

EUROPEAN DNA PROFILING GROUP (EDNAP) MEETING

ZÜRICH - 26 JANUARY 2002

Host: Welter Bär
Chairman: Niels Morling

A list of participants is attached at Annex 1.

1. Welcome

Walter Bär welcomed members to Zürich.

2. Published papers

Gillian Tully

The EDNAP mtDNA considerations have been published.

3. Update on EDNAP exercises

3.1 mtDNA from head hair samples - 1

Gillian Tully

Ten laboratories have submitted data. A poster was presented at the American/European meeting in Dubrovnik. The last data have been submitted. Gillian Tully is awaiting methods details from several labs. A draft manuscript has been circulated.

Participants are asked to comment the manuscript by end February 2002.

3.2 mtDNA from head hair samples - 2

Gillian Tully

Results have been received from five labs. Five more labs are expected to submit data. Some hairs were difficult to amplify/sequence (parts of 24 hairs reported as difficult). A C-T transition was observed at position 16,172 in one section of each of two hairs (awaiting results from other sections). An A/G heteroplasmy was observed at position 73 in one section of one hair (awaiting results from other sections). An apparent contaminant was seen with 1 hair (2 labs, different interpretation and different mixed bases).

Participants are asked to submit data by end March 2002.

3.3 Analysis of mixtures

Peter Gill

Data have been received.

Peter Gill will prepare a draft paper for a short communication by end April 2002.

3.4 Degraded DNA

Peter Schneider

Results have been analysed.

Peter Schneider will prepare a draft paper by end April 2002.

3.5 Short STRs on telogen hairs

Hermann Schmitter

Results from five laboratories have been submitted. The laboratories in Wiesbaden, Mainz and Innsbruck successfully used different extraction methods. The laboratory in Wiesbaden is now working with 8 short STRs and the group also employ solid phase PCR successfully.

Hermann Schmitter will circulate updated procedures for extraction of DNA and sequences of primers for short STRs.

3.6 EMPOP

Walther Parson

The EMPOP Proficiency Testing scheme includes 5 blood or buccal samples. Successful typing is a criterion for entering sequences onto EMPOP. Data from five labs were received. The data suggested that there is a need for automated data export/import. Further 10 labs are participating in the EMPOP Proficiency Testing scheme and results have been received from three laboratories. The data received will be scrutinized and the problems observed will be present to EDNAP group for discussion. Proficiency Testing samples will be sent to interested laboratories. MtDNA sequences will be loaded onto EMPOP from a small number of laboratories in order to optimize the logistics, data format, etc.

The Innsbruck lab is currently exploring ways to reduce clerical errors, identify mistakes and wrong types by various approaches. (It was mentioned that the FBI mtDNA database is currently not in use due to discrepancies between data submitted (e.g. from the FSS) and data stored in the database). It is the plan to open EMPOP when the database comprise 1,000 mtDNA haplotypes.

3.7 Y chromosome SNPs – Santiago I

Angel Carracedo

The exercise has been successfully performed. Discrepant results were observed in only one system. The exercise was meant as an introduction to SNP typing and the results will not be published.

3.8 FSS-SNPs

Peter Gill

Problems with degradations of primers due to long transit times made it impossible to obtain results with the SNP-kit circulated by the FSS. When the logistic problems are solved, a new batch of the SNP-kit will be circulated to laboratories.

3.9 Population database compilation

Denise Syndercombe Court

Fifty frequency data sets from 35 populations have been received for the population database. The data is being validated. The data will be available on the EDNAP web site.

4. Updates from other groups

4.1 ENFSI

Peter Gill/Rich. Scheithauer

The last meeting of the ENFSI DNA Working Group was held in August 2001 in Münster, Germany. All members participated in the June 2001 GEDNAP trial. Analysis of SGM Plus STR data from 23 European laboratories including more than 5,000 individuals showed that the F_{st} values were less than 1 % and the possibility of establishing a European STR database is being explored. Funds from the EU STOP programme have been obtained facilitating e.g. audits of laboratories.

4.2 Interpol

Richard Scheithauer

A Handbook on DNA Data Exchange and Practise has been presented and is available on CD-ROM. The 2nd International DNA Users Conference was held in November 2001 - primarily for investigating officers. Codis has been offered to Interpol.

4.3 Europol PCWG

No new information.

5. Low Copy Number STR typing

The laboratories presented their strategies concerning low copy number STR typing. The following picture emerged:

- LCN on a routine basis: A few laboratories
- LCN in special situations: Some laboratories
- LCN being explored: Some laboratories
- LCN not in use: Some laboratories.

It was discussed if EDNAP should perform a collaborative exercise on LCN and if EDNAP should formulate considerations on LCN. It was decided not to make a collaborative exercise and to refer to the DNA Commission of the ISFG concerning the question of possible international recommendations for LCN.

6. New exercises

6.1 Y chromosome SNPs – Santiago II

Angel Carracedo

Angel Carracedo agreed to select 10 Y chromosome SNPs in collaboration with Peter Gill and Peter Schneider. Angel Carracedo will circulate information, primers, SNP controls, and samples to be tested. Participants are encouraged to perform population studies.

7. Funding

7.1 EU - RTD funding

Peter Schneider

The deadline for applications for the EU GROW/DCMTI, Topic V.20: 'Identification of persons based on the genetic analysis of single nucleotide polymorphisms' is 15.02.2002. This programme is not suited for EDNAP but rather for a limited number of research laboratories.

7.2 EU – Network of Excellence

Peter Schneider

In 2003, a Network of Excellence programme will be launched. This may offer a way for an EU grant for EDNAP.

8. Next meeting

Bertrand Ludes invited members to have the next EDNAP meeting 9 November 2002 in Strasbourg.

9. Any other business

There was no other business and the meeting closed with sincere thanks to Gabrielle Bannwarth, Adi Kratzer, and Walter Bär.