

IMMUNO-model

Modelling immunotherapy response
and toxicity in cancer

IMMUNO-model webinar series presents:

2nd Webinar *imSAVAR* project: Nonclinical mimicking of the immune system effects of immunomodulatory therapies

May 6th 2024, at 2 - 3.30 pm CET

Live on ZOOM platform

Moderator: Christina Sakellariou, Dept. of Immunotechnology, Lund University, Lund, Sweden

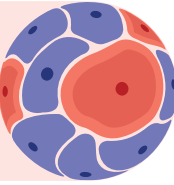
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IMMUNO-model COST Action CA21135

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Presentation 1

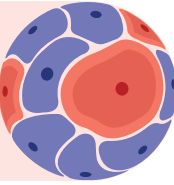


Immune-related adverse outcome pathways for regulatory decision making

Katherina Sewald, Fraunhofer ITEM, Hannover Germany

The IMI project imSAVAR, funded by the EU, is creating a systematic framework for non clinical safety assessment of biopharmaceuticals and ATMPs. The consortium is focussing on immunoregulatory therapeutics. Within imSAVAR, immune-related adverse outcome pathways (irAOPs) are being adopted for evaluating the safety of biotherapeutical drugs. AOPs, already established in toxicology for over a decade, offer a structured approach that encompasses a molecular initiating event (MIE), subsequent key events (KE), and culminating in an adverse outcome (AO). Developed initially for environmental toxins, AOPs are also applicable to toxicology of drugs. They complement ICH guidelines by systematizing safety assessments and suggesting relevant tests for new immunotherapies. Proposed irAOPs provide a mechanistic description of toxicity pathways, support the development of new human-based models, and inform multistage testing strategies, which include decision trees for prioritizing drug development.

Presentation 1

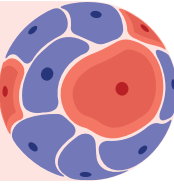


Biography

Katherina Sewald is the Head of Department Preclinical Pharmacology and In vitro Toxicology and Deputy Head of Division Preclinical Pharmacology and Toxicology at Fraunhofer Institute for Toxicology and Experimental Medicine in Hannover, Germany. Katherina's research interests range from in vitro and ex vivo modelling for sensitization, inflammation and irritation of the airways, development of novel tissue culture models and mechanisms of chronic inflammation. An important aspect of her work is the establishment of methods that replace animal experiments.



Presentation 2

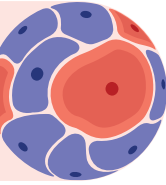


Construction, visual exploration and analytics of irAOP systems biology diagrams

Marek Ostaszewski, Luxembourg Centre for Systems Biomedicine, University of Luxembourg

During the talk I will discuss the process of harmonisation and translation of immune response AOPs into systems biology diagrams for their exploration and analysis. I will introduce steps needed for establishing such AOP-based diagrams, and demonstrate their use.

Presentation 2



Biography

Marek Ostaszewski is a senior researcher at the Luxembourg Centre for Systems Biomedicine, University of Luxembourg working on systems biology approaches to study human diseases. He focuses on representing biomedical knowledge in disease maps, and their use for data analysis and modelling.



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The COST Action **IMMUNO-model** CA21135 aims to foster research and innovation in the field of preclinical immuno-oncology models with the ultimate goal of advancing in the treatment of cancer patients by improving their outcomes and quality of life.



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