Cell Culture Lab. Profile

Shree Ramkrishna Institute of Computer Education and Applied Sciences
Cell Culture Unit,
Department of Biotechnology
Athwalines, Surat-395001

About us

Shree Ramkrishna Institute of Computer Education and Applied Sciences, is dedicated in providing quality education and research services in different arena of Life sciences. Physically situated in M.T.B. College Campus with building construct area of 1020sqm, the four storey building comprises of labs with basic and advance facility for academic and research utilization. Animal cell culture lab and Genetic engineering lab is equipped with state of art facility to carry out in vitro experiments of industrial standards. Research in cell culture techniques and toxicological studies in ex vivo cell systems is prime focus of institute to cater services for a wide spectrum of allied subjects.

History

Institute was founded in 1999 with aim to provide education in priority areas that shall bridge the academics and industrial requirement and to undertake research and inquest in emerging field of Life sciences. In path of the foresight institute offers bachelors and masters degree course in computer science, microbiology and biotechnology. Qualified staff, of the respective department, undertake research in the diverse field of biological sciences.

Area of expertise

Dr. Nehal Shah, Assistant Professor in Department of Biotehcnology and Ms. Datasha Kanthariya, are incharge of the Animal Cell Culture Laboratory and Genetic Engineering Laboratory.

Dr. Shah did her M. Phil and Ph.D. from Department of Zoology, SIR P.T.SCIENCE COLLEGE, VNSGU, Surat. She has publications in peer reviewed journals. She has expertise in field of Aquaculture technology and Applied Zoology.

Ms. Kanthariya did her Masters in Industrial Biotechnology from BRD School of Biosciences, Sardar Patel University, Vallabh Vidhyanagar, Anand. She has extensive experience in cell culture systems and has teaching experience in same field of Animal Cell Culture Technology.

Research Capabilities

Animal Cell Culture laboratory is equipped and capable of undertaking research with in vitro cell system. We can provide a range of parametric study in Cytotoxicity, Genotoxicity, Drug testing, Compound uptake analysis, etc. Detailed parameters of our research capacity are described henceforth:

Instruments available at the laboratory:

- **CO_2 Incubator**
- **Magnus Inverted microscope**
- **Biosafety cabinet (HEPA) Laminar Air Flow Hood for cell culture**
- **Positive pressure unit**
- **Unilab Binocular microscope**

Cell Line based study: Our laboratory is equipped with state of art instruments and facility to undertake research and commercial projects to study cytotoxicity, genotoxicity study and functional assay of any xenobiotic, phytochemical, synthetic compound, nanomaterials, etc. We continue to explore and perform a wide range of paramateric array to support the report that we produce.

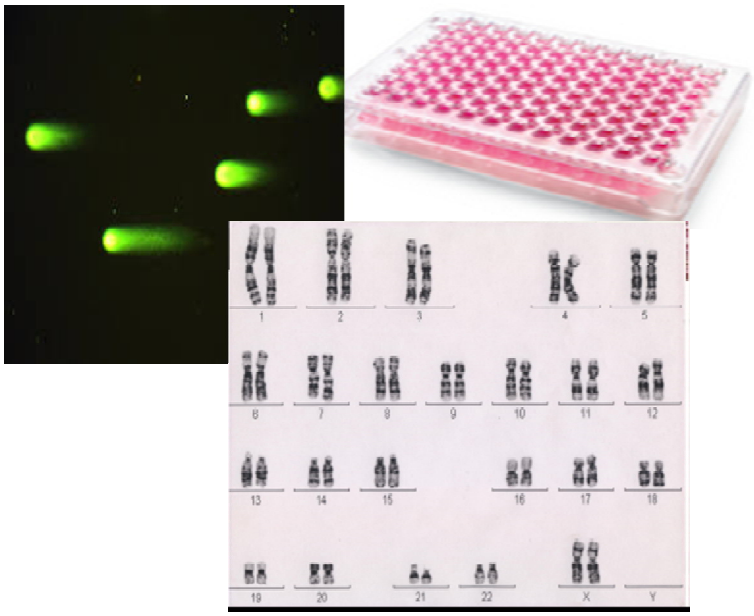
Complex Genetic Disorder: We undertake research in understanding the causes and predisposition factors for complex inherited genetic disorders. Students at this laboratory focus on autoimmune disorders, cardiomyopathy, type 1 Diabetes, etc., where we collect detailed medical history and blood samples from affected and first degree relatives of these subjects and screen for associated mutation and genetic polymorphism.

Predictive Toxicology Testing: Institute provide a componential toxicology profile with range in primary profiling and complete profiling of any novel, synthetic and analogue compound of commercial, pharmaceutical, industrial or any part of health sector. The wide range allows selective or complete profile study of compound depending upon the purpose of use and application. The services under this portfolio are:

- **Dose sensitivity assay**
- **Viablity Assay**
- **Cytotoxicity assay**
- **Mitochondrial Toxicity assay**
- **Haemolysis assay**
- **Oxidative Stress Analysis**

❖ **Genotoxicity Studies:**

- **Comet assay**
- **Sister-Chromatid Exchange**
- **Chromosomal Aberration**
- **Aneuploidy assay**
- **Micronuclei assay**
- **DNA damage Testing**
- **DNA binding assay**
- **DNA crosslinking**
- **Protein crosslinking**



Statement of Quality assurance: The mission statement of our organization is to maintain highest level of scientific and technical concrescences. We urge to continuously improve the effectiveness of the results we obtain from our research.

Contact:

Shree Ramkrishna Institute of
Computer Education and Applied Sciences
M.T.B. College Campus,
Athwalines, Surat – 395 001.
Ph. 0261 2240172.
https://www.srki.ac.in

Dr. Nehal Shah
Assistant Professor
Cell Culture Unit,
Department of Biotechnology,
Mob: +91-9825240430
Mail: nehal.shah@srki.ac.in

Ms. Datasha Kanthariya
Assistant Professor
Cell Culture Unit,
Department of Biotechnology,
Mob: +91-9925247719
Mail: datasha.kanthariya.ac.in