Nanomaterials
for Biomedical Application

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Edited by
Mohd Hayrie Mohd Hatta
Nik Ahmad Nizam Nik Malek

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Faculty of Science
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CONTRIBUTORS

Abdulrahman Sani Aliero *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Abilasha Chandran *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Aishah Badruzzaman *Centre for Foundation, Languages, and General Studies, Asia Metropolitan University*

Farah Hidayah Kamisan *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Fatin Hasinah Marzoki *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Helen Ho Hsin Yee *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Juan Matmin *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Khairunadwa Jemon *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Madhu Meetha Thiruchelvan *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Mohd Hayrie Mohd Hatta *Centre for Research and Development, Asia Metropolitan University, Johor Bahru*

Nazirah Amran *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Nik Ahmad Nizam Nik Malek *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Noor Alyanis Farhaida Mohd Zainon *Faculty of Business, Management, and Information Technology, Asia Metropolitan University, Johor Bahru*

Nur Shafeera Mohamad *Faculty of Business, Management, and Information Technology, Asia Metropolitan University, Johor Bahru*

Nur Syafiqa Syahida Sakrani *Faculty of Business, Management, and Information Technology, Asia Metropolitan University, Johor Bahru*

Nurhidayah Aripin *Faculty of Business, Management, and Information Technology, Asia Metropolitan University, Johor Bahru*

Nurliyana Ahmad Zawawi *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Nurul Syuhadah Muhammad Tamrin *Centre for Foundation, Languages and General Studies, Asia Metropolitan University*

Praseetha Prabhakaran *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Rukkumani Kumaran *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Sharel Raj *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Sharmala Devi Sivenyanam *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Siew Ling Lee *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Siti Hajar Mokri *Faculty of Business, Management, and Information Technology, Asia Metropolitan University, Johor Bahru*

Wan Fatin Amira Wan Mohd Zawawi *Faculty of Science, Universiti Teknologi Malaysia, Johor Bahru*

Wong Ker Thi *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

Wong Sru Thi *Faculty of Health Sciences, Asia Metropolitan University, Johor Bahru*

PREFACE

Nanomaterials for Biomedical Applications focusses on the use of various nanomaterials in the biomedical field. The prefix 'nano' is derived from Greek, indicating something very small or 'dwarf', and a nanomaterial refers to any material with a size below 100 nanometers. This book explores the diverse applications of nanomaterials in the biomedical field, particularly in the design and fabrication of nanomaterials for developing drugs that are beneficial for healthcare and public health. In today's biomedical sciences landscape, the pursuit of knowledge is not merely a noble endeavor it is a necessity. Hence, this book aims to understand the research and innovation of nanomaterials in addressing critical challenges and regulatory issues in public health today, as well as to anticipate the future impact of nanomaterials on healthcare.

Therefore, this book will cover both scientific and regulatory matters in the development of nanomaterials for biomedical applications. The topics include the emerging applications of nanomaterials in healthcare, such as applications for antibacterial/microbial, cancer treatment, immunetherapy, toxicological landscape, and molecular mechanistic pathways on how cancerous cells can be destroyed. This book also provides an insight into the regulatory issues surrounding the development of nanomaterials and their grand challenges as well as future prospects are also discussed. Finally, we appreciate all the authors who have contributed to the book *Nanomaterials for Biomedical Applications.*

Mohd Hayrie Mohd Hatta
Asia Metropolitan University

Nik Ahmad Nizam Nik Malek
Universiti Teknologi Malaysia
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