

Food and Nutrition Sciences

Special Issue on the 3rd International Conference on FoodOmics, Italy





Journal Editorial Board

ISSN Print: 2157-944X ISSN Online: 2157-9458

http://www.scirp.org/journal/fns

Editor-in-Chief

Prof. Alessandra Bordoni University of Bologna, Italy

Associate Editors-in-Chief

Prof. Xufeng HuangUniversity of Wollongong, AustraliaProf. Michael G. KontominasUniversity of Ioannina, GreeceProf. Yousheng LiNanjing University, China

Editorial Board

Dr. Kayanush J. AryanaLouisiana State University, USADr. Nick BellissimoRyerson University, CanadaDr. Lauri O. ByerleyLouisiana State University, USADr. Daniel CozzolinoThe University of Adelaide, AustraliaProf. Kelvin J. A. DaviesUniversity of Southern California, USA

Prof. Asim K. Duttaroy University of Oslo, Norway

Dr. Anthony Fardet Institut National de la Recherche Agronomique, France

 Prof. Tomas Girbes
 University of Valladolid, Spain

 Dr. Beau K. Greer
 Sacred Heart University, USA

 Prof. Giulia Guerriero
 University of Naples Federico I

Prof. Giulia GuerrieroUniversity of Naples Federico II, ItalyDr. Jeffrey S. HamplArizona State University, USAProf. Yong HeZhejiang University, ChinaDr. Kimberly B. HeidalEast Carolina University, USA

Prof. Yu HuangChinese University of Hong Kong, ChinaProf. Federico InfascelliUniversity of Naples Federico II, Italy

Dr. Jagat R. KanwarDeakin University, AustraliaDr. Dalia El KhouryUniversity of Toronto, CanadaProf. Patricia A. KrukUniversity of South Florida, USADr. Jean-Claude LavoieUniversity of Montreal, CanadaDr. Ji Young LeeUniversity of Connecticut, USADr. Josef Friedhelm MarxUniversity of Bonn, Germany

Dr. Francisco Javier Moreno Autonomous University of Madrid, Spain

Prof. Hasan MukhtarUniversity of Wisconsin, USADr. Maurice O'SullivanUniversity College Cork, IrelandDr. Mustafa Zafer ÖzelThe University of York, UK

Dr. Uma Devi PalanisamyMonash University Sunway Campus, AustraliaProf. Akhilesh K. PandeyTexas Tech University Health Sciences Center, USA

Prof. Young W. Park Fort Valley State University, USA

Dr. Salina ParveenUniversity of Maryland Eastern Shore, USA

Dr. Glen S. Patten Commonwealth Scientific and Industrial Research Organization, Australia

Dr. Reza PoureslamiInsta-Pro International, USADr. Jayadev RajuHealth Canada, CanadaProf. Charles R. SanterrePurdue University, USA

Dr. Vicki L. Schlegel
University of Nebraska-Lincoln, USA
Dr. Mykola Shynkaryk
The Ohio State University, USA
Dr. Geeta Sikand
University of California, USA
Dr. Heidi J. Silver
Vanderbilt University, USA
Prof. Jesus Simal-Gandara
Prof. Linda G. Snetselaar
The University of Iowa, USA
Dr. Lucy Thairu
Touro University, USA

Dr. Brijesh Kumar Tiwari Manchester Metropolitan University, UK

Prof. Alan C. Tsai Asia University, Chinese Taipei
Dr. Thomas T. Y. Wang Johns Hopkins University, USA

Dr. Ali Abas WaniTechnical University of Munich, GermanyDr. Jack Wing Tak WongStanford University School of Medicine, USA



TABLE OF CONTENTS

Volume 5	Number 1	January	20 1	14	ļ
----------	----------	----------------	-------------	----	---

The Agronomic Techniques as Determinants of the Phenolic Content and the Biological Antioxidant	
Effect of Palm-Tree Kale	
F. Danesi, V. Valli, S. Elementi, L. F. D'Antuono, A. Bordoni	1
Polyphenol and Biogenic Amine Profiles of Albana and Lambrusco Grape Berries and Wines Obtained	
Following Different Agricultural and Oenological Practices	
A. Tassoni, N. Tango, M. Ferri	3
The Application of Nutrimetabolomics to Investigate the Bioaccessibility of Nutrients in Ham Using a	
Batch in Vitro Digestion Model	
X. Y. Pan, F. Smith, M. T. Cliff, F. Capozzi, E. N. C. Mills	7
Impact of High Pressure Homogenization (HPH) Treatment on the Nutritional Quality of Egg/Yogurt,	
Vegetable and Fruit Based Creams	
M. Di Nunzio, L. Vannini, N. Tossani, F. Patrignani, R. Lanciotti, A. Bordoni	7
Comparison between the Quality Traits of Phosphate and Bicarbonate-Marinated Chicken Breast Fillets	
Cooked under Different Heat Treatments	
S. Mudalal, M. Petracci, S. Tappi, P. Rocculi, C. Cavani	5
Cytotoxic Properties of Lyophilized Beers in a Malignant Cell Line	
C. Spagnuolo, I. Tedesco, M. G. Volpe, S. Bilotto, M. Russo, G. L. Russo	5
Metabonomic Investigation by ¹ H-NMR to Discriminate between Red Wines from Organic and	
Biodynamic Grapes	
L. Laghi, A. Versari, E. Marcolini, G. P. Parpinello52	2
Variation of Polyphenols, Anthocyanins and Antioxidant Power in the Strawberry Grape (Vitis labrusca)	
after Simulated Gastro-Intestinal Transit and Evaluation of in Vitro Antimicrobial Activity	
T. Granese, F. Cardinale, A. Cozzolino, S. Pepe, M. N. Ombra, F. Nazzaro, R. Coppola, F. Fratianni)
Polyphenol Composition and Antioxidant Activity of Two Autochthonous Brassicaceae of the Campania	
Region, Southern Italy	
F. Fratianni, F. Cardinale, A. Cozzolino, T. Granese, S. Pepe, R. Riccardi, P. Spigno, R. Coppola, F. Nazzaro66	5
Rapid Quantification of Functional Carbohydrates in Food Products	
A. Le Parc, H. Lee, K. Chen, D. Barile71	1
Nutrient Analysis Critical Control Point (NACCP): Hazelnut as a Prototype of Nutrigenomic Study	
L. Di Renzo, A. Carraro, D. Minella, R. Botta, C. Contessa, C. Sartor, A. M. Iacopino, A. De Lorenzo79)
NMR-Metabolomic Study on Monocultivar and Blend Salento EVOOs including Some from Secular	
Olive Trees	
L. Del Coco, S. A. De Pascali, F. P. Fanizzi)

The figure on the front cover is from the article published in Food and Nutrition Sciences, 2014, Vol. 5, No. 1, pp. 66-70 by Florinda Fratianni, *et al.*

OPEN ACCESS FNS

Food and Nutrition Sciences (FNS)

Journal Information

SUBSCRIPTIONS

The Food and Nutrition Sciences (Online at Scientific Research Publishing, www.SciRP.org) is published monthly by Scientific

Research Publishing, Inc., USA.

Subscription rates:

Print: \$89 per copy.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright©2014 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the

permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under

the terms of a license issued by the national Reproduction Rights Organization.

Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes,

for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements

and opinion of Scientific Research Publishing, Inc. We assumes no responsibility or liability for any damage or injury to persons or

property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied

warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent

professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: fns@scirp.org





Food and Nutrition Sciences

ISSN Print: 2157-944X ISSN Online: 2157-9458

http://www.scirp.org/journal/fns

Food and Nutrition Sciences is a peer reviewed international journal dedicated to the latest advancement in related areas. The goal of this journal is to keep a record of the state-of-the-art research and to promote study, research and improvement within its various specialties.

Subject Coverage

All manuscripts submitted to FNS must be previously unpublished and may not be considered for publication elsewhere at any time during FNS's review period. Additionally, accepted ones will immediately appear online followed by printed in hard copy. Topics to be covered by this journal include, but are not limited to:

- Animal Nutrition
- Antioxidants and Phytochemicals in Food
- Byproducts Processing and Utilization
- Calorie Intake and Consumption
- Carbohydrates and Fibers
- Clinical Nutrition
- Consumer Choice, Preferences, and Concerns
- Diets and Diseases
- Eating Disorders
- Food Chemistry, Engineering and Microbiology
- Food Conservation and Preparation
- Food Machinery
- Food Packaging
- Food Processing Technology
- Food Safety and Hygiene
- Food Science and Technology

- Grain and Oil Engineering
- Healthy Eating Initiatives
- Hormonal Regulations
- Malnutrition
- Maternal and Infant Nutrition
- Metabolism and Nutrition Physiology
- Molecular Gastronomy
- Nutrient Metabolism
- Nutrition and Immunology
- Obesity
- Proteins and Amino Acids
- Public Health Nutrition
- Sensory Analysis
- Sports Nutrition
- Vitamins and Minerals

E-mail: fns@scirp.org

We are also interested in short papers (letters) that clearly address a specific problem, and short survey or position papers that sketch the results or problems on a specific topic. Authors of selected short papers would be invited to write a regular paper on the same topic for future issues of FNS.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

http://www.scirp.org/journal/fns