

The environmental chemistry track for Youth Slam 2009 is focused on the World Water Crisis. Did you know that over one billion people currently lack access to clean drinking water around the globe and every 15 minutes a child dies from a water related illness? In fact, for children under age five, waterborne diseases are the leading cause of death.¹ Though the technology exists to provide clean drinking water, the current costs of most technology prevent many countries from taking advantage of these solutions.² That is why scientists across the globe are working daily to develop cost-effective solutions to the world's water problems. However, several factors must be taken into consideration when developing and distributing these technologies, including reliability, affordability, quality and quantity of water available per person.² Another important aspect of improving world water quality is the development of rapid, simple techniques for monitoring the effectiveness of treatment systems during use. Solving the world water crisis is, therefore, a truly multidisciplinary challenge that calls upon experts in fields ranging from chemistry to biology and from engineering to social science to do their part to bring about a lasting, sustainable solution.

In the environmental chemistry track, we will focus on several goals throughout the week. The first is to make you aware of how serious the water crisis has become. The second is to expose you to some of the techniques being explored to remove the harmful materials found in many water supplies – or to *remediate* the water. The third is to familiarize you with how water samples that have gone through such remediation can be tested to see how effective the technique has been. Finally, it is intended that those first three goals will be accomplished through your participation in an actual scientific investigation, and so learning how to conduct such an investigation (with the support of the team running the project) will be a fourth goal of this experience.

References.

1. United Nations. Human Development Report 2006. Beyond Scarcity: Power, Poverty and the Global Water Crisis, <http://hdr.undp.org/en/reports/global/hdr2006/>.
2. Water for Life: Making it Happen, WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2005, http://www.unicef.org/media/files/JMP_05_text.pdf.