Annual meeting

of the ***Working Committee for* *Carbohydrates, Nucleic Acids and Antibiotics***

*of the Hungarian Academy of Sciences*

Mátraháza, May 31– June 02, 2017

**Sponsored by Cyclolab Ltd. and Glycoptim Ltd.**

Scientific programme

**Wednesday, 31/05**

**13:30 Welcome party and lunch**

**Scientific sessions**

**14:50** Opening (László Somsák)

**15:00 Plenary lecture**

**Alberto Marra:**

**Metal-free synthesis of multivalent sugars and iminosugars**

*Institut des Biomolécules Max Mousseron, Université de Montpellier, France*

**16:00 Break**

**16:30-16:55**

Imre Jákli, Péter Sághy, András Perczel:

Quantum chemical study of hexopyranose configuration induced conformer distribution

*MTA-ELTE Protein Modeling Research Group*

**16:55-17:15**

Fruzsina Demeter, Anikó Borbás, Mihály Herczeg:

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

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

**17:15-17:30**

Dániel Eszenyi, Fanny Balogh, Viktor Kelemen, Miklós Bege, Magdolna Csávás, Pál Herczegh and Anikó Borbás:

Low-temperature thiol-ene coupling for the efficient synthesis of 1,2-cis-alpha-thioglycosides

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

**17:30-17:45**

Tamás Gyöngyösi, István Timári, Burkhard Luy and Katalin E. Kövér:

Semi-automated NMR assignment of small-to-medium size carbohydrates with novel CLIP-COSY based experiments

*Department of Inorganic and Analytical Chemistry, University of Debrecen, Hungary*

*Institute of Organic Chemistry and Institute for Biological Interfaces 4 – Magnetic Resonance, Karlsruhe Institute of Technology (KIT), Germany*

*Department of Chemistry and Biochemistry, The Ohio State University, USA*

**17:45-18:00**

Attila Fekete, László Somsák:

Radical reactions on the Cremer-Pople surface

*Department of Organic Chemistry, University of Debrecen, Debrecen, Hungary*

**18:30 Dinner**

**Thursday, 01/06**

**09:00 Plenary lecture**

**Michaela Wimmerová:**

**Protein-carbohydrate interactions in host-pathogen
recognition**

*Central European Institute of Technology, Masaryk University, Brno, Czech Republic*

 **10:00 Break**

**10:15-10:30**

Katalin E. Szabó, Sándor Kun, Attila Mándi, Tibor Kurtán, László Somsák:

Further results towards new glucopyranosylidene-spiro-heterocycles

*Department of Organic Chemistry, University of Debrecen, Debrecen, Hungary*

**10:30-10:45**

Sándor Kun, Nándor Kánya, Norbert Galó, Attila Mándi, Tibor Kurtán, Péter Makleit, Szilvia Veres, László Somsák:

Glucopyranosylidene-spiro-benzo[b][1,4]oxazinones and -benzo[b][1,4]thiazinones: synthesis, CD and biological studies

*Department of Organic Chemistry and Department of Agricultural Botany and Crop Physiology, University of Debrecen, Debrecen, Hungary*

**10:45-11:00**

Eszter Szennyes, Éva Bokor, László Somsák:

Synthesis of new C-glucopyranosyl azoles for the inhibition of glycogen phosphorylase

*Department of Organic Chemistry, University of Debrecen, Debrecen, Hungary*

**11:00-11:15**

Mariann Kiss, Erna Szabó, Teréz Barna, László Somsák:

Inhibition of wild type human OGA enzyme by 2-acetamido-2-deoxy-D-glucono-1,5-lactone semicarbazones

*Department of Organic Chemistry, University of Debrecen, Debrecen, Hungary*

**11:15-11:30**

Gábor Lehoczki, Kármen Szabó, Gyöngyi Gyémánt:

Screening and classifying plant derived inhibitors for carbohydrate

metabolism enzymes

*Department of Inorganic and Analytical Chemistry, University of Debrecen, Debrecen, Hungary*

**11:30-11:45**

László Jicsinszky, Giancarlo Cravotto, Evelina Colacino:

Some Comments on the Green Synthesis of Cyclodextrin Derivatives
*Dipartimento di Scienza e Tecnologia del Farmaco, Universitá di Torino, Italy
Institut des Biomolécules Max Mousseron (IBMM), Equipe Chimie Verte et Technologies Innovantes, Université de Montpellier, France*

**12:00-13:30 Lunch**

**13:30-13:45**

Csaba Balázs, Tamás Jakusch, Zoltán Kupihár, Zoltán Kele, Lajos Kovács:

The multifaceted reactivity of 5-hydroxy-2'-deoxyuridine

*Department of Medicinal Chemistry and Department of Inorganic and Analytical Chemistry, University of Szeged*

**13:45-14:00**

Brigitta Bodnár, Lajos Kovács, Zoltán Kupihár:

The synthesis of 5'-azido-5'-deoxynucleosides and homologues thereof *Department of Medicinal Chemistry, University of Szeged*

**14:00-14:15**

Györgyi Ferenc, Zoltán Váradi, Attila Bokros, Zoltán Kupihár, Elfrieda Fodor, Dénes Dudits and Ferhan Ayaydin:

Studies on uptake of oligonucleotide-lipid conjugates

*Biological Research Centre, Szeged, Hungarian Academy of Sciences, Hungary*

*Nucleic Acid Synthesis Laboratory, Cellular Imaging Laboratory*

*Nucleic Acids Laboratory, Department of Medical Chemistry, University of Szeged, Hungary*

**14:15-14:30**

Viktória Goldschmidt Gőz, István Pintér, András Perczel:

Pyranuronic β-sugar amino acids as foldamer building blocks

*ELTE, Department of Organic Chemistry, Laboratory of Structural Chemistry and Biology, Budapest, Hungary*

*MTA-ELTE, Protein Modelling Research Group, Budapest, Hungary*

**14:30 Break**

**14:45 Plenary lecture**

**Jindrich Jindrich:**

**Syntheses and applications of regioselectively substituted cyclodextrin derivatives**

*Department of Organic Chemistry, Faculty of Science, Charles University, Prague, Czech Republic*

**15:45 Break**

**16:00-16:15**

Erzsébet Varga:

Single isomer cyclodextrin derivatives in chiral capillary electrophoresis

*CycloLab Cyclodextrin Research and Development Laboratory Ltd., Budapest, Hungary*

**16:15-16:30**

Gábor Benkovics:

Mannosylated cyclodextrins: synthesis and applications

*CycloLab Cyclodextrin Research and Development Laboratory Ltd., Budapest, Hungary*

**16:30-16:45**

Petr Kasal:

Synthesis of cyclodextrin derivatives suitable for binding to solid surfaces

*Department of Organic Chemistry, Faculty of Science, Charles University, Prague, Czech Republic*

**16:45-17:00**

Iveta Ticha:

Regioselective mono- and disubstitution of dibromo-alpha-cyclodextrin

*Department of Organic Chemistry, Faculty of Science, Charles University, Prague, Czech Republic*

**17:30**

**Meeting of the Working Committee of HAS (in hungarian)**

**Wine tasting for guests (in English)**

**18:30 Dinner**

**Friday, 02/06**

**9:00 Plenary lecture**

**Lieve Naesens:**

**Drug design against the influenza virus polymerase complex**

*KU Leuven - Rega Institute for Medical Research, Belgium*

 **10:00 Break**

**10:15-10:30**

Zsolt Szűcs, Viktor Kelemen, Son Le Thai, Magdolna Csávás, Erzsébet Rőth, Gyula Batta, Evelien Vanderlinden, Anikó Borbás, Lieve Naesens, Pál Herczegh:

**Structure-activity relationship studies of lipophilic teicoplanin pseudoaglycon derivatives as new anti-influenza virus agents**

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

*Department of Organic Chemistry, University of Debrecen, H-4032 Debrecen, Hungary*

*Rega Institute for Medical Research, KU Leuven, B-3000 Leuven,*

**10:30-10:50**

Zsolt Szűcs, Máté Kicsák, Gyula Batta, Magdolna Csávás, Eszter Ostorházi, LieveNaesens, Anikó Borbás, Pál Herczegh:

Synthetic modification of glycopeptide antibiotics

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

*Department of Organic Chemistry, University of Debrecen, Hungary*

*Department of Medical Microbiology, Semmelweis University, Budapest, Hungary*

*Rega Institute for Medical Research, KU Leuven, Belgium*

**10:50-11:05**

Miklós Bege, Ilona Bereczki, Mihály Herczeg, Máté Kicsák, Dániel Eszenyi, Pál Herczegh and Anikó Borbás

Low-temperature, photoinduced thiol-ene click reaction for synthesis of sugar-modified nucleosides

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

**11:05-11:20**

Máté Kicsák, Attila Mándi, Szabolcs Varga, Gyula Batta, Attila Bényei, Anikó Borbás, Pál Herczegh

Synthesis of a new type of nucleoside analogues

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

*Department of Organic Chemistry, University of Debrecen, Hungary*

*Department of Physical Chemistry, University of Debrecen, Hungary*

**11:20-11:35**

Gyula Batta, Aletta Balogh:

A new NMR ROESY method for accurate 1H-1H distance measurement: Application for stereochemical assignments in tricyclic nucleoside analogues

*Department of Organic Chemistry, University of Debrecen, Hungary*

**11:35** Closing remarks (László Somsák)

**12:00 Lunch**