Contents

Articles

**BIOGRAPHICAL ARTICLE**

Samuel J. Fomon, MD: Champion of Growth
Buford L. Nichols 545

**BIOCHEMICAL, MOLECULAR, AND GENETIC MECHANISMS**

Dietary Arachidonate Differentially Alters Desaturase-Elongase Pathway Flux and Gene Expression in Liver and Intestine of Suckling Pigs
Sheila K. Jacobi, Xi Lin, Benjamin A. Corl, Holly A. Hess, Robert J. Harrell, and Jack Odle 548

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

3, 4-Didehydroretinol Kinetics Differ during Lactation in Sows on a Retinol Depletion Regimen and the Serum:Milk 3, 4-Didehydroretinol:Retinol Ratios Are Correlated
Rebecca L. Surles, Paul R. Hutson, Ashley R. Valentine, Jordan P. Mills, and Sherry A. Tanumihardjo 554

Feeding Oscillating Dietary Crude Protein Concentrations Increases Nitrogen Utilization in Growing Lambs and This Response Is Partly Attributable to Increased Urea Transfer to the Rumen
Kiran Doranalli, Gregory B. Penner, and Timothy Mutsvangwa 560

Enhanced Amino Acid Sensitivity of Myofibrillar Protein Synthesis Persists for up to 24 h after Resistance Exercise in Young Men
Nicholas A. Burd, Daniel W. D. West, Daniel R. Moore, Philip J. Atherton, Aaron W. Staples, Todd Prior, Jason E. Tang, Michael J. Rennie, Steven K. Baker, and Stuart M. Phillips 568

An Oral Lipid Challenge and Acute Intake of Caffeinated Coffee Additively Decrease Glucose Tolerance in Healthy Men
Marie-Soleil Beaudoin, Lindsay E. Robinson, and Terry E. Graham 574

**NUTRITION AND DISEASE**

Dietary Whey Protein Lowers the Risk for Metabolic Disease in Mice Fed a High-Fat Diet
Howard G. Shertzer, Sally E. Woods, Mansi Krishan, Mary Beth Genter, and Kevin J. Pearson 582

Dietary Acid Load Is Not Associated with Lower Bone Mineral Density Except in Older Men

Rice Intake Is Associated with Reduced Risk of Mortality from Cardiovascular Disease in Japanese Men but Not Women
Ehab S. Eshak, Hiroyasu Iso, Chigusa Date, Kazumasa Yamagishi, Shogo Kikuchi, Yoshiyuki Watanabe, Yasuhiko Wada, Akiko Tamakoshi, and JACC Study Group 595
PPARα Expression Protects Male Mice from High Fat-Induced Nonalcoholic Fatty Liver
Mohamed A. Abdelmegeed, Seong-Ho Yoo, Lauren E. Henderson, Frank J. Gonzalez, Kimberley J. Woodcroft, and Byoung-Joon Song

NUTRITIONAL EPIDEMIOLOGY

Low Plasma Vitamin B-6 Status Affects Metabolism through the Kynurenine Pathway in Cardiovascular Patients with Systemic Inflammation
Øivind Midttun, Arve Ulvik, Eva Ringdal Pedersen, Marta Ebbing, Øyvind Bleie, Hall Schartum-Hansen, Roy Miodini Nilsen, Ottar Nygård, and Per M. Ueland

Selected Dietary Flavonoids Are Associated with Markers of Inflammation and Endothelial Dysfunction in U.S. Women
Rikard Landberg, Qi Sun, Eric B. Rimm, Aedin Cassidy, Augustin Scalbert, Christos S. Mantzoros, Frank B. Hu, and Rob M. van Dam

The Volume of Nipple Aspirate Fluid Is Not Affected by 6 Months of Treatment with Soy Foods in Premenopausal Women
Gertraud Maskarinec, Yukiko Morimoto, Shannon M. Conroy, Ian S. Pagano, and Adrian A. Franke

Socioeconomic and Geographic Patterning of Under- and Overnutrition among Women in Bangladesh
Daniel J. Corsi, Hmwe H. Kyu, and S. V. Subramanian

Healthy Aspects of the Nordic Diet Are Related to Lower Total Mortality
Anja Olsen, Rikke Egeberg, Jytte Halkjaer, Jane Christensen, Kim Overvad, and Anne Tjønneland

Larger Infant Size at Birth Reduces the Negative Association between Maternal Prepregnancy Body Mass Index and Breastfeeding Duration
Stephanie A. Leonard and Kathleen M. Rasmussen

Methylenetetrahydrofolate Reductase Variants Associated with Hypertension and Cardiovascular Disease Interact with Dietary Polyunsaturated Fatty Acids to Modulate Plasma Homocysteine in Puerto Rican Adults
Tao Huang, Katherine L. Tucker, Yu-Chi Lee, Jimmy W. Crott, Laurence D. Parnell, Jian Shen, Caren E. Smith, Jose M. Ordovas, Duo Li, and Chao-Qiang Lai

NUTRIENT REQUIREMENTS AND OPTIMAL NUTRITION

Cortical and Trabecular Bone, Bone Mineral Density, and Resistance to ex Vivo Fracture Are Not Altered in Response to Life-Long Vitamin A Supplementation in Aging Rats
Amanda E. Wray, Nori Okita, and A. Catharine Ross

COMMUNITY AND INTERNATIONAL NUTRITION

20-Year Trends in Filipino Women’s Weight Reflect Substantial Secular and Age Effects
Linda S. Adair, Socorro Gultiano, and Chiriyath Suchindran

Nonbreast-Fed, HIV-1-Exposed Burkinabe Infants Have Low Energy Intake between 6 and 11 Months of Age Despite Free Access to Infant Food Aid
Cécile Cames, Fanny Cassard, Amandine Cournil, Claire Mouquet-Rivier, Kossiavwi Ayassou, Nicolas Meda, and Kirsten Bork

Enhancements to Nutrition Program in Indian Integrated Child Development Services Increased Growth and Energy Intake of Children
Rasmi Avula, Edward A. Frongillo, Mandana Arabi, Sheel Sharma, and Werner Schultink

Daily Multi-Micronutrient Supplementation during Tuberculosis Treatment Increases Weight and Grip Strength among HIV-Uninfected but Not HIV-Infected Patients in Mwanza, Tanzania
George PrayGod, Nyagosya Range, Daniel Faurholt-Jepsen, Kidola Jeremiah, Maria Faurholt-Jepsen, Martine G. Aabye, Lotte Jensen, Andreas V. Jensen, Harleen M. S. Grewal, Pascal Magnussen, John Changalucha, Aase Bengaard Andersen, and Henrik Friis
NUTRITIONAL IMMUNOLOGY

Response to Vitamin D Supplementation during Antarctic Winter Is Related to BMI, and Supplementation Can Mitigate Epstein-Barr Virus Reactivation
Sara R. Zwart, Satish K. Mehta, Robert Ploutz-Snyder, YaVonne Bourbeau, James P. Locke, Duane L. Pierson, and Scott M. Smith

Dietary Fatty Acids Affect the Immune System in Male Mice Sensitized to Ovalbumin or Vaccinated with Influenza
Astrid Hogenkamp, Naomi van Vlies, Alison L. Fear, Betty C. van Esch, Gerard A. Hofman, Johan Garssen, and Philip C. Calder

INGESTIVE BEHAVIOR AND NEUROSCIENCES

Caffeinated Coffee Does Not Acutely Affect Energy Intake, Appetite, or Inflammation but Prevents Serum Cortisol Concentrations from Falling in Healthy Men
Anna Gavrieli, Mary Yannakoulia, Elizabeth Fragopoulou, Dimitris Margaritopoulos, John P. Chamberland, Panagiota Kaisari, Stavros A. Kavouras, and Christos S. Mantzoros

METHODOLOGY AND MATHEMATICAL MODELING

A Human Model of Selenium that Integrates Metabolism from Selenite and Selenomethionine
Meryl E. Wastney, Gerald F. Combs Jr, Wesley K. Canfield, Philip R. Taylor, Kristine Y. Patterson, A. David Hill, James E Moler, and Blossom H. Patterson

ERRATUM

718

Announcements

719

Supplement: Iron Works...The John Beard Memorial Symposium

Cover image: Air approach to Antarctica in region of McMurdo Station. In this issue, Zwart et al. (pages 692-7) report on the response to vitamin D supplementation, under conditions of minimal sunlight exposure measured in subjects at McMurdo Station, on Epstein-Barr virus reactivation. Photo by YaVonne Bourbeau, used with permission.