

Antibiotic Resistance and Mechanisms

WORKSHOP FOR RESEARCHERS

Thursday 24 - Friday 25 November 2016

Holiday Inn, Birmingham City Centre

Welcome to the eleventh Antibiotic Resistance Mechanisms Workshop for Researchers.

This workshop will offer members of the UK community researching mechanisms of antimicrobial resistance the opportunity to meet to consolidate and extend the expertises held within individual laboratories in the United Kingdom. It will provide a much needed forum to allow the sharing of knowledge between all grades of researchers, including PhD students and technicians.

The British Society for Antimicrobial Chemotherapy will continue to underwrite the majority of costs for this meeting. The focus of our support will be on those that have no funding to attend (their institution has no funding or there are no appropriate travel or conference grants to apply to for funding). Therefore, we encourage everyone who can support their own attendance to pay the registration fee. We are currently inviting applications for funded places from those who are able to demonstrate that they have no other means to fund attendance. If you would like to apply for a funded place, we kindly ask that you submit a poster abstract for consideration along with your application.

We look forward to welcoming you.

Tim Felton and Laura Piddock

Chairs, Programme Committee

PROGRAMME

DAY 1 - THURSDAY 24 NOVEMBER 2016

13.00 Lunch, registration & poster viewing

13.55 INTRODUCTORY REMARKS
Tim Felton, Manchester

14.00 SESSION ONE: TOPICAL RESISTANCE ISSUES 1
(4x 30 min slots (25 min + 5 min Q&A))

Chair: William Gaze, Exeter University

- Raw meat on the menu; feeding of dogs and antimicrobial resistance **Nicola Williams (University of Liverpool)**
- The impact of sub-lethal antibiotic concentrations upon a MR in the environment **William Gaze (Exeter University)**
- Mechanistic understanding of cell wall biosynthesis to combat AMR **Chris Dowson (Warwick University)**
- Resolving a 25-year old controversy: how do the ABC-F proteins mediate antibiotic resistance? **Liam Sharkey (Leeds University)**

16.00 TEA & COFFEE BREAK

16.15 SESSION TWO: TOPICAL RESISTANCE ISSUES 2
(3x 15 min slots (10 min + 5 min Q&A))

Chair: Chris Dowson, Warwick University

- Non-CYP51A mediated azole resistance in *Aspergillus fumigatus* **Mike Bromley**
- Role of RNA repair in the tolerance of bacteria to antibiotics **Christoph Engl (Queens University Belfast)**
- Macrophage-induced drug tolerant persisters in tuberculosis **Suzanne Hingley-Wilson (University of Surrey)**

17.00 SESSION THREE: EARLY CAREER RESEARCHERS, PHD STUDENTS AND TRAINEES
(4x 20 min slots (15 min + 5 min Q&A))

Chair: David Wareham, Queen Mary University

- ATP-dependent substrate transport by the ABC transporter MsbA is proton-coupled **Himansha Singh (University of Cambridge)**
- Phenotypic and Genotypic identification of Urinary Tract Infections caused by ESBL producing *E. Coli* in the Leicester Area **Ruth Reid (De Montfort University)**
- De Novo of trimethoprim resistance in *S.aureus* **Philip Fowler (John Radcliffe Hospital)**
- Strathclyde Minor Groove Binders as Antimicrobial agents **Fraser Scott (University of Strathclyde)**

18.20 APPOINTMENT OF CO-CHAIR FOR ANTIBIOTIC RESISTANCE AND MECHANISMS 2017

18.30 POSTER SESSION

There will be a prize for the best poster

19.30 Dinner

DAY 2 - FRIDAY 25 NOVEMBER 2016

08.55 OPENING REMARKS

Laura Piddock, Birmingham

09.00 SESSION FOUR: RESISTANCE IN CLINICAL PRACTICE - THE ENVIRONMENT

(4x 20 min slots (15 min + 5 min Q&A))

Chair: Alasdair MacGowan, Southmead Hospital

- Pharmacodynamics of beta-lactamase inhibitors **Alasdair MacGowan (Southmead Hospital)**
- The environmental 'resistome' **Fiona Walsh (Maynooth University)**
- Carbapenemase-producing organisms in the UKNext generation sequencing and the management of sepsis **Katie Hopkins (Public Health England)**
- Next generation sequencing and the management of sepsis **Justin O'Grady (University of East Anglia)**

10.20 TEA & COFFEE BREAK

10.50 SESSION FIVE: UPDATE FROM BSAC GRANT HOLDERS/OFFERED PAPERS

(4x 20 min slots (15 min + 5 min Q&A))

Chair: Fionnuala Lundy, Queens University Belfast

- The Development of linear peptoids as new agents for the treatment of biofilms **Fionnuala Lundy (Queens University Belfast)**
- Identification and validation of novel aptamers against fungal cells for the targeting of antifungal agents **Clare Lawrence (University of Central Lancashire)**
- Mechanisms of resistance to linezolid in enterococci and staphylococci referred to the national reference laboratory **Daniele Meunier (Public Health England)**
- Investigation of the use of nanotechnology to reduce the side effects associated with anti-retroviral protease inhibitors **Neill Liptrott (Liverpool University)**

12.10 Closing remarks & poster prize giving

12.20 APPOINTMENT OF CHAIR FOR ANTIBIOTIC RESISTANCE AND MECHANISMS 2017

12.30 Coffee and depart