

## Cancer Biology Department (Research Wing)

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The Cancer Biology Department (Research Wing) was established in 1980 with three research laboratories. Today, it has flourished into six well equipped world class research laboratories, each having competent and enthusiastic team working on state-of-the-art research activities through various cancer research projects. The area of interest are particularly in the field of molecular epidemiology, cytogenetic, genomics, proteomics, epigenomics, stem cell research, bioinformatics, medicinal and pharmacogenomics. The Department has earned national and international fame through its more than 300 research projects, more than 400 research papers published in peer reviewed national and international journals and honours/ awards achieved at national and international forums.

### Academics Activities:

Apart from research, the Cancer Biology Department is also indulged in **Academics Activities**. It is also affiliated to Gujarat University (Life Sciences and Medical Microbiology) and M.S. University (Biochemistry) for PhD degree courses. Involved in educational activities such as dissertations to post graduate students of M.Sc., M.Pharm. and M.Phil. (both within and outside Gujarat), observership to postgraduate students from science and allied science and permitting Ph.D. students of many universities to perform their partial Ph.D. work at Cancer Biology Department.

In addition to the above academic activities, the Department has been involved in two new academic activities

1. **M. Sc. Cancer Biology (Life Science)**
2. **Cancer Biology Finishing School**

### M.Sc. Cancer Biology (Life Science)

From the year 2013, the Department has introduced the new course, **M.Sc. Cancer Biology (Life Science)**, for the first time in India, in affiliation with Gujarat University, Ahmedabad. This MSc. Cancer Biology course is 2 Years Full Time Course and specifically designed for students who wish to acquire advanced education and training in biological sciences, pertaining to a disease that affects a large proportion of the global population. The course aims specific orientation on cancer, providing training in

the modern practical, academic and research skills that are useful in academia and industry. The programme will culminate with a research project that investigates the molecular and cellular basis of cancer biology under the close guidance of active cancer research scientists. Through a combination of lectures, small-group seminars and practical classes, students will apply the knowledge gained towards translational research and development of new therapies. It will open avenues in Academics, and Research Institutes, Pharmaceutical Industries and Diagnostic Laboratories catering technology development, stem cell research, translational research, etc, and as Post-doctoral students in India and abroad to further advance their knowledge in the subject.

### Eligibility for M.Sc. in Cancer Biology

Graduates in one of the disciplines of Biological Sciences including Biochemistry, Microbiology, Biotechnology and Zoology of Gujarat University or any other University recognized as equivalent.

### Admission Criteria for M.Sc. in Cancer Biology

At the start of each academic year, announcement of the course will appear in Gujarati and English news papers as well as on the website of GCRI ([www.cancerindia.org](http://www.cancerindia.org)).

Admission will be given based on the merit list with weightage of personal interview as well as marks in graduation degree.

**Admission Procedure:** Central Admission at Gujarat University Every Year. Each year total of 20 students will be admitted. Reservation of seats for candidates belonging to SC/ST/SEBC/PH etc. in both the categories will be as per rules of Gujarat University.

### Fee structure is as follows:

- For **Boys: Rs. 13500/-** and for **Girls Rs.12000/-** per semester, per student.
- An examination fee of **Rs. 500/-** per semester is collected along with the examination form.
- The convocation fee is charged as per Gujarat University rules.
- Fees once paid shall not be refunded under any circumstances.

## **Cancer Biology Finishing School**

Cancer Biology Finishing School Programme is a 4 months (16 weeks) **Full Time, Certification Course** run by Cancer Biology Department at The Gujarat Cancer & Research Institute, Ahmedabad, Gujarat, supported by Department of Science and Technology, Government of Gujarat, through Gujarat State Biotechnology Mission (GSBTM) under Gujarat Biotechnology Policy, 2016-21.

The opportunities in the fields of molecular biology and the potential to use this information in diagnostic procedures are escalating. With this in mind, the aim of Cancer Biology Finishing School Programme is to provide fundamental knowledge and training of molecular biology tools and its scientific concepts relevant to cancer biology.

**The objective is to equip the aspiring students enrolled in Cancer Biology Finishing School Programme with all above-mentioned biotechnology facilities.** The students enrolled in Finishing School Programme will be taught through lectures related to basic and advanced Genomics, Proteomics and Cytogenetic technologies. The medium of teaching will be English. Internal assessment of the students will be done by faculty members. The practical conducted during the course will be pertaining to recent molecular based biotechnologies useful in oncology. **Relevant hands on practical training will comprise of DNA and RNA extraction from various biological fluids, quantification using various methods, qRT-PCR, ddPCR, Immunohistochemistry, Flowcytometry, Microarray, Next generation sequencing (NGS), FISH, etc.** They will also be actively involved in seminars, assignments, industrial/ research centre visit, personal interaction of students with eminent scientists, etc. Apart from teaching they will gain knowledge on fundamentals of Bioinformatics and

Biostatistics, special emphasis will remain to nurture the students in the field of oncology, clinical research and cancer research.

### **Eligibility for Cancer Biology Finishing School**

- Minimum 50% in following disciplines:
- MSc Biological Sciences (Life Science, Biotechnology, Microbiology,
- Biochemistry, Zoology, etc.) from recognized UGC University
- BSc/MSc with MLT from recognized institute
- Candidates who have pursued MBBS, MD, BDS, MDS, B.Pharm/M.Pharm

### **Intake Capacity and Admission Criteria for Cancer Biology Finishing School**

**Twice a year, 20 students will be admitted per batch**

Announcement of admission of the course will appear in Gujarati and English news papers as well as on the website of GCRI ([www.gcriindia.org](http://www.gcriindia.org)). Admission will be given based on the merit list with weightage of personal interview.

**Application form is available on GCRI website ([www.gcriindia.org](http://www.gcriindia.org)) and from the HR department of the Institute.**

### **Fee Structure for Cancer Biology Finishing School**

**Science/Pharmacy students:** Rs.10,000/-

**Medical/Dental students:** Rs. 25,000/-

Fees once paid shall not be refunded under any circumstances.

**Certificate will be issued to the candidates only after successful completion of the course**