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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