Organised under







# International Conference

Pharmaceutical Products in the Environment: Is there a problem?

June 3 - 4, 2013, Nîmes, France

Registration form is available at www.pharmas-eu.org/international-event

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#### INFORMATION AND ORGANIZATION

Pharmas (<u>www.pharmas-eu.org</u>) and Cytothreat (<u>www.cytothreat.eu</u>) are two collaborative research projects funded by the EU under the 7<sup>th</sup> Framework Programme. Together, they address the need to assess the risks of antibiotic and cytostatic drugs released to the environment.

<u>Pharmas</u> (*Ecological and human health risk assessment of antibiotics and anticancer drugs found in the environment*) aims to develop a general overview of the issue. This includes assessing the potential exposure of humans and wildlife to a selection of antibiotics and anticancer drugs (and their transformation products), as well as the impact of these drugs on organisms, in order to define the range of possible risks for these populations. Moreover, social and policy considerations are also included in order to inform the public and to support appropriate changes in regulation.

Cytothreat (Fate and effects of cytostatic pharmaceuticals in the environment and identification of biomarkers for an improved risk assessment on environmental exposure) addresses the need to assess the risks of cytostatic pharmaceuticals (their metabolites and transformation products in water treatment systems and in the environment) released to the environment by developing new analytical methods, as well as exploring potential effects in aquatic experimental models in comparison to those obtained in human experimental models and by exploring effects of mixtures.

'<u>PharmaCluster</u>' is in informal cluster for exchange and discussion around the pharmaceutical products in the environment topic. It includes several EU project (more information at <a href="https://www.pharmas-eu.org/home2">www.pharmas-eu.org/home2</a>)

#### **Scientific Committee**

Benoit Roig, Pharmas scientific coordinator, EHESP, Nîmes, France (Chair)
Metka Filipic, Cytothreat coordinator, NIB, Slovenia
John Sumpter, Pharmas coordinator, Brunel University, UK
Rodrigo Vidaurre, Ecologic, Berlin, Germany
Klaus Kummerer, Leuphana University, Germany
Thomas Backhaus, Göteborg University, Sweden
John Munthe, IVL, Sweden
Ester Heath, JSI, Slovenia

#### Monday 3<sup>rd</sup> June 2013 (9h00 – 18h00)

- 08.00 Registration
- 09.00 Chairman's welcome and opening remarks
- 09.15 Keynote Lecture: EE2 in the aquatic environment. Is it a bitter pill ? Susan Jobling, Brunel University

#### **Session 1: Actions at the European level**

- 10:00 Plenary Lecture: Policy developments at EU level on pharmaceuticals in the environment. Helen Clayton, European Commission, DG Environment
- 10:30 Environmental risk assessments (ERA) in the authorisation of pharmaceuticals –strengths and weaknesses. Annette Kuester, Federal Environment Agency Germany
- 10:50 MORNING COFFEE and Poster session
- 11:30 JRC conference to be confirmed
- 11:50 IPCHEM conference to be confirmed
- 12:10 Discussion and remarks

12.30 LUNCH, poster session

#### Session 2: Environmental and Human Risk Assessment of Pharmaceuticals

- 14:00 Plenary Lecture title to be confirmed. Christina Ruden, ITM, Stockholm University
- 14:30 Relevance of the read-across approach to the environmental risk assessment of pharmaceuticals. Luigi Margiotta-Casaluci, Brunel University, UK
- 14:50 New chronic fish data on diclofenac challenge the current perception of its risk to aquatic wildlife. Andreas Hartmann, Novartis International, Switzerland
- 15:10 An environmental risk assessment for human-use trimethoprim in European surface waters. Oliver Straub, F.Hoffmann-La Roche Ltd, Switzerland
- 15:30 Antibiotics and cytostatics in hospital wastewater and their contribution to environmental risk of pharmaceutical compounds. **Sven Lyko**, Emschergenossenschaft und Lippeverband, Germany

#### 15.50 AFTERNOON COFFEE and Poster session

- 16:20 Prioritisation of Human Pharmaceuticals for Environmental Risk Management and Drug Prescriptions. Rick Oldenkamp, Radboud University, The Netherland
- 16:40 Ecotoxicity of the pharmaceutical compounds of hospital effluents. Frédéric Orias, French National School of Public Works, France
- 17:00 Potential adverse effects of the residues of cytostatic drugs in aquatic environment . Metka Filipic, National Institute of Biology, Slovenia
- 17:20 In situ reprotoxic effects of effluents containing pharmaceuticals compounds on caged mudsnails . Marion Gust, IRSTEA, France
- 17.40 18.00 Final discussion and remarks

#### 19.30 SOCIAL DINNER

#### Session 2bis: Environmental and Human Risk Assessment of Pharmaceuticals

- 9:00 In vitro bioassays for risk assessment of oncologic treatments released in hospital waste water Application to hospital effluents. **Nicolas Mater**, Laboratory Chemical engineering, Toulouse, France
- 09:20 Estimating the transfer of antibiotics and anticancer drugs into crops. Charlotte Legind, DTU, Lyngby, Denmark
- 09:40 Uptake of oxytetracycline, sulfamethoxazole and ketoconazole from fertilised soils by plants. Tina Zuidema, RIKILT Wageningen, The Netherland

10:00 MORNING COFFEE, Poster session

- 10:40 Sludges from Sewage Treatment Plants as a source of antibiotic residues and resistant bacteria to the environment. Cristina Corpa, Instituto de Salud Carlos III, Spain
- 11:00 Effect-based monitoring as a relevant tool to assess adverse effects in aquatic ecosystems receiving effluents from pharmaceutical factories. Wilfried Sanchez, Ineris, France
- 11:20 Pharmaceuticals' exposure on Mediterranean (Iberian) rivers: occurrence, risk and effects on the aquatic ecosystem. Maja Kuzmanović, IDAEA-CSIC, Girona, Spain
- 11:40 Development of antibiotic resistance in the environment inclusion in the risk assessment of pharmaceuticals? H. Schmitt, IRAS, Utrecht University, The Netherland
- 12.00 Discussion and Remarks

12:30 LUNCH and Poster session

#### **Session 3: Perspectives on Problem Assessment and Future Actions**

- 14:00 Plenary Lecture: Pharmaceutical Products in The Environment The "Problem" in Perspective. David Taylor, WCA environment, UK
- 14:30 Venue to be confirmed. Rakesh Kanda, Brunel University, UK
- 14:50 Pharmaceuticals in the Aquatic Environment The global Perspective. Tim aus der Beek, IWW Water Centre, Germany

15:10 AFTERNOON COFFEE and poster session

- 15:40 Options for prioritization and environmental assessment for pharmaceuticals currently in use. Frank Mastrocco (Pfizer Inc), Dan Caldwell (Johnson & Johnson)
- 16:00 An EU-Wide Environmental Classification System for Pharmaceuticals opinions from European experts. Konrad Goetz, ISOE, Germany
- 16:20 Residues of Pharmaceuticals in Drinking Water or how to avoid the unavoidable. Alexander Eckhardt, German Federal Environment Agency
- 16:40 Pharmaceuticals in the environment the perspective of EUREAU for a way forward to protect drinking water resources. **EUREAU**, European Federation Of National Associations Of Water Services
- 17h00 Concluding remarks. John Sumpter, Brunel University, UK

### Post Conference Workshop

# Pharmaceutical residues: parent compounds, metabolites and transformation products as environmental contaminants

5<sup>th</sup> June, 2013, ATRIA Novotel Nîmes Centre, Nîmes, France

#### Chaired by

Esther Heath (Jožef Stefan Institute, Ljubljana, Slovenia)

08.00 Registration

09.00 Chairman's welcome and opening remarks

09:10 Study of the reactivity of cytostatics in water with free chlorine by ultra performance liquid chromatography - hybrid quadrupole-Orbitrap - tandem mass spectrometry **Noelia Negreira**, IDAEA-CSIC, Girona, Spain

09:30 Formation of stable transformation products of pharmaceuticals in the water treatment processing. Jana Weiss, IVM, Amsterdam University, The Netherland

09:50 Transformation of the anticonvulsant lamotrigine in the aquatic environment. Sandra Perez, IDAEA-CSIC, Girona, Spain

#### 10:10 MORNING COFFEE

- 10:40 Enzymatic degradation of tetracycline and generation of transformation products. Marta Llorca, Catalan Institute for Water Research-ICRA, Girona, Spain
- 11:00 Cytostatics in the environment: analysis and occurrence. Ester Heath, Jozef Stefan Institute, Slovenia
- 11:20 Multi-analyte determination of 26 cytostatics and metabolites by liquid chromatography-electrospray-tandem mass spectrometry: optimization, analytical performance, and study of the stability and optimum storage conditions for their determination in wastewater. **Miren Lopez de Alda**, IDAEA-CSIC, Girona, Spain
- 11:40 Identification of ozonation and chlorination by-products of ciprofloxacin by analysis by LC/HR-MS. Véronique Boireau, Veolia Environnement Recherche et Innovation, France
- 12.00 Identifications of phototransformation products of antiviral zanamivir with HILIC-LTQ-Orbitrap-MS in aqueous matrices. Bozo Zonja, IDAEA-CSIC, Girona, Spain
- 12:20 Degradation and transformation of 5-fluorouracil and capecitabine . Tina Kosjek, Jozef Stefan Institute, Slovenia
- 12:40 Discussion and final Remarks

#### **GENERAL INFORMATION**

#### **About Nîmes**

Roman and Hispanic and with contributions from the Camargue and the Cévennes, the Languedoc and Provence, Nîmes is a city of all accents! Two thousand years of history, architecture, art and passions. Just push a door ajar to meet the seventeenth century and wander around the streets to feel the Roman atmosphere. Here, contemporary art always goes hand in hand with history. Nîmes would like to share these two thousand years and share the twenty-first century. This is why it has joined the national network Villes et Pays d'art et d'histoire.

Nîmes the Mediterranean cultivates the art of living well above all. When there is the least ray of sunshine—300 days a year—terraces and conversations grow lively and the city is jubilant. And from the market to the arena, from the Jardins de la Fontaine to the discreet courtyards of private mansions, friendliness is the rule, whatever the weather

#### **Accomodation** (some hotels in Nîmes)

**Novotel Atria** (☆☆☆) - Rooms from 135€ incl. breakfast (conf. special rate) www.accorhotels.com/fr/hotel-0985-novotel-atria-nimes-centre/room.shtml For conference special rate contact: h0985-SB@accor.com

**Royal Hôtel** (☆☆☆) - Rooms from 75€. www.royalhotel-nimes.com/index.htm

**Empire Hôtel** (☆☆) - Rooms from 60€ www.hotel-empire.com

Hôtel Côté Patio (☆☆) - Rooms from 68€. www.hotel-cote-patio.com

**Hôtel Kyriad Nîmes Centre** (☆☆) - Rooms from 71€ www.hotel-kyriad-nimes.com

**Hôtel Les Tuileries** (☆☆) - Rooms from 66€ http://www.hoteldestuileries.com/

#### **GENERAL INFORMATION**

#### **Conference location**

## ATRIA Novotel Nîmes Centre 5, boulevard de Prague – 30000 Nîmes - FRANCE





#### How to get to Nîmes



#### By plane

Nîmes airport Montpellier Airport at 40 mn by car Marseille Airport at 1h10 by car



#### By train

Paris - Nîmes : 2h55 Nîmes station at 5 min walking from Conference Centre



#### **REGISTRATION FEES\***

Fee includes VAT (19.6%)	registration (by 30 / 05 / 2013)
Regular participants	€ 550,00
PhD students	€ 350,00
PharmaCluster partners	€ 150,00
Post conference Workshop (5/06/13)	€50 (conference attendant) €100 (only workshop attendant)

<sup>\*</sup>Fees will cover attendance to the conference, the abstract book, coffee breaks, lunches and the social dinner.

Payment in Euro (€), should be made in advance by bank transfer (payment by cheque will be accepted upon request)

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