



FIRST NEWSLETTER

JULY 2011

For those active in the study, practice or development of Human Biomonitoring

www.eu-hbm.info

Welcome!

This is the first newsletter from two European projects: COPHES - a Consortium to Perform Human Biomonitoring on a European Scale and its sister project DEMOCOPHES which is a PILOT or demonstration study linked to COPHES.

We aim to provide updates on the work and progress of the two projects as well as provide news and information in the area of human biomonitoring.

In this newsletter we provide a brief introduction to the work of COPHES and DEMOCOPHES, report on the DEMOCOPHES inception meeting and a biomonitoring symposium that took place in Hungary 11-13 April .

We also give an update on the Interlaboratory comparison investigations run by COPHES, highlight the biomonitoring research of an early career scientist, and we look at features of the

COPHES/DEMOCOPHES website.

In the future, we will also be developing material ideal for children to learn more about human biomonitoring.

If you would like to contribute an article or have any events that you would like us to include in the newsletter contact us at

eu-hbm.newsletter@hpa.org.uk

INFORMATION ON HUMAN BIOMONITORING

WHAT IS HUMAN BIOMONITORING?

Biomonitoring is the 'assessment of human exposure to environmental chemicals using body fluids (for example blood or urine) or hair'. This information provides a picture of the amount of a chemical actually absorbed into the body.

WHY DO WE NEED A EUROPEAN STUDY?

We want to produce a standardised way of performing human biomonitoring studies

COPHES & DEMOCOPHES

across Europe. COPHES has produced a standard way to perform a human biomonitoring study and DEMOCOPHES is a pilot study to demonstrate this work by measuring the concentrations of cadmium, mercury, phthalates and cotinine in the general public.

WANT TO KNOW MORE?

In December 2009, Europe made its first steps towards a pan-European Human Biomonitoring Programme. COPHES began work

towards an EU human biomonitoring framework to enable the collection of comparable biomonitoring data throughout Europe. Harmonised study protocols will be tested out in the EU life plus funded collaborative pilot study DEMOCOPHES.

DEMOCOPHES was launched in April 2011 in beautiful Budapest.

For further details VISIT our website www.eu-hbm.info And read on....

COPHES and DEMOCOPHES

DEMOCOPHES Inception Meeting in Hungary

THE DEMOCOPHES inception meeting took place in Hungary on 11-13 April. DEMOCOPHES and COPHES partners attended along with representatives from the EU advisory board, PHIME, European Health Examination Survey (EHES) and ASTRALE, who monitor and evaluate the work of DEMOCOPHES.

The EU protocol prepared by COPHES has been finalized and will be tested across 16 different European countries. Each country has been adapting the EU protocol to create national protocols in their national languages and tailored to their own situations taking into account legislations and country specific requirements.

The national coordinators from the participating countries presented a brief summary of the national implementation of the protocols and highlighted any deviations from the protocol.

PHIME and EHES representatives gave very useful advice about their own experiences such as suggesting that we talk to the national research ethical committees before submitting an application in order to check we have everything that is required.

This was very helpful because the next important stage is submission of national protocols to the national Research Ethics committees for approval.

International Symposium

The day before the DEMOCOPHES meeting a one day symposium was held at the National Institute of Environmental Health in Budapest to discuss human biomonitoring and its use in environmental risk assessment.

Pierre Biot, the project leader of DEMOCOPHES, started the proceedings by explaining the work of COPHES and DEMOCOPHES, which aim to create a harmonised framework for Human biomonitoring across Europe. Further presentations gave information on current environmental projects such as the European Health Examination Survey (H. Tolonen),

The presentations covered a variety of biomonitoring topics including exposure assessment of metals, the use of microRNAs as a new biomarker of environmentally/occupationally induced disease, and genotoxicological monitoring.



Peter Rudnai presenting at the DEMOCOPHES inception meeting



The DEMOCOPHES inception meeting

Marike Kolossa-Gehring discussed the next steps for the German Environmental Survey and the Environmental Specimen bank and how useful they will be to support Registration, Evaluation and Assessment of Chemicals (REACH).

Thank you!
We would like to thank Peter Rudnai, Guylia Dura and their team for their hospitality and great organization of this meeting and the symposium.

Biomonitoring Research

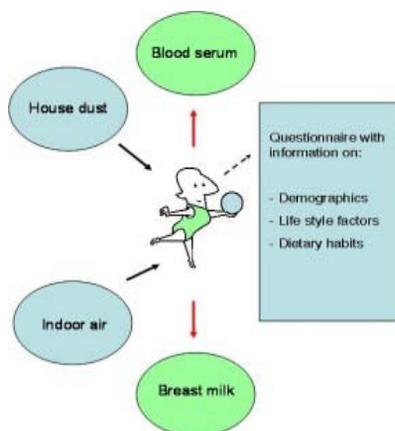
Characterization of human exposure pathways to Perfluorinated compounds - comparing exposure estimates with biomarkers of exposure.

Line S. Haug, Division of Environmental Medicine, Norwegian Institute of Public Health.

Line has recently completed her thesis and will shortly be defending her PhD thesis – Good Luck! She has shared with us her findings

This thesis shows that the indoor environment can significantly contribute to exposure to a type of environmental pollutants called perfluorinated compounds (PFCs), although for most of us the highest intake comes from food, especially from fish and shellfish. A statistically significant relationship was found between consumption of PFCs through diet and PFC levels in blood. However, the presence of many PFCs in house dust also impacted the levels in blood. For six month old children who are predominantly breast-fed, breast milk was the main source of PFCs.

In this study, PFC intakes through diet, indoor air and house dust were calculated for individuals and compared to blood levels. This is the first study of its kind



and provides important information about how much variation can be expected between individuals. This knowledge is important in assessing the health risks of these substances so that the relevant authorities can take measures to limit exposure.

PFCs are found everywhere in the environment and in people. These compounds are used in a variety of consumer products and industrial processes. Many of the compounds are persistent and have toxicological properties so they are now regarded as persistent organic pollutants (POPs).

The estimated intakes of PFCs for both adults and children in this study were lower than the tolerable daily intake defined by a subgroup of the European food safety agency (EFSA). Nevertheless, we should try to avoid exposure to persistent substances such as PFCs to limit the risk of health effects.

COPHES update

Interlaboratory Comparison Investigations ICI

Interlaboratory Comparison Investigations (ICIs) are one of the measures to ensure the comparability of Human biomonitoring results within the COPHES/DEMOCOPHES project.

ICIs are organised and performed by the Quality Assurance Unit (QAU) of COPHES. The QAU consists of two institutes, the Instituto de Salud Carlos III (Madrid, Spain) and the Institute for Prevention and Occupational Medicine IPA (Bochum, Germany led by Argelia Castano and Jürgen Angerer and their teams (B. Schindler, H. Koch, J. Jimenez, M. Esteban).



Packaging of the urine and hair samples to be sent to laboratories for the ICI

The first ICI has been successfully completed. The parameters cadmium, cotinine, creatinine and phthalate metabolites in urine and mercury in hair were analyzed with 24 laboratories from 15 countries all over Europe participating.

After each ICI, web-conferences with the participating laboratories and the QUA are seen as useful training exercises to discuss the results, any problems that may have arisen and to improve future analysis.

COPHES update *continued*

Workshop on the use of Human Biomonitoring (HBM) as a policy tool

After some internal discussion during the DEMOCOPHES inception meeting in Hungary, a workshop for decision makers on the use of HBM for policy making was held in Munich, Germany on 4th May.

Experts from DG Sanco, DG Environment, the European Food Safety Authority (EFSA) and the World Health Organization (WHO) highlighted the need for HBM as a risk assessment tool in combination with other methods.

The workshop concluded that, in addition to the use of HBM for the monitoring of policy effectiveness, further work should focus on the use of HBM as a warning

system, on identification of priority substances to investigate and on inclusion of HBM in policy fields such as biocides, pesticides and REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Further larger scale meetings are foreseen to take place in Brussels in the first and third quarter of 2012.

Training

Training for DEMOCOPHES members

As foreseen in both projects, COPHES takes care of the training initiatives related to the implementation of the EU protocol in the countries by using the “train the trainers approach”. This training is a key success factor for achieving capacity building as well as comparability of results produced by the human biomonitoring studies.



Recruitment, sampling and sample collection

The COPHES team has developed questionnaires and sampling procedures for the fieldworkers of the countries participating in DEMOCOPHES. The field

workers must be knowledgeable about the different aspects of human biomonitoring, the administration of questionnaires, sampling procedures and the aspects specific to DEMOCOPHES.

To cover these aspects 2 day training sessions have been organised by Louis Bloemen and Milena Horvat with assistance from Kerstin Becker for June and July and will take place in Berlin at the German Federal Environment Agency (UBA). An update on the training will be reported in a future newsletter.

Courses open to all

A PhD course on Human Biomonitoring course organised by Lisbeth Knudsen will take place at Copenhagen University on **22-26 August 2011**.

The closing date for enrolment is 1 August 2011. For more information visit

<http://phdkursus.sund.ku.dk/frontPlanner/DetailKursus.aspx?id=95589>

COPHES DEMOCOPHES website

If you have signed up for this newsletter then you will have already visited our website. You may have noticed that it has undergone a number of changes recently.



The DEMOCOPHES pages have now been added and you can easily click between related pages on COPHES and DEMOCOPHES sections. We are frequently adding new pages and information as the project progresses. In this section of the newsletter we highlight areas of the website that you may be particularly interested in.

DEMOCOPHES Helpdesk

In order to support the activities related to the feasibility study DEMOCOPHES in all participating countries a helpdesk has been established by the experts of COPHES.

Although the main focus is given to supporting DEMOCOPHES, the helpdesk aims to provide feedback related to any question linked to conducting Human Biomonitoring.

<http://www.eu-hbm.info/cophes/contact-helpdesk>.

Frequently asked questions received via the helpdesk will then be made available on the FAQs page <http://www.eu-hbm.info/cophes/tools/frequently-asked-questions>.

The HBM Discussion Forum

A Discussion Forum has been set up to enable the exchange of information on the COPHES project between the project participants in an easy, fast and direct way. Questions and problems of participants related to specific topics of the COPHES project are answered and solved quickly by direct reply of other participants.

We would like to invite you to use this forum for any question and topic you would like to discuss. The forum also contains secured sections for internal discussion within the COPHES team and can be used to exchange and work on documents. After registration please use the alert function to be informed about incoming news.

<http://www.eu-hbm-forum.info/>



Recent Events

Recent Publications

COPHES and DEMOCOPHES members have been publicising the work with press conferences, television interviews, workshops, lectures, journal publications and presentations at international conferences. A list of dissemination material will be made available on the website shortly.

Recent Meetings

A successful workshop on Non-invasive sampling techniques for human biomonitoring organised by AMINO and COPHES was held in Brussels 10 December 2010. The abstract booklet and the presentations are available to download from the website.

Up and Coming Events

A list of future relevant meetings is available here. Check on the Events section of the website for regular updates of future conferences and meetings.

COPHES/DEMOCOPHES meetings

The midterm review meeting of COPHES will take place on June 8 2011 in Brussels. The work package leaders of COPHES will meet with EU officials and independent reviewers to check on our progress.

It was announced at the DEMOCOPHES inception meeting in Hungary that the final meeting of COPHES/DEMOCOPHES will be organized in Cyprus during the European Presidency of Cyprus, at the end of October in 2012.

Conferences

The International Society for Environmental Epidemiology (ISEE) 23rd conference will take place in Barcelona, Spain 13-16 September 2011.

<http://www.isee2011.org>

The International Society of Exposure Science (ISES) 21st Annual conference will take place in Baltimore, 23-27 October 2011

<http://www.isesweb.org/>

The 4th European Public Health Conference will take place in Copenhagen, Denmark, 10-12 November 2011

http://www.eupha.org/site/upcoming_conference.php

Contact us

We are always looking for articles to include in the newsletter. If you have any thing that you would like to be considered for inclusion in the next newsletter please email your suggestions.

If you would like to be added to the mailing list or no longer wish to receive the newsletter please email us at:

eu-hbm.newsletter@hpa.org.uk