



VIII. Symposium of Young Researchers on Pharmaceutical Technology, Biotechnology and Regulatory Science

January 28–30, 2026 – Szeged, Hungary

Schedule

Wednesday, 28 January – 10:00–16:00 CET

“SZAB Palace” - Headquarters of the Hungarian Academy of Sciences' Szeged Regional Committee (7 Somogyi street, Szeged, H-6720)

10:00–10:30 Registration

10:30–11:00 Opening Ceremony

Dr. Leona Kovács-Jerney (Deputy Director for General and International Affairs, University of Szeged)

Dr. Gerda Szakonyi (Vice-Dean of the Faculty of Pharmacy, University of Szeged)

Prof. Ildikó Csóka (President of the Symposium, Head of Pharmaceutical Technology Doctoral Program, University of Szeged)

11:00–11:45 Plenary Lecture 1.

Gábor Klivényi – *Computer Fluid Dynamics Models Validation in Pharmaceutical Applications*

11:45–12:15 Plenary Lecture 2.

Péter Ágoston – *Clinical Trials Overview: An Introduction to Clinical Research*

12:15–13:30 Lunch break

“EGIS room” – Faculty of Pharmacy (6 Eötvös street, Szeged, H-6720)

13:30–14:45 OP Session 1 – Chairs: Tamás Sovány, Krisztián Pamlényi

OP-1 – 13:30–13:45 **Rabia Ashfaq**, Anita Kovács, Szilvia Berkó, Mária Budai-Szűcs
Thermo-Responsive Mucoadhesive Nanocarrier Systems for Localized Periodontitis Therapy: Development, Characterization, and Biopharmaceutical Evaluation

OP-2 – 13:45–14:00 **Lina Ilayan**, Sina Matalqah, Hala Al-Dhagestani
Synthesis and Characterization of Bimetallic Nanoparticles Loaded with Chenopodium quinoa Extract: Assessment of Antibacterial and Cytotoxic Effects



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OP-3 – 14:00–14:15 **Hadi Shammout**, Krisztina Ludasi, Béla Hopp, Tamás Smausz, János Bohus, Orsolya Jójárt-Laczkovich, Martin Cseh, Judit Kopniczky, Tamás Sovány

Balancing laser marking efficiency and enteric film coated tablets integrity

OP-4 – 14:15–14:30 **Boglárka Gábor**, Dorina Gabriella Dobó, Ildikó Csóka

Formulation and characterization of propranolol hydrochloride-loaded liposomes

OP-5 – 14:30–14:45 **Maryana Salamah**, Ildikó Csóka, György Tibor Balogh, Gábor Katona

Lipid-based nanocarriers for intranasal delivery of Rifampicin

14:45–15:00 Break

15:00–16:00 **OP Session 2 – Chairs: Mirjana Gašperlin, Nikola Geskovski**

OP-6 – 15:00–15:15 **Hala Rayya**, Krisztián Pamlényi, Raghad Alsheikh, Dániel Nemes, Ildikó Bácskay, Géza Regdon jr., Katalin Kristó

Stability and in vitro evaluation of captopril-loaded mucoadhesive buccal films

OP-7 – 15:15–15:30 **Milica Martinović**, Ivana Nešić, Vanja Tadić, Ana Žugić, Marija Tasić-Kostov

Natural deep eutectic solvent-based green tea leaves extracts for hyaluronidase inhibition in skin care formulations

OP-8 – 15:30–15:45 **Hanan Mohammad**, Gábor Katona, Ildikó Csóka

Thiolated Albumin Nanocarriers for Improved Intranasal Delivery of Levodopa Methyl Ester

OP-9 – 15:45–16:00 **Elika Valehi**, Zsófia Németh, Dorina Gabriella Dobó, Gábor Katona, Ildikó Csóka

Comparative In Vitro Evaluation of Oppositely Charged Donepezil-Loaded Liposomes for Intranasal Drug Delivery

19:00– **Networking event**

“Bohém Tanya” (6 Szentháromság street, Szeged, H-6720)



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9:00–10:15 OP Session 3 – Chairs: Mahwash Mukhtar, Mario Jug

OP-10 – 9:00–9:15 **Pia Berglez**, Barbara Sterle Zorec, Odon Planinšek, Alenka Zvonar Pobirk

Hot melt extruded solid dispersions of resveratrol with mesoporous silica: formulation development and characterization

OP-11 – 9:15–9:30 **Fatima Rajab**, Bence Sipos, Ildikó Csóka

Thermosensitive polymeric micelles as nanocarriers in nasal administration

OP-12 – 9:30–9:45 **József Bogner**, Bence Sipos, Gábor Katona, Ildikó Csóka

Risperidone-loaded surface-modified albumin nanocarriers for intranasal drug delivery

OP-13 – 9:45–10:00 **Yusra Ahmed**, Krisztián Kovács, Krisztina Ludasi, Orsolya Jójárt-Laczkovich, Tamás Sovány

Enhancing Drug Incorporation in FDM 3D-Printed Tablets Using Pan Coating Technique

OP-14 – 10:00–10:15 **Tabarek H. Mahmood**, Ali Al-Samydai, Mazen Al Sulaibi, Moath Alqaraleh, Anas Ibrahim Abed, Naeem Shalan, Alaa Alsanabrah, Shrouq Taiseer Alsotari, Hamdi Nsairat, Walhan Alshaer

Development of Pegylated Nano-Phytosome Formulation with Oleuropein and Rutin to Compare Anti-Colonic Cancer Activity with Olea Europaea Leaves Extract

10:15–10:30 **Coffee break**



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10:30–11:15 FP Session 1 – Chairs: Janina Lulek, Petra Party

10:30–10:50 Presentations FP-1 – FP-4

FP-1 **Flóra Sendula**, Boglárka Szalai, Anita Kovács, Szilvia Berkó, Mária Budai-Szűcs

Combined ophthalmic nanoformulation of Dexamethasone for improved bioavailability

FP-2 **Ilgin Ünalı**, Fatima Rajab, Bence Sipos, Ildikó Csóka

Investigation of the nasal applicability and the effect of mucoadhesive excipients on thermosensitive polymeric micelles

FP-3 **Milana Vuković**, Mladena Lalić-Popović, Nemanja Todorović, Jelena Čanji Panić, Dunja Vesković, Ivana Smiljanić, Jelena Jovičić-Bata

Pharmacopoeial mass uniformity testing of alpha-lipoic acid dietary supplements

FP-4 **Windah Anugrah Subaidah**, Gábor Katona, Ildikó Csóka

Design, optimization and characterization of rifampicin loaded albumin nanoparticle for nasal preparation

10:50–10:55 Discussion FP-1 – FP-4

10:55–11:10 Presentations FP-5 – FP-7

FP-5 **Nikolett Csáki-Kónya**, Péter Kovács, Ildikó Csóka

Juran quality model in energy management

FP-6 **Kinga Budai**, Mária Budai-Szűcs

Optimization of metronidazole loaded NLC for sustained antimicrobial effect in the local treatment of periodontitis

FP-7 **Jelena Štimac**, Maša Safundžić Kučuk, Anđela Nosić, Nensi Tomas, Jasmina Lovrić

In vitro biocompatibility testing during early-stage development of ophthalmic formulations using a 3D corneal epithelial model

11:10–11:15 Discussion FP-5 – FP-7

11:15–11:30 Break



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11:30–12:30 OP Session 4 – Chairs: Anita Hafner, Marcin Skotnicki

OP-15 – 11:30–11:45 Ludovico Checchini

An integrated in vivo genotoxicity framework for potency assessment of nitrosamines

OP-16 – 11:45–12:00 Bence Sipos, Gábor Katona, Ildikó Csóka

Controlling the drug release profile of nasal polymeric nanoparticles via hyaluronic acid

OP-17 – 12:00–12:15 Teodora Tasevska, Luka Sharovikj, David Dodevski, Jovana Danova, Lina Livrinska Trpeska, Nikola Geskovski, Riste Popeski Dimovski, Katerina Goracinova, Maja Simonoska Crcarevska

Assessing printability of semi-solid extrusion 3D printing systems: The impact of Avicel concentration

OP-18 – 12:15–12:30 Lomass Soliman, Rita Ambrus

Development and evaluation of levofloxacin dry powder for inhalation

12:30–13:45 Lunch break

“EGIS room” – Faculty of Pharmacy (6 Eötvös street, Szeged, H-6720)

13:45–15:00 Cultural Program – Visiting the collection of Old Books and Manuscripts and the exhibition “Katalin Karikó’s journey to the Nobel Prize and beyond”

SZTE Klebelsberg Library and Archives (10 Ady square, Szeged, H-6722)



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15:00–16:00 **OP Session 5** – Chairs: Rita Ambrus, Alenka Zvonar Pobirk

OP-19 – 15:00–15:15 **Eslam Ramadan**, Norbert Varga, Edit Csapó, Katalin Kristó, Tamás Sovány

Preparation and optimization of lipid-polymer hybrid nanoparticles for oral protein delivery

OP-20 – 15:15–15:30 **Mirna Perkušić**, Anita Hafner

Development of advanced in situ gelling systems for nasal donepezil delivery

OP-21 – 15:30–15:45 **Aleksandra Petković**, Marija Krstić

Formulation and testing of the physical stability and in vivo efficiency of creams for skin application containing black goji berries extract

OP-22 – 15:45–16:00 **Flórián Benkő**, Nóra Zacsik, Katalin Kristó, Tamás Sovány

The effect of critical process parameters on the final product during high-shear granulation of mesoporous silica microparticles

16:00–16:15 Coffee Break

16:15–17:00 **FP Session 2** – Chairs: Zsófia Németh, Gábor Katona

16:15–16:30 **Presentations FP-8 – FP-10**

FP-8 **Teodora Glišić**, Ivana Aleksić

Does the carrier type affect the CQAs of liquisolid tablets with atorvastatin calcium?

FP-9 **Dilay Göksel**, Rita Ambrus, Petra Party

Development of inhalable extra-fine particles of vancomycin for the treatment of local lung diseases

FP-10 **Anna Kurucz**, Ildikó Csóka

Patient centered pharmaceutical development and clinical trials: patient recruitment and retention

16:30–16:40 **Discussion FP-8 – FP-10**



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16:40–16:55 Presentations FP-11 – FP-13

- FP-11** **Cong Khanh Truong**, Ildikó Csóka, Bence Sipos, Gábor Katona
Intranasal delivery of amphotericin B to the cerebrospinal fluid using a discoidal nano system
- FP-12** **Dominika Csajbók**, Dorina Gabriella Dobó, Ildikó Csóka
Increasing the effectiveness of feasibility through early PI involvement
- FP-13** **Aleksandra D. Čoškov**, Nemanja B. Todorović, Jelena M. Čanji-Panić, Zita J. Farkaš-Agatić, Ana S. Pilipović, Vesna B. Tepavčević, Nataša P. Milošević, Mladena N. Lalić-Popović
Physical characterization of 3D printed PVA capsules produced by fused deposition modelling

16:55–17:00 Discussion FP-11 – FP-13



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Friday, 30 January – 9:00-11:45 CET

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9:00–10:15 OP Session 6 – Chairs: Eliza Wolska, Heba Banat

OP-23 – 9:00–9:15

Martin Deák, Nur Aslan, Katalin Kristó, Tamás Sovány

Development of lysozyme-loaded self-emulsifying drug delivery systems using hydrophobic ion pairing

OP-24 – 9:15–9:30

Dragana Zaklan, Sara Šijan, Jovana Milutinov, Veljko Krstonošić, Nebojša Pavlović

Influence of guar gum on the stability and thermorheological properties of soy protein isolate-stabilized oil-in-water emulsions

OP-25 – 9:30–9:45

Feria Hasanpour, Oliwia Kordyl, Zuzanna Styrna, Barbara Jadach, Tomasz Osmalek, Ferhan Ayaydin, Mária Budai-Szűcs, Anita Kovács, Szilvia Berkó

Design and development of LCD-based 3D-printed microneedle arrays with hydrogel coating for local anesthesia

OP-26 – 9:45-10:00

Maryam Abdulmaged Oleiwi, Ali Al-Samydai, Aya Y. Al-Kabariti, Khaldun M. Al Azzam, Simone Carradori, Walhan Alshaer

Codelivery of Raloxifene and Rutin as PEGylated Nanoliposomes: Formulation, Characterization, and Prophylactic Activity Against Breast Cancer

OP-27 – 10:00–10:15

Zsófia Ilona Piszman, Petra Party, Rita Ambrus

Development of a chlorpromazine containing dry powder inhaler for targeting systemic effect

10:15–10:30 Coffee break



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10:30–11:30 OP Session 7 – Chairs: Jelena Parojčić, Marija Tasić-Kostov

OP-28 – 10:30–10:45 **Luca Éva Uhljar**, Tekla Jáger, Rita Ambrus

Preparation of orodispersible nanofibers

OP-29 – 10:45–11:00 **Josip Ljubica**, Jasmina Lovrić

Loteprednol etabonate-loaded nanoemulsions for the treatment of dry eye disease

OP-30 – 11:00–11:15 **Lina Livrinska Trpeska**, Aleksandra Ivanoska-Dacikj, Petre Makreski, Nikola Geskovski

Electrospinning as a versatile platform for engineering scaffolds in wound healing applications

OP-31 – 11:15–11:30 **Alaa Gamiel**, Mahwash Mukhtar, Rita Ambrus

Characterization of novel lornoxicam liquitablets: In vitro permeability, cytotoxicity, and stability evaluation

11:30–11:45 Closing Ceremony