



*The Royal Society of New South Wales*

*Southern Highlands Branch 20<sup>th</sup> April 2017 Lecture*



Professor Michael Kennedy MD (UNSW) MB BS (Syd) FRACP

Conjoint Associate Professor UNSW & Clinical Pharmacology St Vincent's Hospital Consultant Physician and Clinical Pharmacologist with interests in forensic pharmacology, drugs in sport, adverse drug reactions and the application of pharmacological principles to medical practice. Research experience includes a period in the pharmaceutical industry involving clinical trials and phase one drug investigation. Clinical experience covers over 30 years on a general hospital acute medical roster, private practice in non invasive cardiology and a research MD in the area of drug absorption. Numerous publications in pharmacology and clinical medicine. Forensic consulting in relation to adverse drug effects and post mortem drug concentrations has led to involvement in some high profile cases.

**Topic :WHAT HAPPENS TO DRUGS AFTER DEATH?**

Poisonings by antimony and arsenic were commonplace in the 19th century, until the development of chemical assays enabled causative agents to be identified in tissue samples from murdered individuals. Analytical techniques have advanced considerably since that time and it is now possible to ascertain an individual's drug taking history over a period of months from a few centimetres of hair. There have been some spectacular criminal convictions directly resulting from the interpretation of drug concentrations.

The case of Dr Shipman in the UK is one of the most informative. His conviction for murder was almost entirely based on the concentrations of morphine found in nine exhumed patients. A lot happens to drugs after death. Drug concentrations alter. Some drugs such as cocaine decrease, many such as tricyclic antidepressants increase and some molecules such as alcohol and gamma hydroxybutyrate (GHB) are synthesized. The correct interpretation of any postmortem drug concentration depends on having (1) as much information as possible regarding antemortem factors, the most important of these being the circumstances surrounding death, (2) details of collection and storage of samples and (3) a comprehensive knowledge of the pharmacokinetics (absorption, distribution within the body and elimination) and pharmacodynamics (effects on individual organ systems) of the drugs involved. There are continuing challenges in the area. New designer cannabinoids and other agents are regularly appearing on the scene. Further research is needed into the mechanisms that cause the alterations in drug concentrations after death.

**DATE:** Thursday 20<sup>th</sup> April 2017      **TIME:** 6.30 PM

**VENUE :** Performing Arts Centre , Chevalier College, Enter from Charlotte St.

**PRICES:** Lecture only: Non-members \$10 (RS Members \$5)  
Following the lecture, there will be a dinner with the lecturer, open to members and non-members at [THE BRIARS BURRADOO](#)  
[Bookings for dinner please call Hub 0411192917 by Monday 18<sup>th</sup> April.](#)