



# Food & Fecundity

2004-2007

**Pharmaceutical products in the environment:  
Development and employment of novel  
methods for assessing their origin, fate and  
effects on human fecundity**



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<http://foodandfecundity.factlink.net>

## Main Questions

- Do pharmaceutical product (PP) residues in the environment pose a real risk to human fecundity?
- What are the PPs that potentially may affect human fecundity?
- What is their mechanism of action?
- How can we prove the link(s) between environmental contaminations, contaminated food and human fecundity?
- Is it possible to manage the risk and, if so, how?
- How do we make the public aware of the potential risk?

## Main Objectives

- Identify PPs that may affect human fecundity.
- Identify the mechanism(s) involved in their fecundity disrupting activity.
- Develop diagnostic methods and high throughput screening assays (HTSAs) for monitoring PPs.
- Evaluate environmental, food and population exposure to high risk PPs.
- Assess possible links between food and fecundity (F&F).
- Establish strategies for risk management.
- Disseminate the knowledge.



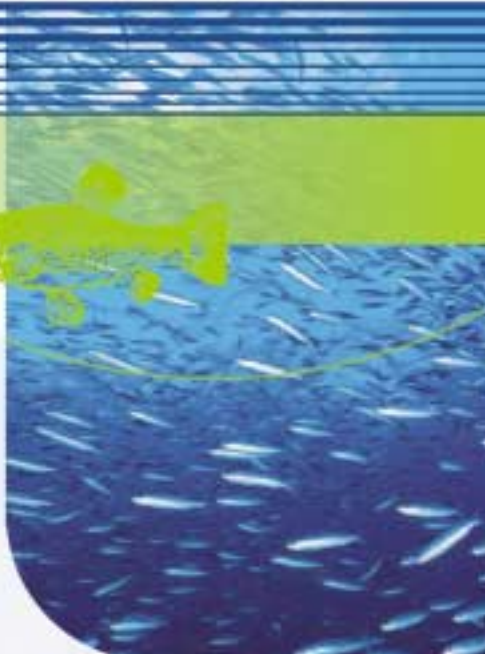
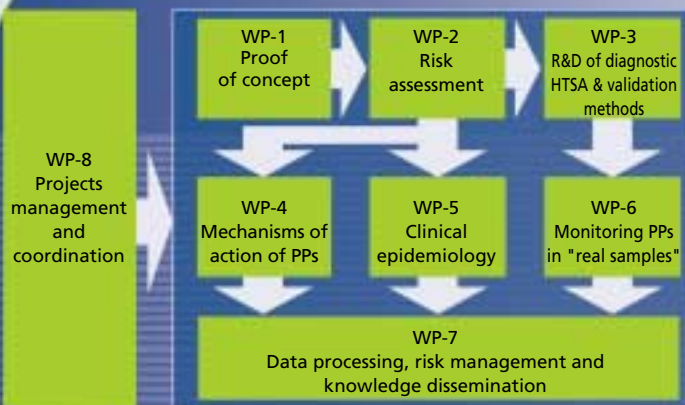
## Main Approaches

- Risk assessment: selection of high risk PPs.
- Application of novel cleanup, concentration and diagnostic methods as well as HTSAs for monitoring PPs in environmental, food and human patient samples.
- Studies of the mechanisms of action of high risk PPs *in vitro*, *in situ*, and *in vivo*.
- Monitoring fecundity problems in target populations in relation to dietary habits (epidemiological study).
- Development of risk management strategies.
- Establishment of web based knowledge pools, publication and communication of data.





## F&F Project Outline



## Expected Outcome

- Identification of high risk PPs.
- Bioprobes for monitoring high risk PPs.
- Methods for clean up and concentration of PPs.
- Diagnostic HTSAs and LC-MS-MS methods for monitoring PPs.
- Knowledge of the mechanisms of action of PPs.
- Possible identification of novel fecundity markers.
- Possible correlation between human fecundity problems and dietary habits.
- Information on the extent of environmental and food contamination.
- Proof (or disproof) of the concept.
- Risk management models.
- Knowledge pools and platforms.

# List of Collaborators



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