

Third Symposium

on

**Glycosaminoglycans, blood cells and endothelium -
Results and perspectives of bilateral collaboration on
novel approaches to pharmacokinetics and metabolism**

May 13th-15th, 1993

Villa Vigoni, Lovenno (Como) / Italy

Program

Organizers:

Job Harenberg
1st Department of Medicine
Faculty of Clinical Medicine
University of Heidelberg
Theodor-Kutzer-Ufer
6800 Mannheim

Benito Casu
Istituto Scientifico di Chimica
e Biochimica "G. Ronzoni"
Via G. Colombo, 81
20133 Milano

Welcome to Villa Vigoni !

It is the third time that Mr. Paul Harro Piazzolo hosts our symposium on the action of polysaccharides in molecular biology, pharmacology, vascular endothelium and the relation to arteriosclerosis. Since the knowledge in this field is expanding and fruitful collaboration of the Italian and German participants of this symposium has been initiated with other European research groups, we decided to create a "European day" during our meeting. We are gratefully indebted to Mr. Piazzolo for accepting that his Villa, dedicated generally only to meetings of German and Italian participants, allowed us to invite participants from two other European countries for one day.

At the end of each session we have organized round table discussions upon selected topics, as outlined in the program. We would like to invite all participants to discuss and comment on these topics.

We are grateful to Professor E.F. Mammen to allow us to submit manuscripts of the presentations to Seminars in Thrombosis and Haemostasis scheduled to appear as regular issue in May 1994. For this complete manuscripts are required not later than October 10th, 1993.

Please do not hesitate to contact the organizers of the symposium in the case of difficulties concerning transportation, accommodation or other problems with regard to the symposium.

Benito Casu

Job Harenberg

Thursday, May 13th, 1993

13.00 - 14.00 *Lunch in Villa Vigoni*

Session Ia: Glycosaminoglycans and blood cells

Chairmen: G. F. Gensini, Firenze
E. Wenzel, Homburg

15.00 J. Harenberg, Mannheim
G. F. Gensini, Firenze

Welcome address

15.05 - 15.20 B. Casu, Milano

Scopes and strategies for using glycosaminoglycans labeled with stable isotopes for metabolism and interaction studies

15.20 - 15.35 J. Harenberg, Mannheim

Binding of heparins to leukocytes and interaction studies with oligosaccharides and GAG's using a fluorescent labeled heparin derivative

15.35 - 15.50 G. Camussi, Torino

Modulation of inflammation by cell-surface glycosaminoglycans

15.50 - 16.10 **Discussion**

Thursday, May 13th, 1993

16.10 - 16.30 *Break*

Session Ib: Glycosaminoglycans and blood cells

Chairmen: G. F. Gensini, Firenze
E. Wenzel, Homburg

16.30 - 16.50 Ch. Cerletti, St. Maria Imbaro

Interaction between glycosaminoglycans, platelets and leukocytes

16.50 - 17.10 I. Viano, Novara

Cellular interaction of partially desulfated glycosaminoglycans

17.10-17.30 G. Huhle, Mannheim

Characterization of a IgG monoclonal antibody against heparin

17.30 **Round table:**

Moderators: E. Wenzel, G. F. Gensini

Topic: Identification of receptor binding sites of glycosaminoglycans on cellular surfaces

19.30 *Dinner at Villa Vigoni*

Friday, May 14th, 1993

Session II: Non-anticoagulant activities of glycosaminoglycans

Chairmen: **M. B. Donati, St. Maria Imbaro**
I. Witt, Freiburg

9.00 - 9.15 **D. H. J. Schamhart, Amsterdam**
Effects of pentosan polysulfate on mycobacteria-induced upregulation of cytokine synthesis of a bladder carcinoma cell line

9.15 - 9.30 **A. Poggi, St. Maria Imbaro**
Inhibitory effects of GAG's on experimental metastasis: a structure-function study

9.30-9.45 **M.B. Donati, St. Maria Imbaro**
Glycosaminoglycans and the fibrinolytic activity of endothelial cells

9.45 - 10.00 **I. Witt, Freiburg**
Glycosaminoglycans and tissue factor pathway inhibitor

10.00 **Discussion**

10.30 - 10.45 *Break*

10.45

Round table:

Moderators: **M. B. Donati, I. Witt**

Topic: Definition of specific protein sequences which induce non-anticoagulant activities of glycosaminoglycans

Friday, May 14th, 1993

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- Session III:** New methods to identify glycosaminoglycans
- Chairmen:** **B. Casu, Milano**
K.H. Breddin, Frankfurt
- 14.30 - 14.45** **G. Torri, Milano**
NMR spectroscopy for characterization of original and tagged glycosaminoglycans
- 14.45 - 15.00** **L. Silvestro, Torino**
Detection of glycosaminoglycans with HPLC and mass spectrometry
- 15.00 - 15.15** **A. Naggi, Milano**
Combined NMR-Mass spectrometry to study glycosaminoglycans
- 15.15 - 15.45** **R. Malsch, Mannheim**
HPLC, PAGE and CE for characterization of glycosaminoglycans
- 15.45 - 16.00** **D. Rotilio, St. Maria Imbaro**
CE analysis for surface of chondro-disaccharides in cells treated with cytokines
- 16.00 - 16.15** **S. Alban, Regensburg**
GC/MS analysis of modified and hypersulfated anticoagulant active β 1-3 glycans
- 16.15** **Discussion**
- 16.30-16.45** *Break*

Friday, March 14th, 1993

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- Session IV:** Pharmacokinetics of glycosaminoglycans I
- Chairmen:** **E.F. Mammen, Detroit**
E. Wenzel, Homburg
- 16.45 - 17.00** **P. Bianchini, Bologna**
Extraction methods of glycosaminoglycans from biological fluids
- 17.00 - 17.15** **G. Agnelli, Perugia**
Plasma thrombin neutralization assay (PTNA), pharmacokinetic applications
- 17.15 - 17.30** **E. Lanzarotti, Como**
Pharmacokinetics with with deuterium-labeled glycosaminoglycans
- 17.30 - 17.45** **E. Marchi, Bologna**
Pharmacokinetic studies using radio- and fluorescence-labeled glycosaminoglycans
- 17.45 - 18.00** **L. Piazzolo, Mannheim**
Pharmacokinetics and cellular binding kinetics of LMMH-tyramine-FITC
- 18.00** **Round table:**
- Moderators:** **E.F. Mammen, E. Wenzel,**
B. Casu, K.H. Breddin
- Topic:** Comparison of analytical methods for detection and measurement of glycosaminoglycans

Saturday, May 15th, 1993

- Session V:** Pharmacokinetics of glycosaminoglycans II
- Chairmen:** E. F. Mammen, Detroit
A. G. Dettori, Parma
- 9.15 - 9.30** J. Harenberg, Mannheim
Liver uptake and urinary excretion of lipo-philic LMMH-tyramine
- 9.30 - 9.45** K. Kirchmeier, Frankfurt
Long lasting effects of the pharmacokinetics of heparins in animals
- 9.45 - 10.00** A.G. Dettori, Parma
Pharmacokinetics of dermatansulfate
- 10.00 - 10.15** A. Naggi, Milano
Pharmacodynamic and pharmacokinetic pro-file of new LMW-dermatansulfate
- 10.15 - 10.30** W. Raake, Munic
Pharmacological profile of lactobionic acid
- 10.30 -10.45** Discussion
- 10.45 - 11.00** Break

Saturday, May 15th, 1993

- Session VI:** Standardization of the biological activity of Heparins
- Chairmen:** H.C. Hemker, Maastricht
A. G. Dettori, Parma
- 11.00 - 11.15** A. W. Stemberger, München
Pharmaceutical declaration of heparin potencies and problems in their determination
- 11.15 - 11.30** S. Beguin, Maastricht
Characterization of heparins according above and below critical chain length
- 11.30 - 11.45** H.C. Hemker, Maastricht
Standardization of heparins according above and below critical chain length
- 11.45 - 12.00** H.K. Breddin, Frankfurt
Animal models for standardization of glycosaminoglycans?
- 12.00** Round table:
- Moderators:** E. F. Mammen, A.G. Dettori,
H.C. Hemker, H.K. Breddin
- Topic:** Concepts for development and standardiza-tion of glycosaminoglycans

General Information

Social Program

May 13th, 1992

12.30 - 14.00 *Lunch in Villa Vigoni*

19.30 - 22.00 *Dinner in Villa Vigoni*

May 14th, 1992

12.30 - 14.00 *Lunch in Villa Vigoni*

19.00 - 22.30 *Boat trip Lake Como and Dinner*

May 15th, 1992

12.30 - 14.00 *Lunch in Villa Vigoni*

Location of the Symposium:

"Villa Vigoni e.V."

Via Giulio Vigoni 1

Loveno di Menaggio

I-22017 Menaggio (Como)

Tel.: 0039-344/32155

Fax: 0039-344/32966

Registration: Thursday, May 14th, 1992

12.00 - 14.00

Villa Vigoni

Deadline for Manuscripts: October 10th, 1993

to be sent to Professor Dr. Job Harenberg,
prepared according the instructions for authors of

"Seminars in Thrombosis and Hemostasis "

(The instructions are available at the Symposium.)

Symposium Villa Vigoni, May 13th to 15th 1993