

Xellia (8), zatim s IRB-a (7), a također i iz Ine, Podravke, Saponije, JGL-a, PBF-a, Medicinskog Fakulteta i drugih. Sudionici su putem pisane ankete Radionicu ocijenili izrazito visokim ocjenama uz pohvalne komentare za kvalitetu izlaganja i predavača, kao i dobivene radne materijale, odnosno ispis predavanja sa životopisima predavača i općim organizacijskim podatcima.

Također je naglašena potreba za nastavkom takvih projekata, što je i namjera organizatora, usmjerena prema sljedećim dugoročnim ciljevima:

- motivirati talentirane kemičare i kemijske inženjere prema poduzetništvu zasnovanom na specifičnim znanjima i tehnologijama;
- postići "vidljivost" kemičara i kemijskih inženjera u Hrvatskoj kao jedinstvene profesionalne skupine relevantne za ekonomski status i razvoj zemlje;
- postići da sinergija znanja u kemiji i kemijskom inženjerstvu postane prepoznatljiv hrvatski "brand", kojim se realiziraju inovativna rješenja i postuže izlazak na međunarodno tržište.

Na kraju, želimo zahvaliti svima koji su doprinijeli uspjehu opisanog projekta – u prvom redu izvoditeljima (ranije navedeni), zatim članovima Znanstveno-organizacijskog (V. Šunjić, A. Jukić, Z. Blažeković, D. Namjesnik, T. Bolanča, P. Novak, M. Roje, I. Škorić, S. Tomić Pisarović, V. Tomišić) i Počasnog odbora (T. An-

Kotlasti reaktor s dotokom supstrata

Odabir reakcijskih uvjeta je lakši uz upotrebu modela

$$\frac{dc_{\text{reaktor}}}{dt} = \frac{1}{V} (-c_{\text{reaktor}} \frac{dv}{dt} + c_{\text{dotok}} \cdot q_0) - r_1$$

$$\frac{dV}{dt} = q_0$$

$$\frac{dY_{\text{reaktor}}}{dt} = \frac{1}{V} (-Y_{\text{reaktor}} \frac{dv}{dt})$$

Početni uvjeti:
 $c_{\text{reaktor},0} = a \text{ mM}$
 $c_{\text{dotok}} = b \text{ mM}$
 $c_{\text{reaktor}} = c \text{ mM}$
 $Y_{\text{reaktor}} = d \text{ mg mL}^{-1}$

Reakcijska otopina

q₀ = x μl/min

Zvezdana Findrik Blažević

PRVA RADIONICA HDKI-HKD

Primjena matematičkog modela u razvoju enzimatskog procesa

Slika 2 – Izlaganje izv. prof. dr. sc. Zvezdane Findrik Blažević pod naslovom "Primjena matematičkog modela u razvoju enzimatskog procesa"

tičić, N. Bolj, A. Čizmešija, A. Danilovski, I. Jerković, D. Kičić, E. Meštrović, B. Zelić) te pokroviteljima i sponzorima, a tu su, uz Zakladu HAZU, mahom najznačajnije hrvatske znanstveno-obrazovne ustanove i tvrtke koje djeluju u području kemije i kemijskog inženjerstva: Prirodoslovno-matematički fakultet i njegov Kemijski odsjek, Fakultet kemijskog inženjerstva i tehnologije, Institut Ruđer Bošković, Pliva Hrvatska d. o. o., Xellia d. o. o., Fidelta d. o. o., INA-Industrija nafte d. d. i Bicro BIOCentar d. o. o.

U Zagrebu 17. listopada 2017.



6th IAPC Joint Meeting (IAPC-6)

6th World Conference on Physico Chemical Methods in Drug Discovery and Development 3rd World Conference on ADMET and DMPK

September 1–6, 2017 • Zagreb • Croatia

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In the pursuit of continuous efforts to establish a global network between industrial pharma research and academia as well as to promote global partnership and innovation, the *International Association of Physical Chemists* (IAPC) organized the 6th IAPC Meeting (IAPC-6) in Zagreb, held on September 1–6, 2017. The IAPC-6 Meeting was organized as a joint 6th World Conference on *Physico-Chemical Methods in Drug Discovery and Development* (PCMDDD-6) and the 3rd World Conference on *ADMET and DMPK*. The meeting took place in the PLIVA facilities and Hotel Westin. This meeting was a natural extension to the previous alternating European and East Asian based series of World Conferences on Physico-Chemical Methods in Drug Discovery and Development (PCMDDD), which were held in Rovinj 2009, Zadar 2011, Dubrovnik 2013, Red Island 2015, and Zhuhai (China) 2016.

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Fig. 1 – Welcoming speech of prof. Zoran Mandić at the opening ceremony of the 6th IAPC

The Scientific and Organization Committee (Alex Avdeef, Elena Boldyreva, Biserka Cetina-Čizmek, Rolf Hilfiker, Josef Jampilek, Zoran Mandić, Godefridus Peters, Christos Reppas, Marti Rosés, Abu Serajuddin, Kiyohiko Sugano, Krisztina Takács-Novák, Kin

Tam, Klara Valko, Tatjana Verbić, Hong Wan) prepared a well-balanced scientific program. The aim was to get together scientists from Europe, North America, and Asia working in different but closely related areas of pharmaceutical research, from analytical and medicinal chemistry to pharmacology and pre-clinical development, and in a relaxed atmosphere discuss and rationalize their results and challenges. Particular attention was placed on the discussion of emerging technologies that make an impact in the drug discovery and development processes.

The topics covered the broad range of methods used in successful drug candidate identification and development. Determination of ADME/Tox properties through the *in vitro* and *in vivo* assays was discussed. Particular attention was paid to the evaluation and improvement of critical drug parameters, which determine the fate of the drug, from its administration over its remedial action to its excretion. Roughly, six sessions were organized: *Drug development, Solid state, Pharmaceutical cocrystals, PhysChem and Permeability, ADMET and DMPK, and Drug discovery.*

A special evening session "Pharmaceutical Cocrystals – Physicochemical Properties and Formulations" was organized and moderated by Alex Avdeef. The session highlighted issues related to the measurement of physicochemical properties, particularly dissolution and solubility as a function of pH, in support of formulation development of oral drug products with improved bioavailability. Six highly influential and prominent speakers delivered the lectures in the session:

- Nair Rodríguez-Hornedo (Univ. of Michigan, USA)
- Rafel Prohens (Univ. of Barcelona, Spain)
- Rolf Hilfiker (Solvias AG, Switzerland)
- Abu Serajuddin (St. John's Univ., USA)
- Nikoletta Fotaki (Bath Univ., UK)
- Alex Avdeef (in-ADME Research, USA).

As a result of the session, a review paper published in *ADMET* and *DMPK* is in preparation.

The IAPC-6 meeting was accompanied by a 3-day *International Summer School on Drug Development*, designed for students and



Fig. 2 – Relaxed discussion during evening's poster session

pharmaceutical researchers who wish to broaden their knowledge and advance in their career. The venue for the summer school was kindly provided by PLIVA.

Overall, there were about 150 participants from almost 30 countries at the conference. There were 32 talks delivered by highly prominent and respected speakers who had made and are still making significant progress in the field. They had been selected due to their past credentials and distinctive vision of the future. The conference elicited a great interest among the global scientific community. Two prominent journals, *Pharmaceutical Research* and *ADMET and DMPK* followed the conference by arranging special thematic issues as a venue for publishing a selection of the conference contributions.

It was decided that the next conference, IAPC-7 Meeting, would take place in August 2018 in Osaka-Ibaraki campus of Ritsumeikan University, as a joint event with the Physico-chemical Forum of Japan.



Fig. 3 – 3rd International Summer School on Drug Development organized in PLIVA's facilities was very well attended