# 3<sup>rd</sup> International Conference on Sustainable Pharmacy

Sustainability emerges as a key issue not only for the pharmaceutical industry but also for authorities and consumers. The concept of sustainable development calls for an economy based on the life-cycle approach, covering both sustainable production and sustainable consumption.

The scope of the conference encompasses solutions in the life cycle of pharmaceuticals. They will be classified according to measures and approaches within one of the three basic categories reduction, refinement and replacement.

As in the preceding conferences held in 2008 and 2010, this year's event provides a platform for discussions between participants of academia, industry, research, authorities, nongovernmental organisations and students. Contrary to the past events, this one will have the classical conference format with an accompanying poster session.

# November 19-20, 2012

Contributions will focus on these three categories:

- Refinement of techniques, able to minimize the entry and effects of active substances on the environment as well as reduction of consumption of resources and energy during production and use of pharmaceuticals.
- **Reduction** of pharmaceuticals, e.g. with optimised management, diagnostic approaches, legislative actions or trade restrictions.
- **Replacement** of harmful substances with environmentally benign ingredients.

# **Programme**

<u>Time</u>	Monday, November 19, 2012
10:00	Registration/Welcome coffee
10:30	Opening remarks <i>Maximilian Hempel</i> , Deutsche Bundesstiftung Umwelt, Osnabück
10:45	<b>Prof. Heidi Foth</b> , The German Advisory Council on the Environment, Berlin
11:30	Refinement Jörg Breitkreutz, Universität Düsseldorf Pharmaceutical-technological refinements for saving resources and reducing environmental drug release
12:00	<b>Denise Ott</b> , Friedrich-Schiller Universität Jena Bridging sustainability and fine chemical synthesis: FP7 EU project POLYCAT
12:20	André Bitterlich, Technische Universität Braunschweig Nanogrinding of naproxen: improving energy efficiency

<u>Time</u>	
12:40	<b>Ulf Menyes</b> , Enzymicals AG, Greifswald Biocatalytic process development for the production of an active pharmaceutical ingredient (API) as joint cooperation of three enterprises
13:00	Lunch
	Reduction
14:30	<b>Benoit Roig</b> , Ecole des Haute Etudes en Santé Publique (EHESP), Nîmes, France Options for an upstream management of pharmaceuticals in the environment
15:00	<b>Staffan Castensson</b> , Medical Products Agency, Uppsala, Sweden
	Measures to reduce disposal of pharmaceuticals in distribution and health care
15:20	Alfons Uijtewaal, CSO Stichting Huize Aarde, Enschede, The Netherlands Field experiences from MEDUWA

<u>Time</u>	
15:40	<b>Christoph Trautwein</b> , Leuphana University Lüneburg Photochemical water treatment: solving or creating a problem? The case of antipsychotic phenothiazine drugs
16:00	Coffee break
16:30	Replacement Gerd Hamscher, Justus Liebig University Gießen Replacement of veterinary drugs – possibilities and pitfalls
17:00	Maria Groot, RIKILT – Institute of Food Safety, Wageningen, The Netherlands Research on herbal products for production animals in the Netherlands
17:20	<b>Manfred Kietzmann</b> , Tierärztliche Hochschule Hannover Potential ways to decrease environmental contaminations of sulfonamides from swine livestock
17:40	Poster session
18:40	End of Day 1
19:30	Conference dinner in the ZUK

<u>Time</u>	Tuesday, November 20, 2012
9:00	Opening Day 2
9:10	Perspectives Ines Rönnefahrt, Federal Environment Agency, Dessau Does the legislation meets the community needs for a healthy environment?
9:30	Astrid Spielmeyer, Justus Liebig University Gießen Biogas plants – A potential sink for veterinary antibiotics?
9:50	<i>Jürg Straub</i> , F. Hoffmann-La Roche Ltd, Basel, Switzerland Reduction of suboptimal pharmaceutical active substances use through personalised healthcare
10:10	Konrad Götz, Institute for Social-Ecological Research ISOE GmbH, Frankfurt am Main Requirements and impacts of an environmental information system for pharmaceuticals
10:30	Coffee break

Time	
11:00	Roadmap to a more sustainable Pharmacy
	World Café along guiding questions with all conferences participants
12:30	Final statements and closing remarks
13:00	Lunch
13:30	End of conference

# **Scientific Committee**

*Thomas Heberer*, Federal Office of Consumer Protection and Food Safety (BVL), Berlin

Hervé Le Louët, Pharmacovigilance and risk management department Henri Mondor University Hospital, Paris, France Ines Rönnefahrt, Federal Environment Agency, Dessau John Sumpter, Brunel University London, UK
David Taylor, wca environment limited, London, UK

**David Taylor**, wca environment limited, London, UK **Charlotte Unger**, Swedish Medical Products Agency, Uppsala, Sweden

**Gianpaolo Velo**, Verona University, Verona, Italy **Åke Wennmalm**, Stockholm County Council, Sweden

# **Organising Committee**

Rainer Erb, Zentrum für Umweltkommunikation der Deutschen Bundesstiftung Umwelt, Osnabrück Gerd Hamscher, Justus Liebig University, Giessen Maximilian Hempel, Deutsche Bundesstiftung Umwelt, Osnabück

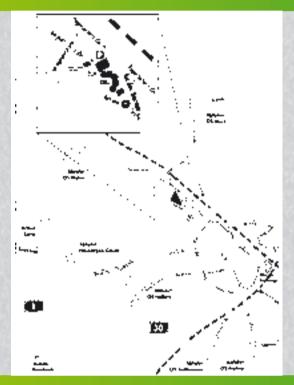
Manfred Kietzmann, Tierärztliche Hochschule Hannover
Klaus Kümmerer, Leuphana University of Lüneburg



# 3<sup>rd</sup> International Conference on Sustainable Pharmacy







### **Conference venue:**

Zentrum für Umweltkommunikation der Deutschen Bundesstiftung Umwelt gGmbH, An der Bornau 2, 49090 Osnabrück.

#### How to find us:

By train and bus: Arriving at Osnabrück main station, take bus 31/33, 61/62, 81/82 from bus platform 1 (every few minutes) to »Neumarkt«. There, go to platform A2 and take bus 11/R11 (every 10 minutes) to bus stop »Umweltstiftung« (travel time about

By car: Osnabrück is conveniently reachable from the Ruhr area and the North German cities on the highway A 1; from the Netherlands and from direction Hannover on the A 30, respectively. From direction Bielefeld, you get here on the highway A 33. See also: www.dbu.de/Anreise

By plane via Airport FMO (Münster/Osnabrück): At FMO a regular bus-shuttle-service (X 150) is available; schedule at

www.fmo.de. The trip takes around 40 minutes and terminates at Osnabrück main station.

### New! Special discount fares!

**Environment-friendly travel with Deutsche Bahn!** For more information: http://www.dbu.de/traveldiscount

# **Accommodation:**

Travel and accommodation expenses must be paid by the participants. Please book hotel rooms on your own. Rooms are available at special rates (breakfast inclusive, except Hotel Remarque, breakfast buffet additional € 17.00/person). Reference: Sustainable Pharmacy.

Steigenberger Hotel Remarque, Natruper Torwall 1, 49076 Osnabrück

++49(0)541|6096-604 93.00 €/single room

Hotel Walhalla, Bierstraße 24, 49074 Osnabrück,

++49(0)541|3491-0 95.00 €/single room

advena hotel hohenzollern, Theodor-Heuss-Platz 5, 49074 Osnabrück

++49(0)541|3317-0

80.00 €/single room

Dom-Hotel, Kleine Domsfreiheit 5, 49074 Osnabrück 72.00 €/single room

++49(0)541|35835-0

++49(0)541|91307-0

Hotel Welp, Natruper Str. 227, 49090 Osnabrück, 65.00 €/single room

See also: www.osnabruecker-land.de

# **Conference fees:**

The conference fee amounts to € 150.00 for university representatives and to € 250.00 for industry representatives. The fee includes € 103.00 incl. 19 % VAT each for food and beverage, which is charged on behalf of the company Food&Event, Osnabrück. Therefore, a tax-free flat rate of € 47.00 is part of the conference fee for university representatives and of € 147.00 for industry representatives, respectively.



# Fax to ++49(o)541|9633-990

please fill in:
name
first name
affiliation
address
phone
e-Mail

Please return this form as a binding registration via fax as soon as possible but not later than

# October 29, 2012

to Pia Schatkowski, Zentrum für Umweltkommunikation der Deutschen Bundesstiftung Umwelt gGmbH, ZUK, Fax ++49(0)541|9633-990. Please contact us by e-mail (p.schatkowski@dbu.de) if you have any questions.

Since the number of participants attending this conference is limited, you will receive a separate confirmation and invoice. Please transfer the conference fee to the account stated in the invoice. Furthermore, we point out that the fee is due in full, if you fail to cancel your registration in writing before November 9, 2012.