

ADVANCED EDITION

ISPROCHEM 2024

International School of Process Chemistry, 26th–29th May 2024
Centro Civico Multifunzionale "A. Castellani"
Via Del Teatro, 14, 25084, Gargnano (BS) – IT

Sunday 26th May

OPENING CEREMONY

- 16:00 Registration at Centro "A. Castellani"
17:00 Opening remarks on behalf of "Divisione di Chimica Organica" of Società Chimica Italiana

Session #1: MACHINE LEARNING

- 17:15 Applying Machine Learning to Predict the Yield and Conditions for Buchwald-Hartwig Couplings in a Substrate-Adaptive Workflow
Prof. Scott Denmark
(University of Illinois)

Session #2: AUTOMATION

- 18:15 Robotic Automation Technologies to accelerate Process Development and enhance Process Knowledge
Dr. Jacopo Roletto
(Procos)

Special seminar session #1: HYSTORICAL LECTURE

- 19:15 The lab is a strange place. 101 Things you would not believe could have happened there
Prof. Giovanni Appendino
(Università del Piemonte Orientale)
20:00 *Welcome Cocktail - Ex Palazzo Municipale*

Monday 27th May

Session #3: CATALYSIS

- 09:00 Enzymatic Approaches to API
Dr. Ana Toplak
(Fresenius Kabi)
10:00 Scale-up of homogeneous catalysis. How hard can it be?
Prof. Johannes De Vries
(Leibniz Institut für Katalyse, Germany)
11:00 *Coffee Break - Ex Palazzo Municipale*

Session #4: SOLID STATE

- 11:30 Flash oral by young researchers
12:30 *Lunch break - Ex Palazzo Municipale*
14:00 CASE STUDY: The Crystallization of API's: Croce e Delizia in Process Chemistry
Dr. Emanuele Attolino
(Newchem)
14:30 CASE STUDY: Challenging the crystallization of a small molecule
Dr. Federica Dall'Oglio
(Olon)

WORKSHOP

- 15:00 Introduction to working principles; lab vs plant
Dr. John Knight
(Jkonsult Ltd)
16:00 *Coffee Break - Ex Palazzo Municipale*
16:30 Problem sessions around topics of work-up, crystallization, designing a safe process (part A)
Dr. John Knight
(Jkonsult Ltd)
17:30 *End of lectures*

Tuesday 28th May

Session #5: FLOW CHEMISTRY

- 09:00 Continuous flow chemistry - from improving known reactions to the discovery of new reactivity
Prof. Marcus Baumann
(University of Dublin)
10:00 Technology for continuous liquid-liquid extraction and its applications to flow chemistry, multistage extraction, continuous partition chromatography
Dr. Andrea Adamo
(Zaiput)
11:00 *Coffee Break - Ex Palazzo Municipale*

Session #6: PROCESS

- 11:30 Developments in process chemistry
Dr. Gabriele Razzetti
(Dipharma)
12:15 Parallel reaction monitoring at HTE-scale with NIR spectroscopy and multivariate semi-NMF analysis
Dr. Robbert Van Putten
(J&J Innovative Medicine)
12:45 *Lunch Break - Ex Palazzo Municipale*

Session #7: PROCESS AND SOLID STATE

- 14:15 LSZ102 - From MedChem route to manufacture
Dr. Michael Parmentier
(Novartis)
15:15 CASE STUDY: Importance of solid form and crystallization in the removal of impurities
Dr. Jyoti Yadav
(Technobis)
15:45 *Coffee Break - Ex Palazzo Municipale*

PROBLEM SESSION

- 16:15 Problem sessions around topics of work-up, crystallization, designing a safe process (part B)
Dr. John Knight
(Jkonsult Ltd)
17:45 *End of lectures*

Wednesday 29th May

Session #8: API: SYNTHESIS AND TECHNOLOGY TRANSFER

- 09:00 Development of the manufacturing process of NCEs: from MedChem synthesis to the plant
Dr. Edoardo Mariani
(Chiesi)
10:00 Introduction to technology transfer
Dr. Katharine Powles
(J&J Innovative Medicine)
10:30 API source selection in a Pharmaceutical Company: how to ensure a robust supply chain
Dr. Elisa Battistini
(Fresenius Kabi)
11:00 *Coffee Break - Ex Palazzo Municipale*
11:30 CASE STUDY: Flow synthesis of Filgotinib
Dr. Giustino Di Antonio
(Evotec)

Special seminar session #2: CHEMICAL TECHNOLOGIES

- 12:00 Sustainability, Digitalization, Affordability & Speed – how is Chemical Development in Pharma adopting to the demands of society?
Dr. Ulrich Scholz
(Boehringer Ingelheim)

CLOSING CEREMONY

- 13:00 Final remarks and conclusion

