



The British Society for Antimicrobial Chemotherapy in collaboration with The Royal Society of Chemistry

Antibiotic Resistance Mechanisms WORKSHOP FOR RESEARCHERS

Thursday 26 - Friday 27 November 2015

Holiday Inn, Birmingham City Centre

Welcome to the tenth Antibiotic Resistance Mechanisms Workshop for Researchers. This year The British Society for Antimicrobial Chemotherapy (BSAC) is excited to be running the workshop in collaboration with The Royal Society of Chemistry (RSC).

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

The BSAC and The RSC will underwrite the costs for this meeting from charitable reserves and a designated grant. To ensure a good mix of delegates, from a range of institutions and career stages, we are currently inviting applications for a limited number of BSAC and RSC funded places, with preference given to those who have no other means to fund attendance (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. 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. The closing date for funded place applications is Friday 25 September.

We look forward to welcoming you.

Hendrik van Veen & Tim Felton
BSAC Chairs, Programme Committee

Patrick Steel & Mike Page
RSC Chairs, Programme Committee

PROGRAMME

DAY 1 - THURSDAY 26 NOVEMBER 2015

- 10.00 Registration, coffee and & poster set up
- 10.55 **INTRODUCTORY REMARKS**
Hendrik van Veen, Cambridge
- 11.00 **KEYNOTE PRESENTATION ONE:**
Antibiotic Resistance - can we break it?
Anthony Coates (St Georges University, London)
- 11.30 **SESSION ONE: ANTIMICROBIAL RESISTANCE: EPIDEMIOLOGY & CLINICAL RESEARCH**
[4 x 25 min slots (20 min + 5 min Q&A)]
- The role of PKPD in ARM: accelerating and derisking new therapeutic approaches **William Hope (University of Liverpool)**
- Targeting optimal antibiotic therapy in children; who knew choosing the right drug dose and duration would be so difficult **Mike Sharland (St George's University London)**
- Discovering resistance determinants from genomic data **Julian Parkhill (Wellcome Trust Sanger Institute)**
- Convergence of the right biomarkers and point of care detection platforms for better diagnostics of AMR **Till Bachman (University of Edinburgh)**
- 13.10 LUNCH & POSTER VIEWING
- 14.00 **KEYNOTE PRESENTATION TWO:**
A 'game changing' new antibiotic? The discovery of teixobactin
Vicky Steadman (Selcia Ltd)
- 14.30 **SESSION TWO: ANTIMICROBIAL RESISTANCE: BIOLOGICAL & CHEMICAL RESEARCH I**
[4 x 25 min slots (20 min + 5 min Q&A)]
- Structure and mechanism of a tripartite multidrug efflux pump **Ben Luisi (University of Cambridge)**
- Understanding the challenges of carbapenemases through theory and experiment **Jim Spencer (University of Bristol)**
- Discovery of new antibiotics from the *Burkholderia cepacia* complex **Greg Challis (University of Warwick)**
- Exploiting phenotypic hits as chemical tools to identify novel TB drug targets **Del Besra (University of Birmingham)**
- 16.10 **SESSION THREE: POSTER PRESENTATIONS** (with refreshments)
- 17.30 Day One sessions close.
- 19.30 **DINNER**

DAY 2 - FRIDAY 27 NOVEMBER 2015

- 08.40 **OPENING REMARKS**
Tim Felton, Manchester
- 08.45 **SESSION FOUR: UPDATE FROM BSAC GRANT HOLDERS/OFFERED PAPERS**
[4 x 25 min slots (20 min + 5 min Q&A)]
- Testing the efficacy of novel antimicrobials in mixed species biofilms using an innovative qPCR approach **Fionnuala Lundy (Queen's University Belfast)**
- Treating inhalation anthrax by selective enzymatic removal of the protective polypeptide capsule **Peter Taylor (University College London)**
- Rapid monitoring of treatment response: a tool to prevent emergence of drug resistant tuberculosis **Stephen Gillespie (University of St Andrews)**
- The role of bacterial membranes in antimicrobial peptide resistance mechanisms: a combined systems biology and biophysics approach **James Mason (King's College London)**
- 10.25 TEA & COFFEE BREAK
- 11.00 **SESSION FIVE: ANTIMICROBIAL RESISTANCE: BIOLOGICAL & CHEMICAL RESEARCH II**
[5 x 25 min slots (20 min + 5 min Q&A)]
- Probing bacterial quorum sensing pathways with small molecules **James Hodgkinson (University of Cambridge)**
- Protein lipidation pathways: target validation for antimicrobial drug discovery **Ed Tate (Imperial College London)**
- Towards novel antibacterials: Dissecting and targeting the molecular function of bacterial K⁺ efflux (Kef) systems **Stuart Conway (University of Oxford)**
- The role of MDR efflux in the evolution of antibiotic resistance selected by biocide exposure **Mark Webber (University of Birmingham)**
- Un-orthodox antimicrobial combination therapies for multidrug resistant gram-negative Infections **David Wareham (Barts and The London School of Medicine and Dentistry)**
- 13.05 LUNCH & POSTER VIEWING
- 14.00 **SESSION SIX: EARLY CAREER RESEARCHERS /PHD STUDENTS/TRAINEES**
[4 x 15 min including Q&A]
- Type I signal peptidase inhibitor MD3 enhances the activity of carbapenems versus carbapenem-resistant strains of *Escherichia coli* producing New-Delhi metallo-beta-lactamases **Jonathan Betts (Queen Mary University of London)**
- Bacterial DNA gyrase as a selective target for antimicrobials **Martin Schafer (John Innes Centre)**
- Synthetic analogues of natural product disulphides from *Allium stipitatum* demonstrate potent anti-tubercular activities through drug efflux pump and biofilm inhibition **Cynthia Amaning Danquah (UCL School of Pharmacy)**
- Using *Pseudomonas aeruginosa* bioluminescent biosensors to understand the genetic basis for antimicrobial resistance **Angharad Ellen Green (Cardiff University)**
- 15.00 **KEYNOTE PRESENTATION THREE:**
Attempts to help enable antibiotic development
Chris Schofield (Oxford)
- 15.30 Closing remarks & poster prize giving



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Antimicrobial Chemotherapy



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Please complete ALL sections in BLOCK CAPITALS

Title: <input type="text"/>		RSC funded place request (please tick) <input type="checkbox"/>
		BSAC funded place request (please tick) <input type="checkbox"/>
First name <input type="text"/>		
Surname <input type="text"/>		
Gender	Male <input type="checkbox"/> Female <input type="checkbox"/>	I am a member of: BSAC <input type="checkbox"/> RSC <input type="checkbox"/>
Job title <input type="text"/>		
Department <input type="text"/>		
Institute name and address <input type="text"/>		
<input type="text"/>		
Postcode	<input type="text"/>	Tel <input type="text"/>
Email <input type="text"/>		
I wish to submit a poster abstract. (Please give the title of your poster in the box below)		
<input type="text"/>		
<p>Please note: We ask all delegates who apply for a funded place to submit a poster abstract for consideration.</p> <p>From time to time the BSAC would like to email you with information about our activities which we believe will be of interest to you. This will not involve your details being passed to any third party and you can unsubscribe at any time. I would like to receive this information (please tick the box) <input type="checkbox"/></p> <p>I would like to receive e-mails from the RSC about its related activities, products and services, (please tick the box) <input type="checkbox"/></p>		

PAYMENT DETAILS

Payment in Sterling should be made to BSAC as follows:

- ☐ CHEQUE MADE PAYABLE TO BSAC
- ☐ PLEASE INVOICE ME USING PO NUMBER
- ☐ CHARGE TO CREDIT/DEBIT CARD
(please indicate card number, expiry date and security number)

MASTERCARD ☐ VISA ☐ SWITCH ☐
EUROCARD ☐ SOLO ☐ ELECTRON ☐

SECURITY NO ISSUE NO switch only
CARD NUMBER

START DATE EXPIRY DATE

CARDHOLDER'S NAME

CARDHOLDER'S HOME ADDRESS

I authorise the use of my credit card for this purpose

Signature Date

REGISTRATION FEES (plus VAT) Fees include accommodation on 26 November and catering throughout the workshop

- ☐ Principal Investigator £250.00
- ☐ Postdoctoral Researcher and all other posts* £190.00
- ☐ Student £150.00
- ☐ Industry £350.00 + accommodation costs
- ☐ I wish to apply for a funded place and enclose my application for consideration including my poster abstract title. The deadline for funded place applications is **Friday 25 September 2015**

*eg technician, scientist etc

ORGANISING SECRETARIAT

Please complete and return to:

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CANCELLATION POLICY No refunds will be given for cancellations notified after **Friday 6 November 2015**