

KNAPPE

Knowledge and Need Assessment on Pharmaceutical Products in Environmental Waters



Scientific leader

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ABSTRACT

"Pharmaceuticals in the Environment" is an issue receiving growing attention. About 4000 medical compounds are being used in the drugs applied today. It is estimated that worldwide consumption of active compounds amounts to some 100 000 tons or more per year. Consequently, there is a need to highlight the most important questions and issues related to presence of pharmaceuticals in the environment. What we ought to know to understand the occurrence, the fate and the effects of pharmaceuticals in order to set up environmental risk assessment?

By pulling together results of previous and on going EU projects and published data from both governmental sources and scientific literature, by involving manufacturers in supplying data on production and usage of pharmaceuticals, KNAPPE project will carry out the state of knowledge and put emphasis on questions deserving attention such as:

What is the list of most relevant pharmaceutical products (PPs) for the aquatic environment? Which indicators for supporting environmental managers, health authorities?

What is the efficiency of urban and industrial sewage treatment plants over a year? What is the fate and behaviour of PPs in sewage treatment plants? If receiving waters are used for potable water supplies, does the presence of these compounds represent a potential hazard to human health?

Could we solve some problems by environmental or cleaner technologies?

What regulatory approaches, incentives, prevention actions can be implemented in order to lower PPs concentration in the environment? Does a European practical guidance can be developed?

Can the impacts of PPs on the environment be reduced through the use of eco-pharmacostewardship approaches including the use of clean synthesis, classification and labelling, and better communication of methods of 'good practice'?

How can we better monitor the environmental impact of a pharmaceutical once it has received a marketing authorisation?

KNAPPE project will initiate discussions through workshops and conferences with the concerned groups of experts and provide the information to all stakeholders by means of the maximum readable ways.



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SIXTH FRAMEWORK PROGRAMME

SUSTAINABLE DEVELOPMENT, GLOBAL CHANGE AND ECOSYSTEMS

The project involves an Expert Committee composed by:

- Industrial Associations: European Federation of Pharmaceutical Industries and Associations (EFPIA), the Society of Chemical Industries (SCI), Association of British Pharmaceutical Industries (ABPI), International Federation of Animal Healthcare
- Pharmaceutical Companies: Astrazeneca, Merck, Sanofi-Aventis, Janssen Pharmaceutica
- Water Companies: Lyonnaise des eaux, SAUR
- Sanitary agencies: AFSSAPS, AFFSA
- Experts: Christan Daughton (US EPA), Klaus Kummerrer (Freiburg Univ), Ake Vennmalm (Stockholm County Council).

PARTNERS

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The project offered the opportunity of :

- the organisation of 4 workshops focussed on : (1) Occurrence of PPs in the environment, (2) Toxicological significance of PPs, (3) Regulatory instrument design to limit pollution from PPs and (4) Environmental stewardship of PPs.
- the organisation of an international conference entitled: «Pharmaceuticals in the Environment: Trends toward lowering presence and impact».
- the publication of 6 Newsletters dedicated to scientific population.
- the publication of an Information Letter dedicated to the whole population.

Benoit Roig, Knappe Coordinator