

Institute of Biology of Ireland

Activity Series, 2015

Public Lecture



The Institute of Biology of Ireland, as part of its Activity Series 2015, invites its members and general public to this lecture. Admission is free.

Molecular Evolution and Adaptation: Birds, Bears, Bowhead whales and Beyond !

Speaker: Dr Mary J. O'Connell, School of Biotechnology, DCU

Location: Lecture Theatre, National Botanic Gardens, Glasnevin, D 9

Date and Time: 16th October at 8pm

In this this lecture we will see what happens to living organisms when catastrophe strikes and will also see some important features that are key to survival. We will discuss some principles of evolution and adaptation to ecological niche, and we will take a look at recent research from my group, and our collaborators, on terrestrial, volant and marine vertebrates. Each species is unique at the level of its DNA and every organism has the history of the past locked within that DNA. Studying these molecules allows us to understand the processes and patterns of evolution that have shaped life on our planet for billions of years. We will see what discoveries have been made from studying the DNA of organisms such as the polar bear, the bowhead whale, the hummingbird and, of course, ourselves !"



Dr Mary J. O'Connell graduated with her BSc and PhD from Maynooth University. Her PhD studies were on the molecular evolution and comparative genomics of the human and mouse. After a short period of lecturing at DCU she commenced her Postdoctoral research fellowship at UCC on the evolution

of genomic imprinting in placental mammals and in plants. Shortly thereafter she joined the academic team at the school of Biotechnology DCU and immediately set up her research group. She has carried out research at the Natural History Museum London and the Pierre et Marie Curie university in Paris and most recently completed field work in the Amazon rainforest in South America. In 2012 Dr O'Connell was awarded a Fulbright Scholarship for academic excellence for her sabbatical to Harvard University's world renowned Department of Organismic and Evolutionary Biology where she worked closely with Professor Scott Edwards and his group for 12 months on the evolution of sensory perception. She will tell us about these and other stories in her presentation this evening.

Getting to the National Botanic Gardens

- Bus No 4; Harristown, Ballymun, **Botanic Ave.**, Phibsboro Shopping Centre, O'Connell St., Pembroke Rd., Blackrock, Stradbroke)
- Bus No 9; Limekiln Ave. South Circular Rd., O'Connell St., **Botanic Rd.**, Beneavin Rd., Charlestown)
- Bus No 83; Kimmage, Sundrive Rd., Rathmines / Harristown {Ballygall Road East}

GPS users: Either use the Garmin loc8 system with this code: **NP7-57-F53** or input the following latitude, **53.3717**, and longitude, **-6.2696**.

