



<b>Position Title</b>	PhD Studentship - Timed to Perfection: Development of a novel circadian drug delivery platform and its application in osteoarthritis
<b>Project Abstract</b>	<p>There is a growing body of evidence that multiple biological processes demonstrate 24-hour rhythms, also known as circadian rhythms; however, to our knowledge, no local drug delivery system has been developed to align to these biological oscillations. To this end, this PhD project brings together expertise in Immunology and Clock Biology (Curtis Lab) and in timed and on-demand drug delivery (Kearney Lab) to develop a novel platform for circadian-mimicking drug delivery.</p> <p>56 of the top 100 selling drugs target the product of a circadian gene but most do not consider time-of-day dosing. Therefore, demonstration of a circadian drug delivery device –as is the objective of this project– will provide a platform that can be applicable across a wide range of marketed drugs.</p> <p>As an initial test, we will apply this circadian drug delivery device to osteoarthritis by examining delivery of a molecule, adenosine, which is known to play key roles in cartilage cell (chondrocyte) health and displays a strong circadian profile. To ensure that the outputs of this work are ready for translation, we will perform proof-of-concept trials in animals.</p>
<b>Experience</b>	The PhD position is funded for 4 years, including a monthly stipend and materials and travel budget. Applicants should hold a minimum of an honours bachelor's degree at 2:1 level or equivalent in a relevant subject such as Bioengineering/Medicine/Immunology. Candidates should also have a strong interest in Regenerative Medicine/Drug Delivery
<b>Funding</b>	The studentship will cover fees up to €5,500 pa and a stipend of €18,500 pa
<b>Location</b>	RCSI
<b>Closing Date</b>	Friday 29 <sup>th</sup> June 2018
<b>For more information contact</b>	Dr. Annie Curtis, <a href="mailto:anniecurtis@rcsi.ie">anniecurtis@rcsi.ie</a> , 353-1-4025018 Dr. Cathal Kearney, <a href="mailto:cathalkearney@rcsi.ie">cathalkearney@rcsi.ie</a> , 353-1-402 5123

AMBER,  
CRANN Institute,  
Trinity College Dublin,  
Dublin 2, Ireland

T + 353 (0) 1 8963030  
W [ambercentre.ie](http://ambercentre.ie)  
twitter @ambercentre

