

Charité – Universitätsmedizin Berlin



PROGRAMME

IV. International Forensic Y-User Workshop — Haploid DNA markers in forensic genetics —

Berlin, November 18 - 20, 2004

www.yhrd.org • www.empop.org

Dear friends and colleagues,

welcome to the IV. International Forensic Y-User Workshop in Berlin!

This year we come back to the site of the first “outbreak” meeting in 1996, with a 350 m sideway movement from the Institute of Legal Medicine to the larger lecture hall in the Institute of Pathology of the Charité. The Charité, named by the Prussian king Friedrich Wilhelm in 1727, is today the Medical Faculty of two large Berlin universities, the Humboldt-University and the Free University.

Forensic genetics, the link between academic research and teaching on DNA individualisation and population genetics on the one hand and the forensic practice on the other, is probably the most dynamic field of all forensic sciences. To keep up with the progress in our field we have chosen again one of the most fascinating research subjects – the structure and behaviour of haploid sequences of the genome in men and its forensic applications. Both the Y-chromosomal and the mitochondrial DNA have attracted scientists and practitioners (and companies) in the last years, and the program of the IV. Workshop is probably the most comprehensive documentation of the state of the art on how to diagnose these parts of the genomes in forensic applications.

We are happy to meet you for a diner at Friday 19, 2004, in the “Ruine”, the famous lecture hall of Rudolf Virchow, bombed in 1945 and restored as a museum and banquet hall. During diner and also the other days you can visit the renowned collection of pathological specimen and even an exhibition honouring the geneticist James D. Watson. Musicians of the “Staatskapelle”, an orchestra famous for their so-called “Deutscher Ton” (or “German sound”), for their opera interpretations and for their conductor, Daniel Barenboim, will play adaptations of popular opera music for you.

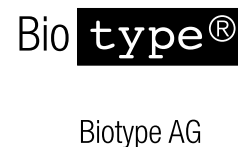
Yours Lutz Roewer and colleagues

Organizers of the Workshop: Institutes of Legal Medicine Berlin (Germany), Innsbruck (Austria) and Leipzig (Germany)

Venue of the Workshop: Institute of Pathology, Virchowweg 15, Central Charité Campus (for orientation see map overleaf)

Workshop fee: EUR 50,- for all attendants (except those receiving a fellowship of the DFG) to be paid at the site of the meeting

Sponsors of the Workshop:



Thursday , November 18

Populations and Phylogenies

9h - 14h **Registration (Institute of Pathology, Virchowweg 15, Campus Charité Mitte)**

14h **Opening (Lecture hall, Institute of Pathology)**

Cornelius Frömmel (Vice Dean for Research, Charité Berlin)

Volkmar Schneider (Director Institute of Legal Medicine, Charité Berlin)

Peter M. Schneider (President ISFG)

Walther Parson (Workshop Co-Organizer)

Lutz Roewer (Workshop Co-Organizer)

14h30 **Interpreting Y-chromosomal DNA variation**

Chris Tyler-Smith (Cambridge, UK)

15h **New challenges in mitochondrial DNA profiling**

Antonio Salas, Carracedo A, Macaulay V, Richards M, Bandelt HJ (Santiago de Compostela, Spain)

15h30 **Survey of Y-chromosomal microsatellites in human and non-human primates**

Manfred Kayser (Rotterdam, The Netherlands)

16h **Haploid markers in the Finns**

Antti Sajantila (Helsinki, Finland)

16h30 - 17h **Coffee break**

17h **Y-STR haplotypes from East Germany – differences between carriers of surnames of Germanic and Slavic origin ?**

Uta-Dorothee Immel, Krawczak M, Rodig H, Kleiber M, Klintschar M (Halle, Germany)

17h20 **Genetic differentiation follows political borders in Europe: Y-chromosome variation in Poland and Germany**

Kayser M, Anslinger K, Augustin C, Dobosz T, Edelmann J, Elias S, Gargel G, Heinrich M, Henke J Henke L, Hohoff C, Iling A, Jonkisz A, Kuzniar P, Lebioda A, Lessig R, Lewicki S, Maciejewska A, Monies DM, Pawlowski R, Poetsch M, Schmid D, Schmidt U, Schneider PM, Stradmann-Bellinghausen B, Szibor R, Wegener R, Wozniak M, Zoledziewska M, Roewer L, Rafal Ploski (Warsaw, Poland and other groups from Poland, Germany, The Netherlands)

17h40 **Evaluation of the Ethnic Composition in the Population of Argentina**

Daniel Corach, Marino M, Sala A (Buenos Aires, Argentina)

18h **Y-chromosomal DNA variation in East Asia**

Yali Xue, Bao W, Zhu S, Xu J, Su Q, Du R, Yang H, Li P, Fu S, Hurles ME, Zerjal T, Tyler-Smith C (Cambridge, UK)

18h20 **Use of Y-STR haplotyping and large population databases to predict the population-origin of unknown male DNA**

Gunilla Holmlund, Willuweit S, Verdicchio M, Holck P, Borg E, Solheim T, Roewer L (Linköping, Sweden)

19h00 **Assembly of the German-speaking group of the ISFG**

Friday , November 19

Databases and Casework

9h **Weathering Stormy Seas: Challenges and Progress in mtDNA Forensic Applications**
Thomas Parsons (Rockville, USA)

9h30 **EMPOP – A new mtDNA database for forensic purposes**
Walther Parson, Brandstätter A, Steinlechner M, Pircher M, Troger S, Scheithauer R (Innsbruck, Austria)

10h **Phylogenetic tools for quality assessment of mtDNA population data**
Anita Brandstätter, Dür A, Parson W (Innsbruck, Austria)

10h30 **Relevance of mtDNA sequence data for the victim identification after the WTC terrorist attack**
Erik Bieschke, Mar E, Prinz M, Shaler R (New York, USA)

11h - 11h30 **Coffee Break**

11h30 **Analysis of the POLG CAG repeat length variability in North Eurasian populations**
Malyarchuk BA, Papuga M, Tomasz Grzybowski, Wozniak M, Derenko MV, Czarny J, Miscicka-Sliwka D (Bydgoszcz, Poland)

11h45 **D-loop 3'(CA)_n repeat heteroplasmy: Inheritance studies in two pedigrees**
Reinhard Szibor, Wittig H, Plate I, Michael M, Schöning R (Magdeburg, Germany)

12h **The Romanov “controversy” and other issues in bone DNA typing.**
Erika Hagelberg, Frame I, Gill P (Oslo, Norway)

12h20 - 14h **Lunch**

14h **Forensic Interpretation of Y-Chromosomal DNA Mixtures**
Michael Krawczak (Kiel, Germany)

14h30 **Is there a reliable Y-STR database for you?**
Peter de Knijff (Leiden, The Netherlands)

15h **Expectancy of Y-STR haplotype diversity parameters under different population scenarios**
Luísa Pereira, Roewer L, Amorim A (Porto, Portugal)

15h20 **Assignment of the YHRD samples to metapopulations and resulting search options**
Lutz Roewer, Willuweit S, Nagy M & Forensic Y Chromosome Research Group (Berlin, Germany)

15h35 **The genetic landscape of Europe as revealed by analysing the European Y-STR haplotype distribution**
Michael Krawczak (Kiel, Germany)

15h50 - 16h20 **Coffee break**

16h20 **Demonstration of the usefulness of Y-chromosomal loci for casework - a serial rape case was solved**
Hans-Jürgen Kärger (Magdeburg, Germany)

16h35 **A study of Y Chromosome microsatellite variation in Gabon**
Gemma Berniell, Bosch E, Bertranpetit J, Comas D (Barcelona, Spain)

16h50 **Distribution of Y-chromosomal haplotypes for the three major ethnic groups (Malays, Chinese and Indians) in Malaysia**
Yuet Meng Chang, Herman RTK, Revathi P, Lim KB, Jaya P, Jeevan NH (Selangor, Malaysia)

17h05 **Y-chromosome SNP and STR analysis in a Belgian population sample**
Ronny Decorte, De Maesschalck K, Vanderheyden N, Cassiman J-J (Leuven, Belgium)

17h20 **Y-STR haplotyping in seven Hungarian (speaking) populations**
Sándor Füredi, Balázs E, Csikai M, Osztrozics A, Woller J, Pádár Z (Budapest, Hungary)

17h35 **The marker DYS464 – results of studies in five populations**
Rüdiger Lessig, Edelman J, Dobosz T, Zoledziewska M, Jonkisz A (Leipzig, Germany)

18h00 **Meeting of the DNA commission of the ISFG**

20h **Diner and concert in the old lecture hall of the Institute of Pathology**

Saturday, November 20

Technology and Standardisation

10h **Y-Chromosome and Mitochondrial DNA Work at the U.S. National Institute of Standards and Technology**
John M. Butler, Vallone PM, Coble MD, Schoske R, Decker AE, Redman JW, Kline MC (Gaithersburg, USA)

10h30 **Major Y-chromosome haplogroup typing by use of a 29-multiplex kit**
Balogh K, Blanco-Verea A, Borsting C, Maria Brion, Carracedo A, Hallenberg C, Morling N, Sanchez J, Schneider PM, Syndercombe-Court D, Thacker C (The SNPforID consortium)

10h45 **Genotyping Y-SNPs: development of PCR multiplexes for forensic applications of the phylogeographic analysis of the Y-chromosome**
Federica Alessandrini, Onofri V, Turchi C, Pesaresi M, Buscemi L, and Tagliabracci Adriano (Ancona, Italy)

11h **Improving the sensitivity and specificity of PCR amplification for forensic Y-STR typing**
Katsuya Honda, Koh CL, Nakamura T, Tanaka E, Yamazaki K (Tsukuba, Japan)

11h15 - 11h45 **Coffee break**

11h45 **GEP-ISFG mitochondrial DNA collaborative exercise 2004: assessing mtDNA male-female contribution in a semen/saliva mixture DNA sample.**
Lourdes Prieto & The mt-DNA working group of the GEP-ISFG (Spanish and Portuguese working group)

12h05 **GEP-ISFG collaborative studies on Y-chromosome: methods, population data and mutation rates**
Leonor Gusmão & GEP-ISFG (The Spanish and Portuguese Working Group of the International Society for Forensic Genetics)

12h25 **Evaluation of the “Minimal Haplotype standard” and of new highly discriminating STR loci on the Y chromosome**
Heike Rodig, Grum M, Grimmecke H-D (Biotype AG, Dresden, Germany)

12h40 **Validation of a male specific, 12-locus fluorescent STR multiplex**
Cristian Capelli (Promega Corp., Madison, USA)

12h55 **Development and validation of a highly discriminatory 17-plex Y-STR PCR amplification assay**
Nicola Oldroyd, Mulero J, Chang C-W, Hennessy L (Applied Biosystems, Foster City, USA)

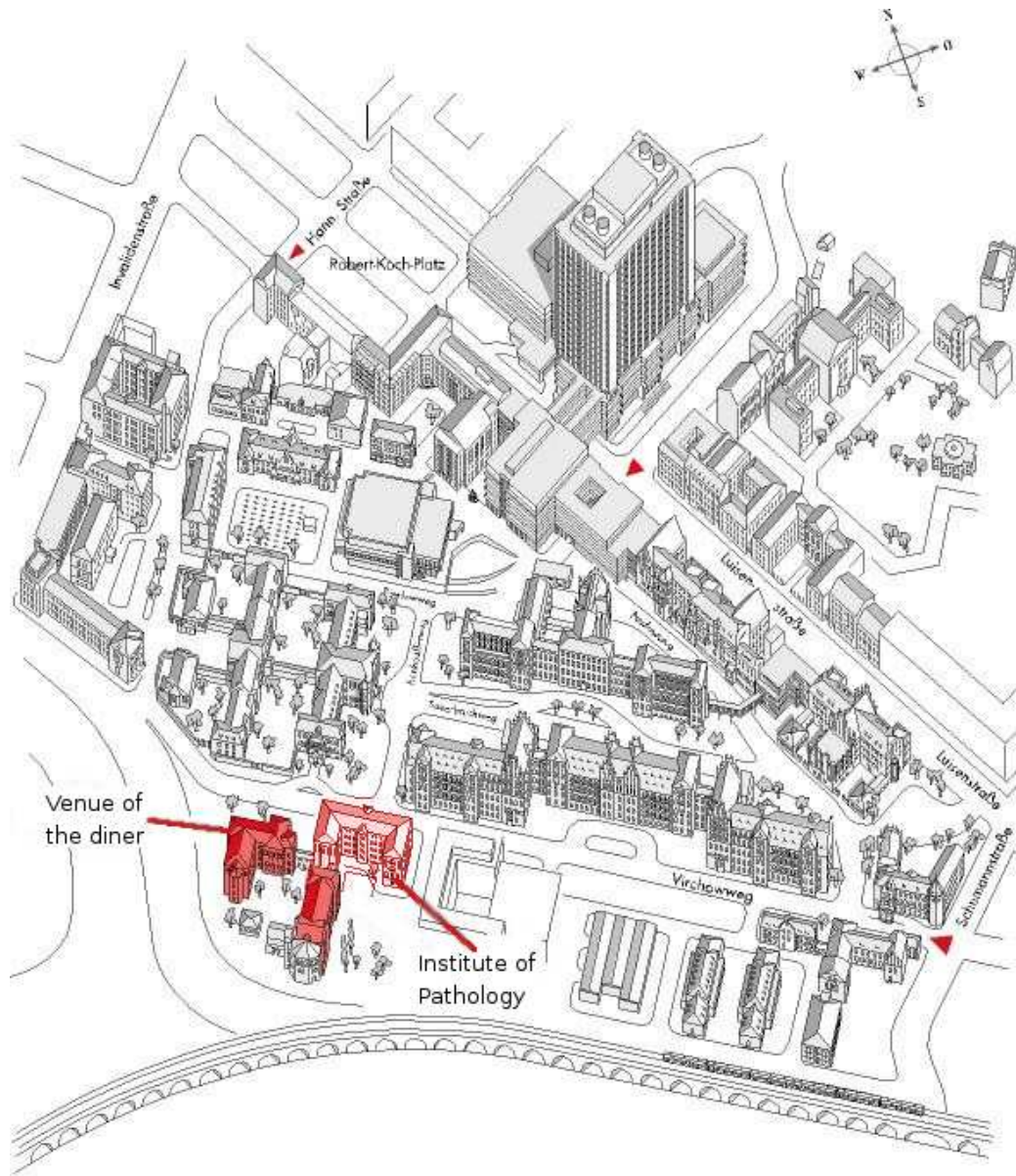
13h30 **Farewell buffet (Institute of Legal Medicine, Hannoversche Straße 6)**

Poster exhibition

- P1 **Y-STR differentiation and substructuring in Pyrenean populations.**
Eduardo Arroyo-Pardo E., Gusmão L, López-Parra A, Mesa MS, Amorim A (Madrid, Porto; Spain, Portugal)
- P2 **Validation of the Y-STR markers that make up the “European Minimal Haplotype”**
Sofie De Backer, Deforce D (Ghent; Belgium)
- P3 **A study on Y-STR haplotypes in the Saxon population from Transylvania - is there evidence for a German origin?**
Ligia Barbarii, Constantinescu C, Rolf B (Bucharest, Munich; Romania, Germany)
- P4 **Y-STR typing of an Austrian population sample using a 17-locus multiplex PCR assay**
Burkhard Berger, Lindinger A, Niederstätter H, Grubwieser P, Parson W (Innsbruck; Austria)
- P5 **Segregation of heteroplasmic length variants in HVI region of mitochondrial DNA by size-based separation method**
Carla Bini, Ceccardi S, Ferri G, Falconi M, Pelotti S (Bologna; Italy)
- P6 **Mitochondrial DNA diversity in Nepal: preliminary analysis of the first hypervariable segment, HVS-1**
Denise R. Carvalho-Silva, Huckle E, Greenhill J, Tyler-Smith C (Hinxton; UK)
- P7 **Verification of the lineage on the basis of Y-STR haplotypes**
Marzanna Ciesielka, Koziol P, Monies D, Madro R (Lublin; Poland)
- P8 **First report of mitochondrial DNA CR variations in the Hungarian population**
Balazs Egyed, Irwin JA, Szamosi G, Padar Z, Saunier JL, Parsons TJ (Budapest, Rockville; Hungary, USA)
- P9 **Haplotype distribution of eight Y chromosome STRs in a Southwestern Spanish population sample**
Maria José Farfán, Prieto V, Prieto L, Sanz P (Sevilla, Madrid; Spain)
- P10 **Sequence polymorphisms of mitochondrial control region DNA in Argentine population**
Sandra E. Filippini, Castro A, Fraga MG, Gagliardi F, Echenique C, Di Lonardo AM (Buenos Aires; Argentina))
- P11 **Y Chromosome Polymorphisms in Argentine Population**
Sandra E. Filippini, Santapa OA, Valente SF, Di Lonardo AM (Buenos Aires; Argentina)
- P12 **In-house validation, casework application and Swiss population data with a new commercial Y-chromosome specific STR multiplex**
Wangensteen T, Haas C, Giezendanner N, Kratzer A, Bär W (Zürich; Switzerland)
- P13 **Y-STR analysis of Sub-Saharan African populations**
Carsten Hohoff C, Sibbing U, Heinrich M, Brinkmann B (Münster; Germany)
- P14 **Phylogenetic studies of Swedish males by Pyrosequencing of Y-chromosome SNP markers**
Andreas Karlsson, Nilsson H, Gladh A-B, Zackrisson A-L, Götherström A, Holmlund G (Linköping; Sweden)
- P15 **STR-haplotype diversity of the Y-chromosome in three Eastern Europe populations**
Sergey Kravchenko, Limborskaya SA, Livshits LA (Kiev, Ukraine; Moscow, Russia)
- P16 **Assessing the suitability of STR loci selected from Y-chromosomal sequence data for forensic use in South Africa.**
Liezle Ehrenreich, Davison S, Leat N (Capetown, South Africa)
- P17 **SNPs of the coding region of mtDNA - first experiences**
Arleta Lebioda, Dobosz T, Edelmann J, Lessig R (Wroclaw, Leipzig; Poland, Germany)
- P18 **Y-SNP typing by SNaPshot in the Salvadorean population (Central America)**
Jose Lovo-Gómez, Blanco-Verea A, Brión M, Lareu V, Carracedo A (San Salvador, Santiago de Compostela; El Salvador, Spain)
- P19 **The extent of human mtDNA contamination in bones and teeth from dogs calls for extreme precaution in ancient DNA studies**
Helena Malmström, Stora J, Holmlund G, Götherström A (Uppsala, Solna, Linköping; Sweden)
- P20 **Y-chromosome polymorphism data in three major population groups in northeastern Poland**
Witold Pepinski, Skawronska M, Koc-Zorawska E, Niemcunowicz-Janica A, Janica J, Berent J, Soltyszewski I (Białystok, Lodz, Warsaw; Poland)

- P21 Y-chromosome polymorphism data in two distinct ethnic groups residing in Northeastern Poland**
Witold Pepinski, Skawronska M, Koc-Zorawska E, Niemcunowicz-Janica A, Janica J, Berent J, Soltyszewski I (Bialystok, Lodz, Warsaw; Poland)
- P22 The detection of microdeletions in MSY region with STS and STR loci**
Orsolya Peterman, Volgyi A, Roewer L, Pamjav H (Budapest, Berlin; Hungary, Germany)
- P23 Y-chromosomal STR haplotypes in Sicily**
Carlo Robino, Inturri S, Gino S, Torre C, Di Gaetano C, Crobu F, Romano V, Matullo G, Piazza A (Torino, Palermo, Troina; Italy)
- P24 Evaluation of 52 novel Y-STRs for forensic and population-genetic studies**
Sikeun Lim, Xue Y, Tyler-Smith C (Seoul, Hinxton; South Korea, UK)
- P25 Y-chromosomal STR haplotypes in Macedonian population samples**
Mirko Spiroski, Arsov T, Krüger C, Willuweit S, Roewer L (Skopje, Macedonia; Berlin, Germany)
- P26 D-Loop variability in Japanese, Vietnamese and in Peruvian Amerindians sharing the intergenic CoII/tRNA^{LYS} 9bp deletion**
Holger Wittig, Schmitter S, Koyama H, Plate I, Thiele K, Szibor R (Magdeburg, Chemnitz, Nagoya; Germany, Japan)
- P27 Genetic diversity of three Singapore populations using Y-short tandem repeat and mitochondrial D-Loop loci**
Rita Yu Yin Yong, Eric Peng Huat YAP (Singapore)
- P28 Y-SNPs – current problems with introducing a new tool for forensic purposes**
Magdalena Zoledziewska, Edelmann J, Lessig R, Dobosz T (Wroclaw, Leipzig; Poland, Germany)

Other impressive cultural sights of Berlin are in the vicinity of the venue (see map below), the “Hamburger Bahnhof”, an outstanding museum of Modern Art, the synagogue, the famous theatres, e.g. Reinhardt’s “Deutsches Theater” and Brecht’s “Berliner Ensemble”, the “Museum für Naturkunde (Natural history)”.



How to get there:

- by subway (“U-Bahn”) line U6 exit at station “Oranienburger Tor”
- by metro (“S-Bahn”) lines S1, S2, S5, S7, S9, S25 and S75 exit at stations “Friedrichstraße” or “Lehrter Stadtbahnhof”
- by tram (“Straßenbahn”) numbers 6, 13, 52 and 53 exit at station “S+U Friedrichstraße”
- by bus (“Bus”) line TXL exit at station “Konrad-Adenauer-Straße”