



33rd Symposium on Glycosaminoglycans

September 16th – 18th, 2026



PRELIMINARY PROGRAM

Organizers:

Marco Guerrini and Antonella Bisio

Istituto di Ricerche Chimiche e Biochimiche "G. Ronzoni", Milan
Italy

Gerd Bendas and Martin Götte

University of Bonn University of Münster
Germany

Welcome to Villa Vigoni 2026!

The tradition of these symposia continues at the esteemed and pleasant setting of Villa Vigoni. In keeping with past editions, leading experts from around the globe are invited to explore both established and emerging topics in chemistry, biochemistry, biology, pharmacology, and the clinical use of heparin and other glycosaminoglycans. Special emphasis is placed on sessions addressing the role of glycosaminoglycans in cancer, the development of heparanase inhibitors, and recent progress in analytical methods. Topics span biosynthesis, structural characterization, protein interactions, biological functions, as well as pharmaceutical and clinical applications, including anti-inflammatory and antitumor effects. As in previous years, a poster session dedicated to early-career researchers is also included.

The symposium will adopt a hybrid format, enabling both in-person and virtual attendance. Participation, however, remains by invitation only, in line with tradition. Ample time will be dedicated to thorough discussion. As in previous editions, the informal, workshop-style atmosphere encourages meaningful interactions among participants beyond the formal sessions, continuing a tradition established over the past 32 editions.

Marco, Antonella, Gerd and Martin

Honorary Member

Job Harenberg

Scientific Board

Annamaria Naggi, Marco Guerrini, Antonella Bisio, Roland Krämer, Gerd Bendas, Martin Götte, Susanne Alban, Kay Grobe, Jawed Fareed, Ram Sasisekharan.

Scientific Secretary

Antonella Bisio

Wednesday, September 16th 2026

13.00 – 14.30 **Lunch**

15.00 – 15.10 **Welcome address: Martin Götte**

PERSPECTIVES IN GLYCOSAMINOGLYCAN RESEARCH

Moderator: **Jerry Turnbull**

- 15.10 – 15.30 **Sylvie Ricard-Blum**, Villeurbanne
The glycosaminoglycan interaction network: state of the art and perspectives
- 15.30 – 15.50 **Nikos Karamanos**, Patras
Decoding the ECM dynamics in tumor microenvironment using 3D cell models and bioscaffolds
- 15.50 – 16.10 **Juzheng Sheng**, Jinan
Synthetic Biology-Driven Advances in Heparin Drug Development
- 16.10 – 16.30 **Discussion**
- 16.30 – 16.50 **Coffee and tea**

GLYCOSAMINOGLYCANS IN HEALTH AND HUMAN DISEASE

Moderator: **Mark Skidmore**

- 16.50 – 17.10 **Ana Magalhaes**, Porto
Decoding HS/CS Signatures in Gastric Cancer: From Clinical Profiling to Mechanism
- 17.10 – 17.30 **Marco Maccarana**, Uppsala
Substrate reduction therapy in MPS-I
- 17.30 – 17.50 **Taran Kandola**, London
Marine-derived carbohydrates: a new wave in sustainable solutions for global anticoagulant supply
- 17.50 – 18.10 **Discussion**
- 19.00 **Cocktail and Dinner**

HYALURONIC ACID: BIOLOGY AND APPLICATIONS

Moderator: **Alberto Passi**

- 9.00 – 9.20 **Davide Vigetti**, Varese
Regulation of hyaluronan synthesis in breast cancer
- 9.20 – 9.40 **Andrea Maria Giori**, Lodi
New therapeutic indications for injectable hyaluronic acid and regulatory challenges
- 9.40 – 10.00 **Luca Stucchi**, Udine
TBD
- 10.00 – 10.20 **Philipp König**, Bonn
Novel Hyaluronic Acid Derivatives for 3D Modeling of the Ovarian Cancer Microenvironment: Linking Drug Response to Gene Expression Changes
- 10.20 – 10.40 **Discussion**
- 10.40 – 11.00 **Coffee and tea**

GLYCOSAMINOGLYCAN IN HEALTH AND HUMAN DISEASE

Moderator: **John Gallagher**

- 11.00 – 11.20 **Francesca Selmin**, Milan
Glycosaminoglycans in Human Subcutaneous Tissue: Implications for Drug Administration
- 11.20 – 11.40 **Jessica Onyeisi**, Münster
Heparan Sulfate Proteoglycan Dynamics in Breast Cancer: Syndecan-4 and Inflammatory Signaling
- 11.40 – 12.00 **Luisa Bracci**, Siena
An anti heparan sulfate branched peptide for interfering with HSPG functions in cancer
- 12.00 – 12.20 **Discussion**
- 13.00 – 14.00 **Lunch**

HEPARANASE AND ITS INHIBITORS

Moderator: **Jin-ping Li**

- 14.20 – 14.40 **Hien Nguyen**, Detroit
Development of sulfated and hydrophobic aminoglycans to target heparanase-driven diabetes associated with pancreatic cancer
- 14.40 – 15.00 **Marco Mandalari**, Milan
A structural–dynamic blueprint for heparanase interaction with heparan sulfate mimetics
- 15.00 – 15.20 **Stephanie Baud**, Reims
In silico study of the interaction between lumican derived peptides and the heparanase protein: what do molecular docking and molecular dynamics simulations tell us?
- 15.20 – 15.50 **Discussion**

15.50 – 17.10

POSTER SESSION
with coffee and tea

HEPARINOIDS: PHARMACOLOGICAL AND REGULATORY ASPECTS

Moderator: **Job Harenberg**

- 17.10 – 17.30 **Jawed Fareed** and **Debra Hoppensteadt**, Chicago
An Update on Biochemical and Pharmacological Profile of Various Version of Sulodexide
- 17.30 – 17.50 **Susanne Alban**, Kiel
Regulatory Issues of Sulfated Polysaccharides - An Update
- 17.50 – 18.10 **Walter Jeske**, Chicago
TBD
- 18.10 – 18.30 **Discussion**
- 19.30 **Dinner**

GLYCOSAMINOGLYCAN AND PROTEIN INTERACTIONS

Moderator: **Gerd Bendas**

- 9.00 – 9.20 **Kay Grobe**, Münster
Dynamics HS expression, detection and gradient formation based on HSPGs
- 9.20 – 9.40 **Sandra Rother**, Homburg
From glycosaminoglycans to mimetics: fine-tuning signaling and regeneration.
- 9.40 – 10.00 **Christian Gorzelanny**, Hamburg
Distinct heparan sulfate binding sites control the biological activity of chitinase-3-like protein 1.
- 10:00 – 10.20 **Discussion**
- 10:20 – 10:40 **Coffee and tea**

METHODOLOGICAL ASPECTS

Moderator: **Ed Yates**

- 10.40 – 11.00 **Lorna Milne**, Nottingham
The development of ToF-SIMS for glycosaminoglycan analysis: from heparin screening to in-situ spatial mapping
- 11.00 – 11.20 **Gavin Miller**, Manchester
Chemical synthesis and automated assembly of glycosaminoglycans
- 11.20 – 11.40 **Sergey Samsonov**, Gdansk
Computational approaches to understand the sulfation code of glycosaminoglycans
- 11.40 – 12.00 **General discussion**
- 12:00 – 12:10 **Closing remarks: Marco Guerrini**
- 12.30 – 13.30 **Lunch**

POSTERS

- **Claudio Lutti**, Milan
Click-Conjugated LMW Glycosaminoglycan-Cholesterol Constructs for the Microfluidic Design of Targeted Lipid Nanoparticles
- **Marie Schulz-Fincke**, Bonn
TBD.
- **Marco Hamacher**, Bonn
TBD
- **Daniel Orlov**, Münster
TBD.
- **Alena Teigeler**, Kiel
Distinct Complement Modulatory Profiles of Structurally Different Sulfated Polysaccharides.
- **Shiva Mohajerani**, Münster
Improving the bioactive properties of fucoidan derived from *Saccharina latissima* from the Kiel Fjord through degradation and IEX purification.
- **John Hogwood**, South Mimms
TBD

Location of the Symposium

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