Exploring Complementary and Alternative Medicinal Products in Disease Therapy

Etetor Roland Eshiet
Sustainable Energy Environmental and Educational Development (SEEED), USA

A volume in the Advances in Medical Diagnosis, Treatment, and Care (AMDTC) Book Series

IGI Global
PUBLISHER of TIMELY KNOWLEDGE

Published in the United States of America by
IGI Global
Medical Information Science Reference (an imprint of IGI Global)
701 E. Chocolate Avenue
Hershey PA, USA 17033
Tel: 717-533-8845
Fax: 717-533-8661
E-mail: cust@igi-global.com
Web site: http://www.igi-global.com

Library of Congress Cataloging-in-Publication Data

Names: Eshiet, Etetor Roland, 1967- editor.
Title: Exploring complementary and alternative medicinal products in disease therapy / Etetor Roland Eshiet, editor.
Description: Hershey, PA : Medical Information Science Reference, [2023] | Includes bibliographical references and index. | Summary: “This book explores the use of complementary and alternative medicinal products in disease therapy”-- Provided by publisher.
Identifiers: LCCN 2020011229 (print) | LCCN 2020011230 (ebook) | ISBN 9781799841203 (hardcover) | ISBN 9781799841210 (ebook)
Subjects: MESH: Complementary Therapies
Classification: LCC R733 (print) | LCC R733 (ebook) | NLM WB 890 | DDC 615.5--dc23
LC record available at https://lccn.loc.gov/2020011229
LC ebook record available at https://lccn.loc.gov/2020011230

This book is published in the IGI Global book series Advances in Medical Diagnosis, Treatment, and Care (AMDTC) (ISSN: 2475-6628; eISSN: 2475-6636)

British Cataloguing in Publication Data
A Cataloguing in Publication record for this book is available from the British Library.

Chapter 8
Probiotics, Gut Microbiota, and Epigenomics: A Review of Pre-Clinical and Clinical Investigations

Mohd Iqbal Bhat
University of Kashmir, India

Shabina Rashid
Indira Gandhi National Open University, India

ABSTRACT

Probiotics therapy has emerged as a popular, potential alternative therapy utilized in combating disorders associated with mammalian gut and visceral organs. Ongoing research suggests that probiotics directly or indirectly modulate host epigenomic signatures that in turn affect the host functional outcome. Data obtained from experimental studies indicate that microbiota, diet, and pharmaceuticals affect host epigenetic machinery subsequently resulting in specific physiological responses. Thus, molecular designing of epigenetic-based therapeutic agents may provide a valid pathway to rectifying aberrant changes and managing disease risk and progression. Recent investigations show that probiotic intervention mitigates uncharacteristic epigenetic changes that are associated with many health complications. However, stakeholders need to recognize that probiotic research is an emerging field; therefore, this science must undergo extensive mechanistic investigation. This chapter highlights the potential probiotic mediated host epigenomic interventions in disease therapy and management.

DOI: 10.4018/978-1-7998-4120-3.ch008