

## **Environmental Fate, Effects, and Risk Assessment of Veterinary Medicines**

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Veterinary medicines enter the environment via soil (application to terrestrial animals) or water (application to aquaculture). Currently, the fate and toxicity tests used within the regulatory risk assessment are based on OECD guidelines, which were designed for pesticides or general chemicals. As science progresses, it has become clear that for some veterinary medicines, especially ionisable chemicals, these guidelines may not always fully apply. Standard models used to predict environmental concentrations (PECs) may also need a review. This session will focus on the environmental risk assessment of veterinary medicines. It will address all aspects of the ERA, i. e. fate, exposure, and effects. This may include improved modelling for exposure assessment, validation of exposure models applied, but also the question whether pesticide approaches such as Monte Carlo simulation would be applicable to veterinary medicines. Other topics to be included are assessment of degradation and the associated challenges such as extraction techniques and kinetic modelling, potential approaches for higher tier testing of the effects of veterinary medicines, or testing of novel species such as mussels (*Bivalvia*) for the assessment of bioconcentration. In addition to the ERA of veterinary products for terrestrial animals, presentations on the ERA of aquaculture medicines are highly welcomed. Presentations are also invited that cover less commonly addressed topics such as the exposure of the environment to veterinary medicines used in non-food animals, e. g. from companion animals, and the question if they are of any relevance for the environment. The session will also focus on the regulatory perspective and the status of the risk assessment and guideline development in different regions of the world. Specific regional approaches to e.g. exposure assessment and the determination of specific default values will be addressed. The session also invites presentations on potential risk mitigation measures or risk management plans such as post-authorization monitoring approaches. Approaches to better transform the information from the risk assessments to trans-disciplinary decisions such as benefit-risk assessments in authorization procedures or cost-benefit analysis of mitigation measures are also highly welcome. This may also include potential impacts of veterinary medicines on ecosystem services.