

**Overview of the PhD student activities in the Chemistry program in the field of environmental chemistry:  
2015/16**

<b>Student</b> (given name and surname)	Michaela Belháčová
<b>Supervisor</b> (given name and surname)	Branislav Vrana
<b>Consultant</b> (given name and surname)	Jana Klánová ; Foppe Smedes
<b>Beginning of the study</b> (month/year)	September/2014
<b>Form of study</b> (delete where appropriate)	Present (internal)

**Summary of yearly research results** (15 lines maximum)

Determination of accessible and freely dissolved concentration in sediment samples collected from the Danube river using multi-ratio equilibrium passive sampling with silicone rubber based sampler.  
 Optimization of polydimethylsiloxane polymer based coating application for partitioning passive sampling.  
 Collaboration with Water Research Institute Bratislava (processing of SMPD samples collected from Slovak rivers) and Alena Škodová (processing of silicone rubber samples for sampling steroids in water).  
 Preparation of articles:  
 1. Application of co-solvent method to reduce equilibration time of passive sampling for monitoring porewater concentrations of POPs in freshwater sediments  
 2. Pore water and accessible concentrations of hydrophobic contaminants in Danube river sediments estimated by multi-ratio equilibrium passive sampling

**Internship abroad** (place, start date, duration)

UFZ Helmholtz Centre for Environmental Research Leipzig (planned for October – November 2016)

**Publication activities during Ph.D. studies**

Number of peer-reviewed articles in impacted journals	0
Number of conference (oral/poster) presentations	2
Number of other publishing activities (books, book chapters, patents etc.)	0
Public lecture in English (delete where appropriate)	no

**The most important results** (5 maximum, show the impact factor of the journal):

1	Multi-ratio equilibrium passive sampling
2	Polymer coating of bottle – optimization of method
3	Collaboration with projects: Black Sea, Diomedes (NIVA), TACR, GACR
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