

"Microbes for Mankind – from Science to Society"

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Fergus Shanahan, MD, Professor and Chairman of the Department of Medicine and Director of the Alimentary Pharmabiotic Centre (APC) at UCC presented the 2011 Morton I. Grossman Lecture, "Mining Microbes for Mankind – From Science to Society" at Digestive Disease Week® 2011 in Chicago recently.

Professor Shanahan provided an overview of the diversity of the microbial community within the gut and of its critical importance to the human body in health and disease prevention. He then went on to discuss current theories linking some other bacterial strains with risk of disease. He also explored concepts of host-microbe interactions within the gut, and how we can translate the knowledge we've learned about the microbes in the human gut to clinical medicine – mining microbes for novel drugs or functional food ingredients.

One of the examples he described was the discovery by APC scientists of Thuricin CD, a naturally occurring antimicrobial with a high degree of specificity for the pathogen *Clostridium difficile*. " *C. difficile* is the cause of a considerable number of deaths in hospitals in the Western world today and we believe that some of us may be protected because some of the bacteria in the human bowel produce molecules that can antagonise *C. difficile*. A search of human gut bacteria led us to the discovery of this new antibiotic," said Shanahan.

The Morton I. Grossman Lecture was established in 1989 by a group of investigators at, and alumni of, the Center for Ulcer Research and Education (CURE) and the Digestive Disease Research Center at the University of California Los Angeles (UCLA) wishing to commemorate the contributions of CURE's founder and first Director. Morton I. Grossman, MD, is considered the father of modern gastrointestinal endocrine physiology. Previous lecturers have included Nobel Laureates in Physiology/Medicine, Harold Varmus (2010) and Elizabeth Blackburn (2009).

"Dr Grossman dedicated much of his career to human physiology and he had the wisdom to assemble a multidisciplinary team and collaborate long before it was fashionable" said Professor Shanahan. "While I never met Mort Grossman, in many ways I've modeled the trans-disciplinary Alimentary Pharmabiotic Centre along the lines of what he did."