



## **Global Science Education and Research Seminars**

Campus de Rabanales, Sala de Juntas Facultad de Ciencias March 9<sup>th</sup>, 2017 (13:00 p.m.)



Rok Fink completed BSc in Sanitary engineering at the Faculty of Health Sciences, University of Ljubljana in year 2007. In 2010, he graduated in MSc at University of Nova Gorica. In 2013, he obtained his PhD at Interdisciplinary doctoral study program at University of Ljubljana. He is working as assistant professor at Faculty of Health Sciences, Department of Sanitary engineering. His main research focuses on hygiene, hygiene of surfaces, bacterial adhesion, biofilms and cleaning agents. Rok Fink has been involved in several international project covering different field in health. Currently he is leading two project on field of bacterial adhesion management. So far, he has published more than 20 scientific papers, one book and more that than 40 contribution at international conferences.



## Management of bacterial adhesion on the surfaces

Interactions between bacteria and contact material play an important role in food safety, medicine, pharmaceutical industry and other hygienically relevant sectors. In production process materials are constantly exposed to various kind of microbes which possess potential health risks. The resistance of bacteria to several antibiotics is a global public health problem, not limited solely to hospital facilities. This raises questions about whether effective cleaning and disinfection reduce the risk infection diseases illnesses. Can the surface characteristics be treated to prevent bacterial adhesion and, consequently, the formation of biofilms? Biofilms are complex communities of bacteria attached the surfaces, with fully developed architecture and highly organized interactions. A better understanding of the biofilm lifecycle, with advanced strategies of physical, chemical and biological actions, would reduce the risk of infection. The question is not whether the preventive and control measures will play a significant role in public health, but rather what the implications of their use will be for hygiene in different facilities.