

2018 Nyholm Youth Lectures

An activity of the RACI NSW Branch



The Nyholm Lecture Series commemorates Sir Ronald Nyholm FRS (1917-1971), an outstanding Australian researcher and passionate chemical educator.

These popular lectures are aimed at Year 9 and 10 students. They are loosely linked to the 7-10 Science syllabus, although others will find the material inspiring. **A feature of the Lectures is their practical content and interactive presentation style.**

The 2018 Lectures were presented at a range of venues in metropolitan Sydney and country NSW by two outstanding chemical educators. Cost was around \$5 per head. Schools may apply for discount bulk ticket purchases and should contact their local venues for details.

Mother Nature's Molecules - the good, the bad and the ugly

[Dr Alice E Williamson](#) is lecturer in Chemical Education and Outreach at the University of Sydney. Alice moved to Australia in 2012 to take up a position as principal synthetic chemist for the [Open Source Malaria](#) (OSM) Consortium. Alice has set up unusual collaborations with high school students and undergraduates, who have worked on the synthesis of new and existing essential medicines, publishing all of their results on the internet in real time.



Alice's Nyholm Youth Lecture series discusses "Mother Nature's Molecules" that are good, bad or ugly, or perhaps all of the above. Together with students from Sydney to Merewether High School to Southern Cross University, she explored the chemistries of deadly toxins, essential medicines and a few things in between. She enlisted help from students with demonstrations and worked on ways to explain and understand the chemistry behind 'magic' dissolving balloons and colour-changing liquids. She also touched on heavier topics with the students, including whether anything could ever really be chemical free, how the dose always determines the poison and the importance of chemistry for society. Alice reports that the students asked many wonderful questions and that she hopes that they will continue to be fascinated by chemistry and science, whatever their chosen career paths.

Alice ([@all_isee](#)) is an active science communicator and co-host of the ABC Podcast [Dear Science](#), host of [Up and Atom](#) on FBi Radio and regular guest on Dr Karl's [Shirtloads of Science](#) Podcast.

Real or counterfeit medicines, you decide



Associate Professor Nial Wheate has 18 years' experience in higher education and research gained at three universities in Australia and one in Scotland. During his academic career he has held positions in the School of Physical, Environmental and Mathematical Sciences at the University of New South Wales (Australia), the School of Biomedical and Health Sciences (now the School of Science and Health) at Western Sydney University (Australia) and the Strathclyde Institute of Pharmacy and Biomedical Sciences at the University of Strathclyde (Scotland). He is currently a research and teaching academic of the Faculty of Pharmacy at The University of Sydney.

Research Interests

Associate Professor Wheate's research interests are primarily into pharmaceutically related fields: drug delivery and pharmaceutical formulation, with a particular interest in the pharmaceutical applications of macrocycles (n-cyclodextrins, calix[n]arenes, cucurbit[n]urils, and pillar[n]arenes).

Dr Wheate is a Fellow and Chartered Chemist of the Royal Australian Chemical Institute. He is also a Fellow of the Higher Education Academy and a member of the Australasian Pharmaceutical Science Association.

In the media

Dr Wheate appears regularly in the print media, on the radio and television. He is also a regular journalist and was previously a member of the community council for the online news analysis website [The Conversation](#). Some selected media appearances and articles are given below:

Television

[Starchy foods and the chemical acrylamide, Channel Ten evening news](#), 24 Jan 2017
[Patients call for medical marijuana legalisation to be brought forward](#), The 7.30 report, May 2015

Radio

[Viagra without prescription will help stop booming counterfeit market, experts say](#), ABC PM program, 04 December 2017
[New report reveals worrying presence of fake drugs](#), The Wire, 29 November 2017
[How to survive in Space](#), Think: Digital Futures, Radio 2SER, September 2017

Print and online media

[Why asthmatics should ignore this new clinical trial](#), [International Business Times](#), August 2017
[Are the ingredients in Peppa Pig sunscreen safe?](#), [The Conversation](#), January 2017
[The societal cost of counterfeit medicines](#), [Doctus Project](#), June 2016

Reference: University of Sydney, Faculty of Pharmacy, accessed 31 Jan 2018; <http://sydney.edu.au/pharmacy/about/people/profiles/nial.wheate.php>

For further details about the 2019 Nyholm Youth Lectures contact the RACI NSW Branch Office Email: raci-nsw@raci.org.au or Telephone: (02) 9663 4960