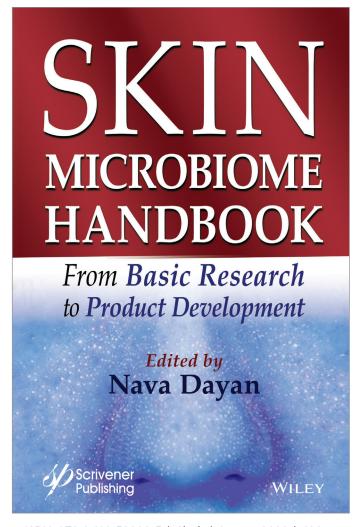
SKIN Microbiome Handbook From Basic Research to Product Development Edited by Nava Dayan

The book provides a comprehensive detailed summary of current status on skin microbiome research in health and disease as well as key regulatory and legal aspects.

In the past decade, interest and technology have greatly advanced to unravel the nature and effect of skin microbiome on our health. Diseases such as atopic dermatitis and acne are at the forefront of this research, but also other conditions such as skin cancer are under investigation. In addition, mapping of the skin microbiome has gone from basic to more detailed with attempts to correlate it to various ages, ethnicities and genders. In parallel to mapping it, a great deal of research is dedicated to understanding its functionality and communication (and hence effect) on human cells.

The *Skin Microbiome Handbook* is a summary of current status of knowledge, research tools and approaches in skin microbiome, in health and disease. It contains the following categories: healthy skin microbiome and oral-skin interaction; skin microbiome observational research; skin microbiome in disequilibrium and disease; skin's innate immunity; testing and study design; regulatory and legal aspects for skin microbiome related products. The 18 chapters of the book are written by carefully selected leaders in the academia and industry exhibiting extensive experience and understanding in the areas of interest.

The book will be of interest to a wide and diversified group of people including scientists specializing in microbiology, immunology, genomics, toxicology, pharmaceutics and pharmacology; physicians especially in dermatology; pharmacologists and pharmacists; professionals in the pharmaceutical and cosmetic industries; formulation chemists and regulators that shape policies in this area.



ISBN: 978-1-119-59223-5 | Cloth | August 2020 | 432pp \$225.00 / £171.00 / €205.00

SAVE 20%* with promo code SCRVN

Order your copy at wiley.com

*Promo code valid until 31st December 2020





Microbiome Handbook

From Basic Research to Product Development

SAVE 20%* with promo code

SCRVN

Order your copy at wiley.com

*Promo code valid until 31st December 2020

ABOUT THE EDITOR

Nava Dayan Ph.D. Pharm D. is a research scientist who has specialized in skin product development for nearly 3 decades. She is the owner of Dr. Nava Dayan L.L.C, a skin science and research consultancy serving the pharmaceutical, cosmetic, and personal care industries; dermal and transdermal. The uniqueness of Dr. Dayan's approach is in its comprehensiveness since she covers biology, physics, efficacy, toxicology, formulations product development, and bio-availability. With her many years of experience in the skin care sector, she has produced more than 150 publication credits in numerous industry-respected journals and in five books. Her research focus is on feasibility in skin care, nutricosmetics, composition of R&D plans covering efficacy and toxicology; planning, execution and data interpretation into claims, formulations, delivery for improved efficacy and attenuated toxicity, drug-skin interaction, bio-markers, skin related sensitivities, inflammatory skin disorders, innate immunity and skin microbiome. This is her fifth book and her 2nd with the Wiley-Scrivener imprint.

TABLE OF CONTENTS

Part 1: Healthy Skin Microbiome and Oral-Skin Interactions

The Microbiome of Healthy Skin Samantha Samaras and Michael Hoptroff

The Gut Microbiome-Skin Axis: Impact on Skin and Systemic Health David Drake

The Skin and Oral Microbiome: An Examination of Overlap and Potential Interactions between Microbiome Communities Sandra Buerger

Part 2: Skin Microbiome Observational Research

Skin Microbiome Alterations in Skin Diseases Travis Whitfill, Gilles R. Dubé and Julia Oh

The Axillary Microbiome and its Relationship with **Underarm Odor** Alexander Gordon lames

Infant Skin Microbiome Georgios N. Stamatas

Part 3: Skin Microbiome in Disequilibrium and Disease

Microbiome of Compromised Skin Sara Farahmand

Human Cutaneous Ectoparasites: A Brief Overview and Potential Therapeutic Role for Demodex Stephen L. Strobel

Dysbiosis of the Skin Microbiome in Atopic Dermatitis Joyce Cheng and Tissa Hata

The Skin Microbiome of Inverse Psoriasis Jennifer Chung, Bruce E. Strober and George M. Weinstock

Part 4: Skin's Innate Immunity

Effects of Endogenous Lipids on the Skin Microbiome Carol L. Fischer and Philip W. Wertz

Innate Immunity in Epidermis Miroslav Blumenberg

Part 5: Testing and Study Design

Next Generation Sequencing Reveals the Skin Microbiome Niamh B O'Hara

Three-Dimensional Human Skin Models to Investigate Skin Innate and Immune-Mediated Responses to Microorganisms

Marisa Meloni and Silvia Balzaretti

Cutibacterium acnes (formerly Propionibacterium acnes) In-Vivo Reduction Assay: A Pre-Clinical Pharmacodynamic Assay for Evaluating Antimicrobial/Antibiotic Agents in **Development for Acne Treatment** Stuart R. Lessin and James J. Leyden

Part 6: Regulatory and Legal Aspects for Skin **Microbiome Related Products**

Intellectual Property Tools for Protecting, Developing and Growing a Skin Microbiome Brand Jeffrey K. Mills

Regulatory Aspects of Probiotics and Other Microbial Products Intended for Skin Care: The European Approach Atte von Wright

Regulation of Probiotic and Other Live Biologic Products: The United States Approach Ronie M. Schmelz

A Future Research Perspective

Is There a Connection Between Sun Exposure, Microbiome and Skin Cancer? Nava Dayan



