

Antibiotic Resistance Mechanisms

WORKSHOP FOR RESEARCHERS

27 - 28 November 2014

Holiday Inn, Birmingham City Centre

PROGRAMME

DAY 1 - THURSDAY 27 NOVEMBER

13.00 Lunch, registration & poster viewing

13.55 INTRODUCTORY REMARKS

David Wareham, London

14.00 SESSION ONE: Topical Resistance Issues 1

Chairs: Neil Woodford (London) & David Wareham (London)

- OXA- β -lactamases **Benjamin Evans (Cambridge)**
- Polymyxin Resistance' **Thamarai Schneiders (Edinburgh)**
- Extensive drug resistance (XDR) in *E.coli* is controlled by environmental bacteriophages **Mark Toleman (Cardiff)**

15.45 TEA & COFFEE BREAK

16.15 SESSION TWO: Topical Resistance Issues 2

Chairs: Chris Longshaw (Astellas) & Hendrick van Veen (Cambridge)

- Antibiotics for the future: Resistance informs discovery **Hee-Jeon Hong (Cambridge)**
- Breaking the Mould; the rise of antifungal resistance in the UK **Paul Bowyer (Manchester)**
- Malaria - The arms race between drug and parasite **Giancarlo Biagini (Liverpool)**

17.00 SESSION THREE: Early Career Researchers, PhD Students and Trainees

Chairs: Keith Miller (Sheffield) & Jim Spencer (Bristol)

- Whole genome sequencing to study resistance in *Staphylococcus aureus* **Claire Gordon (Oxford)**
- Probing Metallo- β -Lactamase Activity and Inhibition **Anne Makena (Oxford)**
- Multidrug Transport Protein NorM from *Vibrio cholera* Simultaneously Couples to Sodium-and Proton-Motive Force **Asha Nair (Cambridge)**
- Antimicrobial therapy for ventilator associated pneumonia: improving clinical outcomes using a translational pharmacological approach **Tim Felton (Manchester)**
- An *in vitro* investigation of meticillin resistant *Staphylococcus aureus* (MRSA) decolonisation treatment failure **Andrew Anyakow (Glasgow)**
- Application of new methods to rapid and accurate detection of Antibiotic Resistance Bacteria in Aquatic Systems. Who, how and where? **Marcos Quintela-Baluja (Newcastle)**

18.30 POSTER SESSION

There will be a prize for the best poster

19.30 Dinner

DAY 2 - FRIDAY 28 NOVEMBER

08.55 INTRODUCTORY REMARKS

Hendrik van Veen, Cambridge

09.00 SESSION FOUR: Resistance in Clinical Practice - Diagnostics and Therapeutics

Chairs: Vicky Enne (London) & David Wareham (London)

- Whole genome sequencing for the detection and surveillance of resistance genes in Public Health Microbiology **Matthew Ellington (Cambridge)**
- Mass spectrometry and proteomics for the detection of antimicrobial resistance **Mark Wilks (London)**
- Metagenomics approaches to antibiotic resistance in the microbiome **Elaine Allan (London)**
- Rapid Molecular Diagnostics of Antimicrobial Resistance and Respiratory Tract Infections **Vicky Enne (London)**

10.20 TEA & COFFEE BREAK

11.00 SESSION FIVE: Update from BSAC Grant Holders/Offered Papers

Chairs: Hendrik van Veen (Cambridge) & Laura Piddock (Birmingham)

- Investigating the Activity of the Cfr Resistance Determinant and its Effects on Antibiotic Susceptibility **Martin Challand (Bristol)**
- Biofilms and Antimicrobial resistance **Francesca Short (Dundee)**
- Fungal cell wall remodelling and antifungal drug tolerance **Carol Munro (Aberdeen)**
- Targeting the hemolytic phospholipase PlcHR from *Pseudomonas aeruginosa* as a novel drug target **Ehmke Pohl (Durham)**

12.20 Closing remarks & poster prize giving

12.30 Coffee and depart