Book Review

Advancing Medicine Through Nanotechnology and Nanomechanics Applications

Reviewed by American Reference Books Annual, (ARBA)

Advancing Medicine Through Nanotechnology and Nanomechanics Applications Keka Talukdar, Mayank Bhushan, and Anil Malipatil
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Advancing Medicine through Nanotechnology and Nanomechanics Applications begins to explore the tremendous potential that nanotechnology and nanomechanics represents for medicine and healing. The book begins to explore nanotechnology out of the theoretical and into the practical, and discusses the impact this technology has made on the treatment of diseases, regenerative medicines, and drug delivery systems.

The book is an entry in IGI's Advances in Medical Technologies and Clinical Practices series, which brings together the newest advancements to provide up-to-date medical information to practitioners and researchers alike. Numbering 358 pages and broken down into 11 chapters, the essays in the book are authored by experts in the field and explore the latest developments.

The book starts with the simple premise "What is nanotechnology?" This is a useful contribution for those who may be unfamiliar with the idea of nanotechnology. The book dives further into the issues at hand by exploring chapters with seemingly complicated titles such as "Ion Channels, Nanomechanics, and Nanomedicine." While this chapter title is undoubtedly complicated, a deeper reading of the chapter establishes that the chapter, despite its complicated title, has a practical purpose. Ion channels, for example, are a naturally occurring pore that is found in all living organisms, and allow some ions through them and block others. In doing so, the ions block some helpful healing functions. However, researchers have discovered mechanisms to use nanotechnology to open these ions to advance and hasten healing.

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The book, like lots of books on similar subjects, is not easy reading. However, this is not a fatal flaw in the substance of the book: the book is not intended to be easy reading. The material contained in the book is complex by design, but so is the subject matter. The individuals who are likely to be receptive to this work, including researchers, students, and practitioners, are almost certainly familiar with the subject matter at hand. The book is by no means an elementary introduction to the subject matter, but will be a useful resource for medical professionals who are seeking to expand their knowledge of what will be a game changing technology. This book is recommended for academic and medical libraries.