## Contents

### Articles

**COMMENTARY**

A Novel Carbon Isotope Biomarker for Dietary Sugar  
Dale A. Schoeller 763

**GENOMICS, PROTEOMICS, AND METABOLOMICS**

A Whole-Grain–Rich Diet Reduces Urinary Excretion of Markers of Protein Catabolism and Gut Microbiota Metabolism in Healthy Men after One Week  

Estrogen Receptor–Mediated Effects of Isoflavone Supplementation Were Not Observed in Whole-Genome Gene Expression Profiles of Peripheral Blood Mononuclear Cells in Postmenopausal, Equol-Producing Women  
Vera van der Velpen, Anouk Geelen, Evert G. Schouten, Peter C. Hollman, Lydia A. Afman, and Pieter van ’t Veer 774

**NUTRIENT PHYSIOLOGY, METABOLISM, AND NUTRIENT-NUTRIENT INTERACTIONS**

Voluntary Feed Intake in Rainbow Trout Is Regulated by Diet-Induced Differences in Oxygen Use  
Subramanian Saravanan, Inge Geurden, A. Cláudia Figueiredo-Silva, Sadasivam Kaushik, Johan Verreth, and Johan W. Schrama 781

Acute Consumption of Walnuts and Walnut Components Differentially Affect Postprandial Lipemia, Endothelial Function, Oxidative Stress, and Cholesterol Efflux in Humans with Mild Hypercholesterolemia  
Claire E. Berryman, Jessica A. Grieger, Sheila G. West, Chung-Yen O. Chen, Jeffrey B. Blumberg, George H. Rothblat, Sandhya Sankaranarayanan, and Penny M. Kris-Etherton 788

Mode of Delivery and Early Nutrition Modulate Microbial Colonization and Fermentation Products in Neonatal Piglets  
Mei Wang, Emily C. Radlowski, Marcia H. Monaco, George C. Fahey Jr, H. Rex Gaskins, and Sharon M. Donovan 795

Partitioning of [Methyl-3H]Methionine to Methylated Products and Protein Is Altered during High Methyl Demand Conditions in Young Yucatan Miniature Pigs  
Laura E. McBreairty, Ross A. McGowan, Janet A. Brunton, and Robert F. Bertolo 804
Higher Protein Diets Consumed Ad Libitum Improve Cardiovascular Risk Markers in Children of Overweight Parents from Eight European Countries

Inorganic Nitrate and Beetroot Juice Supplementation Reduces Blood Pressure in Adults: A Systematic Review and Meta-Analysis
Mario Siervo, Jose Lara, Ikponmwonsa Ogbomwan, and John C. Mathers 818

Supplemental Naringenin Prevents Intestinal Barrier Defects and Inflammation in Colitic Mice
Tomoyo Azuma, Mizuki Shigeshiro, Michiyo Kodama, Soichi Tanabe, and Takuya Suzuki 827

Grape Powder Supplementation Prevents Oxidative Stress-Induced Anxiety-Like Behavior, Memory Impairment, and High Blood Pressure in Rats
Farida Allam, An T. Dao, Gaurav Chugh, Ritu Bohat, Faizan Jafri, Gaurav Patki, Christopher Mowrey, Mohammad Asghar, Karim A. Alkadhi, and Samina Salim 835

A High-Fat SFA, MUFA, or n3 PUFA Challenge Affects the Vascular Response and Initiates an Activated State of Cellular Adherence in Lean and Obese Middle-Aged Men
Diederik Esser, Susan J. van Dijk, Els Oosterink, Michael Müller, and Lydia A. Afman 843

Inclusion of Guava Enhances Non-Heme Iron Bioavailability but Not Fractional Zinc Absorption from a Rice-Based Meal in Adolescents
Krishnapillai Madhavan Nair, Ginnela N.V. Brahmam, Madhari S. Radhika, Roy Choudhury Dripta, Punjal Ravinder, Nagalla Balakrishna, Zhensheng Chen, Keli M. Hawthorne, and Steven A. Abrams 852

Supplementing Healthy Women with up to 5.0 g/d of L-Tryptophan Has No Adverse Effects
Chiaki Hiratsuka, Tsutomu Fukuwatarai, Mitsue Sano, Kuniaki Saito, Satoshi Sasaki, and Katsumi Shibata 859

Wheat Rolls Fortified with Microencapsulated L-5-Methyltetrahydrofolic Acid or Equimolar Folic Acid Increase Blood Folate Concentrations to a Similar Extent in Healthy Men and Women
Timothy J. Green, Yazheng Liu, Samira Dadgar, Wangyang Li, Ruth Böhni, and David D. Kitts 867

Jaime J. Gahche, Regan L. Bailey, Lisa B. Mirel, and Johanna T. Dwyer 872

The Carbon Isotope Ratio of Alanine in Red Blood Cells Is a New Candidate Biomarker of Sugar-Sweetened Beverage Intake
Kyungcheol Choy, Sarah H. Nash, Alan R. Kristal, Scarlett Hopkins, Bert B. Boyer, and Diane M. O’Brien 878

Psychosocial Stimulation Benefits Development in Nonanemic Children but Not in Anemic, Iron-Deficient Children
Fahmida Tofail, Jena D. Hamadani, Fardina Mehrin, Deborah A. Ridout, Syed N. Huda, and Sally M. Grantham-McGregor 885

Dietary Choline and Betaine Intakes Vary in an Adult Multiethnic Population
Kim M. Yonemori, Unhee Lim, Karin R. Koga, Lynne R. Wilkens, Donna Au, Carol J. Boushey, Loïc Le Marchand, Laurence N. Kolonel, and Suzanne P. Murphy 894

Habitual Dietary Isoflavone Intake Is Associated with Decreased C-Reactive Protein Concentrations among Healthy Premenopausal Women
Intake of Small-to-Medium-Chain Saturated Fatty Acids Is Associated with Peripheral Leukocyte Telomere Length in Postmenopausal Women

COMMUNITY AND INTERNATIONAL NUTRITION

Scripted Messages Delivered by Nurses and Radio Changed Beliefs, Attitudes, Intentions, and Behaviors Regarding Infant and Young Child Feeding in Mexico
Eva C. Monterrosa, Edward A. Frongillo, Teresa González de Cossío, Anabelle Bonvecchio, Maria Angeles Villanueva, James F. Thrasher, and Juan A. Rivera

Dietary Advice on Inuit Traditional Food Use Needs to Balance Benefits and Risks of Mercury, Selenium, and n3 Fatty Acids
Brian D. Laird, Alexey B. Goncharov, Grace M. Egeland, and Hing Man Chan

ISSUES AND OPINIONS

Does Chocolate Consumption Really Boost Nobel Award Chances? The Peril of Over-Interpreting Correlations in Health Studies
Pierre Maurage, Alexandre Heeren, and Mauro Pesenti

ERRATA

From the American Society for Nutrition

Supplement: Sociodemographic and Lifestyle Variables and Their Relationship to Nutritional Biomarkers: Findings from NHANES

Cover image: An abundance of nutritious food is available to the world’s fortunate, while many countries still struggle to provide sufficient macro- and micronutrients to their populations. The issue of Hidden Hunger, in both high and low income countries, was recently the subject of an international congress held in Stuttgart, Germany in March, where these beautiful fruits were photographed. Courtesy: Alex F. Ross. Used with permission.