

# Assay Guidance Workshop for High-Throughput Screening and Lead Discovery

Wednesday April 9, 2025 – Thursday April 10, 2025  
NUVISAN Innovation Campus Berlin, Berlin, Germany

## AGENDA: Day 1

- 9:00 AM **Opening Remarks**  
Matthew Hall, National Center for Advancing Translational Sciences (NCATS), National Institutes of Health (NIH)  
Donald Lo, European Infrastructure for Translational Medicine (EATRIS)  
Bahne Stechmann, EU-OPENSREEN  
Charlotte Kopitz, NUVISAN ICB GmbH
- 9:20 AM **The NCATS Assay Guidance Manual Program: Advancing the Practice and Rigor of Preclinical Translation**  
Sarine Markossian, NCATS, NIH
- 9:30 AM **Pooled CRISPR Screening in Target Identification, Mechanism-of-Action Elucidation and Drug-Target Interaction Studies**  
Bernhard Schmierer, Karolinska Institutet and SciLifeLab
- 10:15 AM **Strategies for Assay Selection and for the Development of Robust Biochemical Assays**  
Nathan P. Coussens, Frederick National Laboratory for Cancer Research
- 11:00 AM **Break**
- 11:30 AM **Treating Cells as Reagents and Measuring Viable, Dead, or Apoptotic Cell Number as Orthogonal Controls to Design Reproducible Assays**  
Terry Riss, Promega Corporation
- 12:15 PM **High Content Screening Assay Development Based on the Cell Painting Assay**  
Christopher Schmied, EU-OPENSREEN
- 1:00 PM **Lunch Break**
- 2:00 PM **Drug Screening with 3D Cellular Models**  
Patrick Steigemann, NUVISAN ICB GmbH
- 2:45 PM **Biophysical Approaches to Small Molecule Discovery and Validation**  
Michelle Arkin, University of California, San Francisco
- 3:30 PM **Break**
- 4:00 PM **Introduction to Mass Spectrometry for Drug Screening and Lead Optimization**  
Mackenzie Pearson, Eli Lilly and Company
- 4:45 PM **HTS Case Studies – A Target-based Biochemical Screen to Identify KRAS/SOS1 Inhibitors and a Cell-based Hippo Pathway Screen with Subsequent Target Deconvolution**  
Benjamin Bader and Barbara Nicke, NUVISAN ICB GmbH
- 5:45 PM **Open discussion and additional Q&A/ Adjourn**
- 6:00 PM **Networking Social**

## AGENDA: Day 2

8:50 AM	<b>Welcome and Today's Agenda</b> Sarine Markossian, NCATS, NIH
9:00 AM	<b>Assay Interpretation: Studies in Mechanisms and Methods in Assay Interferences</b> Douglas Auld, Novartis Institutes for BioMedical Research
9:45 AM	<b>Virtual Screening/ Computational Drug Discovery/ Assay Interference Predictions</b> Alexey Zakharov, NCATS
10:30 AM	<b>Break</b>
11:00 AM	<b>Integrated Strategies for Hit-to-Lead Optimization</b> Rui Moreira, imed
11:45 AM	<b><i>In Vitro</i> Assessments of ADME Properties of Lead Compounds</b> Xin Xu, NCATS, NIH
12:30 PM	<b>Lunch Break</b>
1:30 PM	<b>Basic Assay Statistics, Data Analysis &amp; Rules of Thumb (ROT)</b> Thomas D.Y. Chung, Sanford Burnham Prebys Medical Discovery Institute
2:15 PM	<b>Reproducibility Assessment of In Vitro Screening Results</b> Jason Manro, Eli Lilly and Company
3:00 PM	<b>Break</b>
3:30 PM	<b>Patient-centric Approaches in Preclinical Studies – Case Study from the REMEDI4ALL Project</b> Brinton Seashore-Ludlow, Karolinska Institutet and SciLifeLab
4:15 PM	<b>Pannel Discussion/Closing Session: Global Challenges and Opportunities in Establishing and Implementing Best Practices in Early Drug Discovery</b> Chair: Martin de Kort, EATRIS Panelists: Matthew Hall, NCATS; Donald Lo, EATRIS; Phil Gribbon, EU-OPENSSCREEN; Holger Steuber, NUVISAN ICB GmbH; Michelle Arkin, University of California, San Francisco
5:00 PM	<b>Adjourn</b>

## **FACILITIES TOUR – Optional Addition to Registration**

Friday April 11, 2025

### **AGENDA**

8:30 AM – 10:00 AM	<b>NUVISAN Innovation Campus Berlin Facilities Tour</b>
10:00 AM	Shuttle to EU-OPENSREEN
11:00 AM – 12:30 PM	<b>EU-OPENSREEN Facilities Tour</b>