

**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)	Chimi Wangmo
<b>Supervisor</b> (given name and surname)	Michal Bittner, Ph.D.
<b>Consultant</b> (given name and surname)	
<b>Beginning of the study</b> (month/year)	November, 2015
<b>Form of study</b> (delete where appropriate)	Present (internal)

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

<ul style="list-style-type: none"> <li>• The major component of the study was focused on literature research and studies during the first year.</li> <li>• Some preliminary findings were also obtained from the laboratory experiments mainly by carrying out laboratory analysis to assess the optimum working conditions of Reverse Osmosis system.</li> <li>• Experiments using spiked samples were carried out to determine the Endocrine Disrupting Compounds concentration efficiency of a flat sheet membrane (FSM) using cross flow filtration system and spiral membrane Reverse Osmosis System. It was established that FSM was more efficient but the results are to be validated further with more experiments.</li> <li>• Other advantage of FSM is its less surface area which results in less adsorption of the chemicals onto the membrane. However due to lower rate of filtration, the amount of time taken to filtrate the same amount of sample through Flat Sheet Membrane is significantly higher.</li> <li>• In the cell laboratory, I concentrated mainly on learning the principles of passaging &amp; sub culturing of cells and enhancing my skills in the best practices of laboratory works. Tests for estrogenicity of the calibration samples as well as reverse osmosis samples were carried out. The results from these tests are however yet to be verified with further repeat tests.</li> </ul>
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**Internship abroad** (place, start date, duration)

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

Number of peer-reviewed articles in impacted journals	-
Number of conference (oral/poster) presentations	1
Number of other publishing activities (books, book chapters, patents etc.)	-

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

1	Undertook courses: C5911 Chromatographic Methods, Bi2003 Ecotoxicology and C2003 Environmental chemistry
2	Made a poster presentation on the topic " <b><i>Detection of endocrine disrupting compounds in water using reverse osmosis and in vitro analysis</i></b> " with Kristýna Jánová & Michal Bittner as co-authors at the CEECHE 2016 (Central and Eastern European Conference on Health and Environment) in Prague from 11-14 April, 2016
3	Attended on regular basis XD010 Masaryk University Life Sciences Seminar, ED101 Advanced seminar in ecotoxicology and XD107 Seminar of Ph.D. Chemistry studies