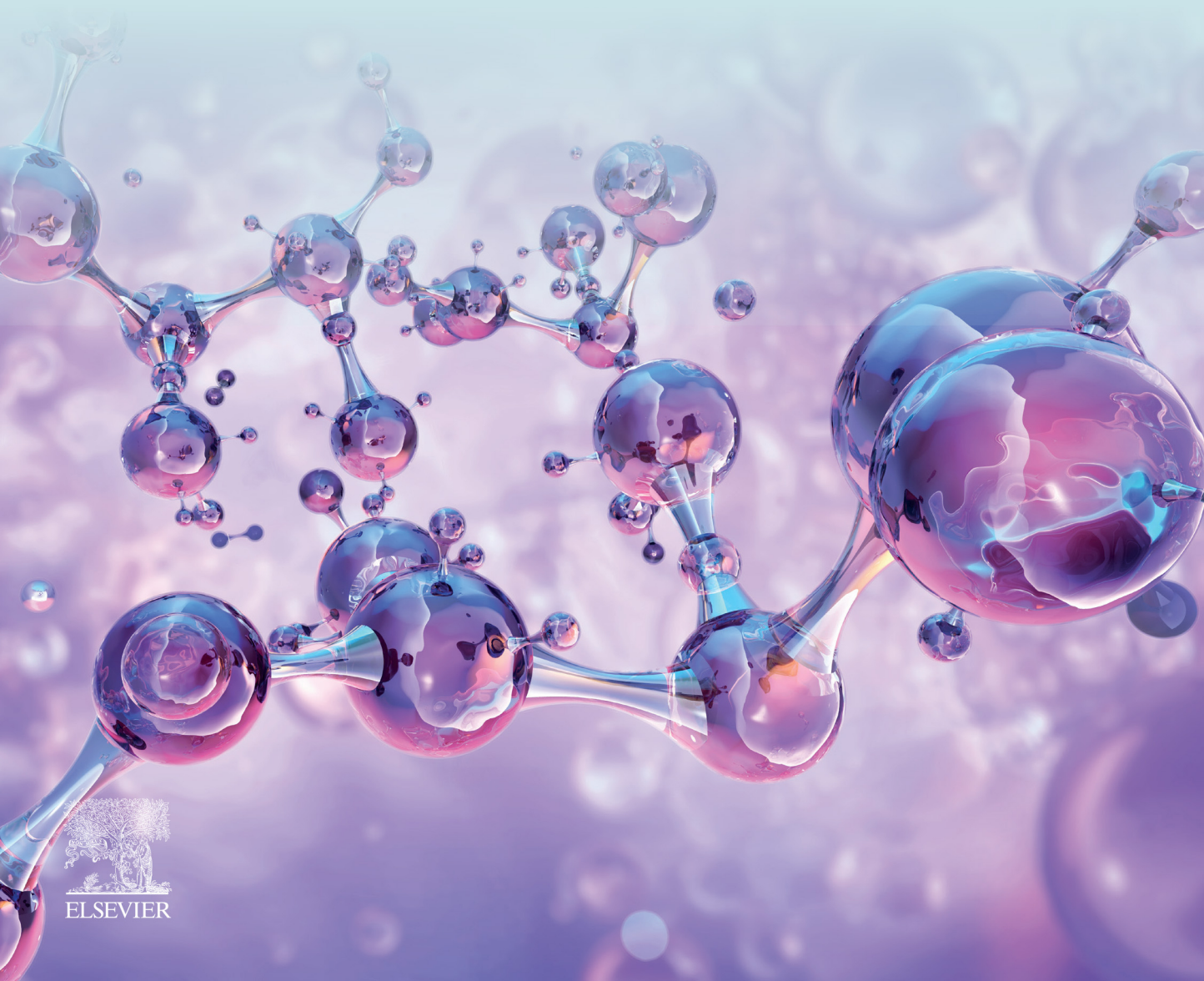


# Nanodermatology

## Advances in Theory and Practice

EDITED BY

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# NANODERMATOLOGY

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# Nanotechnology-based screening and diagnostic systems for dermatological conditions

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## 3.1 Introduction

Nano-science is the study of fundamental units of matter, whose sizes are measured in nanometers. As a result, materials can undergo fundamental units, that is, atomic and molecular processing to produce products with unique physical and chemical characteristics that distinguish them from regular items. We call this process nanotechnology. On the other hand, nano-biotechnology encompasses the creation of bio-molecular nano-scale tools and components for biological investigations at the molecular and cellular levels (Antonio et al., 2014). A relatively new area of engineering called nanotechnology deals with the use of tiny particles. Physicist Richard Feynman first put forth the idea of nanotechnology in 1959 during a presentation about working with materials at the molecular level. Presently thought to be the 21<sup>st</sup> century's most promising technology, medical investigators have looked into nanotechnology as a novel method. The increased public funding for research and development in nanotechnology over the last ten years suggests that nanotechnology will usher in a new age of prosperity and productivity (Haleem et al., 2023). By working with matter at the nano-scale and utilizing its distinct physical, chemical, biological, mechanical, and electrical properties,