

Target Audience

Infectious disease, ICU specialists from academia (or companies), clinical microbiologists, pharmacologists, pharmacists, who are interested in the field of antibacterial therapy.

Course Objectives

This course presents and summarises currently available knowledge on PK/PD of commonly used antibiotics, strategies for setting clinical breakpoints, individualised dosing, and therapeutic drug monitoring. The aim is to provide participants with insights that can be used to optimise antibiotic therapy for different patient groups, infection sites and pathogens. Further state of the art and innovative approaches for antimicrobial drug development will be highlighted.

Faculty Members

Birgit Koch, Rotterdam, Netherlands
Zhixia Grace Yan, FDA, USA
Gauri Rao, Chapel Hill, USA
Markus Zeitlinger, Vienna, Austria
Sebastian Wicha, Hamburg, Germany
Sonia Luque Pardos, Barcelona, Spain
Thomas Tängdén, Uppsala, Sweden
Zackery Bulman, Chicago, USA
Anne-Grete Märtson, Liverpool, UK



ESCMID

MANAGING INFECTIONS
PROMOTING SCIENCE

ESCMID Postgraduate Education Course

Optimised dosing of antibiotics - understanding PK/PD, clinical breakpoints, and therapeutic drug monitoring

Boston, United States

9 – 10 October 2023



Contact

Contact Person (Scientific Programme)

Markus Zeitlinger

Medical University of Vienna
Währingergürtel 18-20
1210 Vienna, Austria

Phone: +43 140 400 298 10

E-Mail: markus.zeitlinger@meduniwien.ac.at

Administrative Contact

Sebastian Wicha

University Hamburg
Bundesstrasse 45
20146 Hamburg, Germany

Phone: +49 40 42838-3487

E-Mail: sebastian.wicha@uni-hamburg.de



ESCMID Postgraduate Education Course

Organiser

ESCMID PK/PD of Anti-Infectives Study Group (EPASG)

Other organizing groups

International Society of Anti-Infective Pharmacology (ISAP)

Course Coordinators

Markus Zeitlinger, Vienna, Austria

Thomas Tängdén, Uppsala, Sweden

Sebastian Wicha, Hamburg, Germany

Organisation

Course Venue and Accommodation

Sheraton Boston Needham Hotel

100 Cabot St, Needham

MA 02494

United States

Phone: +1 781-444-1110

<https://www.marriott.com/en-us/hotels/bossi-sheraton-boston-needham-hotel/overview/>

Registration Procedure

Register on the ESCMID website at www.escmid.org/education by 4 September 2023

Registration fee

EUR 750 for ESCMID members

EUR 950 for all others

EUR 750 for ESCMID Young Scientist Members

EUR 750 for those from LMICs

The fee includes tuition, 1 nights' (9th Oct 2023) stay in the hotel, 1 breakfast, 1 lunch, 1 dinner and coffee breaks. Travel is not included.

Attendance Grants

ESCMID provides a number of attendance grants for ESCMID "young scientist members". The grant covers the registration fee, but not travel costs. Please apply via the ESCMID website at www.escmid.org/education before 24 July 2023. Applicants will be informed about their acceptance by 21 August 2023.

CME Accreditation

The organiser of the course will apply for European CME accreditation through EACCME.

Course Programme

Monday 9 October 2023

12:30 – 13:00 **Registration**

13:00 – 13:15 **Welcome and introduction**

Markus Zeitlinger, Thomas Tängdén

13:15 – 14:00 **Basics of dosing (interactive)**

Sebastian Wicha

14:00 – 14:45 **Why do we need to reconsider standard dosing regimens – dosing in special patient populations (interactive with multiple choice)**

Birgit Koch

14:45 – 15:30 **Break**

15:30 – 16:15 **Current strategies for MIC determination and setting clinical breakpoints**

Zackery Bulmann

16:15 – 17:00 **Optimal dosing and continuous or prolonged infusion of beta-lactams and vancomycin – what is the evidence? (interactive with multiple choice)**

Sonia Luque Pardos

17:00 – 18:00 **PK/PD of antiviral agents**

Anne-Grete Mårtson, Markus Zeitlinger

Tuesday 10 October 2023

09:00 – 09:30 **Preclinical infection models and what are the experimental and clinical data supporting PK/PD targets?**

Thomas Tängdén

09:30 – 10:00 **Population PK modelling for Individualized dosing**

Gauri Rao

10:00 – 10:30 **Break**

10:30 – 11:00 **Mathematical modelling using preclinical data to predict dosing strategies**

Gauri Rao

10:30 – 11:00 **Tissue penetration of antibiotics – from measurement to dose adaptation**

Markus Zeitlinger

11:00 – 11:30 **Using decision support systems for dosing of anti-infectives – chances and caveats (interactive)**

Sebastian Wicha

11:30 – 12:15 **How to apply knowledge on PK/PD in antimicrobial drug development**

Zhixia Yan

12:15 – 13:30 **Lunch**

13:30 – 14:30 **How to apply knowledge on PK/PD and TDM in clinical practice (interactive)**

Thomas Tängdén, Birgit Koch

14:30 – 14:45 **Future perspectives – clinical breakpoints and dosing in 20 years**

Zackery Bulmann

15:00 – 15:30 **Break**

15:30 – 16:30 **Ask the expert breakout groups (interactive)**
– in-vitro models (Faculty)
– animal models (Faculty)
– clinical studies (Faculty)
– PK/PD modelling (Faculty)

16:30 – 17:00 **Closing remarks and any remaining questions**

Faculty