

## REGISTRATION

EDAR-3 • 17-21 May 2015 • Wernigerode (Germany)  
Please send this form via fax to +49 3641 31 16-243 via email to [registration@conventus.de](mailto:registration@conventus.de), or via mail to Conventus GmbH  
Carl-Pulfrich-Strasse 1 • 07745 Jena (Germany).  
Online registration at [www.antibiotic-resistance.de](http://www.antibiotic-resistance.de) is preferred.  
For questions please call +49 3641 31 16-160.

Personal Details (please print in block letters)

Mr  Mrs  Academic Title

First Name

Last Name

Institution

Department

Street/No.  /

Postal Code/City/State  /  /

Phone/Fax  /

E-mail

Registration (please check)

Fees until 17 February 2015 from 18 February 2015

<input type="checkbox"/> Regular	375 EUR	425 EUR
<input type="checkbox"/> PhD, Pensioner *	265 EUR	325 EUR

The number of participants will be limited – please register early.

**Welcome Reception, conference participant** included

**Welcome Reception, accompanying person** 15 EUR  
 number of participants

**Social Evening** 50 EUR  
 number of participants

\* Please provide proof via fax to Conventus +49 3641 31 16-243, via email to [registration@conventus.de](mailto:registration@conventus.de), or via mail to Conventus GmbH • Password: EDAR 2015  
Carl-Pulfrich-Strasse 1 • 07745 Jena (Germany)

Payment

Bank Transfer  
Upon receipt of invoice the total amount should be transferred to the conference bank account with reference to your name and invoice number.

Payment by credit card is only possible with online registration.

Date  Signature\*\*

\*\* By signing I agree to the General Terms and Conditions and the rules of cancellation on the conference website found in the imprint.

## GENERAL INFORMATION

Venue

HKK Hotel Wernigerode, Harzer Kultur- und Kongresshotel  
Pfarrstrasse 41 • 38855 Wernigerode (Germany)

Date

17-21 May 2015

Conference Homepage

[www.antibiotic-resistance.de](http://www.antibiotic-resistance.de)

Conference Chair

Kornelia Smalla  
Julius Kühn-Institut, Federal Research Centre for Cultivated Plants (JKI)  
Institute for Epidemiology and Pathogen Diagnostics  
Braunschweig, Germany

International Scientific Committee

Kristian Brandt, Denmark	James Tiedje, United States
Will Gaze, United Kingdom	Ed Topp, Canada
Joakim Larsson, Sweden	Elizabeth M. H. Wellington, United Kingdom
Amy Pruden, United States	Yong-Guan Zhu, China
Pascal Simonet, France	
Kornelia Smalla, Germany	

Professional Congress Organizer

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Recommendation Social Program

To make your visit to Wernigerode even more impressive, on our congress homepage [www.antibiotic-resistance.de](http://www.antibiotic-resistance.de) we propose a selection of sights, castles and parks to explore while you are in the city. If you have any questions or need assistance, please do not hesitate to contact us.



# EDAR 3

3<sup>rd</sup> INTERNATIONAL SYMPOSIUM ON THE ENVIRONMENTAL DIMENSION OF ANTIBIOTIC RESISTANCE

**17-21 May 2015**  
WERNIGERODE • GERMANY

**SCIENTIFIC PROGRAM**



[www.antibiotic-resistance.de](http://www.antibiotic-resistance.de)

## WELCOME NOTE



Dear colleagues,

The increasing problems with multiple resistant pathogens led to a critical discussion of the anthropogenic use of antibiotics worldwide.

The widespread and continued global growth in antibiotics consumption is the driver of antibiotic resistance, and identification of the factors fostering the dissemination of transferable antibiotic resistances is needed to determine effective interventions. The 3<sup>rd</sup> symposium on the Environmental Dimension of Antibiotic Resistance (EDAR-3) will focus on effects of anthropogenic use of antibiotics on the microbiomes in various ecosystems and the implications for human health.

Recent discoveries using omics technologies have provided not only new insights into the natural reservoirs of antibiotic resistances but also into their broader roles in an organism and for community function. The fate of antibiotics in environmental compartments such as aquatic or agro-ecosystems will be discussed regarding short- and long-term effects, in particular on resistance development and dissemination.

The aim is an improved qualitative and quantitative understanding of the processes involved, such as antibiotic selection, co-selection by metals or other agents, and the role of the bacterial mobilome to provide a basis for the discussion of regulatory considerations and management options and to identify possible limitations and research needs. The development of technologies and management options to reduce environmental pollution by antibiotics and resistance determinants from, e.g. sewage or production sites might contribute to avoid negative impacts on the environment.

We hope that you will join EDAR-3 to discuss the most recent research results and their implications for human health and look forward to welcoming you in Wernigerode, 17-21 May 2015.

Kornelia Smalla  
Conference chair  
Julius Kühn-Institut

## SCIENTIFIC PROGRAM • SUNDAY, 17 MAY 2015

- 17<sup>00</sup>-17<sup>30</sup> **Welcome**  
Kornelia Smalla, Germany
- 17<sup>30</sup>-18<sup>05</sup> **Opening: Antibiotics at sub-inhibitory concentrations**  
Fernando Baquero, Spain
- 18<sup>30</sup>-20<sup>00</sup> **Welcome reception**

## SCIENTIFIC PROGRAM • MONDAY, 18 MAY 2015

- Session I:** Evolution of antibiotic resistance  
08<sup>30</sup>-10<sup>05</sup> **Phylogenomic transduction networks reveal genetic barriers for phage-mediated lateral gene transfer**  
Tal Dagan, Germany  
*oral presentations*\*\*
- 10<sup>05</sup>-10<sup>35</sup> **Coffee break**
- Session II:** Mobilizing antibiotic resistance genes through anthropogenic use of antibiotics  
10<sup>35</sup>-12<sup>40</sup> **Role of integrons in spreading antibiotic resistance**  
Michael Gillings, Australia  
*oral presentations*\*\*
- 12<sup>40</sup>-14<sup>00</sup> **Lunch break**
- 14<sup>00</sup>-17<sup>00</sup> **Session II continued**
- 17<sup>00</sup>-19<sup>00</sup> **Posters 1**

## SCIENTIFIC PROGRAM • TUESDAY, 19 MAY 2015

- Session III:** Molecular studies reveal links between the hospital and the environment  
08<sup>30</sup>-10<sup>05</sup> **Antibiotic resistance in the environment - A link to the clinic?**  
Gerry Wright, Canada  
*oral presentations*\*\*
- 10<sup>05</sup>-10<sup>35</sup> **Coffee break**
- Session IV:** Fate and effects of antibiotics in agro-ecosystems  
10<sup>35</sup>-12<sup>40</sup> **Antibiotic resistance gene discovery in the swine intestinal microbiome**  
Heather Allen, United States
- Fate and effects of veterinary medicines in soil**  
Jan Siemens, Germany
- 12<sup>40</sup>-14<sup>00</sup> **Lunch break**
- 14<sup>00</sup>-16<sup>30</sup> **Antibiotics in crop production**  
Fiona Walsh, Ireland
- Resistome and mobilome of fresh produce - the missing link**  
Ed Topp, Canada  
*oral presentations*\*\*
- 17<sup>00</sup>-19<sup>00</sup> **Posters 2**

## SCIENTIFIC PROGRAM • WEDNESDAY, 20 MAY 2015

- Session V:** Dissemination of antibiotics and antibiotic resistance genes through aquatic ecosystems/sewage treatment plants  
08<sup>30</sup>-10<sup>05</sup> **Contribution of the bacterial mobilome to the spread of antibiotic resistance in river water**  
Elizabeth Wellington, United Kingdom
- Transferable antibiotic resistance in rivers and estuaries**  
Isabel Henriques, Portugal  
*oral presentations*\*\*
- 10<sup>05</sup>-10<sup>35</sup> **Coffee break**
- 10<sup>35</sup>-12<sup>40</sup> **Antibiotic resistance genes in an urbanizing watershed**  
Yong-Guan Zhu, China
- Antibiotic resistance genes in sewage and related water environment**  
Tong Zhang, China  
*oral presentations*\*\*
- 12<sup>40</sup>-14<sup>00</sup> **Lunch break**
- 14<sup>00</sup>-16<sup>00</sup> **Accumulation of antibiotic resistance genes and mobile genetic elements in soils irrigated with untreated water**  
Elisabeth Grohmann, Germany  
*oral presentations*\*\*
- Environmental pollution from antibiotic manufacturing creates hotspots for resistance development**  
Joakim Larsson, Sweden  
*oral presentations*\*\*
- 16<sup>30</sup>-19<sup>00</sup> **Social tour**
- 19<sup>00</sup> **Social evening**

## SCIENTIFIC PROGRAM • THURSDAY, 21 MAY 2015

- Session VI:** Mitigation strategies and how to evaluate them (Round table and discussion groups)  
09<sup>00</sup>-11<sup>00</sup> **Mitigation strategies for environmental sources of antibiotic resistance**  
Amy Pruden, United States  
*oral presentations*\*\*
- 11<sup>30</sup>-12<sup>15</sup> **Closing lecture: Sum-up of the symposium, research needs and policy recommendation**  
Jim Tiedje, United States
- 12<sup>15</sup> **Farewell and announcements**

*\*\*oral presentations selected from submitted abstracts*