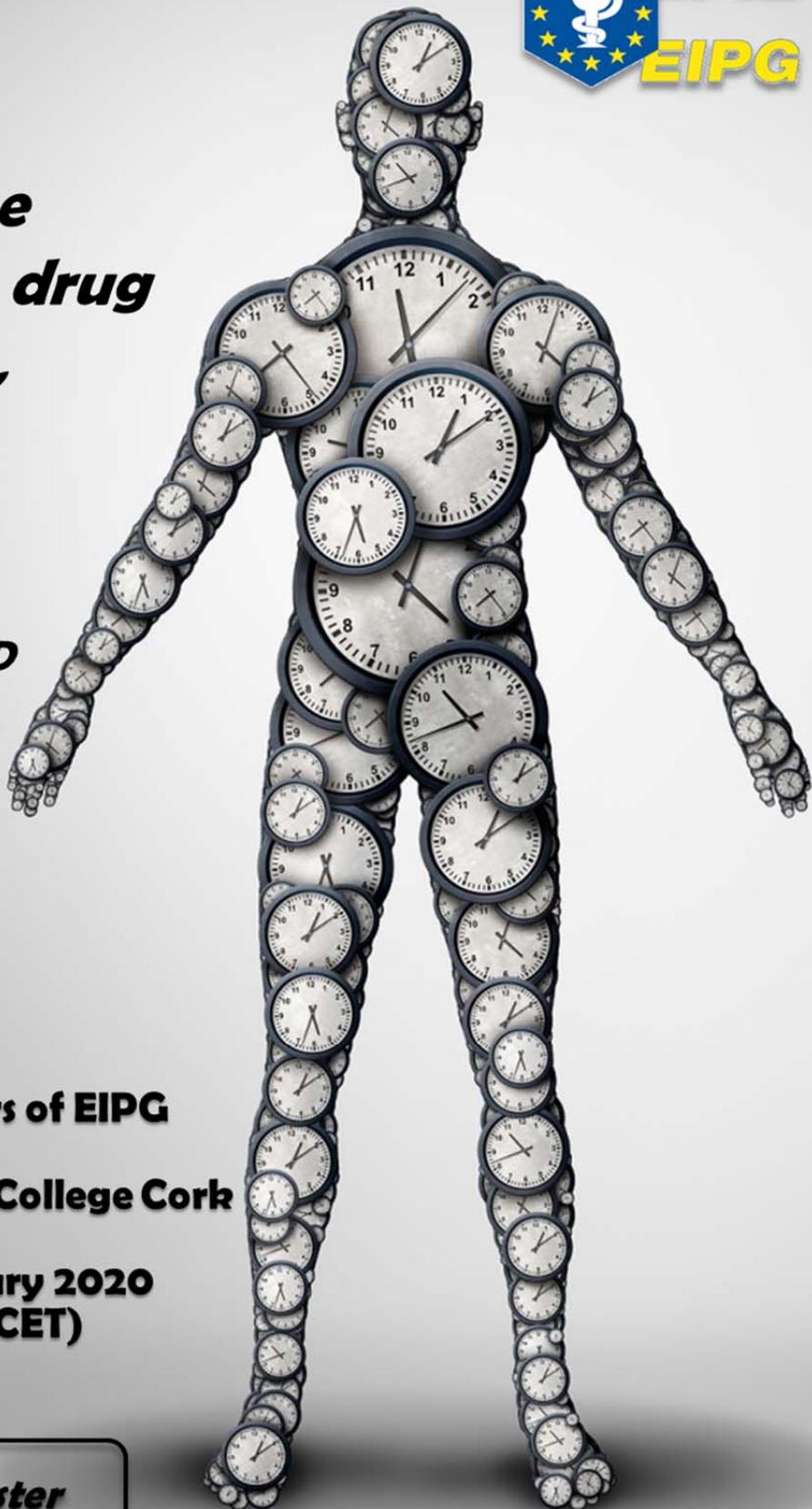




***The role of the
body clock in drug
development,
efficacy and
toxicity***

Annie Curtis PhD



**Webinar for members of EIPG
in conjunction with
PIER and University College Cork**

**Thursday 27th February 2020
at 16.00 GMT (17.00 CET)**

[Click here to register](#)

About the Speaker

Annie Curtis is Lecturer and Principal Investigator of the Curtis Clock Laboratory, Royal College of Surgeons in Ireland. Following a BA in genetics, Dr Curtis undertook a PhD at the University of Pennsylvania on the Role of the Molecular Clock in the Vasculature. During this time, she co-authored a number of research papers and then accepted a research position at GSK, managing a team investigating the role of endothelial microparticles in vascular inflammation. Two non-research positions followed and she realised that making scientific discoveries is her passion. Since returning to academia, Dr Curtis has received a number of prestigious research awards. She has her own laboratory and is studying the impact of the molecular clock on the immune system, in particular the inflammatory response. With a team of postdocs and PhD students, her laboratory investigates whether disruption of our body clocks, due to our 24/7 lifestyle and erratic eating and sleeping patterns, is causing chronic inflammation and contributing to chronic inflammatory diseases.

Overview of Webinar

For centuries we have known that rhythms in our physiology exist so that our bodies stay in tune with the daily cycle, imposed by the rotation of the Earth. Twenty years ago we began to genetically pick apart the molecular make-up of these rhythms, and from this we discovered that each of our cells has the capacity to tell the time of day, this has opened up a new field in biology, called chronobiology, which is the study of our body clocks in health and disease. Today, this field has begun to unpick the implications of our body clocks in terms of drug development, efficacy and toxicity. This has major implications as up to half of the 100 top selling medicines are against a target that is controlled by our molecular clock, leading to daily changes in the expression of this target. Chronotherapy has the aim of harnessing our body clocks and these subsequent rhythms to improve the efficacy and safety of drugs.

Learning Outcomes

By the end of this presentation, you will:

1. Understand what our body clock is, why we need it, and how it controls timing within cells
2. Understand how our body clock is one of the major controllers of our physiology
3. Understand how modern life is disrupting our body clocks, and how this is leading to disease
4. Understand the breadth of drug targets that are controlled by the body clock
5. Understand how our body clock impacts on pharmacodynamics and pharmacokinetics
6. Understand the opportunities that exist in this new area of chronotherapy, and what the future may bring in terms of bringing chronobiology and chronotherapy into modern medicine

To Join the Webinar

Please register for the event by filling out the form at https://docs.google.com/forms/d/e/1FAIpQLScTk-xWH0hwfeLZzktT-ho-sw3XbLWZoEH9DHyL6QDkmneF_A/viewform. Further instructions will then be sent by e-mail.

Continuing Education:

A certificate of attendance will be issued after the webinar. The session will be an hour of Continuing Education.