XXII
International Conference on Polyphenols

25-28 August 2004
Helsinki, Finland

Conference Programme
TUESDAY 24.8.

15.00-17.10  YOUNG RESEARCHERS’ FORUM (Auditorium XII)
14.00-18.00  REGISTRATION

WEDNESDAY 25.8

8.30-10.00  REGISTRATION
10.00-10.55  OPENING CEREMONY
             AWARDS
             Kristiina Wähälä, Joseph Vercauteren, Marina Heinonen, Kurt
             Fagerstedt, Christian Jay-Allemand

Session 1  Chairpersons M. Heinonen, Finland / J. Vercauteren, France

10.55-11.40  PLENARY TOPIC 1 Herman Adlercreutz, Finland
             Overview of phytoestrogens. (Polyphenols Communications 2004 page 1)

11.40-11.55  T1 Kazumi Yagasaki, Japan
             Inhibitory effects of soybean isoflavones on the proliferation and invasion
             of hepatoma cells in culture. (p. 25)

11.55-12.10  T1 Uriel Bachrach, Israel
             The specific anti-cancer activity of green tea polyphenols (p.27)

12.10-12.25  T1 Louise Mennen, France
             Urinary polyphenols and their metabolites in spot urine samples as biomarkers
             of polyphenol intake. (p. 29)

12.25-12.35  DISCUSSION
12.35-14.00  LUNCH
Session 2  
*Chairpersons D. Gang, USA / A. Hatakka, Finland*

14.00-14.40  
**PLENARY TOPIC 3** 
*Danièle Werck, France*  
The 3-hydroxylation of phenolic esters and amides: the missing link in the phenylpropanoid pathway.  
(p. 3)

14.40-14.55  
**T3** 
*Stefan Martens, Germany*  
Biochemical properties of dioxygenases involved in flavonoid biosynthesis in parsley: an evolutionary aspect.  
(p. 31)

14.55-15.10  
**T3** 
*Fumio Hashimoto, Japan*  
Delphinograndins A and B, the New Anthocyanins from Delphinium L. Flowers and Mode of Inheritance of Flower Colors.  
(p. 33)

15.10-15.25  
**T4** 
*Poul Erik Hansen, Denmark*  
Structural studies of a series of acetylated polyphenols and Schiff bases thereof all with intramolecular hydrogen bonds using deuterium isotope effects on $^{13}$C NMR chemical shifts, PCA methods, X-ray and ab initio calculations.  
(p. 37)

15.25-15.35  
**DISCUSSION**

15.35-15.55  
**COFFEE BREAK**

15.55-17.00  
**POSTER SESSION I TOPICS 3,4, and 5**

16.45-17.45  
**GROUPE POLYPHENOLS GENERAL ASSEMBLY**  
(The Great Hall)

18.00-19.30  
**HELSDINKI CITY RECEPTION**
THURSDAY 26.8

Session 3  Chairpersons  J. Lampe, USA / M. McNiven, Canada

9.00-9.40  PLENARY TOPIC 2 Mike Theodorou, UK
Polyphenols and their influence on gut function and health in ruminants. (p. 5)

9.40-9.55  T2 Cyril Auger, France
Flavanols (catechins monomers, procyanidins dimers and trimers) absorption, metabolism and excretion in a rat model system following the ingestion of a grape seed extract. (p. 41)

9.55-10.10  T2 Mariko Uehara, Japan
Equol, a metabolite of daidzein, prevents bone loss in ovariectomized mice. (p. 43)

10.10-10.25  T1 Heide S. Cross, Austria
Phytoestrogens regulate proliferation and vitamin D hydroxylase expression in the mouse colon – a model for human colon cancer prevention. (p. 45)

10.25-10.35  DISCUSSION
10.35-11.00  COFFEE BREAK

Session 4  Chairpersons  J.-C. Merlin, France / T. Kondo, Japan

11.00-11.40  PLENARY TOPIC 4 Emmanuel Mikros, Greece
The estrogen receptor and polyphenols: molecular simulation studies of their interaction. (p. 7)

11.40-11.55  T2 Warren N. Ratna, USA
Dietary polyphenols influence gene expression by estrogen mimicry. (p. 47)

11.55-12.10  T1 Ralf Stohwasser, Germany
Structure-function relations of proteasome inhibition by polyphenols. (p. 49)
12.10-12.25  T1 Stéphanie V.E. Prigent, The Netherlands
Covalent interactions between chlorogenic acid and proteins or protected amino acids, and their effects on protein functional properties. (p. 51)

12.25-12.35  DISCUSSION
12.25-14.00  LUNCH

Session 5  Chairpersons K. Fagerstedt, Finland / T. Katayama, Japan

14.00-14.40  PLENARY TOPIC 3 Vincent L. Chiang, USA
Monolignol Biosynthesis and Genetic Engineering of Lignin in Trees. (p. 9)

14.40-14.55  T3 Benoit Van der Rest, France
Soluble phenolic accumulation as side effect of lignin downregulation. (p. 53)

14.55-15.10  T3 Jussi Sipilä, Finland
On the role of dibenzodioxocines in lignin biosynthesis. (p. 55)

15.10-15.20  DISCUSSION
15.20-15.40  COFFEE BREAK

Session 6  Chairpersons I. El Hadrami, Morocco / O. Andersen, Norway

15.40-15.55  T4 Stefan M. Willför, Finland
Knotwood in trees - a new rich source of bioactive flavonoids. (p. 57)

15.55-16.10  T5 Mark O. Downey, Australia
Flavonol accumulation and expression of a gene encoding flavonol synthase demonstrates light sensitivity of flavonol biosynthesis in grapevines. (p. 59)
16.10-16.25 T4 Stéphane Quideau, France
DNA topoisomerase inhibitors acutissimins and other hybrid polyphenols in red wine – reactivity, synthesis and biological evaluation. (p. 61)

16.25-16.40 T5 Heidi Halbwirth, Austria
Influence of polyphenols on fire blight resistance in apple. (p. 63)

16.40-16.50 DISCUSSION

16.50-18.00 POSTER SESSION II TOPICS 1, 2, and 6

18.00-19.30 RECEPTION HOSTED BY THE RECTOR OF THE UNIVERSITY OF HELSINKI

FRIDAY 27.8

Session 7 Chairpersons Kanae Yamashita, Japan / H. Cross, Austria

9.00-9.40 PLENARY TOPIC 6 Young-Joon Surh, South Korea
Chemopreventive Effects of Antioxidative and Antiinflammatory Phytonutrients on Skin Carcinogenesis. (p. 11)

9.40-9.55 T6 Jacob Vaya, Israel
Chalcones as potent tyrosinase inhibitors. Catechol vs. resorcinol substructure – a structure/activity relationship study. (p. 65)

9.55-10.10 T4 Sampo Karkola, Finland
Molecular modeling of aromatase for studying the binding of phytoestrogens. (p. 67)

10.10-10.25 T4 Samir Yahiaoui, France
Pharmacomodulation of Flavonoids as new aromatase inhibitors. (p. 69)

10.25-10.35 DISCUSSION
COFFEE BREAK

Session 8  Chairpersons: C. Lister, New Zealand/ C. Santos-Buelga, Spain

PLENARY TOPIC 4  Victor de Freitas, Portugal
Chemical Transformations of Anthocyanins Yielding a Variety of Colours. (p. 13)

T4 Maarit J. Rein, Finland
Anthocyanin copigmentation reactions with phenolic acids. (p. 71)

T4 Paul-Henry Ducrot, France
New methodologies for the Synthesis of Proanthocyanidins. (p. 73)

T1 Joanne M. Holden, USA
Development of a database for proanthocyanidins in food. (p. 75)

DISCUSSION
LUNCH

Session 9  Chairpersons C. Gallet, France / K. Pihlaja, Finland

PLENARY TOPIC 5  Liliana Gianfreda, Italy
Treatment of phenol polluted systems by biotic and antibiotic catalysts. (p. 15)

T5 Abdelbasset El Hadrami, Canada
Fertirrigation with olive-oil mill wastewaters in Mediterranean areas: effects of the phenolics fraction of the by-product on the growth and development of some crops. (p. 77)
The predominant polyphenol in the leaves of the resurrection plant Myrothamnus flabellifolius, 3,4,5-tri-O-galloylquinic acid, protects membranes against desiccation and free radical induced oxidation. (p. 79)

15.10-15.20 DISCUSSION
15.20-15.40 COFFEE BREAK

Session 10 Chairpersons C. Jay-Allemand, France / V. Lattanzio, Italy

15.40-16.20 PLENARY TOPIC 5 Dieter Treutter, Germany
Significance of flavonoids in plant resistance – an update. (p. 17) -Groupe Polyphénols Award -

16.20-16.35 T5 C. Edgardo Filippone, Italy
Over-expression of a fungal laccase gene in tobacco for phytoremediation of PAHs contaminated soils. (p. 81)

16.35-16.50 T4 Kumi Yoshida, Japan
UV-B resistant polyacylated anthocyanins in blue flower petals and their screening effect of protecting DNA. (p. 83)

16.50-17.05 T4 Claudia Kinitz, Germany
Analysis of Polyphenols: Benefits of Method-Optimization. (p. 85)

17.05-17.20 T5 James E. Cooper, Northern Ireland, UK
Dominant role of flavonoids among signal molecules involved in the formation of legume-rhizobia symbioses. (p. 87)

17.20-17.30 DISCUSSION

19.30-24.00 BANQUET
SATURDAY 28.8

Session 11  Chairpersons V. Cheynier, France / P. Knuthsen, Denmark

9.00-9.40  PLENARY TOPIC 2 Irene Mueller-Harvey, UK
Tannins in animal nutrition and health. (p. 19)


9.55-10.10  T1 Bruce P. Burnett, USA
A combination free-B-ring flavonoid and flavan, anti-inflammatory plant extract increases memory and speed of processing in animal and human clinical models. (p. 89)

10.10-10.25  T4 Kirsti Parikka, Finland
Deuteration of polyphenols for analytical and metabolic studies. (p. 39)

10.25-10.35  DISCUSSION

10.35-11.00  COFFEE BREAK

Session 12  Chairpersons N. About, France / R. Hiltunen, Finland

11.00-11.40  PLENARY TOPIC 6 Patrice André, France
Polyphenols and cosmetology: biological interest, phytochemical aspects and technical approach. (p. 21)

11.40-11.55  T6 Alena Svobodová, Czech Republic
Effects of polyphenols from Silybum marianum on UVA-induced apoptosis and DNA damage in human skin cells. (p. 91)

11.55-12.10  T1 Shibo Jiang, USA
Polyphenols in teas inhibit HIV-1 inhibition by blocking virus entry. (p. 93)

12.10-12.25  T4 Patrick Trouillas, France
A Theoretical Study of Reactivity of OH groups in Quercetin and Taxifolin: Specificity of the 3-OH group. (p. 103)
12.15-12.35 DISCUSSION
12.35-14.00 LUNCH

Session 13 Chairpersons P. Lehtonen, Finland / M. Tahiri, France

14.00-14.40 PLENARY TOPIC 1 Sabine Kulling, Germany
Bioavailability and metabolism of pure cyanidin-3-O-glucoside in humans. (p. 23)

14.40-14.55 T1 Johanna W. Lampe, USA
Factors influencing metabolism of the soy isoflavone daidzein. (p. 95)

14.55-15.10 T1 Olivier Dangles, France
Inhibition of the metmyoglobin–induced peroxidation of linoleic acid by polyphenols and other dietary antioxidants: a pertinent model for assessing the antioxidant activity in the gastro-intestinal tract. (p. 97)

15.10-15.25 T1 Francesco Branca, Italy
A thematic network for phytoestrogen research in Europe. (p. 99)

15.25-15.40 T1 Jaakko J. Mursu, Finland
The short-term effects of phenolic compounds on postprandial dyslipidemia and lipid peroxidation in healthy men; a clinical trial. (p. 101)

15.40-15.50 DISCUSSION

15.50-16.00 CLOSING OF THE CONFERENCE
General information

Registration and Information
The Registration and Information Desk is located on the 1st floor of the University Main Building. Participants can access the desk area from Aleksanterinkatu or Unioninkatu (The Senate Square). The desk is open on Tuesday 24th from 14.00 - 18.00, on Wednesday 25th from 8.30 – 10.00 and during the scientific programme every day during the conference.

Posters
There are four halls reserved for posters. Poster Area I is the Main Entrance Hall from Fabianinkatu, Poster Area II, III and IV are on the 2nd floor and Poster Area V is on the 3rd floor of the University Main Building. People presenting posters are advised to put up their posters directly after the registration. Poster numbers and presenters can be found from the Polyphenols Communications 2004. All the posters are accessible during the conference.

Speakers
Speakers are advised to check and leave their presentations in advance in Auditorium II on the 2nd floor.

Groupe Polyphénols Secretariat
Locates in Auditorium II, second floor. Open daily during the breaks.

Computers
On the second floor in Auditorium III there are computers with internet connection for public use. Cell phones should be switched off while in the computer classroom.

Lunch and coffee
Lunch and coffee are served on the 2nd floor at both sides of the main entrance of The Great Hall. In the teachers’ lounge there are few seats available for those who need to rest their feet.

Please Note
Keep your badges with you at all times.
In the Great Hall, eating and drinking are strictly prohibited and cell phones must be switched off.
People wishing to smoke are directed to the patio, which is accessible from the Registration Desk. Smoking is not allowed indoors nor at the main entrances.

**Information about Helsinki**
Helsinki Help (tourist guides) are available at the Registration Desk to assist participants and accompanying persons with questions concerning Helsinki Area: Tuesday 24th 14.00-18.00, Wednesday 25th 8.30-11.00 and Thursday 26th 10.15-11.15, 12.35-14.15 and 15.15-15.45.

Helsinki Festival
Information and programme available at the Helsinki Helpers desk. Thursday 26th August 2004 “The Night of the Arts”: street entertainment, concerts, art exhibitions etc.

**Accommodation, posttours**
Preordered posttour vouchers can be collected from Congreszon representative at the registration desk. Enquiries regarding posttours and accommodation should be addressed to Congreszon.
ICP 2004 Secretariat

Kristiina Wähälä, President of the ICP2004
Leena Kaisalo, General Secretary

ICP 2004 Attendant

Kurt Fagerstedt
Antti Hoikkala
Otto Soidinsalo
Sampo Karkola
Annamaria Lilienkampf
Nina Aremo
Eija Kukkola
Paula Kiuru
Barbara Raffaelli
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Monika Pohjoispää
Ullastiina Hakala
Tuija Jokela
Alistair King
Valtteri Mäkelä
Ville Johansson
Taneli Rautala
Sanna Heinonen
Emilia Väisänen
Sari Alho
The Organizers of the Conference thank:
- Academy of Finland
- Magnus Ehrnrooth Foundation
- Finnish Cultural Foundation

Presenters at the exhibition:
- Biohit Plc.
- Christian Dior
- Noiro Corporation
## Timetable of the Conference

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