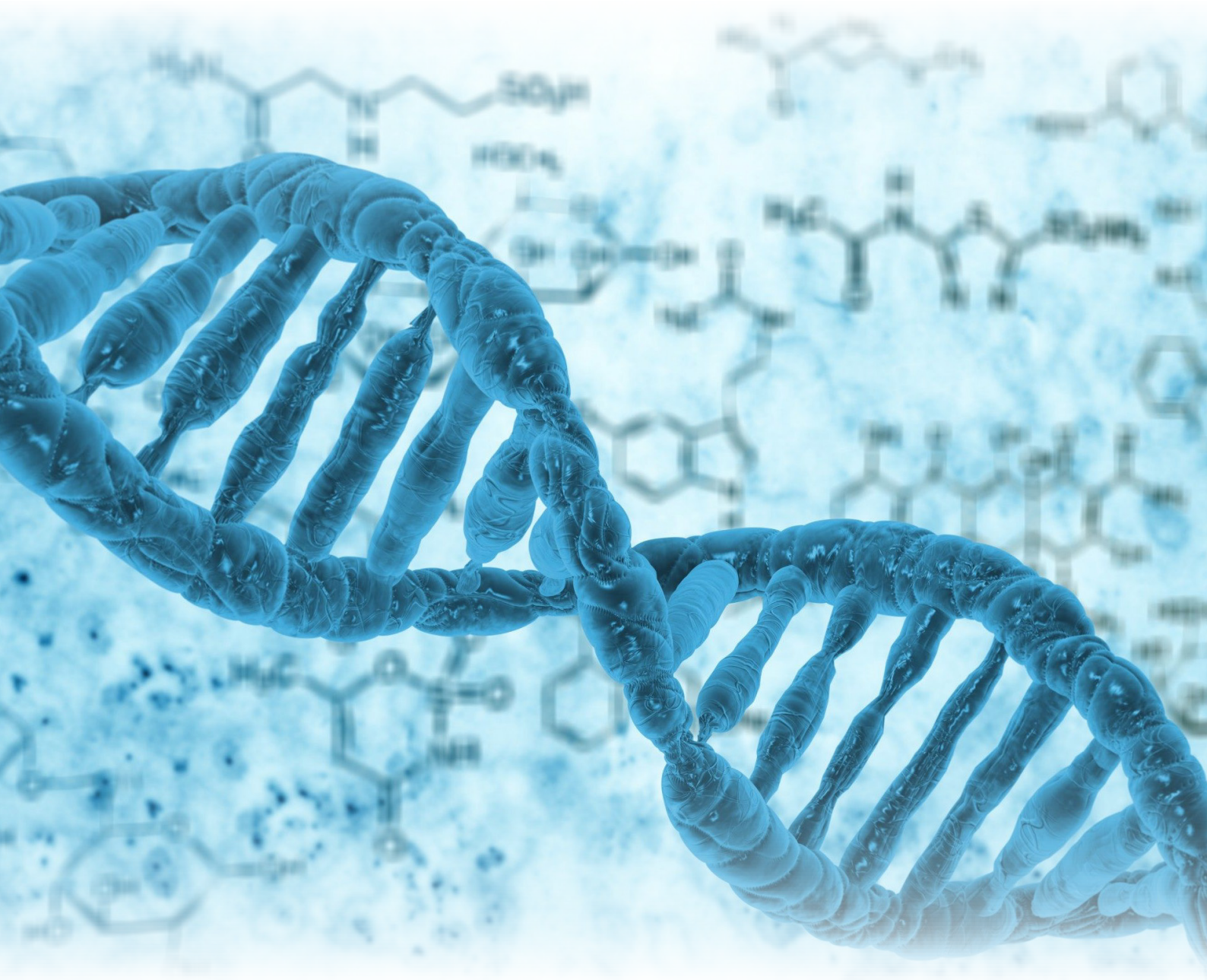
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621st Conference

Scientific Program

2nd International Conference on

Systems & Synthetic Biology

August 18-20, 2016 London, UK



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Scientific Program

Day 1 August 18, 2016

09:00-09:30 **Registrations**

Kennedy

conferenceseries.com **09:30-10:00** **Opening Ceremony**

Keynote Forum

10:00-10:45 **Title: Synthetic mRNAs as optimized tools for stem cell generation and for manipulating cellular phenotypes**
Guido Krupp, AmpTec GmbH, Germany

10:45-11:30 **Title: Enhancing the synthetic IQ of CAR T-cells**
Michael Jensen, Seattle Children's Research Institute, USA

Networking & Refreshment Break 11:30-11:45 @ Foyer

Session: Structural Biology | Integrative Biology | Protein Engineering | Industrial Systems and Synthetic Biology | Biotechnology Advances | Metabolomics

Session Introduction

Session Chair: Guido Krupp, AmpTec GmbH, Germany
Session Co-Chair: Roberto Mazzoli, University of Torino, Italy

11:45-12:15 **Title: Use of synthetic proteins and future trends: The example of calstabin**
Jean A Boutin, Institut de recherches SERVIER, France

12:15-12:45 **Title: Construction of recombinant cellulolytic microorganisms for cellulose consolidated bioprocessing by metabolic engineering: Achievements, hurdles and perspectives**
Roberto Mazzoli, University of Torino, Italy

12:45-13:15 **Title: Solving of the structural heterogeneity of human catalytic antibody light chains and the role of the constant domain**
Taizo Uda, Oita University, Japan

Lunch Break 13:15-14:15 @ Orwell's Brasserie

14:15-14:45 Special Session: **Automation at the heart of synthetic biology**
by **Paul Lomax**, TTP Labtech, UK

14:45-15:15 **Title: Biological features of human catalytic antibody light chains possessing the ability against the infection of influenza virus**
Emi Hifumi, Oita University, Japan

15:15-15:45 **Title: Lactic acid bacteria for nutraceuticals and added value products production**
Enrica Pessione, University of Torino, Italy

Networking & Refreshment Break -15:45-16:00 @ Foyer

16:00-16:30 **Title: MicroRNAs: Potential biomarkers and therapeutic targets in osteoarthritis**
Mohit Kapoor, University Health Network, Canada

16:30-17:00 **Title: Design of artificial anaerobic microbial community for bioremediation**
Arata Katayama, Nagoya University, Japan

17:00-17:30 **Title: Exploring unique compounds from lignin degradation using MnSOD and Dyp-type peroxidase enzymes**
Sharon Mendel Williams, Coventry University, UK

17:30-18:00 Special Session: **Biosecurity and how export controls impact the life sciences**
by **Betty Lee**, United States Department of Commerce, USA

Panel Discussion

Day 2 August 19, 2016

Kennedy

Keynote Forum

9:00-9:45 **Title: A computer model simulating human glucose absorption and metabolism in health and metabolic disease states**
Richard J Naftalin, King's College London, UK

Session: **Synthetic Genomics | Synthetic Gene Network | Gene Synthesis | Biophysics | Bio-Sensors and Bio-Electronics | Next Generation Sequencing | Computational Systems Biology | Pharmaceutical Biology**

Session Introduction

Session Chair: Anthony C Forster, Uppsala University, Sweden
Session Co-Chair: Martin Falk, Czech Academy of Sciences, Czech Republic

09:45-10:15	**Title: NextGen SynBio: Synthetic genomics and drug discovery** **Anthony C Forster,** Uppsala University, Sweden
10:15-10:45	**Title: Towards a complex view on DNA damage and repair: Epigenetic and spatio-temporal aspects** **Martin Falk,** Czech Academy of Sciences, Czech Republic

Networking & Refreshment Break 10:45-11:00 @ Foyer

11:00-11:30	**Title: Selection systems for a-type and α-type yeasts using cell-type-specific transcriptional regulation machinery** **Nobuo Fukuda,** National Institute of Advanced Industrial Science and Technology, Japan
11:30-12:00	**Title: Designable RNA architectures for rapidly engineering and analyzing synthetic metabolisms** **James M Carothers,** University of Washington, USA
12:00-12:30	**Title: The assembly of 2D and 3D droplet interface bilayers from cell-sized droplets using optical tweezers** **Mark S Friddin,** Imperial College London, UK
12:30-13:00	**Title: Real-world microfluidic analytics applications in the pharmaceutical biotech industry** **Hector Hugo Caicedo,** Pharmaceutical Companies of Johnson & Johnson, USA
13:00-13:30	**Title: Spatial control of biochemical modification pathways and cascades** **Krishnan,** Imperial College London, UK

Lunch Break 13:30-14:30 @ Orwell's Brasserie

Session Chair: Richard J Naftalin, King's College London, UK
Session Co-Chair: Roberto Mazzoli, University of Torino, Italy

14:30-14:50	**Title: Cyanobacteria as photosynthetic biofuel factories: Synthetic biology methods in the development of next-generation production platforms** **Pauli Kallio,** University of Turku, Finland

Young Research Forum

14:50-15:10	**Title: Engineering listeriolysin O for specific pore formation *in vitro*** **Sasa Rezelj,** National Institute of Chemistry, Slovenia
15:10-15:30	**Title: Engineering of *Saccharomyces cerevisiae* toward n-butanol production** **Reem Swidah,** The University of Manchester, UK
15:30-15:50	**Title: Towards cellulose consolidated bioprocessing into biofuel through recombinant *Clostridium cellulovoran*: Detailed analysis of the central metabolism and development of optimized gene manipulation tools** **Chiara Gandini,** University of Torino, Italy
15:50-16:10	**Title: Engineering a mini-cellulosome in *Lactococcus lactis* for direct conversion of cellulose in lactic acid: Cloning and expression of recombinant scaffoldin proteins** **Loredana Tarraran,** University of Torino, Italy

Networking & Refreshment Break 16:10-16:25 @ Foyer

16:25-16:45	**Title: Recombinant *Lactococcus lactis* for efficient conversion of cello-oligosaccharides into L-lactic acid** **Denis Kalemasi,** University of Torino, Italy
16:45-17:05	**Title: Cell junction, oxidative stress, inflammation and gene polymorphism: Are they clues to myocardial infarction?** **Ingy Hashad,** German University in Cairo, Egypt
17:05-17:25	**Title: Use of the *Arabidopsis* MAGIC population to identify genes involved in phosphate use efficiency** **Azizah Nahari,** The University of Edinburgh, UK
17:25-17:45	**Title: Evolution and diversification of alcohol dehydrogenases in the monoterpene indole alkaloid pathway of *Catharanthus roseus*** **Anna K Stavrinides,** John Innes Centre, UK

Panel Discussion

Day 3 August 20, 2016

Extended Networking Session & Lunch 13:00-13:30 @ Orwell's Brasserie