

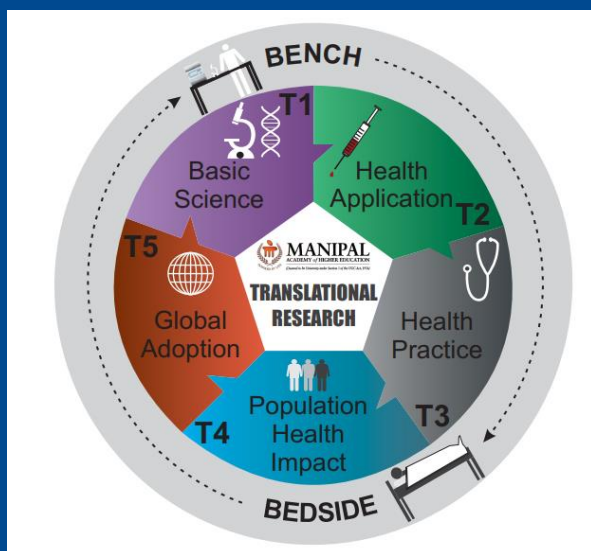


# MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

MANIPAL

(A constituent unit of MAHE, Manipal)

## Certificate Course in Translational Research



Hybrid mode

Online & pre-recorded lectures: Feb 22-24, 2024  
Offline: Hands-on training & demo: Mar 01-02, 2024

*Organized by*

Center for Translational Research  
Department of Pharmacy Practice  
Manipal College of Pharmaceutical Sciences  
4th floor, MCOCS *via* New OPD Block  
Kasturba Hospital  
Manipal Academy of Higher Education  
Manipal, Karnataka, INDIA

Contact:

Email : [translational@manipal.edu](mailto:translational@manipal.edu)  
Mobile : 08202922403 or 7907520140

Course coordinator: Mahadev Rao, PhD

# COURSE OVERVIEW

## TRANSLATIONAL RESEARCH

The current thrust in medical research is on translation research. Translation research follows a two-way direction from bench to bedside and bedside to bench to translate discoveries into clinical application and the translation of clinical findings into the understanding of molecular mechanisms at a genomic level.

## ABOUT THE PROGRAM

The program is mainly intended for initiating translational research studies through an interdisciplinary/multidisciplinary and multi-institutional integrated learning approach. This is expected to allow new ideas to be investigated more expeditiously and equip researchers from both clinical and basic science backgrounds to pursue new clinical or laboratory approaches for creating more avenues of creative and productive research to improve patient outcomes in clinical practice.

## THE FOLLOWING TOPICS WILL BE COVERED:

- Basic principles of translational research
- Basics of DNA, RNA and protein synthesis
- Human genome project
- Genomic technologies
- Pharmacogenomics
- Epigenetics
- Proteomics and metabolomics
- Cancer omics and hands-on training on cBioPortal and UALCAN demonstration
- Cell line-based bioassays
- Modern alternatives to animal experimentation for preclinical and clinical research
- Drug discovery & preclinical research
- Pathological considerations for translational research
- Translational research approaches in communicable and non-communicable diseases
- Big data and AI for precision medicine
- Hands-on training/demonstration in nucleic acid extraction, NGS, Real-time PCR, pathological evaluation of tissue samples & pharmacokinetic software

## SCOPE OF THE COURSE

- Acknowledge the basic principles and goals of translational studies research.
- Recognize and utilize basic empirical research methods in translational studies.
- Integrate theoretical findings and empirical research work.
- Plan doctoral thesis in translational research.
- Ability to theoretically approach translational-related phenomena and to use this ability for didactic and research aims.

<b>Course Code</b>	<b>C 38</b>
<b>Participants</b>	Students pursuing post graduate degree (M.Sc/ M.Pharm / PharmD /MD /MS /DM /MCh). PhD Scholars and Research Scholars in any discipline of biological sciences – Life Sciences, Health Sciences, Biotechnology, Biochemistry, Microbiology, Pharmacy and Genetics.
<b>Duration</b>	32 hours of course for 5 days
<b>Credit</b>	2 credits
<b>Selection process</b>	The seats are offered on a first come first serve basis.
<b>Expected Number</b>	16 Participants
<b>Course Fee</b>	Rs. 5000
<b>Delivery Mode</b>	Hybrid mode
<b>Schedule</b>	Online & pre-recorded lectures: Feb 22-24, 2024 Offline: Hands-on training & demo: Mar 01-02, 2024
<b>Course Trainers</b>	Resource persons with expertise in the relevant area from India and abroad.
<b>Venue</b>	Translational Research Laboratory Manipal College of Pharmaceutical Sciences Manipal Academy of Higher Education Manipal, Karnataka, INDIA
<b>Registration Link</b>	<a href="https://sis.manipal.edu/CertificateCourses.aspx">https://sis.manipal.edu/CertificateCourses.aspx</a>
<b>Website:</b>	<a href="https://manipal.edu/mcops-manipal/program-list/short-term2.html">https://manipal.edu/mcops-manipal/program-list/short-term2.html</a>
<b>Deadline for Registration</b>	Jan 15, 2024