Profile:

Basic activities:

- assessment of occupational and environmental exposures to biological agents: qualitative end quantitative analysis of microorganisms (bacteria and fungi), endotoxins, glucans, mycotoxins, fungal spores and indoor allergens;
- assessment of the risk of health effects from occupational and environmental exposures to biological agents focus on lung function;
- development and improvement of methods used to assess exposures to biological agents in the occupational and living environments;
- risk assessment related to occupational exposure to biological agents in different professional branches;
- use of geographical information system in relation to the environment and population health;
- paper, reports and expert opinions commissioned by local and national authorities and other institutions or companies on exposure and health risk related to occupational health hazards.

Training activities:

• organising training courses, meetings and workshops on determination of biological agents, such as endotoxins, glucans, in different environments, sampling methods and strategy.

Examples of on going projects:

- 1. Exposure-response relationship between bioaerosols exposure and lung function impairment in CAFOs workers.
- 2. Indoor air assessment in different type of office buildings: identification of biocontaminants and health effects related to different levels of biological hazards/
- 3. Environmental exposure to indoor allergens, endotoxins and glucans in day-care centers.
- 4. Identification of dump and molds problems in different type of residential buildings and risk assessment for inhabitants.
- 5. Exposure to bioaerosols in waste management and wastewater treatment processes.

Laboratory analysis:

Determination of biological agents is performed in Biological Hazards Laboratory, established in 2005 within the structure of the Department. High quality equipment, experience of the staff and international cooperation give the possibilities of participation in local and international projects and studies, concerning identification of different biological agents.

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Field of interest:

Environment (including Climate Change)

FP7-ENV-2010

ENV.2010.1.2.2-1 Indoor air pollution and health risks of modern office buildings