World leading sleep expert to give public lecture at UCC

Our biological clock schedules our sleep, mood, strength and blood pressure, and on 3rd October one of the world leaders in the area of circadian rhythms and sleep will deliver a public lecture at UCC.

Prof. Foster, whose TED Talk “Why do we Sleep?” has had nearly 8 million views, has written four popular science books and is the Head of the Nuffield Laboratory of Ophthalmology, the founder and Director of the Sleep and Circadian Research Institute and is a Fellow of Brasenose College Oxford.

Our daily circadian rhythms and sleep/wake cycle allow us to function optimally in a dynamic world, adjusting our biology to the demands imposed by the day/night cycle. For cells to function properly they need the right materials in the right place at the right time. Thousands of genes must be switched on and off in a specific order. Proteins, enzymes, fats, carbohydrates, hormones, nucleic acids and other compounds need to be absorbed, broken down, metabolised and produced in a precise time window. Energy has to be obtained, and then partitioned across the cellular economy and allocated to growth, reproduction, metabolism, locomotion, and cellular repair. Without this internal circadian organisation, our biology would be in chaos.

Prof. Foster’s talk will consider the mechanisms that generate and regulate circadian rhythms and sleep, the essential physiology and behaviour regulated by these systems, what happens when our circadian rhythms and sleep are disrupted as a result of disease and societal pressures, and what we can do now, and perhaps in the near future, to help us cope with sleep and circadian rhythm disruption in key diseases such as blindness, neurodegenerative disease and mental illness.

Prof. Russell Foster’s research addresses how circadian rhythms and sleep are generated and regulated and what happens when these systems fail as a result of societal pressures or disease. A key finding was the discovery and characterisation of an unrecognised light-detecting system within the eye that regulates circadian rhythms and sleep, and most recently, the translation of this work to the clinic. For his work, Russell was elected to the Fellowship of the Royal Society in 2008, the Academy of Medical Sciences in 2013, and was honoured with a CBE in 2015 for services to Science. He is a member of the Governing Council of the Royal Society; he established and led for six years the Royal Society Public Engagement Committee and is a Trustee of the Science Museum. Russell has published over 250 scientific papers and has received multiple national and international awards.

“Science has always been at the heart of the Yakult company, since it was first set-up in the 1930’s by the Japanese scientist Dr Shirota, and it remains so to this day. We strongly believe in the positive impact of science in all aspects of everyday life. Professor Foster’s fascinating lecture is a perfect opportunity for us to support public engagement with science and we look forward to hearing what he has to say”, said Dr Louise Durrant, Science Manager, Yakult Ireland, who are providing support for this public lecture.

“An unbalanced diet and poor sleep quality have the potential to adversely affect our health. We are therefore delighted to welcome Prof. Foster to University College Cork to
provide this fascinating overview of the broader implications of sleep/circadian disruption on human health and disease in the 21st century” said Dr Cormac Gahan, Principal Investigator at APC Microbiome Ireland SFI Research Centre who is hosting the lecture as part of “Circadian Rhythms” exhibition at Glucksman Gallery, University College Cork which runs until 3rd November.

The public lecture take place in Boole 3 Lecture Theatre at 7pm on Thursday 3rd October. Admission is free but tickets need to be reserved in advance on Eventbrite at http://bit.ly/RussellFosterCork

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