

## Accommodation

The Soeterbeeck Study Centre can accommodate a limited number of guests in former convent cells which have been transformed into small single bedrooms reminiscent of the peaceful life of the former nuns. Facilities are simple (shared bathroom facilities), but it is a very atmospheric place to stay. Guests must stay a minimum of 2 nights (March 25th and 26th) and are charged € 55.00 per night (including breakfast). Reservations can be indicated on the workshop registration form and are handled on a "first come, first served" basis.

Soeterbeeck Study Centre  
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5371 LL Ravenstein  
Tel.: + 31 (0)486 41 74 50  
Fax: + 31 (0)486 41 74 59  
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The organizing committee has furthermore made preliminary room reservations for workshop participants at the Mercure Hotel in Nijmegen, which is located next to the Central Train Station in Nijmegen. The Soeterbeeck Study Centre is a 15 minutes' train ride and 5 minutes' walk from the hotel. Please make your reservation directly with the hotel as soon as possible to ensure accommodation. The number of reserved rooms is limited and the price for a single room including breakfast is € 128.00 per night if you mention "NoMiracle Workshop RUN". Please be aware that after March 1st we cannot guarantee price and availability.

Mercure Hotel Nijmegen Centre  
Stationsplein 29  
NL-6512 AB Nijmegen  
Tel.: +31 (0)24 3238888  
Fax: +31 (0)24 3242090  
E-mail : H1356@accor.com  
Web: www.mercure.com



## Costs

The workshop fee is € 180.00 and includes 2 lunches, 4 coffee breaks, one dinner and the use of the study centre facilities. The workshop fee must be paid by bank transfer to account number 23.12.47.834 at the Fortis Bank in the Netherlands (IBAN code NL02FTSB0231247834; BIC code FTSBNL2R) under the name of "Stichting Katholieke Universiteit, Nijmegen". Please mention "RU workshop nr 6200448" when transferring the money.

## Registration

Complete the Registration Form and send it to the Department of Environmental Science, Faculty of Science, Radboud University Nijmegen, P.O. Box 9010, NL-6500 GL Nijmegen, The Netherlands (Tel.: + 31 (0)24 365 32 81, Fax: + 31 (0)24 355 34 50; E-mail: secres@science.ru.nl). Please note that the maximum number of participants is limited to 60.



**NoMiracle**

**NoMiracle**

Workshop on

# *Cumulative Risk Assessment: a Challenge for Science and Management*

**Ravenstein,  
The Netherlands  
26-27 March 2009**

## Background

Triggered by the overt pollution problems in the 1970s and 1980s, initial control measures focused on major pollution sources and contaminants. As a result, a risk assessment strategy was developed that focused on individual chemicals. Now that the overt pollution problems have largely been solved, awareness is growing that exposure to single chemicals is the exception rather than the rule. In everyday life, humans and other living organisms are rarely exposed to single stressors, but rather to a multitude of different stressors; concurrently, sequentially, or both. A range of pressing environmental issues is suspected to be related to cumulative stress. For example, neurodevelopmental disorders can be caused by heavy metals, dioxins, PCBs and pesticides; childhood cancer could be related to a number of physical, chemical and biological agents (e.g. parental tobacco smoke, parental occupational exposure to solvents); the extinction of endangered species could be related to a combination of climate change, habitat destruction and chemical stress. The EU Environment & Health Strategy acknowledges that cumulative exposure to environmental stressors is insufficiently taken into account in the actual policy responses. Given this lacuna, there is an urgent need for cumulative risk assessment, which can be defined as “an analysis, characterization, and possible quantification of the combined risks to health or the environment from multiple agents or stressors”.

An important distinction between traditional and cumulative risk assessment is the difference in focus: whereas traditional risk assessment focuses on the substance or pollution source, cumulative risk assessment puts the exposed individuals or populations at the centre of the assessment. Cumulative risk assessment is more complex than traditional risk assessment, but its goals are much more in line with the needs of decision makers who are dealing with public health or ecological health questions rather than controlling sources of pollution.

The EU Integrated Project NoMiracle conducts a comprehensive and coherent research program providing the scientific basis for this emerging shift in paradigm for risk assessment taking into account realistic exposure and the cumulative risk following exposure to several stressors. The NoMiracle Integrated Project unites scientists from a wide range of disciplines including human toxicology and epidemiology, aquatic and terrestrial ecotoxicology, environmental chemistry/biochemistry, toxicogenomics, physics, mathematical modelling, geographic informatics, and socio-economic science. They work together to address some of the shortcomings in existing risk assessment models and methodologies. An important project aim is to develop tools and frameworks that can be used to assess the risks of cumulative and complex exposure situations.

## Scope and Aims

The 5<sup>th</sup> International Workshop organized by the NoMiracle consortium focuses on cumulative risk assessment. The workshop aims to inform industry, policy makers and academia about the research results on cumulative exposure and effects, and the novel methods and procedures developed within the NoMiracle project. It also serves as a platform to discuss the implications of the project results for EU-wide regulations such as REACH, the Water Framework Directive, and Directives concerning biocides and pesticides.

## Who should attend?

- Industry representatives, policy makers, public health officials and environmentalists involved in risk assessment of chemicals and other stressors.
- Researchers involved in the development or application of exposure, effect and risk assessment methods, particularly those employed at universities and national or international research institutes for the environment and public health.

## Topics and Program

The workshop consists of 5 sessions:

1. Towards a Framework for Cumulative Risk Assessment;
2. Cumulative Exposure Assessment;
3. Cumulative Effect Assessment;
4. Management and Communication of Cumulative Risks;
5. The NoMiracle Master Cases.

Each session consists of a number of scientific presentations and concludes with a plenary discussion on the topics covered in the session. The first session provides an overview of the state of the art in cumulative risk assessment. The session on cumulative exposure assessment covers topics such as multimedia fate modelling, person-oriented human exposure assessment, wildlife exposure assessment, cumulative pesticide exposure and indoor/outdoor exposure. The session on effect assessment includes studies on chemical mixtures or chemicals in combination with natural stressors, and addresses the temporal and spatial aspects of cumulative effect assessment. The session on management and communication deals with issues such as stakeholders' views on cumulative risks, communication with laymen, and the presentation of cumulative risks. The last session is an interactive session in which the workshop participants will be invited to reflect on the preliminary results of the NoMiracle Master Cases on cumulative risk assessment and to discuss the dissemination and training options. See the workshop program for further details.

## Venue

Soeterbeek Study Centre (of the Radboud University Nijmegen), Ravenstein, The Netherlands. The Radboud University Nijmegen converted the convent into a study and conference centre with modern facilities, including catering. Soeterbeek is in the countryside, away from the busy urban setting, but can be easily reached either by train or by road.

## Organising Committee

Kees van Gestel (VU, Netherlands), Irmgard Henning-de Jong (RU, Netherlands), Mikael Hildén (SYKE, Finland), Mark Huijbregts (RU, Netherlands), Hans Løkke (AU, Denmark), Mark Loos (RU, Netherlands), Nellemieke Mohr (RU, Netherlands), Ad Ragas (Chair, RU, Netherlands), Uwe Schlink (UFZ, Germany) and Peter Borgen Sørensen (AU, Denmark)