Talk title: Rain events, Catchments and Crytpo: My time down under

Description: For my elective I organised a 5 week visit to South Australia Water, specifically in the research and development team that specialise in Cryptosporidium work. As part of the R&D team, I helped complete testing on catchment water samples involved in a rain-event project. It focused on looking at the impact of Cryptosporidium abundance, level of infectivity and the predominant identified species, by cell culture, microscopy and molecular methods. The project was unlike a lot of microbiology in that it was developing a way of assessing treatment efficacy proactively opposed to reactively.

During my time at SA Water I also gained hands on experience in the routine water testing lab performing isolation and enumeration methods for routine pathogens, using filtration and flocculation methods of organism isolation, chromogenic agar and biochemical identification tests. I worked with some new techniques, including the methods of isolation and culturing of *Naegleria fowleri,* which is not routinely investigated in the UK.
I matched my elective aims to good scientific practice, which included safe laboratory working, learning new laboratory techniques, reflective learning and critiquing and presenting a scientific paper to the research team. It was also interesting to discuss the similarities and differences between their quality control systems and accreditation bodies.

It is important to note that organising an elective abroad can take a long time to process, especially where nominated VISA applications or multiple departments are involved.

Overall, I found the experience useful and interesting from a training and microbiological stand point. Working in the R&D team also encouraged me to think about proactive testing and how to get the maximum amount of useful information from each experiment. I enjoyed the chance to work in another country, to share opinions and find out more about the similarities between Australia and the UK.