Join us for our European Advanced Fiber Optic Training Course.

When: 20th – 21st June, 2019

Where: Lingfield Park Marriott Hotel & Country Club *Racecourse Road, Lingfield, Surrey RH7 6PQ United Kingdom*

Contact: sales@pion-inc.com for registration and logistics

Note: Please bring your own laptop for the training course. The AuPRO software version 5.5 will be installed for the group discussions.

Thursday, June 20th

8:15 – 8:45 Attendee Arrival

8:45 – 9:00 Introduction to Pion and personnel

9:00 – 10:15 Method Development Part 1: Getting started with the technology and basic considerations

- Introduction to Pion Fiber Optic instruments
- Principles and challenges of in situ concentration measurements
- Pathlength selections
- Generating good standard curve, "Blue Standards"
- Baseline correction algorithms
- 2nd derivative spectroscopy
- Calculation settings
- Sample Blank

10:15– 10:40 Break

10:40 – 11:25 Method Development Part 2: Advanced considerations

- Spectral shape analysis
- Blank and Reference Channel
- Can standard curve be prepared in different media
- Supersaturation considerations
- Media conversion experiments

11:25 – 12:10 Interactive Group Discussion #1: Fiber Optic Method Development. Working with changing background and molar absorptivity

12:10 – 1:10 Lunch (provided)

1:10 – 1:40 User Case Study #1 (TBD)

1:40 – 2:10 Zero intercept Method: Principles and Applications of ZIM

- Dual-component dissolution
- Monitoring for spectral consistency
- Solubility of nanoparticles
- Amorphous solubility vs. new phase formation

2:10 – 2:40 Group Discussion #2: Practical aspects of ZIM method implementation

2:40 – 3:00 Break

3:00 – 3:30 Advanced Tools: Dissolution Curve Analysis

- 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, prediction of Dissolution Number

3:30 – 4:00 Group Discussion #3: Dissolution Curve Analysis hands on practice

4:00 – 4:30 Behind the scenes tour at Lingfield Park (included with registration)

5:00 – 8:00 3-Course Group Dinner (included with registration)

Friday, June 21st

8:15 – 8:45 Attendee Arrival

8:45 – 9:30 Tools for understanding drug behavior – overview of Pion technology

9:30 – 10:00 DissoPRO software: streamlining fiber optic operations while meeting GMP requirements

- Relations between AuPRO and DissoPRO software packages
- Streamlining the workflow—saving fiber optic methods
- Flexibility of suitability criteria
- Secure data location, audit trails, user roles

10:00 – 10:45 Towards *in vivo* predictive dissolution – flux measurements

- Understanding the principles and driving forces of the flux
- Flux considerations
- Calculation and interpretation of flux data
- In vivo predictions using flux data

10:45 – 11:05 Break

11:05 – 11:35 User Case Study #2 (TBD)

11:35 – 12:35 Flux measurements: Analytical work behind the scene

- Detecting artifacts
- Membrane-excipient compatibility
- Ensuring membrane integrity
- Dual component flux
- Potential limitation of the flux measurement

12:35 – 1:35 Lunch (provided)

1:35 – 2:15 Group Discussion #4 Data Review and Basic Troubleshooting

2:15 – 3:00 Introduction to AuPRO Version 6: Recent Advances in Pion

- Dealing with more than 2 components—multicomponent regression analysis
- Scatter modelling—can we estimate particle size from the shape of baseline?
- Creating Reports

- Standards for nanoparticles and colloids
- Automating flux calculations

3:00 – 3:30 Q&A and Roundtable

CLOSE