Contents

Articles

■ BIOGRAPHICAL ARTICLE

David Kritchevsky (1920–2006)
Jon A. Story and David M. Klurfeld 1353

■ BIOCHEMICAL, MOLECULAR, AND GENETIC MECHANISMS

Glutamine Directly Downregulates Glutamine Synthetase Protein Levels in Mouse C2C12 Skeletal Muscle Myotubes
Yi-Fang Huang, Yanxin Wang, and Malcolm Watford 1357

Conjugated Linoleic Acid Affects Lipid Composition, Metabolism, and Gene Expression in Gilthead Sea Bream (Sparus aurata L)
Amalia Diez, David Menoyo, Susana Pérez-Benavente, Josep A. Calduch-Giner, Silvia Vega-Rubin de Celis, Alex Obach, Laurence Favre-Krey, Evridiki Boukouvala, Michael J. Leaver, Douglas R. Tocher, Jaume Pérez-Sanchez, Grigorios Krey, and José M. Bautista 1363

Copper Deficiency Decreases Plasma Homocysteine in Rats
Eric O. Uthus, Philip G. Reeves, and Jack T. Saari 1370

■ NUTRIENT PHYSIOLOGY, METABOLISM, AND NUTRIENT-NUTRIENT INTERACTIONS

Avenanthramides Are Bioavailable and Have Antioxidant Activity in Humans after Acute Consumption of an Enriched Mixture from Oats
C.-Y. Oliver Chen, Paul E. Milbury, F. William Collins, and Jeffrey B. Blumberg 1375

Meal Amino Acids with Varied Levels of Arginine do Not Affect Postprandial Vascular Endothelial Function in Healthy Young Men
François Mariotti, Jean François Huneau, Isabelle Szezepanski, Klaus J. Petzke, Yacine Aggoun, Daniel Tomé, and Damien Bonnet 1383

Dietary Soy Protein Containing Isoflavonoids Does Not Adversely Affect the Reproductive Tract of Male Cynomolgus Macaques (Macaca fascicularis)
Donna L. Perry, Jennifer M. Spedick, Thomas P. McCoy, Michael R. Adams, Adrian A. Franke, and J. Mark Cline 1390

β-Carotene from Red Carrot Maintains Vitamin A Status, but Lycopene Bioavailability Is Lower Relative to Tomato Paste in Mongolian Gerbils
Jordan P. Mills, Philipp W. Simon, and Sherry A. Tanumihardjo 1395

■ NUTRITION AND DISEASE

Whole-Grain Foods Do Not Affect Insulin Sensitivity or Markers of Lipid Peroxidation and Inflammation in Healthy, Moderately Overweight Subjects
Agneta Andersson, Siv Tengblad, Brita Karlström, Araf Kamal-Eldin, Rikard Landberg, Samar Basu, Per Åman, and Bengt Vessby 1401

Dietary Encapsulated Glycine Influences Clostridium perfringens and Lactobacilli Growth in the Gastrointestinal Tract of Broiler Chickens
J. P. Dahiya, Dirk Hoehler, Andrew G. Van Kessel, and Murray D. Drew 1408
Whole-Food Sources of Vitamin A More Effectively Inhibit Female Rat Sexual Maturation, Mammary Gland Development, and Mammary Carcinogenesis than Retinyl Palmitate
Shauntee M. McDaniel, Caitlin O’Neill, Richard P. Metz, Elizabeth Tarbutton, Maria Stacewicz-Sapuntzakis, Jerianne Heimendinger, Pamela Wolfe, Henry Thompson, and Pepper Schedin 1415

Conjugated Linoleic Acid Alters Matrix Metalloproteinases of Metastatic Mouse Mammary Tumor Cells
Neil E. Hubbard, Debora Lim, and Kent L. Erickson 1423

γ-Linolenate Reduces Weight Regain in Formerly Obese Humans
Marie A. Schirmer and Stephen D. Phinney 1430

Plasma LDL and HDL Cholesterol and Oxidized LDL Concentrations Are Altered in Normo- and Hypercholesterolemic Humans after Intake of Different Levels of Cocoa Powder
Seigo Baba, Midori Natsume, Akiko Yasuda, Yuko Nakamura, Takaaki Tamura, Naomii Osakabe, Minoru Kanegae, and Kazuo Kondo 1436

NUTRIENT REQUIREMENTS AND OPTIMAL NUTRITION

A Deficiency or Excess of Dietary Threonine Reduces Protein Synthesis in Jejunum and Skeletal Muscle of Young Pigs
Xu Wang, Shiyuan Qiao, Yulong Yin, Longyao Yue, Zongyi Wang, and Guoyao Wu 1442

NUTRITIONAL EPIDEMIOLOGY

Consumption of Sweetened Beverages and Intakes of Fructose and Glucose Predict Type 2 Diabetes Occurrence
Jukka Montonen, Ritva Järvinen, Paul Knekt, Markku Heliovaara, and Antti Reunanen 1447

COMMUNITY AND INTERNATIONAL NUTRITION

Benefit of Vitamin A Supplementation on Ascaris Reinfection Is Less Evident in Stunted Children
Leslie G. Payne, Kristine G. Koski, Eduardo Ortega-Barria, and Marilyn E. Scott 1455

Gender and Marital Status Clarify Associations between Food Insecurity and Body Weight
Karla L. Hanson, Jeffery Sobal, and Edward A. Frongillo 1460

NUTRITIONAL IMMUNOLOGY

Decreased Selenoprotein Expression Alters the Immune Response during Influenza Virus Infection in Mice
Patricia A. Sheridan, Nianxin Zhong, Bradley A. Carlson, Christine M. Perella, Dolph L. Hatfield, and Melinda A. Beck 1466

Dietary Supplementation with White Button Mushroom Enhances Natural Killer Cell Activity in C57BL/6 Mice
Dayong Wu, Munkyong Pae, Zhihong Ren, Zhuyan Guo, Donald Smith, and Simin Nikbin Meydani 1472

INGESTIVE BEHAVIOR AND NEUROSCIENCES

Inadequate Dietary Protein Increases Hunger and Desire to Eat in Younger and Older Men
John W. Apolzan, Nadine S. Carnell, Richard D. Mattes, and Wayne W. Campbell 1478

Solid and Liquid Obesogenic Diets Induce Obesity and Counter-Regulatory Changes in Hypothalamic Gene Expression in Juvenile Sprague-Dawley Rats
Zoë A. Archer, Jeremie Corneloup, D. Vernon Rayner, Perry Barrett, Kim M. Moar, and Julian G. Mercer 1483

ISSUES AND OPINIONS

Standardizing Terminology for Estimating the Diet-Dependent Net Acid Load to the Metabolic System
Lynda A. Frassetto, Susan A. Lanham-New, Helen M. Macdonald, Thomas Remer, Anthony Sebastian, Katherine L. Tucker, and Frances A. Tylavsky 1491