

Institut für Prävention und Arbeitsmedizin der Deutschen Gesetzlichen Unfallversicherung Institut der Ruhr-Universität Bochum

| A1 | Project Code | IPA-136 GerES |
|----|-------------------------------|--|
| A2 | Project Title | Exposure of the general population in Germany to hazardous substances in the environment |
| А3 | External Cooperation Partners | Federal Environment Agency (UBA) |
| A4 | Project Manager(s) | Dr. Daniel Bury Dr. Holger M. Koch |

B1 – Aims

- Contribute to establish reference levels for environmental chemicals in blood and urine samples of the German general population based on the 95th percentile level (and its upper confidence interval)
- Create conditions to analyze biological samples (urine, blood) in the German National cohort (NaKo) for environmental chemicals
- Analyze the time course of exposures (i.e. annual changes) to environmental chemicals in the general population and if possible over several decades

B2 - Current Substances of Interest

- Phthalates and their substitution products (e.g. DINCH, DPHP, etc.)
- Bisphenol A
- Parabens
- Triclosan
- N-alkyl-2-pyrrolidones

B3 – Selected Publications

Moos RK, Apel P, Schröter-Kermani C, Kolossa-Gehring M, Brüning T, Koch HM (**2017**) Daily intake and hazard index of parabens based upon 24 h urine samples of the German Environmental Specimen Bank from 1995 to 2012, *J. Expo. Sci. Environ. Epidemiol.*, in press.

Koch HM, Rüther M, Schütze A, Conrad A, Pälmke C, Apel P, Brüning T, Kolossa-Gehring M (2017) Phthalate metabolites in 24-h urine samples of the German Environmental Specimen Bank (ESB) from 1988 to 2015 and a comparison with US NHANES data from 1999 to 2012. *Int. J. Hyg. Environ. Health* 220: 130-141.

Moos RK, Koch HM, Angerer J, Apel P, Schröter-Kermani C, Brüning T, Kolossa-Gehring M (**2015**) Parabens in 24 h urine samples of the German Environmental Specimen Bank from 1995 to 2012. *Int. J. Hyg. Environ. Health* <u>218</u>: 666-674.

Schütze A, Gries W, Kolossa-Gehring M, Apel P, Schröter-Kermani C, Fiddicke U, Leng G, Brüning T, Koch HM (**2015**) Bis-(2-propylheptyl)phthalate (DPHP) metabolites emerging in 24h urine samples from the German Environmental Specimen Bank (1999-2012). *Int. J. Hyg. Environ. Health* <u>218</u>: 559-563.

Koch HM, Kolossa-Gehring M, Schröter-Kermani C, Angerer J, Brüning T (**2012**) Bisphenol A in 24 h urine and plasma samples of the German Environmental Specimen Bank from 1995 to 2009: a retrospective exposure evaluation. *J. Exp. Sci. Environ. Epidemiol.* <u>22</u>: 610-616.

Schulz C, Wilhelm M, Heudorf U, Kolossa-Gehring M, Human Biomonitoring Commission of the German Federal Environment Agency (**2011**) Update of the reference and HBM values derived by the German Human Biomonitoring Commission. *Int. J. Hyg. Environ. Health* 215: 26-35.