

The Minds That Shaped Tomorrow: Chronicles of Eminent Scientists

First Edition

Editors

**Mashhoor K
Shilly Das A
Somy Soman
Rameesa K**

**Thanuj International Publishers,
Tamil Nadu, India**

First published in India in 2024

This edition published by Thanuj International Publishers

©2024. Thanuj International Publishers. All rights reserved.

Apart from any use permitted under Indian copyright law, this publication may only be reproduced, stored or transmitted, in any form, or by any means with prior permission in writing of the publishers or in the case of reprographic production in accordance with the terms of licenses issued by the Copyright Licensing Agency.

Copy Right policy is to use papers that are natural, renewable and recyclable products and made from wood grown in sustainable forests. The logging and manufacturing processes are expected to conform to the environmental regulations of the country of origin. Whilst the advice and information in this book are believed to be true and accurate at the date of going to press, neither the Editors and the publisher can accept any legal responsibility or liability for any errors or omissions that may be made. In particular, (but without limiting the generality of the preceding disclaimer) every effort has been made to check quantity of chemicals; however it is still possible that errors have been missed.

ISBN: 978-93-94638-50-1

Price: Rs: 800.00

Published by:

Thanuj International Publishers,
8/173-B, Vengayapalayam, Kakkaveri, Rasipuram,
Namakkal, Tamil Nadu,
India – 637406.
<https://darshanpublishers.com/thanuj.html>
E-mail: thanujinternationalpublishers@gmail.com



Printed by:

Dhazh Computers (Graphic Designer)
No: 442- A, 10th East Cross Street,
Munthirithoppu, Annanagar,
Madurai – 20, Tamil Nadu, India.
E-mail: narennarayanamy@gmail.com

FORWARD

Welcome to "The Minds That Shaped Tomorrow," a captivating exploration into the lives and contributions of some of the most remarkable scientists in history. This book is a testament to the passion, curiosity, and dedication of the first-year BSc Biotechnology students (2023-24) at EMEA College of Arts and Science in Kondotty.

In the dynamic field of biotechnology, understanding the journey of those who paved the way is crucial. The students, under the guidance of our esteemed faculty members, have delved into the lives of eminent scientists whose groundbreaking work has left an indelible mark on science and society. Each chapter unfolds a unique story, offering a glimpse into the challenges, triumphs, and the unyielding spirit that defines these luminaries.

As you turn the pages of this anthology, you will encounter the brilliance of minds like never before. From pioneers who revolutionized genetic engineering to those who deciphered the secrets of the microscopic world, our students have meticulously researched and crafted these narratives to inspire, educate, and ignite a passion for scientific inquiry.

The collaborative effort between students and faculty reflects the ethos of EMEA College, fostering a learning environment that encourages curiosity and academic excellence. Through this book, we hope to instill a sense of appreciation for the diverse paths these scientists have taken, demonstrating that innovation knows no bounds.

"The Minds That Shaped Tomorrow" is not just a compilation of biographical sketches; it is a celebration of human ingenuity, resilience, and the pursuit of knowledge. We invite you to embark on this intellectual journey with us, as we pay homage to the scientific visionaries who have shaped the world we live in today.

May this anthology serve as a source of inspiration for future generations of scientists, encouraging them to dream big, question boldly, and contribute to the ever-evolving landscape of biotechnology.

Dr. Mashhoor K

Head, Department of Biotechnology
EMEA College of Arts and Science,
Kondotty

CONTENTS

S.No.	Chapter Name	Page No.
1	Alfred D. Hershey: Pioneering Discoveries in Molecular Biology Muhammed Adhil K, Shilly Das A and Mashhoor K	1
2	J. Michael Bishop: A Pioneer in Cancer Research and Immunology Muhammed Ansal K, Somy Soman and Mashhoor K	5
3	Stanley Norman Cohen: A Pioneer in Molecular Biology and Genetic Engineering Asna P, Rameesa K and Mashhoor K	9
4	Sir Richard John Roberts: A Pioneer in Molecular Biology Athulya K, Shilly Das A and Mashhoor K	13
5	Paul Berg: Pioneering DNA Recombination and Shaping Molecular Biology Dilruba N K, Somy Soman and Mashhoor K	18
6	Emmanuelle Marie Charpentier: A Trailblazing Pioneer in Molecular Biology Fathima Dilsha AK, Rameesa K and Mashhoor K	22
7	Jennifer Anne Doudna: Pioneering the CRISPR Revolution Fasna M, Shilly Das A and Mashhoor K	26
8	Alfred Goodman Gilman: A Pinnacle of Scientific Achievement Fathima Fidha K, Somy Soman and Mashhoor K	29
9	Barbara McClintock: Pioneering Geneticist and Nobel Laureate Fathima Hiba, Rameesa K and Mashhoor K	33
10	Craig Venter: Pioneering the Genomic Frontier Fidha Farhan K, Shilly Das A and Mashhoor K	37
11	Rudolf Jaenisch: Pioneering Advances in Epigenetics and Stem Cell Research Muhammed Hadi NE, Somy Soman and Mashhoor K	41
12	Ian Wilmut: Pioneering Cloning and Advancing Biomedical Science Haneena K, Rameesa K and Mashhoor K	45
13	Kary Banks Mullis: A Pioneer in Molecular Biology Haneena M, Shilly Das A and Mashhoor K	48
14	Har Gobind Khorana: A Pioneer in the World of Genetics Fathima Hanoona K, Somy Soman and Mashhoor K	52
15	Michael Stuart Brown: A Pioneer in Cholesterol Metabolism Hida Salah KC, Rameesa K and Mashhoor K	55

16	Edward Jenner: A Pioneer in Immunology and the Father of Vaccination	59
	Jisla MV, Shilly Das A and Mashhoor K	
17	Louis Pasteur: A Pioneer in Science and Medicine	63
	Mahsooma R.V, Somy Soman and Mashhoor K	
18	Antonie van Leeuwenhoek: The Father of Microbiology	67
	Muhammed Nabhan, Shilly Das A and Mashhoor K	
19	Edward B. Lewis: A Trailblazer in Genetics	71
	Nafiya Nasrin MN, Shilly Das A and Mashhoor K	
20	Károly Ereky: The Father of Biotechnology	75
	Nehla N, Shilly Das A and Mashhoor K	
21	Stanley Cohen: Pioneering Biochemist	78
	Nima C, Somy Soman and Mashhoor K	
22	Bruce Alan Beutler: A Pioneer in Immunology and Medicine	81
	Mohammed Rashid K, Somy Soman and Mashhoor K	
23	Stanley Ben Prusiner: Pioneering the Study of Prions and Unraveling the Mysteries of Neurodegenerative Diseases	85
	Rifa Jumaila M, Rameesa K and Mashhoor K	
24	James D. Watson: A Pioneer in Molecular Biology	89
	Riha Fathima K, Rimshifa T P, Somy Soman and Mashhoor K	
25	Francesco Redi: A Pioneer in Scientific Inquiry	93
	Sadath Safwan N, Rameesa K and Mashhoor K	
26	Robert F. Furchgott: A Trailblazer in Cardiovascular Research	97
	Sahna PM, Somy Soman and Mashhoor K	
27	Francis Harry Compton Crick: Unraveling the Secrets of Life	100
	Shahina Jasmin T P, Shilly Das A and Mashhoor K	
28	James Whyte Black OM: A Pioneer in Pharmacology and Nobel Laureate	104
	Shahina Jasmin T P, Rameesa K and Mashhoor K	
29	Robert Geoffrey Edwards: Pioneering the Path to In Vitro Fertilization	108
	Sherin Firana, Rameesa K and Mashhoor K	
30	Alexander Fleming: The Revolutionary Scientist	112
	Shifna K, Rameesa K and Mashhoor K	
31	Joseph E. Murray: A Pioneer in Transplantation Medicine	116
	Muhammed Shiyam T T, Somy Soman and Mashhoor K	
32	James P. Allison: A Trailblazer in Immunotherapy	120
	Muhammed Sinan A, Somy Soman and Mashhoor K	
33	Neils K. Jerne: A Journey Through Education, Scientific Contributions, Awards and Legacy, and Personal Life	124
	Ahmad Swabeeh K, Rameesa K and Mashhoor K	

The Minds That Shaped Tomorrow: Chronicles of Eminent Scientists

Publishers:

Thanuj International Publishers
8/173-B, Bengayapalayam, Rasipuram,
Namakkal, Tamil Nadu, India - 637 406.
E-mail: thanujinternationalpublishers@gmail.com

Printers:

Dhazh Computers
No: 442-A 10th East Cross Street,
Munthirithoppu, Annanagar,
Madurai-20, Tamil Nadu, India
Email: narennarayanasingh@gmail.com



9 789394 638501


Copyright © Thanuj International Publishers, 2023

The Minds That Shaped Tomorrow: Chronicles of Eminent Scientists

The Minds That Shaped Tomorrow: Chronicles of Eminent Scientists

Editors

Mashhoor K
Shilly Das A
Somy Soman
Rameesa K

 Thanuj International
Publishers

GENETIC STRUCTURE OF INSECT PADDY PESTS OF KERALA



Publishers:

Thanuj International Publishers
8/173-B, Bengayapalayam, Rasipuram,
Namakkal, Tamil Nadu, India - 637 406.
E-mail: thanujinternationalpublishers@gmail.com

Printers:

Dhazh Computers
No: 442-A 10th East Cross Street,
Munthirithoppu, Annanagar,
Madurai-20, Tamil Nadu, India
Email: narennarayanassamy@gmail.com

Copyright@Thanuj International Publishers, 2023



GENETIC STRUCTURE OF INSECT PADDY PESTS OF KERALA

GENETIC STRUCTURE OF INSECT PADDY PESTS OF KERALA



GGGGCTATTAACCTTTATTACAACCTATTATTAAT
410 420 430 440



Thanuj International
Publishers

Editor: **Mashoor K**

The Trajectory of Transformations:

**Voices of Women in the 21st Century
Indian English Literature**

**Editors
Roy P P
Dr. Afsal P C**

THE TRAJECTORY OF TRANSFORMATIONS:

Voices of Women in the 21st Century Indian English Literature

Roy PP

Dr. Afsal PC



HSRA
PUBLICATIONS

Published by

HSRA Publications 2024
#02, Sri Annapoorneshwari Nilaya, 1st Main,
Byraveshwara Nagar, Laggere,
Bangalore – 560058
Ph- 7892793054

Sales Headquarters – Bangalore

Copyright © Author 2024

This book has been published with all reasonable efforts taken to make the material error-free after the consent of the author. No part of this book shall be used, reproduced in any manner whatsoever without written permission from the editors, except in the case of brief quotations embodied in critical articles and reviews. The Author of the respective chapters of this book is solely responsible and liable for its content.

No part of this publication may be reproduced, transmitted or stored in any form of digital or Electronic form. Also photocopying, recording or otherwise without the prior permission of the author and publisher is strictly restricted.

All rights reserved.

First Edition 2024 January



ISBN : 978-93-5506-826-2

No. of Pages : 124

CONTENTS

1. Unveiling Historical Threads: Jaishree Misra's Portrayal of 1857 Revolt in Fiction ... 1
Abidha K P
2. Kaur's Canvas: Reimagining Female Sexuality and Body Image in Contemporary Poetry..... 12
Shahna P M
3. Domestic Work, Quandaries and Self Discovery: A Literary Exploration of Baby Halder's Life Narrative..... 23
Sajeera Cholakkal
4. Echoes of Estrangement: Exploring Alienation in the Literary Works of Arun Joshi 30
Abdul Rasheed P
5. Exploring the Feminine Unconventional: A Study of Identity and Rebellion in Women Who Misbehave 42
Abdul Jaleel M
6. True Crime and the Century: Experiments With the Genre in Indian Fiction 48
Afsal M & Mubashir K
7. Ruinous and Unlit Dimensions of Corpse Bearers of the Parsi Community in Mistry's Chronicle of a Corpse Bearer 52
Faseela PA
8. Viewing Arranged Marriage as a Cultural Restriction: A Study on Chitra Banerjee Divakaruni's Short Stories "Clothes" and "The Bats" 59
Hajara P
9. Sharmila Ray's Ecopoetry: A Critical Analysis of Environmental Concerns in Indian Literature 67
Liya K
10. Social Realism, Self-Identity and Resistance: A Study of Narendra Jadhav's Outcaste: A Memoir 75
Lubna K T

11. From Page to Power: Nikita Gill's Role in Shaping the Feminist Perspectives in Contemporary Literature 83
Nihaala Alikkal
12. Exploring the Other Side of India: A Study of Aravind Adiga's Select Novels 95
Roy PP & Dr Afsal PC
13. Disabled Women Characters in Indian English Literature: Representations by Female Writers..... 105
N K Zaheera Banu
14. Flames of Resistance: Reimagining Identity and Oppression: A Postcolonial Reading of Megha Majumdar's A Burning 112
Ameena Shahanas K

6. True Crime and the Century: Experiments With the Genre in Indian Fiction

Afsal M & Mubashir K

Assistant Professors, Department of English
EMEA College of Arts and Science, Kondotty

Abstract:

This paper attempts to look at the new experiments with crime genre in Indian writings in English particularly with a reference to the recent work on true crime: The Deadly Dozen: India's Most Notorious Serial Killers (2019) by Anirban Bhattacharyya. It will examine the portrayal of crime and criminals in this narrative, as well as the book's fictional approach to discussing real crimes.

Keywords; *The Deadly Dozen: India's Most Notorious Serial Killers, Anirban Bhattacharyya, crime genre.*

The stories of crime have been a curious matter of consideration not only in fiction but also in real life. The proliferation of crime novels across time stands as a phenomenon with the following possible reasons: politics and psychology. From a political perspective, a crime novel acts as a ideological state apparatus to support and justify the actions of the state. It shows the sovereignty of the state, the dominance of its system of law and order and the primary function of the state in preventing its citizen from all kinds of encroachments into his privacy and security. The psychology, on the other hand, deals with the making of the genre to satisfy the prejudices and expectations of the audience. That is to say, reading crime should generate emotions like fear, tension, curiosity and the final joy of finding the perpetrator.

The crime genre in India is not at its nascent stage, rather it begins almost in parallel with the introduction of proper crime genre in the Western literary

tradition. There were regional writers in the past from Bengali, Malayali and Urdu writers who wrote both fictions and non-fictions with a sense of the Western models in mind. But the limitation of the Indian explorations in crime genre is its inability to grow beyond the style of Arthur Conan Doyle. The writers often conform to the models put forth by Doyle in setting the plot and characterization which is a reiteration of the stereotype.

Since the beginning of the 21st century, this genre in Indian writing has been undergoing various experiments by incorporating several Indian elements of storytelling. One of the sub-genres of crime that is popular in Indian cultural realm is the true crime stories which appear in the form of books (non-fiction), newspaper articles, memoirs of police officers, documentaries, TV series, interviews, lectures, presentations and so on. The text that is taken for analysis is *The Deadly Dozen: India's Most Notorious Serial Killers* by Anirban Bhattacharyya, who is the co-creator, producer and writer of *Savdhaan India*, one of the most popular crime shows in India. The book is published by Penguin Random House in 2019.

The Deadly Dozen: India's Most Notorious Serial Killers delineates the expeditions of twelve notorious serial killers in India who belong to different genders, age groups and class denominations. It also elaborates the stories of detection by the investigators. Unlike the language of journalism or legal writings, the author purposefully uses a narrative of fiction in order to create the tension and curiosity among the readers. The epigraph of the novel warns the reader “be scared, be very scared”, and dramatically proceed with the art of storytelling to inculcate terror and fear. The opening lines of the first story exemplifies such an effect of fiction:

‘Niruttu! The cops at the roadblock signalled the three-wheeler to stop. It was 2 a.m. The streets of Madras (now Chennai) had long emptied out. The only life visible was the dogs, the homeless and the cops.

The passenger in the three-wheeler was on edge. There were three jute sacks at his feet. They were too large to hide and it was too late

to dispose them of. The enemy was at the gates, at this roadblock.
(1)

The abrupt beginning resonates the beginning of a novel or a story that allures the reader to experience and empathize with the emotions of the characters. This is how he brings narrative into a serious discussion of a criminal's real-life story. The implementation of the narrative in the description results in what Marie-Laure Ryan says about the function of a narrative that because of narrative "we read the text as a story, or rather we read the story told by the text, whether or not we are aware of what we are doing" (33).

In addition, the representation of time and space in the narrative produce interesting effects. The temporal and spatial information create an order, duration and a background that allow the reader's imagination to position himself in the narrative world. The second story of Cyanide Mallika begins similarly:

Hoskote is a small taluk and one of the thirty districts in Bangalore Rural. Home to more than twenty prominent temples, Hoskote is a well-known pilgrimage site. One of these is the Jalageramma temple.

On 19 October 1999, thirty-year-old Mamata Rajan removed her sandals at the entrance of the Jalageramma temple. (39)

Such a portrayal of time and space enables the reader to imagine and immerse oneself in other people's places, and in other locations in the story world. Through the narrative, the book influences the perceptions of people about the world by the way of forcing them to empathize with time, space and characters.

Along with this, Bhattacharyya brings quotations under each chapter titles to convey the moral of the whole story in a nutshell. The first chapter quotes Buddha's famous lines: "You will not be punished for your anger; you will be punished by your anger". The spiritual dimension to this criminal profile of Gowri Shankar, the protagonist of the first chapter, makes it more complex in a way that the traditional methods of treating the crime genre is drastically distorted by means of taking the attention of the reader from criminal or his criminality to the

philosophy or moral of the story like in a folk tale. Traditional stories are told either from the perspective of criminals who often justify their crime as revenge. Most of the stories are narrated from the investigators' perspective who are supposed to reclaim the social order and bring back justice. Bhattacharyya's idea of moral lessons of true crime stories aligns with the Indian tradition of telling fables for didactic purposes.

To conclude, the central argument about the Indian experiments with crime genre is that it engenders fear, cautiousness and curiosity among the public through incorporating narrative and fictional techniques. Further, the genre plays a significant role in the making of a vigilant citizen who is taught that he can be victimized any time by the vigilant criminals all around.

References:

Bhattacharyya, Anirban. *The Deadly Dozen: India's Most Notorious Serial Killers*. Penguin Random House, 2019.

Ryan, Marie-Laure. "Towards a Definition of Narrative". *The Cambridge Companion to Narrative*, edited by David Herman, Cambridge University Press, 2007.

Covid 19: New Normal to New Future of Economy

PANDEMIC TURN: BUSINESS RESILIENCE PRACTICES



Editors:
ABOOBACKER SIDDEEQ KC
IBRAHIM PA

Department of Commerce
EMEA College of Arts and Science

Customer's Satisfaction Towards Akshaya Centers During the COVID-19 Pandemic Period

Nahas Sha A.A

Assistant Professor, PG Department Of Commerce, EMEA Arts And Science College, Kondotti
nahassha23@gmail.com

Abstract: *This paper investigates customer satisfaction towards Akshaya centers during the Covid 19 pandemic. It also analyses the effectiveness of Akshaya centers during covid-19 in Kerala. The primary data will be collected through structured questionnaire from general public of Malappuram district. The result of study shows that Covid-19 protocol is not carefully maintained in many Akshaya centers and transportation is the main problem faced by respondents to approach Akshaya centers during Covid-19. The respondents wish to have certain changes in the Akshaya center services in order to overcome the barriers faced during Covid-19 pandemic.*

Key Words: Customer's satisfaction, COVID-19, Digitalization, CSC

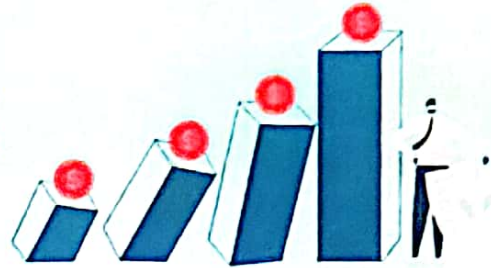
1. Introduction

The Akshaya project is one of the e-governance programs in Kerala. It was one of the district wise e-literacy programs with an intention to 'empowering Kerala', which was firstly started in Malappuram district in November 2002. In Kerala Akshaya centers are performing the role of Common Service Centers (CSC) as citizen interface for delivering various government services under e-governance along with some business to consumer (B2C) services. Akshaya Project is a model ICT project initiated by the government of Kerala under Kerala State Information Technology Mission (KSITM) to bridge the digital divide and to bring the benefits of information technology to each and every individual in the state. Akshaya made the lives of common man easy by simplifying the process of delivering Government to consumer (G2C) and Business to consumer (B2C) Services. The present study focused on the study of level of awareness of functioning of Akshaya common service centers in Malappuram District.

As we all know, some of them are not able to approach the Akshaya centers during past few months due to the pandemic situation of COVID 19. So we were so helpless to do our necessary online works such as paper works especially filling of forms including scholarships, various certificates, etc. Through this study, the researchers tries to find

Covid 19: New Normal to New Future of Economy

PANDEMIC TURN: BUSINESS RESILIENCE PRACTICES



About the Editors



Mr. Aboobacker siddeeq. KC, Assistant Professor of Commerce, has been teaching Post Graduate level of students for more than seven years at EMEA College of Arts and Science, Kondotty.

He completed M.Com (Finance) from DCMS, University of Calicut, Post Graduation in Direct Tax-Law & Practices from Tezpur University (A Central University), Tezpur, Assam and another Post Graduation in Corporate Tax Planning from IGNOU. He qualified UGC- JRF in 2010. He is pursuing PhD in the Department of Commerce and Centre of Research, PSMO College, Tirurangadi. His areas of interest are Taxation and Finance. He has authored four books and published one edited book as editor. He has published a good number of research papers in international and national level peer-reviewed journals.



Mr. Ibrahim P A is working as Assistant Professor, Department of Commerce, EMEA College of Arts and Science, Kondotty.

He received his Bachelor Degree in Commerce from Calicut University and Master Degree in Commerce from Aligarh Muslim University, Aligarh, India. He also obtained his Bachelor Degree in Education from University of Kerala and Master Degree in Economics from Madurai Kamaraj University, Tamil Nadu. He Qualified SET and UGC-NET-JRF in 2014 and he currently doing PhD in finance from Aligarh Muslim University. He has published a good number of research articles in international and national journals and conferences including Scopus and ABDC listed journals



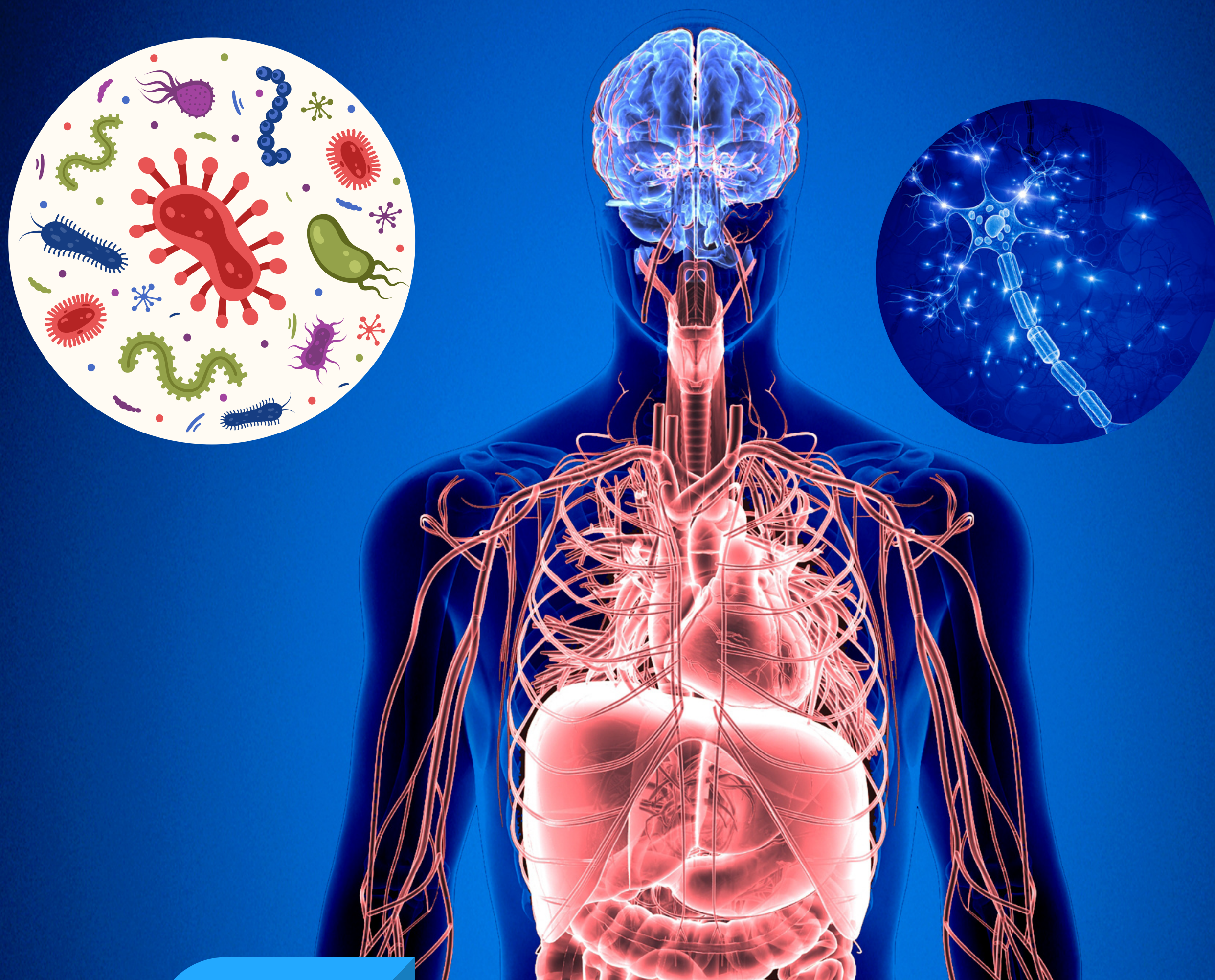
**Department of Commerce
EMEAC College of Arts and Science**

KONDOTTI, MALAPPURAM (Dt), Kerala, Pin-673638
Ph: 04832712030
mail@emeacollege.ac.in
www.emeacollege.ac.in

ISBN: 978-81-955057 0-8



RECENT UPDATES IN MEDICINAL CHEMISTRY AND APPLIED MICROBIOLOGY



EDITORS

Dr. T. Gopalakrishnan
Dr. M. Santhoshkumar

Recent Updates in Medicinal Chemistry and Applied Microbiology

INDEX

		<i>CONTENTS</i>
S.No	Title of the Chapters & Authors' Name	Pages
1	Comprehensive Insights into Mucormycosis Dr. D. Ramya	
2	Role Of Microbial Symbionts in Agriculture Dr. A. Balamurugan	
3	Title: Nanoparticles as therapeutic Biomaterials Dr. Aji Jovitha A T , Dr. Deivasigamani B	
4	Viral Hepatitis-B: Structure and Therapies Dr. Tanu Yadav, Dr. Suchit Swaroop	
5	Marine Quorum Sensing and Mechanism Dr. Rasheeda E.V, Hasna K P	
6	Artificial Intelligence in Drug Discovery Dr. S. Salomie Jennifer	
7	Food Borne Pathogens and its Pathophysiology Dr. R. Thenmozhi, R Dharini and Dr. Dharitri Borah	
8	History and Formulation Development of Antibiotics Prof. (Dr.) Niraj Gupta	
9	Synthetic Drug Designing Approach in Vaccine Production Technology Dr. D. Gayathri and Dr. V. Gokula	