

Standing Committees for:

- the European Medical Research Councils (EMRC)
- Life, Earth and Environmental Sciences (LESC)

ESF Exploratory Workshop on
Glycoscience Comes Of Age

**“The Isle of Knowledge”
Kolocep, Croatia, 23 - 26 May 2007**

**Convened by:
Tony Merry^① and Gordan Lauc^②**

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The European Science Foundation (ESF) is an association of 76 Member Organisations devoted to scientific research in 30 European countries. The Mission of ESF is to provide a common platform for its Member Organisations in order to advance European research and to explore new directions for research at the European level. Through its activities, the ESF serves the needs of the European research community in a global context.

The main objectives of ESF for the years 2006-2010 as defined by its current *Strategic Plan* are to promote Science Strategy and Science Synergy, paving the way for initiatives across disciplinary and geographic boundaries in the European Research Area (ERA).

The Exploratory Workshops scheme is one of the key instruments of the Science Strategy “pillar”. Each year, ESF supports approximately 50 Exploratory Workshops across all scientific domains. The focus of the scheme is on workshops aiming to explore an emerging and/or innovative field of research or research infrastructure, also of interdisciplinary character. Workshops are expected to open up new directions in research or new domains. It is expected that a workshop will conclude with plans for specific follow-up research activities and/or collaborative actions or other specific outputs either within the frame of ESF (e.g. prepare the ground to develop a [Forward Look](#), a [Research Networking Programme](#) or a [EUROCORES](#) proposal; publication of a Policy Briefing...) or for submission to the EU 7th Framework Programme or to other European or international funding organisations.

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Main Objectives of the Workshop:

In recent years the field of Glycoscience has expanded rapidly, and both the USA and Japan are making significant investments in this promising research direction. However, Europe is still lagging behind in terms of funding available although there is widespread interest and extensive and varied expertise throughout Europe.

There is an urgent need for an international workshop to bring together all those working in different disciplines in this area throughout Europe. This will be met by this ESF Exploratory Workshop in Glycoscience with selected participants from major centres of expertise throughout Europe. The aim is to bring them together for open discussion to investigate strengths and weaknesses in European Glycoscience and to formulate action plans. The field now impacts on many areas ranging from Chemistry to Medicine and presentations will be given by the key players in all these fields with a view to setting up multidisciplinary European wide collaborations.

PRELIMINARY PROGRAMME

WEDNESDAY 23 MAY 2007

Afternoon Arrival/Transfer to Koločep Island

20:00 *Welcome reception/buffet, Hotel Koločep*

Introductions, informal discussion

THURSDAY 24 MAY 2007

Chairs: **T. Merry** and **G. Lauc**

09:00 – 09:15 **G. Lauc** (Croatia)
Welcome address

09:15 – 09:35 **J. Glössl** (Standing Committee for Life, Earth and Environmental Sciences)
Presentation of the European Science Foundation (ESF)

09:35 – 09:45 **T. Merry** (U.K.)
Aim of the Workshop and program overview

09:45 – 10:15 **N. Sharon** (Israel)
A Historical Perspective and the Current State of the Art in Glycoscience

10:15 – 10:45 **S. Haslam** (UK, Director of the Consortium for Functional Glycomics Analytical Core)
The Consortium for Functional Glycomics : Goals and Activities

10:45 – 11:00 *Coffee break*

11:00 – 11:30 **N. Taniguchi** (Japan)
Human Disease Glycomics Proteome Initiative (HGPI) and the Japan Consortium for Glycobiology and Glycotechnology (JCGG)

11:30 – 12:00 **H. Kamerling** (The Netherlands)
European Science Foundation Policy Briefing on Glycoscience

12:00 – 12:30 **Plenary discussion: Carbohydrate-mediated interactions**
Moderator: **H. Vliegthart** (The Netherlands)

12:30 – 14:30 *Lunch at hotel Kolocep/ Discussion*

14.30 – 17.30 **Breakout sessions**
Analysis of European Strengths Weaknesses Opportunities Threats

Breakout session 1: Structure and function of glycans
Moderator: **A. Imberty** (France)

Breakout session 2: Microbial infection

Moderator: **J. Finne** (Finland)

Breakout session 3 – Glycosylation and Development

Moderator: **C. Merry** (U.K.)

Breakout session 4: Markers for disease

Moderator: **P. Rudd** (Ireland)

17:30 – 19:00

Free time

19:00 – 21:00

Dinner at hotel Kolocep/ Discussion

FRIDAY 25 MAY 2007

09.00 – 10:30

Breakout SWOT analysis sessions 1 to 4 – continued

09:00 – 09.15

Reports from SWOT-analysis sessions

Chair: **H. Vliegthart** (Netherlands)

09.15 – 09.30

A. Imberty (France)

Breakout session 1 - Structure and function of glycans

09.30 – 09:45

J. Finne (Finland)

Breakout session 2 - Microbial infection

09.45 – 10.00

C. Merry (U.K.)

Breakout session 3 – Glycosylation and Development

10.00 – 10:15

P. Rudd (Ireland)

Breakout session 4 - Markers for disease

10:15 – 10:30

Concluding remarks on European SWOT analysis

H. Vliegthart (The Netherlands)

10:30 – 11:00

Coffee break

European Core Glycoscience Facility (ECGF)

11:00 – 11:15

H. Kamerling (The Netherlands)

Introduction to the proposed European Core Glycoscience Facility

11:30 – 13:00

Breakout sessions – ECFG

Breakout session 1: **Analytical Core**

Moderators: **R. Geyer** (Germany) and **S. Haslam** (UK)

Breakout session 2: **Synthesis Core**

Moderators: **N. Bovin** (Russia) and **O. Hindsgaul** (Denmark)
(Switzerland)

Breakout session 3: **Medical/Diagnostic Core**

Moderators: **G. Lauc** (Croatia) and **R. Gerardy-Schahn** (Germany)

Breakout session 4: **Array and Nanotechnology Core**
Moderators: **T. Feizi** (UK) and **S. Fernandes** (Spain)

Breakout session 5: **Bioinformatics Core**
Moderators: **W. van der Lieth** (Germany)

13:00 – 14:30

Lunch at hotel Kolocep/ Discussion

14:30 – 21:00

*Excursion to Dubrovnik followed by Workshop Dinner in Dubrovnik
(transport back to hotel)*

SATURDAY 26 MAY 2007

Chair: H. Kamerling

Reports from ECGF Breakout sessions

09:00 – 09:15

R. Geyer (Germany) and **S. Haslam** (UK)
Breakout session 1 – **Analytical Core**

09:15 – 09:30

N. Bovin (Russia) and **O. Hindsgaul** (Denmark)
Breakout session 2 – **Synthesis Core**

09:30 – 09:45

G. Lauc (Croatia) and **R. Gerardy-Schahn** (Germany)
Breakout session 3 – **Medical/Diagnostic Core**

09:45 – 10:00

T. Feizi (UK) and **S. Penadés** (Spain)
Breakout session 4 – **Array and Nanotechnology Core**

10:00 – 10:15

W. van der Lieth (Germany)
Breakout session 5 – **Bioinformatics Core**

10:15 – 10:45

H. Kamerling (The Netherlandsx)
Conclusions and General Discussion on ECGF

10:45 – 11:15

Coffee break

11:15 – 11:30

T. Merry (U.K.)
The Glycoscience Forum

11:30 – 11:45

H. Vliegthart (The Netherlands)
European Glycoscience Forum

11:45 – 13:45

General discussion of future actions and initiatives

13:45 – 14:00

G. Lauc (Croatia)
Conclusions / Future actions

14:00 – 15:00

Lunch and Farewell

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Objectives of the ESF Standing Committee for European Medical Research Councils (EMRC)

The ESF Standing Committee for the European Medical Research Councils ([EMRC](#)) has overall responsibility for initiating and coordinating ESF's scientific activities in medical sciences and for providing expert advice on issues of science policy. It covers a broad range of disciplines and the Committee's main objectives range from promoting interactions between the biomedical and clinical research communities, through providing policy advice, to stimulating collaboration in emerging research areas.

The EMRC covers fields such as:

- Diagnostic and therapeutic medicine
- Neurobiology
- Immunology
- Clinical studies
- Communicable diseases
- Human genetics & functional genomics
- Medicinal biotechnology
- Public Health, etc.

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Objectives of the ESF Standing Committee for Life, Earth and Environmental Sciences (LESC)

The main objectives of the **ESF Standing Committee for Life, Earth and Environmental Sciences (LESC)** are:

1. to identify and promote emerging scientific topics and high quality science deserving special attention in Europe;
2. to manage a wide ranging portfolio of activities of the European Science Foundation;
3. to examine and report on issues of strategic scientific importance within its fields of competence.

This committee's sphere of activities comprises the broad field of life, earth and environmental sciences:

- Biology
- Biotechnology
- Agriculture
- Earth sciences
- Climate research
- Glaciology
- Oceanography
- Environmental sciences, etc.

ESF Standing Committees support a limited number of **Exploratory Workshops** each year. These workshops allow leading European scientists to explore novel ideas at the European level with the challenging aim to "*spearhead*" new and preferably interdisciplinary areas of research. Further details are available on the internet at <http://www.esf.org/workshops>.

One desirable outcome of an ESF Exploratory Workshop may be that participants submit **high quality proposals for further ESF activities** (such as "à la carte Programmes" or a EUROCORES initiative), or **research funding applications** for submission to the EU 7th Framework Programme or to other European or international funding organisations.

In the case of **ESF Programmes** ("*à la carte*" or [EUROCORES](#)), which are financed by, and coordinated through, the European Science Foundation, a draft proposal should be submitted to the LESG Secretariat for advice, to then subsequently undergo further external refereeing. If successful in obtaining LESG's scientific recommendation, the proposal will be submitted to ESF Member Organisations for funding on a voluntary basis. More details are available at <http://www.esf.org/research-areas/life-earth-and-environmental-sciences.html>.

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