

MANIPAL CENTRE FOR BIOTHERAPEUTICS RESEARCH [MCBR]



MCBR stands as a pioneering centre for biotherapeutics research in India, with its primary focus on education and translational research. Devoted to fostering the growth of emerging talents, particularly in the realm of biotherapeutics research, with a strong emphasis on the development of novel biological therapeutics. MCBR takes pride in being the first centre in Asia to establish an exclusive academic program in Biotherapeutics that includes 3-semester research internship, providing a unique and comprehensive hands-on learning experience.

Thrust Areas of Research

1. Process and product development in cell therapy for target indications in degenerative diseases, injury models, inflammatory diseases, etc.
2. Development of implantable and injectable nanocomposite hydrogels for tissue regeneration.
3. Extracellular Vesicles and their engineering for targeted drug therapy.
4. Exploring the therapeutic potential of 3D bioprinted scaffolds for regeneration and in vitro disease models.
5. Development of reversible, non-hormonal male contraceptives using smart drug delivery systems; regulation of spermatogenesis using epitranscriptomics and phosphoproteomic approaches.
6. Development of anti-aging strategies targeting autophagy process for brain aging and age-related neurodegenerative disorders.
7. Exploring nanotechnological and formulation approaches for biotherapeutic research in the field of cancer and neurodegenerative disease therapy.

Some of the Industry collaborators and partners

- Stempeutics Research (P) Ltd, Bengaluru.
- Fibroheal Woundcare Pvt Ltd, Bengaluru.
- Suma Genomics, Manipal.
- Kemwell Biopharma Ltd, Bengaluru.
- Novartis, Hyderabad.
- Cytiva, Bengaluru.
- Aurigene Oncology
- Navitas Life Sciences
- Aten Porus Lifesciences Pvt Ltd, Bengaluru
- NeoDx Biotech Labs Pvt Ltd, Bengaluru
- Bugworks Research Pvt Ltd Bengaluru
- ImmunitasBio Pvt Ltd, Bengaluru

Academic Programme offered:

Manipal Center for Biotherapeutics Research (MCBR) is among the pioneering institutions offering MSc., Ph.D., and Post-doctoral programs in Biotherapeutics. The academic programs (M.Sc. By Research in Biotherapeutics and Ph.D.) offered by MCBR are equipped to fully exploit the potential of these novel and cutting-edge therapeutic avenues by translational research. The strength of these courses is biotechnology industry-oriented training to create the best workforce.

M.Sc. By Research in Biotherapeutics

Duration
2 years

Eligibility Criteria & Admission Process
Refer Section 2

Course Fees, Hostel Fees, Refund Rules
Refer Section 3

Last date to apply and Commencement of Classes: Refer <https://manipal.edu/datestoremember>

Program Description

The M.Sc. By Research in Biotherapeutics program at MCBR will help both industry partners and MCBR to fully exploit the potential of novel and cutting-edge therapeutic avenues by carrying out innovative research in Biotherapeutics.

This Two Years translational program is comprised of one-semester classroom coaching and an intense three-semester research project with practical training and internship experience that will equip aspiring postgraduates for a successful career in the areas of Biotherapeutics.

Focus

- Information literacy and skills to retrieve and review existing evidence
- Planning, designing, and executing a research project
- Principles of GMP/GLP/GCP/ Biosafety and Bioethics
- Managing research data (including bioinformatics) and implementing statistical analysis
- Writing of research thesis and presenting the arguments (defense)
- Communicating research outcomes to the scientific community – conference presentations, original publications, and reviews. Outreach programs to the community
- Developing a research proposal in biotherapeutics research
- Enhancing research visibility by developing trained human resources

Career Prospects

In the Master's program By Research in Biotherapeutics at MAHE, you are trained for a scientific career in Biotherapeutic discovery, and development.

After graduating, you are theoretically and experimentally trained in all relevant aspects of Biopharmaceutics. You have hands-on experience in a specialized research project. The combination of expertise in biopharmaceutical research and academic skills makes you the best fit for employers, irrespective of the chosen specialization. All students who complete the master's in Biotherapeutics, regardless of the specialization, will find a job in the field of drug discovery and design, or the development and production of biologics, including quality, safety, and clinical trials. Jobs outside research include various functions in the pharmaceutical industry, in biotechnology companies, or with the government.

Many graduates from the Biotherapeutics program can also choose a career in scientific research and pursue a Ph.D. degree. After obtaining your Ph.D. degree you can continue as a postdoctoral fellow and subsequently, via a tenure track position at the university, develop further to the assistant-, associate-, or full professor.

