

# safescimet course 3.5 - Mutagenesis and Carcinogenesis

(27–30 April 2020, Konstanz, Germany)

A unique opportunity to broaden your knowledge of drug discovery and development with special emphasis on drug safety.

safescimet offers an outstanding faculty of academic and industry experts and an interactive programme, including case studies from the pharmaceutical industry providing a broad understanding of the latest developments in safety sciences.

## Mutagenesis and Carcinogenesis

The development of new chemical compounds holds the potential risk of harmful mutagenic and/or carcinogenic effects to humans. Minimizing these risks during drug development requires appropriate experimentation and expert knowledge whose basic principles will be delivered with this course. Special emphasis will be given to the biology of cancer formation, the identification of mutagens and carcinogens and their modes of action on the cellular, biochemical and molecular level. In silico methods prediction as well as animal test systems and tissue culture assays for carcinogenicity testing will be presented. Furthermore, the importance of responsibly estimating dose-dependent probabilities of mutagenic/carcinogenic effects (risk assessment) and the risk-benefit evaluation will be discussed.

### Key Subjects

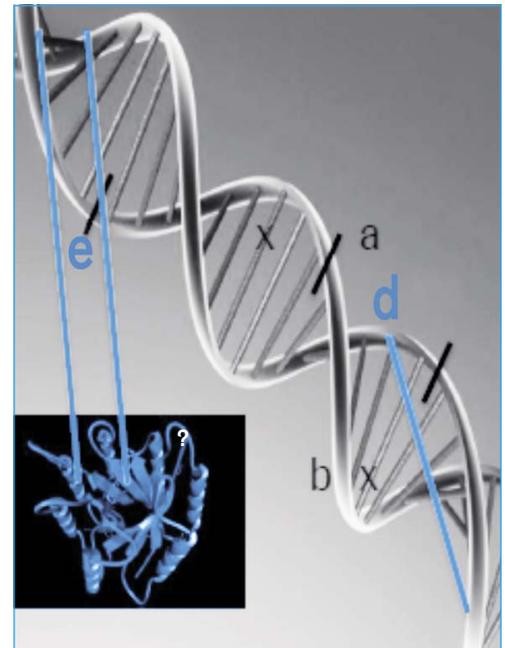
- Overview on the biology of carcinogenesis
- Principles of mutagenesis and carcinogenesis
- Examples of the mutagenic/carcinogenic actions at the cellular, biochemical and molecular level
- Experimental design for specific identification of mutagenic/carcinogenic compounds
- Interpretation of dose-response curves
- Extrapolation of animal findings and experimental data to human
- Safety data reports, authority guidelines
- Risk-benefit evaluation overview on the biology of carcinogenesis

### Learning Outcomes

- Understand key cellular and molecular alterations in carcinogenesis
- Identify and characterise mutagenic effects of chemical compounds
- Elucidate mechanisms of mutagenic and carcinogenic action at the cellular, biochemical and molecular level
- Review and assess safety data generated for a mutagenic/carcinogenic compound
- Estimate the probability of occurrence of mutagenic and/or carcinogenic effects (risk assessment)
- Contribute responsibly to risk-benefit evaluation

[Link to apply to this course](#)

Deadline for registration 13 April 2020



### Course Organisers



**Prof Dr Bettina Grasl-Kraupp**  
Institute for Cancer Research, Medical  
University, Vienna, Austria



**Dr Hans-Jörg Martus**  
Novartis Institutes for BioMedical Research,  
Basel, Switzerland

### Participant Feedback

Very interesting to meet people from different working places.

It liked the real life industry-supplied case studies very much.

