

1. Record Nr.	UNINA9910830022803321
Titolo	Science, society, and the supermarket [[electronic resource]] : the opportunities and challenges of nutrigenomics / / David Castle ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2007
ISBN	1-280-72142-1 9786610721429 0-470-05550-2 0-470-05549-9
Descrizione fisica	1 online resource (177 p.)
Altri autori (Persone)	CastleDavid <1967->
Disciplina	612.3
Soggetti	Nutrition - Genetic aspects Functional genomics Nutrient interactions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	SCIENCE, SOCIETY, AND THE SUPERMARKET; CONTENTS; Preface; Acknowledgments; 1 NUTRITIONAL GENOMICS: OPPORTUNITIES AND CHALLENGES; 1.1 Introduction; 1.2 What is Nutritional Genomics?; 1.3 Methodology and Approach of this Book; 1.4 Opportunities and Challenges for Nutrigenomics; 1.4.1 Improved health; 1.4.2 Personalized dietary advice; 1.4.3 Improved diet; 1.4.4 More development of health-enhancing food products; 1.4.5 Consumer empowerment; 1.4.6 Reducing health disparities; 1.4.7 Health care savings; 1.5 Challenges and a Road Map of This Book; References 2 THE SCIENCE OF NUTRIGENOMICS AND NUTRIGENETICS2.1 Introduction; 2.2 The Scientific Context; 2.2.1 Nutrigenomics; 2.2.2 Nutrigenetics; 2.3 The Case of MTHFR; 2.4 Room for Improvement; 2.4.1 Study design; 2.4.2 Epigenetics; 2.4.3 SNPs and haplotypes; 2.4.4 Dietary intake assessment; 2.4.5 Biomarkers; 2.4.6 Susceptibility and predictions; 2.4.7 Analytical and clinical validity; 2.4.8 Clinical utility; 2.5 Science and Technology Assessment; 2.6 Conclusion; References; 3 THE ETHICS OF NUTRIGENOMIC TESTS AND INFORMATION; 3.1

## Introduction; 3.2 Ethical Principles

3.3 Nutrigenomics Testing in the Clinical Setting3.3.1 Informed consent; 3.3.2 Confidentiality; 3.3.3 Secondary information; 3.3.4 Families; 3.3.5 Genetic testing of children and adolescents; 3.4 Use of Nutrigenomics Information for Research; 3.5 Use of Nutrigenomics Information by Private Third Parties; 3.5.1 Insurance; 3.5.2 Employment; 3.5.3 Legal and social responses to fears of discrimination; 3.6 Conclusion; References; 4 ALTERNATIVES FOR NUTRIGENOMIC SERVICE DELIVERY; 4.1 Introduction; 4.2 Considerations for Nutrigenomic Service Delivery; 4.2.1 Strength of the science 4.2.2 Regulatory environment4.2.3 Human resource capacity and professional competence; 4.2.4 Funding policy; 4.2.5 Professional politics and culture; 4.2.6 Consumers and patients; 4.3 Four Alternative Models; 4.3.1 Consumer model; 4.3.2 Health practitioner model; 4.3.3 Blended models; 4.3.4 Public health model; 4.4 Conclusion; References; 5 NUTRIGENOMICS AND THE REGULATION OF HEALTH CLAIMS FOR FOODS AND DRUGS; 5.1 Introduction; 5.1.1 Genetic tests, service delivery, and genetic antidiscrimination; 5.2 Food Categories: Functional Foods, Nutraceuticals, Medicinal Foods, and Dietary Supplements 5.2.1 Functional foods5.2.2 Nutraceuticals; 5.2.3 Medical or medicinal foods; 5.2.4 Dietary supplements; 5.3 Health-Related Claims Associated with Foods Compared to Drugs; 5.3.1 Structure-function claims; 5.3.2 Health claims; 5.3.3 Medical food claims; 5.3.4 Disease risk reduction claims; 5.4 Nutrigenomic Information and the Regulation of Foods Compared to Drugs; 5.4.1 The regulation of foods; 5.4.2 The regulation of drugs; 5.5 Food and Drug Regulations in Japan, the United States, and Canada; 5.5.1 Japan; 5.5.2 United States; 5.5.3 Canada; 5.6 Conclusion; References

## 6 NUTRIGENOMICS: JUSTICE, EQUITY, AND ACCESS

### Sommario/riassunto

The new science of nutrigenomics and its ethical and societal challengesGene-diet interactions--which underlie relatively benign lactose intolerance to life-threatening conditions such as cardiovascular disease--have long been known. But until now, scientists lacked the tools to fully understand the underlying mechanisms that cause these conditions. In recent years, however, strides in human genomics and the nutritional sciences have allowed for the advancement of a new science--dubbed nutrigenomics. Although this science may lead to personalized nutrition and dietary recommendatio