International Society for Nutraceuticals and Functional Foods

ISNFF Newsletter **Volume 11, Issue 1**
July 2018

CONTENT

Message from the ISNFF

The International Society for Nuraceuticals and Functional Foods (ISNFF) is pleased to organize its 11th Annual Conference and Exhibition in Vancouver, BC, Canada. During the last decade, the society has made a remarkable growth in achieving its goals with activities ranging from its annual meetings, workshops, and short courses as well as founding its journals (Journal of Functional Foods and Journal of Food Bioactives). Journal of Food Bioactives, an open access publication, was launched in 2018 and the first issue was released in March 2018. Please note that papers presented during ISNFF Conference and Exhibition may be submitted for publication consideration to the Journal of Food Bioactives <isnff-jfb.com>. Accepted papers will receive publication fee waiver if received on or before December 14, 2018.

The tripod of the society, its annual meeting and exhibition and its journal(s) have all been managed with much volunteer investment of time and efforts of its founding members, its executives and its supporters and above all those organizations and companies that have sponsored its events, and all the participants in its meetings that have brought the latest research and developments to the forefront and displayed their products and innovations in its meetings. Meanwhile, ISNFF has provided a unique leadership in the field and was pleased to have its 10th annual meeting co-organized by dedicated world class scientists from Korea with more than 1,200 participants from around the globe. The enthusiasm, professionalism and hard work of our co-organizers made this event a most successful one and we hope to be able to match its depth and breadth to the same level in Vancouver.

The plenary speakers (list included) and many other key presenters have already provided their presentation titles and we look forward to receiving yours, preferably at the earliest in order to benefit from early bird registration rates. Please submit your abstracts to www.isnff.org. Confirmation of acceptance will be sent upon review of the abstracts, but it requires finalized pending completion of the registration process. We look forward to welcoming you the ISNFF 2018 at the Sheraton Hotel (Richmond), Vancouver, BC, Canada, October 14-17, 2018.

Fereidoon Shahidi
Founder and Executive Committee Member of ISNFF

Yogurt as a Functional Food for Preventing Chronic Inflammation

Bradley Bolling
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Chronic inflammation increases the risk for many chronic diseases. Several recent studies provide new insight to the mechanisms by which yogurt and other fermented dairy products may prevent chronic inflammation. Consumption of high-fat, high-caloric meals induce postprandial inflammation, notably by increasing pro-inflammatory cytokines and the translocation of pro-inflammatory endotoxin from the gut microbiota across the intestinal barrier [**1**]. Postprandial dysfunction therefore contributes to the risk of cardiometabolic disease [**2**]. Obesity exacerbates postprandial inflammation because of insulin resistance and dysfunctional intestinal barrier [**3**]. In a study of obese and non-obese women, consumption of 8 oz. yogurt before a high-fat, high-calorie test meal reduced post-prandial IL-6 and blood glucose relative to a group consuming a non-dairy control snack [**4**]. Postprandial handing of endotoxin also was improved by pre-meal yogurt consumption, indicated by the LPS binding protein (LBP)/soluble CD14 (sCD14) ratio, a marker for the potential Toll-like receptor 4 (TLR4) activation by endotoxin [**4**]. Chronic consumption of 12 oz. of yogurt for an additional 9 weeks reduced fasting levels of TNF-α and further reduced postprandial LBP/sCD14 [**4**]. Furthermore, in Caco-2 cells, yogurt powder prevents loss of tight junction proteins by inflammatory cytokines [**5**]. Another study challenged healthy young men with high-fat meals after participants consumed 400 g yogurt with Lactobacillus rhamnosus GG or acidified milk with 2% D-(+)-glucono-δ-lactone for two weeks [**6**]. Both dairy products reduced post-prandial TNF-α, IL-6, and CCL2 and induced changes in gut microbiota relative to the control meal lacking dairy supplementation. Yogurt increased postprandial insulin relative to the control meal and acidified milk and modulated aryl hydrocarbon receptor expression in peripheral blood [**7**]. Interestingly, these yogurt also induced circulation AhR ligands detected by metabolomics analysis [**8**]. These AhR ligands were indole metabolites, attributed to metabolism of tryptophan by gut microbiota after yogurt consumption [**9**]. Together, these recent studies suggest yogurt is a promising functional food for preventing postprandial dysfunction in obese and non-obese individuals. Yogurt is an attractive platform for delivering nutrients, probiotics, polyphenols, or other bioactives [**9, 10**]. Strategies to enrich or complement the anti-inflammatory components of yogurt could yield products targeted at specific disease states.

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Cocoa, Chocolates, and Obesity

Amin Ismail,
Department of Nutrition and Dietetics,
Universiti Putra Malaysia,
Selangor, Malaysia

Cocoa bean derived from a fruit of *Theobroma cacao* L., is a rich source of dietary polyphenols. It has been known not only for its good flavour but also for its health effects [**1**]. Previous studies reported that phenolic compounds or extracts from cocoa and its derived products such as cocoa powder, cocoa mass/liquor, and chocolates have become major area of health-and medical-related research. *In vitro* as well as *in vivo* data indicate that cocoa polyphenols may exhibit antioxidant capacity, anti-diabetes and ant-inflammatory, as well as anti-obesity phenotype [**2**]. There have been exciting new developments in the elucidation of the *in vivo* mechanisms of the health benefits of cocoa polyphenols [**3**]. Our studied showed that cocoa polyphenols not only functioned as antioxidant capacity, but also as non- antioxidant. Several molecular targets (e.g. nuclear factor Kappa B (NF-kB), activated protein-1 (AP-1) peroxisome proliferator-activated receptors (PPARs), Liver X receptors (LXRs) have been recently identified which may partly explain potential beneficial obesity associated diseases effects of cocoa [**4**]. Cocoa polyphenols have been reported to regulate lipid metabolism via inducing metabolic gene expression or activating transcription factors that regulate the expression of numerous genes, many of which play an important role in energy metabolism. There is emerging evidence on the beneficial effect of polyphenols present in cocoa-based products especially dark chocolate in modulating obesity and reducing body weight [**5**]. Thus, polyphenols-rich cocoa products may potentially diminish obesity-mediated metabolic diseases by multiple mechanisms, thereby attenuating chronic inflammation. Previous studies on health benefits of cocoa-derived products did not show conclusive proof of the most effective dose of cocoa consumption that promotes beneficial effects towards our health. Therefore, further long-term human intervention trials are warranted before recommending cocoa-based products (e.g. dark chocolate) in weight management program. Moreover, the consumption of a balanced diet includes a variety of polyphenol-rich food sources such as a dark chocolate is important for the promotion of our health.

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Nuts and Health: Results from the PREDIMED Study

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Department of Biochemistry & Biotechnology, IISPV
School of Medicine, Rovira i Virgili University,
Reus, Spain

Nuts, despite their high energy density, are a food group with well-known beneficial properties against different chronic diseases. They stand out not only for their high fatty acid content, but also for their high fiber, vitamins, minerals, and other bioactive compounds [**1**]. A grow body of evidence coming from epidemiological studies have suggested a beneficial association between nut consumption and different well-known risk factors for cardiovascular diseases (CVD), such as type 2 diabetes (T2D) [**2**], hypertension [**3**], and metabolic syndrome [**4**]. In fact, over the years, several meta-analysis of observational studies have been published evaluating the association between nuts consumption and the risk of CVD development, showing a clear inverse association [**5**]. However, findings from observational studies cannot be used to stablish a cause-effect relationship. In this regard, the PREvención con DIeta MEDiterránea (PREDIMED) study, which is a multicenter parallel group clinical trial evaluating the effect of the Mediterranean Diet (MedDiet) on the primary prevention of CVDs, brought us a well opportunity to explore the effect of nut consumption, in the context of the MedDiet, on different chronic diseases prevention.

The PREDIMED study enrolled 7,447 participants at high CVD risk, which were randomized to one of three possible intervention groups: a) a MedDiet enriched with extra virgin olive oil (50 g/d); b) a MedDiet enriched with mix nuts (15 g/d of walnuts, 7.5 g/d of almonds and 7.5 g/d of hazelnuts); and c) a low-fat control diet following the recommendations of the American Heart Association. The main results of the PREDIMED study demonstrated that, after 4.8 years of follow-up, those participants following the MedDiet enriched with nuts had a 30% lower risk of CVD events (including a composite of stroke, myocardial infarction, and cardiovascular disease death), compared to those following the low-fat control diet [**6**]. Besides, the PREDIMED study has also proved that MedDiet plus nuts had a protection against peripheral artery disease. Specifically, compared to those of the control group, participants following the MedDiet enriched with nuts had a 52% lower risk of this disease [**7**]. However, results from the PREDIMED study failed to demonstrate that the MedDiet enriched with nuts have a beneficial effect on heart failure [**8**] or atrial fibrillation prevention [**9**] in comparison to a low-fat control diet. A part from these positive effects on CVD prevention, the PREDIMED study has also demonstrated that the MedDiet enriched with nuts increases the reversion of the metabolic syndrome by a 28% and reduces 24-h systolic blood pressure by 2.6mmHg compared to the low-fat control diet [**10**].

To sum up, results from this landmark study, demonstrated that in individuals at high CVD risk, a MedDiet enriched with nuts has a favourable effect on different chronic diseases, including CVDs, which are the main cause of mortality worldwide. These beneficial effects occur despite the high energy density of nuts, and without increasing body weight.

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SCIENTIFIC TOPICS for 2018 ISNFF ANNUAL CONFERENCE & EXHIBITION

We invite academics (faculty and students), government researchers and law makers as well as industry professionals interested in presenting their research finding and commercial developments in functional foods, nutraceuticals, natural health products, and dietary supplements or related topics, to participate in the ISNFF 2018 Annual Conference & Exhibition. The topics include, but not limited to, the following. Selected contributions from oral and poster presentations will be considered for publication in the Journal of Functional Foods (the official journal of ISNFF), published by Elsevier.

- ✓ Traditional functional foods, nutraceuticals, and natural health products
- ✓ Processing and bioprocessing of functional food ingredients
- ✓ Marine and algal products and by-products
- ✓ Omega-3 fatty acids, nutritional oils, and lipidomics
- ✓ Nutraceuticals and functional beverages
- ✓ Pre-, pro-, and synbiotics and gut microbiota
- ✓ Fermented foods
- ✓ Functional biopeptides and proteins
- ✓ Functional carbohydrates
- ✓ Nutraceuticals and functional foods in health promotion and disease risk reduction
- ✓ Natural antioxidants
- ✓ Phenolics and polyphenols (Sources, products, measurement mechanisms of action, and health effects)
- ✓ Nutraceuticals for obesity and weight control, diabetes, and metabolic syndrome
- ✓ Cosmoceuticals and skin health
- ✓ Regulatory and import-export issues for nutraceuticals, functional food ingredients, and dietary supplements
- ✓ Absorption, bioavailability, metabolism, and action mechanism of nutraceuticals and functional food ingredients
- ✓ Delivery systems for nutraceuticals and functional food ingredients
- ✓ Nanotechnology in functional foods and nutraceuticals
- ✓ Nutrigenomics, proteomics, and metabolomics
- ✓ Carotenoids/xanthophylls
- ✓ Nutraceuticals and functional food ingredients from co-products and processing by-products
- ✓ Pre-clinical and clinical trials for functional foods and nutraceuticals
- ✓ Dietary supplements, herbal, and natural health products
- ✓ Research & Development and industry perspectives
- ✓ Other topics to be suggested
- ✓ Voluntary papers (oral and poster)

PLENARY SPEAKERS for 2018 ISNFF ANNUAL CONFERENCE & EXHIBITION

Eunice Li-Chan
The University of British Columbia, Canada

Title: Bioactive peptides derived from food proteins: Are we ready to move beyond discovery and into the marketplace?

Eunice C. Y. Li-Chan is currently a Professor Emerita at the University of British Columbia. Her research interests are focussed on the novel application of spectroscopic methods to the analysis of complex food systems, and elucidation of the structure-function characteristics of food proteins and peptides with specific bioactivity, health-enhancing or techno-functional properties. Her publications documenting ground-breaking research in these areas are highly cited by the scientific community and hopefully will continue to inspire innovative research discoveries by the next generation of young scientists. Professor Emerita Li-Chan is a Fellow of the Canadian Institute of Food Science and Technology (CIFST) as well as a Fellow of the Agricultural and Food Chemistry division of the American Chemical Society, and has received the "William J Eva Award" from CIFST in recognition of her outstanding research and service in the discipline of food science.

James M. Harnly
U.S. Department of Agriculture, USA

Title: Botanical supplements and their authentication/adulteration

Dr. Harnly serves as the Research Leader for Food Composition and Methods Laboratory (FCMDL), part of the Beltsville Human Nutrition Research Center of the US Department of Agriculture. His lab is tasked with the development of new analytical methods for nutrients and bioactive compounds in foods, dietary supplements, and botanical materials in support of nutrition research at USDA. Current projects in the lab include development of new methods for chemical fingerprinting and metabolomics of foods and botanical supplements. His personal research interest is the development of chemometric methods for authentication of botanical materials. Dr. Harnly received his BA from the University of Colorado and his PhD from the University of Maryland. He joined USDA as a research scientist in 1979 and became the Research Leader in 1997. He has served on the Board of Directors for AOAC International, the Advisory Board of the American Botanical Council, and numerous Expert Committees for US Pharmacopeia and AOAC. He served for 22 years as the US Editor for the Journal of Atomic Spectrometry for the Royal Society of Chemistry and is currently the Editor in Chief for the Journal of Food Composition and Analysis.

Bhimu Patil
Texas A&M University, USA

Title: Selected Vegetables and Fruits improve human health by reducing the levels of bile acids

Dr. Bhimu Patil is a Professor and the Director of the Vegetable and Fruit Improvement Center at Texas A&M University AgriLife. He has devoted his career to understand the role of the health-promoting factors by promoting the consumption of fresh, healthful, and delicious varieties of fruits and vegetables. His broad, multi-disciplinary research spans all aspects of fruit and vegetable production, from isolation and characterizations of the health-promoting compounds to plant breeding aimed to develop improved varieties, and post-harvest handling practices that will prevent soil-borne contamination of vegetables. Dr. Patil's research has been recognized with many honors and has produced a remarkable publication and funding record. He is recently elected as Chair of newly formed Division of Horticulture for Human Health, in the International Society for Horticultural Sciences and has served as an International Advisory Board Member for nine professional societies. He has published 185 peer-reviewed journal articles and has given more than 120 invited presentations at land grant institutions, professional societies, commodity groups and other organizations. Dr. Patil has received 18 awards, including Healthy Living Lifetime Achievement Award by the Texas International Producers Association, Distinguished Service Award from the American Chemical Society- Division of Agricultural and Food Chemistry, Outstanding

Graduate Educator Award from the American Society for Horticultural Sciences, and Outstanding Achievement Research Award from the TAMU College of Agricultural and Life Sciences. He has been an invited speaker, including keynote and plenary speaker, for his scientific research and educational excellence by several countries including China, Australia, Thailand, New Zealand, South Africa, South Korea, Brazil, Spain, Sweden, Israel, France, India, Canada, Portugal, and different states in the USA.

Ronald B. Pegg

The University of Georgia, USA

Title: Nuts for health

Ronald B. Pegg is a Professor in the Department of Food Science & Technology at the University of Georgia (UGA). He teaches courses in *Instrumental Methods of Food Analysis*, *Introduction to Food Science & Technology*, and *Functional Foods & Nutraceuticals*. On-line, Dr. Pegg teaches a *Functional Foods* class and team teaches *Integration of Multidisciplinary Topics in Foods* for Masters of Technology students. Dr. Pegg is a member of UGA's Teaching Academy and was honored in 2016 with the IFTs' William V. Cruess Award for excellence in teaching food science and technology and a recipient of UGA's prestigious Richard B. Russell Award for Excellence in Undergraduate Teaching, among other recognitions. Dr. Pegg is a founding member and an Executive Board Member of the International Society of Nutraceuticals and Functional Foods (ISNFF), a non-profit international society to strengthen communication, dissemination of information and networking among interested parties from academia, industry, and government participants. The ISNFF was admitted by the IUFoST General Assembly as a Disciplinary Interest Group of the Union as specified in the IUFoST Constitution. Dr. Pegg's research has mostly involved examining the antioxidant, anti-inflammatory, and anti-glycation activities of phenolic constituents from foodstuffs. He is the author or co-author of 300+ publications including 2 books, 44 book chapters, 116 refereed journal articles, 6 patents, 171 published abstracts and proceedings, as well as 22 popular articles.

Michael Granvogl

Technical University of Munich, Germany

Title: Flavor challenges in functional foods

PD Dr. habil. Michael Granvogl successfully finished the study Food Chemistry, his PhD thesis, and his Habilitation thesis at the Technical University of Munich (TUM; Germany), with the final degree in 2016. Beside his position at the Chair of Analytical Food Chemistry at TUM, he actually has the provisional management of the Chair of Food Chemistry and Analytical Chemistry at the University of Hohenheim. He received the Young Scientist Award of the Agricultural and Food Chemistry Division (AGFD) of the American Chemical Society (ACS) in Washington, DC in 2017, and was honoured with the Journal of Agricultural and Food Chemistry (JAFC) Research Article of the Year Award, based on collaboration with Prof. Hidalgo in Seville (Spain) in 2017. He is Chair-Elect of the Food Safety Subdivision within AGFD and will be Chair in 2019. He organized several symposia and is well-known by his publications and by > 100 lectures at international symposia.

Bo Jiang

Jiangnan University, China

Title: Current status and future prospects for novel enzymes producing functional rare sugars

Dr. Bo JIANG is a professor in State Key Laboratory on Food Science and Technology, director of International Office, Jiangnan University, China. He received his BS in Chemistry at Nanjing University in 1982, MS and Ph. D. in Food Science at Wuxi Institute of Light Industry (Currently, Jiangnan University) in 1989 and 1993, respectively. His main interests are in functional ingredients, nutritional supplements and enzymology. The current research areas include enzyme construction, bio-production of functional sugars, oligosaccharides, modification of carbohydrates and amino acids with relevant enzymes. He is an IFT fellow and an active professional member, International Advisory Board member of International Society for Nutraceuticals and Functional Foods (ISNFF), board member of Chinese Institute of Food

Science and Technology, receiving editor in journal Food Bioscience, and executive editor of Journal of the Science of Food and Agriculture.

Kazuo Miyashita

Hokkaido University, Japan

Title: Marine nutraceuticals in Japan and beyond: Present and future

Kazuo Miyashita is a Professor in the Department of Bio-resources Chemistry, Faculty of Fisheries Sciences, Hokkaido University, Japan. He has worked in the field of lipid chemistry and nutrition. He has got many scientific awards such as: Japanese Oil Chemists' Society Award, The Japanese Society of Fisheries Science Award, International Society for Nutraceutical and Functional Foods (ISNFF) Award, Technology Innovation Award from the Japanese Society for Marine Biotechnology, and Kaufmann Memorial Lecture Award from International Society for Fat Research. His lab's work has been recognized by many scientific papers. The achievement has been published more than 180 peer reviewed papers, 3 book editions, 50 book chapters, 50 reviews, and 20 patents.

You-Jin Jeon

Jeju National University, Korea

Title: Development of functional foods from edible seaweeds: Moving toward approval for functional health claim

You-Jin Jeon, Ph.D., is a Professor at the Faculty of Marine Biomedical Science at Jeju National University in Korea with a special position, a Technical Director of Aqua Green Tech Co. Ltd. He has received his B.S., M.S. and Ph.D. degrees from Pukyong National University, Busan in Korea and conducted his postdoctoral research studies at Department of Biochemistry, Memorial University of Newfoundland in Canada and at Agricultural, Food and Nutritional Science, University of Alberta in Canada. Prof. Jeon served as the director of Marine and Environmental Research Institute in Jeju National University. He is working with marine biomass to develop functional food materials, biomedical materials and marine cosmeceutical materials, and then he has published around 300 international and 100 Korean domestic manuscripts, and about 35 patents regarding those research areas. He has been appointed to a member of the Korean Academy of Science and Technology. And he won many prizes from Jeju National University, including the best research, teaching and project funding awards as well as Korean governments, the Ministry of Science and Technology and industry awards from Sajo Fisheries Company and Oddoogi Food Company. The number of his lab members is currently 20 including five post-doc, ten Ph.D. candidate students.

Anthony L. Almada

IMAGINutrition, Inc., USA

Title: Novel paths to market for functional foods, nutraceuticals, natural health products, dietary supplements, and cannabis/hemp derivatives

Anthony L. Almada started in the natural products industry in 1975. He has a BSc in Physiology and an MSc in Nutritional/Exercise Biochemistry. In 1992 he co-founded EAS, which pioneered creatine monohydrate and evidence-based sport nutrition in North America. He has collaborated on over 95 nutrition intervention clinical trials, is a co-author on over 25 peer-reviewed scientific journal articles, and he conceived/introduced the "thermogenic" category of dietary supplements in 1990. He is a co-founder of the International Society of Sport Nutrition and is the founder and CEO of IMAGINutrition, Inc., a nutritional technology think tank. He is co-leader of the Council for the Science and Innovation of Cannabis and Cannabinoids.

UPCOMING NUTRACEUTICALS AND FUNCTIONAL FOODS EVENTS

July 2018

15-18	IFT Food Expo 2018; Chicago, IL, USA

August 2018

6-8	2nd International Conference on Food Science, Nutrition, and Probiotics; Berlin, Germany.
25-30	3rd International Symposium on Phytochemicals in Medicine and Food; Kunming, China

September 2018

10-13	Bioavailability 2018; Norwich, UK
13-15	Innovations in Food Science and Human Nutrition; Rome, Italy.
25-26	2nd Conference on Food Bioactives & Health; Lisbon, Portugal

October 2018

14-17	ISNFF 2018; Vancouver, BC, Canada
15-17	Traditional Medicine, Phytochemistry, and Medicinal Plants; Tokyo, Japan
23-27	19th IUFoST World Food Science and Technology Congress; Mumbai, India

November 2018

8 - 10	3rd World Congress on Nutrition and Obesity Prevention Source; Frankfurt, Germany
22-24	16th International Conference on Nutrition and Health; Paris, France

February 2019

27-28	NUTRACEUTICALS Europe – Summit & Expo 2018; Madrid, Spain

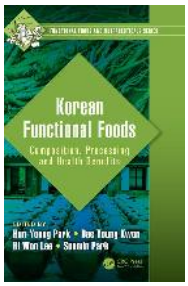
May 2019

7-9	VitaFoods Europe 2019; Geneva, Switzerland

December 2019

1-5	ISNFF 2019 & ICoFF 2019; Kobe, Japan

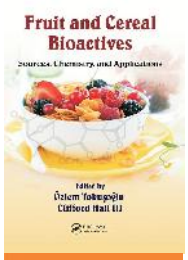
NEW TITLES



Korean Functional Foods: Composition, Processing and Health Benefits

Kun-Young Park, Dae Young Kwon, Ki Won Lee, Sunmin Park

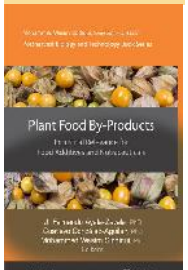
CRC Press: Taylor & Francis Group, 2018, pp 564



Fruit and Cereal Bioactives: Sources, Chemistry, and Applications

Özlem Tokuşoğlu, Clifford A Hall III

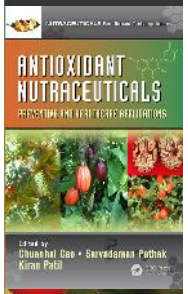
CRC Press: Taylor & Francis Group, 2018, pp 473



Plant Food By-Products: Industrial Relevance for Food Additives and Nutraceuticals

J. Fernando Ayala-Zavala, Gustavo González-Aguilar, Mohammed Wasim Siddiqui

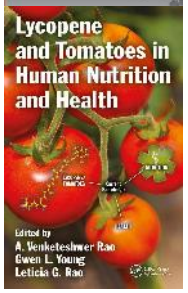
CRC Press: Taylor & Francis Group, 2018, pp 363



Antioxidant Nutraceuticals: Preventive and Healthcare Applications

Chuanhai Cao, Sarvadaman Pathak, Kiran Patil

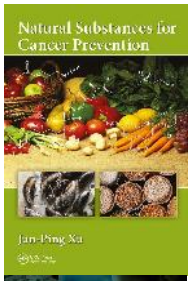
CRC Press: Taylor & Francis Group, 2018, pp 414



Lycopene and Tomatoes in Human Nutrition and Health

A. Venketeshwer Rao, Gwen L. Young, Leticia G. Rao

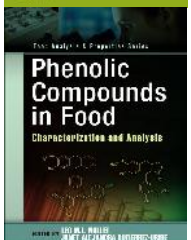
CRC Press: Taylor & Francis Group, 2018, pp 204



Natural Substances for Cancer Prevention

Jun-Ping Xu

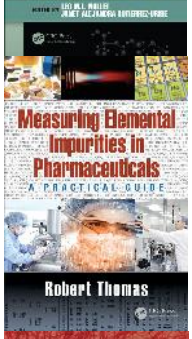
CRC Press: Taylor & Francis Group, 2018, pp 492



Phenolic Compounds in Food: Characterization and Analysis

Leo M.L. Nollet, Janet Alejandra Gutierrez-Uribe

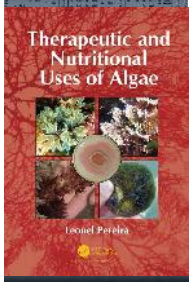
CRC Press: Taylor & Francis Group, 2018, pp 430



Measuring Elemental Impurities in Pharmaceuticals: A Practical Guide

Robert Thomas

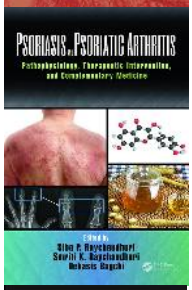
CRC Press: Taylor & Francis Group, 2018, pp 474



Therapeutic and Nutritional Uses of Algae

Leonel Pereira

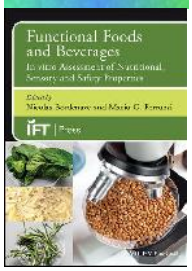
CRC Press: Taylor & Francis Group, 2018, pp 640



Psoriasis and Psoriatic Arthritis: Pathophysiology, Therapeutic Intervention, and Complementary Medicine

Siba P. Raychaudhuri, Smriti Raychaudhuri, Debasis Bagchi

CRC Press: Taylor & Francis Group, 2018, pp 350



Functional Foods and Beverages: *In vitro* Assessment of Nutritional, Sensory, and Safety Properties

Nicolas Bordenave, Mario Ferruzzi

Wiley-Blackwell, 2018, pp 320

Emulsion-based Systems for Delivery of Food Active Compounds: Formation, Application, Health and Safety

Shahin Roohinejad, Ralf Greiner, Indrawati Oey, Jingyuan Wen

Wiley-Blackwell, 2018, pp 312

Blue Biotechnology: Production and Use of Marine Molecules

Stephane La Barre, Stephen S. Bates

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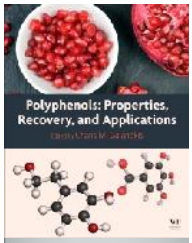
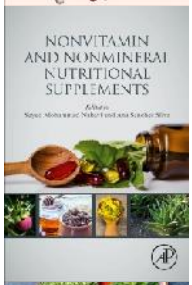


Polyphenols: Properties, Recovery, and Applications

Charis Galanakis

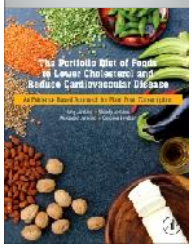
Woodhead Publishing, 2018, pp 456



Nonvitamin and Nonmineral Nutritional Supplements

Seyed Nabavi, Ana Silva

Academic Press , 2018, pp 618



The Portfolio Diet of Foods to Lower Cholesterol and Reduce Cardiovascular Disease

Amy Jenkins, Wendy Jenkins, Alexandra Jenkins, Caroline Brydson

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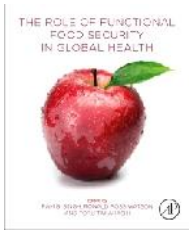

The Role of Functional Food Security in Global Health

Ronald Watson, Ram Singh, Toru Takahashi

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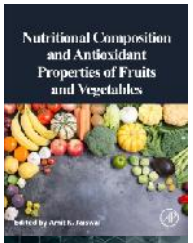

Nutritional Composition and Antioxidant Properties of Fruits and Vegetables

Amit Jaiswal

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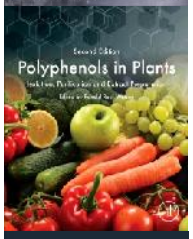
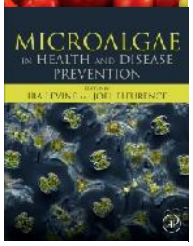


Polyphenols in Plants

Ronald Watson

Academic Press, 2018, pp 400



Microalgae in Health and Disease Prevention

Ira Levine, Joël Fleurence

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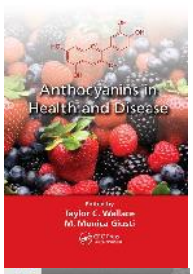
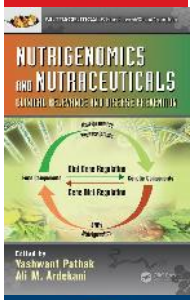


Anthocyanins in Health and Disease

Taylor C. Wallace, M. Monica Giusti

CRC Press: Taylor & Francis Group, 2017, pp 368



Nutrigenomics and Nutraceuticals: Clinical Relevance and Disease Prevention

Yashwant V. Pathak, Ali M. Ardekani

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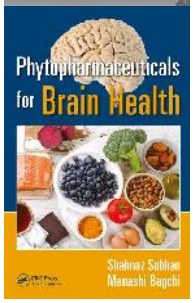

Phytopharmaceuticals for Brain Health

Shahnaz Subhan, Manashi Bagchi

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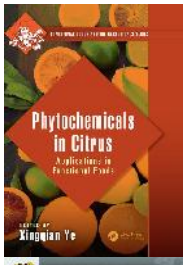
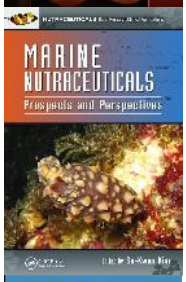


Phytochemicals in Citrus: Applications in Functional Foods

Xingqian Ye

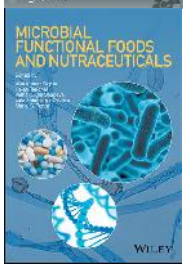
CRC Press: Taylor & Francis Group, 2017, pp 502



Marine Nutraceuticals: Prospects and Perspectives

Se-Kwon Kim

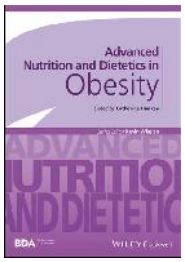
CRC Press: Taylor & Francis Group, 2017, pp 464.



Microbial Functional Foods and Nutraceuticals

Vijai Kumar Gupta, Helen Treichel, Volha (Olga) Shapaval, Luiz Antonio de Oliveira, Maria G. Tuohy

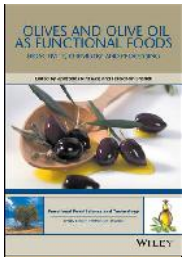
Wiley-Blackwell, 2017, pp 309



Advanced Nutrition and Dietetics in Obesity

Catherine Hankey, Kevin Whelan

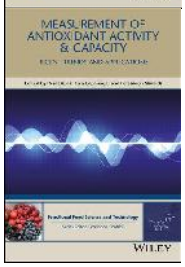
Wiley-Blackwell, 2017, pp 392



Olives and Olive Oil as Functional Foods: Bioactivity, Chemistry and Processing

Apostolos Kiritsakis, Fereidoon Shahidi

Wiley-Blackwell, 2017, pp 688



Measurement of Antioxidant Activity and Capacity: Recent Trends and Applications

Resat Apak, Esra Capanoglu, Fereidoon Shahidi

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