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Nota di contenuto	Chapter 1. Editorial: 3D Skin models for cosmetic safety/ toxicity studies: Bridging established methods and novel technologies -- Chapter 2. Artificial skin models for animal-free testing: 3D Skin reconstruct approach, a journey in past two decades -- Chapter 3. Fabrication of ready-to-use ex vivo human skin models for chemical testing: current status and challenges -- Chapter 4. Human skin reconstructs model systems in mechanistic research, safety and efficacy studies of cosmetics: Pros and cons -- Chapter 5. Skin-on-a-Chip Microfluidic Devices: Production, Verification and Uses in Cosmetic Toxicology -- Chapter 6. 3D Bioprinting of skin tissue model -- Chapter 7. Solar radiations and phototoxicity of cosmetics: Avenues of in vitro skin models -- Chapter 8. Cosmetic Ingredients: Various Efficacy-Based testing methods in the 3D Skin based Model Systems -- Chapter 9. Animal component-free medium for long term maintenance of human skin explants and its application in toxicity studies of cosmetics -- Chapter 10. Regulatory requirements for safety/efficacy assessment of cosmetics/nano cosmetics products: Challenges and opportunities -- Chapter 11. Integrated approaches to testing and

assessment (IATA) for cosmetic and personal health care products -- Chapter 12. Approach for in-silico validation of safety/ toxicity data for cosmetics -- Chapter 13. Role of omics approaches in the toxicity/ safety studies of cosmetics -- Chapter 14. Application of 3D skin models in safety/ toxicity of fragrances, flavors, hair dyes, preservatives and colorants -- Chapter 15. Toxicokinetic and toxicodynamic studies of cosmetics and personal health care products using 3D skin models: Progress made and path ahead.

Sommario/riassunto

Efforts are being made by research organizations and cosmetic industries worldwide to develop more precise and targeted 3D models that mimic humans for testing cosmetic and personal health care product ingredients, following a complete ban on animal testing. This book includes several subtopics dedicated to the progress made, challenges faced, roadblocks encountered, and future prospects in the development and validation of 3D models for testing these products. The book consist of an editorial and 14 themed chapters that will showcase the significant progress made so far, challenges encountered, and future prospects in the development of 3D reconstruct models.
