

Assay Guidance Workshop for High-Throughput Screening and Lead Discovery

Wednesday April 9, 2025 – Thursday April 10, 2025
NUVISAN 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 Berlin
- 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 Berlin
- 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 Berlin
- 5:45 PM **Open discussion and additional Q&A/ Adjourn**
- 6:00 PM **Networking Social**

AGENDA: Day 2

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

FACILITIES TOUR – Optional Addition to Registration

Friday April 11, 2025

AGENDA

8:30 AM – 10:00 AM	NUVISAN Berlin Facilities Tour (space is limited)
10:00 AM	Shuttle to EU-OPENSREEN
11:00 AM – 12:30 PM	EU-OPENSREEN Facilities Tour (space is limited)



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