

Läkemedelsakademin

Swedish Academy of Pharmaceutical Sciences

in collaboration with:



Frontiers in Antibacterial Drug Discovery (FiADD)

September 14-15, 2016, Stockholm, Sweden

Wednesday, September 14

08:45 *Registration, Coffee and sandwich*

09:30 **Opening & Welcome**

Anders Karlén, Uppsala University, Sweden

Rob Stavenger, GlaxoSmithKline, Pennsylvania, USA

Session 1: Finding new chemical entities for antibacterials

Chair: Åsa Rosenquist, Medivir, Sweden

09:45 **Plenary lecture: a lack of novelty in the antibiotic pipeline**

Karen Bush, Indiana University, USA

10:30 **Antibiotic adjuvants: drug combinations that overcome resistance**

Gerry Wright, McMaster University, Canada

11:00 *Coffee*

11:30 **Comprehensive metabolomics for the systematized discovery of antimicrobial agents from natural products**

Roger Linington, Simon Fraser University, Canada

Session 2: Poster pitch session

Chair: Cecilia Nilsson, Uppsala University, Sweden

12:00 **Oral presentation of selected posters**
Common structural motifs in new natural cyclic pentapeptides determine selective antibacterial activity against *Acinetobacter baumannii*

Vicente Francisca, Fundacion Medina, Granada, Spain

12:05 **Chemical probes to study and block bacterial virulence applied to *Pseudomonas aeruginosa***

Charotta Sundin, Umeå Universitet, Umeå, Sweden

- 12:10 **Bacteria cytological profiling for screening and characterizing the mechanism of action of novel compounds**
Joe Pogliano, University of California, La Jolla, California
- 12:15 **ENABLE: northern antibiotics polymyxin programme**
Paula Kiuru, University of Helsinki, Helsingfors, Finland
- 12:20 **Inhibitors of the cysteine synthase CysM with antibacterial potency against dormant *Mycobacterium tuberculosis***
Katharina Brunner, Karolinska institutet, Stockholm
- 12:25 **Assessing target Engagement in Vitro and In Vivo of MvfR inhibitors in *Pseudomonas aeruginosa* (Pa)**
Livia Ferrari, Aptuit, Verona, Italy
- 12:30 **aProximate™ as a novel predictive model of polymyxin B and gentamicin induced nephrotoxicity**
Roelof H. de wilde, SOLVO Biotechnology, Budaors, Hungary
- 12:45 *Lunch & Posters*

Session 3: Gram negative antibacterial entry

Chair: Eric Bacqué, Sanofi Aventis, France

- 14:15 **The role of membrane transport in antibiotic action and resistance**
Malcolm Page, Jacobs University Bremen, Germany
- 14:45 **Improved polymyxins for MDR gram-negative infections'**
Mike Dawson, Cantab Anti-infectives Ltd., United Kingdom
- 15:15 *Coffee*

Session 4: Economics and policy of drug discovery & development

Chair: Claire Skentelbery, European Biotechnology Network, Belgium

- 15:45 **A scientific roadmap for antibiotic discovery**
Carolyn Shore, Pew Charitable Trusts, USA
- 16:05 **Accelerating global antibacterial innovation: introducing the CARB-X accelerator**
Kevin Outtersen, Boston University, USA
- 16:25 **Economic models and incentives to stimulate antibiotic R&D**
Enrico Baraldi, Uppsala University, Sweden

16:45-17:15 **Panel discussion**

19:00 *Conference Dinner*

Thursday, September 15

Session 5: Antibacterial resistance

Chair: Diarmaid Hughes, Uppsala University, Sweden

8:30 **Plenary lecture: Antibiotic resistance as a drug target**
Fernando Baquero, Ramón y Cajal University, Spain

9:15 **Antimicrobial resistance. When two worlds collide**
Tim Walsh, Cardiff University, United Kingdom

9:45 **Contribution of resistance study to the design, screening, and intelligent use of antibiotics**
Patrice Courvalin, Institut Pasteur, France

10:15 *Coffee*

Session 6: Alternatives to traditional antibiotics

Chair: Mikael Elofsson, Umeå University, Sweden

10:45 **Attacking virulence: a new approach for the treatment of bacterial infections**
Mike Pucci, Spero Therapeutics, USA

11:15 **Immune modulators and anti-biofilm agents as alternatives and adjuncts to antibiotics**
Bob Hancock, University of British Columbia, Canada

11:45 *Lunch & Posters*

Session 7: Industry experience of developing antibiotics

Chair: Rob Stavenger, GSK, USA

13:30 **Why we need to find alternative approaches to traditional antibiotics**
Steve Baker, GlaxoSmithKline, USA

14:00 **Progress in the design and development of a new class of antibiotics, primed for emerging superbugs**
Erin Duffy, Melinta Therapeutics, Inc, USA

14:30 *Coffee*

15:00 **Improving our understanding of porin permeability in gram-negative bacteria**
Ruben Tommasi, Entasis Therapeutics, USA

15:30 **Discovery of avibactam: when chemistry meets biology**
Maxime Lampilas, Sanofi Aventis R&D, France

16:00-16.15 **Poster award and Closing note**