

## **Dr. Julia Vierheilig receives two awards at the ÖGHMP Conference 2014 for her PhD work**

**The METEKA prize for hospital and company hygiene as well as a travel award from the Austrian Society for Hygiene, Microbiology, and Preventive Medicine (ÖGHMP) honoured Dr. Julia Vierheilig, alumni of the Vienna Doctoral Programme on Water Resource Systems and the Interuniversity Cooperation Centre for Water & Health.**

Dipl.-Biol. Dr. rer. nat. Julia Vierheilig received the METEKA prize for hospital and company hygiene during the 34<sup>th</sup> Annual Meeting of the ÖGHMP in Bad Ischl (02. - 05. June 2014). The prize was awarded for work on the evaluation of *Clostridium perfringens* as a faecal indicator<sup>1</sup>, which she did during her PhD thesis in the Vienna Doctoral Programme on Water Resource Systems. For the first time, it could be shown that the detection of *C. perfringens* by cultivation-based methods, which has been used for more than 100 years to analyse the microbiological quality of drinking water resources, is a considerable sign for wastewater input from municipal wastewater treatment plants and agricultural activities. The study also demonstrates that defining *C. perfringens* as an indicator for total faecal pollution monitoring in water is no longer justified because it cannot be found in the excreta of herbivorous wildlife animals (like red or roe deer). The results have significant impact on the future use and interpretation of this faecal indicator and will improve the possibilities in drinking water quality monitoring.

Dr. Julia Vierheilig also received a travel award from the ÖGHMP to attend their Annual Meeting 2014. She was awarded for her submitted abstract about the excellent work on “bacterial population structure analysis in a complex backwater area by next generation sequencing (NGS) to support the development of faecal pollution detection in the future”, which she was presenting in a scientific talk at this conference<sup>2</sup>.

Additionally, the Austrian microbiology award was given to Dr. Georg Reischer for a publication<sup>3</sup>, which was also realised in the frame of the Interuniversity Cooperation Centre Water and Health and within joint activities of the Vienna Doctoral Programme on Water Resource Systems. The work describes the evaluation of novel molecular biological tools or faecal detection and source tracking in water resources on a global scale. Over 280 samples from 16 countries and 6 continents were studied with the support of many international cooperation partners.

The Vienna Doctoral Programme on Water Resource Systems also contributed intensively to the programme of this conference. The work of 5 students (Lukas Egle, Christina Frick, Domenico Savio, Philipp Stadler, Inge van Driezum), 2 alumni (Dr. Julia Derx, Dr. Julia Vierheilig), and of 2 faculty members (Prof. Andreas Farnleitner, Prof. Matthias Zessner) was shown in poster and oral presentations. The Interuniversity Cooperation Centre Water and Health (ICC Water & Health, [www.waterandhealth.at](http://www.waterandhealth.at)), a cooperation between the Medical University of Vienna and the Vienna University of Technology, financially supported by the Federal Ministry of Science, Research and Economy (bmwfw), was represented in 9 oral and 10 poster presentations.

## Awarded Publications:

<sup>1</sup>J. Vierheilig, C. Frick, R.E. Mayer, A.K.T. Kirschner, G.H. Reischer, J. Derx, R.L. Mach, R. Sommer, A.H. Farnleitner (2013): ***Clostridium perfringens* Is Not Suitable for the Indication of Fecal Pollution from Ruminant Wildlife but Is Associated with Excreta from Nonherbivorous Animals and Human Sewage.** Applied and Environmental Microbiology. 79(16): 5089-5092.

<sup>2</sup>J. Vierheilig, G.H. Reischer, D.F. Savio, C. Frick, A.P. Blaschke, J. Derx, R. Sommer, R.L. Mach, A.H. Farnleitner (2014): **Bacterial population structure analysis in a complex backwater area by next generation sequencing (NGS) to support the development of faecal pollution detection in the future.** Scientific Talk at the 34th Annual Meeting of the Austrian Society for Hygiene, Microbiology and Preventive Medicine, Bad Ischl, Austria; 02. - 05. June 2014.

<sup>3</sup>Reischer G.H, JE Ebdon, JM Haider, N Schuster, W Ahmed, J Åström, AR Blanch, G Blöschl, D Byamukama, T Coakley, C Ferguson, G Goshu, GP Ko, AM de Roda Husman, D Mushi, R Poma, B Pradhan, V Rajal, M Schade, R Sommer, H Taylor, EM Toth, V Vrajmasu, S Wuertz , RL Mach and AH Farnleitner (2013) **Performance characteristics of qPCR assays targeting human- and ruminant-associated *Bacteroidetes* for microbial source tracking across sixteen countries on six continents.** Environmental Science and Technology 47 (15): 8548-8556.



The METEKA prize for hospital and company hygiene was presented to Dr. Julia Vierheilig (left) by the ÖGHMP president Prof. Regina Sommer (middle) and Dr. Helmut Katschnig from the Meteka GmbH (right) during the 34<sup>th</sup> Annual Meeting of the ÖGHMP in Bad Ischl (02. - 05. June 2014).