Contents

Articles

BIOCHEMICAL, MOLECULAR, AND GENETIC MECHANISMS

Apo-10'-Lycopenoic Acid, a Lycopene Metabolite, Increases Sirtuin 1 mRNA and Protein Levels and Decreases Hepatic Fat Accumulation in ob/ob Mice
Jayong Chung, Kyeongok Koo, Fuzhi Lian, Kang Quan Hu, Hansgeorg Ernst, and Xiang-Dong Wang 405

Disturbed One-Carbon Metabolism Causing Adverse Reproductive Outcomes in Mice Is Associated with Altered Expression of Apolipoprotein AI and Inflammatory Mediators PPARα, Interferon-γ, and Interleukin-10
Leonie G. Mikael, Jill Pancer, Qing Wu, and Rima Rozen 411

Genetic Variation in GPX1 Is Associated with GPX1 Activity in a Comprehensive Analysis of Genetic Variations in Selenoenzyme Genes and Their Activity and Oxidative Stress in Humans

Vision Changes after Spaceflight Are Related to Alterations in Folate- and Vitamin B-12-Dependent One-Carbon Metabolism

Melissa officinalis Essential Oil Reduces Plasma Triglycerides in Human Apolipoprotein E2 Transgenic Mice by Inhibiting Sterol Regulatory Element-Binding Protein-1c-Dependent Fatty Acid Synthesis
Hee-jin Jun, Ji Hae Lee, Yaoyao Jia, Minh-Hien Hoang, Hanna Byun, Kyoung Heon Kim, and Sung-Joon Lee 432

Suppression of Hypoxia-Inducible Factor-1α Contributes to the Antiangiogenic Activity of Red Propolis Polyphenols in Human Endothelial Cells
Julio B. Daleprane, Tobias Schmid, Nathalie Dehne, Martina Rudnicki, Heidi Menrad, Theresa Geis, Masaharu Ikekaki, Thomas P. Ong, Bernhard Brüne, and Dulcineia S. P. Abdalla 441

LOC66273 Isoform 2, a Novel Protein Highly Expressed in White Adipose Tissue, Induces Adipogenesis in 3T3-L1 Cells
Xi Ma, Wei Ding, Junjun Wang, Guoyao Wu, Heyu Zhang, Jingdong Yin, Linuo Zhou, and Defa Li 448

NUTRIENT PHYSIOLOGY, METABOLISM, AND NUTRIENT-NUTRIENT INTERACTIONS

Dietary L-Arginine Supplementation during Gestation in Mice Enhances Reproductive Performance and Vegfr2 Transcription Activity in the Fetoplacental Unit
Jonathan M. Greene, Chad W. Dunaway, Susan D. Bowers, Brian J. Rude, Jean M. Feugang, and Peter L. Ryan 456

Amino Acid Supplementation Does Not Alter Whole-Body Phenylalanine Kinetics in Arabian Geldings
Kristine L. Urschel, Raymond J. Geor, Mark D. Hanigan, and Pat A. Harris 461
**Consumption of Breads Containing In Situ–Produced Arabinoxylan Oligosaccharides Alters Gastrointestinal Effects in Healthy Volunteers**  
Bram Damen, Lieselotte Cloetens, Willem F. Broekaert, Isabelle François, Olivier Lescroart, Isabel Trog, Filip Arnaut, Gjalt W. Welling, Jan Wijffels, Jan A. Delcour, Kristin Verbeke, and Christophe M. Courtin

**Absorption of Iron from Ferritin Is Independent of Heme Iron and Ferrous Salts in Women and Rat Intestinal Segments**  
Elizabeth C. Theil, Huijun Chen, Constanza Miranda, Heinz Janser, Bernd Elsenhans, Marco T. Nüñez, Fernando Pizarro, and Klaus Schümann

**Isoleucine and Leucine Independently Regulate mTOR Signaling and Protein Synthesis in MAC-T Cells and Bovine Mammary Tissue Slices**  
J. A. D. Ranga Niroshan Appuhamy, Nicole A. Knoebel, W. A. Deepthi Nayananjalie, Jeffery Escobar, and Mark D. Hanigan

**Stable Iron Isotope Studies in Rwandese Women Indicate That the Common Bean Has Limited Potential as a Vehicle for Iron Biofortification**  
Nicolai Petry, Ines Egli, Jean B. Gahutu, Pierrot L. Tugirimana, Erick Boy, and Richard Hurrell

**NUTRITION AND DISEASE**

**Serum 25-Hydroxyvitamin D Concentrations and Prevalence Estimates of Hypovitaminosis D in the U.S. Population Based on Assay-Adjusted Data**  
Vijay Ganji, Xu Zhang, and Vin Tangpricha

**A Wax Ester and Astaxanthin-Rich Extract from the Marine Copepod *Calanus finmarchicus* Attenuates Atherogenesis in Female Apolipoprotein E–Deficient Mice**  
Karl-Erik Eilertsen, Hanne K. Mæhre, Ida J. Jensen, Hege Devold, Jan Ole Olsen, Reidun K. Lie, Jan Brox, Vivian Berg, Edel Ø. Elvevoll, and Bjarne Østerud

**Oral Tocotrienols Are Transported to Human Tissues and Delay the Progression of the Model for End-Stage Liver Disease Score in Patients**  

**NUTRITIONAL EPIDEMIOLOGY**

**Child Mortality as Predicted by Nutritional Status and Recent Weight Velocity in Children under Two in Rural Africa**  
Sineád M. O’Neill, Anthony Fitzgerald, André Briend, and Jan Van den Broeck

**Dietary Intakes of Zinc and Heme Iron from Red Meat, but Not from Other Sources, Are Associated with Greater Risk of Metabolic Syndrome and Cardiovascular Disease**  

**A Comparison of Micronutrient Inadequacy and Risk of High Micronutrient Intakes among Vitamin and Mineral Supplement Users and Nonusers in Canada**  
Yaseer A. Shakur, Valerie Tarasuk, Paul Corey, and Deborah L. O’Connor

**The Prevalence of Food Insecurity Is High and the Diet Quality Poor in Inuit Communities**  
Catherine Huet, Renata Rosol, and Grace M. Egeland

**Prenatal Micronutrient Supplements Cumulatively Increase Fetal Growth**  
Dominique Roberfroid, Lieven Huybregts, Hermann Lanou, Jean-Pierre Habicht, Marie-Claire Henry, Nicolas Meda, and Patrick Kolsteren
Consumption of Potentially Fortifiable Foods by Women and Young Children Varies by Ecological Zone and Socio-Economic Status in Cameroon
Reina Engle-Stone, Alex Ongla Ndjebayi, Martin Nankap, and Kenneth H. Brown 555

Epigallocatechin-3-Gallate Inhibits Expression of Receptors for T Cell Regulatory Cytokines and Their Downstream Signaling in Mouse CD4 T Cells
Junpeng Wang, Munkyong Pae, Simin Nikbin Meydani, and Dayong Wu 566

Arginine and Ornithine Are the Main Precursors for Citrulline Synthesis in Mice
Juan C. Marini 572

The Interaction between Calcium and Iron: Choice of Methodology Is Crucial for Outcome and Conclusions
Michael Hoppe and Lena Hulthén 581
Reply to Hoppe and Hulthén
Fernando Pizarro, Manuel Olivares, Daniel López de Romaña, and Diego Gaitán 582

Supplement: Heart Healthy Omega-3s for Food—Stearidonic Acid (SDA) as a Sustainable Choice

Cover image: Phase-contrast photomicrographs of 3T3-L1 cells without and with silencing of LI2, a novel gene associated with adipogenesis. Cells without silencing show oil red O-stained lipid droplets, while these are inapparent in the silenced cells. From a study by Ma et al., pages 448–455 of this issue. Copyright © 2012 American Society for Nutrition.