

Pigments in Food II

The *second international congress on pigments in food* (FECS event No. 258) was held in Lisbon from June 11th to 14th, 2002; special focus was directed towards functionalities of pigments in foods. The organization was carried out by the Sociedade Portuguesa de Química and the Food Chemistry Division of FECS. This meeting brought together around 100 scientists, representing a wide variety of disciplines from over 20 nations, to share recent experiences on natural food colours. The content of the conference addressed primarily, but not exclusively, anthocyanins, carotenoids and chlorophylls.

The opening lecture on *historical perspectives of food colourings* given by Professor B.J. Herold (Lisbon, P) served to place the meeting in its historical context. Thereafter, five plenary lectures covered diverse groups of natural pigments, beginning with an overview on *natural colorants (structure, production and stability)* by Professor C. Andary (Montpellier, F). The state of research on *biological actions of carotenoids*, paying special attention to the effects of their oxidation products, was presented by Professor G. Britton (Liverpool, GB). Professor M. Heinonen (Helsinki, FI) spoke about *anthocyanins*, and described recent outcomes of the ongoing EU-project on "Anthocyanin Bioactivities". Professor M.C. Nicoli (Undine, I) reviewed the technological properties of melanoidins as well as their biological and in vivo activity. Last, but not least, Professor S. Schwartz (Columbus, Ohio, USA), delivered a presentation on *lycopene and other carotenoids in tomato products*, discussing recent results on their chemistry, bioavailability and health benefits.

These comprehensive plenaries were complemented by 22 oral presentations and over 60 posters, subdivided into five thematic areas. Area one concerned *nutritional, physiological and pharmaceutical aspects*; the role of lutein in the prevention of age-related loss of sight and the protective effect of anthocyanins on DNA damage were just two examples of the included topics. The second area covered the *evaluation of pigments and colourings in food*; subjects addressed included the influences on olive oil colour, physical state of carotenoids in plants and its consequences on bioavailability as well as investigations on anthocyanin derived colours. In the third area, *production, quality and stability of natural pigments*, the contributions ranged from the extraction of pigments, their stability during processing to strategies for the stabilization of colours. *Novel food and food ingredients with enhanced colouring content* introduced new sources for extraction of pigments as novel food colourants as well as biotechnological techniques to produce pigments in cell culture. The last area, *bioavailability and nutraceutical properties* included presentations on antimutagenic and – cancerogenic effects of chlorophylls and the bioavailability and bioactivity of anthocyanins. The meeting was characterised by the active participation of a number of young person, as lecturers, co-chairs and poster presenters. This most encouraging feature reflects the priority of the Division and the European Commission who supported the conference through its Quality of Live and Management of Living Resources programme.

Immediately following the conference, a workshop was held for young participants; organised by Ms. Sara Martins [Univ.Wageningen, Wageningen, NL] and Ms. Sophie Mrejen [IST, Lisbon, PT]. This included discussions on opportunities for young researchers in industry, the planned training and mobility activities within Framework programme 6 and the importance of management for successful transnational projects.

In his concluding remarks, Professor Jose Empis, Instituto Superior Técnico (Lisbon), chairman of the scientific and the organizing committees, emphasised that the biological functionality of food ingredients, and food colourings in particular, was now driving R&D activity as much, if not more than interest in their functional properties in food. He expected that interest on medical aspects will be an increasingly important area in future congresses in this area.

The proceedings of this successful conference were distributed to all participants. Additional copies can be obtained from the Portuguese Chemical Society (www.spq.pt).

The third international congress on the topic of food colours will be held in June 2004 in Quimper, France.

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