

# Enzymatic Processing and Modification -Current and Future Trends

Tuesday 21 - Wednesday 22 June 2011 Het Pand, University of Ghent, Belgium



Organised by SCI's Lipids Group and Ghent University

The conference will provide a detailed review of the opportunities now available, including a review of Life Cycle Analysis when using enzymatic processing. The use of enzymes to modify edible oils has grown in the last twenty-five years from being an alternative to the chemical method of degumming oils such as soyabean oil, to becoming a highly versatile process, used for a variety of structure-modifying processes.

The lipases have since become more widely used tools in the processing of various lipids, effective in processes such as interesterification as well as the production of diacylglycerols. The production of structured lipids as well as other triacylglycerols formed with the aid of enzymes provides yet more evidence of their versatility, and such examples will be discussed in this conference by scientists and technologists who have been directly involved in their development. Most recently the use of enzymes in the production of bio-fuels has been signalled.

#### Posters

There are a limited number of poster displays available. Please send a one A4 page abstract to Jacqui Maguire E: jacqui.maguire@soci.org by **21 April 2011**.

The University of Ghent is an ideal venue for both the conference and exhibition. All refreshments, lunches, the exhibition and posters will be situated in a single area, ensuring excellent access to delegates throughout the meeting. There are also other opportunities for sponsorship. Please contact jacqui.maguire@soci.org for further information and costs.

Exhibition

SCI is an international, independent charity whose remit is to promote the application of science for the benefit of society. SCI is the publisher of many well respected journals and industry leader Chemistry & Industry magazine (C&I). SCI can offer a network of contacts spanning education, science and business, an in-depth knowledge of chemical related industries together with a rolling programme of conferences, awards and scholarships to help further knowledge and support those involved in the sector no matter what stage of their careers.

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Programme	Tuesda	ay 21 June
	10:30	Registration and refreshments
	11:00	Welcome and introduction
Pr	11:05	Welcome to Ghent University Prof Koen Dewettinck, University of Ghent, Belgium
	11:15	Enzymatic processing: past, present, future Mr Hans Christian Holm, Novozymes, Denmark
	11:45	Enzymatic degumming for physical refining of vegetable oils Mr Chris L G Dayton, Bunge Limited, USA
	12:10	Designing novel hardstocks by enzymatic interesterification Dr Véronique Gibon, Desmet Ballestra R&D Center, Belgium
	12:35	Discussion
	12:50	Lunch and poster viewing
	13:50	New applications for enzymes in oil processing Dr David Cowan, Novozymes UK Ltd, UK
	14:15	Ionic liquid-based nanoscale reactor: a new concept for biocatalysis Dr Xuebing Xu, Aarhus University, Denmark
	14:40	Potential of combined enzymatic interesterification and fractionation of palm oil and its fractions Prof Koen Dewettink, University of Ghent, Belgium
	15:05	Refreshments and poster viewing
	15:35	The use of immobilized lipases for the production of structured lipids: from lab-scale to industrial scale Mr Krish Bhaggan, Loders Croklaan, The Netherlands
	16:00	<b>Processing aspects of enzymatic rearrangement</b> Dr Rob Diks, Unilever R&D Vlaardingen, The Netherlands
	16:25	Composition and properties of high and mid-DAG oils from palm oil products Dr Siew Wai Lin, MPOB, Malaysia
	16:50	Discussion
	17:00	Close
	19:00	Conference dinner

Wedne	esday 22 June
08:55	Welcome and introduction
09:00	Keynote speaker: Trends in enzyme based modification of lipids, fats and oils Prof Dr Uwe Bornscheuer, Greifswald University, Germany
09:40	A basket of new oil compositions from palm oil products via enzymatic process Dr Nuzul Amri Ibrahim, MPOB, Malaysia
10:05	Properties and applications of enzymatically modified cocoa butter Dr Nathalie De Clercq, University of Ghent, Belgium
10:30	Refreshments and poster viewing
11:00	Enzymatic methods for EPA/DHA concentrate production Dr Inge Bruheim, Emerald Fisheries AS, Norway
11:25	Life cycle comparison of enzymatic and chemical interesterification Dr Gerrit van Duijn, Unilever R&D Vlaardingen, The Netherlands
11:50	<b>Enzyme processing, a speculative look into the future</b> Dr Albert J Dijkstra, Scientific consultant, France
12:30	Discussion
12:40	Summing up and final comments

**12:50** Lunch and close

Programme

Dr David Cowan, Novozymes Mr Wolf Hamm, SCI Lipids Group Dr Parkash Kochhar, SPK Consultancy Mr Kevin W Smith, Fat Science Consulting Ltd Prof Koen Dewettinck, University of Ghent Dr Nathalie De Clercq, University of Ghent



#### Venue

Ghent (in Dutch : Gent) is the fourth largest city of Belgium. The city centre alone is a showcase of medieval Flemish wealth and commercial success. Ghent has an important harbour, thanks to the canal Ghent-Terneuzen and is also the flower city of Belgium.

"Het Pand" where the conference will be held is an old Dominican monastery located in the heart of the city on the banks of the River Leie. In 1963, Ghent University bought the monastery and decided to arrange "Het Pand" as the cultural centre of the University, which has been in operation since 1991.

#### Travel

Ghent is easy to reach by rail or road from mainland Europe and by air if travelling from the UK.

## **By Air**

Fly into Brussels airport then travel by train to Ghent. The Airport City Express leaves from within the airport building (2nd floor) and takes you to one of the main stations in Brussels, where you can take one of the many intercity trains (IC) to the Ghent-Sint-Pieters station, Ghent's main railway station. For UK participants, British Airways operate flights from London to Brussels.

#### **By Train**

Travel to the Ghent-Sint-Pieters station. Take tram number 1 (every 6 minutes), alight at the Korenmarkt. For UK participants, Eurostar operate the return trip to Ghent from St Pancras.

#### By Bus

Take a bus/coach to Ghent Zuid bus station. Then take the local bus (Either 16, 17, 18 or 19). These buses operate every 15 minutes. Alight at Korenmarkt.

## By Car

Follow parking route signs to parking P7, Sint-Michiels. The car park is located 50 metres from Het Pand. Follow the car park exit sign Onderbergen and park in the Wilderoosstraat, 50 metres away from Het Pand.

Please note: travel information is correct at the time of going to press. It is advisable to check your arrangements before travelling.

## Hotels

As there are only a limited number of rooms on hold, early booking is strongly recommended.

We have negotiated rates and reserved a number of rooms at several 3 and 4 star hotels in Ghent. To make a booking, please contact the booking agency directly using the details below.

## Agency contact details

You will find a link to the hotels on the event webpage. Alternatively, please use the following contact details: Hotelworld, T: 0844 445 7270, E: reservations@hotelworldplus.com

## **Enzymatic Processing and Modification - Current and Future Trends**

21 - 22 June @ University of Ghent, Belgium

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I wish to present a poster

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