

ESF RESEARCH CONFERENCES

Rapporteur Report

Partnership:	ESF COST High Level Research Conference
Conference Title:	Natural Products Chemistry, Biology and Medicine IV
Dates:	28 August – 2 September 2011
Chair:	Prof. Ari Koskinen
Rapporteur:	Dr. Lucia Forzi

General Comments

Over the past two centuries, chemistry and synthesis have evolved from relatively pure disciplinary pursuits to positions of central importance in the physical and life sciences. Thanks to the ability to design, create and control molecules, chemists have been laying the foundation for the molecular revolution. Before that, nature's archive was the sole or primary source of chemicals used by humans. This has now changed; through innovative advances in tools, theories and methods, synthesis can be used to provide a reliable supply of many natural compounds, but also to prepare bio-inspired or designed compounds. Therefore it is possible to use inspiration to design molecules with superior or totally new functions and make them in increasingly efficient, practical and environmentally friendly ways. Many of the most important therapeutic agents introduced in the past 50 years are, or were inspired by, natural products; more are surely to follow. In addition to therapeutic uses, many naturally occurring compounds have been the source of inspiration for the design of materials, diagnostics and imaging agents (*Nature*, 2009 July 9; 460: 197-201).

Quality of Scientific Programme, Presentations and Discussion

The conference brought together researchers and industry representatives from different disciplines relating to natural products ranging from chemical synthesis of complex natural products, natural product biosynthesis and isolation, to bioorganic and medicinal chemistry. While organic synthesis of natural products was strongly represented in the programme, also topics addressing advances in catalytic synthetic methodology, chemical communication, molecular interactions of biological relevance and recent advances in drug discovery were included. All the presentations (keynote lectures and short presentations) were of very high level and were followed by intense discussions that often were continued during the breaks.

Informal Networking and Exchange; Atmosphere

The isolated venue and the different breaks (coffee breaks, lunches and dinners) facilitated the informal exchange of information also outside the lecture room. Younger researchers took advantage of the various informal discussions opportunities during the entire week and in particular during poster sessions (which were an integral part of the conference) that provided an ideal forum to exchange of findings and ideas in an informal setting.

Balance of Participants

There was a very good balance between young and senior scientists. Different relevant disciplines were reflected in the programme and invited speakers were leaders in their respective research areas and they were from different European and non-European countries (Canada, United States).

Outlook and Future Developments

Based on the fruitful discussions that occurred during the conference it is expected that the conference will contribute to build and enlarge informal networks of the participants thereby leading to collaborations and new scientific achievements. Unfortunately, even if a time in the programme was reserved for a "Forward Look Plenary Discussion", no structured discussion about future development in the field was carried out.

Follow-up

In order to keep the interest high in this important research area it would be important to organize in Europe a fifth edition of the High Level Research Conference on Natural Products.

Organisation and Infrastructure

The conference was held in a relax setting at the Hotel Villa del Mare, Acquafredda di Maratea in Italy which considerably contributed to provide a serene atmosphere which is ideal for this type of conferences. The site offered comfortable accommodations, the staff was friendly and the conference officer provided a very good on-site logistical support that has been very positively appreciated by the participants.

Summary & Overall Assessment

The conference has been successful and of high quality. The conference has provided an international forum for the presentation and discussion of frontier research in natural products giving the possibility to network scientists working in this area. The other comparable event in this area is the Gordon Research Conference on Natural Products in the US and therefore it would be relevant to keep the organization of such an event also in Europe.

About ESF Research Conferences

The Scheme

This conference is part of the European Science Foundation's (ESF) Research Conferences Scheme. The Scheme aims to promote scientific excellence and frontier level research throughout Europe and the rest of the world. Conferences aim to provide leading scientists and other participants, including young researchers, with a platform to present their work, to discuss the most recent developments in their fields of research and to network.

Conference Format

The core activities should be based on lectures by invited speakers, who are leaders in their respective fields, followed by extensive discussion periods. An informal exchange of ideas, both inside and outside the lecture room, should be encouraged, and the number of sessions in the daily timetable should be limited in order to allow sufficient time for interaction between the participants. Time should be reserved for a 'Forward Look Plenary Discussion' about future developments in the field.

Participants can take all their meals together to encourage further contact and networking, which can be particularly beneficial to younger researchers who may be less outspoken in the formal lecture room setting. In order to gain optimum benefit from the conference, both the speakers and the participants are asked to stay for the whole duration.

Division of Tasks

The Conference Chair is responsible for ensuring the quality of the scientific programme through the selection and invitation of speakers, and through the selection of participants.

The ESF Conferences Unit is responsible for managing all the logistical aspects of the conference organisation, including the provision of an on-site secretariat.

Further information: www.esf.org/conferences