Much attention is currently focused on the role of dietary fat in food intake regulation and obesity. Papers in this volume discuss
properties and effects on food intake of several fat substitutes and replacers. Metabolic and sensory factors that contribute to preferences for high-fat foods and propensity to develop obesity are also addressed. In closely related papers the effects of dietary carbohydrates, including reduced-energy bulking sweeteners, on glucose and insulin metabolism are discussed. The influence of genetic background, regional adipose tissue distribution, and exercise on energy metabolism in humans is covered in several chapters. Other papers focus on diet and brown and white adipose tissue metabolism.

Considerable progress has been made in the past several years to better understand the mechanism whereby diet composition influences regulation of food intake and energy expenditure.

This volume stems from a two-day international meeting on diet and obesity held in October, 1990 at the University of Tsukuba in Japan. This meeting, which was a satellite meeting of the VI International Congress on Obesity held in Kobe, Japan, had invited participants from Australia, Canada, Czechoslovakia, Denmark, Japan, the United Kingdom, and the United States.

We hope that the articles in this publication will be a useful update for those with an interest in diet and obesity, and that they will stimulate further discussion and research.

We extend our sincere appreciation to Dr. Y. Shimomura for his great assistance in the editing of this book and also to the University of Tsukuba faculty and students for hosting a most enjoyable meeting. It is also a pleasure to acknowledge the generous financial support for the meeting given by many of the Japanese food industry companies.

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Contents
Preface v

Fat Preference

Dietary Fat and Human Appetite; Effects of Non-absorbable Fat on Energy and Nutrient Intakes
J.E. Blundell, V.J. Burley, and J.C. Peters 3

The Role of Sensory Factors in Food Selection: Obesity and Weight Cycling
A. Drewnowski 15

Simplesse®: A Natural Fat Substitute
W.W. Stargel, H.H. Butchko, J.J. Hjelle, and C. Tschanz 25

Diet and Energy Metabolism

Interactions between Diet Composition and Adrenal Secretions in Energy Balance in ob/ob Mice
D.R. Romsos 39

Dietary Effect on Lipid Composition and Metabolism
G.L. Florant, S. Ameenuddin, and D.A. Rintoul 45

Hormonal and Metabolite Responses to Meals of Various Composition
J. LeBlanc 59

Thermogenic Action of Capsaicin and Its Analogs
T. Watanabe, T. Kawada, M. Kurosawa, A. Sato, and K. Iwai 67

Brown Adipose Tissue and White Adipose Tissue

Diet-induced Obesity and Brown Adipose Tissue
J. Himms-Hagen and J. Cui 81

The Significant Role of Brown Adipose Tissue in the Development of Obesity
T. Yoshida 97
Insulin Resistance and Defective Thermogenesis in Obesity
L.J. Bukowiecki, A. Marette, J. Kearney, F. Pérusse, and O. Tulp 107

Hormonal Regulation of Brown Adipocyte Glucose Transport in Genetic Obesity A. Marette.
P. Mauriège, L.J. Bukowiecki, and O.L. Tulp 119

Regulation of Preadipocyte Proliferation and a Growth Factor T. Kawada, N. Aoki, and E. Sugimoto 131

Carbohydrate and Fat

Eat More Rice(EMR): A Study to Increase Rice Consumption in Americans

Glucose and Insulin Responses to Carbohydrate Ingestion: Acute and Long-term Consequence K. O'Dea 147

Effects of High Sucrose Diet and Its Components on Glucose Tolerance and Serum Lipids
S. Inoue, S. Satoh, K. Tanaka, M. Egawa, H. Nagase, M. Naito, and Y. Takamura 159

Caloric Evaluation of Reduced-energy Bulking Sweeteners T. Oku 169

Effect of High-fat Diet Feeding over Generations on Body Fat Accumulation
K. Lim, Y. Shimomura, and M. Suzuki 181

Effect of Diety Polyunsaturated Fats on Body Fat Accumulation Y. Shimomura, T. Tamura, and M. Suzuki 191

Human Obesity
Adaptation to Positive and Negative Energy Balance in Humans: The Role of the Genotype C. Bouchard 201

Body Fat Distribution, Metabolic and Hormonal Indices in Obese Patients Treated Initially by Very Low Calorie Diet V. Hainer, V. Stich, M. Kunesová, J. Parízková, A. Zák, V. Wernischová, and V. Stukavec 215

Methods for Estimating Body Fat and Fat Free Mass B.L. Heitmann 227

Effect of Exercise

Dietary Fat Content, Exercise and Body Composition J.P. Flatt 239

X

Obesity, Regional Adipose Tissue Distribution, and Metabolism: Effect of Exercise J.-P. Després 251

Effect of Diet Composition, Physical Training and Physical Inactivity on Insulin Sensitivity and Insulin Responsiveness T. Fushiki, K. Inoue, T. Kano, and E. Sugimoto 261

Subject Index 269