### **Edited Book**

# Advanced Clinical Pharmacy & Toxicology

#### **Editor**

#### Dr. D. Nagasamy Venkatesh

Associate Professor at Department of Pharmaceutics, JSS College of Pharmacy, Udhagamandalam. India

## **Publisher**



## **Edited Book: Advanced Clinical Pharmacy & Toxicology**

Publication Year: February, 2025

MRP: INR 550 & 90 US\$

© Prime Publication

ISBN: 978-81-978950-1-2

Copyright © Authors and Publisher

### About it

Advanced Clinical Pharmacy & Toxicology is a specialized branch of pharmacy that focuses on the direct application of pharmacological knowledge to patient care. It involves optimizing medication therapy, ensuring drug safety, and improving health outcomes through evidence-based practices.

Clinical pharmacy is essential in hospitals, clinics, and community settings, where pharmacists play an active role in patient care teams. Their responsibilities go beyond dispensing medications to include diagnostic evaluation, therapeutic planning, and patient education.

Pharmacy and Toxicology are closely related disciplines that focus on drug development, therapeutic use, and the study of harmful effects of chemicals and medications on the human body. While pharmacy emphasizes the safe and effective use of medications, toxicology deals with the detection, prevention, and treatment of poisoning or toxic exposures. Advanced Clinical Pharmacy is an evolving field that integrates pharmacology, patient care, and healthcare technology to improve medical treatments and optimize medication use. It plays a critical role in modern healthcare by ensuring safe, effective, and personalized therapy for patients.

# **J**ndex

Chapter	Title & Authors	Page No.
1	From Insight to Innovation: The Future of	1-8
	Health and Medicine	
	(¹Priya Sharma, ²Archana Kumari, ³Shivali, ⁴Versha	
	Sharma)	
2	Begonia, an exotical genus from Indonesia with	9-21
	potential therapeutic value: A review	
	(¹Saipul Maulana, ²Muhammad Sulaiman Zubair)	
3	Dissolution Enhancement of Atazanavir	22-30
	Employing Hydrotropic Solubilization	
	Technique	
	(Vivekanandan Elango¹, Balagee Muthukumar²,	
	Dhandapani Nagasamy Venkatesh <sup>1*</sup> , Sarvesh R <sup>2</sup> , Sukeshan	
4	M.P <sup>2</sup> , S.D.Shanmugakumar <sup>3</sup>	21 /1
4	Formulation and Characterisation of Sustained	31-41
	Release Microbeads Loaded With Zaltoprofen	
	(Dhandapani Nagasamy Venkatesh <sup>1</sup> , Balagee Muthukumar <sup>2</sup> , S.D.Shanmugakumar <sup>3</sup> )	
5	Future Prospects of Therapeutic Genetic	42-47
3	Vaccines	44-47
	(Ch. Supriya <sup>1</sup> , A. Suneetha <sup>2</sup> , Iswarya Obilineni <sup>3</sup> , Ch.	
	Nagabhushanam <sup>4</sup> , AVS Ravi Sainath <sup>5</sup> , G. Hema Sree <sup>6</sup> )	
6	Epidemiology of Non-Fermenting Gram	48-54
	Negative Bacilli Isolated from Blood and Their	
	in vitro Sensitivity Pattern in A Tertiary Care	
	Hospital	
	(Maumita Deb¹*, Asha Rani S², Chandini MR³)	
7	Serum Galactomannan Assay Positivity for	55-63
	Invasive Pulmonary Aspergillosis among	
	Chronic Obstructive Pulmonary Disease	
	Patients in a tertiary care hospital	
	(Chandini M R, Maumita Deb)	
8	Exploring the Multifaceted Potential of Carissa	64-72
	carandas: Applications in Food,	
	Pharmaceuticals, and Industry	
	(Sudha.D¹*, Gokulakrishnan.A²)	
9	Genetic Hallmarks, Autophagy, and	73-89
	Pathological Spread in Neurodegenerative	
	Diseases: Insights from Human and Fly Models-	

	A Review	
	(*Uma Sundaresan¹, Kavitha Manivannan¹, Gurumoorthi	
	P², Sudha Durairaj³)	
10	Traditional and Synthetic Nootropics for	90-105
	Management of Alzheimers Disease	
	(Katti Suvarna¹, Shirore Sayali², Shinde Om³, Shete	
	Harshali <sup>4</sup> , Shelar Rushabh <sup>5</sup> )	
11	Formulation and Characterisation of Sustained	106-118
	Release Microbeads of Ritonavir: In Vitro and In	
	Vivo Evaluation	
	(Dhandapani Nagasamy Venkatesh <sup>1*</sup> , Sarvesh R <sup>2</sup> , Sukeshan	
	M.P², S.D.Shanmugakumar³)	
12	Design and Evaluation of Sustained Release	119-128
	Tablets of Ramipril: Influence of Natural	
	Polymer on Invitro and Invivo Behavior	
	(Dhandapani Nagasamy Venkatesh¹*, Vijayaraghavan K¹,	
	Sarvesh R², S.D. Shanmugakumar³)	
13	Aquasomes: A Self-Assembled Nano-Particulate	129-143
	Carrier for Delivery of Proteins and Recent	
	Trends	
	(Vivekanandan Elango¹, Dhandapani Nagasamy	
	Venkatesh¹*, N. Sai Sowndarya², S.D.Shanmugakumar³)	
14	Enhancing Clinical Pharmacy with AI and	144-150
	Toxicology Advances	
	(Sowjanya Kondru)	