

Food and Nutrition Sciences

Special Issue on Fatty Acids

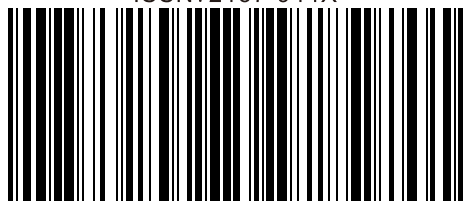


(a)



(b)

ISSN: 2157-944X



9 7721 57944 X0409 A

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 Huang

University of Wollongong, Australia

Prof. Michael G. Kontominas

University of Ioannina, Greece

Prof. Yousheng Li

Nanjing University, China

Editorial Board

Dr. Kayanush J. Aryana

Louisiana State University, USA

Dr. Nick Bellissimo

Ryerson University, Canada

Dr. Lauri O. Byerley

Louisiana State University, USA

Dr. Daniel Cozzolino

The University of Adelaide, Australia

Prof. Kelvin J. A. Davies

University 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 II, Italy

Dr. Jeffrey S. Hampl

Arizona State University, USA

Prof. Yong He

Zhejiang University, China

Dr. Kimberly B. Heidal

East Carolina University, USA

Prof. Yu Huang

Chinese University of Hong Kong, China

Prof. Federico Infascelli

University of Naples Federico II, Italy

Dr. Jagat R. Kanwar

Deakin University, Australia

Dr. Dalia El Khoury

University of Toronto, Canada

Prof. Patricia A. Kruk

University of South Florida, USA

Dr. Jean-Claude Lavoie

University of Montreal, Canada

Dr. Ji Young Lee

University of Connecticut, USA

Dr. Josef Friedhelm Marx

University of Bonn, Germany

Dr. Francisco Javier Moreno

Autonomous University of Madrid, Spain

Prof. Hasan Mukhtar

University of Wisconsin, USA

Dr. Maurice O'Sullivan

University College Cork, Ireland

Dr. Mustafa Zafer Özel

The University of York, UK

Dr. Uma Devi Palanisamy

Monash University Sunway Campus, Australia

Prof. Akhilesh K. Pandey

Texas Tech University Health Sciences Center, USA

Prof. Young W. Park

Fort Valley State University, USA

Dr. Salina Parveen

University of Maryland Eastern Shore, USA

Dr. Glen S. Patten

Commonwealth Scientific and Industrial Research Organization, Australia

Dr. Reza Poureslami

Insta-Pro International, USA

Dr. Jayadev Raju

Health Canada, Canada

Prof. Charles R. Santerre

Purdue 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

University of Vigo, Spain

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 Wani

Technical University of Munich, Germany

Dr. Jack Wing Tak Wong

Stanford University School of Medicine, USA

TABLE OF CONTENTS

Volume 4 Number 9A

September 2013

Large-Scale Production of Microalgal Lipids Containing High Levels of Docosahexaenoic Acid upon Fermentation of <i>Aurantiochytrium</i> sp. KRS101	
W.-K. Hong, A. Yu, B.-R. Oh, J. M. Park, C. H. Kim, J.-H. Sohn, A. Kondo, J.-W. Seo.....	1
Role of Free Fatty Acids in Physiological Conditions and Mitochondrial Dysfunction	
Z. K. Binienda, S. Sarkar, S. Silva-Ramirez, C. Gonzalez.....	6
Fatty Acid Deposition on Broiler Meat in Chickens Supplemented with Tuna Oil	
J. E. Morales-Barrera, M. J. Gonzalez-Alcorta, R. M. Castillo-Dominguez, O. F. Prado-Rebolledo, X. Hernandez-Velasco, A. Menconi, G. Tellez, B. M. Hargis, S. Carrillo-Dominguez.....	16
Ring Opening of Epoxy Fatty Esters by Nucleophile to Form the Derivatives of Substituted β-Amino Alcohol	
H. Varshney, A. Ahmad, A. Rauf.....	21
Dynamic Molecular Behavior and Cluster Structure of Octanoic Acid in Its Liquid and CCl₄ Solution	
H. Matsuzawa, M. Tsuda, H. Minami, M. Iwahashi.....	25
Exploring the Role of Fatty Acid on Transcription Factors Regulating Fatty Acid Metabolism with Emphasis on Trans Fatty Acid	
R. A. Abraham, L. Ramakrishnan, R. Parshad, V. Seenu, D. Prabhakaran, V. K. Bahl.....	33
Effect of Time and Fatty Acid Composition in Eggs of White Leghorn Hens Supplemented with Tuna Oil	
J. E. Morales-Barrera, M. J. Gonzalez-Alcorta, R. M. Castillo-Dominguez, O. F. Prado-Rebolledo, J. L. Vazquez, X. Hernandez-Velasco, G. Tellez, A. Menconi, B. M. Hargis, S. Carrillo-Dominguez.....	39
Short Communication: Effect of Timing of Introduction to Pasture Post Calving and Supplementation with <i>Saccharomyces cerevisiae</i> on Milk Fatty Acid Profiles in Early Lactation Dairy Cows	
K. M. Pierce, R. M. Alibrahim, R. A. Palladino, S. J. Whelan, F. J. Mulligan.....	45
Association between Metabolic Syndrome and Erythrocyte Fatty Acid Profile in Mexican Adolescents: A Trans Fatty Acid Approach	
M.-R. Gabriel, M.-B. Azucena, S.-F. Alejandra, M.-H. Jorge.....	51
Fatty Acid Compositional Studies of Lesser Known <i>Acacia tortilis</i> Seed Oil	
M. Srivastava, S. Kumar.....	59
Specialty Lipids in Health and Disease	
F. Hamam.....	63
Fatty Acids and Autism Spectrum Disorders: The Rett Syndrome Conundrum	
C. De Felice, C. Signorini, S. Leoncini, A. Pecorelli, T. Durand, J.-M. Galano, V. Bultel-Poncé, A. Guy, C. Oger, G. Zollo, G. Valacchi, L. Ciccoli, J. Hayek.....	71
Why Fish Oil Fails to Prevent or Improve CVD: A 21st Century Analysis	
B. S. Peskin.....	76
Dietary Combination of Fish Oil and Hemoglobin Hydrolysates Alters Serum and Liver Lipid Contents in Rat	
K. Fukunaga, N. Yukawa, R. Hosomi, T. Nishiyama, M. Yoshida.....	86

Serum Omega-6/Omega-3 Ratio and Risk Markers for Cardiovascular Disease in an Industrial Population of Delhi	
R. Gupta, R. Lakshmy, R. A. Abraham, K. S. Reddy, P. Jeemon, D. Prabhakaran.....	94
Investigation of β-Cryptoxanthin Fatty Acid Ester Compositions in Citrus Fruits Cultivated in Japan	
Y. Wada, A. Matsubara, T. Uchikata, Y. Iwasaki, S. Morimoto, K. Kan, T. Ookura, E. Fukusaki, T. Bamba.....	98
High-Lard and High-Fish Oil Diets Differ in Their Effects on Insulin Resistance Development, Mitochondrial Morphology and Dynamic Behaviour in Rat Skeletal Muscle	
L. Lionetti, R. Sica, M. P. Mollica, R. Putti.....	105
Evaluation of the Anti-Inflammatory Activities of 5,8,11-<i>cis</i>-Eicosatrienoic Acid	
L.-C. Hsu, Z.-H. Wen, H.-M. Chen, H.-T. Lin, C.-M. Chiu, H.-C. Wu.....	113
Frying Performance of High Oleic Oil Enriched in Biophenols during Discontinuous and Prolonged Thermal Treatment	
R. Romano, N. Manzo, L. L. Grottaglie, A. Fiore, V. Fogliano.....	120
Feeding Different Omega-3 Polyunsaturated Fatty Acid Sources Influences Renal Fatty Acid Composition, Inflammation, and Occurrence of Nephrocalcinosis in Female Sprague-Dawley Rats	
J. C. Gigliotti, V. A. Benedito, R. Livengood, C. Oldaker, N. Nanda, J. C. Tou.....	125
Plasma Phospholipid Omega-3 Fatty Acids and Freshwater Fish Consumption in the Brazilian Amazon	
A. Philibert, M. Fillion, J. R. DeGuire, H. A. Weiler, C. J. S. Passos, M. Lemire, D. Mergler.....	137
Influence of Long Chain Free Fatty Acids on the Thermal Resistance Reduction of Bacterial Spores	
B. M. Lekogo, L. Coroller, P. Mafart, I. Leguerinel.....	150
The Profile of Abundant and Essential Fatty Acids in Depot Fat Varies More in Kiwi (<i>Apteryx mantelli</i>) than in Other Avian Species	
M. A. Potter, C. J. Minson, R. G. Lentle.....	158
Effects of Genetics and Environment on Fatty Acid Stability in Soybean Seed	
N. Bellaloui, A. Mengistu, M. A. Kassem.....	165
Lipid Oxidation of Catfish (<i>Arius maculatus</i>) after Cooking and Smoking by Different Methods Applied in Cameroon	
N. Tenyang, H. M. Womeni, B. Tiencheu, N. H. T. Foka, F. T. Mbiapo, P. Villeneuve, M. Linder.....	176
Fatty Acids and Associated Cardiovascular Risk	
C. L. Goff, J.-F. Kaux, L. Leroy, J. Pincemail, J.-P. Chapelle, E. Cavalier.....	188
Dietary Omega-3 Fatty Acids Deficiency Affects the Glutamatergic Transport System in Rat Retina: Modulatory Effects after High Intraocular Pressure	
L. V. Siqueira, E. P. Rico, M. C. Bulla, L. Bellini, L. C. L. Silveira, L. Vinadé, D. O. Souza, J. D. Moreira.....	195
Regulatory Role of Free Fatty Acids (FFAs)—Palmitoylation and Myristoylation	
C. S. Kim, I. A. Ross.....	202

The figure on the front cover is from the article published in Food and Nutrition Sciences, 2013, Vol. 4, No. 9A, pp. 113-119 by Lun-Chung Hsu, *et al.*

Food and Nutrition Sciences

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: \$79 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©2013 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.

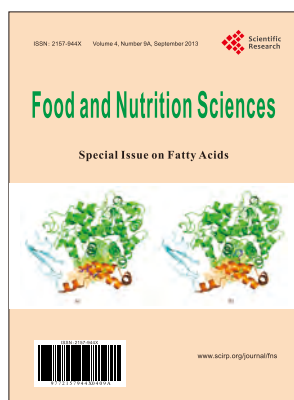
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any 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

Call for Papers



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

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>

E-mail: fns@scirp.org