The 1st International Conference on

FOOD BIOACTIVES & HEALTH

13-15 September 2016

Programme and Abstracts

www.fbhc2016.com

Welcome to all of our Bioactive friends!

We are excited to welcome you to the 1st International Conference on Food Bioactives and Health (FBHC2016) on 13-15 September 2016 in Norwich.

FBHC is the first forum to bring together researchers from various scientific communities to present the latest research and discuss common themes and challenges to understanding the impacts of food bioactives on health. The scientific committee have planned a varied and interesting programme which we hope you enjoy. We are proud to welcome experts on polyphenols, glucosinolates, fish oils, carotenoids, bioactive peptides and many other types of bioactives.

We hope this will become an important international forum to inform and optimise our collective understanding of bioactive health benefits and to support the development of functional foods and health claims.

We have located the social programme in Norwich to help you explore and experience our city full of history, character and charm.

Whilst you are here why not try to introduce some Norfolk dialect to your conversations and questions?
"Thas ryte that is" – that's correct
"Hold you hard" – hang on a moment
"Lend us a lug" – listen
"Loada ole squit" – utter nonsense
Enjoy!

The Organising Committee

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Scientific Committee

Polyphenols

Cristina Andres Lacueva,
University of Barcelona, Spain

Aedin Cassidy,
University of East Anglia, UK

Kevin Croft,
University of Western Australia, Australia

Daniele Del Rio,
Università degli studi di Parma, Italy

Cesar Fraga,
University of Buenos Aires, Argentina

Paul Kroon,
Institute of Food Research, UK

Johanna Lampe,
Fred Hutchinson Cancer Research Center, USA

Christine Morand,
INRA Clermont-Ferand, France

Naomi Osakabe,
Shibaura Institute of Technology, Japan

Jeremy Spencer,
University of Reading, UK

Junji Terao,
University of Tokushima, Japan

Francisco Tomas-Barberan,
CSIC-CEBAS, Spain

Gary Williamson,
University of Leeds, UK

David Vauzour,
University of East Anglia, UK

Glucosinolates

Cristina Angeloni,
University of Bologna, Italy

Albena Dinkova-Costova,
University of Dundee, UK

Elizabeth Jeffery,
University of Illinois at Urbana, USA

Richard Mithen,
Institute of Food Research, UK

Fish Oils

Alessandra Bordoni,
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Frederick Calon,
Centre Hospitalier de L'Universite Laval, Canada

Stephen Cunnane,
Universite de Sherbrooke, Canada

Peter Jones,
University of Manitoba, Canada

Anne Marie Minihane,
University of East Anglia, UK

David Vauzour,
University of East Anglia, UK

Carotenoids

Patrick Borel,
INRA / INSERM, France

Peter Clifton,
CSIRO, Australia

Veronique Pallet,
University of Bordeaux, France

Bioactive Peptides

Richard Fitzgerald,
University of Limerick, Ireland

Fidel Toldra,
CSIC-IATA, Spain

Jianping Wu,
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Food Databanks

Paul Finglas,
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Phenolic compounds in "white açaí" by LC-MS/MS

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Introduction

Açaí (*Euterpe Oleracea)* fruits possessing a greenish to yellow color when ripe and displaying a crème-colored mesocarp are referred as "white açaí". Although less popular than purple açaí, it is quite consumed by people from the Amazon region. Up to our knowledge, there is a lack of studies on its phytochemical composition, therefore, the aim of this study was to determine the phenolic compounds profile of "white açaí" by ultra-high performance liquid chromatography coupled to electrospray-ionization and triple quadrupole mass spectrometer (LC-MS/MS).

Methods

The Multiple Reaction Monitoring (MRM) technique was used to identify and quantify the phenolic compounds. The optimization of the MS parameters was conducted using standard solutions of the phenolic compounds. One gram of freeze-dryed "white açaí" samples were defatted using petroleum ether 60°C (5 extractions, 10 mL). Then, the phenolic compounds were extracted using ethanol:water (35:65 v/v) and the extracts were injected into the UPLC-MS/MS system.

Results

According to the results, the phenolic compounds detected in "white açaí" were: 3,4-dihydroxybenzoic, 4-hydroxybenzoic, vanilic, caffeic, syringic, *p*-coumaric, chlorogenic and ferulic acids, and the flavonoids epicatechin, catechin, taxifolin, orientin and isoorientin. Orientin was the major phenolic compound in "white açaí" (378 ± 23.6 μg.g^{-1}), followed by isoorientin (178.7 ± 11.3 μg.g^{-1}) and vanilic acid (55.6 ± 5.3 μg.g^{-1}). Epicatechin was found to be under the quantification limit (0.07 ppm) and syringic acid was the minor compound (0.63 ± 0.15 μg.g^{-1}) determined. The profile and the content of phenolic compounds in "white açaí" was related to that previously reported for purple açaí.

Conclusion

This work presented for the first time the phenolic composition of "white açaí" and showed that it may be entitled as a source of phenolic compounds belonging to *Euterpe oleracea* species.