Small Molecule Signalling in Stem Cell Differentiation

Use of stem cells has the potential to transform regenerative medicine, if appropriate strategies can be identified for the controlled differentiation of these progenitors. One way to control stem cell differentiation in the lab is to use small signalling molecules like the synthetic steroid dexamethasone. This approach can’t generally be used in patients though, because the required drug concentrations are too high, and would lead to major side effects. As part of a collaboration between chemists and cell biologists, we’re trying to overcome this limitation using several related methods, including developing more potent compounds, and exploring the possibility of delivering drugs directly at the site of action. We’ve got some preliminary results that look promising, and hope that you’re interested in joining our team to help carry this work forward.

This project is associated with the lifETIME Centre for Doctoral Training at the University of Glasgow, and the student will benefit from additional professional skills training in areas such as interdisciplinary communication, entrepreneurship and business development. Furthermore, the student will work closely alongside our Industrial partner Cytochroma to gain insight from the perspective of a key stakeholder outside academia, as well as making additional business contacts.

Applicants must have or expect to attain First or Upper Second class degree qualifications in Chemistry or a related field. Previous laboratory experience in synthetic organic chemistry is advantageous. The closing date for this opportunity is 30 Apr 2019, and the studentship will commence in October 2019.

Interested parties should contact Dr. David France (david.france@glasgow.ac.uk) sending a CV and cover letter.

The University of Glasgow was founded in 1451, and is ranked among the top 100 universities in the world. The student will be based on the University’s main campus in the cosmopolitan West End of Glasgow.

Funding notes:

Funding is available to cover all tuition and fees for UK or EU applicants, as well as paying the standard tax-free stipend specified by Research Councils UK. Unfortunately, we cannot consider citizens from outside the EU for this project.

Related Subjects:

Cell Biology
Molecular Biology
Organic Chemistry
Pharmaceutical / Medicinal Chemistry