Waterford Institute of Technology

Presents

Plant life: insight into the past and tools for the future

by

Prof. Liam Dolan, Sherardian Professor of Botany,
University of Oxford,

At the current growth rate the global population is predicted to reach 10 billion by 2050. To feed this many people, food production worldwide will need to double during a period when climate change will worsen, fossil fuels will dwindle, and water availability will become unpredictable.

To tackle this problem, Prof. Liam Dolan and his team at Oxford are aiming to develop high-yield crop strains which will be better adapted to this climate-altered, resource-poor agricultural landscape of the near future. Work which began by seeking to understand plant evolution now aims to produce crops to grow healthily in resource poor land without the use of excessive phosphate fertilisers. His research group has discovered a family of genes which control root hair growth. The aim is to increase the number of root hairs a plant produces in response to naturally occurring phosphate in the soil. They have developed transgenic wheat and rice varieties capable of producing longer root hairs which can grow in resource poor soil and are now moving on to field experiments to test the yield of these plants in the absence of commercial fertiliser.

Biographical Note

Liam Dolan has recently been appointed to the Sherardian Professorship of Botany at the University of Oxford following several years as a professor with the John Innes Centre, Norwich. Liam completed his BSc and MSc in Botany in University College Dublin and completed his Ph.D in the University of Pennsylvania. He is a Fellow of Magdalen College and Keeper of the Botanical Gardens at the University of Oxford. He has published extensively in Journals such as Nature and Science, and has recently been elected to the European Molecular Biology Organization (EMBO).

Room : F02
Date : Thursday, 20th May 2010
Time : 3:00pm

All are welcome to attend.