**HBM4EU Occupational biomonitoring study on hexavalent chromium and other harmful chemicals**

**Information for Participating Workers**

You are invited to take part in a research study. Please read the following information to understand why the research is being done and what it involves. We are happy to answer any questions or concerns you may have.

**About HBM4EU**

People are exposed to a complex mixture of chemicals throughout their daily lives. These chemicals can be found in the environment, consumer products, food and drinking water and at workplaces.

Human biomonitoring involves collecting samples from people, e.g. blood, hair, saliva or urine, and measuring the levels of indicators of chemicals that are of interest. HBM4EU (Human Biomonitoring for Europe) is a European study, which aims to harmonize and use human biomonitoring to understand people’s exposure to such chemicals and the related health risks, in order to improve chemical risk management. At workplaces, human biomonitoring can inform us on the need to reduce exposure. HBM4EU is funded by the European Commission and national governments. It includes experts from 28 countries and European Union agencies and will run from 2017 to 2021. Learn more at <https://www.hbm4eu.eu/>.

**About this study**

We want to check if the current safety and control measures used at the workplaces across Europe can protect from the exposure to hexavalent chromium (Cr(VI)) and other harmful chemicals. In addition, we want to study new methods to assess the exposure to these chemicals.

The study has been approved by the [*national Bioethics Committee*] and complies with the Data Protection Regulation.

**Why did you choose me?**

We are inviting workers whose duties involve possible exposure to hexavalent chromium (Cr(VI)) (welding, plating and surface treatment activities) and workers without such duties, for comparison. You were chosen because you work in a workplace in which you may be exposed to hexavalent chromium (Cr(VI), or we consider you as a suitable control person since your work tasks do not include such exposures. Your employer has consented to participate in the study and has agreed to you participating if you decide to do so.

**What do I have to do if I agree to take part?**

You don’t have to change your usual routine since the study will take place during normal working hours. If you decide to participate, you will confirm your agreement by completing and signing the enclosed consent form.

We will then find a suitable time to perform the study. You will meet the researchers during the work week for the collection of samples.

**If your duties involve stainless steel welding or chromate plating or surface treatment, you will be asked to provide:**

* Exhaled breath samples, by breathing normally into a sterile disposable tube for about 15 minutes, at both the beginning and end of your working week
* Urine samples before the work shift at the beginning of your working week and after the work shift at the end of your working week. We will provide you with a collection bottle which you can give to the researcher.
* Two small samples of blood (16 ml) will be collected from the vein in your arm. These will be collected post-shift preferably in the end of the work week or at least after one or two days of work.
* You will also need to fill a questionnaire which includes questions on your work tasks, personal protection and lifestyle aspects which may affect the results of the chemical analyses.

From some (not all) participants, we may also wish to collect personal air samples, which are collected by wearing a specific air sampling device on your work clothes, while you carry out your normal work tasks during one single work day. Wipe samples from your hands might also be collected in order to measure hand contamination.

Optionally and only if you consent to, we may take photographs or video to document your work area and practices. We will blur these materials to protect your identity and your company. You can still participate in the study without being present in photographs or video recordings.

**If your duties don’t involve chrome plating, surface treatment or stainless steel welding, you will be asked to provide the following:**

* A sample of the urine you pass first thing in the morning before meeting with the researcher. We will provide you with a collection bottle which you can give to the researcher.
* An exhaled breath sample, by breathing normally into a sterile disposable tube for about 15 minutes.
* Two small samples of blood (16 ml) will be collected from the vein in your arm, at any time during the working week.

The blood and exhaled breath samples will be collected from you by a trained health professional.

**What will happen to my samples, data and results?**

We will replace your name with a code to protect your privacy and will transfer the samples to specialized laboratories for analysis.

Your samples will be examined to measure your exposure to hexavalent chromium. Depending on your work tasks they will be also examined for nickel and manganese (if you are working as a welder), or nickel (if you are performing nickel plating) or for polyfluorinated substances (if you are working with chrome baths), which may also be significant chemical contaminants in these work tasks. Urine and blood samples might be additionally analyzed for the early, reversible cellular effects caused by the chromium in order to study the utility of these tests in the health surveillance of workers.

**Your samples will not be analyzed for alcohol, prescription or illegal drugs.**

Anonymized data collected from you and other participants will be stored and used for research purposes and may be combined with other data from different sources. Your anonymized samples will be stored at [specify place and length of storage] for use in future ethically approved biomonitoring studies to study chemical exposure.

Your *personal* results for urinary chromium will be reported to you [in approximately XX weeks/months by NNNN], unless you tell us you do not wish to receive them. When the results of the whole study will be finished, you will receive the summary of the collective results from the all participating companies.

Your employer will receive the collective results of all the workers, but will not receive individual results. The *collective* results from all the participating companies will be published as a study report which will be openly accessed at <https://www.hbm4eu.eu/>

**How will my privacy be guaranteed?**

HBM4EU complies with the European Data Protection Regulation. We guarantee your anonymity by replacing your name with a code and protecting all electronic and paper records from unauthorized access. Published reports of the study will not contain information that can trace back to you or your company. Your employer or other third parties will not have access to your personal results, unless you consent to.

**Why do you need my written consent?**

Your written consent confirms that you volunteer to take part in the study, understand what is required from you and why. You will also confirm that we can contact you in the future to tell you about your personal results or for scientific, statistical or historical purposes.

**How will I benefit if I participate?**

The study will help to develop the safe working practices at your workplace. You will learn about your personal exposure to chromium and get guidance how to reduce it.

**Are there any risks if I join the HBM4EU study?**

All sampling will be conducted by qualified and specially trained health professionals. There are no risks, other than possible minor discomfort during sample collection.

**Can I quit the study?**

We encourage you to discuss with us any concerns you may have, but you are free to withdraw the study at any time without consequences. We will, however, retain right to use any samples collected prior to the withdrawal in a confidential manner.

**Are there any costs to me?**

There are no costs to you. Your participation in the study will take place during your normal working hours (with the exception of the collection of urine samples first thing in the morning). You will not face salary deductions for your time commitment to the study.

**Who do I contact if I’m unsure about anything or would like further information about the hexavalent chromium study?**

Please contact[Name, Institute of National study Coordinator]

**Tel:** [xxxxxxx] **Email** [xxxxxxx]