

## Understanding Microbes

Too tiny to see without a microscope, microbes are essential for life on earth, but we pay a price in terms of sickness and death as a result of infection. At a Public Forum in UCC on Wednesday, November 12<sup>th</sup> titled “Microbes and Mankind – how bacteria and viruses shape humanity”, a panel of eminent speakers will discuss how microbes affects our lives.

Our history has been shaped by microbial disease both at the level of individuals and at the level of entire civilisations. In the opening presentation titled “How Microbes have Shaped our History”, Professor Colin Hill, will use examples such as plague, smallpox and AIDS to illustrate some of the epidemics and pandemics that have shaped our political and social evolution to modern day society. Professor Hill is Professor of Microbiology, UCC and Principal Investigator, Alimentary Pharmabiotic Centre (APC) at UCC.

Professor Fergus Shanahan, Consultant Gastroenterologist, Cork University Hospital (CUH) & Director, APC will deliver a talk titled “Hygiene, Modern Lifestyle and Disease”. Professor Shanahan will discuss how the link between a modern lifestyle and increased risk of immuno-allergic disorders may be due to changes in the bacteria that colonise the human body in childhood which in turn determine the maturation and education of the immune system.

With the first phase of the vaccination programme against Swine ‘Flu underway in Ireland, Dr Mary Horgan, Consultant Physician in Infectious Diseases at Cork University Hospital will discuss the current outbreak which to date has claimed the lives of 10 people in Ireland. The closely related Spanish ‘flu caused by an influenza A virus strain of subtype H1N1 killed in excess of 40 million people around the world in 1918-1919.

Professor Paul Ross, Head of Food Research at Teagasc, will describe that bacteria are naturally resident in the human gut and how they can be used to benefit human health, as in functional foods.

The Forum is hosted by the *Alimentary Pharmabiotic Centre*, a UCC/Teagasc Research Centre funded by Science Foundation Ireland and industry, focusing on gastrointestinal health and development of therapies for debilitating disorders such as Crohn’s disease, colitis, irritable bowel syndrome (IBS) and food poisoning. (<http://apc.ucc.ie>).

The Forum, which will be chaired by Claire O'Sullivan, Senior News Reporter, Irish Examiner, will take place on Thursday, November 12th from 7.30-9.00pm in Lecture Theatre G01, Brookfield Health Science Building, College Road, UCC. All are welcome and admission is free.

The Public Forum is being supported by an unrestricted grant from Yakult Ireland.

#### **About the APC**

The **Alimentary Pharmabiotic Centre** (APC) is a UCC/Teagasc Research Centre funded by Science Foundation Ireland and industry, focusing on gastrointestinal health and development of therapies for debilitating disorders such as Crohn's disease, colitis, irritable bowel syndrome (IBS) and food poisoning. (<http://apc.ucc.ie>). The APC is one of 10 such research centres dedicated to advancing Ireland's Smart Economy through cutting edge research. Forging innovative partnerships with industry, government and academia, the centres add value to Ireland through job creation, inward investment and international excellence in science, engineering and technology.

Pharmabiotic is a neologism devised by the APC to represent any material (including molecules and microbes) originating from the gut ecosystem that can be exploited for a health benefit, and includes probiotics, prebiotics, metabolites, and potential new anti-microbials and anti-inflammatories.

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