



Therapeutic Applications of Nano Cardio-Nutraceuticals in Naturopathic Cardiovascular Care

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Preface

With great pleasure, we present this book entitled **“Therapeutic Applications of Nano-Cardio-Nutraceuticals in Naturopathic Cardiovascular Care”**, a timely and forward-looking contribution to the evolving landscape of integrative and preventive cardiology.

Cardiovascular diseases continue to be the main cause of global health problems and deaths which requires development of new medical treatments that prioritize patient safety and advanced treatment methods that go beyond standard drug treatment. The field of cardioprotection research has seen a recent surge in interest towards natural source nutraceuticals which provide antioxidant and anti-inflammatory effects while lowering lipid levels and improving endothelial function. Nanotechnology develops into a powerful biotechnology tool which improves nutraceutical products through better bioavailability and product stability and precise delivery and enhanced treatment results. The combination of these fields produces nano-cardio-nutraceuticals which create an interdisciplinary field that shows great potential for developing cardiovascular treatment solutions.

This book presents a complete scientific assessment of nano-based nutraceutical treatments which naturopathic medicine uses for complete cardiovascular treatment. The study investigates how cardiovascular disorders develop through mechanisms that involve oxidative stress and inflammation while examining the therapeutic potential of nano-formulated bioactive substances which include polyphenols and flavonoids and omega-3 fatty acids and coenzyme Q10 and phytosterols and vitamins and minerals and herbal extracts. Special emphasis is placed on nano-delivery systems, which include nanoparticles and liposomes and nanoemulsions and solid lipid nanoparticles and polymeric carriers, because these systems enhance treatment results through reduced side effects.

The book functions as a reference tool which researchers and clinicians and academicians and students and nutraceutical scientists and naturopathy practitioners and healthcare professionals can use to study cardiovascular research and integrative medicine. This research work will create new research opportunities between different scientific fields while it develops new treatment methods which combine natural elements with nanotechnology to enhance heart health.

The authors together with reviewers and collaborators have made essential contributions which enabled the creation of this book. We wish to see this book create positive effects which advance both naturopathic cardiovascular treatment and nano-nutraceutical research to deliver benefits for patients and entire society.

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