

## SCIENTIFIC PROGRAM

5 October, Thursday

13:00 – 13:40

Opening Ceremony

Lecture Hall AURA

Greetings:

**Éva Szökő**

*Chair of the 7th BBBB Conference, President  
of the Hungarian Society for Pharmaceutical Sciences*

**Erem Bilensoy**

*President of the European Federation  
for Pharmaceutical Sciences*

**Ferenc Fülöp**

*President of the Section of Chemical Sciences  
of the Hungarian Academy of Sciences*

**Imre Klebovich**

*Chair of the Committee on Pharmaceutical Sciences  
of the Hungarian Academy of Sciences*

**István Greiner**

*Hungarian Pharmaceutical Manufacturers Association*

**Tamás Szolyák**

*Deputy Director of the National Institute  
of Pharmacy and Nutrition of Hungary*

**István Bóka**

*Mayor of Balatonfüred*

**Plenary Section 1**

**Lecture Hall AURA**

**Current trends in drug research and innovation**

**13:40 – 15:20**

Chairs: Erem Bilensoy, Ferenc Fülöp

**PL-1**

**13:40 – 14:05**

**Trends of drug research and development in Europe**

Bilensoy, E.

*European Federation for Pharmaceutical Sciences*

**PL-2**

**14:05 – 14:30**

**Challenges of the pharmaceutical industry:**

**Where are we heading?**

Thaler, Gy.

*Gedeon Richter Plc., Budapest, Hungary*

**PL-3**

**14:30 – 14:55**

**New chemical entity research and development  
in Hungary: Challenges and opportunities**

Greiner, I.

*Gedeon Richter Plc., Budapest, Hungary*

**PL-4**

**14:55 – 15:20**

**Supporting health market innovation by OGYEI**

Szolyák, T.

*National Institute of Pharmacy and Nutrition,  
Budapest, Hungary*

**15:20 – 15:50**

Coffee Break

Section A1

Lecture Hall AURA

**Drug design and synthesis**

15:50 – 17:10

Chairs: Dieter Steinhilber, István Greiner

**O-1**

15:50 – 16:10

**Design and synthesis of novel inhibitors targeting pathogenic protozoan parasites**

Boije af Gennäs, G.

*Drug Research Program, Faculty of Pharmacy,  
University of Helsinki, Finland*

**O-2**

16:10 – 16:25

**Exploring protein kinase CK2 by designing heterocyclic compounds**

Bouaziz, Z., Lomberget, T., Marminon, C., Ettouati, L., Cochet, C., Jose, J., Le Borgne, M.

*ISPB-Faculté de Pharmacie, Université Claude Bernard Lyon 1,  
Lyon, France*

**O-3**

16:25 – 16:40

**Stereoselective synthesis, synthetic and pharmacological applications of chiral aminodiols and diaminoalcohols**

Szakonyi, Zs.

*Institute of Pharmaceutical Chemistry,  
University of Szeged, Szeged, Hungary*

**O-4**

16:40 – 16:55

**Continuous-flow solid-phase synthesis of peptides with exceptionally low amino acid consumption**

Mándity, I., Szloszár, A., Fülöp F.

*Institute of Pharmaceutical Chemistry,  
University of Szeged, Szeged, Hungary*

**O-5**

16:55 – 17:10

**Homochirality of  $\beta$ -peptides: a significant biomimetic property of unnatural systems**

Nekkaa, I., Mándity, I. M., Fülöp, F.

*Institute of Pharmaceutical Chemistry, Szeged, Hungary*

**Poster Section 1**

**First floor of the hotel**

Chair of Poster Committee: Krisztina Takács-Novák

**17:10 – 19:10**

**Poster Section 1A**

**Novel delivery systems 1**

Section Committee: Leena Peltonen, György Marosi

**P1A-1**

**Melt-electrospinning:  
a novel method for formulating and improving the  
solubility of poorly water-soluble drugs**

Semjonov, K., Lust, A., Laidmäe, I.,  
Kogermann, K., Heinämäki, J.  
*Institute of Pharmacy, Faculty of Medicine,  
University of Tartu, Estonia*

**P1A-2**

**Evaluation of techniques and possibilities for oral  
delivery of antidiabetic peptide drug – liraglutide –  
in a novel delivery system**

Ruba, I., Ildikó, Cs.  
*Institute of Pharmaceutical Technology and Regulatory  
Affairs, Faculty of Pharmacy, University of Szeged,  
Szeged, Hungary*

**P1A-3**

**Development of a floating gastroretentive dosage  
form by melt foaming**

Haimhoffer, Á., Vasvári, G., Fenyvesi, F.  
*Department of Pharmaceutical Technology,  
University of Debrecen, Debrecen, Hungary*

**P1A-4**

**Formulation and evaluation of innovative, chitosan  
based mucoadhesive buccal drug delivery films**

Módra, Sz., Katona, B., Sovany, T., Aigner, Z.,  
Pintye-Hódi, K., Kristó, K., Regdon, G. jr.  
*University of Szeged, Institute of Pharmaceutical Technolgy  
and Regulatory Affairs, Szeged, Hungary*

**P1A-5**

**Alternating current electrospinning, a novel method  
for preparing drug-loaded amorphous  
solid dispersions**

Farkas, B., Balogh, A., Nagy, Z. K., Marosi, G.,  
*Department of Organic Chemistry and Technology,  
Budapest University of Technology and Economics,  
Budapest, Hungary*

P1A-6

**Mesoporous silica nanoparticles within nanofibers – novel antibiofilm strategy**

Sen Karaman, D.<sup>1</sup>, Saks, L.<sup>2</sup>, Lanno, G. M.<sup>2</sup>,  
Gounani, Z.<sup>1</sup>, Tenson, T.<sup>2</sup>, Rosenholm, J.<sup>1</sup>, Kogermann, K.<sup>2</sup>  
<sup>1</sup>Pharmaceutical Sciences Laboratory,  
Åbo Akademi University, Finland; <sup>2</sup>Institute of Pharmacy,  
University of Tartu, Estonia

P1A-7

**The effect of sodium stearate on the aerosol performance of meloxicam potassium using a carrier-free procedure**

Benke, E., Szabó Révész, P., Ambrus, R.  
Institute of Pharmaceutical Technology and  
Regulatory Affairs, University of Szeged, Szeged, Hungary

P1A-8

**Microencapsulation of probiotics as biotherapeutic agents for their local delivery**

Mirtič, J.<sup>1</sup>, Fajdiga, Š.<sup>1</sup>, Zupančič, Š.<sup>1</sup>, Rijavec, T.<sup>2</sup>,  
Zvonar Pobirk, A.<sup>1</sup>, Lapanje, A.<sup>2</sup>, Kristl, J.<sup>1</sup>  
<sup>1</sup>Faculty of Pharmacy, University of Ljubljana;  
<sup>2</sup>Institute Josef Stefan, Ljubljana, Slovenia

P1A-9

**Development of a lipid based drug delivery system containing antibiotics for the treatment of periodontitis**

Léber, A., Budai-Szűcs, M., Vályi, P.,  
Urbán, E., Csányi, E.  
Institute of Pharmaceutical Technology and Regulatory  
Affairs, University of Szeged, Szeged, Hungary

P1A-10

**Characterisation and evaluation of targeted liposomes I – in vitro studies**

Saka, O.M., Oz, U. C., Kucukturkmen, B., Gulyuz, S.,  
Yilmaz, Ö., Bozkir, A.  
Pharmaceutical Technology, Ankara University, Turkey

P1A-11

**Formulation and characterization of dermal films for wound healing**

Üstündağ Okur, N., Hökeneç, N.  
Department of Pharmaceutical Technology,  
School of Pharmacy, Istanbul Medipol University,  
Istanbul, Turkey

**P1B-1**

**Steroid-harboring nanoparticles provide anti-inflammatory response with less adverse effects**

Kollar, B., Horvath, B., Szechenyi, A.,

Pal, Sz., Kvell, K.

*Pharmaceutical Biotechnology, Faculty of Pharmacy,*

*University of Pecs, Pecs Hungary*

**P1B-2**

**Preparation and evaluation of loratadine nanosuspension by using precipitation ultrasonication technology**

Areen, A., Ambrus, R., Katona, G., Csóka, I.

*Institute of Pharmaceutical Technology and Regulatory*

*Affairs, University of Szeged, Szeged, Hungary*

**P1B-3**

**Pickering emulsion of tea tree oil in water, stabilized with silica nanoparticles for onychomycosis topical treatment**

Horváth, B., Bárdonicsek, N., Takácsi-Nagy, A.,

Pál, Sz., Széchenyi, A.

*University of Pécs, Faculty of Pharmacy,*

*Institute of Pharmaceutical Technology and Biopharmacy,*

*Pécs, Hungary*

**P1B-4**

**Influence of oil and cholesterol as wall components on the mean vesicle size of liposomes**

Jójiárt-Laczovich, O., Bónis, E.,

Szűcs, P., Szabó-Révész, P.

*Institute of Pharmaceutical Technology and Regulatory*

*Affairs, University of Szeged, Szeged, Hungary*

**P1B-5**

**Biocompatible low-energy nanoemulsions for curcumin dermal delivery – the effect of terpene oil and drug content**

Nikolić, I., Ilić, T., Cekić, N., Savić, S.M.,

Arsić, N., Savić, S.D.

*Department of Pharmaceutical Technology and*

*Cosmetology, University of Belgrade,*

*Faculty of Pharmacy, Belgrade, Serbia*

**P1B-6**

**Investigation of folate-targeted Ga-68-labeled nanoparticles as imaging agents for positron emission tomography**

Trencsényi, Gy.<sup>1,2</sup>, Szikra, D.<sup>1,2</sup>, Nagy, G.<sup>1</sup>,

Kerekes, K.<sup>3</sup>, Körhegyi, Z.<sup>3</sup>, Rózsa, D.<sup>3</sup>, Garai, I.<sup>1,2</sup>

<sup>1</sup>Scanomed Ltd.; <sup>2</sup>Nuclear Medicine, University of Debrecen;

<sup>3</sup>BBS Nanotechnology Ltd.; Debrecen, Hungary

**P1B-7**

**Development and evaluation of micellar curcumin intended for the treatment of cutaneous T-cell lymphoma**

Yoncheva, K.<sup>1,4</sup>, Zaharieva, M. M.<sup>2</sup>, Trochopoulos, A.<sup>3</sup>,

Kroumov, A.<sup>2</sup>, Pencheva, V.<sup>4</sup>, Najdenski, H.<sup>2</sup>, Konstantinov, S.<sup>3</sup>

<sup>1</sup>Department of Pharmaceutical Technology and Biopharmaceutics; <sup>3</sup>Department of Pharmacology, Pharmacotherapy and Toxicology;

<sup>4</sup>Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Medical University of Sofia;

<sup>2</sup>Department of Infectious Microbiology and Department of Applied Microbiology, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences; Sofia, Bulgaria

**P1B-8**

**Pickering foam formulation by wet nano-milling**

Lehocký, R.<sup>1</sup>, Pěček, D.<sup>2</sup>, Štěpánek, F.<sup>1</sup>

<sup>1</sup>University of Chemistry and Technology,

<sup>2</sup>Zentiva, k.s., Prague, Czech Republic

**P1B-9**

**Development of magnetically-responsive SPION-based drug delivery system**

Potrč, T.<sup>1</sup>, Kralj, S.<sup>2</sup>, Kocbek P.<sup>1</sup>

<sup>1</sup>Department of Pharmaceutical

Technology, University of Ljubljana, <sup>2</sup>Faculty of Pharmacy; Department for Material Synthesis, Jožef Stefan Institute; Ljubljana, Slovenia

Section Committee: Urve Paaver, Géza Regdon jr.

P1C-1

**Parameter optimization  
of spherical agglomeration method**

Gyulai, O., Aigner, Z., Csóka, I.

*University of Szeged, Institute of Pharmaceutical Technology  
and Regulatory Affairs, Szeged, Hungary*

P1C-2

**Aggressive conditions during primary drying as a  
new approach to optimize freeze-drying cycle  
of biopharmaceuticals**

Bjelošević, M., Bolko Seljak, K.,

Brus, B., Čatić, S., Ahlin Grabnar, P.

*Faculty of Pharmacy, University of Ljubljana, Ljubljana,  
Slovenia Lek d.d., Mengeš, Slovenia*

P1C-3

**Unique laser coding technology to fight falsified  
medicines**

Ludasi, K.<sup>1</sup>, Sovany, T.<sup>1</sup>, Laczkovich, O.<sup>1</sup>, Hopp, B.<sup>3</sup>,

Smausz, T.<sup>2,3</sup>, Regdon, G. jr.<sup>1</sup>

*<sup>1</sup>Institute of Pharmaceutical Technology and Regulatory  
Affairs, University of Szeged; <sup>2</sup>MTA-SZTE Research Group on  
Photoacoustic Spectroscopy, University of Szeged;*

*<sup>3</sup>Department of Optics and Quantum Electronics,  
University of Szeged; Szeged, Hungary*

P1C-4

**The investigation of the connectability  
of continuous flow reactors and electrospinning**

Domokos, A., Balogh, A., Rapi, Zs.,

Nagy, Zs. K., Marosi, Gy.

*Department of Organic Chemistry and Technology,  
Budapest University of Economics and Technology,  
Budapest, Hungary*

P1C-5

**Hot-melt technologies to develop modified  
or targeted release hard capsules**

Vasvári, G., Fenyvesi, F.

*Department of Pharmaceutical Technology,  
Faculty of Pharmacy, Debrecen, Hungary*



**P1C-6**

**Self-microemulsifying pellets prepared by fluid bed coating technology**

Luštrik M., Žganc D., Zvonar Pobirk A.  
*University of Ljubljana, Faculty of Pharmacy, Ljubljana, Slovenia*

**P1C-7**

**Formulation of topical pharmaceutical foam to enhance cutaneous drug delivery**

Kósa, D., Bácskay, I., Vecsernyés, M., Fehér, P., Fenyvesi, F., Váradi, J., Sinka, D., Vasvári, G., Ujhelyi, Z.  
*Department of Pharmaceutical Technology, Faculty of Pharmacy University of Debrecen, Debrecen, Hungary*

**P1C-8**

**Formulation and investigation of baicalin in Self Emulsifying Drug Delivery Systems**

Jakab, G., Fülöp, V., Szerőczei, D., Aghrabi, E., Balogh, E., Antal, I.  
*Semmelweis University, Department of Pharmaceutics, Budapest, Hungary*

**P1C-9**

**Robust compression of multilayer enteric coated pellets enabled by dry powder layering**

Dreu, R., Matjaž, D., Lavrič, Z.  
*Department of Pharmaceutical Technology, University of Ljubljana, Faculty of Pharmacy, Ljubljana, Slovenia*

**P1C-10**

**Taste masking of enalapril maleate by various techniques**

Georgieva, Y., Pilicheva, B., Katsarov, P., Kassarova, M.  
*Department of Pharmaceutical sciences, Faculty of Pharmacy, Medical University-Plovdiv; High-technological Center of Emergency Medicine; Plovdiv, Bulgaria*

**P1C-11**

**Development of etoposide loaded poly (methyl methacrylate) and poly(hydroxyethyl methacrylate) tubular nanostructures**

Algan, A. H., Karatas, A.  
*Department of Pharmaceutical Technology, Faculty of Pharmacy, Ankara University, Ankara, Turkey*

**P1C-12**

**Solidification of the self-microemulsifying system by a fluid bed granulation technique**

Zvonar Pobirk, Z., A., Luštrik, M.,

Pirnat, V., Gašperlin, M.

*Department of Pharmaceutical Technology, University of Ljubljana, Faculty of Pharmacy, Ljubljana, Slovenia*

**P1C-13**

**The effect of different excipients in the solid dispersion-formulation of poorly soluble material using melt technology**

Kiss, O., Ambrus, R.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P1C-14**

**Design of experiment of hydrophobic drug encapsulation using biopolymers: Particles size based study**

Mancer, D., Ahmed Zaid, S., Zouane, Y.,

Korteby, Y., Daoud, K.

*Laboratory of Transfer Phenomena, Faculty of Mechanical and Process Engineering, University of Science and Technology Houari Boumediene, Algiers, Algeria*

**Poster Section 1D**

**Pharmaceutical technology 2**

Section Committee: Petra Kocbek, Erzsébet Csányi

**P1D-1**

**Solid-state characterization of albendazole-complex binary systems with pharmaceutical excipients**

Trandafirescu, C., Ledeti, A., Borcan, F.,

Soica, C., Dehelean, C., Ledeti, I.

*Pharmaceutical Chemistry, Victor Babes University of Medicine and Pharmacy, Timisoara, Romania*

**P1D-2**

**Comparison of the physicochemical and mechanical characteristics of alginate and chitosan based films as wound dressings**

Viidik, L., Laidmäe, I., Kogermann, K., Heinämäki, J.

*Institute of Pharmacy, University of Tartu, Estonia*

**P1D-3**

**Mucoadhesion and rheological properties of poly(acrylates) gels for different mucosal drug delivery**

Tuğcu-Demiröz F., Tort, S.,

İlbasmış-Tamer, S., Acartürk, F.

*Department of Pharmaceutical Technology, Faculty of Pharmacy, Gazi University, Ankara, Turkey*

**P1D-5**

**Evaluation of morphology of diuretic-incorporated polymeric microspheres**

Ostróżka-Ciešlik, A., Sarecka-Hujar, B.

*Department of Pharmaceutical Technology, Chair of Applied Pharmacy, Medical University of Silesia in Katowice, School of Pharmacy with the Division of Laboratory Medicine in Sosnowiec, Poland*

**P1D-6**

**Differential scanning calorimetry and photon correlation spectroscopy as complementary tools for characterization of microemulsion hydrogels**

Djekic, L.<sup>1</sup>, Martinovic, M.<sup>2</sup>, Čalija, B.<sup>1</sup>,

Jankovic, J.<sup>3</sup>, Primorac, M.<sup>1</sup>

*<sup>1</sup>Department of Pharmaceutical Technology and Cosmetology, University of Belgrade-Faculty of Pharmacy; <sup>2</sup>"Pharmacy Lekino Brdo"; Belgrade, <sup>3</sup>"Pharmacy Jankovic"; Novi Sad, Serbia*

**P1D-7**

**HPMC capsules as emerging solidification approach for self-microemulsifying drug delivery systems (SMEDDS)**

Djekic, L.<sup>1</sup>, Jankovic, J.<sup>2</sup>, Solomun, L.<sup>3</sup>,

Stanić, D.<sup>4</sup>, Primorac M.<sup>1</sup>

*<sup>1</sup>Department of Pharmaceutical Technology and Cosmetology, University of Belgrade-Faculty of Pharmacy, Belgrade, Serbia; <sup>2</sup>"Pharmacy Jankovic", Novi Sad, Serbia; <sup>3</sup>Hemofarm a.d., Stari Banovci, <sup>4</sup>Department of Physiology, University of Belgrade-Faculty of Pharmacy, Belgrade, Serbia*

**P1D-8**

**Quantitative approach used Raman mapping for distributional homogeneity of different drugs in tablets**

Farkas, A., Nagy, B., Marosi, Gy.

*Department of Organic Chemistry and Technology,  
Budapest University of Technology and Economics,  
Budapest, Hungary*

**P1D-09**

**Experimental study of the effect of the particles shape on the mixing performance in pharmaceutical V-blender**

Bouhaouche, A., Daoud, K.

*Laboratory of Transfer Phenomena,  
Faculty of Mechanical Engineering and Process Engineering,  
University of Sciences and Technology Houari Boumediene,  
Algiers, Algeria*

**P1D -10**

**Characterisation of polymer excipients by size exclusion chromatography and light scattering based detection**

Jančar S.<sup>1</sup>, Peterlin S.<sup>1</sup>, Grahek R.<sup>1</sup>, Srčič S.<sup>2</sup>

*<sup>1</sup>Lek d.d.; <sup>2</sup>Faculty of Pharmacy, University of Ljubljana,  
Ljubljana, Slovenia*

**P1D-11**

**Effect of surfactants on microencapsulation with coacervation-phase separation method**

Lengyel, M., Stömmer, V., Szerőcsei, D.,

Bertalané Balogh, E., Antal, I.

*Semmelweis University, Department of Pharmaceutics,  
Budapest, Hungary*

**Poster Section 1E - Pharmacokinetics, drug metabolism and transporters**

Section Committee: Pál Perjési, István Zupkó

**P1E-1**

**Challenges in equilibrium solubility measurements: difficulties in phase separation**

Völgyi, G., Takács-Novák, K.

*Department of Pharmaceutical Chemistry,  
Semmelweis University, Budapest, Hungary*

**P1E-2**

**Study of interaction of reduced glutathione (GSH) with chalcone and some cyclic chalcone analogues**

Kenari, F., Perjési, P.

*Institute of Pharmaceutical Chemistry,  
University of Pécs, Pécs, Hungary*

**P1E-3**

**Anticipation of absorption in dog using in vivo/in vitro/in silico tools to prepare first in human studies**

Henrion, L.<sup>1</sup>, Louit, G.<sup>1</sup>, Bruel, J-L.<sup>1</sup>, Nicolas, M-F.<sup>1</sup>,  
Rougeaux, S.<sup>1</sup>, Valente, D.<sup>2</sup>, Vicat, P.<sup>2</sup>

<sup>1</sup>*Pharmaceutical Sciences,* <sup>2</sup>*Drug Metabolism and  
Pharmacokinetics, Sanofi R&D, France*

**P1E-4**

**Investigation of absorption and metabolism of ibuprofen in small intestine and bile in the rat**

Almási, A.<sup>1</sup>, Szabó, A.<sup>1</sup>, Kovács, N.P.<sup>3</sup>,  
Szente, L.<sup>4</sup>, Fischer, E.<sup>2</sup>, Perjési, P.<sup>1</sup>.

<sup>1</sup>*University of Pécs, Pharmaceutical Faculty,  
Institute of Pharmaceutical Chemistry;*  
<sup>2</sup>*Medical Faculty, Institute of Pharmacology and  
Pharmacotherapy, Pécs, Hungary;*  
<sup>3</sup>*Farmacia Selena, Targu-Mures, Romania;* <sup>4</sup>*Cyclolab Kft.,  
Budapest, Hungary*

**P1E-5**

**In silico modeling of salbutamol deposition and absorption following intravenous and inhalation administration in rats**

Ignjatovic, J.<sup>1</sup>, Han, M.<sup>2</sup>, Cun, D.<sup>2</sup>, Yang, M.<sup>2,3</sup>,  
Djuris, J.<sup>1</sup>, Ibric, S.<sup>1</sup>, Nikolic, I.<sup>1</sup>, Cvijic, S.<sup>1</sup>

<sup>1</sup>*Department of Pharmaceutical Technology and  
Cosmetology, University of Belgrade-Faculty  
of Pharmacy, Belgrade, Serbia;* <sup>2</sup>*Wuya College  
of Innovation, Shenyang Pharmaceutical University,  
Shenyang, China;* <sup>3</sup>*Department of Pharmacy,  
Faculty of Health and Medical Sciences, University  
of Copenhagen, Copenhagen, Denmark*

P1E-6

**Semisolid self-microemulsifying drug delivery systems (SMEDDS): effects on pharmacokinetics of acyclovir in rats**

Jankovic, J.<sup>1</sup>, Djekic, L.<sup>2</sup>, Rašković, A.<sup>3</sup>, Primorac, M.<sup>2</sup>  
<sup>1</sup>"Pharmacy Jankovic", Novi Sad, Serbia; <sup>2</sup>Department of Pharmaceutical Technology and Cosmetology, University of Belgrade-Faculty of Pharmacy, Belgrade, Serbia; <sup>3</sup>Department of Pharmacology, Toxicology and Clinical Pharmacology, University of Novi Sad-Faculty of Medicine, Novi Sad, Serbia

P1E-7

**Pharmacokinetic study of fluorescently labelled hydroxypropyl- $\beta$ -cyclodextrin**

Árvai, L., Malanga, M., Fenyvesi, É., Sente, L., Váradi, J., Bácskay, I., Fehér, P., Ujhelyi, Z., Vasvári, G., Vecsernyés, M., Fenyvesi, F.  
Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary

P1E-8

**Evaluation of toxic profile of phenylethylamine entactogens by predicting on- and off-targets and by ADMET and QSAR studies**

Jadrijevic-Mladar Takac, M.<sup>1</sup>, Takac, T.<sup>2</sup>  
<sup>1</sup>Faculty of Pharmacy and Biochemistry, University of Zagreb; <sup>2</sup>Faculty of Chemical Engineering and Technology, University of Zagreb, Zagreb, Croatia

P1E-9

**Diabetic conditions and drug vehicles alter drug metabolism**

Varga, E.<sup>1</sup>, Pandur, E.<sup>1</sup>, Almási, A.<sup>2</sup>, Horváth, Gy.<sup>3</sup>, Bencsik, T.<sup>3</sup>, Póor, M.<sup>4</sup>, Pohóczky, K.<sup>4</sup>, Pál, Sz.<sup>5</sup>, Horváth, B.<sup>5</sup>, Garai, K.<sup>6</sup>, Perjési, P.<sup>2</sup>, Kvell, K.<sup>6</sup>  
<sup>1</sup>University of Pécs, Faculty of Pharmacy, Department of Pharmaceutical Biology; <sup>2</sup>Department of Pharmaceutical Chemistry; <sup>3</sup>Department of Pharmacognosy; <sup>4</sup>Department of Pharmacology; <sup>5</sup>Institute of Pharmaceutical Technology and Biopharmacy; <sup>6</sup>Department of Pharmaceutical Biotechnology; Pécs, Hungary

**P1E-10**

**Development and validation of a rapid selective high-throughput LC-MS/MS method for the determination of triclabendazole sulfoxide concentrations in sheep plasma and its use in bioequivalence studies**

Farczádi L.<sup>1,2</sup>, Dósa Á.<sup>2</sup>, Melles O.<sup>2</sup>, Vlase L.<sup>1</sup>

<sup>1</sup>*Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca;*

<sup>2</sup>*Clinical and Analytical Research Center, Vim Spectrum SRL, Targu-Mures; Romania*

**Poster Section 1F**

**Drug design, synthesis and chemistry**

Section Committee: Milena Jadrijevic-Mladar Takac, Gergely Völgyi

**P1F-1**

**Chiral discrimination of fluoxetine enantiomers by capillary electrophoresis**

Kelemen, H., Cârceu-Dobrin, M., Budău, M.,

Székely-Szentmiklósi, B., Hancu, G.

*Department of Pharmaceutical Chemistry,*

*Faculty of Pharmacy, University of Medicine and Pharmacy*

*Tirgu Mures, Romania*

**P1F-2**

**Synthesis and biocompatibility evaluation of new  $\alpha$ -cyclodextrin derivatives**

Perret, E., Roka, E., Bácskay I.

*Université de Lyon, Villeurbanne, France*

**P1F-3**

**Preparation and antibacterial evaluation of some semisynthetic derivatives of teicoplanin and its hydrolysis products**

Szűcs, Zs., Ostorházi, E., Kicsák, M.,

Borbás, A., Herczegh, P.

*Department of Pharmaceutical Chemistry, Faculty*

*of Pharmacy, University of Debrecen, Debrecen, Hungary*

**P1F-4**

**Novel synthesis of fluorinated 1,2,3,4- tetrahydroisoquinoline derivatives**

Ábrahám, R., Kiss, L., Fülöp, F.

*Institute of Pharmaceutical Chemistry,*

*University of Szeged, Szeged, Hungary*

**P1F-5**

**Catalytic deuterodehalogenation of haloarenes in continuous-flow**

Orsy, G., Mándity, I. M., Fülöp, F.  
*Institute of Pharmaceutical Chemistry,  
University of Szeged, Szeged, Hungary*

**P1F-6**

**Incubation time-, pH- and reagent ratio dependence of the product distribution in the Fenton reaction of salicylic acid**

Nyúl, E.<sup>1</sup>, Kuzma, M.<sup>1</sup>, Mayer, M.<sup>2</sup>, Perjési, P.<sup>1</sup>  
<sup>1</sup>*University of Pécs, Institute of Pharmaceutical Chemistry;*  
<sup>2</sup>*Department of Forensic Medicine; Pécs, Hungary*

**P1F-7**

**Concentration dependence of famotidine 1H NMR chemical shifts in DMSO-d6**

Marosi, A.<sup>1,2</sup>, Szakács, Z.<sup>2</sup>, Noszál, B.<sup>1</sup>, Demeter, Á.<sup>2</sup>  
<sup>1</sup>*Semmelweis University, Department of Pharmaceutical Chemistry;*  
<sup>2</sup>*Gedeon Richter Plc., Budapest, Hungary*

**P1F-8**

**Synthesis of 6-deoxy-L-talopyranoside-containing analogues of the anticoagulant pentasaccharide idraparinux**

Herczeg, M., Demeter, F., Borbás, A.  
*Department of Pharmaceutical Chemistry,  
University of Debrecen, Debrecen, Hungary*

**P1F-9**

**Interaction of oligovalent alpha-L-fucopyranosides with recombinant Photorabdus asymbiotica lectin**

Csávás, M., Borbás, A., Jancaríková, G., Wimmerová, M.  
*Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Debrecen, Debrecen, Hungary*

**P1F-10**

**Development of HPLC method for estimation of 18β-glycyrrhetic acid phytosomes in carbomer based hydrogels**

Djekic, L.<sup>1</sup>, Malenovic, A.<sup>2</sup>, Jankovic, J.<sup>3</sup>, Krajisnik, D.<sup>1</sup>  
<sup>1</sup>*University of Belgrade, Faculty of Pharmacy, Department of Pharmaceutical Technology and Cosmetology;*  
<sup>2</sup>*Department of Drug Analysis, Belgrade, Serbia;*  
<sup>3</sup>*“Pharmacy Jankovic“; Novi Sad, Serbia*



**Poster Section 1G**

**Preclinical drug research**

Section Committee: Sarolta Márkus, Tamás Tábi

**P1G-1**

**Endocannabinoid signalling in migraine**

Gecse, K.<sup>1,2</sup>, Toth, Zs.<sup>1,2</sup>, Edes, A.<sup>1,2</sup>, Szabo, E.<sup>1</sup>,  
Kocsel, N.<sup>1</sup>, Galambos, A.<sup>1</sup>, Baksa, D.<sup>1,2</sup>, Kokonyei, Gy.<sup>1,2</sup>,  
Bagdy, Gy.<sup>1,2,3</sup>, Juhasz, G.<sup>1,2,3,4</sup>

<sup>1</sup>MTA-SE-NAP B Genetic Brain Imaging Migraine  
Research Group; <sup>2</sup>Department of Pharmacodynamics,  
Faculty of Pharmacy, Semmelweis University;  
Budapest, Hungary;

<sup>3</sup>Neuroscience and Psychiatry Unit,  
The University of Manchester, UK and Manchester  
Academic Health Sciences Centre;

<sup>4</sup>MTA-SE Neuropsychopharmacology and Neurochemistry  
Research Group, Budapest, Hungary

**P1G-2**

**Biocompatibility investigation of pharmaceutical  
excipients**

Nemes, D., Pető, Á., Újhelyi, Z., Arany, P., Bácskay, I.  
*Department of Pharmaceutical Technology,  
University of Debrecen, Debrecen, Hungary*

**P1G-3**

**Abdominal detection of uterine electromyographic  
signals in pregnant rat: strong correlation with  
mechanical contractions**

Szucs, K. F.<sup>1</sup>, Grosz, G.<sup>2</sup>, Sule, M.<sup>2</sup>, Tiszai, Z.<sup>1</sup>,  
Samavati, R.<sup>1</sup>, Gaspar, R.<sup>1</sup>

<sup>1</sup>Department of Pharmacodynamics and Biopharmacy,  
University of Szeged, Hungary;

<sup>2</sup>MDE GmbH, Walldorf, Germany

**P1G-4**

**Possible connection between heme-oxygenase-1/CO  
system and autophagy in cardiomyocytes**

Gyongyosi, A., Lekli, I., Szoke, K., Czompa, A., Tosaki, A.  
*Department of Pharmacology, Faculty of Pharmacy,  
University of Debrecen, Debrecen, Hungary*

**P1G-5**

**Investigation of the endocytosis and its cellular effects of beta-cyclodextrin derivatives on intestinal epithelial cells**

Rusznayák, Á., Malanga, M., Fenyvesi, É., Szente, L., Váradi, J., Bácskay, I., Fehér, P., Ujhelyi, Z., Vasvári, G., Vecsernyés, M., Fenyvesi, F.

*Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary*

**P1G-6**

**The role of circulating extracellular vesicles on human in vitro osteoclastogenesis**

Kovács, O. T.<sup>1</sup>, Marton, N.<sup>1</sup>, Baricza, E.<sup>1</sup>, Királyhidi, P.<sup>1</sup>, Kittel, Á.<sup>2</sup>, Győri, D.<sup>3</sup>, Mócsai, A.<sup>3</sup>, Meier, F. M. P.<sup>4</sup>, Goodyear, C.S.<sup>4</sup>, McInnes, F.B.<sup>4</sup>, Buzás, E.<sup>1</sup>, Nagy, Gy.<sup>1,5</sup>

<sup>1</sup>*Department of Genetics, Cell- and Immunobiology, Semmelweis University;* <sup>2</sup>*Institute of Experimental Medicine, Hungarian Academy of Sciences;*

<sup>3</sup>*Department of Physiology, Semmelweis University;*

<sup>4</sup>*Institute of Infection, Immunity and Inflammation, University of Glasgow, Glasgow, UK*

<sup>5</sup>*Department of Rheumatology, Semmelweis University, Budapest, Hungary;*

**P1G-7**

**Biocompatibility examination of 3D printed implants**

Arany, P.<sup>1</sup>, Bácskay, I.<sup>1</sup>, Feher, P.<sup>1</sup>, Ujhelyi, Z.<sup>1</sup>, Róka, E.<sup>1</sup>, Nemes, D.<sup>1</sup>, Fenyvesi, F.<sup>1</sup>, Varadi, J.<sup>1</sup>, Vecsernyes, M.<sup>1</sup>, Perret, F.<sup>2</sup>, Coleman, A.<sup>2</sup>

<sup>1</sup>*University of Debrecen, Department of Pharmaceutical Technology, Debrecen, Hungary;* <sup>2</sup>*University of Claude Bernard, Department of Supramolecular Chemistry, Batiment Raulin, Villeurbanne Cedex, France*

**P1G-8**

**Possible connection between the anti-aging klotho protein and autophagy**

Szoke, K., Czompa, A., Gyongyosi, A., Lekli, I., Tosaki, A.  
*Department of Pharmacology, Faculty of Pharmacy, University of Debrecen, Hungary*

**P1G-9**

**Time course of gene expression changes in trigeminal neurones and peripheral blood mononuclear cells in a rat orofacial pain model**

Aczél, T., Kun, J., Szőke, É., Rauch, T., Bölsceki, K., Helyes, Zs.

*Department of Pharmacology and Pharmacotherapy, University of Pécs Medical School, Pécs, Hungary*

**P1G-10**

**Altered behavior, learning and memory functions in somatostatin receptor subtype 4 gene-deficient mice**

Szentes, N.<sup>1</sup>, Tékus, V.<sup>1</sup>, Mohos, V.<sup>1</sup>, Helyes, Zs.<sup>1,2</sup>

<sup>1</sup>*Department of Pharmacology and Pharmacotherapy, János Szentágothai Research Centre & Centre for Neuroscience, University of Pécs;*

<sup>2</sup>*MTA-PTE NAP B Chronic Pain Research Group;*

<sup>3</sup>*PharmInVivoKft., Pécs, Hungary*

**P1G-11**

**Transfer of Complex Regional Pain Syndrome to mice via human autoantibodies is mediated by interleukin-1-induced glia cell activation and central sensitization**

Pohóczky, K., Tékus, V., Szentes, N., Botz, B., Kiss, T., Dénes, Á., Goebel, A., Helyes, Zs.

*University of Pécs: Faculty of Pharmacy, Department of Pharmacology; Medical School, Department of Pharmacology and Pharmacotherapy, Szentágothai János Research Centre, Pécs, Hungary*

**P1G-12**

**Evaluation of fibroblast cell growth on 3D printed polylactic acid based human auricular model in the presence of cyclosporine and co-enzyme Q10 loaded solid lipid nanoparticles**

Yalgın, A., Aydın Köse, F., Gökçe, E. H.

*Ege University, Faculty of Pharmacy, Department of Pharmaceutical Technology, Bornova, Izmir, Turkey*

P1H-1

**Determination and comparison of phenolic compounds of medicinal plants and veterinary herbal medicines**

Varga E.<sup>1</sup>, Schmidt I.<sup>1</sup>, Szövérfi B.<sup>1</sup>, Fazakas M.<sup>2</sup>

<sup>1</sup>*Department of Pharmacognosy and Phytotherapy, University of Medicine and Pharmacy of Tirgu Mures;*

<sup>2</sup>*S.C. Promedivet S.R.L. Sovata, Romania*

P1H-2

**Antibacterial effect of cinnamon bark, clove, thyme and peppermint oil against respiratory tract pathogens**

Balázs, V. L.<sup>1</sup>, Ács, K.<sup>1</sup>, Kocsis, B.<sup>2</sup>, Böszörményi, A.<sup>3</sup>, Krisch, J.<sup>4</sup>, Horváth, Gy.<sup>1</sup>

<sup>1</sup>*Department of Pharmacognosy, Faculty of Pharmacy, University of Pécs;* <sup>2</sup>*Department of Medical Microbiology and Immunology, Medical School, University of Pécs, Pécs,* <sup>3</sup>*Semmelweis University, Faculty of Pharmacy, Institute of Pharmacognosy, Budapest, Hungary;* <sup>4</sup>*Department of Food Engineering, Faculty of Engineering, University of Szeged, Hungary*

P1H – 3

**The antiviral properties of chamomiles on lentivirus**

Sepp, J., Vanker, M., Zusinaite, E., Kogermann, K., Heinämäki, J., Raal, A.

*Institute of Pharmacy, University of Tartu, Estonia*

P1H – 4

**Effects of different parameters of herbal tea preparation on active compounds**

Horváth, A., Horváth, Gy., Bencsik, T.

*Department of Pharmacognosy, University of Pécs, Pécs, Hungary*

P1H-5

**Investigation of topical formulations containing Silybum marianum extract against UVB-induced oxidative stress in guinea pig and on HaCaT Keratinocytes**

Fehér, P., Bácskay, I., Ujhelyi, Z., Váradi, J., Fenyvesi, F., Sinka, D., Vasvári, G., Vecsernyés, M.

*Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Debrecen, Hungary*

**P1H-6**

**New perspectives on the antiaging dermocosmetic use of *Salvia officinalis* volatile oil**

Andrei, E., Dragomirescu, A., Alexa, E.

*Department I, Faculty of Pharmacy, University of Medicine and Pharmacy, Timisoara, Romania*

**P1H-7**

**Extraction, purification and cristallisation of rebaudioside A, a sweetener from Algerian cultivated *Stevia rebaudiana***

Boutraa W., Belkacem S., Toubane, A.,

Korteby, Y., Daoud K.

*Department of environmental engineering, Faculty of mechanical and process engineering, University of Science and Technology Houari Boumediene, Algiers, Algeria*

**P1H-8**

**Effects of *Prunus spinosa* L. fruits on experimental wound healing**

Ayla, S.<sup>1,2</sup>, Günal, M. Y.<sup>3,2</sup>, Sayın-Şakul, A. A.<sup>4,2</sup>,

Biçeroğlu, O.<sup>1,2</sup>, Özdemir E. M.<sup>5</sup>, Okur, M. E.<sup>6</sup>,

Çiçek-Polat D.<sup>7</sup>, Ustundag-Okur, N.<sup>8</sup>, Bilgiç, B.E.<sup>9</sup>

*<sup>1</sup>Department of Histology and Embryology, School of Medicine; <sup>2</sup>Regenerative and Restorative Medicine Research Center, REMER, Istanbul Medipol University, Istanbul, Turkey; <sup>3</sup>Department of Physiology, School of Medicine, Alanya Alaaddin Keykubat University, Alanya, Turkey;*

*<sup>4</sup>Department of Pharmacology; <sup>5</sup>Department of Animal Facility, Istanbul Medipol University, Istanbul, Turkey;*

*<sup>6</sup>Department of Pharmacology, Faculty of Pharmacy, Anadolu University, Eskişehir, Turkey; <sup>7</sup>Department of Pharmaceutical Botanic, Faculty of Pharmacy,*

*Ankara University, Ankara, Turkey; <sup>8</sup>Department of Pharmaceutical Technology, Faculty of Pharmacy,*

*Istanbul Medipol University, <sup>9</sup>In Vitro Fertilization Unit,*

*Zeynep Kamil Maternity and Children's Hospital, Istanbul, Turkey*

**Award Ceremony and Concert**

***Lecture Hall AURA***

**19:30 – 20:30**

**Announcement of Awards:**

2016 Best Paper Award of European Journal of Pharmaceutical Sciences  
Awards of the Hungarian Society for Pharmaceutical Sciences

**Concert of Kornél Horváth and Mihály Borbély**

**20:30 – 24:00**

**Reception**

***Restaurant***

6 October, Friday

Section A2

Lecture Hall AURA

**New drug targets, biomarkers and drug analysis**

08:30 – 09:50

Chairs: Sándor Szalma, Imre Klebovich

**O-6**

08:30 – 08:50

**The „publish or perish” mentality and the lack of reproducibility in research**

Bagdy, Gy.<sup>1,2</sup>, Petschner, P.<sup>1,2</sup>, Juhász, G.<sup>1,2,3</sup>

<sup>1</sup>*Department of Pharmacodynamics, Semmelweis University;*

<sup>2</sup>*MTA-SE Neuropsychopharmacology and Neurochemistry Research Group, Hungarian Academy of Sciences,*

<sup>3</sup>*MTA-SE-NAP B Genetic Brain Imaging Migraine Research Group, Hungarian Academy of Sciences,*

*Hungarian Brain Research Program; Budapest, Hungary*

**O-7**

08:50 – 09:05

**Characterization of the bacterial winged-helix domain of RecQ helicase A novel antibacterial target**

Tököli A., Bartus É., Hegedüs Zs.,

Szakonyi G., Martinek T.

*Institute of Pharmaceutical Analysis,*

*Faculty of Pharmacy, University of Szeged, Szeged, Hungary*

**O-8**

09:05 – 09:20

**Nanoscale analysis of prostate cancer tissue microarrays**

Turiák, L.<sup>1</sup>, Révész, Á.<sup>1</sup>, Ács, A.<sup>1</sup>, Vékey, K.<sup>1</sup>, Drahos, L.<sup>1,2</sup>

<sup>1</sup>*MS Proteomics Research Group;* <sup>2</sup>*NAP B MS*

*Neuroproteomics Group, Research Center for Natural Sciences, Hungarian Academy of Sciences,*

*Budapest, Hungary*

**O-9**

09:20 – 09:35

**Analytical sciences: serving the changing pharmaceutical landscape**

Ganzler, K.

*Analytical Department, Formulation Development,*

*Gedeon Richter Plc., Budapest, Hungary*

**O-10**

**09:35 – 09:50**

**Triple quadrupole or high resolution accurate mass:  
the quantitation conundrum**

Humphrey, P.

*Thermo Fisher Scientific wissenschaftliche  
Geräte GmbH, Wien, Ausztria*

**Plenary Section 2**

**Lecture Hall AURA**

**New advances in cancer therapy**

**09:55 – 11:10**

Chairs: Ales Mrhar, Gyöngyvér Soós

**PL-5**

**09:55 – 10:20**

**Restoring programmed cell death – a new approach in  
cancer therapy**

Kotschy, A.

*Servier Research Institute of Medicinal Chemistry,  
Budapest, Hungary*

**PL-6**

**10:20 – 10:45**

**Next generation sequencing: the future of  
personalised healthcare (PHC 2.0)**

Szentiványi, M.

*Roche (Hungary) Ltd., Budaörs, Hungary*

**PL-7**

**10:45 – 11:10**

**“It is in your hands” – How healthcare professionals  
can ensure their safety when handling hazardous drugs**

Batka, G.

*Szent Rafael Hospital of Zala County,  
Zalaegerszeg, Hungary*

**11:10 – 11:35**

Coffee Break

**TEVA Workshop**

**Lecture Hall LUX**

**Safe handling of cytotoxic drugs**

**11:35 – 12:20**

Moderators: Diána Csontos, Zsuzsanna Órás

**Hands-on training in the use of TEVADAPTOR® – Direct practical experi-  
ence in the preparation and administration of hazardous drugs with a  
Closed System Transfer Device (CSTD)**



**Section A3**

**Lecture Hall AURA**

**Manufacturing**

**11:35 – 13:05**

Chairs: Stane Srcic, Kristóf Kovács

**O-11**

**11:35 – 11:55**

**Development and manufacture of biosimilar medicinal products**

Kollár, É.<sup>1</sup>, Gálos, Z.<sup>2</sup>

<sup>1</sup>*Gedeon Richter Plc. Biotechnology R&D, Budapest;*

<sup>2</sup>*Gedeon Richter Plc. Injectable Development Department, Debrecen, Hungary*

**O-12**

**11:55 – 12:10**

**Innovative approach to improve the film coating efficiency with applying of a continuous film coater**

Bajdik, J.

*Meditop Pharmaceutical Ltd., Pilisborosjenő, Hungary*

**O-13**

**12:10 – 12:25**

**A novel insight into Fluid Bed Melt Granulation: Temperature mapping for the determination of granule formation with the In-situ and spray-on techniques**

Korteby, Y.<sup>1,2</sup>, Mahdi, Y.<sup>2</sup>, Daoud, K.<sup>2</sup>, Regdon jr., G.<sup>1</sup>

<sup>1</sup>*University of Szeged, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged, Hungary;*

<sup>2</sup>*University of Sciences and Technology Houari Boumediene, Faculty of Mechanical Engineering and Process Engineering, Laboratory of Transfer Phenomena, Algiers, Algeria*

**O-14**

**12:25 – 12:40**

**Application of solid nanoparticle as emulsifiers and surface modifiers in controlled drug delivery**

Széchenyi, A.<sup>1,2</sup>, Horváth, B.<sup>1</sup>, Šafarik, T.<sup>2</sup>,

Sándori, D.<sup>1</sup>, Nagy, S.<sup>1</sup>, Pál, Sz.<sup>1</sup>

<sup>1</sup>*University of Pécs, Faculty of Pharmacy, Institute of Pharmaceutical Technology and Biopharmacy, Pécs, Hungary;*

<sup>2</sup>*Josip Juraj Strossmayer University of Osijek, Department of Chemistry, Osijek, Croatia*

**O-15**

**12:40 – 12:55**

**Recent advances in Continuous Coating Technology**

Laszlo-Herbert, R.

*Colorcon Limited Hungary, Budapest, Hungary*

**O-16**

**12:55 – 13:05**

**JASCO solutions for separation and purification of pharmaceutical compounds with carbon-dioxide**

Stefán, G., Szepesi, I.

*ABL&E-JASCO Hungary Ltd., Budapest, Hungary*

13:05 – 14:20

Lunch

*Restaurant*

**Section A4**

**Lecture Hall AURA**

**Nanopharmaceuticals 1**

**14:20 – 15:45**

Chairs: Julijana Kristl, Ildikó Bácskay

**O-17**

**14:20 – 14:40**

**Multimodal nanoantibiotics for synergistic modes of action against infectious diseases and for biofilm treatment**

Rosenholm, J. M.

*Pharmaceutical Sciences Laboratory,*

*Åbo Akademi University, Turku, Finland*

**O-18**

**14:40 – 15:00**

**Design and development of antimicrobial fibrous dressings for advanced wound care**

Kogermann, K.

*Institute of Pharmacy, University of Tartu, Estonia*

**O-19**

**15:00 – 15:15**

**Nanofibers – a promising delivery system for beneficial bacteria**

Zupančič, Š., Kocbek, P., Rijavec, T., Lapanje, A., Kristl, J.

*Faculty of Pharmacy, University of Ljubljana,*

*Ljubljana, Slovenia*

**O-20**

**15:15 – 15:30**

**Development and characterization of self nanoemulsifying systems for oral delivery of peptides**

Celik-Tekeli, M.<sup>1,2</sup>, Celebi, N.<sup>1</sup>, Aktas, Y.<sup>2</sup>

<sup>1</sup>*Faculty of Pharmacy, Department of Pharmaceutical Technology, Gazi University, Ankara, Turkey;*

<sup>2</sup>*Erciyes University, Kayseri, Turkey*

**O-21**

**15:30 – 15:45**

**Radiolabeling of targeted self assembled nanoparticles for positron emission tomography**

Szikra, D., Nagy, G., Trencsényi, Gy., Nagy, T., Forgács, A., Szabó, S., Krizsán, Á., Garai, I.

*Scanomed Ltd., Debrecen, Hungary*

**Section B3**

**Lecture Hall LUX**

**Pharmacology**

**14:20 – 15:50**

Chairs: Mária Deli, György Bagdy

**O-22**

**14:20 – 14:35**

**Non-enzyme catalyzed metabolic transformations of xenobiotics**

Perjési, P., Almási, A., Kenari, F., Kuzma, M., Nyúl, E.

*University of Pécs, Institute of Pharmaceutical Chemistry, Pécs, Hungary*

**O-23**

**14:35 – 14:50**

**Gastrointestinal electromyographic signals during immobilization in rats: new possibility for the instrumental detection of stress**

Gáspár, R.<sup>1</sup>, Szűcs, K.F.<sup>1</sup>, Grosz, G.<sup>2</sup>, Süle, M.<sup>2</sup>

Sztojkov-Ivanov, A.<sup>1</sup>, Ducza, E.<sup>1</sup>, Kothencz, A.<sup>1</sup>

<sup>1</sup>*Department of Pharmacodynamics and Biopharmacy, Faculty of Pharmacy, University of Szeged;*

<sup>2</sup>*MDE GmbH, Walldorf, Germany*

**O-24**

**14:50 – 15:05**

**Effect of thyme, cinnamon and citronella essential oils in in vivo mouse lung inflammation model**

Horváth, Gy.<sup>1</sup>, Ács, K.<sup>1</sup>, Csikós, E.<sup>1</sup>, Ashraf, A. R.<sup>1</sup>, Böszörményi, A.<sup>2</sup>, Kocsis, B.<sup>3</sup>, Kereskai, L.<sup>4</sup>, Csekő, K.<sup>5</sup>, Kemény, Á.<sup>5</sup>, Helyes Zs.<sup>5</sup>

<sup>1</sup>*Department of Pharmacognosy, Faculty of Pharmacy, University of Pécs, Pécs;* <sup>2</sup>*Department of Pharmacognosy, Faculty of Pharmacy, Semmelweis University, Budapest;* <sup>3</sup>*Department of Medical Microbiology and Immunology;* <sup>4</sup>*Department of Pathology;* <sup>5</sup>*Department of Pharmacology and Pharmacotherapy, Medical School, University of Pécs, Pécs; Hungary*

**O-25**

**15:05 – 15:20**

**Prevention of caspase activation by resveratrol in non-transformed cells**

Ulakcsai, Zs., Bagaméry, F., Szökő, É., Tábi, T.  
*Department of Pharmacodynamics, Semmelweis University, Budapest, Hungary*

**O-26**

**15:20 – 15:35**

**Effects of Momordica charantia (Bitter melon) on ischemic diabetic myocardium**

Lekli, I., Czompa, A., Gyongyosi, A., Bak, I., Csepányi, E., Szoke, K., Haines, D., Tosaki, A.  
*Department of Pharmacology, Faculty of Pharmacy, University of Debrecen, Debrecen, Hungary*

**O-27**

**15:35 – 15:50**

**Investigation of anti-inflammatory effect of sour cherry anthocyanins on Caco-2 inflammatory model**

Váradi, J., Remenyik, J., Fenyvesi, F., Bácskay, I., Fehér, P., Ujhelyi, Z., Vasvári, G., Vecsernyés, M.  
*Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary*

**15:50 – 16:15**

Coffee Break

**Section A5**

**Lecture Hall AURA**

**Novel delivery systems**

**16:15 – 17:55**

Chairs: Niklas Sandler, Romána Zelkó

**O-28**

**16:15 – 16:35**

**New drug delivery systems for the oral cavity and periodontal therapy**

Kilicarslan, M.

*Department of Pharmaceutical Technology, Faculty of Pharmacy, Ankara University, Ankara, Turkey*

**O-29**

**16:35 – 16:50**

**Design and characterization of mucoadhesive hydroxypropyl cellulose oral films**

Gottnek, M.<sup>1,2</sup>, Kelemen, A.<sup>3</sup>, Farkas, G.<sup>2</sup>, Sovány, T.<sup>2</sup>, Süvegh, K.<sup>4</sup>, Pintye-Hódi, K.<sup>2</sup>, Regdon jr, G.<sup>2</sup>

<sup>1</sup>*Abacus Medicine Hungary Kft., Budapest;*

<sup>2</sup>*University of Szeged, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged;*

<sup>3</sup>*University of Szeged, Department of Applied Informatics, Szeged;* <sup>4</sup>*Eötvös Loránd University, Laboratory of Nuclear Chemistry, Budapest; Hungary*

**O-30**

**16:50 – 17:10**

**Development of an orphan drug medicinal product for the treatment of malignant mesothelioma**

Sonvico, E., Ampollini, L., Carbognani, P., Colombo, P.

*Interdepartmental Centre for Innovation in Health Products, Biopharnanet TEC, University of Parma, Parma, Italy*

**O-31**

**17:10 – 17:25**

**Development of a novel formulated, pulmonary microparticle (new generation DPI) containing antibiotic agent with improved aerosolization efficiency**

Ambrus, R.<sup>1</sup>, Benke, E.<sup>1</sup>, Farkas, Á.<sup>2</sup>,

Balásházy, I.<sup>2</sup>, Szabó-Révész, P.<sup>1</sup>

<sup>1</sup>*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged;*

<sup>2</sup>*Centre for Energy Research, Hungarian Academy of Sciences, Budapest; Hungary*

**O-32**

**17:25 – 17:40**

**Dissolution extent decrease of amorphous drug due to magnesium stearate induced crystallization**

Démuth, B., Galata, D. L., G. Marosi, G., Z. Nagy, K.  
*Department of Organic Chemistry and Technology, Budapest University of Technology and Economics, Budapest, Hungary*

**O-33**

**17:40 – 17:55**

**Behaviour of medicated inks on porous substrates – The effect of viscosity and surface tension on printing parameters**

Sass, A.<sup>1</sup>, Kelemen, A.<sup>2</sup>, Kádár, A.<sup>2</sup>, Regdon jr., G.<sup>1</sup>, Pintye-Hódi, K.<sup>1</sup>, Sovány, T.<sup>1</sup>  
<sup>1</sup>*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged;* <sup>2</sup>*Department of Applied Informatics, University of Szeged; Szeged; Hungary*

**Section B4**

**Lecture Hall LUX**

**Preclinical drug research**

**16:15 – 18:00**

Chairs: Atilla Hincal, András Kotschy

**O-34**

**16:15 – 16:35**

**Challenges in equilibrium solubility measurements: poor solubility, low dissolution rate, low wettability**

Takács-Novák, K., Völgyi, G.  
*Department of Pharmaceutical Chemistry, Semmelweis University, Budapest, Hungary*

**O-35**

**16:35 – 16:55**

**Targeted delivery of solid and vesicular nanoparticles across the blood-brain barrier**

Veszélka, Sz., Mészáros, M., Kiss, L., Porkoláb, G., Kóta, Z., Páli, T., Bozsó, Zs., Fülöp, L., Pilbat, A. M., Török, Zs., Szabó-Révész P., Deli, M. A.  
*Institute of Biophysics, Biological Research Centre, HAS, Szeged, Hungary*

**O-36**

**16:55 – 17:15**

**Bile salt transport profiling of hepatic transporters**

Krajcsi, P.  
*Solvo Biotechnology, Szeged, Hungary*

**O-37**

**17:15 – 17:30**

**The role of biocompatibility investigations in pharmaceutical technological research**

Bácskay, I.<sup>1</sup>, Feher, P.<sup>1</sup>, Róka, E.<sup>1</sup>, Arany, P.<sup>1</sup>, Nemes, D.<sup>1</sup>, Fenyvesi, F.<sup>1</sup>, Varadi, J.<sup>1</sup>, Vecsernyes, M.<sup>1</sup>, Perret, F.<sup>2</sup>, Coleman, A.<sup>2</sup>, Ujhelyi, Z.<sup>1</sup>,

<sup>1</sup>*University of Debrecen, Department of Pharmaceutical Technology, Debrecen, Hungary;*

<sup>2</sup>*University of Claud Bernard, Department of Supramolecular Chemistry, Batiment Raulin, Villeurbanne Cedex, France*

**O-38**

**17:30 – 17:45**

**Examination of pharmacokinetic properties of fluorescently labelled hydroxypropyl-beta-cyclodextrin**

Fenyvesi, F., Hermenean, A., Árvai, I., Váradi, J., Bácskay, I., Fehér, P., Ujhelyi, Z., Vasvári, G., Vecsernyés, M.

*Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary*

**O-39**

**17:45 – 18:00**

**Diarylheptanoid composition of several European Betulaceae species**

Alberti, Á., Malcsiner, P., Vesztergombi, D., Tóth, Cs., Péntzes, R., Tóth, A., Riethmüller, E., Béni, Sz.

*Department of Pharmacognosy, Semmelweis University, Budapest, Hungary*

**Poster Section 2**

***First floor of the hotel***

Chair of Poster Committee: Krisztina Takács-Novák

**18:00 – 20:00**

**Poster Section 2A**

***Novel delivery systems 2***

Section Committee: Fabio Sonvico, Szilárd Pál

**P2A-1**

**Investigation of lidocaine base liposomes for transdermal delivery**

Bakonyi, M., Berkó, Sz., Csányi, E.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P2A-2**

**Characterization of prednisolone containing eye drop formulations by mucoadhesive – preservative system and cyclodextrin inclusion complex formation**

BÍRÓ, T., Horvát, G., Budai-Szűcs, M., Urbán, E., Csányi, E., Szabó-Révész, P., Csóka, I., Aigner, Z.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P2A-3**

**Printing and characterization of antiviral and anticancer drug loaded film formulation by using inkjet printer**

Varan, C., Sen, M., Sandler, N., Aktas, Y., Bilensoy, E.

*Department of Nanotechnology and Nanomedicine, Hacettepe University, Ankara, Turkey*

**P2A-4**

**Formulation and study of fluoxetine containing mucoadhesive films**

Rebeka, T., Szabó, Z. I., Rédai, E., Sipos, E.

*Department of Pharmaceutical Industry and Management, University of Medicine and Pharmacy Tirgu Mures, Tirgu Mures, Romania*

**P2A-5**

**Cross-linked chitosan microspheres for sustained nasal delivery of doxylamine and pyridoxine**

Katsarov, P., Pilicheva, B., Georgieva, Y., Kassarova, M.

*Department of Pharmaceutical sciences, Faculty of Pharmacy, Medical University-Plovdiv; High-technological Center of Emergency Medicine; Plovdiv, Bulgaria*

**P2A-6**

**Microencapsulation of lavender essential oil via spray drying technique using chitosan and acacia gum as wall materials**

Pilicheva, B., Katsarov, P., Georgieva, Y., Kassarova, M.

*Department of Pharmaceutical Sciences, Faculty of Pharmacy, Medical University-Plovdiv; Technological Center for Emergency Medicine; Plovdiv, Bulgaria*

**P2A-7**

**Biotin and glutathione targeting of solid nanoparticles to cross human brain endothelial cells**

Mészáros, M., Kiss, L., Kóta, Z., Páli T., Hoyk, Zs.,

Bozsó, Zs., Fülöp, L., Deli, M. A., Veszelka, Sz.

*Institute of Biophysics, Biological Research Centre of the HAS, Szeged, Hungary*



**P2A-8**

**Targeted delivery of vesicular nanoparticles across a culture model of the blood-brain barrier**

Porkoláb, G., Mészáros, M., Kóta, Z., Páli T.,

Bozsó, Zs., Pilbat, A. M., Török, Zs., Szabó-Révész P.,

Deli, M. A., Veszelka, Sz.

*Institute of Biophysics, Biological Research Centre of the HAS, Szeged, Hungary*

**P2A-9**

**Dexpanthenol/PCL nanofibers for wound healing: Preparation and in-vitro characterization**

Tuncay Tanrıverdi, S., Saat B., Azizoğlu, E., Ozer, O.

*Ege University, Department of Pharmaceutical Technology, Izmir, Turkey*

**P2A-10**

**Development of inkjet printed levothyroxine formulations – towards personalized dosing**

Wickström, H.<sup>1,2</sup>, de Beer, T.<sup>2</sup>, Sandler, N.<sup>1</sup>

*<sup>1</sup>Pharmaceutical Sciences Laboratory, Åbo Akademi University, Åbo, Finland; <sup>2</sup>Laboratory of PAT, Ghent University, Ghent, Belgium*

**P2A-11**

**Brinzolamide microemulsions as alternative carriers against glaucoma disease**

Siafaka, P., Üstündağ Okur, N.

*Department of Pharmaceutical Technology, Istanbul Medipol University, Beykoz, Istanbul, Turkey*

**P2A-13**

**Assessment of etofenamate loaded microemulsion formulations for transdermal drug delivery: preparation, characterization, stability and in vitro release**

Üstündağ Okur N., Onay E.

*Istanbul Medipol University School of Pharmacy Department of Pharmaceutical Technology, Istanbul, Turkey*

**Poster Section 2B**

**Nanopharmaceuticals 2**

Section Committee: Irem Yenice, Attila Bódis

**P2B-1**

**Development and evaluation of nanocomposite-based “nanoantibiotics” in vitro and in vivo**

Govardhanam P., Şen Karaman, D., Meinander, A., Mohan, A., Rosenholm, J. M.  
*Åbo Akademi University, Pharmaceutical Sciences Laboratory, Faculty of Science and Engineering, Turku, Finland*

**P2B-2**

**Sertaconazole loaded nanofibers as topical drug carriers**

Esentürk I., Güngör S., Erdal M. S.  
*Department of Pharmaceutical Technology, Faculty of Pharmacy, Istanbul University, Istanbul, Turkey*

**P2B-3**

**Synthesis and characterization of apigenin loaded novel HSA/galactomannan/chitosan nanoparticles for pulmonary drug delivery**

Pápay, Zs. E., Füredi, P., Mike-Kaszás, N., Budai, L., Balogh, E., Antal, I.  
*Semmelweis University, Department of Pharmaceutics, Budapest, Hungary*

**P2B-4**

**Development of a nasal powder preformulation process by Design of Experiment method**

Gieszinger, P.<sup>1</sup>, Casian, T.<sup>2</sup>, Tomuta, I.<sup>2</sup>, Révész-Szabó, P.<sup>1</sup>, Ambrus, R.<sup>1</sup>  
*<sup>1</sup>Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Faculty of Pharmacy, Szeged, Hungary; <sup>2</sup>Department of Drug Analysis, Faculty of Pharmacy, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania*

**P2B-5**

**Comparison study of nanonized meloxicam and its potassium salt containing peroral dosage form with fast release**

Bartos, Cs., Jójárt-Laczkovich, O., Szabó-Révész, P.  
*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P2B-6**

**Formulation and in vitro characterization of inhalable nano-structured dry powders**

Chvatal, A., Bartos, Csa., Bartos, Csi.,

Szabóné Révész, P., Ambrus, R.

*Institute of Pharmaceutical Technology and Regulatory Affairs, Faculty of Pharmacy, University of Szeged, Szeged, Hungary*

**P2B-7**

**Application of dry milling technique in order to prepare intranasal powder with nanonized levodopa**

Bartos, Cs., Szabó-Révész, P., Mehrnaz, R.,

Katona, G., Kiss, T., Ambrus, R.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P2B-8**

**Effects of different stability conditions on three-layered doxycycline collagen loaded nanofiber wound dressing**

Tort, S., Acartürk, F.

*Department of Pharmaceutical Technology,*

*Faculty of Pharmacy, Gazi University, Ankara, Turkey*

**P2B-9**

**Freeze-drying of Bovine Serum Albumin as potential nano drug delivery system**

Katona, G., Csóka, I., Szabó-Révész, P.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**Poster Section 2C**

**Quality by Design**

Section Committee: Cristina Trandafirescu, Ádám Dávid

**P2C-1**

**Improving protein product quality through real-time bioprocess control based on Raman spectroscopy**

Pitters, A.<sup>1</sup>, Gilliam, S.<sup>2</sup>, Cuellar, M.<sup>2</sup>, Srachan, D.<sup>2</sup>

<sup>1</sup>*Kaiser Optical Systems SARL, Saint-Priest, France;*

<sup>2</sup>*Kaiser Optical Systems Inc., Ann Arbor, USA*

**P2C-2**

**Initial Risk Assessment as part of the Quality by Design in peptide drug containing formulation development**

Pallagi, E., Tamás, L., Paál, L. T., Csóka, I.

*Department of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Szeged, Hungary*

**P2C-3**

**In-line Raman spectroscopic monitoring and feedback control of a continuous pharmaceutical powder blending and tableting process**

Nagy, B., Farkas, A., Gyürkés, M., Marosi, Gy., Nagy, Zs. K.  
*Department of Organic Chemistry and Technology, Budapest University of Technology and Economics, Budapest, Hungary*

**P2C-4**

**Quality by Design based approach in the development of dermatological dosage forms**

Kovács, A., Berkó, Sz., Budai-Szűcs, M., Csányi, E., Csóka, I.  
*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Faculty of Pharmacy, Szeged, Hungary*

**P2C-5**

**Preparation of orally dispersible tablets of ziprasidone hydrochloride monohydrate nanocrystals: The Quality by Design (QbD) approach**

Tashan, E.<sup>1,2</sup>, Karakucuk, A.<sup>1</sup>, Celebi, N.<sup>1</sup>  
*<sup>1</sup>Gazi University, Faculty of Pharmacy, Department of Pharmaceutical Technology, <sup>2</sup>Zoleant Pharmaceuticals International, Ankara, Turkey*

**P2C-6**

**Raman spectroscopy based feedback control of the enzymatic hydrolysis of lactose**

Hirsch, E., Pataki, H., Csontos, I., Nagy, Zs., Marosi, Gy.  
*Department of Organic Chemistry and Technology, Budapest University of Tehcnology and Economics, Budapest, Hungary*

**P2C-7**

**Defining of the design space and development of an in-line NIR monitoring method for the fluidised bed granulation process of two APIs**

Gâvan, A., Iurian, S., Casian, T., Voina, I., Tomuță, I.  
*Department of Pharmaceutical Technology and Biopharmaceutics, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj-Napoca, Romania*

**P2C-8**

**Multivariate Data Analysis (MVDA) applied for the development, process understanding and real time monitoring of mannitol based granulates loaded with loratadine by solution layering**

Casian, T., Iovanov, R., Ilyes, K., Tomuță, I.  
*Iuliu Hatieganu University of Medicine and Pharmacy, Dept. of Pharmaceutical Technology and Biopharmacy, Cluj-Napoca, Romania*

**P2C-9**

**Texture assessment and multivariate data analysis: development of a predictive model for oral disintegration profile and palatability of orodispersible tablets**

Lurian, S., Bogdan, C., Casian, T., Tarța, D., Tomuță, I.  
*Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Hațieganu", Cluj-Napoca, Romania*

**P2C-10**

**Design and development of multivitamin tablets with Quality by Design approach**

Hoffmann, A., Kristó, K., Horváth, T., Pallagi, E., Csóka I.  
*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Faculty of Pharmacy; Goodwill Pharma Ltd.; Szeged, Hungary*

**P2C-11**

**Development and validation of NIR spectroscopic method for simultaneous quantification of paracetamol and caffeine in tablets**

Muntean, D., Alecu, C., Porfire, A., Lurian, S., Casian T., Gavan A., Tomuță, I.  
*Iuliu Hatieganu University of Medicine and Pharmacy, Dept. of Pharmaceutical Technology and Biopharmacy, Cluj-Napoca, Romania*

**P2C-12**

**Applying the principles of quality by design coupled with multivariate data analysis in establishing the impact of raw material variability for extended release indapamide tablets**

Ilyés, K., Casian, T., Hales, D., Rus, L., Știufiuc, R., Tomuță, I.  
*Department of Pharmaceutical Technology and Biopharmacy; Department of Drug Analysis; Department of Pharmaceutical Physics-Biophysics, Faculty of Pharmacy, University of Medicine and Pharmacy „Iuliu Hațieganu”; Cluj-Napoca, Romania*

**P2C-13**

**Continuous twin screw melt granulation and real-time imaging as a potential PACT tool**

Fazekas, Á., Madarász, L., Démuth, B., Farkas, A., Gyürkés, M., Marosi, G., Nagy, Zs. K.  
*Department of Organic Chemistry and Technology, Budapest University of Technology and Economics, Budapest, Hungary*

**P2C-14**

**Improving protein product quality through real-time bioprocess control based on Raman spectroscopy**

Pitters, A.<sup>2</sup>, Cuellar, M.<sup>1</sup>, Gilliam, S.<sup>1</sup>, Strachan, D.<sup>1</sup>

<sup>1</sup>Kaiser Optical Systems, Inc. Ann Arbor, USA;

<sup>2</sup>Kaiser Optical Systems, SARL, Saint-Priest, France

**P2C-15**

**Application of Quality by Design in orodispersable tablets development**

Suciu Ş., Iurian S., Bogdan C., Iovanov R.,

Rus L., Moldovan M., Tomuţă I.

*Department of Pharmaceutical Technology and Biopharmaceutics, Faculty of Pharmacy, University of Medicine and Pharmacy "Iuliu Haţieganu", Cluj-Napoca, Romania*

**Poster Section 2D**

**Pharmaceutical technology 3**

Section Committee: Müge Kilicarslan, Mária Hajdú

**P2D-1**

**Macro- and microstructural tracking of preformulation and ageing-related changes of papaverine hydrochloride-loaded electrospun nanofibrous buccal sheets**

Kazsoki, A., Szabó, P., Süvegh, K., Vörös, T., Zelkó, R.

*University Pharmacy Department of Pharmacy*

*Administration, Semmelweis University, Budapest, Hungary*

**P2D-2**

**The effect of dilution and temperature on the viscosity of various ocular lubricants**

Račić, A.<sup>1</sup>, Krajišnik, D.<sup>2</sup>, Čalija, B.<sup>2</sup>, Nikolić, I.<sup>2</sup>, Milić, J.<sup>2</sup>

<sup>1</sup>University of Banja Luka, Faculty of Medicine, Department of Pharmacy, Banja Luka, Bosnia and Herzegovina;

<sup>2</sup>University of Belgrade, Faculty of Pharmacy, Department of Pharmaceutical Technology and Cosmetology, Belgrade, Serbia

**P2D-3**

**Stability study of acetylsalicylic acid during pharmaceutical operations**

Bouhaouche, A., Bourai, I., Benayache, A., Daoud, K.

*Laboratory of transfer phenomena, Faculty of Mechanical Engineering and Process Engineering, University of Sciences and Technology Houari Boumediene, Algiers, Algeria*

**P2D-4**

**Monitoring the stability and physicochemical changes of Suspensio anaesthetica**

Bognár, G., Szabó, P., Zelkó, R., Kovácsné Balogh, J.  
*University Pharmacy Department of Pharmacy Administration, Faculty of Pharmacy, Semmelweis University, Budapest, Hungary*

**P2D-5**

**Importance of freeze-thaw studies in biopharmaceutical development**

Balázs, B., Gyurácz, B., Vásárhelyi, V. S.  
*Gedeon Richter Plc. Biotechnology R&D, Budapest, Hungary*

**P2D-6**

**Evaluation of biocompatible polymer gels before and after freeze drying**

Szerőcsei, D., Fülöp, V., Jakab, G., Lengyel, M., Balogh, E., Antal, I.  
*Semmelweis University, Department of Pharmaceutics, Budapest, Hungary*

**P2D-7**

**Evaluation of potential compressing of the microspheres containing losartan potassium**

Sarecka-Hujar, B.<sup>1</sup>, Balwierz, R.<sup>2</sup>, Marciniak, D.<sup>3</sup>, Jankowski, A.<sup>1</sup>  
*<sup>1</sup>Medical University of Silesia in Katowice, School of Pharmacy with the Division of Laboratory Medicine in Sosnowiec, Department of Pharmaceutical Technology, Sosnowiec, Poland; <sup>2</sup>Silesian Medical College in Katowice, Poland; <sup>3</sup>Wroclaw Medical University, Department and Institute of Pharmaceutical Technology, Wroclaw, Poland*

**P2D-8**

**Atenolol ointment stability**

Pilipovic, B.<sup>1</sup>, Pilipovic, S.<sup>2</sup>, Pasic-Kulenovic, M.<sup>1</sup>, Uzunovic, A.<sup>2</sup>  
*<sup>1</sup>Department of Pharmaceutical Development and Registration, Bosnalijek d.d.; <sup>2</sup>Agency for medicinal products and medical devices of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina*

**P2D-9**

**HPLC determination of benzaldehyde in benzyl alcohol containing injectable formulations**

Uzunovic, A.<sup>1</sup>, Pilipovic, S.<sup>1</sup>, Tubic, B.<sup>1</sup>, Sapcanin, A.<sup>2</sup>, Tahirovic, I.<sup>3</sup>  
*<sup>1</sup>Agency for medicinal products and medical devices of Bosnia and Herzegovina; <sup>2</sup>Faculty of Pharmacy; <sup>3</sup>Faculty of Science; Sarajevo, Bosnia and Herzegovina*

**P2D-10**

**Comparison of pharmaceutical technological parameters of pharmaceutical equivalents**

Hadžiabdić, J.<sup>1</sup>, Vranić, E.<sup>1</sup>, Rahić O.<sup>1</sup>,  
Elezović A.<sup>1</sup>, Regdon jr., G.<sup>2</sup>

<sup>1</sup>University of Sarajevo, Department of Pharmaceutical Technology, Sarajevo, Bosnia and Herzegovina;

<sup>2</sup>University of Szeged, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged, Hungary

**P2D-11**

**Detection of interactions between active substance and excipients used in the formulation of lisinopril coated pellets using differential scanning calorimetry**

Rahić, O.<sup>1</sup>, Vranić, E.<sup>1</sup>, Hadžiabdić, J.<sup>1</sup>,  
Elezović, A.<sup>1</sup>, Regdon jr., G.<sup>2</sup>

<sup>1</sup>University of Sarajevo, Department of Pharmaceutical Technology, Sarajevo, Bosnia and Herzegovina;

<sup>2</sup>University of Szeged, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged, Hungary

**P2D-12**

**Rheological profiling of sunscreen formulations – influence of main emulsifier and thickener**

Elezović, A.<sup>1</sup>, Vranić, E.<sup>1</sup>, Hadžiabdić, J.<sup>1</sup>,  
Rahić, O.<sup>1</sup>, Regdon jr., G.<sup>2</sup>

<sup>1</sup>University of Sarajevo, Department of Pharmaceutical Technology, Sarajevo, Bosnia and Herzegovina;

<sup>2</sup>University of Szeged, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged, Hungary

**Poster Section 2E**

**Biopharmacy**

Section Committee: Emese Bertalan-Balogh, Gábor Halmos

**P2E-1**

**Melatonin: Release studies from electrospun nanofiber matrices for per os administration**

Siamidi, A., Kikionis, S., Tragou, K., Kapoti, S., Ioannou, E.,  
Vlachou, M., Roussis, V., Tsotinis, A.

School of Health Sciences, Faculty of Pharmacy,  
Departments of Pharmaceutical Technology,

Pharmacognosy and Chemistry of Natural Products and  
Pharmaceutical Chemistry, National and Kapodistrian  
University of Athens, Athens, Greece



**P2E-2**

**In vivo performance study of fast inverted oil-in-water emulsion and reference oil-in-water emulsion with incorporated dihydroquercetin**

Martić, R., Krajišnik, D., Lukić, M.,  
Savić, S., Nikolić, I., Milić, J.

*Department of Pharmaceutical Technology and  
Cosmetology, Faculty of Pharmacy, University of Belgrade,  
Belgrade, Serbia*

**P2E-3**

**Antibacterial activity and safety testings of differently designed electrospun matrices for periodontal diseases**

Repše, P., Saks, L., Zupančič, Š., Putrinš, M.,  
Tenson, T., Laidmäe, I., Kristl, J., Kogermann, K.  
*Institute of Pharmacy, University of Tartu, Estonia*

**P2E-4**

**Enhanced skin penetration of tacrolimus and fusidic acid from nano-sized colloidal carriers**

Güngördük, S., Erdal, MS., Güngör, S.

*Department of Pharmaceutical Technology, Faculty  
of Pharmacy, Istanbul University, Istanbul, Turkey*

**P2E-5**

**Dissolution improvement of poorly water soluble model drug albendazole with surfactant assisted media milling process**

Fülöp, V., Jakab, G., Endrésik, D.,

Tóth, B., Balogh, E., Antal, I.

*Semmelweis University, Department of Pharmaceutics,  
Budapest, Hungary*

**P2E-6**

**Improvement of solubility, dissolution rate and bioavailability of cilostazol using different technique of solid dispersion**

Aghrbi, L., Fulop, V., Jakab, G., Szeroczzei, D., Balogh E., Antal, I.

*Semmelweis University, Department of Pharmaceutics,  
Budapest, Hungary*

**P2E-7**

**The effect of selected terpenes on release and skin retention of quercetin from hydrogels**

Dyja, R., Sarecka-Hujar, B., Jankowski, A.

*Department of Pharmaceutical Technology,  
Medical University of Silesia in Katowice, School of Pharmacy  
with the Division of Laboratory Medicine in Sosnowiec,  
Sosnowiec, Poland*

**P2E-8**

**Investigating the driving force of membrane transport of Carvedilol from supersaturated solutions achieved by electrospun formulations**

Borbás, E.<sup>1</sup>, Sinkó, B.<sup>2</sup>, Tsinman, K.<sup>2</sup>,  
Marosi, Gy.<sup>1</sup>, Nagy, Zs. K.<sup>1</sup>

<sup>1</sup>*Organic Chemistry and Technology Department, Budapest University of Technology and Economics, Budapest, Hungary;*

<sup>2</sup>*Pion Inc., Billerica, MA, USA*

**P2E-9**

**Improve stability and oral bioavailability of Plantago lanceolata herb extract by using a Self-Microemulsifying Drug Delivery System**

Kalantari, A.<sup>1</sup>, Kósa, D.<sup>1</sup>, Nemes, D.<sup>1</sup>, Ujhelyi, Z.<sup>1</sup>,  
Vecsernyés, M.<sup>1</sup>, Gonda, S.<sup>2</sup>, Vasas, G.<sup>2</sup>, Bácskay, I.<sup>1</sup>

<sup>1</sup>*Department of Pharmaceutical Technology, University of Debrecen,* <sup>2</sup>*Department of Pharmacognosy, University of Debrecen, Debrecen, Hungary*

**P2E-10**

**In vitro – in vivo characterization of simvastatin – containing periodontal mucoadhesive nanoparticulate gel**

Dinte, E., Borodi, G., Câmpian, R.S., Lucaciu, O.,  
Tăbăran, F., Berce, C., Toader, S., Ionel, A.

*Department of Pharmaceutical Technology and Biopharmaceutics, Iuliu Hatieganu University of Medicine and Pharmacy, Faculty of Pharmacy, Cluj-Napoca, Romania*

**P2E-11**

**Comparison of in vitro dissolution profiles of silymarin-cyclodextrin sustained release matrix tablets**

Sinka, D., Hagymási, A., Fehér, P., Ujhelyi, Z., Fenyvesi, F.,  
Váradi, J., Vasvári, G., Vecsernyés, M., Bácskay, I.

*Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary*

**P2E-12**

**Formulation and antioxidant investigation of creams containing different plant extracts**

Jurca, T.<sup>1</sup>, Pallag, A.<sup>1</sup>, Vicas, L.<sup>1</sup>, Marian, E.<sup>1</sup>, Bácskay, I.<sup>2</sup>,  
Fehér, P.<sup>2</sup>, Ujhelyi, Z.<sup>2</sup>, Dávid, S.<sup>2</sup>, Vecsernyési M.<sup>2</sup>

<sup>1</sup>*University of Oradea, Faculty of Medicine and Pharmacy, Department of Pharmacy, Oradea, Romania;*

<sup>2</sup>*University of Debrecen, Faculty of Pharmacy, Department of Pharmaceutical Technology, Debrecen, Hungary*

**Poster Section 2F**

**Anticancer drug research**

Section Committee: Ivo Laidmaa, Péter Krajcsi

**P2F-1**

**Betulin-conjugated gold nanoparticles with antitumor activity**

Soica, C., Mioc, M., Coricovac, D., Trandafirescu, C., Ghiulai, R., Pavel, I., Danciu, C., Pinzaru, I., Moaca, A., Dragomirescu, A., Popovici, R.A., Dehelean, C. *Faculty of Pharmacy, „Victor Babes” University of Medicine and Pharmacy Timisoara, Romania*

**P2F-2**

**Hollow gold nanoparticles loaded with betulin as anticancer agents**

Soica, C., Mioc, M., Coricovac, D., Trandafirescu, C., Ghiulai, R., Pavel, I., Danciu, C., Pinzaru, I., Moaca, A., Dragomirescu, A., Popovici, R.A., Dehelean, C. *Faculty of Pharmacy, „Victor Babes” University of Medicine and Pharmacy Timisoara, Romania*

**P2F-3**

**Expression of miRNA-21 and -221 in clear cell renal cell carcinoma (ccRCC) and their possible role in the development of ccRCC**

Szabó, Zs.<sup>1</sup>, Szegedi, K.<sup>2</sup>, Gombos, K.<sup>3</sup>, Flaskó, T.<sup>2</sup>, Harda, K.<sup>1</sup>, Sipos, É.<sup>1</sup>, Fodor, K.<sup>1</sup>, Halmos, G.<sup>1</sup>  
<sup>1</sup>*Department of Biopharmacy, Faculty of Pharmacy, University of Debrecen;* <sup>2</sup>*Department of Urology, University of Debrecen, Debrecen, Hungary;* <sup>3</sup>*Institute of Public Health, Faculty of Medicine, University of Pécs, Pécs, Hungary*

**P2F-4**

**Somatostatin receptors, as molecular targets in human uveal melanoma**

Harda, K.<sup>1</sup>, Treszl, A.<sup>†1</sup>, Steiber, Z.<sup>2</sup>, Szabó, Zs.<sup>1</sup>, Oláh, G.<sup>1</sup>, Halmos, G.<sup>1</sup>  
<sup>1</sup>*Department of Biopharmacy;* <sup>2</sup>*Department of Ophthalmology, University of Debrecen, Debrecen, Hungary*

**P2F-5**

**The mechanism of action of targeted cytotoxic Luteinizing Hormone-Releasing Hormone analog AN-152 in doxorubicin resistant human uveal melanoma cells**

Oláh, G.<sup>1</sup>, Dobos, N.<sup>1</sup>, Vámosi, Gy.<sup>2</sup>, Okos, A.<sup>1</sup>, Tóth, A.<sup>1</sup>, Schally, A. W.<sup>3</sup>, Halmos, G.<sup>1,3</sup>

<sup>1</sup>University of Debrecen, Department of Biopharmacy;

<sup>2</sup>Department of Biophysics; Debrecen, Hungary;

<sup>3</sup>Veterans Affairs Medical Center Miami, FL and Departments of Pathology and Medicine Divisions of Hematology-Oncology and Endocrinology, Sylvester Comprehensive Cancer Center, University of Miami, Miller School of Medicine, Miami, FL, USA

**P2F-6**

**Concurrence of chromosome 3 and 4 aberrations in human uveal melanoma**

Sipos, É.<sup>1</sup>, Hegyi, K.<sup>2</sup>, Treszl, A.<sup>†1</sup>, Steiber, Z.<sup>3</sup>, Fodor, K.<sup>1</sup>, Schally, A. W.<sup>4</sup>, Halmos, G.<sup>1,4</sup>

<sup>1</sup>University of Debrecen, Department of Biopharmacy;

<sup>2</sup>Department of Pathology; <sup>3</sup>Department of Ophthalmology, Debrecen, Hungary;

<sup>4</sup>Veterans Affairs Medical Center Miami, FL and Departments of Pathology and Medicine Divisions of Hematology-Oncology and Endocrinology, Sylvester Comprehensive Cancer Center, University of Miami, Miller School of Medicine, Miami, FL, USA

**P2F-7**

**Antiproliferative evaluation of synthesized xanthene derivatives**

Zukić, S., Veljović, E., Špirtović-Halilović, S., Muratović, S., Osmanović, A., Završnik, D.

Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Sarajevo, Sarajevo, Bosnia and Herzegovina

**P2F-8**

**The investigation of cancer stem cells in human uveal melanoma**

Fodor, K.<sup>1</sup>, Sipos, É.<sup>1</sup>, Dobos, N.<sup>1</sup>, Nagy, J.<sup>2</sup>, Steiber, Z.<sup>3</sup>, Okos, A.<sup>1</sup>, Treszl, A.<sup>†1</sup>, Méhes, G.<sup>4</sup>, Halmos, G.<sup>1</sup>

<sup>1</sup>University of Debrecen, Department of Biopharmacy;

<sup>2</sup>Department of Radiotherapy; <sup>3</sup>Department of Ophthalmology; <sup>4</sup>Department of Pathology;

Debrecen, Hungary

**P2F-9**

**Investigation of the effect of cyclodextrin nanoparticles on MCF 7 breast cancer cell line by proteomics approaches**

Bilensoy, E.<sup>1</sup>, Çelebier, M.<sup>2</sup>, Ercan, A.<sup>3</sup>, Nenni, M.<sup>2</sup>, Işık, G.<sup>1</sup>, Öncül, S.<sup>3</sup>, Altınöz, S.<sup>2</sup>

<sup>1</sup>Department of Pharmaceutical Technology, Faculty of Pharmacy, Hacettepe University; <sup>2</sup>Department of Analytical Chemistry, Faculty of Pharmacy, Hacettepe University; <sup>3</sup>Department of Biochemistry, Faculty of Pharmacy, Hacettepe University, Ankara, Turkey

**P2F-10**

**Investigation of anticancer action of a novel steroidal dimers of D-ring modified estrogens**

Bózsity, N.<sup>1</sup>, Minorics, R.<sup>1</sup>, Mernyák, E.<sup>2</sup>, Szabó, J.<sup>2</sup>, Wölfling, J.<sup>2</sup>, Zupkó, I.<sup>1</sup>

<sup>1</sup>Department of Pharmacodynamics and Biopharmacy, University of Szeged; <sup>2</sup>Department of Organic Chemistry, University of Szeged, Szeged, Hungary

**P2F-11**

**Investigation of anticancer properties of D-ring modified estrane analogs against a panel of breast cancer cell lines**

Sinka, I.<sup>1</sup>, Mernyák, E.<sup>2</sup>, Kiss, A.<sup>2</sup>, Schneider, G.<sup>2</sup>, Wölfling, J.<sup>2</sup>, Ocsovszki, I.<sup>3</sup>, Kuo, C.Y.<sup>4</sup>, Wang, H.C.<sup>4</sup>, Zupkó, I.<sup>1</sup>

<sup>1</sup>Department of Pharmacodynamics and Biopharmacy; <sup>2</sup>Department of Organic Chemistry; <sup>3</sup>Department of Biochemistry, University of Szeged; Szeged, Hungary; <sup>4</sup>Graduate Institute of Natural Products, Kaohsiung Medical University, Kaohsiung, Taiwan

**P2F-12**

**In vitro antiproliferative properties of novel androstane-based synthetic steroids**

Gyovai, A.<sup>1</sup>, Bózsity, N.<sup>1</sup>, Minorics, R.<sup>1</sup>, Benke, Z.<sup>2</sup>, Kiss, A.<sup>2</sup>, Ocsovszki, I.<sup>3</sup>, Schneider, G.<sup>2</sup>, Zupkó, I.<sup>1</sup>

<sup>1</sup>Department of Pharmacodynamics and Biopharmacy; <sup>2</sup>Department of Organic Chemistry; <sup>3</sup>Department of Biochemistry, University of Szeged; Szeged, Hungary

**P2F-13**

**Anticancer properties of sesquiterpene derivatives and their conjugates with estrogens on breast cancer cell lines**

Kulmány, Á.<sup>1</sup>, Kiss, A.<sup>2</sup>, Zupkó, I.<sup>1</sup>,  
Minorics, R.<sup>1</sup>, Ocsvoszki, I.<sup>3</sup>

<sup>1</sup>*Institute of Pharmacodynamics and Biopharmacy;*

<sup>2</sup>*Department of Organic Chemistry;* <sup>3</sup>*Department of Biochemistry, University of Szeged; Szeged, Hungary*

**P2F-14**

**Searching for specific and clinically relevant BCRP (ABCG2) probe**

Molnár, J., Beer, E., Tóth, B., Rajnai, Zs., Jani, M., Kis, E.,  
Magnan, R., Makai, I., Fekete, Zs., Bui, A., Krajcsi, P.  
*Solvo Biotechnology, Szeged, Hungary*

**Poster Section 2G**

**Pharmacology**

Section Committee: Róbert Gáspár, István Lekli

**P2G-1**

**Antimicrobial and in vitro antiproliferative and proapoptotic potential against B164A5 murine melanoma cell line of flavonol fisetin**

Danciu, C., Avram, S., Bojin, F., Muntean, D., Minda, D.,  
Pavel, I., Soica, C., Roxana, G., Dehelean, C., Trandafirescu, C.  
*Department of Pharmacognosy, University of Medicine and Pharmacy "Victor Babeş", Timișoara, România,*

**P2G-2**

**Antimicrobial and in vitro antiproliferative and proapoptotic potential against B164A5 murine melanoma cell line of flavonol quercetin**

Danciu, C., Avram, S., Bojin, F., Muntean, D., Minda, D.,  
Pavel, I., Soica, C., Roxana, G., Dehelean, C., Trandafirescu, C.  
*Department of Pharmacognosy, University of Medicine and Pharmacy "Victor Babeş", Timișoara, România,*

**P2G-3**

**Increased anterior cingulate cortex activation in migraine patients in response to acute citalopram administration**

Edes, A., McKie, S., Zsombok, T., Bagdy, Gy., Juhasz, G.  
*MTA-SE-NAP B Genetic Brain Imaging Migraine Research Group, Budapest, Hungary*

**P2G-4**

**The effect of acute escitalopram treatment on EEG gamma power during wakefulness and REM sleep**

Papp, N., Vas, Sz., Bagdy, Gy.

*Department of Pharmacodynamics,  
Semmelweis University, Budapest, Hungary*

**P2G-5**

**Role of stress hormones in migraine**

Toth, Zs.<sup>1,2</sup>, Gecse, K.<sup>1,2</sup>, Edes, A.<sup>1,2</sup>, Szabo, E.<sup>1</sup>, Kocsel, N.<sup>1</sup>, Galambos, A.<sup>1</sup>, Baksa, D.<sup>1,2</sup>, Kokonyei, Gy.<sup>1,2</sup>, Bagdy, Gy.<sup>1,2,3</sup>, Juhász, G.<sup>1,2,3,4</sup>

<sup>1</sup>MTA-SE-NAP B Genetic Brain Imaging Migraine Research Group; <sup>2</sup>Department of Pharmacodynamics, Faculty of Pharmacy, Semmelweis University; <sup>3</sup>MTA-SE Neuropsychopharmacology and Neurochemistry Research Group; Budapest, Hungary; <sup>4</sup>Neuroscience and Psychiatry Unit, The University of Manchester, Manchester Academic Health Sciences Centre, Manchester, UK

**P2G-6**

**Cardiovascular effects of low- and high-dose beta-carotene treatment in Zucker obese rats**

Csépányi, E., Czompa, A., Szabados-Fürjesi, P., Duong, T., Lekli, I., Tósaki, Á., Bak, I.

*Department of Pharmacology, Faculty of Pharmacy,  
University of Debrecen, Hungary*

**P2G-7**

**Effect of GSH synthetic analogue UPF1 on the activation of NRF2**

Hansen, M., Porosk, R., Mahlapuu, R., Kairane, C., Zilmer, M., Soomets, U.

*Department of Biochemistry, Institute of Biomedicine and Translational Medicine, Centre of Excellence for Genomics and Translational Medicine, University of Tartu, Tartu, Estonia*

**P2G-8**

**Vasoactive effects of a new nitric oxide donating acetylsalicylic derivative**

Czompa, A., Bak, I., Szoke, K., Szabados-Fürjesi, P., Lekli, I., Borbas, A., Herczegh, P., Tosaki, A.

*Department of Pharmacology, Faculty of Pharmacy,  
University of Debrecen, Hungary*

**P2G-9**

**The study of the fenugreek seed treatment and its effects on certain methabolic parameters and on the mitochondrial functions**

Pallag, A., Bombicz, M., Hegedűs, Cs., Kovács, D., Varga, B., Priksz, D., Kurucz, A., Németh, J., Juhász, B., Kiss, R.  
*Pharmacy department, Faculty of medicine and Pharmacy, University of Oradea, Oradea, Romania*

**P2G-10**

**The cardioprotective effect of metformin on doxorubicin-induced cardiotoxicity**

Zilinyi, R., Lekli, I., Czompa, A., Marton, M., Tosaki, A.  
*Department of Pharmacology, Faculty of Pharmacy, University of Debrecen, Hungary*

**P2G-11**

**Investigation of the effects of anthocyanins on human inflammatory keratinocyte model**

Madarász, V., Fenyvesi, F., Vasvári, G., Fehér, P., Ujhelyi, Z., Bácskay, I., Vecsernyés, M., Váradi, J.  
*Department of Pharmaceutical Technology, University of Debrecen, Debrecen, Hungary*

**P2G-12**

**Iron (II) chelator could prevent the loss of positive cardiovascular effects of high dose beta carotene treatment**

Csepanyi, E., Duong, V. T., Szabados-Furjesi, P., Lekli, I., Bak, I.  
*Bioanalytical Chemistry and Pharmacology, Faculty of Pharmacy, University of Debrecen, Hungary*

**P2G-13**

**Characterization of D-serine transport in SH-SY5Y cell line and cortical astrocytes**

Vincze, I., Bagaméry, F., Lakatos, P., Tóka, D., Tábi, T., Szökő, É.  
*Department of Pharmacodynamics, Semmelweis University, Budapest, Hungary*

**P2G-14**

**Comparison of the cytoprotective effect of some resveratrol derivatives**

Bagaméry, F., Ulakcsai, Zs., Varga, K., Tóth, G., Szökő, É., Tábi, T.  
*Department of Pharmacodynamics, Semmelweis University, Budapest, Hungary*



**P2G-15**

**In vivo hypoglycemic activities of ethanol and aqueous extracts of *Capparis ovata* var. *Palaestina***

Okur, M. E.<sup>1,2</sup>, Çiçek Polat, D.<sup>3</sup>, Özbek, H.<sup>4</sup>, Arslan, R.<sup>1</sup>

<sup>1</sup>Department of Pharmacology, Faculty of Pharmacy, Anadolu University, Eskişehir; <sup>2</sup>Department of Pharmacology, School of Pharmacy Istanbul Medipol University, Istanbul;

<sup>3</sup>Department of Pharmaceutical Botany, Faculty of Pharmacy, Ankara University, Ankara; <sup>4</sup>Department of Pharmacology, School of Medicine, Istanbul Medipol University; Turkey

**Poster Section 2H Hospital pharmacy and pharmacoepidemiology**

Section Committee: Mojca Kerec-Kos, András Süle

**P2H-1**

**Bisphosphonate related osteonecrosis of the jaw in Hungary**

Veszelyné Kotán, E., Lieb, T., Parisek, Zs.,

Meskó, A., Vaszilkó, M., Hankó, B.

*Uzsoki Hospital Budapest, Hungary*

**P2H-2**

**Cross-cultural adaptation of the “Osteoarthritis Knee and Hip Quality of Life” disease specific questionnaire – methods and results of the pilot phase I.**

Fekete, H., Fekete, R., Csóka, I.

*University of Szeged, Faculty of Pharmacy, Institute of Pharmaceutical Technology and Regulatory Affairs, Szeged, Hungary*

**P2H-3**

**Screening potential interactions between drugs and supplementary products: Summarized experiences and recommendations based on the study of three Hungarian patient groups**

Somogyi-Végh, A., Ábrahám, E., Botz, L.

*Department of Pharmaceutics and Central Clinical Pharmacy, Faculty of Pharmacy, University of Pécs, Pécs, Hungary*

**P2H-4**

**Alarming patient safety concerns of the illegitimate online market of shortage oncology drugs**

Vida, R. Gy., Fittler, A., Botz L

*Department of Pharmaceutics and Central Clinical Pharmacy, Faculty of Pharmacy, University of Pécs, Pécs, Hungary*

**P2H-5**

**The effect of clinical pharmacy services on medication errors in a Hungarian regional hospital**

Richter, K., Pázmány, P., Attl, O., Tokaji-Nagy, O.  
*„Szent Borbála” Hospital, Tatabánya, Hungary*

**P2H-6**

**Assessment of some herbal products used to treat urinary tract diseases in Hungary**

Gerner, B., Horváth, Gy., Bencsik, T.  
*Department of Pharmacognosy, University of Pécs, Pécs, Hungary*

**P2H-7**

**Results of a pharmacist led medication reconciliation process**

Gyimesi, N., Tiszai, Z., Keller, N., Süle, A.  
*Department of Pharmacy, Péterfy Hospital and Trauma Centre, Budapest, Hungary*

**P2H-8**

**Polypharmacy among hospitalized elderly patients**

Csatordai, M., Bor, A., Szalai, G.<sup>1</sup>, Csonka, Á.<sup>2</sup>,  
Gárgyán, I.<sup>2</sup>, Doró, P.<sup>1</sup>  
*<sup>1</sup>University of Szeged, Faculty of Pharmacy, Department of Clinical Pharmacy; <sup>2</sup>University of Szeged, Faculty of Medicine, Department of Traumatology; Szeged, Hungary*

**P2H-9**

**Importance of pharmaceutical care in the application of eye drops and determination of microbiological contamination**

Merczel, S.<sup>1</sup>, Pál, Sz.<sup>2</sup>, Kocsis, B.<sup>3</sup>, Botz, L.<sup>4</sup>  
*<sup>1</sup>Central Pharmacy, Teaching Hospital Mór Kaposi, Kaposvár, Hungary; <sup>2</sup>Institute of Pharmaceutical Technology and Biopharmacy, University of Pécs, Hungary; <sup>3</sup>Medical Microbiology and Immunology, <sup>4</sup>Department of Pharmaceutics and Central Clinical Pharmacy, University of Pécs, Hungary*

**P2H-10**

**Physical compatibility of vancomycin with common continuous administered drugs in the intensive care unit**

Szalai G., Katona G., Mautz M.,  
Jó járt-Laczkovich O., Doró P.  
*University of Szeged Faculty of Pharmacy Department of Clinical Pharmacy; University of Szeged Faculty of Pharmacy Department of Pharmaceutical Technology and Drug Regulatory Affairs, Szeged, Hungary*

**P2H-11**

**Impact of clinical pharmacy services in a multidisciplinary intensive care unit**

Kelly, S., Keller, N., Süle, A.

*Department of Pharmacy, Péterfy Hospital and Trauma Centre, Budapest, Hungary*

**P2H-12**

**Impact of patient education programs among adolescents**

Gyermán, A., Bácskay, I., Tóth, B. E., Kovács, Z., Szesztai, A.

*Department of Pharmaceutical Technologies, Faculty of Pharmacy, University of Debrecen, Hungary*

**P2H-13**

**Added value of different healthcare professionals, with special regard to pharmacists to COPD therapy experience**

Olah, M., Meszaros, A.

*Semmelweis University, Budapest University Pharmacy and Institute of Pharmaceutical Administration*

**P2H-14**

**Evaluation of drug safety issues related to pharmacovigilance of PET radiopharmaceuticals in the European Economic Area and efficiency analysis of the risk-management plan**

Arató, V. Zs.<sup>1</sup>, Ésik, Zs.<sup>1</sup>, Valkó, K.<sup>1</sup>, Ráday, G.<sup>2</sup>, Tóth, E. B.<sup>3</sup>, Szikra, D.<sup>1</sup> Berényi, E.<sup>1</sup>, Farkasinszky, G.<sup>1</sup>

<sup>1</sup>*Division of Nuclear Medicine, Faculty of Medicine, University of Debrecen, Hungary;*

<sup>2</sup>*Raday Drug Ltd, Debrecen, Hungary;*

<sup>3</sup>*Department of Pharmaceutical Management, Faculty of Pharmacy, University of Debrecen, Hungary*

**20:30 – 24:00**

**Conference Dinner**

**Restaurant**

## 7 October, Saturday

### Plenary section 3

Lecture Hall AURA

#### Biopharmaceuticals and biosimilars

08:30 – 09:20

Chairs: László Endrényi, Éva Szökő

#### PL-8

08:30 – 08:55

#### Biosimilars landscape – development, regulatory & market access challenges

Bogsch, E. Jr.

*Biotechnology R&D, Gedeon Richter Plc., Budapest*

#### PL-9

08:55 – 09:20

#### Focus on biosimilar filgrastim development

Yenice, I., Yilmaz E., Uzungun M. et al.

*Head of Biotechnology and R&D Director,*

*Arven İlaç ve San. Tic. A.Ş., İstinye Mah. Balabandere, Sarıyer, Istanbul, Turkey*

### Section A6

Lecture Hall AURA

#### Nanopharmaceuticals 2

09:25 – 10:40

Chairs: Karin Kogermann, István Antal

#### O-40

09:25 – 09:40

#### Melt electrospinning of fibers from the molten mixtures of a carrier material and drug

Lust, A.

*Institute of Pharmacy, Faculty of Medicine, University of Tartu, Estonia*

#### O-41

09:40 – 09:55

#### Development of hollow nanostructures for magnetically assisted drug delivery

Kocbek, P.<sup>1</sup>, Potrč, T.<sup>1</sup>, Kralj, S.<sup>2</sup>, Makovec, D.<sup>2</sup>

<sup>1</sup>*Faculty of Pharmacy, University of Ljubljana;*

<sup>2</sup>*Department for Materials Synthesis, Jožef Stefan Institute, Ljubljana, Slovenia*

**O-42**

**09:55 – 10:10**

**Development and characterisation of a gel formulation containing ibuprofen-loaded nanostructured lipid carriers**

Sütő, B.<sup>1,2</sup>, Berkó, Sz.<sup>2</sup>, Csányi, E.<sup>2</sup>

<sup>1</sup>Egis Pharmaceuticals Plc., Budapest, Hungary;

<sup>2</sup>Institute of Pharmaceutical Technology and Regulatory Affairs, Faculty of Pharmacy; Szeged, Hungary

**O-43**

**10:10 – 10:25**

**Formulation and characterisation of nanofibrillar cellulose consisting nanofibrous mats intended for novel wound dressings**

Paaver, U., Heinämäki, J., Kogermann, K.

*Institute of Pharmacy, University of Tartu, Tartu, Estonia*

**O-44**

**10:25 – 10:40**

**In vitro investigation of antimicrobial electrospun wound dressings based on chloramphenicol and biodegradable polymers**

Saks, L., Meos, A., Laidmäe, I., Putrinš, M.,

Tenson, T., Kogermann, K.

*Institute of Pharmacy, University of Tartu, Tartu, Estonia*

**Section B5**

**Lecture Hall LUX**

**Regulatory science**

**09:25 – 10:40**

Chairs: Ildikó Csóka, Rita Poór

**O-45**

**09:25 – 09:45**

**A science based approach for Topical drug Classification System (TCS)**

Shah, V. P.

*Pharmaceutical Consultant (Formerly with US FDA), North Potomac, Maryland, USA*

**O-46**

**09:45 – 10:05**

**Some bioequivalent (BE) modified-release (MR) formulations with multiphasic concentration profiles are not interchangeable**

Endrényi, L., Tóthfalusi, L.

*Department of Pharmacology and Toxicology, University of Toronto, Toronto, Canada*

**O-47**

**10:05 – 10:25**

### **Navigating the regulatory information maze**

Pálfiné-Goóts, H.

*Gedeon Richter Plc., Budapest, Hungary*

**O-48**

**10:25 – 10:40**

### **Long-term dissolution method for poor water-soluble parenteral suspension**

Lehocký, R.<sup>1</sup>, Pěček, D.<sup>2</sup>, Štěpánek, F.<sup>1</sup>

<sup>1</sup>*University of Chemistry and Technology;*

<sup>2</sup>*Zentiva, k.s., Prague, Czech Republic*

10:40 – 11:05

Coffee Break

## **Section A7**

**Lecture Hall AURA**

### **Quality by design**

**11:05 – 12:25**

Chairs: Nevin Celebi, János Bajdik

**O-49**

**11:05 – 11:25**

### **New advances in continuous pharmaceutical technology**

Marosi, Gy., Farkas, A., Hirsch, E., Borbás, E., Démuth, B., Domokos, A., Nagy, B., Fulop G., Balogh, A., Nagy, Zs.

*Department of Organic Chemistry and Technology, Budapest University of Technology and Economics, Budapest, Hungary*

**O-50**

**11:25 – 11:40**

### **Application of the Quality by Design methodology in the R&D phase: implementation of „co-creation” with regulatory agencies, pharmaceutical industry partners and patients**

Csóka, I.

*Institute of Pharmaceutical Technology and Regulatory Affairs, University of Szeged, Faculty of Pharmacy Szeged, Hungary*

**O-51**

**11:40 – 11:55**

### **Optimization of flurbiprofen nanosuspensions: The QbD approach**

Oktay, A., Karakucuk, A., Ilbasmis-Tamer, S., Celebi, N.

*Gazi University Faculty of Pharmacy, Department of Pharmaceutical Technology, Ankara, Turkey*

**O-52**

**11:55 – 12:10**

**Application of flow techniques as a research tool in pharmaceutical area**

Solich, P., Sklenářová, H., Chocholouš, P.  
*Charles University, Faculty of Pharmacy,  
Laboratory of Flow Analysis, Hradec Králové, Czech Republic*

**O-53**

**12:10 – 12:25**

**Application of simultaneous dissolution-absorption apparatus for screening formulations before bioequivalence studies**

Sinkó, B.<sup>1</sup>, Borbás, E.<sup>2</sup>, Tsinman, K.<sup>1</sup>, Marosi, Gy.<sup>2</sup>, Nagy, Zs. K.<sup>2</sup>  
*<sup>1</sup>Pion Inc., Billerica MA, USA; <sup>2</sup>Budapest University of Technology and Economics, Budapest, Hungary*

**Section B6**

**Lecture Hall LUX**

**Clinical trials and hospital pharmacy**

**11:05 – 12:25**

Chairs: Vinod Shah, Lajos Botz

**O-54**

**11:05 – 11:25**

**Translation of clinical pharmacy research into practice: a Slovenian case**

Mrhar, A.  
*Faculty of Pharmacy, University of Ljubljana,  
Ljubljana, Slovenia*

**O-55**

**11:25 – 11:40**

**Cariprazine, a new generation atypical antipsychotics: Clinical overview**

Laszlovszky, I., Németh, G.  
*Medical Division, Gedeon Richter Plc., Budapest, Hungary*

**O-56**

**11:40 – 11:55**

**Changes in pharmacokinetics in patients with chronic heart failure**

Kerec-Kos, M.<sup>1</sup>, Cvan Trobec, K.<sup>1</sup>,  
Grabnar, I.<sup>1</sup>, Vovk, T.<sup>1</sup>, Lainscak, M.<sup>2,3</sup>  
*<sup>1</sup>University of Ljubljana, Faculty of Pharmacy;  
<sup>2</sup>Faculty of Medicine; Ljubljana, Slovenia;  
<sup>3</sup>Department of Internal Medicine, General Hospital Murska  
Sobota, Slovenia*

**O-57**

**11:55 – 12:10**

**Safety and efficacy of Vitamin-D supplementation among elderly people**

Toth, B. E., Csaszar, T., Kadar, K.

*Dept of Pharm. Surveillance and Economy, Faculty of Pharmacy, University of Debrecen, Debrecen, Hungary*

**O-58**

**12:10 – 12:25**

**The efficacy of ginger (*Zingiber officinale*) for the prevention of postoperative nausea and vomiting**

Tóth, B., Lantos, T., Csupor, D., Vasas, A.,

Matuz, M., Benkő, R., Hegyi, P., Viola, R.

*Department of Pharmacognosy, University of Szeged, Szeged, Hungary*

**Plenary Section 4**

**Lecture Hall AURA**

**Translational science**

**12:30 – 13:15**

Chairs: Jessica Rosenholm, Piroska Révész

**PL-10**

**12:30 – 12:55**

**Target and biomarker discovery in an open ecosystem**

Szalma, S.

*Global Research & Development Center,*

*Takeda Pharmaceuticals, Greater San Diego Area, USA*

**PL-11**

**12:55 – 13:15**

**Translational science taking discoveries to patients benefits**

Hegyi, P.

*Centre for Translational Medicine, University of Pécs,*

*Pécs, Hungary*

**Closing Ceremony**

**Lecture Hall AURA**

**13:15 – 13:35**

Announcement of Poster Award winners

Invitation to forthcoming conferences

**13:35 – 15:00**

**Lunch**

**Restaurant**



6 October, Friday

Satellite Symposium in Hungarian Hospital Pharmacy – Oncology

Section B1

Lecture Hall LUX

Hospital pharmacy – Oncology 1

08:30 – 09:45

Chairs: Csongor Szabó, E. Béla Tóth

S-1

08:30 – 08:45

**Innovative and well-tried approaches in treatment of the metastatic colorectal cancer**

Kleiner, D.

*University Pharmacy Department of Pharmacy Administration, Cancer Center, Semmelweis University, Budapest, Hungary*

S-2

08:45 – 09:00

**The new era of thalidomide?**

Dóczy, V.

*Section of Pharmacotherapy and Pharmaceutical Care, Hungarian Society for Pharmaceutical Sciences, Budapest, Hungary*

S-3

09:00 – 09:15

**Adverse reactions of PD1 checkpoint inhibitors in the therapy of malignant melanoma**

Makó, S., Soós, Gy.

*Semmelweis University Department of Dermatology, Venereology and Dermatocology, Szeged, Hungary*

S-4

09:15 – 09:30

**Cardiotoxic effects of oncology therapies – clinical pharmacology aspects**

Csontos, D., Higyisán, I., Telekes, A.

*Institute Pharmacy and Oncology Department, Bajcsy-Zsilinszky Hospital and Clinics, Budapest, Hungary*

S-5

09:30 – 09:45

**Potential advantages of nutritional status screening and Quality of Life measurements in oncology patients**

Tiszai, Z., Süle, A.

*Péterfy Hospital and Trauma Centre, Budapest, Hungary*

**Hospital pharmacy - Oncology 2 and Workshop**

**12.30 – 12.45**

Chairs: Ilona Higyisán, István Zupkó

**S-6**

**12:30 – 12:45**

**Professional and economic evaluation of Pharmaceutical  
Centre of Centralized Cytotoxic Drug Preparation**

Ábrahám, E., Schirm, Sz., Botz, L.

*University of Pécs, Central Clinical Pharmacy, Pécs, Hungary*

**S-7**

**12:45 – 13:00**

**Advantages and disadvantages of biosimilars – Safety  
and pharmaco-economic aspects**

Süle, A.

*Péterfy Hospital and Trauma Centre, Budapest, Hungary*

**S-8**

**13:00 – 13:15**

**Parameters associated with nutritional status in  
hospitalized patients: clinical data analysis**

Vincze, P., Bánszki, B., Zemplényi, A., Horváth, B.,  
Somogyi-Végh, A., Lankó, E., Schirm, Sz., Botz, L.

*Department of Pharmaceutics and Central Clinical  
Pharmacy, University of Pécs, Pécs, Hungary*