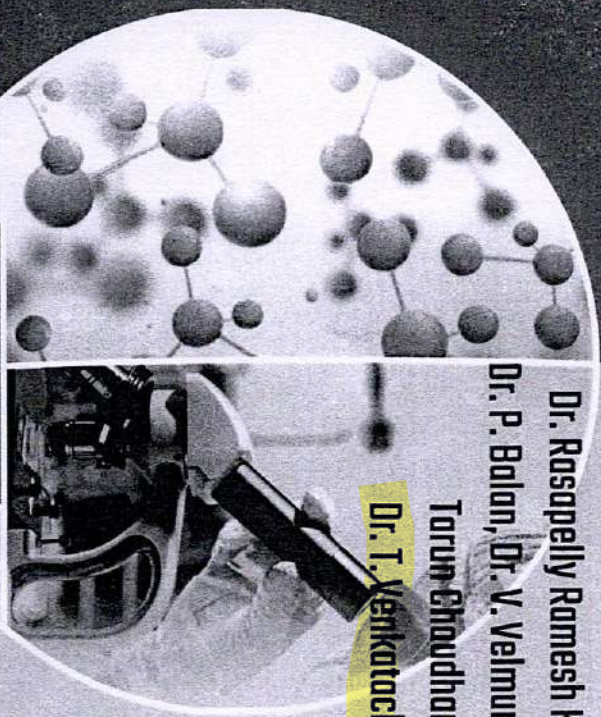




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NAMAKKAL DISTRICT, TAMILNADU.

**DR. N. SENTHILKUMAR,**  
PRINCIPAL,

# Advanced Medicinal Chemistry



Dr. Rasapelly Ramesh Kumar  
Dr. P. Balan, Dr. V. Velmurugan,  
Tarun Choudhary and  
Dr. T. Venkateshchalam



**Advanced**  
**Medicinal**  
**Chemistry**

Authors

Dr. Rasapelly Ramesh Kumar

Dr. P. Balan

Dr. V. Velmurugan

Tarun Chaudhary

Dr. T. Venkatachalam



**DR. N. SENTHILKUMAR,**  
**PRINCIPAL,**  
**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
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Published By: Integrated Publications™

Integrated Publications

H. No. - 3 Pocket - H34, Sector - 3,

Rohini, Delhi-110085, India

Email – [info@integratedpublications.in](mailto:info@integratedpublications.in)

**Authors:** Dr. Rasapelly Ramesh Kumar, Dr. P. Balan, Dr. V. Velmurugan,  
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**Publication Year:** 2023

**Edition:** 1<sup>st</sup>

**Pages:** 148

**ISBN:** 978-93-95118-60-6

**Book DOI:** <https://doi.org/10.22271/inn.book.250>

**Price:** ₹ 768/-

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**Dr. N. SENTHIL KUMAR,**

**PRINCIPAL,**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
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**ETHIRMEDU, KOMARAPALAYAM - 638 183,**  
**NAMAKKAL DISTRICT, TAMILNADU.**

**DR. N. SENTHIL KUMAR,**  
**PRINCIPAL,**



## Summary

Chapter 1: The first chapter introduces drug discovery and discusses stages of drug discovery, identification and validation of drug targets. Receptors as biological drug targets are discussed, along with their types, activation and inhibition mechanisms. Various drug-receptor interactions, and theories regarding such interactions are also covered in this chapter. A brief discussion about artificial enzymes is also included.

Chapter 2: There are three parts to this chapter. Prodrug design, its concept and applications for improving various drug characteristics were the focus of the first section. Drug resistance in antibiotic and anticancer therapies, and strategies to combat them, were covered in the next section. The final section included a concise description of analog design and bioisosterism.

Chapter 3: Medicinal chemistry, SAR, and mechanisms of various therapeutic drug classes were covered under this chapter. Role of stereochemistry, chirality, enantioselectivity in pharmacological field were discussed.

Chapter 4: This chapter discussed concept of enzyme inhibition and its application in drug research.

Chapter 5: The final chapter provided an overview of peptidomimetics, including its therapeutic importance and application in aminoacids. A brief outline of global and local conformational constraints was provided. Lastly, chemistry of prostaglandins, leukotrienes and thromboxanes was discussed briefly.

  
**DR. N. SENTHIL KUMAR,**  
**PRINCIPAL,**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION**  
**ANNAL JKK SAMPORANI ANNAL COLLEGE OF PHARMACY,**  
**ETHIRMEDU, KOMARAPALAYAM - 638 183,**  
**NAMAKKAL DISTRICT, TAMILNADU.**





## About the Authors



**Dr. Rasapelly Ramesh Kumar** working as Associate Professor in the department of Pharmaceutical Chemistry at Mari Laxman Reddy Institute of Pharmacy, Dundigal. He has 14 Years of teaching experience. He completed his M Pharm & Ph. D from Annamalai University Chidambaram Tamilnadu. He has published a number of research and review papers in peer reviewed national and international reputed journal and two patents.



**Dr. P Balan** is working as a Professor & Head in Department of Pharmaceutical Chemistry, The Erode College of Pharmacy, Erode, Tamilnadu. He has life time membership in various professional bodies like IPGA and APTI. To his research fronts, he published 25 research articles in various International/National peer reviewed journals and 2 patents.



**Dr. V. Velmurugan** is working as Associate Professor in the Department of Pharmaceutical Chemistry, SRM College of Pharmacy, SRM Institute of Science and Technology, Kattankulathur. He has 20 years of teaching experience in various Pharmaceutical Chemistry subjects. He has Published Three Indian Patents. He has published more than 30 research papers in National and International Journals to his credit.



**Tarun Chaudhary** currently working as lecturer in Dehat vikas college of pharmacy Tiganon Faridabad (under Dehat vikas Educational society). He has 13 year of experience in teaching as lecturer. He is pursuing his Ph. D in pharmaceutical science from Institute of Pharmaceutical Research GLA university Mathura. He is a life member of various professional bodies like APTI.



**Dr. T Venkatchalam** as a professor and head, department of pharmaceutical chemistry, JKKM/R's-Annai JKK Sampoorani college of pharmacy, Komarapalayam, Namakkal DT, Tamil Nadu. He has 15 years of teaching and academic research experience. He has published 65 research articles in various National & International journals, 5 patent & 5 Books Published. He has editorial board members & reviewer of more than 20 national & International journals.

**Dr. N. SENTHILKUMAR,**  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAL JKK SAMPOORANI ANIMAL COLLEGE OF PHARMACY  
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Published by  
Integrated Publications,  
H. No. 3, Pocket - H34, Sector - 3  
Rohini, Delhi - 110085, India  
Toll Free (India): 18001234070

ISSN 07263931116606



07263931116606  
3 769 17CC 16



 ISBN Allotted  
**1958712**

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#	Book Title	ISBN	Product Form	Language	Applicant Type	Name of Publishing Agency/Publisher	Name of Author/Editor	Publication Date
1	Advanced Medicinal Chemistry	978-93-95118-60-6	Paperback / softback	English	Publisher	Integrated Publications	Author : Dr. Rasopelly Ramesh Kumar, Dr. P. Balan, Dr. V. Velmurugan, Tarun Chaudhary and Dr. I. Venkatachalam	05/04/2023

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 NAMAKKAL DISTRICT, TAMILNADU.