The bioprinting laboratory of the
TU Berlin and the Einstein Center 3R
cordially invite you to a joint lecture

Prof. Dr. Winfried Neuhaus

Austrian Institute of Technology, Vienna

Challenging the Benchmarks: High-Confidence BBB Modeling Despite Pervasive Knowledge Gaps



When: Wednesday, November 18th, 2026, 16.00 s.t.
Where: Technische Universität Berlin
Institute of Biotechnology
Gustav-Meyer-Allee 25
13355 Berlin
Building TIB 21, Lecture Hall 21C

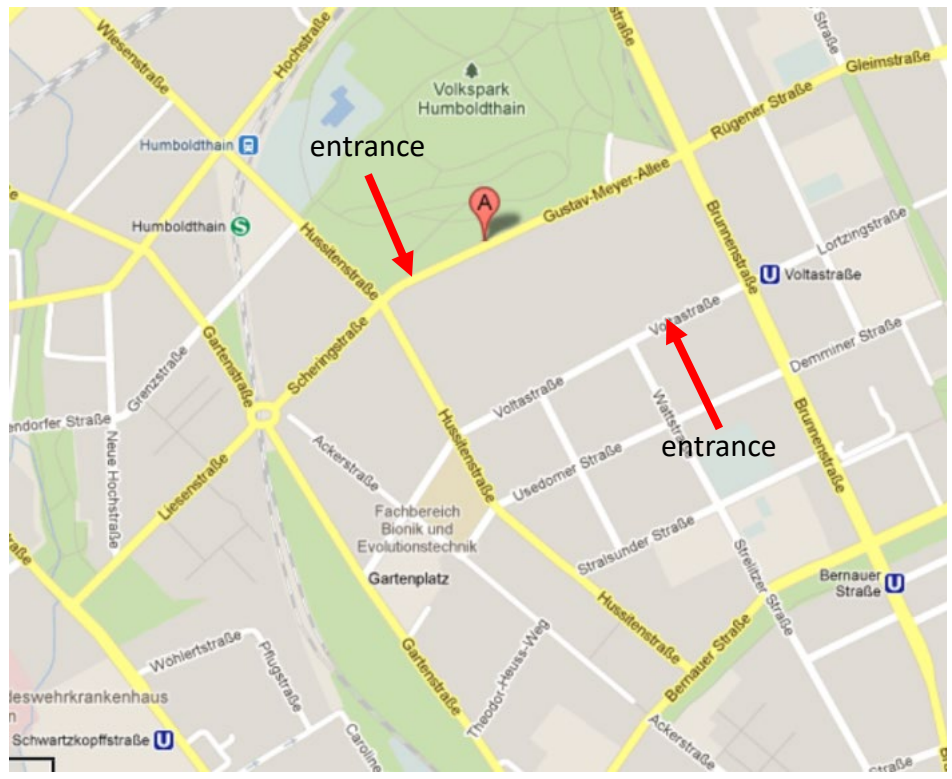
The blood-brain barrier (BBB) remains a major challenge in neuropharmacology and toxicology due to its highly complex and dynamic barrier functions. Because many BBB-specific properties are still poorly understood, predictive models must account for these biological uncertainties while addressing the fundamental question of how complex a model actually needs to be. Crucially, the most intricate models are not inherently the best; rather, the specific Context of Use (CoU) must ultimately dictate the model configuration. Optimizing basic cell culture parameters can often yield highly predictive *in vitro* systems without unnecessary complexity, provided traditional benchmarks are critically re-evaluated. Targeted approaches might enable the creation of robust, high-certainty models tailored precisely to their intended application.

About the Speaker:

Winfried Neuhaus is Principal Scientist at AIT and has headed the Biological Barriers group for ten years. He studied Food and Biotechnology at BOKU Vienna and obtained his PhD in Pharmaceutical Sciences from the University of Vienna. Before joining AIT, he spent six years as Principal Investigator at University Hospital Würzburg, where he received his habilitation in Molecular Medicine. Previously, he worked at the Medical University of Vienna, the University of Vienna, and PharmaCon GmbH, where he led the Preclinical and Blood-Brain Barrier Research Group. He has over 25 years of expertise in biological barriers, particularly human-relevant *in vitro* models and *in vitro/in vivo* translatability. He has supervised over 35 master's and 10 doctoral theses and authored over 100 peer-reviewed publications, six book chapters, and one book. He serves on scientific advisory boards, reviews for journals and funding agencies, and is President of EUSAAT, Coordinator of EU3Rnet, and member of the EPAA mirror group. He is Professor of 3Rs and New Approach Methodologies at DPU Krems and teaches at five universities.

Directions

Location of the institute:
Gustav-Meyer-Allee 25, 13355 Berlin
Public transportation: S-Bahn station Humboldthain (S1, S25) or U-Bahn station Voltastraße (U8), Schwartzkopfstraße (U6)



The Lecture Hall 21C is in Building 21.

