

TARC_{force}3R MONTHLY SEMINAR SERIES

*From Neurons to Networks:
Human Stem cell-based Models in
Neurotoxicology and Neuroinfectiology*

Bettina Seeger, University of Veterinary Medicine Hannover

Understanding human-specific neurotoxic and neuroinfectious mechanisms remains challenging due to the limitations of animal models. There is a critical need for more predictive and ethically sound human systems in biomedical research. This talk will showcase cutting-edge human stem cell-derived neuronal models for studying neuro(developmental) toxicity and host–pathogen interactions, highlighting applications such as Botulinum Neurotoxin potency testing and elucidating mechanisms underlying cognitive impairment following early-life infections.

Bettina Seeger is an Adjunct Professor and Research Group Leader at the University of Veterinary Medicine Hannover, specialized in human stem cell-based models for neurotoxicology, pharmacology, and infection biology. Her research focuses on advancing innovative in vitro systems to unravel disease mechanisms and improve risk assessment, with a strong emphasis on alternatives to animal experimentation. She is a Veterinary Specialist in Pharmacology and Toxicology, a European Registered Toxicologist, and an active member of expert panels shaping the future of 3Rs and biomedical research.

Friday, August 15, 2025, 2:00—4:00 p.m. CEST

Meeting link: <https://bbb.rlp.net/b/gon-6fc-ssd-h1b>

The modality is handled on a first-come, first-served basis.

For more information about the program, visit our website <https://www.unimedizin-mainz.de/tarc-force-3r/veranstaltungen.html> or contact our team at las-education@uni-mainz.de

Certificates of attendance for the general audience are sent on request via e-mail (las-education@uni-mainz.de). For ATF certificates, please write to us at ATF-TARC@uni-mainz.de