



PRELIMINARY SCIENTIFIC PROGRAM

25th Symposium on Glycosaminoglycans
From present to future. The vision of Benito Casu

September 14th – 16th, 2017

Organizers:

Roland Krämer, Job Harenberg
University of Heidelberg, Germany

Giangiaco Torri, Annamaria Naggi
„G. Ronzoni“ Institute for Chemical and Biochemical Research,
Milan, Italy

Under the patronage of:



Regione Lombardia

IL CONSIGLIO



Welcome to Villa Vigoni 2017

This year, the 25th edition of Glycosaminoglycan Symposium taking place in Villa Vigoni (Lovenno, Lake Como) has the difficult task to combine fortunate and unfortunate news: to celebrate a quarter of a century of the Glycosaminoglycan Symposia and to remember Professor Benito Casu who organised for over 20 times this symposium together with his German partner Professor Job Harenberg.

Eminent specialists from all over the world are invited to contribute to discussion of topics of actual or emerging interest in the field of chemistry, biochemistry, biology, pharmacology, and clinical applications of heparin and other glycosaminoglycans. Both basic and applied aspects will be covered and discussed, with about twenty percent of participants being associated with industrial companies. Participation in the symposium (only by invitation) is limited to a maximum of 80 participants.

The subjects selected for discussions include heparin synthesis, structural characterization and protein interactions, biological functions, clinical aspects including anti-inflammatory and anti-tumor activity. Moreover, being the 25th anniversary of the symposium and following the death of Benito Casu, an opening special session and some "Casu Lectures" dedicated to these occurrences have been scheduled.

All speakers will outline the state-of-the art in each field and present novel results and future perspectives. A sufficient time will be allotted to in-depth discussion. The informal, workshop-like character of the symposia and the pleasant surroundings of the villa traditionally stimulate also after-session interactions among participants.

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Scientific board

Giangiaco Torri, Job Harenberg, Roland Krämer, Ram Sasisekharan, Annamaria Naggi, Marco Guerrini.

Scientific Secretary

Antonella Bisio

Thursday, September 14th 2017, afternoon

SPECIAL SESSION FOR THE 25TH ANNIVERSARY OF THE SYMPOSIUM	
Moderators: J. Harenberg, G. Torri	
14.20 - 14.30	I. Amodeo , Loveno di Menaggio Italian-German Vigoni Association and 27 years of GAGs Symposia
14.30 - 14.50	J. Harenberg , Mannheim How did the Glycosaminoglycan Symposia start? A review and the contribution of my friend Benito Casu.
14.50 - 15.10	G. Torri , Milan An overview of the scientific contribution of Benito Casu's school to the GAGs Symposia.
15.10 - 15.20	U. Lindahl , Uppsala Contribution of Benito Casu for bringing together scientists in international projects
15.20 - 15.30	M.B. Donati , Isernia The contribution of Mario Negri Institute to Glycosaminoglycan Symposia.
15.30 - 15.40	M. Petitou , Milan Benito Casu: from a scientific collaboration to a friendship.
15.40 - 15.50	R. Sasisekharan , Boston How will be the future of Glycosaminoglycans?
15.50 - 16.00	N. Veraldi , Milan Future perspectives of glycosaminoglycan research: the contribution of young researchers.
16.00 - 16.10	J. Fareed , Chicago 25 Years of the Glycosaminoglycan Symposia. Current and Future Scientific and Clinical Impact
16.10 – 17.00	Coffee and Tea
PROGRESS ON GLYCOSAMINOGLYCAN RESEARCH	
CASU LECTURE	
Moderator: R. Sasisekharan	
17.00-17.30	R. Sanderson , Birmingham Heparan sulfate and heparanase: cargo on the surface of exosomes that regulates tumor and host cells.
Moderator: S. Alban	
17.30-17.50	M. Guerrini , Milan Characterization of drugs based on glycosaminoglycan mixture.
17.50-18.10	J. Walenga , Chicago To be defined.
18.10-18.20	Discussion

Friday, September 15th 2017, morning

	<p>PROGRESS ON ANTICOAGULANT AND ANTITHROMBOTICS</p> <p>CASU LECTURE Moderator: J. Gallagher</p>
8.50 - 9.20	<p>J. Fareed, Chicago Biochemical and pharmacological profiling of heparins derived from non porcine tissues.</p> <p align="center">Moderator: L. Montrasio</p>
9.20 - 9.40	<p>D. Keire, St. Louis Physicochemical characterization of heparin-protein complexes: implications for heparin induced thrombocytopenia.</p>
9.40 – 10.00	<p>S. Alban, I. Liewert, A.K. Schönfeld, Kiel Degradation of fucoidan and MW-dependent changes of the activity profile.</p>
10.00 -10.20	<p>J. Whitelock, Sidney Bioengineered heparin production.</p>
10.20 -10.30	<p>Discussion</p>
10.30-10.50	<p>Coffee and Tea</p>
	<p>PROGRESS ON ANTICOAGULANT AND ANTITHROMBOTICS</p> <p>Moderator: A. Stemberger</p>
10.50-11.10	<p>G.M. Andreozzi, Padua Sulodexide revisited. Lessons from the Survet Trial.</p>
11.10-11.30	<p>G. Nowak, Jena Spontaneous platelet aggregation in heparinized whole blood as biomarker for the leaky gut syndrome</p>
11.30- 11.50	<p>V. Laux, Wuppertal Coagulation Factor XI – Validation of a Novel Innovative Antithrombotic Target.</p>
11.50-12.10	<p>R. Krämer, Heidelberg Heparin Red - a fast and robust assay for the quantification of glycosaminoglycans in various matrices</p>
12.10-12.30	<p>Discussion</p>

Friday, September 15th 2017, afternoon

	<p style="text-align: center;">BIOLOGICAL ROLES OF HEPARIN AND HEPARANSULFATE</p> <p style="text-align: center;">Moderator: J. Fareed</p>
14.30-14.50	J. Esko , S. Diego Modulating heparan sulfate-protein interactions.
14.50-15.10	J-p. Li , Uppsala Functions of heparanase in platelet production and activity.
15.10-15.30	X. Fernandez-Busquets , Barcelona Glycosaminoglycans as triggers of Metazoan evolution? A case study in marine sponges.
15.30-15.50	M. Skidmore , Keele New methods/tools for studying glycosaminoglycan structure:function relationships.
15.50-16.10	Discussion
16.10-16.30	Coffee and Tea
	<p style="text-align: center;">HEPARIN AND OTHER GLYCOSAMINOGLYANS IN MALIGNANCY</p> <p style="text-align: center;">CASU LECTURE Moderator: A. Naggi</p>
16.30-17.00	I. Vlodayvsky , Haifa Heparanase-2 attenuates tumor vascularity, metastasis and growth.
	Moderator: K. Kirchmaier
17.00-17.20	G. Bendas , Bonn Insight into the mechanisms of heparin activity in sensitizing tumor cells for chemotherapy.
17.20-17.40	M. Götte , Münster Syndecan-1 and heparanase regulate the cancer stem cell phenotype.
17.40-18.00	M. Schlesinger , Bonn Inhibition of ectonucleotidases by heparin as a new approach in cancer immunotherapy.
18.00-18.10	Discussion

Saturday, September 16th 2017, morning

GLYCOSAMINOGLYCANS INTERACTIONS	
CASU LECTURE	
Moderator: R. Krämer	
8.50-9.20	H.C. Hemker , Maastricht The biological correlate of antithrombotic action in heparins. Moderator: L. Borsig
9.20-9.40	B. Mulloy , London Development of glycosaminoglycan micro-arrays.
9.40-10.00	J. Turnbull , Liverpool HS regulation of cancer stem cell phenotype and chemosensitivity.
10.00-10.20	J. van den Born , Gröningen High sodium diet converts renal heparan sulfates into pro-inflammatory mediators in rats.
10.20-10.30	Discussion
10.30-10.50	Coffee and Tea
CHARACTERIZATION OF GLYCOSAMINOGLYCANS	
Moderator: E. Gray	
10.50-11.10	C. Gardini , Milan Characterization of Danaparoid by orthogonal analytical approach.
11.10-11.30	J. Hogwood , London Neutralising anticoagulant activities of heparin and heparin-mimetics.
11.30-11.50	S. Bertini , Milan Protein-heparin interaction.
11.50-12.10	Discussion
12.10-12.20	Closing remarks: G. Torri / J. Harenberg

General Information

Thursday, September 14th, 2017

12.30 -14.00 Lunch in Villa Vigoni
20.00 Dinner in Villa Vigoni

Friday, September 15th, 2017

8.00 - 9.00 Breakfast
13.00 -14.00 Lunch in Villa Vigoni
20.00 Dinner in Villa Vigoni

Saturday, September 16th, 2017

8.00 - 9.00 Breakfast
12.30 - 13.30 Lunch in Villa Vigoni

Location of the Symposium:

"Villa Vigoni e.V."
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