Environmental determinants of health

As we have learned in the session on the Global Burden of Disease, the environment is a keyplayer in global health. It was estimated that 13 to 32% of the global disease burden can be attributed to environmental exposures. Environmental determinants include pollution and chemicals in air, water, soil, physical exposures like noise and radiation, and anthropogenic changes like climate change. Exposure might take place at home, at work, in transport or during leisure time activities outside the home environment.

In this lecture I will take the participants into the exciting world of environmental epidemiology at the local, national, European and global level. We will learn e.g., about cross-sectional studies on heavy metal exposure in children of small scale miners in South America, a global case-control-study on mobile phone exposure and childhood brain tumours and a prospective transgenerational study on environmental risk factors for respiratory diseases.

At the end of this session, participants will be able to

- explain the differences between epidemiological study designs to their colleagues
- identify bias and confounding in epidemiological studies on environmental determinants of health
- recognize that environmental exposures might have a global impact which might even be passed to future generations
- critically reflect on chances and challenges of international research collaborations