Despite a large number of reports and significant resulting data for water and food-borne protozoan parasites exist, many questions remain. Although, knowledge concerning the objectives and technological tools for monitoring has been substantially improved questions regarding the most effective methodology remain. In this session, we address topics on the occurrence and distribution, epidemiology, disease, detection and control measures of various water and food-borne protozoan parasites. These protozoan parasites are cosmopolitan and they have main routes of transmission via water and food. Some waterborne protozoa are well known, such as *Giardia* and *Cryptosporidium*. We give priority on the methodology developed and applied mainly for monitoring of *Giardia* and *Cryptosporidium* in water over the last 40 years. There is a plethora of information regarding these two pathogens, including their distribution/detection in water and related outbreaks. In contrast, insufficient information is available for *Cyclospora cayetanensis*, *Toxoplasma gondii*, *Isospora belli*, *Blastocystis hominis*, *Balantidium coli* and Free-Living Amoebae (FLA). All of these parasites have water and food-borne transmission and they can be significant pathogens for animals and/or humans. The available detection tools applied for the water and food surveillance of the most common but also the neglected water and food-borne protozoa as mentioned above will be addressed, including the consequences of their presence in water and food and provide future perspectives.

**Biography**

Panagiotis Karanis has obtained his PhD in Parasitology from Bonn University. Following Post-doctoral research activities in Germany, Greece, Australia, Japan, Kanada, Thailand and China, he has been working in the field of medical, epidemiological and molecular Parasitology taken into account both the pathogen and the disease. His worldwide research activities focused in the control of water-borne and vector-borne parasitic diseases including the development of diagnostic assays useful for basic and clinical platforms in the field of biomedicine. He was the main speaker of the Nobel-Days-Lecture during the Nobel-Days-Festivities at the Orebro University in Sweden in December 10th, 2012, focused on malaria vaccine development.

panagiotis.karanis@uk-koeln.de