

# Preface

Pharmaceutical technology is based on the use of different technologies for the preparation and development of pharmaceutical products. It is a branch of the pharmaceutical sciences constantly linked to the development and use of innovative technologies for the production and development of products with maximum effectiveness, adequate dosage, and stable formulations, aiming at different applications in living beings.

Nanotechnology is a recent, highly interdisciplinary and versatile branch of science that allows to develop products with interesting and novel structural characteristics totally different from those obtained by the compounds in their conventional form, a fact that attributes differentiated properties and specific interaction mechanisms, which adds technological value to the newly developed products. Thus, the use of nanotechnology in the pharmaceutical science promotes the design and development of products known as nanopharmaceuticals, which are composed of nanoscale properties with slow drug release systems, as stabilizers of formulations, pharmaceutical activities, or systems for detection and evaluation. The possibility of obtaining different mechanisms of response provided by the nanotechnologically developed products allows varied combinations enriching the range of products to be developed from this technology.

In this context, the book seeks to integrate the pharmaceutical sciences with nanotechnology as a way to obtain innovative products and solutions applied to the pharmacy. It provides the reader with a broad vision where nanotechnology is employed with different perspectives and applications. This approach focuses on the application of nanotechnology in pharmaceutical technology and also represents an interdisciplinary nature that can be used by people interested in expanding their knowledge in applied nanotechnology.

The present book is highly interdisciplinary and would be very useful for a diverse group of readers including pharmacologists, nanotechnologists, microbiologists, biotechnologists, clinicians, and those, who are interested in development of nanoproducts. The students should find this book useful and reader-friendly.

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