Assay Guidance Workshop for High-Throughput Screening and Lead Discovery

Tuesday Sept 24, 2024 – Wednesday Sept 25, 2024
1 Lilly Corporate Ctr, Indianapolis, IN 46285

AGENDA: Day 1

10:00 AM **Opening Remarks**
John Strelow, Eli Lilly and Company
The NCATS Assay Guidance Manual Program: Advancing the Practice and Rigor of Preclinical Translation
Sarine Markossian, National Center for Advancing Translational Sciences (NCATS), National Institutes of Health (NIH)

10:20 AM **Session 1: Target ID/Validation and Assay Development**
Chair: Stefan Grotegut, Loxo@Lilly
  10:20 AM   **Phenotypic Drug Screening: "You Get What You Look For"**
  Chuck Dorsey, Eli Lilly and Company
  11:05 AM   **Strategies for Assay Selection and for the Development of Robust Biochemical Assays**
  Nathan Coussens, Frederick National Laboratory for Cancer Research
  11:50 AM   **Treating Cells as Reagents and Measuring Viable, Dead, or Apoptotic Cell Number as Orthogonal Controls to Design Reproducible Assays**
  Terry Riss, Promega Corporation

12:35 PM **Lunch Break**

1:30 PM **Session 2: HTS Assay Interpretation, Statistics and Data Analysis**
Chair: Allison Norvil, Eli Lilly and Company
  1:30 PM   **Assay Interference: Mechanisms and Methods**
  Michael A. Walters, University of Minnesota
  2:15 PM   **Basic Assay Statistics, Data Analysis & Rules of Thumb (ROT)**
  Thomas Chung, Sanford Burnham Prebys Medical Discovery Institute

3:00 PM **Break**

3:30 PM **Session 2:** *(continued)*
  3:30 PM   **Reproducibility Assessment of *In Vitro* Screening Results**
  Philip Iversen, Luther College
  4:15 PM   **AGM Data Analysis Webtools Hands-on Training**
  Philip Iversen, Luther College
  Jason Manro, Eli Lilly and Company
  Jeffrey Weidner, QualSci Consulting

5:00 PM **Networking Social**

AGENDA: Day 2

8:30 AM – 9:30 AM	**Tour of Eli Lilly Museum**
9:50 AM	**Welcome and Today's Agenda** Sarine Markossian, NCATS, NIH

10:00 AM   **Session 3: Biophysical Approaches**
Chair: Sarine Markossian, NCATS, NIH

       10:00 AM   **Small Molecule Discovery and Target Interaction Validation Using Biophysical Techniques**
                           Michael Ronzetti, NCATS

       10:45 AM   **Introduction to Mass Spectrometry for Drug Screening and Lead Optimization**
                           Mackenzie Pearson, Eli Lilly and Company

11:30 AM   **Session 4: Lead Optimization**
Chair: Sarine Markossian, NCATS, NIH

       11:30 AM   *In Vitro* **Assessments of ADME Properties of Lead Compounds**
                           Michael Mohutsky, Eli Lilly and Company

12:15 PM   **Lunch Break**

1:15 PM   **Session 4:** *(continued)*

       1:15 PM   **Assay and Flowscheme Building for siRNA Therapeutics**
                         Marjoke F. Debets, Eli Lilly and Company

2:00 PM   **Session 5: New Modalities and Novel Trends**
Chair: Mackenzie Pearson, Eli Lilly and Company

       2:00 PM   **ADC Assay Development and Design, Best Practices**
                         Carmen M Pérez, Eli Lilly and Company

2:45 PM   **Break**

3:15 PM   **Session 5:** *(continued)*

       3:15 PM   **Drug Screening with Engineered 3D Tissue Models**
                         Marc Ferrer, NCATS, NIH

       4:00 PM   **Building the Efficient Discovery of Actionable Chemical Matter from DNA-Encoded Libraries**
                         Timothy Foley, Pfizer

4:45 PM   **Open discussion and additional Q&A**

5:00 PM   **Adjourn**