

# Organ-on-a-Chip Learning & Collaborative Event

8 & 9 April 2019, QMUL Graduate Centre

## Programme

Day One: 8 April 2019			
9.30	Registration	Graduate Centre - Main Entrance Foyer	
10.10	Welcome and introduction	Peston Lecture Theatre, ground floor	
10.15	<b>Research talks:</b> OOAC technology development and use (11 minute each)	Peston LT	
12.15	<b>Flash poster talks</b> (1 min each)	Peston LT	
12.30	Lunch and poster viewings	6 <sup>th</sup> Floor Foyer	
13.30	<b>Industry talks:</b> current OOAC models and technology platforms	Peston LT	
14.30	<b>OOAC discussion groups</b> (45 min sessions) GC 102/103/104/105 & 205	<b>Industry demonstrations</b> GC 202/203/204	<b>Training session:</b> Working Collaboratively Fryni Panayidou, QMUL  GC 222
17.00	Closing remarks from discussion groups	Demonstrations close and pack up	
17.30	Day one - END		

Day Two: 9 April 2019	
09.00	<b>Public engagement session:</b> Developing interactive OOAC public engagement GC222 Sarah Barnes, QMUL, (Light refreshments provided)
14.00	Day two: END

## Research talks:

### **Aya Aly, Brunel University London**

THE DEVELOPMENT OF AN OOAC AUTOMATED PLATFORM: BREAST-ON-A-CHIP (BOAC)

### **Elodie Siney, University of Southampton**

A HUMAN 3D NEURAL CULTURE MODEL UTILISING IPSCS FROM AN ALZHEIMER'S PATIENT TO STUDY NEURODEGENERATIVE DISEASES

### **Angel Naveenathayalan, Brunel University London**

CONCEPTUAL DESIGN AND DEVELOPMENT OF AN ORGAN ON A CHIP RESEARCH TOOL: UNDERSTAND AND INVESTIGATE THE FUNCTIONALITY OF EPITHELIAL TISSUE OF THE LOWER FEMALE REPRODUCTIVE ORGAN AND THE PREVALENCE OF BACTERIAL VAGINOSIS.

### **Claudia Beurivage, Galapagos BV and University of Sheffield**

HIGH THROUGHPUT MICROFLUIDIC GUT-ON-A-CHIP MODEL FOR DRUG DISCOVERY AND TARGET VALIDATION IN INFLAMMATORY BOWEL DISEASE

### **Tayebeh Azimi, University of Westminster**

AN IN VITRO 3D MODEL TO EVALUATE BEHAVIOUR OF BREAST CANCER CELLS AND RESPONSE TO TREATMENT

### **Despina Moschou, University of Bath**

TOWARDS REALISTIC BRAIN MODELS: TRANSITION FROM STATIC TO MICROFLUIDIC MULTI-ELECTRODE ARRAYS

### **Gowsihan Poologasundarampillai, University of Birmingham**

SOL-GEL DERIVED INKS FOR 3D BIOFABRICATION

### **Virginia Pensabene, University of Leeds**

STUDYING BACTERIA PROPAGATION IN A FOETAL MEMBRANES-ON-A-CHIP

## Poster presentations:

### **Sindhu Naik, University of Sheffield**

ESTABLISHMENT AND VALIDATION OF IN-VITRO MODEL FOR LOWE SYNDROME AND DENT II DISEASE.

### **Kinga Kosim, University of Sheffield**

ESTABLISHMENT AND VALIDATION OF AN IN VITRO MODEL FOR CROHN'S DISEASE

### **Julijana Simonovic, Cardiff University**

STUDY OF BONE CELL POPULATION MODELS OF S-SYSTEM TYPE

### **Xin Yang, Cardiff University**

ACOUSTIC MICROFLUIDIC CHIPS FOR SEPARATING MICROPARTICLES AND CELLS

### **Blerina Ahmetaj-Shala, Imperial College London**

A NOVEL AUTOLOGOUS VASCULAR CELL BIOASSAY WITH THE POTENTIAL FOR PATIENT PHENOTYPING AND TISSUE ENGINEERING

### **Timothy Hopkins, Keele University**

CAN ARTICULAR CARTILAGE DEGENERATION BE ATTRIBUTED TO UNDERLYING SUBCHONDRAL BONE HEALTH?

### **Yi Sui, Queen Mary University of London**

PATH SELECTION OF A SPHERICAL CAPSULE IN A MICROFLUIDIC BRANCHED CHANNEL

## Industry talks and demos



**BEONCHIP S.L.**  
Presenter: **Rosa Monge**

BEONChip is responsible for designing new devices for cell culture - making the cells environment as biomimetic as possible. With our technology, researchers are able to reproduce in the laboratory the same environment as if they were in the human body, but in a user friendly way. Testing drugs, materials and compounds will be much closer to reality and therefore the time and cost of manufacturing will decrease.



**BIOND Solutions B.V.**  
Presenter: **Nikolas Gaio**

BI/OND supports biologists working in pharmaceutical companies, biotech and academia to explore fundamental questions about human health and disease by providing a dynamic hardware for complex 3D tissue models (organoids, microtissues and ex-vivo tissues). Its product consists of an interface (reusable 6 well plate format) and disposable microfluidic chips.



**CN Bio Innovations Ltd**  
Presenter: **Dharaminder Singh**

PhysioMimix™ is an OOC platform that combines a microphysiological (MPS) system with microfluidics. This combination of MPS and microfluidics enables a precise control of nutrients delivery, drug distribution and mechanism stimulation to mimic different aspects of the human physiology and/or disease *in vitro*.



**Emulate**  
Presenter: **Carrie Ripberger**

Based on Organs-on-Chips technology, our Human Emulation System™ provides a real-time window into the inner workings of human biology and disease — offering researchers a new technology designed to predict human response with greater precision and detail than today's cell culture or animal-based experimental testing.



**MIMETAS**  
Presenter: **Christian Ramakers**

MIMETAS develops organ-on-a-chip tissue models for evaluating drugs, chemicals and food components. Its unique microfluidic technology, designated OrganoPlates®, enables testing of compounds in high-throughput on miniaturized organ models. These models show better predictivity as compared to laboratory animals and conventional cell culture models.