

## 29<sup>th</sup> Austrian Carbohydrate Workshop

Graz, 12<sup>th</sup> – 13<sup>th</sup> February 2026

Graz University of Technology, HS H 'Ulrich Santner'  
Kopernikusgasse 24, Chemistry



### Program

**12:00 – 12:50** Arrival coffee with snacks

**12:50 – 13:00** Welcome, Tanja Wrodnigg

**13:00 – 14:45** Session 1 chair: Martin Thonhofer

#### **Synthesis, Conformational Analysis and Biological Evaluation of Bicyclic Iminosugars**

Patrick Weber, Marta Artola Perez de Azanza, Maria J. Ferraz, Daan Hoogers, Katharina Janmaat, Jeroen Codee, Hermen Overkleef  
TU Graz, IBioSys, University of Leiden, Netherlands

#### **Stereoselective Synthesis of 4-epi-Isosagomine Derivatives**

Alexander Luttenberger, T.M. Wrodnigg  
TUGraz, IBioSys

#### **Strategies for the Alkyne-Functionalization of D-manno-C-Glycosides**

Wilhelm Festl, T. M. Wrodnigg  
TU Graz, IBioSys

#### **Synthesis of Oligosaccharides from RG-II side chain B**

Katharina Obleser, Fabian Pfrengle  
Institute of Organic Chemistry, BOKU University

#### **Towards the Chemical Synthesis of Carrageenan Oligosaccharides Using Automated Glycan Assembly**

Brock Byers, Fabian Pfrengle  
BOKU University

#### **The NMR signature of glycation found in therapeutic proteins**

Mario Schubert  
Department of Biology, Chemistry and Pharmacy, FU Berlin

## JEOL NMR solutions

Georg Ragg  
JEOL

## GÖCH

Walter Schneider, Geschäftsführung GÖCH

**14:45 – 15:20 COFFEE BREAK**

**15:20 – 16:50 Session 2 chair: Paul Kosma**

### Process Chemistry at Thermo Fisher Scientific

Manuel Buchberger  
Thermo Fisher Scientific

### Analyzing the substrate specificity of AGP glycosyltransferases

Syed Saad Jan, Colin Ruprecht  
Institute of Organic Chemistry BOKU University

### Post-Acute Infection Syndromes: A Glycomic and Biological Perspective on Free Sialic Acid and Antibody Glycosylation – Double conference

Dacide Ret<sup>1,2</sup> and Selina Keppler<sup>3</sup>, Daniel García de Otazo Hernández<sup>1,2</sup>, Gianluigi Sabatino<sup>1</sup>, Philip Sgarz<sup>1,2</sup>, Iris Lisa Seltenhammer<sup>1,2</sup>, Larissa Koidl<sup>2</sup>, Johanna Rohrhofer<sup>2</sup>, Eva Untersmayr<sup>2</sup>.

<sup>1</sup>TU Wien <sup>2</sup>Medical University of Vienna <sup>3</sup>Medical University of Graz

### Molecular basis of the S-layer cell wall anchoring mechanism

Michael Bruckner, Fiona Hager-Mair, Markus Blaukopf, Paul Kosma, Christina Schäffer  
Institute for Organic Chemistry/BOKU University

### Synthesis and Biological Evaluation of Ligand Directed Sulfonate Ester Probes for Labeling of Glycoside Hydrolases

Elena Spari, Andreas Winkler,<sup>1</sup> Margit Winkler,<sup>2</sup> T. M. Wrodnigg  
TU Graz: IBioSys, <sup>1</sup>Institute of Biochemistry, <sup>2</sup>Institute of Moleculare Biotechnology

**16:50 – 17:15 COFFEE BREAK**

**17:15 – 18:00 2<sup>nd</sup> Walther Schmid Lecture sponsored by GÖCH**

### Lectins and glycomimetics in infectious diseases

Alexander Titz  
Universität Saarland

**18:00 – 18:20 Discussion, Tanja Wrodnigg**

**Group picture with all participants of 29th ACWS**

## **18:20: Poster Session and Social Get Together with Buffet and Drinks**

### **Opposites attract: Loss of sialic acid can impair blood flow**

Philip Sgarz, Christina Maliqi, Daniel García de Otazo Hernández, Gianluigi Sabatino, Iris Lisa Seltenhammer, Stefan Baudis, Eva Untersmayr, Davide Ret  
TU Wien

### **Glycan analysis reveals erythrocyte alterations in Long COVID**

Daniel García de Otazo Hernández<sup>1,2</sup>, Gianluigi Sabatino<sup>1</sup>, Christina Maliqi<sup>1,2</sup>, Philip Sgarz<sup>1,2</sup>, Iris Lisa Seltenhammer<sup>1,2</sup>, Larissa Koidl<sup>2</sup>, Johanna Rohrhofer<sup>2</sup>, Selina Keppler<sup>3</sup>, Stefan Baudis<sup>1</sup>, Eva Untersmayr<sup>2</sup> Davide Ret<sup>1,2</sup>  
<sup>1</sup>TU Wien, <sup>2</sup>Medical University of Vienna, <sup>3</sup>Medical University of Graz

### **Synthesis of glycoamphiphilic structures for the assembly of glyco-nanodisks**

Jacob Mayer, Tanja Wrodnigg, Martin Thonhofer, Carolyn Vargas, Sarah Tutz, Andre Culum, Sandro Keller, Tobias Dorn, Herwig Prasch, Alexander Luttenberger, Elena Spari, Wilhelm Festl, Patrick Weber  
TU Graz, IBioSys, UNI Graz

### **Synthetic phosphocholine-containing aminosugar Epitopes as ligands for short pentraxins**

Tapasi Manna, Lena Nuschy, Iain Wilson, Alla Zamyatina  
BOKU Wien

### **Automated Synthesis of Oligosaccharides related to Alginate**

Matthias Posch, Fabian Pfrengle  
BOKU Wien

### **Importance of Chemical Characterization for Increasing Safety of Naturally Biological Macromolecules such as Hyaluronic Acid.**

Erika Tarsi, Genny Pastore, Tomas Casini, Manuela Cortese, Gabriele Lupidi, Claudio Pettinari, Enrico Marcantoni  
University of Camerino, Italy

### **Chemical synthesis of mannan oligosaccharides derived from plant cell wall**

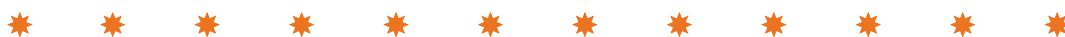
Nivedya A Unmesh, Prof. Dr. Fabian Pfrengle  
BOKU University, Vienna

### **Click Chemistry Meets Germanium: Synthesis and Characterization of Click-Functionalized Acyl Germanes**

André S. Culum<sup>1,2</sup>, Fabian Ratz<sup>1</sup>, Roland C. Fischer<sup>1</sup>, Ana Torvisco<sup>1</sup>, Michael Haas<sup>1</sup>, Tanja M Wrodnigg<sup>2</sup>  
<sup>1</sup>Institute of Inorganic Chemistry, TU Graz; <sup>2</sup>IBioSys, TU Graz

### **1-N-Adamantyl functionalized Diaminocyclopentane: A Potent and Selective O-GlcNAcase Inhibitor**

M. Wiesler, P. Bojarová,<sup>1</sup> J. Brouzdová,<sup>1</sup> T. Dorn, W. Festl, Z. Habsburg-Lothringen, J. Mayer, H. Prasch, A. Simková,<sup>1</sup> E. Spari, A. E. Stütz, M. Thonhofer, P. Weber, V. Křen,<sup>1</sup> and T. M. Wrodnigg  
<sup>1</sup>IBioSys, TU Graz; <sup>2</sup>IMIC, Prague, Czech Republic



## Friday, 16<sup>th</sup> February 2024

**9:00 – 9:30**      **Morning coffee**

**9:30 – 10:15**      **Guest Lecture – sponsored by EuChemS**

**Engineering a 3,4,5-trihydroxypiperidine iminosugar in search of new GCCase enhancers**

Francesca Cardona

Dipartimento di Chimica Organica “Ugo Schiff”, DICUS, Università degli Studi di Firenze

**10:15 – 11:00**      **Session 3**      **chair: Tanja Wrodnigg**

**Glycosidase Inhibition by Multivalent Iminosugars**

Camilla Matassini, Francesca Clemente, Andrea Goti, Marco Marradi and Francesca Cardona  
Università degli Studi di Firenze

**Rigid sugar-derived pipecolic acid scaffolds targeting misfolded  $\beta$ -glucocerebrosidase.**

Giulio Della Nave, Francesca Clemente, Dina Scarpi, Camilla Matassini, Andrea Goti,  
Francesca Cardona, Ernesto Giovanni Occhiato  
Università degli Studi di Firenze

**Rapid Access to Multivalent GCCase Inhibitors by Double Reductive Amination**

Alessio Morano, Maria Giulia Davighi, Francesca Clemente, Andrea Goti, Francesca Cardona  
and Camilla Matassini  
Università degli Studi di Firenze

**11:00 – 11:30**      **COFFEE BREAK**

**11:30 – 13:00**      **EPNOE Session 4**      **chair: Karin Stana Kleinschek**

**Functional polysaccharides as Functional Biomaterials**

Pedro Fadrim, Femke De Ceulaer, Hao-Chun Chiu, Xiaoyan Qing, Flavia Zancheta, Maria  
Helena Melo Lima  
KU Leuven and EPNOE

**Aqueous chemo-selective conjugation of N-terminal L-Cysteines to polysaccharides**

David Bucak Gasser,  
TU Graz, IBioSys

**From Monosaccharide Synthesis to Polysaccharide Modification: A Journey Through  
Four Years of PhD**

Tobias Dorn, Alexander Luttenberger, Herwig Prasch, Elena Spari, Tobias Steindorfer, Martin  
Thonhofer, Rupert Kargl, Karin Stana-Kleinschek, Tanja M. Wrodnigg  
TU Graz, IBioSys

**Hyaluronic Acid–Glycine Peptide Modified Polycaprolactone Scaffolds for Enhanced  
Endothelial Compatibility**

Tamilselvan Mohan, Fazilet Gürer, Rupert Kargl, Lidija Gradišnik, Uroš Maver, Karin Stana Kleinschek  
TU Graz, IBioSys

**Engineering Polysaccharide Hydrogels into Scalable 3D-Printed Bioreactors for Continuous Biocatalysis**

Daniel Pint, Lenny Malihan-Yap, Lisa Schmedler, Hitesh Medipally, Florian Lackner, Simon Fedrigotti, Rupert Kargl, Karin Stana Kleinschek, Robert Kourist, and Heidrun Gruber-Woelfler  
TU Graz, IBioSys

**Enzymatic crosslinking of peptide bridged alginate**

Rupert Kargl  
TU Graz, IBioSys

**13:00**      **Closing, Tanja Wrodnigg**

**Thank you very much for coming  
and  
have a safe trip home!**

**See you @ 30<sup>th</sup> ACWS – Vienna**

