 CODIS loci and discussed how these systems are optimized for forensic casework.

Sonja Klein (Hitachi Software Engineering Co.) presented an intra- and inter-laboratory comparison study of peak height and area ratios within STR loci using the Hitachi FMBIO[®] fluorescent scanner and the PowerPlex[™] 1.1 System, and Kevin McElfresh (Bode Technology Group) spoke on "Putting STR Megaplexes to the Test".

DNA DATABASES

DNA databanks were the focus of many talks. Walther Parson (Institute of Legal Medicine, Innsbruck, Austria) discussed the current status of several databases under development in Europe. Dave Werrett and Rebecca Sparkes of the Forensic Science Service spoke on the effectiveness of DNA databases, based on their experiences in the

UK. Paul Ferrara (Virginia Division of Forensic Science) gave a talk discussing DNA databanking in Virginia. David Coffman (Florida Department of Law Enforcement) spoke on the transition from RFLP to STR technology for the Florida Department of Law Enforcement and Bruce Budowle and Stephen Niezgodza (FBI) gave CODIS updates.

There were two additional presentations on issues related to DNA databanking: Bruce Weir (North Carolina State University) spoke on the uniqueness of DNA profiles, and James Crow (University of Wisconsin) gave a talk entitled "The 1996 NRC Report-Another Look" in which he discussed statistical issues related to DNA evidence.

FORENSIC CASEWORK

A number of presentations addressed various aspects of casework analysis. These included a talk by Peter Gill (Forensic Science Service) on the interpretation of mixtures, an analysis of validation studies performed using the AmpFISTR[®] Profiler Plus[™] Kit by Barbara Llewellyn (Illinois State Police) and a presentation on the development of new STRs for casework analysis by Angel Carracedo (Institute of Legal Medicine, Santiago de Compostela, Spain). Talks detailing analysis of specific cases were presented by Andrea Sala (Servicio de Huellas Digitales, Argentina) and Luciano Garofano (Servicio Carabinieri Investigazioni Scientifiche, Italy). George Riley (Genelex Corporation) gave a presentation on the use of the *GenePrint*[™] PowerPlex[™] 1.1 System for forensic and paternity casework.

NEW TECHNOLOGIES

Several presentations focused on new and emerging technologies for DNA typing. James Schumm (Promega Corporation) described new pentanucleotide repeat STR loci that have high heterozygosity and low stutter. Rick Staub (Identigene) presented information on genotyping using single nucleotide polymorphisms (SNPs) and arrayed primer extension technology. High speed STR analysis on micro-fabricated electronic devices was the subject of a talk by Dieter Schmalzing (Whitehead Institute),

and John Butler (GeneTrace Systems, Inc.) spoke on high throughput genotyping of STRs and SNPs using time-of-flight mass spectrometry.

POPULATION GENETICS

Peter de Knijff (Leiden University Medical Center, the Netherlands) gave a talk on the application of Y-chromosome microsatellites in population genetics, and Antti Sajantila (Helsinki, Finland) spoke on "Assessing Human Genetic Diversity by *Alu* Insertion Polymorphism".

MITOCHONDRIAL DNA ANALYSIS

Presentations on mitochondrial DNA analysis were given by Lois Tully (National Institute of Standards and Technology), Mitchell Holland (Armed Forces DNA Identification Laboratory) and William Watson (GeneScreen, Inc.).

SOCIAL EVENTS

The New York Street Party at MGM Studios was a huge success. Actors portraying fans screaming for autographs greeted everyone as they arrived. Everyone enjoyed ordering their food from street vendors while actors portraying New Yorkers were interspersed in the crowd. The DJ successfully enticed participants to dance in the street. Many attendees also took advantage of the Epcot[®] dine-around on Thursday evening as well as the other Disney World[®] attractions. Of course, the hot tub and the pool were welcome diversions after a long day of lectures.

Coronado Springs has a southwestern flair, which made the transition to Orlando from this meeting's previous location in Scottsdale, Arizona, a little easier. The high caliber of talks as well as the fun entertainment made this a very successful meeting. We look forward to seeing everyone again in Orlando in 1999.

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