

EUROPEAN DNA PROFILING GROUP (EDNAP) MEETING

LINKÖPING - 16 JUNE 2001

Host: Anne Kihlgren
Chairman: Niels Morling

A list of participants is attached at Annex 1.

1. Welcome

Anne Kihlgren welcomed members to Linköping.

2. The STADNAP project

Angel Carracedo

The EU has approved the STADNAP report. The reimbursement between the EU and the various participating organisations has not been finished yet.

3. Update on EDNAP exercises

3.1 mtDNA from head hair samples - 1

John Bark

Ten laboratories have submitted data. Results have been circulated. Some details concerning the methods used by the laboratories are still missing. The laboratories are asked to answer the questions as soon as possible. The plan is to circulate a draft paper by mid July 2001.

3.2 mtDNA from head hair samples - 2

John Bark

Results have been received from three labs. A total of 24 parts of hairs were reported difficult to amplify. A C-T transition was observed at position 16172 in one section of each of two hairs, and A/G heteroplasmy was observed at position 73 in one section of a hair. Deadline for submission of data of the exercise is 30 September 2001.

3.3 Paper on the presentation of mtDNA evidence

John Bark

The paper, which was submitted to the Forensic Science International, has been reviewed and the authors have been asked to consider the comments by the reviewers. A second draft has been circulated to the co-authors.

The co-authors are asked to comment the second draft as soon as possible if they have not already done so.

3.4 Analysis of mixtures

Peter Gill

Data have been received from most laboratories. Mixtures could be detected in the following minimal ratios: SGM 1 : 10, SGM Plus/Powerplex 1 : 20, and Y chromosome STRs 1 : 100. Stutters of Penta C, Penta D and Penta E were 0 – 2 %, while the stutters of Penta B were 0 - 10 % (average 4 %). Thus, the pentameric STRs have less stutter than most of the previously used STRs.

Deadline for submission of data is 31 July 2001.

Peter Gill will circulate information about the state of the project and prepare a draft paper for a short communication.

3.5 Degraded DNA

Peter Schneider

Results from 37 laboratories have been submitted and results from approximately 70 % of the laboratories have been analysed. Most of the results submitted concern SGM Plus data. An

abstract has been submitted for the ISFG conference in August 2001 in Münster. It is the plan to make a draft paper by September 2001.

3.6 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 three laboratories will circulate their extraction procedures.

Hermann Schmitter will circulate primers for short STRs to interested laboratories. Laboratories are suggested to work on locally collected telogen hairs due to the difficulties in collecting sufficient amounts of hairs from single donors for all EDNAP laboratories.

3.7 EMPOP

Walther Parson

The EDNAP mtDNA Population Database (EMPOP) is now established on 'www.empop.org'. Members are encouraged to visit the web site.

The organisation of EMPOP is guaranteed for the next 5 years by the Innsbruck institute.

A proficiency testing study has been performed involving the laboratories in Birmingham, Copenhagen, Innsbruck, Mainz, and Santiago. Ten samples with extracted DNA were sent out from Innsbruck. The HV1 and HV2 regions were sequenced. Two samples had point heteroplasmy (195CT, 234AG) and two samples had length heteroplasmy (16189T). Although all laboratories had produced correct results, transcription errors and communication errors were noticed. The possibilities for electronically supported verification and transmission of results will be explored. Until then, usual procedures including check of results and transcriptions by two persons must be followed.

The EMPOP working group (Birmingham, Copenhagen, Innsbruck, Mainz, and Santiago) will formulate quality criteria for acceptance of results.

Innsbruck will arrange proficiency testing for laboratories submitting data.

Innsbruck will also be able to assist laboratories beginning mtDNA work.

Birmingham, Copenhagen, Mainz, and Santiago have finished the proficiency testing. Brussels, Linköping, Münster and Oslo will receive proficiency testing samples because they want to submit mtDNA data.

3.8 Y chromosome SNPs – Santiago I

Angel Carracedo

Information and typing protocols for eight 'old' Y chromosome SNPs, one stain with known types (control), and three stains were sent to the laboratories. Only a few laboratories have submitted results. Laboratories are asked to submit information concerning advantages, disadvantages, and comments to the method(s) used.

Deadline for submission of results is 30 September 2001.

3.9 Population database compilation

Denise Syndercombe Court

Frequency data for the STADNAP databases are being validated. The data will be available on the STADNAP web site.

4. Updates from other groups

4.1 ENFSI

Ate Kloosterman/Peter Gill

The last meeting of the ENFSI DNA Working Group was held in March 2001 in Scheveningen, Holland. A Codis user meeting was held before the ENFSI meeting.

Due to the large number of participants, the ENFSI meeting was organised in three sub-groups: 1. New technologies (primarily low copy number STR analysis and SNPs), 2. database analysis, and 3. quality assurance/control.

Analysis of SGM Plus STR data from 25 European laboratories showed that the F_{st} values were less than 1 %.

Approximately 40 ENFSI laboratories had participated in the GEDNAP proficiency testing offered by the Münster laboratory, and the outcome demonstrated the need for the programme.

The next ENSI meeting will take place in August 2001 in Münster immediately before the ISFG meeting.

4.2 Interpol

Richard Scheithauer

Two meetings have been held. A handbook on DNA database and exchange of DNA information will be printed very soon as well as a survey on the present situation in the member countries and a collection of standard methods relating to DNA work.

An auto search DNA database facility based on Codis will be implemented in August 2001 - primarily for DNA profiles from unsolved cases.

The second DNA users conference will be held in November 2001 in Lyon. Participants should apply through the national police organisation.

4.3 Europol PCWG

Hermann Schmitter

The recommendation on DNA database issues, including the recommendation of 7 STR loci, seems to be finished.

5. New exercises

5.1 Y chromosome SNPs – Santiago II

Maviki Lareu

Maviki Lareu will circulate information concerning 32 Y chromosome SNPs. Further activities will be discussed at the next EDNAP meeting.

5.2 FSS-SNPs

Peter Gill

Peter Gill presented the FSS SNP typing method that is based multiplex ARMS PCR combined with specific hybridisation onto a solid phase platform with labelled probes.

Peter Gill offered to send out a package of 10 SNPs including Amelogenin. The SNPs can be detected by gel based analysis.

Further information will be sent within approximately one month.

6. Funding

6.1 Funding in general

Niels Morling

Although the laboratories would welcome economical support for the EDNAP collaboration, the need for funding does not seem to be urgent.

6.2 EU – Expression of interest

Peter Schneider

Peter Schneider has submitted an expression of interest with the title 'Development of methods for the forensic identification of persons based on the genetic analysis of single nucleotide polymorphisms (SNPs) – *ForSNP*' to the EU. Publication of dedicated call will be around 15 October 2001. Submission deadline for R & D project proposals is 15 March 2002. A typical EU R & D project would include 3 - 5 laboratories from at least three countries, and funding would cover expenses for personnel, consumables and equipment. A 50 % contribution of project costs is expected from commercial companies. For public institutions, this contribution may be provided in the form of work hours from staff personnel as well as laboratory space and equipment sharing.

7. Web sites

7.1 STADNAP web site

Peter Schneider

The EU will be asked for permission to place a pdf-version of the STADNAP report on the STADNAP web site.

7.2 EDNAP web site

Peter Schneider

The format of the web site will be adjusted to the ISFG format. The contents will be updated, including short reports on exercises and other activities. Members who want a link to their home page should email the URL to Peter Schneider.

8. Open EDNAP/ENFSI meeting at the ISFG conference

Niels Morling

The meeting will be held in conjunction with ENFSI. The total amount of time is expected to be one hour, 30 minutes to EDNAP and 30 minutes to ENFSI. The EDNAP part will be

- Hermann Schmitter: Short history of EDNAP
- Peter Schneider: The STADNAP programme
- Peter Gill: Ongoing and future exercises
- chairman: Niels Morling.

9. Members resigning

Niels Morling

Peter D. Martin and Patrick Lincoln had wished to resign from EDNAP. Niels Morling expressed on behalf of the group sincere thanks to these members who have contributed so much to the group. Peter D. Martin was one of the founders of the group and the first secretary from 1989 to 1996.

10. Applications for membership

Niels Morling

Dr. Mariou Cariolou, Nicosia, Cyprus, and Dr. Francisc Mixich, Craiova, Romania, had applied for membership. At the last EDNAP meeting, it was suggested that there could be a geographical divide of groups in Europe with a small overlap of attendance at separate meetings. At the ISFG conference, Angel Carracedo will as chairman of the ISFG together with Niels Morling discuss the possibilities with representatives from the new countries.

11. Next meeting

The time and place for the next meeting will be announced at the ISFG meeting in August 2001 in Münster.

12. Any other business

There was no other business and the meeting closed with sincere thanks to Anne Kihlgren and Ann Jangblad.