



# International Meeting on Health and Environment: Challenges for the Future

09 – 11 December 2009

Department of the Environment and Primary Prevention

Italian National Institute for Health

Viale Regina Elena, 299 00161 Roma (I)



Ministero dell'Ambiente e  
della Tutela del Territorio e del Mare



MINISTERO DEL LAVORO,  
DELLA SALUTE E DELLE POLITICHE SOCIALI

## PROGRAM

### Wednesday, December 9, 2009

08.30 Participant registration

09.30 Opening ceremony and welcome addresses  
Representatives of the Italian National Institute of Health, Italian Ministry for Labour, Health, and Social Policies and Italian Ministry for Environment and Territory and Sea  
**Alessandro di Domenico**  
Meeting Chair - Director of Department of Environment and Primary Prevention, ISS

### Plenary session 1A (Aula Pocchiari)

#### HEALTH IMPLICATIONS OF CLIMATE CHANGES - THE CRUCIAL ROLE OF WATER

*Chairs:* **Roger Aertgeerts, Giuseppe Cavarretta**

10.00 *Changes in climate, changes in water, changes in health*  
**Jos Timmerman**

10.30 Coffee break

11.00 *Climate and water - Addressing environmental determinants of health in adaptation: the lesson learned*  
**Luciana Sinisi**

11.15 *Dynamic and toxicity of P. rubescens (a toxic cyanobacteria) in different Lakes: the need for an integrated approach for monitoring program design*  
**Susanna Vichi, Mara Stefanelli, Simona Scardala, Maura Manganelli, Francesca Palazzo, Simonetta Gemma, Fabrizio Scialanca, Paolo Andreani, Enzo Funari, Emanuela Testai**

### Plenary session 1B (Aula Pocchiari)

#### HEALTH IMPLICATIONS OF CLIMATE CHANGES - THE CRUCIAL ROLE OF WATER

*Chairs:* **Jan Cortvriend, Giuliana Gasparrini**

12.00 *Drinking water and climate changes*  
**Jan Cortvriend**

- 12.15 *Unprecedented cyanobacterial bloom and microcystin production in a drinking water reservoir in the South of Italy: a model for emergency response and risk management*  
**Luca Lucentini, Massimo Ottaviani, Sara Bogialli, Emanuele Ferretti, Enrico Veschetti, Rosa Giovanna, Concetta Ladalardo, Matteo Cannarozzi De Grazia, Nicola Ungaro, Rosaria Petruzzelli, Gianni Tartari, Licia Guzzella, Marina Mingazzini, Diego Copetti**
- 12.30 *An Italian approach for local management actions after flooding events*  
**Stefania Marcheggiani, Mario Carere, Riccardo Grifoni, Camilla Puccinelli, Enzo Funari, Laura Mancini**
- 12.45 *From past to better public health programme planning for possible future global threats: case studies applied to infection control*  
**Roberte Manigat, Jean Claude André, Michel Duprat**
- 13.00 Discussion
- 13.30 Lunch and poster viewing

**Poster session 1: Topic 1 - 4** (Aula Marotta)

**Plenary session 2** (Aula Pocchiari)

**PERSISTENT ORGANIC POLLUTANTS AND REPRODUCTIVE HEALTH**

*Chairs:* **Miquel Porta, Marcello Spanò**

- 15.00 *Persistent organic pollutants: exposed individuals and exposed populations*  
**Miquel Porta**
- 15.30 *Endometriosis and persistent organic pollutants: results of a case-control study on Italian women of reproductive age*  
**Maria Grazia Porpora, Emanuela Medda, Annalisa Abballe, Simone Bolli, Isabella De Angelis, Alessandro di Domenico, Annamaria Ferro, Anna Maria Ingelido, Antonella Maggi, Pierluigi Benedetti Panici, Elena De Felip**
- 15.45 *Exposure to PCBs and genetic polymorphisms of drug metabolizing enzyme in the susceptibility to endometriosis: a gene-environment interaction*  
**Susanna Vichi, Simonetta Gemma, Anna Maria Ingelido, Annalisa Abballe, Maria Grazia Porpora, Annamaria Ferro, Emanuela Medda, Lorenza Nisticò, Elena De Felip, Emanuela Testai**
- 16.00 Discussion
- 16.30 Coffee break

**Plenary session 3** (Aula Pocchiari)

**URBAN AIR QUALITY OUTDOOR VS INDOOR**

*Chairs:* **Dorota Jarosinska, Nicola Pirrone**

- 17.00 *Air quality and human health - The urban environment perspective*  
**Dorota Jarosinska**
- 17.30 *Poverty and the challenge of urban environmental health in Nigeria*  
**Geoffrey Nkawa**

- 17.45 *Evaluation of the temporal variation of air quality in Rome, Italy, from 1999 to 2008*  
**Giorgio Cattani, Alessandro Di Menno di Bucchianico, Daniela Dina, Marco Inglessis, Carmelo Notaro, Gaetano Settimo, Giuseppe Viviano, Achille Marconi**
- 18.00 *Current status of ambient air quality in Lahore (2nd biggest city of Pakistan)*  
**Ghulam Hussain Qasim**
- 18.15 *Biomonitoring study of children exposed to different levels of pollution in the Hainaut Province*  
**Marie-Christine Dewolf, Etienne Noël, Philippe Fierro, Wendy Fris, Pol Bouvriez, Andrée Marijns, Charles Pestelecq, Wei-Hong Zhang**
- 18.30 Discussion

#### **Parallel activity session** (Aula Bovet)

#### **HEALTH AND ENVIRONMENT NETWORK HENVINET**

*Chairs:* **Alena Bartonova, Gemma Calamandrei**

- 14.30 *Towards further integration of research results into decision making: health and environment network*  
**Alena Bartonova, Hans Keune, Martin Kraye von Kraus, Hai-Ying Liu, Aileen Yang, the HENVINET Team**
- 14.50 *Knowledge evaluation methodology in environmental health - The HENVINET approach*  
**Martin Kraye von Kraus, Hans Keune, Alena Bartonova, Hai-Ying Liu, Aileen Yang, the HENVINET Team**
- 15.10 *Chlorpyrifos and the evidence for effects on neuro-development in childhood: how well do the experts agree?*  
**Brooke Magnanti, Sara Correia Carreira, Margaret Saunders, Janna Koppe, Gemma Calamandrei, Hans Keune, Alena Bartonova, Martin Kraye von Kraus**
- 15.30 *HENVINET networking portal: web community joining health and environment professionals*  
**Scott Randal, Peter van den Hazel, Michael Kobernus, Martin Kraye von Kraus, Aileen Yang, Alena Bartonova, the HENVINET team**
- 15.50 Discussion
- 16.30 Concluding remarks
- 19.00 Welcome cocktail

#### **Thursday, December 10, 2009**

#### **Plenary session 4** (Aula Pocchiarri)

#### **THE APPRAISAL OF HEALTH RISK FROM EPIDEMIOLOGICAL AND BIOMONITORING DATA**

*Chairs:* **Larry Needham, Irene Figà-Talamanca**

- 09.00 *Ongoing human biomonitoring activities to assess the extent of exposure of the Italian general population to those POPs considered by the Stockholm Convention and the UNECE Protocol: a joint effort of the Italian Ministry of the Environment and the ISS*  
**Giuliana Gasparrini, Elena De Felip**

- 09.15 *Predicted aerobic capacity of asthmatic children, derived from clinical studies*  
**Lene Lochte**
- 09.30 *Lead levels in umbilical cord blood in five Belgium maternity units predictive value of a risk questionnaire and intervention*  
**Wei-Hong Zhang, Marie Christine Dewolf, Samia Hammadi, Wendy Fris, Etienne Noël, Sophie Alexander**
- 09.45 *Molecular and genetic factors influence on DNA repair efficiency and health hazard*  
**Antonina Cebulska-Wasilewska**
- 10.00 *Environment and Public Health (EPH) programme. Development at the Society for Research and Prevention on Environment and Health (European S.R.E.H.)*  
**Guy A. Magnus**
- 10.15 *Use of ERICA (Ecotoxicological Risk Index for a Complete Assessment) in risk communication and perception, a unique number for several parameters*  
**Elena Boriani, Diego Baderna, Alessandro Mariani, Annamaria Segalini, Emilio Benfenati**
- 10.30 Discussion
- 11.00 Coffee break

#### **Plenary session 5** (Aula Pocchiari)

### **EMERGING PATHOGENIC MICROORGANISMS - NEED FOR A BETTER UNDERSTANDING OF HUMAN HEALTH IMPLICATIONS**

*Chairs:* **Peter Calow, Antonio Cassone**

- 11.30 *Climate change and emerging infectious disease threats to Europe*  
**Paul Hunter**
- 12.00 *Detection of genogroup IV Norovirus in environmental samples by reverse-transcriptase PCR/nested PCR*  
**Giuseppina La Rosa, Marcello Iaconelli, Manoochehr Pourshaban, Marta Fratini, Michele Muscillo**
- 12.15 *Surveillance of human adenoviruses in Italian sewage treatment plants by nested PCR analysis in the fiber and in the hexon coding regions*  
**Marcello Iaconelli, Giuseppina La Rosa, Manoochehr Pourshaban, Valentina Spuri, Michele Muscillo**
- 12.30 *Emerging diseases in rural areas of the European Region: the example of campylobacteriosis*  
**Stefania Marcheggiani, Monica Francesca Blasi, Laura Mancini, Enzo Funari**
- 12.45 Discussion
- 13.15 Lunch and posters viewing

#### **Poster session 2: topic 5 - 8** (Aula Marotta)

#### **Plenary session 6** (Aula Pocchiari)

### **THE ENVIRONMENTAL HYPOTHESIS IN NEURODEGENERATIVE DISEASES**

*Chairs:* **Donato Di Monte, Enrico Alleva**

- 14.30 *Neurotoxicants, alpha-synuclein, and Parkinson's disease: experimental evidence in support of a role of environmental agents in neurodegenerative processes*  
**Donato Di Monte**

- 15.00 *Cyanobacteria and their toxins as possible risk factors in the etiopathogenesis of Amyotrophic Lateral Sclerosis (ALS)*  
**Emanuela Testai, Enzo Funari, Nicola Vanacore, Giuseppe Stipa**
- 15.15 *The transgenic mouse over-expressing the hMTH1 hydrolase: a novel mouse model of extended life span and protection against neurodegeneration*  
**Maria Teresa Russo, Ilenia Ventura, Gabriele De Luca, Paolo Degan, Alberto Martire, Patrizia Popoli, Margherita Bignami**
- 15.30 Discussion
- 16.00 Coffee break

#### **ROUND TABLE** (Aula Pocchiari)

*Chair:* **Christine Majewki**

- 16.30 *Goods globalization - Which threats for human health?*  
**Members of the International Steering Committee, FAO, Federchimica, ISS**
- 18.00 Closing remarks
- 20.00 Social dinner

### **Friday, December 11, 2009**

#### **Plenary session 7** (Aula Pocchiari)

#### **WASTE MANAGEMENT**

*Chairs:* **Heidelore Fiedler, Giovanni Andreottola**

- 09.00 *Hazardous chemicals emissions from open burning processes in a global context*  
**Heidelore Fiedler**
- 09.30 *Treatment of leachate streams by a membrane bioreactor*  
**Teresa Castelo-Grande, Paulo A. Augusto, Paulo Monteiro, Angel M. Estevez, Domingos Barbosa**
- 09.45 *Understanding of health effects on decision making concerning waste management: from evidence to action. General comments and proposal*  
**Paolo Lauriola**
- 10.00 *Management of health-care waste in Izmir*  
**Ahmet Soysal, Hatice Şimşek, Dilek Soysal, Funda Alyu**
- 10.15 *A critical analysis of waste management regulation in Cameroon-case study: Limbe Municipal Council*  
**Fukah Valentine Sam, Valantine Nyafeh**
- 10.30 Discussion
- 11.00 Coffee break

**Plenary session 8** (Aula Pocchiari)

**THE IMPACT OF AGRICULTURAL ACTIVITIES ON ENVIRONMENT AND HEALTH**

*Chairs:* **Angelo Moretto, Raffaele Mattioli**

- 11.30 *Risk assessment of multiple pesticide residues*  
**Angelo Moretto**
- 12.00 *Bioherbicide formulation (a review)*  
**Mohammad Taghi Alebrahim, Reza Ghorbani, Roghieh Majd**
- 12.15 *Relationship between POP background levels in agricultural environments and target levels in foods: a challenge for risk reduction of priority pollutants*  
**Annalaura Iamiceli, Roberto Miniero, Gianfranco Brambilla, Elena De Felip**
- 12.30 *ASTERisk, a tool to guide enforcement and monitoring of pesticides use*  
**Francesco Galimberti, Teresa Mammone, Angelo Moretto**
- 12.45 *The assessment of operator, bystander, and worker exposure to pesticides: approaches, tools, and needs*  
**Renato Cabella**
- 13.00 Discussion
- 13.15 Lunch

**ROUND TABLE** (Aula Pocchiari)

- 14.30 *Risk perception and risk communication*  
**Members of the International Steering Committee, EFSA, FAO, Federchimica, ISS**
- 16.00 Final discussion and closing remarks

## INVITED LECTURERS AND CHAIRPERSONS

<b>Roger Aertgeerts</b>	Regional Office for Europe, European Centre for Environment and Health, World Health Organization, WHO, Rome, Italy
<b>Enrico Alleva</b>	Department of Cell Biology and Neurosciences, Italian National Institute of Health, ISS, Rome, Italy
<b>Giovanni Andreottola</b>	University of Trento, Trento, Italy
<b>Alena Bartonova</b>	Centre for Ecology and Economics, Norwegian Institute for Air Research, NILU, Kjeller, Norway
<b>Gemma Calamandrei</b>	Department of Cell Biology and Neurosciences, Italian National Institute of Health, ISS, Rome, Italy
<b>Peter Calow</b>	Danish Environmental Assessment Institute, Copenhagen, Denmark; University of Sheffield, United Kingdom
<b>Antonio Cassone</b>	Department of Infectious, Parasitic and Immuno-Mediated Diseases, Italian National Institute of Health, ISS, Rome, Italy
<b>Giuseppe Cavarretta</b>	Earth and Environment Department, National Research Council, CNR, Rome, Italy
<b>Jan Cortvriend</b>	European Commission, DG Environment, Water Unit, Brussels, Belgium
<b>Donato Di Monte</b>	The Parkinson's Institute and Clinical Center, Sunnyvale, CA, USA
<b>Heidelore Fiedler</b>	United Nations Environment Programme, UNEP, Chemicals Branch, Division of Technology, Industry and Economics, Châtelaine, Geneva, Switzerland
<b>Irene Figà-Talamanca</b>	Department of Hygiene and Industrial Health, Sapienza University of Rome, Rome, Italy
<b>Giuliana Gasparri</b>	Italian Ministry for Environment and Territory and Sea, Rome, Italy
<b>Paul Hunter</b>	School of Medicine, Health Policy and Practice, University of East Anglia, Norwich, United Kingdom
<b>Dorota Jarosinska</b>	Environment and Health Integrated Environmental Assessments, European Environment Agency, EEA, Copenhagen, Denmark
<b>Raffaele Mattioli</b>	Animal Health Service, Food and Agriculture Organizations of the United Nations, FAO, Rome, Italy
<b>Christine Majewki</b>	Department of Strategy, European Food Safety Authority, EFSA, Parma, Italy
<b>Angelo Moretto</b>	Department of Occupational Environmental Health, Faculty of Medicine, University of Milan, Milan, Italy
<b>Larry Needham</b>	Toxicology Branch, National Center for Environmental Health, Centers for Disease Control and Prevention, CDC, Atlanta, GA, USA
<b>Nicola Pirrone</b>	Institute for Atmospheric Pollution, National Research Council, CNR, Rende, Cosenza, Italy
<b>Miquel Porta</b>	Institute of Medical Research and Universitat Autònoma de Barcelona, IMIM & UAB, Barcelona, Spain
<b>Luciana Sinisi</b>	Environmental Determinants of Health, Superior Institute for Environmental Protection and Research, ISPRA, Rome, Italy
<b>Marcello Spanò</b>	Section of Toxicology and Biomedical Sciences, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA Casaccia, Rome, Italy
<b>Jan G. Timmerman</b>	Rijkswaterstaat, RWS, Centre for Water Management, Lelystad, The Netherlands