



Institute of Biology of Ireland Activity Series, 2018/19

The Institute of Biology of Ireland, as part of the 2018/19 Activity Series, invites its members, families and friends to a free presentation and a guided tour of The Evolution of Land Plants Garden at UCD.

Prof Paul McCabe, Head of Botany, UCD will give the presentation and guide us through the garden.

Date and Time: Saturday June 16th @ 2pm (UCD)

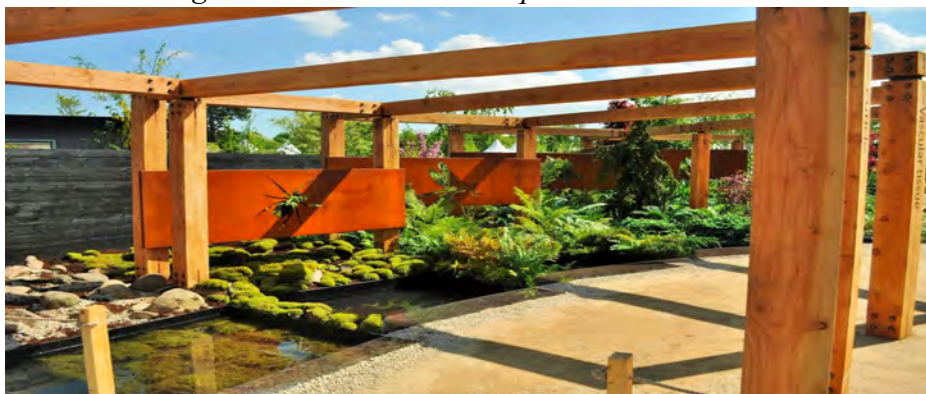
Location: Meet at Kilty Classroom in O'Brien Centre for Science Building, UCD.

Go to Science East entrance of the building, and after entering building, continue through concourse to spiral staircase, turn right and proceed to Kilty classroom (just after Pi restaurant).

About the Evolution Garden, UCD

Evolution of Land Plants Garden

'Gardening is an endeavour that requires both science and art'



Picture: Dr. Sven Batke

At the UCD School of Biology and Environmental Science (SBES) we teach our students that several major societal challenges relate to plants. For example, to feed the 9 billion people on the planet by 2050 will require a 70% increase in global crop output. However, we need to increase food production sustainably, with reduced fossil fuel derived fertilisers and using no more water than we currently use. Equally importantly we need to deal with the threat of climate change that has the potential to seriously reduce our current crop yields at precisely the time we need to increase yields.

It is therefore important that our students understand, and value, the plants and crops that underpin human existence.

A fundamental building block to understand plant growth and development is to first understand the evolutionary forces that led to the plants we know and rely on today. Staff in SBES, along with our colleagues from the School of Agriculture and Food Science, created an outdoor classroom in the form of a themed garden that represented the evolution of land plants. The garden was showcased at the 2016 Bloom festival where it won a gold medal and was awarded the overall prize for best concept garden in show. Now the garden has come home to the UCD campus where it has become a permanent outreach and teaching resource. The evolutionary garden is designed to take you on a walk through evolutionary time and charts the development and turnover of plant species across temporal boundaries. This unique outdoor classroom is used to teach plant evolution to UCD students and visitors alike.

Prof Paul McCabe Biography



Professor Paul McCabe obtained his B.Sc and Ph.D from Maynooth University. His Ph.D. was undertaken under the supervision of Prof. Philip Dix and he studied chloroplasts genetics.

He then left Ireland for what he thought was going to be 11 months but in fact didn't manage to return for 10 years. He initially was successful in obtaining a one year UNESCO research fellowship at the Biological Research Centre in Szeged, Hungary and spent a year working in a communist country. Having experienced communism he then decided to go to the US. He spent 3 years at Michigan State University, USA, as a Postdoctoral Fellow and studied asymmetric protoplast fusion. Having enjoyed his time in the US, but not able to face another Michigan winter, he tried to get back to Ireland but only succeeding in getting as close as London where he spent 3 years at University College London, in the Darwin Building – so named because it was built on the site of a house Charles Darwin once lived in. Having given up in ever getting back to Ireland he then spent 3 years in the laboratory of Prof. Christopher Leaver, FRS, at Oxford University as a Senior Postdoctoral Fellow and investigated the regulation of programmed cell death in plants. His wife then gave birth to his daughter Aoife and he made one final attempt to return home. He applied for a lectureship at UCD and, to his delight, was appointed to his present position in UCD in Sept 2000. He teaches evolution, cell biology, biotechnology and plant cell signalling. He is currently the Head of the Plant Biology degree programme, the deputy Head of the School of Biology and Environmental Science and the Director of the UCD Plant Science Centre.

Research Interests: Professor McCabe's group investigates several aspects of cell biology and plant biotechnology. Many of his research projects attempt to elucidate how cells undergo programmed cell death. Correctly controlling these cellular life and death decisions are fundamentally important to plant development and pathogen defence mechanisms. He is also interested in the biotechnology of chloroplasts and 'pharming' plant cells to produce high value products such as pharmaceuticals or natural food additives.

Getting to UCD:

Location: UCD Main Entrance GPS Co-ordinates N 53 18'32.3 W 6 13'06.1

If driving, enter UCD through the main entrance off the N11 (Stillorgan Dual-Carriageway). the most convenient carpark is behind the **O'Reilly Hall** (the O'Reilly carpark) which you will find

by turning immediately right after you enter UCD through the N11 entrance. You do not need a permit as UCD is out of term and you can freely park in any carpark. Walk from carpark to Science East entrance and enter building. Continue through concourse to spiral staircase and turn right and proceed to **Kilty classroom** (just after Pi restaurant). There will be a presentation by Prof. McCabe on the background to why and how the Evolution Garden was created, followed by a tour of the garden itself.

By Bus - Dublin Bus

From O'Connell Street, Dublin Bus numbers 2,11 and 46A can be boarded for UCD. The Dublin Bus route 145 also provides a direct route from Heuston Station to UCD.

Here is a link to a map of UCD

http://ucdestates.ie/commuting/wp-content/uploads/sites/3/2015/08/UCD_Parking_Belfield_Map.jpg

