

Day2: July 19<sup>th</sup>

**8:45 – 9:00**

**Attendee Arrival and Coffee**

**9:00 – 9:45**

**Zero intercept Method: Principles and Applications of ZIM (Konstantin Tsinman)**

- Dual-component dissolution
- Monitoring for spectral consistency
- Solubility of nanoparticles
- Liquid-liquid phase separation (LLPS)

**9:45 – 10:30**

**Group Discussion #3**

Practical aspects of ZIM method implementation – interactive practice. Nanoparticles solubility, dual-component dissolution, LLPS.

**10:30 – 10:45**

**Break**

**10:45 – 11:15**

**TBA (Konstantin Tsinman)**

MacroFlux Dissolution for Generic Drug Product Development of a Poorly Soluble Drug

**11:15 – 11:30**

**Introduction to Calibration Service (Hideo Takeda)**

**11:30 – 13:00**

**Lunch**

**13:00 – 13:45**

**User Case Study (Masaaki Imono , Shionogi Pharma)**

- Challenges of formulation nanocrystals
- Characterization of dissolution behavior
- In vitro / In vivo correlation

**13:45 – 14:30**

**Group Discussion #4**

Practical aspects – interactive data analysis, different aspects. Data files for troubleshooting.

## Pion Advanced Training Agenda

**14:30 – 14:45**

**Break**

**14:45 – 15:15**

**Advanced Tools: Dissolution Curve Analysis  
(Konstantin Tsinman)**

- Relations between dissolution, solubility, particle size, and hydrodynamics
- Intrinsic dissolution rate (IDR) measurements
- Predicting disk IDR from powder dissolution experiments
- Effective particle size estimation from the powder dissolution profile

**15:15 – 15:30**

**Break**

**15:30 – 17:00**

**Track 1: FO and Flux Lab Demo (optional for all interested participants)**

**Closing the Training Course**