

EUROPEAN DNA PROFILING GROUP (EDNAP) MEETING

KRAKOW, POLAND

17 – 18 APRIL 2007

Host: Tomasz Kupiec.
Chairman: Niels Morling.

A list of participants is attached.

Welcome

Tomasz Kupiec welcomed members to Krakow.

Update on publications

Niels Morling

The group has not published since the last meeting.

Update on exercises and other activities

EMPOP

Walther Parson

Walther Parson presented an update from the EMPOP database project. The database went online 16 October 2006 and is well accepted and used by the scientific community. Typical search-functions and population-specific results interpretation were demonstrated. While the first EMPOP releases mainly holds haplotypes from west Eurasian populations, the second EMPOP release concentrates on central and East Asian populations. This task is also supported by the collaboration of a number of international partner laboratories.

SNPforID SNP exercise

Niels Morling

A manuscript is under preparation. The work has unfortunately been delayed due to reorganisation and changes in positions. A manuscript is expected to be circulated to the participants within a few weeks.

mtDNA SNP exercise – ‘West-Eurasia-Plex’

Walther Parson

A collaborative exercise was conducted on hair and saliva samples of 5 volunteers using a mtDNA-SNP-multiplex (Brandstätter et al. 2003). Eleven labs agreed to participate and all send back results. Walther Parson briefly discussed some of the results. The kit performed very well in the majority of laboratories. The compiled data will be analyzed and a manuscript will be drafted. Further considerations on future exercises and harmonization of mtDNA loci will follow. Supplemental reference: Brandstätter A, Parsons TJ, Parson W (2003). Rapid screening of mtDNA coding region SNPs for the identification of west European Caucasian haplogroups. *Int J Legal Med*; 117: 291-8.

Genemapper

Walther Parson

Walther Parson collected a list of wishes and problems identified from members and sent it to AB. AB thanked for the information and informed Walther Parson that AB intend to implement the suggestions.

Collaborative exercise on AB MiniFiler

Peter Gill, who organises the exercise, has received results from the majority of the labs – mainly in the last weeks. There may have been some problems with some of the stains. Results can be submitted until the end of April 2007. Peter Gill will submit an abstract for the ISFG congress on behalf of the participants.

Updates from other groups

ENFSI

ENFSI members shortly mentioned the work that is going on in the various groups - see the attached agenda from the ENFSI meeting. Ingo Bastisch has prepared a document (attached) concerning an update of the European Standard Set of DNA markers. The paper is now in an agreement process within the ENFSI steering group.

ENFSI DNA contamination database

Peter Gill

A total of 120 profiles without know sources have been reported. ENFSI is trying to establish the economic and practical fundament to establish a web site under www.enfsi.org for holding the information and establishing search facilities.

SWGDM & FBI

John Butler

John Butler, NIST, presented an update on the work in SWGDAM (pdf-file attached).

Australia

John Scheffer

John Scheffer, Victoria Police Forensic Services Department in Melbourne, presented forensic science in Australia (pdf-file attached).

ICMP

Tom Parsons

Updates:

- Their high throughput victim identification system, involving bone typing at a rate of ~100 samples/day, comparison by kinship analysis to a database of 90,000 family members of the missing, and the generation of ~50-100 DNA match reports (identifications) per week. Matches have been made on a total of some 11,500 individuals.
- Their Mini-STR kits developed and implemented in high throughput testing.
- Their work toward ISO 17025 accreditation is going forward via the German accreditation agency DACH, with completion targeted for early 2008.
- The near completion of a new integrated database and application program called fDMS (forensic data management system) that covers:
 - field archaeology documentation,
 - post mortem anthropological analysis and skeletal inventory,
 - antemortem victim and family information
 - DNA LIMS
 - Family matching module
 - Report generation and review.

Recognizing that this package in some form might be beneficial to the larger community, a generic “global distribution” (GloDis) version has been completed in alpha form (lacking things like the LIMS that are highly specific to particular SOPs). A version will be made

available to the Bosnian government for their permanent missing persons records, and may similarly be provided to other agencies as appropriate.

- Assistance to the International Criminal Tribunal for the former Yugoslavia in war crimes prosecution, where ICMP evidence is active in 4 high profile cases. In two of these, ICMP DNA evidence has been admitted, and stipulated to by the defence.
- Recent assistance by ICMP to the government of Chile in establishing and improving a human rights identification program for missing victims of political disappearance.
- New Research in highly effective DNA extraction from bone, with the aim toward integration with robotics.
- An visit to the ICMP by Wiljo de Leeuw and other scientists from the Netherlands Forensic Institute to exchange knowledge and planning with regard to a nascent missing persons program in the Netherlands. A result of this was a plan for collaboration in techniques development, potential sharing of ICMP matching software, and the potential for ICMP serving as a reserve capacity for DNA testing in the event of mass fatality or to address a backlog of missing persons cases. Proposals will be made by the NFI to the Ministries of Justice and Foreign Affairs to attempt to obtain funding to support this cooperation and collaboration.
- The ICMP hopes to continue developing partnerships and agreements that permit it to assist the global community in developing technical capabilities with regard to missing persons and mass disasters, as well to provide a reserve of high throughput testing capacity in case of need.

Discussion:

- Following the ICMP update, there were observations that the ICMP in both its mission, institutional experience, technical capacity, and non-commercial international nature might be uniquely well positioned to serve as a standing reserve capacity for mass disaster and missing persons typing.
- Other areas where ICMP could assist are in training and helping to establish or provide relevant standards, as well as serving as an open technical resource with regard to research collaboration and the open dissemination of tools and protocols.
- Note was made of the performance of the ICMP in successful and rapid typing of a large number of samples from the Tsunami.
- It was discussed that it may be very desirable to obtain additional support for the ICMP to stand as an open resource to the European or global community, so that it can durably exist as technical and collaborative resource for technique and policy development, and as a standing capacity for DNA typing on a mass scale in time of special need.
- This might best be something coordinated and funded through the EU, possibly in conjunction with the upcoming Dutch EU Presidency.
- Interpol also should be involved in discussions, and possibly also as a supporting entity.
- EDNAP members could communicate with their home country governments to express the need for this type of capacity, and to help activate the necessary political and funding processes.
- The predominant idea is to establish a durable infrastructure for the ICMP separate from its mission-specific funding (as in the Balkans missing persons).
- Costs may not be very large, particularly if multiple countries are involved, with analogy to an “insurance policy.”
- Abetting this type of system is very in line with the mission of EDNAP and ENFSI in providing harmonization of forensic systems and operations between countries.

- Ingo Bastich, Wiljo de Leeuw, Niels Morling, and Tom Parsons will work in following weeks to flesh out some details/proposals regarding economics and structure.
- EDNAP and possibly ENFSI might develop either a recommendation paper, or a considerations paper to help get the idea established and the ball rolling.

At the following meeting of the ENFSI DNA WG, the idea of suggesting to the forensic community, the European Union and possibly other international bodies that the ICMP be permanently supported as an European or international forensic resource for identification, education, standardisation, etc. was supported by all ENFSI participants. It was decided that Wiljo de Leuw, Ingo Bastisch, Tom Parsons and Niels Morling will take the issue forward, most likely with a joint consideration paper from EDNAP/ENFSI and further actions within the framework of the EU.

NIST

John Butler

John Butler presented an update on the work at NIST (pdf-file attached).

SNPforID

Peter Schneider

Peter Schneider gave an update of the work in the group. The grant is finished. A total of 27 papers have been submitted or published, and more papers are in the pipeline.

Future activities

Interpretation of DNA-mixtures

UK DNA working group

Peter Gill

Peter Gill informed about the 'National Recommendations of the Technical UK DNA Working Group on Mixture Interpretation for the NDDAD and for court going purposes' (manuscript attached).

The German Stain Commission

Peter Schneider

Peter Schneider informed about the recommendations of the German Stain Commission that has adopted the principles of the ISFG recommendations. A summary in English of the recommendations is attached to the minutes.

Discussion of future activities concerning interpretation of DNA-mixtures

There have been discussions in some countries about the fact that the ISFG recommendations are considered a discussion document. Members of the group expressed that the principles of the recommendations now are generally accepted, and that members should express this, e.g. as a letter to the editor of FSI Genetics. It was decided to discuss the issue with members of the ENFSI DNA WG.

The ENFSI DNA WG members decided the following statement: 'The general principles described by ISFG DNA commission recommendations on mixture interpretation are accepted by the ENFSI DNA Working Group.' This statement was later circulated by email to the EDNAP members who supported the statement. The secretary of EDNAP and the chairman of ENFSI will participate in a joint effort to publish the common point of view.

EDNAP web site update (www.isfg.org/ednap/ednap.htm)

Peter Schneider

Peter Schneider gave a short update.

Any other business

There was no other business.

Next meeting

The next EDNAP meeting will be held in conjunction with the next ENFSI DNA Working Grouping Meeting in Rome – most likely in September 2007.

Closing of the meeting

The meeting closed with sincere thanks to Tomasz Kupiec for hosting the meeting.

Attachments

- List of participants (Word)
- NIST-update (pdf-file)
- SWGDAM-update (pdf-file)
- Australia update (pdf-file)
- UK mixture document (Word)
- Summary of German mixture document (Word)
- European Standard Set –draft (Word)