Contents

Articles

COMMENTARY

Probiotic-Derived Factors: Probiotaceuticals?
Gordon S. Howarth 229

BIOCHEMICAL, MOLECULAR, AND GENETIC MECHANISMS

Hepatic Acyl-Coenzyme A:Cholesterol Acyltransferase-2 Expression Is Decreased in Mice with Hyperhomocysteinemia
Angela M. Devlin, Ranji Singh, Teodoro Bottiglieri, Sheila M. Innis, and Tim J. Green 231

Leptin Receptor Polymorphisms Interact with Polyunsaturated Fatty Acids to Augment Risk of Insulin Resistance and Metabolic Syndrome in Adults
Catherine M. Phillips, Louisa Goumidi, Sandrine Bertrais, Martyn R. Field, Jose M. Or dovas, L. Adrienne Cupples, Catherine Defoort, Julie A. Lovegrove, Christian A. Drevon, Ellen E. Blaak, Michael J. Gibney, Beata Kiec-Wilk, Britta Karlstrom, Jose Lopez-Miranda, Ross McManus, Serge Hercberg, Denis Lairon, Richard Planells, and Helen M. Roche 238

NUTRIENT PHYSIOLOGY, METABOLISM, AND NUTRIENT-NUTRIENT INTERACTIONS

The Polyunsaturated Fatty Acid Composition of Hepatic and Plasma Lipids Differ by Both Sex and Dietary Fat Intake in Rats
Caroline E. Childs, Meritxell Romeu-Nadal, Graham C. Burdge, and Philip C. Calder 245

Sildenafil Citrate Treatment Enhances Amino Acid Availability in the Conceptus and Fetal Growth in an Ovine Model of Intrauterine Growth Restriction
M. Carey Satterfield, Fuller W. Bazer, Thomas E. Spencer, and Guoyao Wu 251

Nondairy Creamer, but Not Milk, Delays the Appearance of Coffee Phenolic Acid Equivalents in Human Plasma
Mathieu Renouf, Cynthia Marmet, Philippe Guy, Anne-Lise Fraering, Karin Longet, Julie Moulin, Marc Enslen, Denis Barron, Christophe Cavin, Fabiola Dionisi, Serge Rezzi, Sunil Kochhar, Heike Steiling, and Gary Williamson 259

Stimulation of Muscle Protein Synthesis by Prolonged Parenteral Infusion of Leucine Is Dependent on Amino Acid Availability in Neonatal Pigs
Fiona A. Wilson, Agus Suryawan, Maria C. Gazzaneo, Renán A. Orellana, Hanh V. Nguyen, and Teresa A. Davis 264

Age and Dietary Iron Affect Expression of Genes Involved in Iron Acquisition and Homeostasis in Young Pigs
Stephanie L. Hansen, Nares Trakooljul, Jerry W. Spears, and Hsiao-Ching Liu 271

Serum Lipid and Blood Pressure Responses to Quercetin Vary in Overweight Patients by Apolipoprotein E Genotype
Sarah Egert, Christine Boesch-Saadatmandi, Siegfried Wolffram, Gerald Rimbach, and Manfred J. Müller 278
Nutritional Stimulation of Milk Protein Yield of Cows Is Associated with Changes in Phosphorylation of Mammary Eukaryotic Initiation Factor 2 and Ribosomal S6 Kinase 1
Chanelle A. Toerien, Donald R. Trout, and John P. Cant 285

NUTRITION AND DISEASE
Consumption of a Flaxseed-Rich Food Is Not More Effective Than a Placebo in Alleviating the Climacteric Symptoms of Postmenopausal Women
Renée L. Simbalista, Adolfo V. Sauerbronn, José M. Aldrighi, and José A. G. Areás 293
Hibiscus Sabdariffa L. Tea (Tisane) Lowers Blood Pressure in Prehypertensive and Mildly Hypertensive Adults
Diane L. McKay, C-Y. Oliver Chen, Edward Saltzman, and Jeffrey B. Blumberg 298
Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants
Hilary K. Seligman, Barbara A. Laraia, and Margot B. Kushel 304
All-trans Retinoic Acid Lowers Serum Retinol-Binding Protein 4 Concentrations and Increases Insulin Sensitivity in Diabetic Mice
Daniel-Constantin Manolescu, Aurelia Sima, and Pangala V. Bhat 311

NUTRIENT REQUIREMENTS AND OPTIMAL NUTRITION
Estimation of Antioxidant Intakes from Diet and Supplements in U.S. Adults
Ock K. Chun, Anna Floegel, Sang-Jin Chung, Chin Eun Chung, Won O. Song, and Sung I. Koo 317

NUTRITIONAL EPIDEMIOLOGY
Snacking Increased among U.S. Adults between 1977 and 2006
Carmen Piernas and Barry M. Popkin 325
The Natural 13C Abundance of Plasma Glucose Is a Useful Biomarker of Recent Dietary Caloric Sweetener Intake
Chad M. Cook, Amy L. Alvig, Yu Qiu (David) Liu, and Dale A. Schoeller 333
The Sex-Specific Role of Plasma Folate in Mediating the Association of Dietary Quality with Depressive Symptoms
May A. Beydoun, Marie T. Fanelli Kuczmarski, Hind A. Beydoun, Monal R. Shroff, Marc A. Mason, Michele K. Evans, and Alan B. Zonderman 338

COMMUNITY AND INTERNATIONAL NUTRITION
Weight Gain in the First Two Years of Life Is an Important Predictor of Schooling Outcomes in Pooled Analyses from Five Birth Cohorts from Low- and Middle-Income Countries
A New Simulation Model Estimates Micronutrient Levels to Include in Fortified Blended Foods Used in Food Aid Programs
Lisa E. Fleige, Nadine R. Sahyoun, and Suzanne P. Murphy 355
Associations between Multiple Indicators of Socioeconomic Status and Obesity in Young Adult Filipinos Vary by Gender, Urbanicity, and Indicator Used
Increased Consumption of Fatty and Lean Fish Reduces Serum C-Reactive Protein Concentrations but Not Inflammation Markers in Feces and in Colonic Biopsies


Sesamin Inhibits Bacterial Formylpeptide-Induced Inflammatory Responses in a Murine Air-Pouch Model and in THP-1 Human Monocytes

Youhong Cui, Xinwei Hou, Juan Chen, Lianying Xie, Lang Yang, and Yingying Le

A Bovine Whey Protein Extract Stimulates Human Neutrophils to Generate Bioactive IL-1Ra through a NF-κB- and MAPK-Dependent Mechanism

Daniel Rusu, Réjean Drouin, Yves Pouliot, Sylvie Gauthier, and Patrice E. Poubelle


Jean-Pierre Habicht and Reynaldo Martorell

History and Early Development of INCAP

Nevin S. Scrimshaw

INCAP Oriente Longitudinal Study: 40 Years of History and Legacy

Manuel Ramirez-Zea, Paul Melgar, and Juan A. Rivera

Maternal Supplementation Differentially Affects the Mother and Newborn

Kathleen M. Rasmussen and Jean-Pierre Habicht

Probability, Plausibility, and Adequacy Evaluations of the Oriente Study Demonstrate That Supplementation Improved Child Growth

Jean-Pierre Habicht and Reynaldo Martorell

The Nutrition Intervention Improved Adult Human Capital and Economic Productivity

Reynaldo Martorell, Paul Melgar, John A. Maluccio, Aryeh D. Stein, and Juan A. Rivera

The Oriente Study: Program and Policy Impacts

Marie T. Ruel

The Role of Innovation and Technology in Meeting Individual Nutritional Needs

Kara D. Lewis and Britt M. Burton-Freeman