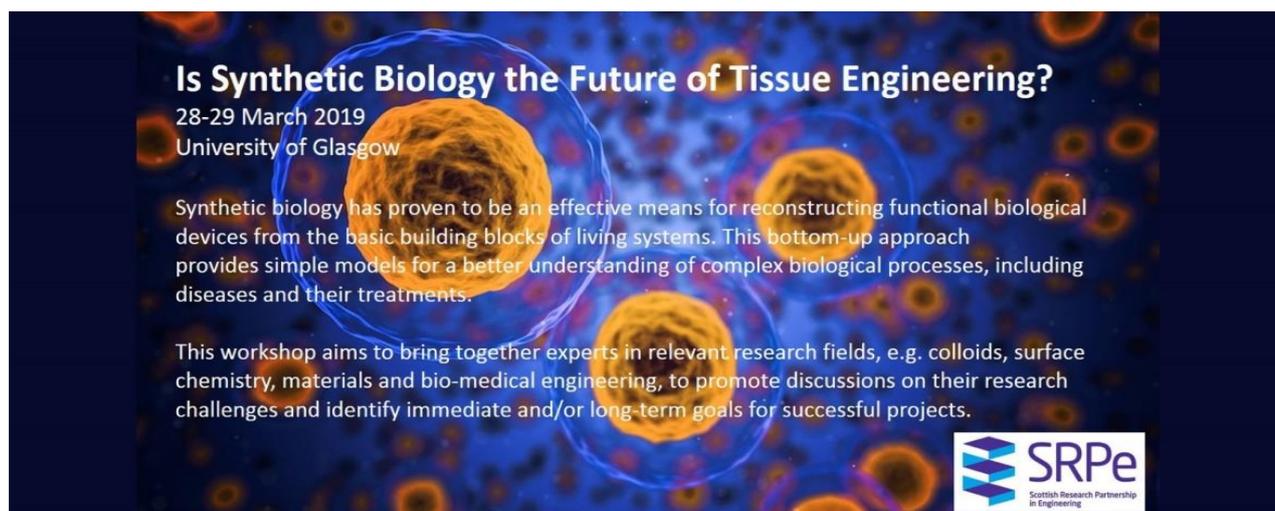


From: Elijah Nazarzadeh, University of Glasgow, 13/2/19

Subject: Workshop 'Is Synthetic Biology the Future of Tissue Engineering?'



Is Synthetic Biology the Future of Tissue Engineering?
28-29 March 2019
University of Glasgow

Synthetic biology has proven to be an effective means for reconstructing functional biological devices from the basic building blocks of living systems. This bottom-up approach provides simple models for a better understanding of complex biological processes, including diseases and their treatments.

This workshop aims to bring together experts in relevant research fields, e.g. colloids, surface chemistry, materials and bio-medical engineering, to promote discussions on their research challenges and identify immediate and/or long-term goals for successful projects.



Workshop Programme:

The workshop will start with a networking lunch at noon on 28th March, followed by talks on 28th afternoon. We will start discussion on morning of 29th March and finish by midday.

Workshop Abstract:

The complexity of the human body is the main challenge in our quest for understanding many diseases and their treatment. Synthetic biology has proven to be an effective means for reconstructing an artificial, functional biological device by engineering the basic building blocks of living systems, providing simple models for a better understanding of complex biological processes.

Droplets (emulsions of hydrophobic components, e.g. lipids, and hydrophilic cores) can act as an ideal element to build more complex biological structures (i.e. artificial cells) and develop into a network to mimic tissues and organs. This provides the opportunity to test and characterise signalling pathways for example, opening up large numbers of applications, such as exploring cell and membrane activities, animal-free drug testing and building synthetic tissues (e.g. for repair). This line of research is at its early stages and includes various aspects of science such as colloids, surface adsorption, bio-engineering and biology, with the potential to address industrial questions around implants, drug development and delivery in healthcare, but also beyond, towards energy and data storage, food processing and paints.

In this workshop, we aim to bring together experts from academia and industry to identify both immediate and long-term goals for successful collaboration across different aspects of the topic and create a long- lasting, and inclusive network. Strong cross-disciplinary research collaborations can address different aspects of such a complex study and the aim of this application to initiate them through a workshop.

Confirmed speakers:

Prof. Jon Cooper (University of Glasgow)

Prof. Jerome Bibette (ESPCI, France)

Prof. Oscar Ces (Imperial College London)

Dr. David Lunn (OxSyBio Ltd.)

Dr. Darcy Wagner (Lund University, Sweden)

Dr. Baojun Wang (University of Edinburgh)

Registration and more information: <https://event.bookitbee.com/21004/start-booking#booknow>