

Contents

VII List of Contributors

XI Preface

Simopoulos, A.P. (Washington, D.C.); Milner, J.A. (Bethesda, Md.)

1 Opportunities and Challenges in Nutrigenetics/Nutrigenomics and Health

De Caterina, R. (Pisa)

8 Genome-Wide Association Studies and Diet

Ferguson, L.R. (Auckland)

15 Copy Number Variation, Eicosapentaenoic Acid and Neurological Disorders.

With Particular Reference to Huntington's Disease and Associated CAG Repeats, and to Myalgic Encephalomyelitis and Viral Infection

Puri, B.K. (London); Manku, M.S. (Oxford)

21 Nutrigenetics: A Tool to Provide Personalized Nutritional Therapy to the Obese

Marti, A.; Goyenechea, E.; Martínez, J.A. (Pamplona)

34 Xenobiotic Metabolizing Genes, Meat-Related Exposures, and Risk of Advanced Colorectal Adenoma

Ferrucci, L.M. (Bethesda, Md./New Haven, Conn.); Cross, A.J. (Bethesda, Md.); Gunter, M.J.; Ahn, J. (New York, N.Y.); Mayne, S.T.; Ma, X. (New Haven, Conn.); Chanock, S.J.; Yeager, M.; Graubard, B.I.; Berndt, S.I.; Huang, W.-Y. (Bethesda, Md.); Hayes, R.B. (New York, N.Y.); Sinha, R. (Bethesda, Md.)

46 Strategies to Improve Detection of Hypertension Genes

Hunt, S.C. (Salt Lake City, Utah)

56 Diet, Nutrition and Modulation of Genomic Expression in Fetal Origins of Adult Disease

Jackson, A.A.; Burdge, G.C.; Lillycrop, K.A. (Southampton)

73 Choline: Clinical Nutrigenetic/Nutrigenomic Approaches for Identification of Functions and Dietary Requirements

Zeisel, S.H. (Chapel Hill, N.C.)

84 Dietary Polyphenols, Deacetylases and Chromatin Remodeling in Inflammation

Rahman, I.; Chung, S. (Rochester, N.Y.)

95 Dietary Manipulation of Histone Structure and Function

Ho, E.; Dashwood, R.H. (Corvallis, Oreg.)

- 103 Changes in Human Adipose Tissue Gene Expression during Diet-Induced Weight Loss**
Svensson, P-A.; Gummesson, A.; Carlsson, L.M.S.; Sjöholm, K. (Gothenburg)
- 115 Toxicogenomics and Studies of Genomic Effects of Dietary Components**
Thompson, K. (Silver Spring, Md.)
- 123 Dietary Methyl Deficiency, microRNA Expression and Susceptibility to Liver Carcinogenesis**
Starlard-Davenport, A.; Tryndyak, V. (Jefferson, Ariz.); Kosyk, O. (Chapel Hill, N.C.); Ross, S.R. (Bethesda, Md.); Rusyn, I. (Chapel Hill, N.C.); Beland, F.A.; Pogribny, I.P. (Jefferson, Ariz.)
- 131 Redox Dysregulation and Oxidative Stress in Schizophrenia: Nutrigenetics as a Challenge in Psychiatric Disease Prevention**
Do, K.Q.; Conus, P.; Cuenod, M. (Lausanne)
- 154 Nutrigenomics and Agriculture: A Perspective**
Spence, J.T. (Beltsville, Md.)
- 160 Opportunities and Challenges in Nutrigenetics/Nutrigenomics: Building Industry-Academia Partnerships**
Gillies, P.J. (Wilmington, De.); Kris-Etherton, P.M. (University Park, Pa.)
- 169 Tailoring Foods to Match People's Genes in New Zealand: Opportunities for Collaboration**
Ferguson, L.R.; Hu, R.; Lam, W.J.; Munday, K.; Triggs, C.M. (Auckland)
- 176 Author Index**
- 177 Subject Index**