

Scientific Report



Glycosummit meeting

Tuesday 24th July 2012

Meliá Castilla Hotel, Madrid



Summary

This meeting was held to review the current state of Glycoscience in Europe as part of the EUROGLYCOFORUM Research Network Programme. It is intended that it will be used as a basis for drawing up a roadmap for Glycoscience in Europe after the end of the ESF funding for the current network finishes in 2014. The meeting was very successful and attracted scientists from over 25 countries within and outside Europe (Annex 2).

Art of the summit was a questionnaire (Annex 3) which had excellent response from the community. The results are summarised in the Annex.

Discussion in more detail

A number of presentations were given by national representatives from non-European and European countries (see agenda as attached). It is clear that there are a number of international efforts to generate strong and effective glycoscience networks that meet the need of this very interdisciplinary area.

Dr Pam Marino presented a white paper had been commissioned by the National Academy of Sciences in the USA (The NAS-NRC has now released its report "*Transforming Glycoscience: A Roadmap for the Future.*" The full report can be found here: http://www.nap.edu/catalog.php?record_id=13446; Key findings are here: <http://dels.nas.edu/Report/Transforming-Glycoscience-Roadmap/13446>).

The following key points were raised and discussed:

1. Teaching of Glycoscience

There was general agreement that glycoscience is not taught sufficiently well – both at high-school and university level. There was very strong support for the development of on-line teaching tools for glycoscience at all levels. A good example is the textbook 'Essentials in Glycobiology'

2. Promotion of Glycoscience within the academic community

It was agreed that integration of glycoscience into 'main-stream' biology is very important and timely. There is training need (point 1) in the first instance, but the visibility of glycoscience in general biology meeting needs to be raised as well. Useful activities might be sponsorships of lectures, workshops and poster prizes.

The 2006 Science special issue on glycoscience was considered a great success and Prof Varki and Aebi have offered to contact Science or Nature to see if this can be repeated.

3. Promotion of Glycoscience to the general public

Education of the general public and policymakers was considered very important.

4. Promotion of the industrial applications of glycoscience

Prof Kamerling gave a very informative lecture on some highly successful glycoscience programmes between academia and industry in the Netherland. A lively discussion arose on the topic of applied vs fundamental glycoscience. In the end, the consensus was that there should be strong industrial participation in any future European glycoscience programmes, although it is essential that at the same time fundamental, hypothesis and curiosity driven research is protected.

5. Glycoscience meetings

The number of glycoscience meetings was examined in the questionnaire (see Annex). General response was positive about the current situation, although respondents and participants of the workshop listed clashed between the large meetings. It was agreed that the organisers should have much closer links in future and should make sure that there are no major glycoscience meetings in the same continent in one year.

6. Should there be a European Roadmap?

There was general support, particularly among younger glycoscientists, for a European Roadmap in Glycoscience. EGSF is currently the only **European** Glycoscience network and it was agreed that the Roadmap should be promoted for the near future by the EGSF network. EGSF will aim to get an extension beyond 2014 through member subscriptions or a COST application . (Note: The deadline for application will be early 2013; application is planned through EGSF chair).

EGSF members will help to formulate the roadmap and promote it through a 1-2 year preparatory phase. The long-term aim will be to secure larger funding from the EU through Horizon2020.

In the first instance, the EGSF will get in touch with EU representatives to explore possible pathways that would help establish a roadmap leading to a virtual European Glycoscience Centre.

Attachments:

Appendix 1 ; Agenda

Appendix 2 ; List of participants

Appendix 3 ; Analysis of questionnaire and results

Workshop on the Future Direction of Glycoscience in Europe

Wednesday 25th July 2012 15:00 – 20:00

Meliá Castilla Hotel, Madrid

Final Agenda

15.00 Welcome by **Dr T Merry** (Coordinator Euroglycoforum)

15.05 Introduction and purpose of this workshop (**Prof S Flitsch**)

15.30 Summary of responses to questionnaire (**Dr T Merry**)

15.45 Presentations on national initiatives inside and outside Europe (5 mins each). These will not be comprehensive, but should stimulate subsequent discussions. It would be helpful if speakers covered the following points:

- Overview of existing activities;
 - Future plans;
 - How would these activities benefit from a European effort?
1. **Prof J. Paulsen** (USA) - Consortium for Functional Glycomics , activities and future plans
 2. **Prof P Marino** (USA) – NIGMS
 3. **Prof Y Ito** (Japan)
 4. **Prof M von Itzstein** (Australia)
 5. **Prof N Bovin** (Russia)
 6. **Prof T Lowary** (Canada)
 7. **Prof B Yu** (China)
 8. **Prof Hans Kamerling** (The Netherlands)
 9. **Dr Gordan Lauc** (Croatia, FP7 grants in the glycoscience)

16.45 Discussion

17.00 Refreshments

17.30 Review of current status of Carbohydrate-related Organisations and Scientific Journals:

1. International Carbohydrate Organisation (current chair: **Prof Y Ito**)
2. International Glycoconjugate Organisation (**Prof H Vliegenthart**)
3. European Carbohydrate Organisation (**Prof B Davis**)
4. The Society for Glycobiology (current chair **Prof H Freeze**)

18.00 Round Table Discussions –

- Should we have a 'Glyco Roadmap' for Europe?
- Follow-up actions and future meetings.

Participants

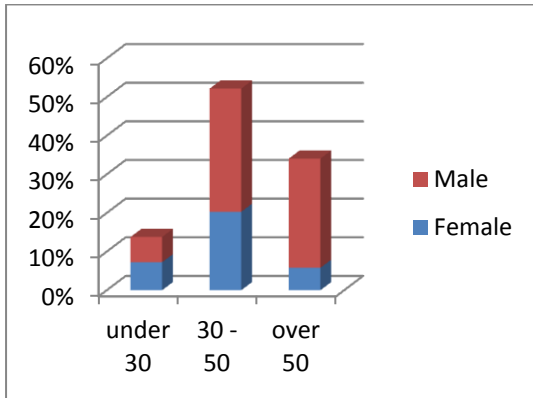
Professor	Aebi	Switzerland
Dr	Alamäe	Estonia
Professor	Baasov	Israel
Dr.	Bencomo	Cuba
Professor	Bols	Denmark
Professor	von Itzstein	Australia
Professor	Bovin	Russia
Dr	Campbell	Australia
Prof	Christensen	Norway
Prof	Clausen	Denmark
Dr.	Costa	Portugal
Prof	Crocker	UK
Professor	Davis	UK
Prof	Delannoy	France
Prof. Dr.	Elling	Germany
Dr.	Endo	Japan
Prof	Feizi	UK
Dr.	Freeze	US
Professor	Gammon	South Africa
Prof	Gerady-	Germany
Dr.	Gorin	Brazil
Dr.	Haltiwanger	US
Professor	Hart	US
Dr	Haslam	UK
Prof	Hindsgaul	Denmark
Professor	Hounsel	UK
Prof	Imberty	France
Professor	Ito	Japan
Professor	Jiménez-	Spain
Professor	Kim	Korea
Dr	Kolarich	Germany
Professor	Kosma	Austria
Dr	Lauc	Croatia
Professor	Lomas	Spain
Prof. Dr.	Lütteke	Germany
Dr	Marino	US
Dr	Merry	UK
Dr	Merry	UK
Professor	Mollinari	Italy
Professor	Oscarson	Ireland
Dr	Palcic	Denmark
Professor	Paulson	US
Dr	Pierce	US
Professor	Rauter	Portugal
Dr.	Reichardt	Spain
Dr.	Renkonen	Finland
Prof. Dr.	Schäffer	Germany
Prof	Schauer	Germany
Herr	Schliephack	Germany
Ms	Sethi	Germany
Professor Dr	Unverzagt	Germany
Prof. Dr.	Van Damme	Netherlands
Professor	Varki	US
Dr	Vidal	France
Ms	Visnapuu	Estonia
Professor	Vliegenthart	Netherlands
Dr	West	US
Dr	Withers	Canada
Professor	Wu	Taiwan

Appendix 3

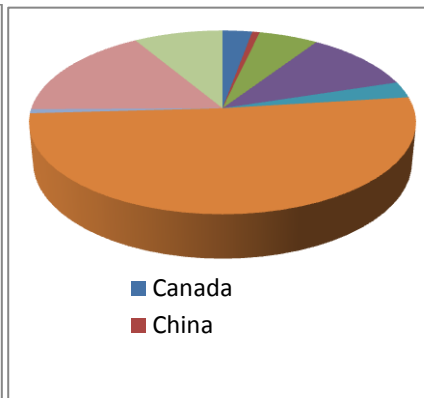
Summary of Questionnaire (150 respondents)

1. Profile of Respondents

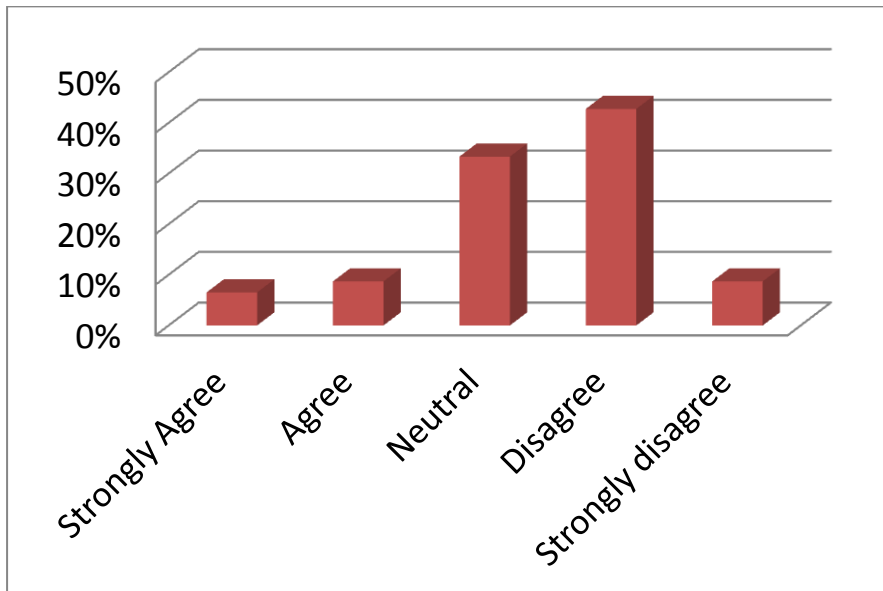
Age/Sex



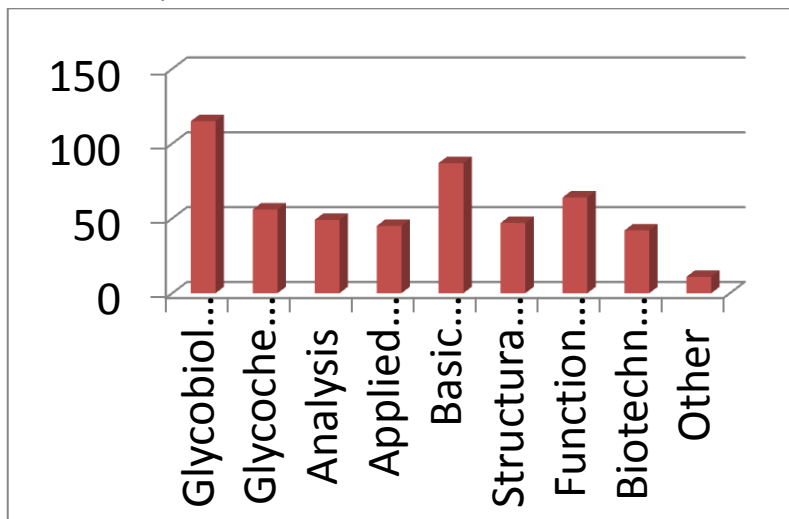
Nationality



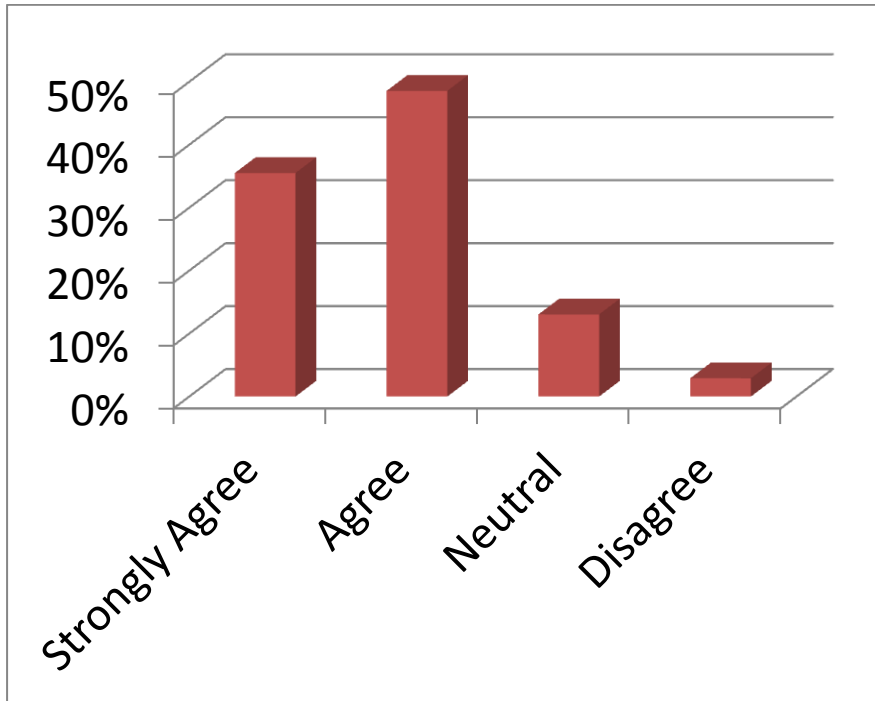
2. Q1 There are too many meetings on Gly7coscience in Europe



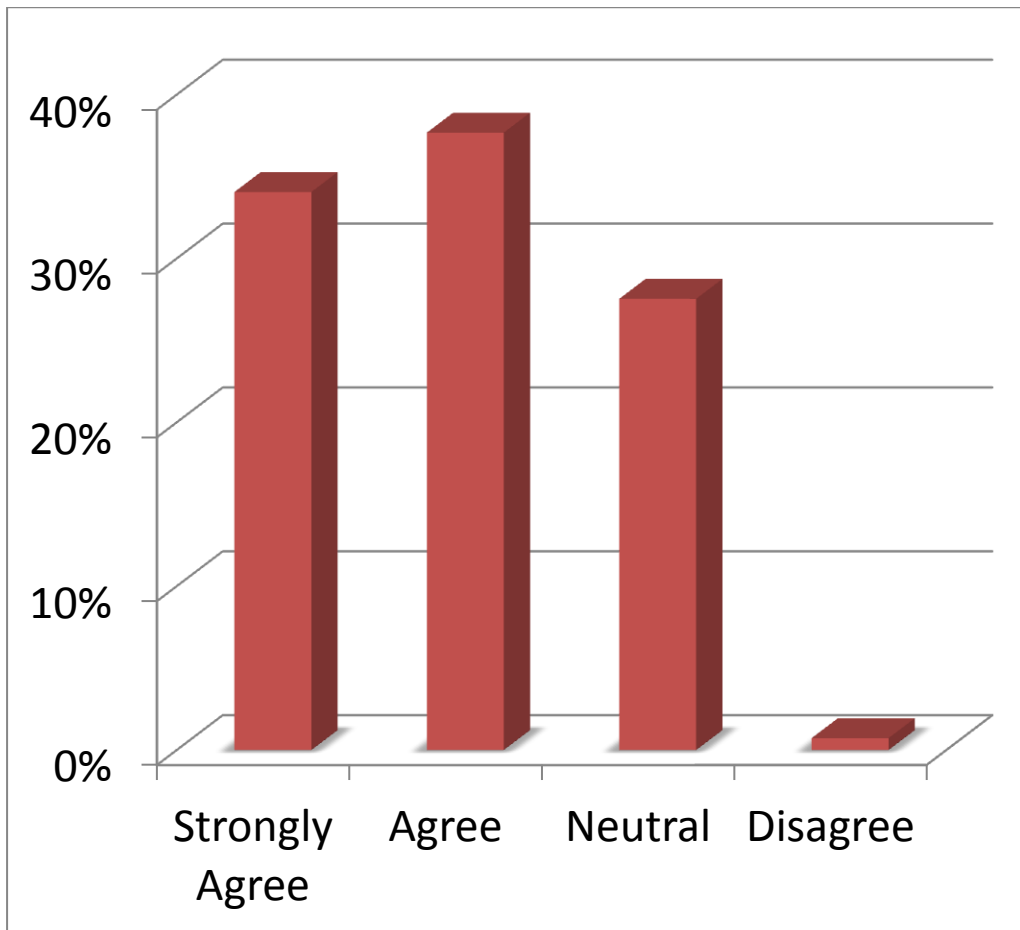
3. Q2 Area of Expertise



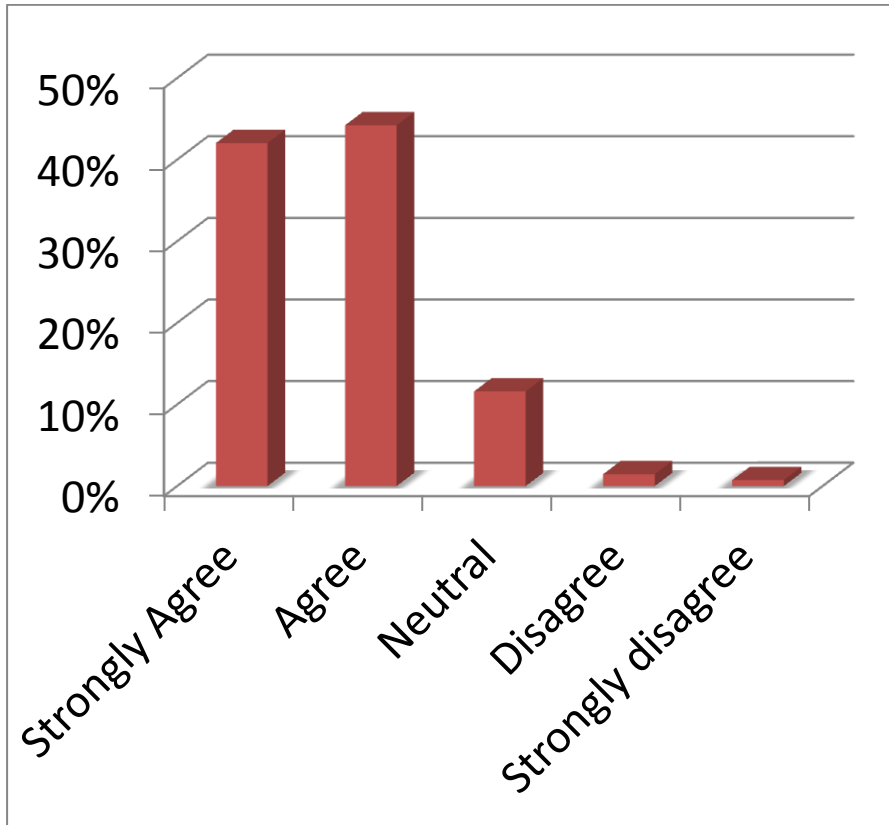
4. Q3 Glycoscience should reach out to more disciplines



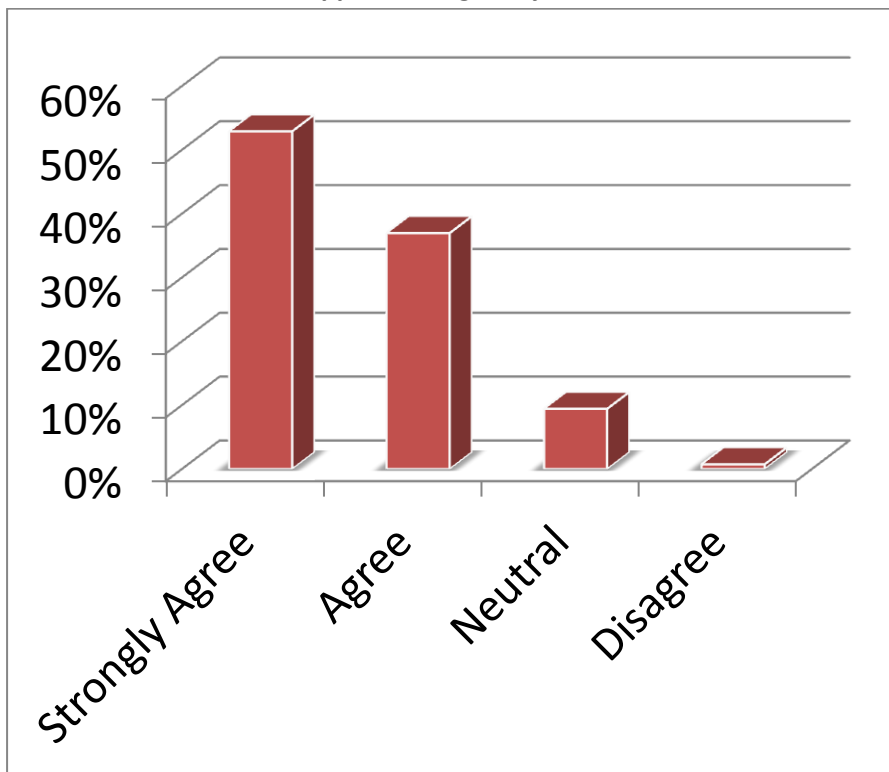
5. Q4 We need a Stronger Organisation of European Glycoscientists



6. We need to improve Links with Industry



7. We need to do more to support Younger Glycoscientists



8. We need to do more to improve engagement with the public

