

## Contents

---

### Articles

---

#### ■ HISTORY OF NUTRITION

##### **Scurvy and Cloudberry: A Chapter in the History of Nutritional Sciences**

Luigi M. De Luca and Kaare R. Norum

2101

#### ■ BIOCHEMICAL, MOLECULAR, AND GENETIC MECHANISMS

##### **Chronic Maternal Protein Deprivation in Mice Is Associated with Overexpression of the Cohesin-Mediator Complex in Liver of Their Offspring**

Alfred Balasa, Amarilis Sanchez-Valle, Bekim Sadikovic, Haleh Sangi-Haghpeykar, Jaclyn Bravo, Liang Chen, Wei Liu, Shu Wen, Marta L. Fiorotto, and Ignatia B. Van den Veyver

2106

##### **Vitamin E Deficiency Decreases Long-Chain PUFA Status in Zebrafish (*Danio rerio*)**

Katie M. Lebold, Donald B. Jump, Galen W. Miller, Charlotte L. Wright, Edwin M. Labut, Carrie L. Barton, Robert L. Tanguay, and Maret G. Traber

2113

##### **Carnosic Acid Induces the NAD(P)H: Quinone Oxidoreductase 1 Expression in Rat Clone 9 Cells through the p38/Nuclear Factor Erythroid-2 Related Factor 2 Pathway**

Chia-Wen Tsai, Chia-Yuan Lin, and Yu-Jung Wang

2119

#### ■ GENOMICS, PROTEOMICS, AND METABOLOMICS

##### **Nuclear Magnetic Resonance-Based Metabolomics Enable Detection of the Effects of a Whole Grain Rye and Rye Bran Diet on the Metabolic Profile of Plasma in Prostate Cancer Patients**

Ali A. Moazzami, Jie-Xian Zhang, Afaf Kamal-Eldin, Per Åman, Göran Hallmans, Jan-Erik Johansson, and Sven-Olof Andersson

2126

#### ■ NUTRIENT PHYSIOLOGY, METABOLISM, AND NUTRIENT-NUTRIENT INTERACTIONS

##### **Severe Postnatal Iron Deficiency Alters Emotional Behavior and Dopamine Levels in the Prefrontal Cortex of Young Male Rats**

Yuan Li, Jonghan Kim, Peter D. Buckett, Mark Böhlke, Timothy J. Maher, and Marianne Wessling-Resnick

2133

##### **Polydextrose Enrichment of Infant Formula Demonstrates Prebiotic Characteristics by Altering Intestinal Microbiota, Organic Acid Concentrations, and Cytokine Expression in Suckling Piglets**

Tina M. Herfel, Sheila K. Jacobi, Xi Lin, Vivek Fellner, D. Carey Walker, Zeina E. Jouni, and Jack Odle

2139

##### **Dietary Cholecalciferol Regulates the Recruitment and Growth of Skeletal Muscle Fibers and the Expressions of Myogenic Regulatory Factors and the Myosin Heavy Chain in European Sea Bass Larvae**

Hélène Alami-Durante, Marianne Cluzeaud, Didier Bazin, David Mazurais, and José L. Zambonino-Infante

2146

	<b>Intermittent Bolus Feeding Has a Greater Stimulatory Effect on Protein Synthesis in Skeletal Muscle Than Continuous Feeding in Neonatal Pigs</b>	
	María C. Gazzaneo, Agus Suryawan, Renán A. Orellana, Roberto Murgas Torrazza, Samer W. El-Kadi, Fiona A. Wilson, Scot R. Kimball, Neeraj Srivastava, Hanh V. Nguyen, Marta L. Fiorotto, and Teresa A. Davis	2152
	<b>Soy Content of Basal Diets Determines the Effects of Supplemental Selenium in Male Mice</b>	
	Trevor E. Quiner, Heather L. Nakken, Brock A. Mason, Edwin D. Lephart, Chad R. Hancock, Merrill J. Christensen	2159
■	<b>NUTRITION AND DISEASE</b>	
	<b>Low- and High-Dose Plant and Marine (n-3) Fatty Acids Do Not Affect Plasma Inflammatory Markers in Adults with Metabolic Syndrome</b>	
	Antonella Dewell, Farshad Fani Marvasti, William S. Harris, Philip Tsao, and Christopher D. Gardner	2166
	<b>Folic Acid Supplements Modify the Adverse Effects of Maternal Smoking on Fetal Growth and Neonatal Complications</b>	
	Rachel Bakker, Sarah Timmermans, Eric AP Steegers, Albert Hofman, Vincent WV Jaddoe	2172
	<b>Changes in Atherogenic Dyslipidemia Induced by Carbohydrate Restriction in Men Are Dependent on Dietary Protein Source</b>	
	Lara M. Mangravite, Sally Chiu, Kathleen Wojnoonski, Robin S. Rawlings, Nathalie Bergeron, and Ronald M. Krauss	2180
■	<b>NUTRIENT REQUIREMENTS AND OPTIMAL NUTRITION</b>	
	<b>Reference Intervals for Plasma L-Arginine and the L-Arginine:Asymmetric Dimethylarginine Ratio in the Framingham Offspring Cohort</b>	
	Nicole Lüneburg, Vanessa Xanthakis, Edzard Schwedhelm, Lisa M. Sullivan, Renke Maas, Maïke Anderssohn, Ulrich Riederer, Nicole L. Glazer, Ramachandran S. Vasam, and Rainer H. Böger	2186
■	<b>NUTRITIONAL EPIDEMIOLOGY</b>	
	<b>A Simulation Study of the Potential Effects of Healthy Food and Beverage Substitutions on Diet Quality and Total Energy Intake in Lower Mississippi Delta Adults</b>	
	Jessica L. Thomson, Lisa M. Tussing-Humphreys, Stephen J. Onufrak, Jamie M. Zoellner, Carol L. Connell, Margaret L. Bogle, and Kathy Yadrick	2191
	<b>Retinol May Counteract the Negative Effect of Cadmium on Bone</b>	
	Annette Engström, Helen Håkansson, Staffan Skerfving, Per Bjellerup, Jonas Lidfeldt, Thomas Lundh, Göran Samsioe, Marie Vahter, and Agneta Åkesson	2198
	<b>Dietary Energy Density Is Associated with Body Weight Status and Vegetable Intake in U.S. Children</b>	
	Jacqueline A. Vernarelli, Diane C. Mitchell, Terryl J. Hartman, and Barbara J. Rolls	2204
	<b>Genetic Variation in Stearoyl-CoA Desaturase 1 Is Associated with Metabolic Syndrome Prevalence in Costa Rican Adults</b>	
	Jian Gong, Hannia Campos, Stephen McGarvey, Zhijin Wu, Robert Goldberg, and Ana Baylin	2211
	<b>A High Intake of Saturated Fatty Acids Strengthens the Association between the Fat Mass and Obesity-Associated Gene and BMI</b>	
	Dolores Corella, Donna K Arnett, Katherine L. Tucker, Edmond K Kabagambe, Michael Tsai, Laurence D. Parnell, Chao-Qiang Lai, Yu-Chi Lee, Daruneewan Warodomwicht, Paul N Hopkins, Jose M. Ordovas	2219
■	<b>COMMUNITY AND INTERNATIONAL NUTRITION</b>	
	<b>Poor Folate Status Predicts Persistent Diarrhea in 6- to 30-Month-Old North Indian Children</b>	
	Mari S. Manger, Sunita Taneja, Tor A. Strand, Per M. Ueland, Helga Refsum, Jørn Schneede, Ottar Nygård, Halvor Sommerfelt, and Nita Bhandari	2226

**Plasma Retinol-Binding Protein Predicts Plasma Retinol Concentration in Both Infected and Uninfected Cameroonian Women and Children**

Reina Engle-Stone, Marjorie J. Haskell, Alex Ongia Ndjebayi, Martin Nankap, Juergen G. Erhardt, Marie-Madeleine Gimou, and Kenneth H. Brown

2233

■ **INGESTIVE BEHAVIOR AND NEUROSCIENCES**

**Both Longer Oral Sensory Exposure to and Higher Intensity of Saltiness Decrease Ad Libitum Food Intake in Healthy Normal-Weight Men**

Dieuwerke P. Bolhuis, Catriona M. M. Lakemond, Rene A. de Wijk, Pietermel A. Luning, and Cees de Graaf

2242

**A Salt Reduction of 50% in Bread Does Not Decrease Bread Consumption or Increase Sodium Intake by the Choice of Sandwich Fillings**

Dieuwerke P. Bolhuis, Elisabeth H. M. Temme, Fari T. Koeman, Martijn W. J. Noort, Stefanie Kremer, and Anke M. Janssen

2249

■ **LETTER TO THE EDITOR**

**Relationship of Olive Oil Polyphenols and Oxidation Biomarkers**

Maria-Isabel Covas and Antonio V. Gaddi

2256

**Reply to Covas and Gaddi**

Peter C.H. Hollman

2257

■ **ERRATUM**

2258

---

**Announcements**

2259

---