

## RESEARCH CONSULTANCY SERVICES & MOLECULAR PLATFORMS

This include state of art facilities with well-equipped infrastructure to perform pre-clinical testing of novel molecules for their therapeutic efficacy. We have standardized a series of in vitro and in vivo assays and are in a constant process of adding more assays and making continuous improvement the existing resources. We have a team of excellent scientists with different expertise and always available for consultation. Our aim is to support the scientific community for their research needs at competitive "not for profit" service charges while providing top quality of analysis, trouble shooting and data management.



For more details:  
[www.rgcb.res.in/res-consultancy](http://www.rgcb.res.in/res-consultancy)

## SHORT TERM AND LONG TERM TRAINING PROGRAMS

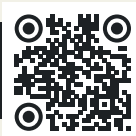
As part of its commitment to human resource development, RGCB permits students from Bachelor an Master levels (Science, Engineering, Pharmacy, Veterinary etc) to carry out dissertation and project work in various disciplines. Projects and dissertations may be for 1 month, 2-3 months, 4-6 months or 7-12 months.



For more details:  
[www.rgcb.res.in/intership](http://www.rgcb.res.in/intership)

## TRAINING IN BIOTECH INSTRUMENTATION SYSTEMS

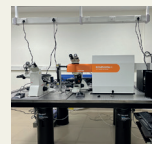
An innovative program meticulously planned to explore cutting edge technologies related to Biomedical Instrumentation Systems catering the needs of industry ready engineers with the objective of crafting professionals with practical dexterity in predominant technologies



For more details:  
[www.rgcb.res.in/instraining](http://www.rgcb.res.in/instraining)

## RAMAN CONFOCAL FACILITY

Raman microscope that combines high-resolution imaging with Raman spectroscopy for the analysis of inorganic and organic materials, as well as biological samples. The microscope system includes both an upright and an inverted microscope for versatile sample positioning and analysis



Renishaw InVia  
Qontor Raman  
Confocal microscope



For more details:  
[www.rgcb.res.in/ramanconfocalfacility](http://www.rgcb.res.in/ramanconfocalfacility)

## CENTRAL HISTOLOGY CORE FACILITY

The facility provides histological and technical support to investigators. The facility has an automatic tissue processor, microtome, cryostat and Modular Tissue Embedding Unit.



Cryostat  
(Leica CM 1950)



Modular Tissue  
Embedding Unit  
(Leica EG 1150H)



Microtome  
(Leica RM2255)



Cryostat  
(Leica CM 1850)



Automatic tissue  
processor  
(Leica TP1020)



For more details:  
[www.rgcb.res.in/histologycorefacility](http://www.rgcb.res.in/histologycorefacility)



Your yearning for  
knowledge  
hastens our journey  
forward



**Rajiv Gandhi Centre for Biotechnology (RGCB)**  
Thiruvananthapuram

(An autonomous Institution of Department  
of Biotechnology, Ministry of Science and Technology,  
Government of India)

## RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY



## FACILITIES, SERVICES & TRAINING PROGRAMS



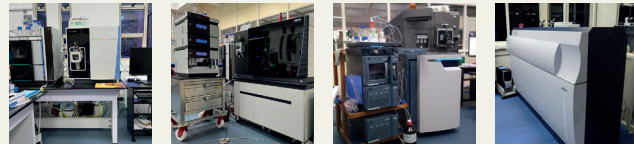
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## DBT-SAHAJ NATIONAL FACILITY FOR MASS SPECTROMETRY-BASED PROTEOMICS, METABOLOMICS AND LIPIDOMICS PLATFORMS

Facility aims to make cutting edge mass spectrometry technology available to researchers as well as the wider academic and life science industry community in the country. Being a core facility, major goal of this facility is to become a research environment for multidisciplinary research that utilizes mass spectrometry and other MS-based omics technologies to understand the disease biology and molecular medicine in the post-genomic era.



TSQ Altis Plus (Thermo) | Orbitrap Eclipse Tribrid MS (Thermo) | Synapt G2 HDMS Q-TOF (Waters) | UltraFlex extreme MALDI-TOF/TOF (Bruker)

For more details:  
[www.rgcb.res.in/massspec](http://www.rgcb.res.in/massspec)



## CENTRAL FLOW CYTOMETRY CORE FACILITY

The facility is equipped with different sorters and analyzers with several lasers and we also have the provision for optimised sterile sorting. The facility also conduct training program in flow cytometry



BD FACSAria III | Beckman Coulter Astrios EQ

For more details:  
[www.rgcb.res.in/flow-cytometry](http://www.rgcb.res.in/flow-cytometry)

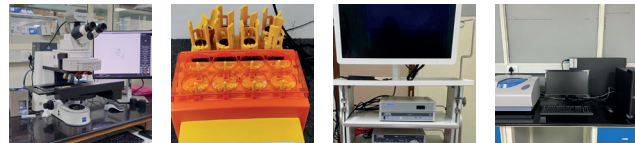


## CENTRAL BIOIMAGING AND CONFOCAL MICROSCOPY FACILITY

The facility is equipped with different types of confocal microscopes for various applications. It also have High-Content Imaging System with seven-channel laser light source and eight imaging channels to enable highly multiplexed assays, small animal in vivo imaging system, advanced imaging system for the automated detection of metaphases, FISH and spectral karyotyping, Dynamic Light scattering (DLS) system, advanced Rodent Endoscopy System, and fully automated tissue dissociation system



Multiphoton Confocal Nikon A1R MP | Laser Scanning Confocal (Leica SP8 WII) | ImageXpress® Confocal HT.ai High-Content Imaging System | In Vivo Small Animal Imager (IVIS Spectrum, Perkin Elmer)



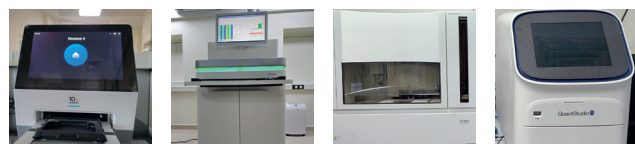
Spectral Karyotyping Platform: Metasystem-Zeiss Axiolmager | GentleMACS octo dissociator | Coloview mouse endoscopy system | Horiba nanoPartica DLS system

For more details:  
[www.rgcb.res.in/bio-imaging](http://www.rgcb.res.in/bio-imaging)



## GENOMICS FACILITY

A centralized facility provides services include DNA sequencing, Genotyping using DNA analyzers, Real time PCR, Microarray and Droplet digital PCR, next generation sequencing and single cells sequencing .



Chromium X (10X genomics) | Novaseq 6000 (Illumina) | ABI 3730xl DNA analyzer | ABI Quant Studio 5

For more details:  
[www.rgcb.res.in/genomics-about](http://www.rgcb.res.in/genomics-about)



## TRANSMISSION ELECTRON MICROSCOPE (TEM)



Talos F200i TEM (Thermo)

TEM is equipped with advanced features and functions. Its accelerating voltage ranges from 20- 200kV. It has a 4k x 4k ceta 16M camera which provides a large field of view and enables fast imaging. It has four applications which includes 1) Basic TEM imaging 2) STEM 3) CRYO-EM and 4) TOMOGRAPHY.

For more details:  
[www.rgcb.res.in/transmissionelectronmicroscope](http://www.rgcb.res.in/transmissionelectronmicroscope)



## CENTRAL BSL III FACILITY

A state-of-the-art bio-safety level-3 (BSL-3) laboratory for research on viruses with high potential for life-threatening diseases. RGCB's BSL-3 lab offers vital support for research in both regional and global pandemics, contributing to public health emergencies and the field of pandemic research. In addition, the facility collaborates with other research institutions, government agencies, and international organizations to advance its research efforts.



For more details:  
[www.rgcb.res.in/bsl3.php](http://www.rgcb.res.in/bsl3.php)



## HELICOBACTER PYLORI- DRUG TESTING PLATFORM

The facility offers a unique service of testing the sensitivity profiles of H. pylori against antibiotics and other drug molecules

For more details:  
[www.rgcb.res.in/helicobacter](http://www.rgcb.res.in/helicobacter)



## BIOINFORMATICS FACILITY



A team of multidisciplinary scientists, IT experts and technicians dedicated to provide bioinformatics services, training and technical support to researchers and students. The facility conducts hands-on training every month on various domains

For more details:  
[www.rgcb.res.in/cbb-about.php](http://www.rgcb.res.in/cbb-about.php)



## MOLECULAR FORENSICS & DNA TECHNOLOGIES (MFDT)

DNA fingerprinting services has been provided as a public service by RGCB for several years. The facility provide human DNA Fingerprinting services to judicial, crime investigating and law enforcing agencies. It also provides DNA Fingerprinting services to flora and fauna including RAPD, AFLP or microsatellite marker-based studies, testing for genetic diversity analysis, species/population/variatal discrimination and hybrid seed testing., DNA Barcoding of plants, animals and microbes. Facility also provides regular training programs in DNA Fingerprinting and DNA barcoding.

For more details:  
[www.rgcb.res.in/dna-forensics](http://www.rgcb.res.in/dna-forensics)



## LABORATORY MEDICINE & MOLECULAR DIAGNOSTICS (LMMD)

LMMD, is one among the 6 Grade 1 laboratory and the only lab in India under the Department of Science and Technology, Government of India with NABL ISO 15189-2012, NABH, and ILAC accreditations. LMMD is a compulsory MCI recognized molecular diagnostics rotation Centre for various medical post-graduates. LMMD is recognized by ICMR, DBT, CDSCO, and DCGI as authorized testing centre for testing and reporting on the efficacy of newly developed test kits and devices. The facility also provides training programmes on Molecular Diagnostics

For more details:  
[www.rgcb.res.in/laboratory-medicine](http://www.rgcb.res.in/laboratory-medicine)



## MEDICAL LABORATORY SERVICES (MLS)

RGCB-MLS provides all standard hematological, microbiological, immunological and biochemical investigations performed on the latest and completely automated platforms. All the laboratories under this scheme are accredited by the National Accreditation Board for Hospitals & Healthcare Providers (NABH). The facility also provides training programmes on Medical Diagnostics and related areas

For more details:  
[www.rgcb.res.in/mls.php](http://www.rgcb.res.in/mls.php)



Your yearning for knowledge hastens our journey forward

