Nanotechnology-Based Next-Generation Therapeutics for Polycystic Ovary Syndrome (PCOS)

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DeepScience

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Preface

I am extremely proud and thankful to share this edited volume **"Nanotechnology NextGen: From Treatment to Transformation in Polycystic Ovary Syndrome (PCOS)"** PCOS, a complex disorder of endocrine and metabolism, is still considered by many as a challenge for the doctors and researchers to understand its physiology and then find effective treatment. However, this book opens up new avenues to PCOS and reproductive health through the insights of the nanomedicine, reproductive biology, pharmacology, and biotechnology disciplines. The vision behind this work is to highlight how nanocarrier-based systems-such as liposomes, polymeric nanoparticles, dendrimers, and hybrid nanosystems-can revolutionize the delivery of drugs, nutraceuticals, and hormones to achieve precision, enhanced bioavailability, and sustained therapeutic effects.

With all due respect, I'm heartily thanking my highly regarded associates, **Dr. Akashdeep Singh, Dr. Binita Ghosh, and Mr. Shivang Shukla** for their very important help, vision, and interchange of ideas which has turned this book into a thorough and useful source of knowledge for universities, researchers, and clinicians, respectively.

My sincerest thanks go out to the **Department of Pharmacy, Jagannath University, Jaipur, Rajasthan**, whose unwavering support, research promotion, and measures to push forward scientific innovation had my back through every step of the way. Their resolve to develop an environment with a questioning and excellence attitude in pharmaceutical sciences has been a great source of encouragement during this whole process.

In the end, I very much appreciate all the contributors who, through their scholarly activities, have made this volume possible. I would like to see this book not only as an authoritative reference on nanotechnology-based strategies for PCOS treatment but also as a stimulus for future research that might help close the gap between laboratory discoveries and actual therapeutic outcomes.

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