



9th Wartburg Symposium
on Flavor Chemistry & Biology
April 13th – April 16th, 2010, Eisenach, Germany

Program

Eisenach
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Technical Program

Tuesday, April 13th, 2010

10:00-12:00 Registration at the Steigenberger Hotel, the City Hotel and the Wartburg Hotel (depending on the hotel accommodation)

12:00 Bus departs from Steigenberger Hotel (City Hotel) to the Wartburg

12:30-13:30 – Lunch break

13:30-15:25 – Tuesday, April 13th – Session 1

BIOCHEMISTRY AND NEUROPHYSIOLOGY OF TASTE AND OLFACTION I

Chair: Dietmar Krautwurst

13:45-14:00 – Welcome and Introduction

14:00-14:35 – Stephen Roper

Cells, synapses, and signaling in mammalian taste buds

14:35-15:00 – Mercedes M. Galindo

A role of gustatory receptors for human fat perception?

15:00-15:25 – Anne Brockhoff

Bitter taste receptor agonists and antagonists

15:25-16:00 – Coffee break

16:00-17:50 – Tuesday, April 13th – Session 2

BIOCHEMISTRY AND NEUROPHYSIOLOGY OF TASTE AND OLFACTION II

Chair: Wolfgang Meyerhof

16:00-16:35 – Hiroaki Matsunami

Deorphanizing olfactory receptors

16:35-17:00 – Dietmar Krautwurst

Human olfactory receptors for thiol key food odorants

17:00-17:25 – Andy Taylor

Measuring dynamics of odor binding to OBP under physiological conditions

17:25-17:50 – Sebastien Doucet

Do invariant odor constituents of human milk and amniotic fluid explain undifferentiated attraction in newborns?

18:00-19:00 – Horn blowers; possibility to visit the Wartburg castle

19:30-21:15 – Reception & Fingerfood

21:30 – Bus to downtown hotels

Wednesday, April 14th, 2010

7:45 – Bus transfer from downtown hotels Hotel to Wartburg Hotel

8:30-9:55 – Wednesday, April 14th – Session 3

ORAL PHYSIOLOGY AND FLAVOR PERCEPTION

Chair: Andy Taylor

8:30-9:05 – Andrea Buettner

In vivo flavor monitoring: from stimulation via perception to appreciation

9:05-9:40 – Boris Schilling

Smell perception: the role of perireceptor events

9:40-10:05 – Kerstin Martha Burseg

Sweet taste enhancement through pulsatile stimulation depends on pulsation period not on conscious pulse perception

10:05-10:35 – Coffee break

10:35-12:20 – Wednesday, April 14th – Session 4

STRUCTURE/ACTIVITY IN ODOR AND TASTE PERCEPTION

Chair: Terry Acree

10:35-11:00 – Johannes Polster

Structure/odor relationships in homologous series of thiols

11:00-11:25 – Michael Backes

New umami tasting molecules based on the p-menthane scaffolds

11:25-11:50 – Michael Czerny

Structure-odor-activity relationship of volatile alkylated phenols

11:50-12:20 – Daisuke Sugimoto

Absolute stereochemistries and structure-odor relationships of 2-substituted-3(2*H*)-furanones

12:20-13:45 – Lunch break

13:45-15:30 – Wednesday, April 14th – Session 5
KEY FOOD ODORANTS AND BEYOND I

Chair: Imre Blank

13:45-14:20 – Veronika Somoza
Multifunctionality of aroma compounds

14:20-14:55 – Terry Acree
The flavor chemistry of Riesling

14:55-15:20 – Vincente Ferreira
The influence of wine volatiles on wine taste and of wine non-volatiles on wine aroma

15:20-16:50 – Coffee break and Poster session

16:50-18:30 – Wednesday, April 14th – Session 6
KEY FOOD ODORANTS AND BEYOND II

Chair: Peter Schieberle

16:50-17:15 – Corinna Dawid
Characterization: of the key tastants and taste modifiers in asparagus (*Asparagus officinalis* L.) by means of a sensomics approach

17:15-17:40 – Elise Sarrazin
Identification of new odorants in indian cress (*Tropaeolum majus* L.) structure-activity study on synthesized homologues

17:40-18:05 – Keith R. Cadwallader
Characterizing Aroma components of fresh-cut watermelon

18:05-18:30 – Stephan Haiber
Challenges in structure elucidation of complex taste active molecules: Monolactoyl guanosine-5'-monophosphate by one- and two-dimensional ¹H- and ¹³C-NMR

19:00 – Bus departs to downtown hotels; free evening

Thursday, April 15th, 2010

7:45 – Bus transfer from downtown hotels to Wartburg Hotel

8:30-9:55 – Thursday, April 15th – Session 7
KEY FOOD ODORANTS AND BEYOND III

Chair: Thomas Hofmann

8:30-9:05 – Carlo Bicchi
New trends in the analysis of the volatile fraction of matrices of vegetable origin

9:05-9:30 – Hitoshi Tamura
The identification and the quantification of novel thiols in roasted white sesame seeds

9:30-9:55 – Donald S. Mottram
Investigation of the characteristic earthy flavor of baby corn (*Zea Mays*)

9:55-10:35 – Coffee break

10:35-12:25 – Thursday, April 15th – Session 8
ANALYSIS AND CHEMISTRY OF AROMA AND TASTE COMPOUNDS I

Chair: Peter Winterhalter

10:35-11:10 – Devin Petersen
Refining Maillard-type flavor chemistry - phenolic reaction pathways

11:10-11:35 – Imre Blank
Formation of selected compounds in model systems and real food

11:35-12:00 – Daniel Festring
Discovery and molecular-sensory characterization of Maillard-modified guanosine 5'-monophosphates in yeast autolysates

12:00-12:25 – Johanna Kreissl
Changes in tomato aroma compounds by thermal processing

12:25-13:45 – Lunch break

13:45-15:25 – Thursday, April 15th – Session 9
ANALYSIS AND CHEMISTRY OF AROMA AND TASTE COMPOUNDS II

Chair: Don Mottram

13:45-14:10 – Thierry Talou
Development of various headspace concentrators devices for analysis of medieval aromatic plants aromas from the field to the fork

14:10-14:35 – Elisabeth Guichard
Understanding the dynamics of flavor compounds release during food mastication of cheese products in function of oral physiology

14:35-15:00 – Karl-Heinz Engel

Analytical and sensory characterization of chiral short-chain esters of secondary alcohols

15:00-15:25 – Detlev Ulrich

Volatile analysis in apple breeding research

15:25-16:30 – Coffee break and Poster session

16:30-17:55 – Thursday, April 15th – Session 10

FORMATION OF FLAVORS FROM PRECURSORS

Chair: Russel Rouseff

16:30-17:05 – Peter Winterhalter

Generation of norisoprenoid volatiles: recent advances

17:05-17:30 – Susanne Baldermann

Changes in pigmentation and scent release during flower development in *Rosa chinensis* 'Mutabilis'

17:30-17:55 – Ziyin Yang

Influences of light emitting diodes irradiation and shade treatment on volatile profiles and related metabolites of leaves of tea (*Camellia sinensis*) plants and freshly picked tea leaves

18:30-20:00 – Concert

20:00-23.00 – Symposium Dinner

23:15 – Bus departs to downtown hotels

Friday, April 16th, 2010

7:45 – Bus transfer from downtown hotels to Wartburg Hotel

8:30-10:20 – Friday, April 16th – Session 11
FLAVOR BIOTECHNOLOGY AND METABOLISM I

Chair: Boris Schilling

8:30-9:05 – Ralf G. Berger
Systems biotechnology for enhanced flavor yields

9:05-9:30 – Maria M.W. Etschmann
Integrated bioprocess for the production of natural green notes with yeasts coexpressing lipoxygenase and hydroperoxide lyase

9:30-9:55 – Hideyuki Suzuki
Production of glutathione as a kokumi-enhancing substance by direct fermentation

9:55-10:20 – Holger Zorn
Biochemical and molecular biological characterization of a novel oxygenase from the basidiomycete *Pleurotus sapidus*

10:20-10:50 – Coffee break

10:50-12:15 – Friday, April 16th – Session 12
FLAVOR BIOTECHNOLOGY AND METABOLISM II

Chair: Karl-Heinz Engel

10:50-11:25 – Henryk Jelen
Fermented food flavors: from absinthe to tempeh

11:25-11:50 – David W. Jeffery
Formation of varietal thiol aroma compounds in wine: synthetic and analytical studies of grape and wine thiol conjugates

11:50-12:15 – Kerry Dungey
Accumulation of guaiacol glycosides in grapes following vineyard exposure to smoke

END OF THE SYMPOSIUM

12:15-14:00 – Farewell lunch

14:00 – Bus transfer to the downtown hotels