



Università Politecnica delle Marche  
Sezione di Medicina Legale

# DNA in Forensics

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2008



Ancona  
27-30 May 2008



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# DNA in Forensics

2008

6th International forensic Y-user workshop  
3rd EMPOP Meeting

Ancona  
27-30 May 2008

Dear colleagues and friends!

It is a pleasure and an honour to welcome you to the DNA in Forensics 2008 Conference.

The meeting will focus on the use of mtDNA, Y- and X-chromosome markers in forensics and evolutionary genetics. Moreover, we will be able to discuss the latest progress in other fields as forensic molecular pathology and pharmacogenetics, genetics of complex traits and forensic entomology. All committees have worked extremely hard to develop an interesting, informative and entertaining programme, and we hope we have managed to provide "something for everyone" - including fellows, trainees, scientists, and other forensic workers. I would also like to thank all our speakers for their hard work in preparing their presentations - we couldn't do it without you! The exchange of knowledge is a key factor for innovative development in forensic medicine.

I would like to thank our sponsors and exhibitors. I ask you to acknowledge their support by visiting their booths.

Dear colleagues, dear friends, beside the scientific part of this meeting I would like to invite you to get to know our country, and especially Ancona, its past and present.

I wish you an interesting, pleasant and unforgettable days in Ancona.

Yours sincerely,

Conference President  
Adriano Taqlibracci

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Università Politecnica  
delle Marche



Regione Marche



Comune di Ancona

## Invited Speakers

May 27

TUE

Petra	Boehme	Frankfurt (Germany)
Carlo P.	Campobasso	Campobasso (Italy)
Angel	Carracedo	Santiago de Compostela (Spain)
Michelle	Harvey	Portsmouth (UK)
Mark	Jobling	Leicester (UK)
Manfred	Kayser	Rotterdam (The Netherlands)
Walther	Parson	Innsbruck (Austria)
Thomas J.	Parsons	Sarajevo (Bosnia and Herzegovina)
Silvia	Priori	Pavia (Italy)
Lutz	Roewer	Berlin (Germany)
Antti	Sajantila	Helsinki (Finland)
Peter M.	Schneider	Cologne (Germany)
Jamie	Stevens	Exeter (UK)
Reinhard	Szibor	Magdeburg (Germany)
Antonio	Torroni	Pavia (Italy)
Chris	Tyler - Smith	Hinxton (UK)
Peter A.	Underhill	Stanford (USA)
Jeffrey D.	Wells	Morgantown (USA)
Richard	Zehner	Frankfurt (Germany)

17:00 - 19:30  
**Registration**

19:30 - 21:00  
**Welcome Cocktail**

May 28

WED

8:45 - 9:45  
**Registration**

9:45 - 10:00  
**Opening**

Congress President  
**Adriano Tagliabracchi**

Rector of Università Politecnica delle Marche  
**Marco Pacetti**

Major of the city  
**Fabio Sturani**

	10:00 - 12:30	<b>FORENSIC MOLECULAR PATHOLOGY AND PHARMACOGENETICS</b>	
		Chairman: Antti Sajantila (Helsinki - Finland)	
OP01	10:00	Silvia Priori (Pavia - Italy) Update on molecular pathology	
OP02	10:20	M. Brión, C. Allegue, P. Sánchez-Diz, R. Gil, A. Blanco-Verea, I. Quintela, A. Carracedo (Santiago de Compostela - Spain) Large scale genomic analysis in HCM	
	10:40	Coffee break and visit of the industrial exhibition	
	11:10 - 12:30	<b>Oral presentations</b>	
OP03	11:10	M. Pesaresi, F. Alessandrini, A. Tagliabracchi (Ancona - Italy) Development of multiplex PCRs for LQTs mutations analysis	
OP04	11:20	A.H.A.G. Ooms, G. Liebrechts-Akkerman, J.K. van Duijn, O. Lao, V.W.V.Jaddoe, C.M. van Duijn, A. Hofman, G.A. de Jonge, R.R. de Krijger, M. Kayser (Rotterdam - The Netherlands) Genetic predispositions of sudden infant death syndrome in the Netherlands - a case control study	
OP05	11:30	S. Kauferstein, N. Kiehne (Frankfurt - Germany) Can a common human SCN5A polymorphism interact with an arrhythmia causing mutation and trigger the risk for sudden death?	
OP06	11:40	N. Kiehne, C. Wiese, T. Neumann, H.F. Pitschner, S. Kauferstein (Frankfurt - Germany) Genetic testing of a patient with a family history of sudden death	

L. Buscemi, C. Turchi, F. Piva, A. Tagliabracchi (Ancona - Italy)	11:50	OP07
Genetic susceptibility of alcoholism: a new field of interest for forensic genetics		
C. Bini, S. Ceccardi, R. Trane, E. Dragoni, L.N. Riccardi, S. Pelotti (Bologna - Italy) Characterization of cytochrome P4502D6 (CYP2D6) genetic polymorphism in an Italian population sample by SNPs analysis	12:00	OP08
M. Heinrich, A. Koppelkamm, T. Fracasso, S. Lutz-Bonengel, U. Schmidt, B. Vennemann (Freiburg - Germany) Stability of endogenous control genes in human post-mortem tissue	12:10	OP09
A. Koppelkamm, T. Fracasso, B. Vennemann, S. Lutz-Bonengel, U. Schmidt, M. Heinrich (Freiburg - Germany) Validation of endogenous control genes for postmortem gene expression studies	12:20	OP10
<b>Poster presentations</b>		
N. Onori, C. Turchi, L. Buscemi, A. Tagliabracchi (Ancona - Italy) Association study of alcoholism: development of a multiplex PCR of 10 polymorphisms in the GABRA2 gene	PP01	
N. Kiehne, S. Kauferstein (Frankfurt - Germany) Sudden cardiac death and the role of mutations in the ryanodine receptor gene RYR2	PP02	
<b>Closing Session</b>	12:30	
<b>Lunch break (out of conference venue)</b>	12:30-14:00	
<b>Poster session</b>	13:00-14:00	

	14:00 - 16:00	<b>X-CHROMOSOME POLYMORPHISMS</b>	
		Chairman: Reinhard Szibor (Magdeburg - Germany)	
OP11	14:00	R. Szibor, C. Augustin, J. Edelmann, S. Kalis, S. Hering (Magdeburg - Germany) Establishing of low recombinating x-chromosomal STR clusters and their usage in kinship testing	15:40 OP18
OP12	14:30	A.O. Karlsson, P. Mostad, T. Egeland, B. Lindblom, G. Holmlund, K. Montelius (Linköping - Sweden) Population genetics of eight X-STRs in a Swedish population sample	15:50 OP19
OP13	14:45	M. Hedman, J. Palo, H. Mäkinen, A. Sajantila (Helsinki - Finland) Finnish and Somali X-STR frequencies	PP03
	15:00 - 16:00	<b>Oral presentations</b>	PP04
OP14	15:00	A. Tamura, H. Tsutsumi, M. Hara, A. Takada, K. Saito, K Suzuki, T. Komuro (Osaka - Japan) Genetic studies of eight X-STR in the Japanese population	PP05
OP15	15:10	I. Gomes, M. Prinz, R. Pereira, E. Bieschke, A. Amorim, A. Carracedo, L. Gusmão (Porto - Portugal) Hidden sequence variation of the X-linked DXS6789 microsatellite	PP06
OP16	15:20	S. Presciuttini, A. Rocchi, I. Spinetti, E. Ottaviani, C. Toni, R. Domenici (Pisa - Italy) Genetic data of three closely linked X-chromosome STRs in Tuscany (Italy)	PP07
OP17	15:30	T.M. Diegoli, M.D. Coble (Rockville - USA) Development of two mini-X chromosomal short tandem repeat multiplexes	PP08

H. Afonso Costa, A.M. Bento, P. Brito, A. Serra, V. Lopes, L. Andrade, F. Balsa, C. Oliveira, L. Batista, M.J. Anjos, M. Carvalho, F. Corte-Real (Coimbra - Portugal) Central Portugal population data for 10 X-STR	15:40 OP18
A.E. Codina, H. Niederstätter, W. Parson (Innsbruck - Austria) “Genderplex”, a new multiplex for human gender determination	15:50 OP19
<b>Poster presentations</b>	
C. Augustin, J. Edelmann, S. Hering, R. Szibor (Hamburg - Germany) Forensic validation of the X-chromosomal STR-markers DDXS10159 and DDXS10161	PP03
J. Edelmann, S. Hering, C. Augustin, S. Kalis, R. Szibor (Leipzig - Germany) DXS10162 and DDXS10163 are closely linked markers of forensic interest located in the chromosome X centromere region	
S. Hering, J. Edelmann, C. Augustin, S. Kalis, J. Dressler, R. Szibor (Dresden - Germany) Forensic validation of two further STR markers located within the Xq11 region near the centromere	PP05
A. Nagai, Y. Bunai (Gifu - Japan) Sequence variation at DDXS6789 and DDXS8377 loci in a Japanese population	
A. Zalán, A. Völgyi, Z. Straky, P. Endrédy, H. Pamjav (Budapest - Hungary) Hungarian recombination study of eight X-chromosomal loci using men type argus X-8 kit	
N. Cerri, A. Verzeletti, F. Gasparini, A. Poglio, E. Mazzeo, E. Ottaviani, S. Presciuttini, F. De Ferrari (Brescia - Italy) Haplotype analysis of four pairs of closely linked loci of the X-chromosome in two Italian samples	

PP09	T. Kupiec, W. Branicki, P. Wolańska-Nowak, D. Waluk (Krakow - Poland) Application of mentype argus X-8 to forensic casework
	16:00 Closing Session
	16:00 Coffee break and visit of the industrial exhibition
	16:20 - 18:20 <b>FORENSIC ENTOMOLOGY</b> Chairman: Carlo P. Campobasso and F. Introna Jr (Campobasso and Bari - Italy)
OP20	16:20 Michelle Harvey (Perth - Australia) Current status and future application of DNA in forensic entomology
OP21	16:40 Jamie Stevens (Exeter - UK) Problems and possibilities in DNA-based species identification
OP22	17:00 Jeffrey D. Wells (Morgantown - USA) Population genetics of carrion flies
OP23	17:20 R. Zehner, J. Amendt, A. Schutte (Frankfurt - Germany) Age determination of post-feeding maggots with molecular tools in forensic entomology
	17:40 - 18:20 <b>Oral presentations</b>
OP24	17:40 P. Boehme, J. Amendt, R. Zehner (Frankfurt - Germany) Molecular age determination of forensically important blow fly pupae
OP25	17:50 M. Mazzanti, F. Alessandrini, A. Tagliabracchi, C.P. Campobasso (Ancona - Italy) DNA degradation and genetic analysis of empty puparia: genetic identification limits in forensic entomology

D. Stijn, M. Gosselin (Brussel - Belgium)	18:00 OP26
COI as genetic marker for forensically important Calliphoridae in Belgium	
F. Alessandrini, M. Mazzanti, A. Tagliabracchi (Ancona - Italy)	18:10 OP27
Forensic entomology vs Forensic pathology: a case-report	
<b>Poster presentations</b>	
J. Pastuschek, S. Niederegger, G. Mall (Jena - Germany)	PP10
Forensic entomology studies in Turingia	
S. Vanin, E. Ponzano, P. Tozzo, A. Arseni, M. Turchetto, L. Caenazzo (Padova - Italy)	PP11
Preliminary investigations of mitochondrial DNA COI sequence to identify forensically important blowflies in North-Eastern Italy	
G. Armocida, C. Toni, G. Rigo, R. Domenici (Pisa - Italy)	PP12
Leone Lattes and the first paper on bloodstain typing from an insect	
M.V. Riina, V. Cetica, M. Caramelli, U. Ricci, P. L. Acutis (Torino - Italy)	PP13
Evaluation of markers for species identification in veterinary forensic genetics	
<b>VARIA</b>	
<b>Poster presentations</b>	
M. Barbisin, R. Fang, C. E. O'Shea, L. M. Calandro, M. R. Furtado, J. G. Shewale (Foster City - USA)	PP14
A multiplexed real-time PCR system for the quantitative and qualitative assessment of total human and human male DNA in forensic-type biological samples	

PP15

**M. Scherer, H. Lubenow (Hilden - Germany)**

A novel concept for the complete automation of established spin column based nucleic acid extraction processes: QIAcube

PP16

**S. Lupton, C. Knox, B. E. Krenke, N. Nassif, C. J. Sprecher, D. Storts (Madison - USA)**

A novel real-time PCR strategy for the quantitation of total human and male DNA

PP17

**N. Zengin, O. Baksi, H. Cem Ertugrul, A. Hakan Dinc, F. Usta Bal, S. Aral (Ankara - Turkey)**

A research on determination of the mutation rates of STR loci which is commonly used in paternity tests

PP18

**S. Procaccianti, L.V. Pascali, V. Triolo, A. Bonifacio, P. Procaccianti (Palermo - Italy)**

A suspected case of hunting accident

PP19

**F. Götz (Dresden - Germany)**

Analysis of complex DNA mixtures with genoproof mixture

PP20

**D. Corach, O. Lao, C. Bobillo, B. Zimmermann, M. Vermeulen, K. van der Gaag, W. Parson, P. de Knijff, M. Kayser (Buenos Aires - Argentina)**

Building bricks in unveiling human population history and dynamics of extant Argentina using a multifocal approach

PP21

**C. Phillips, M. Fondevila, A. Rodriguez, A. Mosquera-Miguel, F. Rondon, A. Salas, Á. Carracedo, M.V. Lareu (Santiago de Compostela - Spain)**

D9S1120, a simple STR exhibiting a common Native American-specific allele: forensic optimization, locus characterization and allele frequency studies

PP22

**R. Weispfenning, D. Rabbach, P. Fulmer, K. Zurbuchen, C.J. Sprecher, M. Schwandt, C. Knox, D. Storts (Mannheim - Germany)**

Development of a forensic screening tool: the Powerplex® S5 system

**C.R. Hill, M.C. Kline, J.M. Butler, P.M. Vallone (Gaithersburg - USA)**

Development of a new autosomal STR 27plex to address challenges in human identity testing

PP23

**M. Scherer, H. Lubenow (Hilden - Germany)**

Development of a new platform for fully automated medium- to high-throughput purification of nucleic acids from a variety of forensic specimens

PP24

**C. Phillips, M. Fondevila, D. Ballard, A. Gómez-Tato, J. Álvarez-Dios, D. Syndercombe Court, Á. Carracedo, M.V. Lareu (Santiago de Compostela - Spain)**

Differentiating Eurasian population-groups using a dedicated autosomal SNP multiplex assay

PP25

**J. Sanft, G. Mall (Jena - Germany)**

DNA-extraction from contact lenses

PP26

**A.J. Pakstis, C. Phillips, M. Fondevila, A. Carracedo, R. Fang, F. Hyland, J.R. Kidd, M.R. Furtado, K.K. Kidd (New Haven - USA)**

Extended support for SNPs useful in ancestry inference

PP27

**A. van Daal, B. Budowle (Gold Coast - Australia)**

Forensic use of SNP markers

PP28

**Y. Dong-Ming, Z. Ying-hua, L. Xu, W. Li (Beijing - China)**

Genetic characteristics of AB0 gene and 15 autosomal STRs in Chinese Uyghur population

PP29

**C. Veloso, A.M. Bento, H. Afonso Costa, P. Brito, V. Lopes, A. Serra, L. Andrade, F. Balsa, C. Oliveira, L. Batista, M.J. Anjos, M. Carvalho, S. Pantoja, F. Corte-Real (Coimbra - Portugal)**

Genetic Data of 15 STR forensic loci in a Bolivian population from La Paz

PP30

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9:00 - 10:40

### GENETICS OF COMPLEX TRAITS AND ITS APPLICATION IN FORENSIC SCIENCE

Chairman: Angel Carracedo  
(Santiago de Compostela - Spain)

- OP28** 9:00 **Manfred Kayser (Rotterdam - The Netherlands)**  
Genetics and prediction of human eye color
- OP29** 9:30 **Peter Schneider (Cologne - Germany)**  
Ethics of physical trait research and use in forensics
- 10:00 - 10:40  
**Oral presentations**
- OP30** 10:00 F. Rivadeneira , L. Stolk, F. Liu, Y. S. Aulchenko, A. Hofman, B. A. Oostra, C. M. van Duijn, M. Krawczak, S. Schreiber, A. G. Uitterlinden, M. Kayser (Rotterdam - The Netherlands)  
Genetics markers to predict human adult body height: looking for a needle in a haystack?
- OP31** 10:10 C. Keyser, C. Bouakaze, E. Crubézy, B. Ludes (Strasbourg - France)  
Genetic analyses of bronze and iron age South Siberian Specimens. What did they look like?
- OP32** 10:20 J. Mengel-From, C. Børsting, P. Johansen, H. Eiberg, N. Morling (Copenhagen - Denmark)  
Genetic determination of hair and eye colours in Danes
- OP33** 10:30 W. Branicki , U. Brudnik, J. Draus-Barini, R. Doyle, O. Rydzik, M. Łacka, T. Kupiec (Krakow - Poland)  
SLC45A2 (MATP) gene SNPs associated with hair colour
- 10:40 **Closing Session**
- 10:40 Coffee break and visit of the industrial exhibition

### mtDNA - 3rd EMPOP MEETING 2008

Chairman: Walther Parson (Innsbruck - Austria)

- 11:00-12:30
- Antonio Torroni (Pavia - Italy) 11:05 OP34  
Mt-DNA in evolutionary genetics
- Walther Parson (Innsbruck - Austria) 11:35 OP35  
EMPOP Release 2
- T.J. Parsons, K.M. Strouss (Sarajevo - Bosnia and Herzegovina) 12:05 OP36  
Site specific relative evolutionary rates in the mtDNA control region by phylogenetic analysis of a large population dataset
- Seminar Applied Biosystem 12:30-14:00
- Poster session 13:00-14:00
- 14:00-16:00
- Oral presentations**
- Population genetics**
- M. Kayser (Rotterdam-The Netherlands) 14:00 OP37  
Pros and cons of uni-parental markers in reconstructing the genetic history of individuals and populations: a case study from the Pacific
- L. Castri, P. Garagnani, A. Useli, D. Pettener, D. Luiselli (Bologna -Italy) 14:20 OP38  
New data on mtDNA variability in six ethnic groups (Masai, Turkana, Samburu, Rendille, Elmolo, Luo) from Kenya
- V. Gomes, V. Pereira, A. Amorim, P. Sánchez-Diz, A. Carracedo, M.J. Prata, L. Gusmão (Porto - Portugal) 14:30 OP39  
Mitochondrial DNA in people from Karamoja (Uganda)

OP40	14:40	C. Turchi, V. Onofri, E. Giacchino, L. Buscemi, A. Tagliabracci (Ancona - Italy) Polymorphisms of mtDNA control region in Tunisian and Moroccan populations: an enrichment of forensic mtDNA databases with Northern Africa data	16:30-18:00
OP41	14:50	M. Gorzkiewicz, B.A. Malyarchuk, M.V. Derenko, M. Wozniak, T. Grzybowski (Bydgoszcz- Poland) Do the POLG CAG polymorphic variants influence mitochondrial DNA variation in Europe?	R. Szibor, D. Krause, I. Plate, J. Edelmann, E. Kirches (Magdeburg - Germany) Whole genome amplification (WGA) from hair shaft-mtDNA: results produced using the Genomiphi-DNA-amplifications-kit (GE Healthcare)
OP42	15:00	P.M. Vallone, O. Lao, M.D. Coble, J. Pijpe, P. de Knijff, M. Kayser (Gaithersburg- USA) Informativity of ancestry-sensitive markers from autosomes, Y-chromosome and mitochondrial DNA in U.S. populations	L. Fendt, B. Zimmermann, G. Huber, W. Parson (Innsbruck - Austria) The relevance of full mtDNA genome sequencing in forensics: setting quality standards
OP43	15:10	G. Hampikian, M. Davis (Boise - USA) Basque DNA in Idaho: the origin and frequency of mitochondrial haplotypes in immigrants to a Northwestern American state	A. Röck, A. Dür (Innsbruck - Austria) Software tools for the phylogenetic alignment of mtDNA sequences
OP44	15:20	P. Grignani, C. Turchi, A. Achilli, G. Peloso, A. Tagliabracci, M. Alù, U. Ricci, C. Robino, S. Pelotti, E. Carnevali, I. Boschi, C. Previdere (Pavia - Italy) Dissection of mtDNA haplogroups U/K and J/T	H.Y. Lee, I. Song, E. Ha, S. B. Cho, J.E. Sim, W.I. Yang, K.-J. Shin (Seoul - Korea) A practical application of mtDNAmanager to mitochondrial DNA error detection in forensics
OP45	15:30	S. Köhnemann, H. Pfeiffer, C. Hohoff (Münster - Germany) Increasing the mtDNA discriminatory power by HV1 sequencing and mtDNA-SNP typing	B. Budowle, C. Fisher, D. Polanskey, B.D. Hartog, J. Elling, R. Kepler (Quantico - USA) Software program for standardizing an operational mtDNA nomenclature for forensic analyses
OP46	15:40	M. Mikkelsen, E. Rockenbauer, E. Sørensen, C. Børsting, N. Morling (Copenhagen - Denmark) A mitochondrial DNA SNP multiplex PCR assay assigning Caucasians into 41 haplo- and subhaplogroups	J.A. Irwin, M.D. Coble (Rockville - USA) Pitfalls and predicaments in the generation of high-quality control region databases
OP47	15:50	S. Amory, A. Brandstätter, E. Crubézy, M. Gilbert, B. Ludes, W. Parson (Strasbourg - France) Asiaplex: a SNaPshot assay for mtDNA lineage stratification of Asian populations	C. Eichmann, W. Parson (Innsbruck - Austria) Mini-midi-mito: adapting the amplification and sequencing strategy to the DNA degradation state of crime scene samples
	16:00	Coffee break and visit of the industrial exhibition	I. Furac, M. Karija Vlahovic, M. Masic, M. Kubat (Zagreb - Croatia) Identification of human remains with a little help of mtDNA

## Oral presentations Forensic applications

R. Szibor, D. Krause, I. Plate, J. Edelmann, E. Kirches (Magdeburg - Germany) Whole genome amplification (WGA) from hair shaft-mtDNA: results produced using the Genomiphi-DNA-amplifications-kit (GE Healthcare)	16:30	OP48
L. Fendt, B. Zimmermann, G. Huber, W. Parson (Innsbruck - Austria) The relevance of full mtDNA genome sequencing in forensics: setting quality standards	16:40	OP49
A. Röck, A. Dür (Innsbruck - Austria) Software tools for the phylogenetic alignment of mtDNA sequences	16:50	OP50
H.Y. Lee, I. Song, E. Ha, S. B. Cho, J.E. Sim, W.I. Yang, K.-J. Shin (Seoul - Korea) A practical application of mtDNAmanager to mitochondrial DNA error detection in forensics	17:00	OP51
B. Budowle, C. Fisher, D. Polanskey, B.D. Hartog, J. Elling, R. Kepler (Quantico - USA) Software program for standardizing an operational mtDNA nomenclature for forensic analyses	17:10	OP52
J.A. Irwin, M.D. Coble (Rockville - USA) Pitfalls and predicaments in the generation of high-quality control region databases	17:20	OP53
C. Eichmann, W. Parson (Innsbruck - Austria) Mini-midi-mito: adapting the amplification and sequencing strategy to the DNA degradation state of crime scene samples	17:30	OP54
I. Furac, M. Karija Vlahovic, M. Masic, M. Kubat (Zagreb - Croatia) Identification of human remains with a little help of mtDNA	17:40	OP55

OP56	17:50	R. Pflugradt, T. Sänger, S. Lutz-Bonengel (Freiburg - Germany) Separation of mitochondrial particles by flow cytometry and subsequent mtDNA sequence analysis
<b>Poster presentations</b>		
PP31		G.G. Paneto, L.V.G. Longo, J.A. Martins, M.A. Camargo, J.C. Costa, R. Nogueira de Oliveira, R.M.B. Cicarelli (São Paulo - Brasil) Heteroplasmy in hairs: study of the mitochondrial third hypervariable region
PP32		F. Alshamali, V. Fernandes, M. Costa, L. Pereira (Dubai - United Arab Emirates) Mitochondrial DNA diversity in Ethiopia
PP33		R. Schubbert, T. Brendel, W. Hell, S. Rittler, S. Schneider (Martinsried - Germany) Validation of analysis of mitochondrial DNA using SEQUENOM MALDITOF
PP34		S. Bertонcini, S. Tofanelli, L. Castrì, D. Luiselli, F. Calafell, G. Paoli (Pisa - Italy) Unravelling the male and female side of Malagasy admixed ancestry
PP35		P. Daca, M. Mielnik, M. Wozniak, T. Grzybowski (Bydgoszcz - Poland) Differentiation of mitochondrial DNA in Polish population
PP36		F. Brisighelli, C. Capelli, V. Álvarez-Iglesias, V. Onofri, G. Paoli, S. Tofanelli, Á. Carracedo, V.L. Pascali, A. Salas (Santiago de Compostela - Spain) A recent historical genetic link between Etruria and Anatolia
PP37		C. Gamba, E. Fernández, M. Tirado, C. Baeza, A.M. López-Parra, J. Abarca, J.M. López, D. Martínez, E. Arroyo-Pardo (Madrid - Spain) High efficiency extraction and amplification from early middle ages teeth

		B. Egyed, Z. Szabolcsi, P. Zenke, L. Zöldág, L. Orosz, Z. Pádár (Budapest - Hungary) Forensic identification of red deer by sequencing the mitochondrial DNA control region
		E. Pilli, A. Modi, M. Lari, L. Milani, G. Catalano, B. Lippi, F. Bertoldi, S. Gelichi, F. Mallegni, D. Caramelli (Firenze - Italy) How much does modern human contamination weigh on ancient and forensic samples?
		A. Tavares, P. Dario, T. Ribeiro, R. Espinheira, H. Geada (Lisboa - Portugal) HV1 mtDNA study in an African population - Cabo Verde Islands
		A.M. López-Parra, E. Fernández, C. Baeza, C. Gamba, M. Tirado, L. Gusmão, M.S. Mesa, E. Arroyo-Pardo (Madrid - Spain) Mitochondrial DNA sequence variation in a Spanish west Pyrenean population
		F. Balsa, L. Andrade, M. Carvalho, V. Lopes, A. Serra, A. Bento, H. Afonso Costa, C. Oliveira, L. Batista, J.A. Lorente, F. Corte-Real, M.J. Anjos, R.K. Roby (Coimbra - Portugal) New techniques validated for mitochondrial DNA analysis
		Z. Zafarina, M.N. Norazmi (Kelantan - Malaysia) Mitochondrial DNA analysis as tool for identification of human remains
		J.A. Irwin, A. Brandstätter, J.L. Saunier, K.M. Strouss, K.S. Sturk, T.M. Diegoli, W. Parson, T.J. Parsons (Rockville - USA) Investigation of point heteroplasmy in the mitochondrial DNA control region: a synthesis of observations from over 5000 global population samples
		<b>VARIA</b> <b>Poster presentations</b>
		S.P. Lavelle, M.A. Jobling (Leicester - UK) Informative SNPSTR systems based on standard forensic autosomal STRs

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May

THU

PP46	M.U. Böhme, C. Weber, W. Brabetz (Dresden - Germany) Multiplex analysis of short insertion/deletion polymorphisms - a new tool for forensic casework	
PP47	M. Allouche, V. Castella (Lausanne - Suisse) Nails as source of DNA to identify decomposed corpses	
PP48	J.R. Kidd, K.K. Kidd (New Haven - USA) New ancestry informative SNPs	
PP49	L. Saskova, A. Giambra, M. Pospisek, D. Vanek (Prague - Czech Republic) Novel testing system for monitoring of background contamination in DNA laboratories	
PP50	I. Boroňová, I. Bernasovský, J. Bernasovská, E. Petrejčíková, A. Bôžiková, M. Soták, A. Sovičová, D. Gabriková, A. Švíčková, S. Mačeková (Prešov - Slovakia) Polymorphism of human C-band heterochromatin. Frequency of heterochromatin variants in the couples with accidents of fertility	
PP51	S.Procaccianti, A. Bonifacio, V.Triolo, P. Procaccianti (Palermo - Italy) Population data of nine STRs from Western Sicily, Italy	
PP52	B. Rolf, N. Gassen (München - Germany) Relative quantification of tissue specific microRNAs by Real-Time PCR	
PP53	M. Heinrich, A. Koppelkamm, T. Fracasso, S. Lutz-Bonengel, U. Schmidt, B. Vennemann (Freiburg - Germany) Stability of endogenous control genes in human post-mortem tissue	
PP54	F. Pitterl, G. Huber, H. Niederstätter, H. Oberacher, W. Parson (Innsbruck - Austria) STR analysis - the next generation	
18:00	Closing Session	
20:30	Social Dinner	

May 30

FRI

## 6th INTERNATIONAL FORENSIC Y-USER WORKSHOP

Chairman: Lutz Roewer (Berlin - Germany)

Chris Tyler-Smith (Hinxton- UK)	9:05	OP57
Y-chromosome: implementation of new technologies		
Peter Underhill (Stanford - USA)	9:35	OP58
Y-chromosome in evolutionary genetics		
Mark A. Jobling (Leicester - UK)	10:05	OP59
Like father, like son? The relationship between surnames and Y haplotypes		
Sascha Willuweit (Berlin - Germany)	10:35	OP60
YHRD 3.0		
Coffee break and visit of the industrial exhibition	11:05	
<b>Oral presentations</b>		
<b>Population genetics part I</b>		
M. Navascués, C. Burgarella (Paris - France)	11:30	OP61
A new composite likelihood method to characterize demographic expansions: preliminary results from Y-chromosome STR data		
V. Onofri, L. Buscemi, A. Tagliabruni and Ge.F.I. Group (Ancona - Italy)	11:40	OP62
Italian Y-SNPs Database: a collaborative exercise of Ge.F.I. - ISFG group		
B. Berger, D. Erhart, S. Amory, H. Niederstätter, C. Gassner, H. Schennach, W. Parson (Innsbruck - Austria)	11:50	OP63
Distribution of Y-STR haplotypes in selected regions of the Tyrolean Alps (Austria) evident after high-resolution sampling		

30 May

FRI

OP64	12:00	J.U. Palo, M. Pirttimaa, A. Bengs, V. Johnsson, I. Ulmanen, M. Lukka, B. Udd, A. Sajantila (Helsinki - Finland) The effect of number of loci on geographical structuring and forensic applicability of Y-STR data in Finland
OP65	12:10	S. Tofanelli, G. Ferri, L. Caciagli, V. Onofri, M. Alù, L. Taglioli, K. Bulayeva, D. Luiselli, G. Paoli, C. Capelli (Pisa - Italy) Founder analysis of the J1-M267 Y chromosome lineage indicates a prehistoric timeline for the "Arab" STR motifs
OP66	12:20	C. Brenner (Berkeley - USA) The value of evidence from a rare haplotype
OP67	12:30	A. Völgyi, A. Zalán, A.Z. Bíró, H. Pamjav (Budapest - Hungary) Comparative Y-STR and Y-SNP analysis of the Madjar (Kazakhstan) population to the present Hungarians
	12:40-14:00	Lunch break
	13:00-14:00	Poster session
	14:00-16:00	Oral presentations Forensic implications and population genetics part II
OP68	14:00	T.E. King, M.A. Jobling (Leicester - UK) Ethnicity prediction from Y chromosomal haplotypes: cautionary tales
OP69	14:10	D. Marjanovic, A. Durmic, L. Kovacevic, N. Bakal, S. Haveric, L. Kovacevic, S. Vedrana, P. Projic, K. Drobnić, D. Primorac, R. Hadziselimovic (Sarajevo - Bosnia and Herzegovina) Usage of Y-STRs in DNA identification of skeletal remains from Second World War

May 30

FRI

M. Nagy, P. Entz, P. Otremba, L. Roewer, J. Dapprich (Berlin - Germany) Isolation of an extended molecular Y chromosome haplotype from male mixtures	14:20	OP70
B. Budowle, G. Jianye, A.J. Eisenberg, X.G. Aranda, R. Chakraborty (Quantico - USA) Interpreting Y STR profiles: substructure and mutation rates	14:30	OP71
P. Sánchez-Diz, C. Alves, E. Carvalho, M. Carvalho, R. Espinheira, O. García, M.F. Pinheiro, L. Pontes, M.J. Porto, O. Santapa, C. Silva, D. Sumita, S. Valente, M. Whittle, I. Yurrebaso, A. Carracedo, A. Amorim, L. Gusmão (Santiago de Compostela - Spain) Population and segregation data on 17 Y-STRs: results of a GEP-ISFG collaborative study	14:40	OP72
M. He, J. Gitschier, T. Zerjal, P. de Knijff, C. Tyler-Smith, Y. Xue (Hinxton- UK) Who are the HAPMAP populations?	14:50	OP73
C. Bobillo, M. Marino, E. Alechine, A. Sala, J.C. Acosta-Ferreyyra, C. Arguelles, C. Ayala, A. Fenochio, C. Rodríguez, L. Saccomano, A. Scatena, D. Corach (Buenos Aires - Argentina) Tribal affinities of Argentinean and other Southern South Amerindians inferred from MQ3 Y-STR haplotypes	15:00	OP74
C. Capelli, V. Onofri, F. Brisighelli, I. Boschi, F. Scarnicci, M. Masullo, G. Ferri, S. Tofanelli, A. Tagliabracci, L. Gusmao, A. Amorim, F. Gatto, M. Brion Martinez, A. Blanco Verea, V. Romano, F. Cali, V. Pascali (Oxford - UK) The Arabs in Europe: estimating medieval North Africa male legacy into Southern Europe	15:10	OP75
G. Ferri, C. Bini, S. Ceccardi, M. Falconi, M. Alù, S. Pelotti (Modena - Italy) Molecular characterization of the Emilia-Romagna region	15:20	OP76

**OP77** 15:30 M. Woźniak, B.A. Malyarchuk, M.V. Derenko, T. Vanecek, J. Lazur, P. Gomolcak, J. Starzyński, T. Grzybowski (Bydgoszcz - Poland)  
Czechs and Slovaks - Linguistics vs. Y-STRs

**OP78** 15:40 M. Minarik, J. Zastera, P. Sekerka, L. Roewer, S. Willuweit, L. Benesova (Prague - Czech Republic)  
Central European genetic population data from large-scale 12 STR Y-haplotyping in the Czech Republic

**OP79** 15:50 S. Siddiqi, A. Mansoor, S. Usman, N. Malik, K. Mazhar, K.M. Khan, R. Qamar (Islamabad - Pakistan)  
Five novel Y-STR loci: polymorphism studies of different Pakistani ethnic groups

16:00 Coffee break and visit of the industrial exhibition

16:30 Proposal for next meeting and closing

16:45 Round table for YHRD contributors and users

#### Poster presentations

**PP55**  
E. Petrejčíková, D. Siváková, M. Soták, J. Bernasovská, I. Bernasovský, I. Boroňová, A. Sovičová, A. Bôžiková, D. Gabričová, P. Švíčková, S. Mačeková (Presov - Slovakia)  
Allele frequencies and population data for 12 Y-chromosome STRs loci in Haban and Non-Haban population samples from Slovakia

**PP56**  
C. Vieira-Silva, P. Dario, T. Ribeiro, R. Espinheira, H. Geada (Lisboa - Portugal)  
Analysis of mutations in south Portugal Caucasian father/son pairs with 17 Y-STRs

**PP57**  
E. Ramos-Luis, A. Blanco-Verea, M. Brión, V. van Huffel, A. Carracedo, P. Sánchez-Diz (Santiago de Compostela - Spain)  
Analysis of Y chromosome lineages in the French population

**G. Ferri, M. Alù, B. Corradini, E. Radheshi, G. Beduschi (Modena - Italy)**  
Balkans Egyptians: new ethnic identities in the Balkans or old Roma legends? Y chromosome analysis in Albanian populations

**PP58**  
M. Wirsching, S. Lutz-Bonengel, T. Sänger, C. Hohoff, K. Bender, M. Heinrich (Freiburg - Germany)  
Further discrimination of the Y chromosomal haplogroup R1b\* in German populations using a reduced volume approach

**PP59**  
M. Hara, A. Kido, T. Yamamoto, A. Takada, A. Tamura, K. Saito (Saitama - Japan)  
Genetic data on Y-chromosome STR loci in Japanese, Bangladeshis, and Indonesians using an AmpFLSTR Yfiler kit

**PP60**  
M. Caplinskiene, A. Pauliukevicius, J. Jankauskiene, D. Bunokiene, J. Kukiene, O. Petruskiene, K. Savanavskyte, A. Jureniene (Vilnius - Lithuania)  
Lithuanian population studies on Y chromosome with 17 loci multiplex PCR system

**PP61**  
T. Varljen, M. Djuric, O. Stojkovic (Belgrade - Serbia)  
Mutation analysis of 17 Y-chromosomal STRs in the Serbia and Montenegro population sample

**PP62**  
L.K. Hennessy, B. Budowle, X. Aranda, R. Lagace, J.V. Planz, M. Rodriguez, A.J. Eisenberg (Foster City - USA)  
Null allele sequence structure at the DYS448 locus and implications for profile interpretation

**PP63**  
A.M. Bento, H. Afonso Costa, V. Lopes, A. Serra, L. Andrade, F. Balsa, C. Oliveira, L. Batista, M.J. Anjos, M. Carvalho, F. Corte-Real (Coimbra - Portugal)  
Population data for Y-chromosome haplotypes defined by 17 STRs (AmpFLSTR YFiler) in Central Portugal

**PP64**  
S. Varacalli, C. Robino, S. Donadio, P. Annetta, C. Torre, S. Gino (Torino - Italy)  
Real-time PCR-based quantitation of Y-chromosomal DNA in mixed samples from sexual assault cases

PP66

V. Onofri, C. Frontalini, A. Tagliabracci  
(Ancona - Italy)  
Y chromosome haplotype-haplogroup analysis of a sample population from Tunisia and Morocco

PP67

S. Pelotti, S. Ceccardi, R. Trane, E. Dragoni, L.N. Riccardi, C. Bini, S. Willuweit, L. Roewer  
(Bologna - Italy)  
Y chromosome polymorphism in a large population sample of Ravenna's area in the North of Italy

PP68

F. Cruciani, B. Trombetta, D. Sellitto, C. Nodale, R. Sczzari (Roma - Italy)  
Phylogeography of the human Y chromosome haplogroup E3a

PP69

U-D. Immel, M. Macák Jr., T. Piskáčková, M. Kleiber  
(Halle - Germany)  
Y-chromosomal STR haplotypes in a Czech population from Prague

## VARIA

### Poster presentations

PP70

P. Zenke, Z. Pádár, B. Egyed, L. Zöldág  
(Budapest - Hungary)  
STR multiplexes for genotyping low amount of degraded canine DNA

PP71

C. Phillips, L. Prieto, J. Álvarez-Dios, A. Blanco-Verea, M. Brion, M. Fondevila, A. Gómez-Tato, M. Montesino, A. Salas, Á. Carracedo, M.V. Lareu  
(Santiago de Compostela - Spain)  
The 11-M Madrid terrorist attack investigation: usefulness of ancestry informative markers (AIMs) in forensic analysis

PP72

J. Amigo, C. Phillips, A. Salas, Á. Carracedo  
(Santiago de Compostela - Spain)  
The SPSmart SNP allele frequency browser: an online tool for forensic SNP marker development

A. Koppelkamm, T. Fracasso, B. Vennemann, S. Lutz-Bonengel, U. Schmidt, M. Heinrich  
(Freiburg - Germany)  
Validation of endogenous control genes for postmortem gene expression studies

L. Saskova, A. Giambra, D. Vanek  
(Prague - Czech Republic)  
Validation studies of the sample collection system for forensic use

Z. Szabolcsi, B. Egyed, P. Zenke, A. Borsy, Z. Pádár, L. Zöldág, Z. Buzás, I. Raskó, L. Orosz  
(Budapest - Hungary)  
Genetic identification of red deer using autosomal STR markers

A. Barbaro, C. Phillips, M. Fondevila, A. Carracedo  
(Reggio Calabria - Italy)  
Allele frequency distribution of 52 autosomal SNPs in two Italian population samples

P. Thanakiatkrai, L. A. Dixon (Glasgow - Scotland)  
Effects of increased PCR cycles and varying injection times on STR profile quality

M. Jin Park, H. Young Lee, N. Young Kim, J. Eun Sim, W. Ick Yang, K. Shin (Seoul - Korea)  
Improved DNA extraction from old skeletal remains by combining total demineralization and silica-based extraction and concentration

PP73

PP74

PP75

PP76

PP77

PP78

## WELCOME RECEPTION

The Welcome cocktail will be offered on Tuesday 27th May at 7.30 p.m. at the Conference venue

## SOCIAL DINNER

The Social dinner will take place on Thursday 29th May at Restaurant of Golf Club of Sirolo

*To attend the Welcome Reception and the Social Dinner, participants need to show the badge given by Organizing Secretariat at the registration desk*

## SOCIAL PROGRAM

### Tour of Grotte di Frasassi (Frasassi Caves)

Saturday 31st May from 9 a.m. to 3 p.m.

Tour of Grotte di Frasassi (Frasassi Caves).

Saturday 31st May from 9 a.m. to 3 p.m.

Pick up at 9 a.m. in front of Teatro delle Muse.

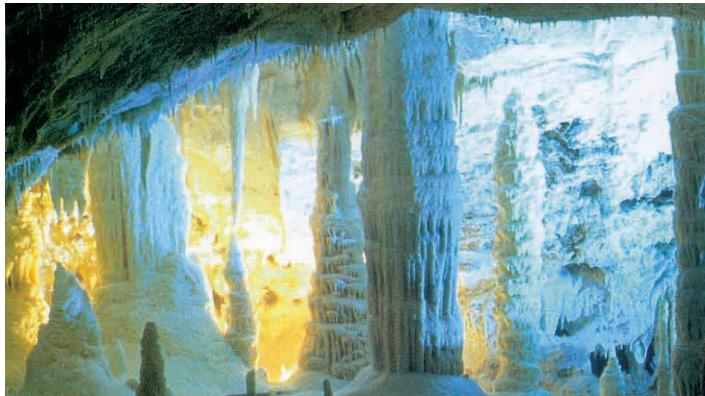
The visit inside the caves lasts about 75 minutes.

The internal temperature is about 14°C.

Lunch at 1 p.m. (not included in the tour fee)

The tour will take place only with a minimum of 20 attendees.

Tour fee: 60 € + VAT (lunch not included)



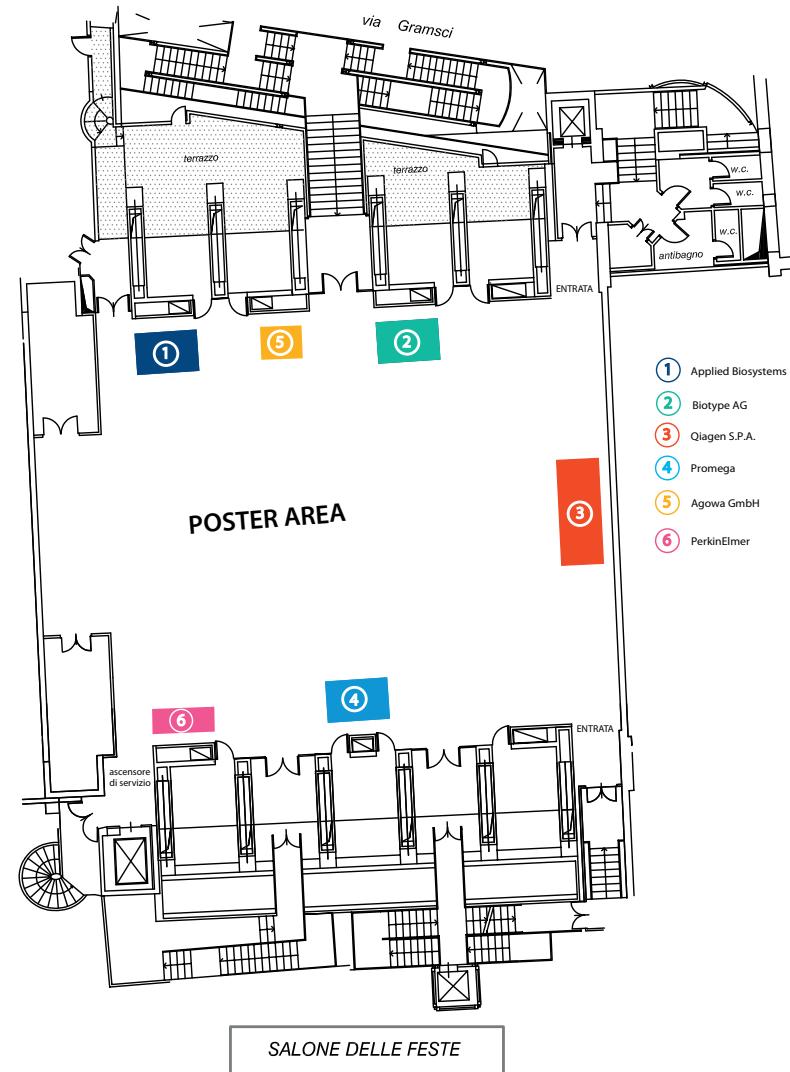
## ORGANIZING SECRETARIAT

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[www.congredior.it](http://www.congredior.it) - [info@congredior.it](mailto:info@congredior.it)

The Organizing Secretariat will be available throughout the Congress days at the following phone number: +39 071 207 84244.

The exhibition and poster area will be set up on the top floor of Teatro delle Muse with a display of the Congress sponsors' booths, available for visits throughout the Event. The same area will host the Welcome cocktail.





#### HOW TO GET THERE

Teatro delle Muse is located in one of Ancona's main square, p.zza della Repubblica, straight across the port.

#### BY TRAIN

From the railway station you can travel by bus (line number: 1 ; 1/4) which will take approx. 10 mins. Buses run every 5/10 mins. Get off at P.zza Kennedy. The theatre is just around the block.

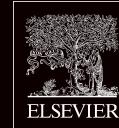
N.B. Bus tickets must be purchased in advance at a newsagent's stand.

#### BY AIR

Raffaello Sanzio Airport is approx. 30 mins. by car from the Congress venue. A rent car service is available at the airport as well as bus and cabs services.

#### BY CAR

Leave the A14 motorway at Ancona NORD exit and follow the City center indication (Centro) or leave the A14 motorway at Ancona SUD exit and follow the City center indication (Centro).



# FORENSIC SCIENCE INTERNATIONAL **GENETICS**

Official journal of the International Society for Forensic Genetics



#### Editor-in-Chief:

Angel Carracedo

Institute of Legal Medicine,  
Santiago de Compostela,  
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**Location**

Ancona, Teatro delle Muse

**Date**

**Tuesday 27 May 2008**

Reception and Registration

**Wednesday to Friday 28-30 May 2008**

Plenary Sessions

Poster presentations

Industrial exhibition

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