

Name: [REDACTED]
Year: Third
Date: 18 January 2013

Speaker: Dr. Rosie Redfield

Topic: The origin(s) of life, social media and the #arseniclife debacle

Dr. Rosie Redfield is a Professor of Cell and Developmental Biology in the Department of Zoology at UBC. In recent years her research efforts have been directed at debunking a high profile research paper that appeared in the journal *Science*, which claimed that a strain of bacteria had been isolated that could incorporate arsenic into its DNA backbone in an environment lacking phosphorus. Since this kind of finding would have enormous implications – it would change the way that we define life and its origin(s) – the science behind it must be absolutely correct. Unfortunately there were a lot of problems with the research, ranging from theoretical chemistry (ie. arsenic stability relative to phosphorus) to sloppy science (for example, the minus phosphorus control media was found to contain enough phosphorus to support cell growth when subjected to mass spectroscopy). Dr. Redfield was one of the first scientists to criticize the paper and she did so in a very public way, making use of social media through her personal blog and twitter account. Dr. Redfield gave a very entertaining talk to describe the events that have taken place over the past two years in which she strongly advocated for open science and a place for social media in the scientific community.