Recent Events

Recent Advances in Synthesis and Chemical Biology V

The Royal College of Surgeons in Ireland (RCSI) was the venue for Recent Advances in Synthesis and Chemical Biology V, the fifth annual CSCB symposium on December 15, 2006. The 200 delegates heard plenary lectures from six distinguished speakers: Professors Erick Carreira (ETH, Zürich), Barbara Imperiali (MIT), Peter Sadler (University of Edinburgh), Tom Simpson (University of Bristol), Anna Maria Papini (University of Florence) and Gerard Canters (Leiden University).

In addition, postgraduates and postdoctoral scientists from all over Ireland exhibited their research in a poster competition. The winners of the poster presentations were Dr Guillaume Anquetin (UCD), Catriona O'Meara (DIT) and Juliet Cotter (UCD).

Dr Marc Devocelle awarded Servier Scholarship

The Ireland Fund of France in conjunction with French pharmaceutical group L' Institut Servier and the Royal College of Surgeons in Ireland (RCSI), awarded the second annual Servier award of €10,000 to Dr Marc Devocelle at the French Embassy in October. The award was presented to Dr Devocelle for his efforts and success in supporting RCSI research collaborations with France and for his breakthrough research into therapeutic agents for cardiovascular disease.

Professor Thorri Gunnlaugsson receives RSC award

The prestigious Royal Society of Chemistry Bob Hay Lectureship was awarded to Professor Thorri Gunnlaugsson from the TCD School of Chemistry in December 2006.

New CSCB Principal Investigator

We would like to welcome to the CSCB Dr Damian Mooney, lecturer at the UCD School of Chemical and Bioprocess Engineering.

Research Highlights

- A team of researchers led by Dr Celine Marmion, senior lecturer in the Department of Pharmaceutical and Medicinal Chemistry at the RCSI are aiming to develop a new class of metal-based anti-cancer agents. They are focusing on the use of hydroxamic acids as important bioligands for the synthesis of novel platinum and ruthenium complexes. They have developed some ruthenium hydroxamic acid complexes which are currently undergoing biological evaluation.
Research Highlights CONTINUED

• In conjunction with collaborators Drs Andrew Knox and David Lloyd, Dr Mary Meegan from the School of Pharmacy and Pharmaceutical Sciences in TCD recently published work on how they have used computational methods to identify new leads for treating breast cancer. When tested against estrogen receptor (ER) positive cancer cell lines, 12 of the compounds performed up to 100 times better than Tamoxifen. An article on this research was published in the Irish Medical Times in November 2006.

• A new technology is being developed by Professor Don MacElroy and Dr Damian Mooney from the UCD School of Chemical and Bioprocess Engineering and Dr Matthias Tacke and his research group from the UCD School of Chemistry and Chemical Biology, which aims to capture carbon dioxide from exhaust streams. Their preliminary results show that ultra-thin nanoporous membranes can separate carbon dioxide from nitrogen at 600°C. A profile on this work was published on the main UCD home page and in UCD Today.

• Professor Paul Malthouse, UCD School of Biomolecular and Biomedical Science is using state-of-the-art NMR spectroscopy to study a range of biological processes. Professor Paul Malthouse's group are synthesising protease inhibitors and using NMR to determine how they interact with specific proteases. Insights gained could help in the design of drugs for an array of medical conditions.

• Dr Patrick Caffrey, from the UCD School of Biomolecular and Biomedical Science, leads a team of microbiologists who are engineering the biosynthesis of less toxic analogues of the notoriously toxic anti-fungal antibiotic, amphotericin B. The most promising new analogues show anti-fungal activity comparable to amphotericin B and a dramatic reduction in haemolytic activity, a measure of toxicity. The availability of less toxic analogues may allow for the full potential of amphotericin-based drugs to be realised in other therapeutic areas such as HIV and prion diseases. An article on this research was published in the Irish Times in January 2007. Complete articles can be viewed at www.ucd.ie/cscb

Science@CSCB

• Professor John Kelly of TCD was the guest speaker at the September Alchemist Cafe, where he discussed nanotechnology and its biomedical applications.

• Workshops for transition year students from 16 schools around Dublin were held in October, November 2006 and January 2007. Transition year student Natalie Delaney spent a week at the CSCB, experiencing the life of a researcher, making aspirin in the chemistry lab and witnessing the extraction of DNA from soil samples in the microbiology lab.

• CSCB researcher Dr Annette Byrne and CSCB Communications Officer Dr Orla Donoghue delivered RDS Science Live Demonstration Lectures to over 300 secondary school students. During Science Week in November, CSCB postgraduates helped at ScienceWorks at the UCD Conway Institute, performing chemistry illusions for nearly 200 pupils.

• Science@CSCB visited secondary schools in January and 460 pupils heard about the opportunities in science at the Who wants to be a scientist? career talk.