

## Table of Contents

Preface.

Contributors.

Part 1. Current science, skin permeation and enhancement approaches.

Chapter 1. Skin structure, function and permeation (*Heather A. E. Benson*).

Chapter 2. Passive skin permeation enhancement (*Majella E. Lane, Paulo Santos, Adam C. Watkinson, Jonathan Hadgraft*).

Chapter 3. Electrical and physical methods of skin penetration enhancement (*Jeffrey F. Grice, Tarl Prow, Mark Kendall, Michael S. Roberts*).

Chapter 4. Clinical applications of transdermal iontophoresis (*D. R. Kalaria, S. Danby and Y. N. Kalia*).

Chapter 5. In vitro skin permeation methodology (*Barrie Finnin, Kenneth A. Walters and Thomas J. Franz*).

Chapter 6. Skin permeation assessment: tape stripping (*Sandra Wiedersberg and Sara Nicoli*).

Chapter 7. Skin permeation assessment: microdialysis (*R. Holmgaard, JB Nielsen and E. Benfeldt*).

Chapter 8. Skin permeation assessment: spectroscopic methods (*Jon Hadgraft, Majella Lane*).

Chapter 9. Skin permeation assessment in man: in vitro – in vivo correlation (*Paul A. Lehman, Sam G. Raney, Thomas J. Franz*).

Chapter 10. Risk assessment (*Jon R. Heylings*).

Part 2. Topical and Transdermal Product Development.

Chapter 11. An Overview of Product Development From Concept To Approval (*Adam C. Watkinson*).

Chapter 12. Regulatory Aspects of Drug Development for Dermal Products (*William K. Sietsema*).

Chapter 13. Toxicological and preclinical considerations for novel excipients and NCEs (*Andrew Makin, Jen Thing Mortensen*).

Chapter 14. Topical product formulation development (*Marc B. Brown, Robert Turner and Sian T. Lim*).

Chapter 15. Transdermal product formulation development (*Kenneth J. Miller*).

Chapter 16. Sensitivity and irritation testing (*Belum Viswanath Reddy, Geetanjali Sethi, Howard I. Maibach*).

Chapter 17. New Product Development for Transdermal Drug Delivery: Understanding the Market Opportunity (*Hugh Alsop*).

Chapter 18. Transdermal and topical drug delivery today (*Adam C. Watkinson*).

Chapter 19. Current and future trends: Skin diseases and treatment (*Simon G. Danby and Michael J. Cork*).