#### Research Labs @ JCMR



### **Cell and molecular Biology Facility (Dr. Alex George)**

The lab keenly focusses on the molecular level mechanisms involved in different diseases. We are currently working on congenital anomalies (Orofacial Cleft) as well as cancers (lung and breast cancers) focusing on molecular biology of cancer initiation, extracellular vesicles and liquid biopsy.



#### **Biochemistry Research lab (Dr. Mathew John)**

The focus of research in this laboratory lies in the proteomic profiling and the analysis of free radical biology of chronic inflammatory diseases. Additionally, the lab trying to understand the molecular mechanism of chronic inflammatory diseases by combining proteomics and bioinformatics. Neuroimmunology diagnostic services are also provided.



#### Phytochemistry Research Division (Dr. Mathew John)

The Phytochemistry Research Laboratory focuses on screening bioactive compounds with medicinal properties. The lab's main goal is to isolate and identify novel plant compounds with pharmaceutical importance. Currently focusing on *Carica papaya*.



## Cytogenetics and Genomics Lab (<u>Dr. Suresh Kumar</u> and Dr Ravindran Ankathil)

The laboratory focuses on reproductive biology as well as haematological malignancies. We focus on identifying gene variants involved in disorders of sexual development. Understanding the genetics and epigenetic background of Polycystic Ovary Syndrome is another area of interest. Studies on obesity & breast cancer and male infertility are also conducted.



# Computational and Structural Biology Lab (Dr. Dileep Vijayan)

The lab focusing on the solving of complex biological problems through in silico, in vitro, in vivo, and structural biology analysis. The lab is also focusing on the computer aided drug design. Various projects focus on Alzheimer's disease, uterine fibroids and ayurgenomics are also executed in the lab.



### **Small Animal Research Facility**

The research facility is designed to conduct experiments on laboratory animals for research and education purpose. The facility is registered with CCSEA.