



Introduction to Opportunities in Synthetic Biology Workshop Draft Programme

Date: May 21-22 2013

Venue: Exchange Building, Jubilee Campus, University of Nottingham, UK

Day 1

09:30 Registration

10:00 Welcome and introduction

Session 1: What is synthetic biology, and what can it be used for?

10:15 Jim Haseloff (University of Cambridge)

Engineering plant form

10:40 June Medford (Colorado State)

Rewiring a plant and Digital-like Controls

11:05 Michael Ball

BBSRC perspective

11:50 Belinda Clarke

TBC

Session 2: From molecules to cells and circuits

12:15 Dek Woolfson (University of Bristol)

Generating and applying toolkits of de novo peptide components for synthetic biology

12:40 *Lunch*

13:30 Cameron Alexander (University of Nottingham)

Synthetic polymers – new containers and communication materials for synthetic biology

13:55 Lee Cronin (University of Glasgow)

Bottom up meets top down: From inorganic biology to synthetic biology manipulations in 3D printed wet-ware

14:20 Martin Howard (JIC)

Implementation of analogue arithmetic circuitry in plants

14:45 Anne Osbourn (JIC)

Making new molecules

15:10 Rob Edwards (University of York; FERA)

Plant Synthetic Biology: a New Platform for Industrial Biotechnology?

Session 3: Plant synthetic biology

15:35 Nick Smirnoff (University of Exeter)

Synthetic metabolons

16:00 *Afternoon tea*

16:25 Giles Oldroyd (JIC)

Redesigning the symbiotic signalling pathway for rhizobial



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- 16:50 recognition
Sebastian Schornack (Sainsbury Laboratory Cambridge)
Targeted variation of genomes using TAL effectors
- 17:15 Breakout groups: What can plants do for synthetic biology?
- Day 2
- 08:45 Tea and coffee
- Session 5: Synthetic biology tools**
- 09:00 Susan Rosser (University of Glasgow)
Recombinases as tools for synthetic biology
- 09:25 George Lomonosoff (JIC)
eVLPs for plant synthetic biology
- 09:50 Tom Ellis (Imperial College London)
Assembling designer genomes
- 10:15 Sylvestre Marillonnet (Icon Genetics)
Developing tools for synthetic biology: Golden Gate Cloning and the MoClo System
- 10:40 Jim Ajioka (University of Cambridge)
A guide to Gibson assembly
- 11:05 *Coffee break*
- 11:30 Breakout sessions to discuss future community needs
- 13:00 *Lunch*
- 13:45 Feedback from breakout groups
- 14:10 Alistair Elfick (University of Edinburgh)
iGEM
- 14:30 Natalio Krasnogor (University of Nottingham)
TBC
- 14:50 Jim Haseloff (University of Cambridge)
PlantFab registry of DNA parts for plants
- 15:10 Richard Kitney (Imperial College London)
Foundational Resources from cSynBi
- 15:30 Guy-Bart Stan (Imperial College London)
Taking a forward-engineering approach to the design of synthetic biology systems?
- 16:10 Claire Marris (Kings College London)
Responsible Research and Innovation for Synthetic Biology



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