

DEPARTMENT OF MICROBIOLOGY



VISION & MISSION



- To deliver quality education and training for medical, dental, nursing as well as paramedical students.
- To perform high-quality diagnostic and clinical microbiology services
- Conduct impactful research on infectious diseases
- Strive to support timely and accurate patient care and promote hospital infection control & AMS



FACULTIES IN THE DEPARTMENT OF MICROBIOLOGY



CADRE	NUMBER OF FACULTY
PROFESSOR	03
ASSOCIATE PROFESSOR	01
ASSISTANT PROFESSOR	05
TUTOR	03





Dr. Shailaja T. S
Professor & HOD



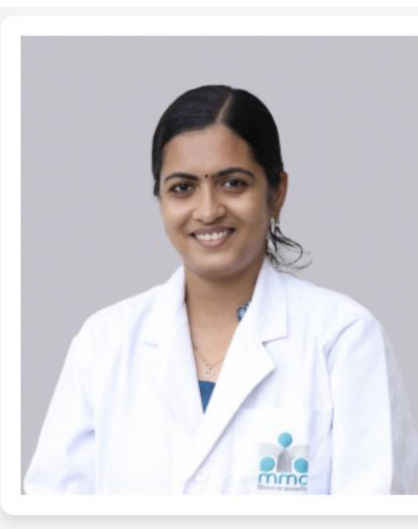
Dr. Lancy Justus
Professor



Dr. Gulsiv Nair
Professor



Dr. Rajeswari V
Associate Professor



Dr. Swetha Sivaraman
Assistant Professor



Dr. Arya Ramachandran
Assistant Professor



Dr. Dagny Hari Vengilat
Assistant Professor



Dr. Sharika Ramadas
Assistant Professor



Mrs. Vrinda. V
Assistant Professor

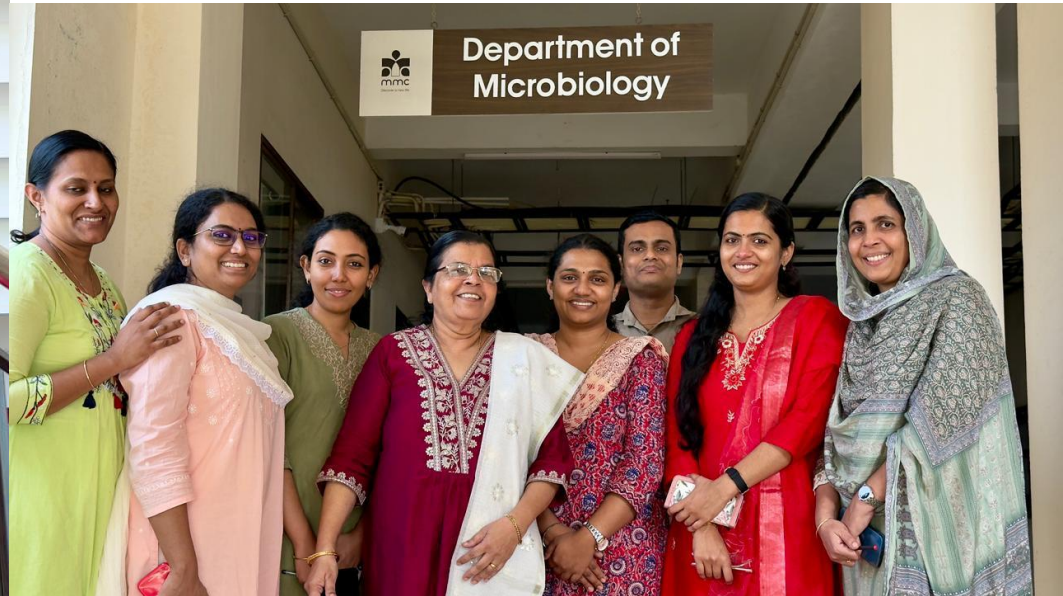


Mrs. Jinsha. K
Tutor



Mrs Prinsa
Tutor





COURSES OFFERED



COURSE		STRENGTH
MBBS (CBME)		210
MBBS (NON-CBME)		4
MD Microbiology (2 seats/year)		5
BDS	Regular	71
	Supplementary	29
MDS		15
BSc Medical Microbiology (20 seats/Year)		40
BSc Nursing		100
Bachelor of Physiotherapy (BPT)		30
BSc Optometry		30
BSc Allied Health (CVT, RT, EMT, Anesthesia, Dialysis)		43
Allied Health Diploma courses (DOTAT, Endoscopy)		15

Results of MBBS CBME STUDENTS



BATCH	RESULT %
2022 Batch	100 %
2023 Batch	97 %



TRAINING PROGRAMMES



- Regular training programs for **post graduates, interns, nurses, paramedics and housekeeping staff on**
 - Hospital infection control practices
 - Biomedical waste management
 - Antimicrobial stewardship
 - Sample collection methods for culture and sensitivity tests
- **Training of Interns and elective posting students**



LIST OF DIAGNOSTIC TESTS



- Culture and sensitivity testing of various clinical specimens
- Microscopic examination of various samples
- Serology tests- Widal, RPR, ASO, CRP, Leptospira antibody test
- Immunology tests - RA, **ANA IIFT**
- Viral serology – HIV, HBsAg, HCV, HAV, Anti HBs titre, Dengue NS1 & IgM IgG
- Parasitology- stool microscopy, malaria detection and worm identification
- Fungal microscopy and culture
- Bacteriological surveillance - water and high- risk areas; OT, ICUs, CSSD and blood bank
- Molecular- PCR - Viral respiratory panel, H1N1, HPV
 - Truenat PCR - TB (Pulmonary and extra pulmonary)
 - Shigella



State of the Art Molecular Diagnostic Laboratory



2020: NABL accredited for COVID-19 RNA detection

Proposed multiplex PCR tests

- Pneumonia panel
- Meningitis panel
- Sepsis panel
- Tropical fever panel

Work volume of the year 2025

Investigations	Total number
Bacteriology (Culture, Microscopy)	29,077
Mycobacteriology	2,148
Serology (RA,CRP,ASO,Widal,RPR,Lepto)	21,442
Virology (HIV,HBsAg, HCV, Dengue, COVID)	41,931
Mycology	1,015
Parasitology	397
Molecular Test (PCR)	60
Total	96,070



HOSPITAL INFECTION CONTROL & AMSP



- HAI surveillance
- Targeted training on IPC practices including hand hygiene, needle stick injuries, care bundle approach etc
- IPC workshop for house surgeons
- Induction training to PGs, house surgeons on IPC and AMS
- Health awareness classes to patients and their attenders
- Introduction of a dedicated isolation ward
- Hospital antibiogram
- Antibiotic policy



Stand **UPPP[↑]** for
Infection Prevention!

International Infection
Prevention week

Celebrations

Oct 19-25, 2025 at MMCH&RC



- **Unite** : Everyone, healthcare workers, patients, and communities, working together.
- **Prevent** : Taking simple steps such as handwashing, vaccination, and safe hygiene.
- **Protect** : Paying special attention to vulnerable groups like children, the elderly, and those with weak immunity
- **Prevail** : Staying prepared and overcoming infection challenges through collective effort.

 Oct 21st

**NEED FOR IPC:
AN ADMINISTRATIVE
VIEWPOINT**

**Dr Dinesh
Kumar M. K**
Deputy Med Supdt, MMCH&RC

 Oct 22nd

**NEEDLE STICK
INJURY**

**Becton
Dickinson**

Hands on workshop for
house surgeons

 Oct 23rd

**COORDINATING
WITH OUR CSSD**

Mr. Joseph N.P
CSSD in charge , MMCH & RC

Hands on workshop for
house surgeons

 Oct 24th

**OFFICIAL
CEREMONY**

- ▲ Prize Distribution
- ▲ Projection of entries
of reels competition
- ▲ Dance by handwashing
champions
- Hands on workshop
for house surgeons



Research activities



ONGOING PhD PROGRAMS



1. Whole Genome Profiling and Evaluation of Synergistic Antibiotic Combinations in Carbapenem-Resistant *Pseudomonas aeruginosa* Isolates from North Kerala, India –
Sri Balaji Vidyapeeth Deemed University, Puducherry;
Mrs Jinsha, Guide: Dr. Priya Santharam, Professor & HOD, SSSMCRI, Chennai
Co- Guide – Dr. Shailaja T.S
2. Whole Genome Analysis and Phenotypic Synergy Testing of Next-Generation Beta-Lactam/Beta-Lactamase Inhibitor Combinations against Carbapenem-Resistant *Klebsiella pneumoniae* and *Escherichia coli* Co-Producing NDM and OXA-48-like Enzymes in Kerala -
from Sri Balaji Vidyapeeth Deemed University, Puducherry
Mrs. Vrinda, Guide: Dr. Priya Santharam, Professor & HOD, SSSMCRI, Chennai
Co- Guide – Dr. Shailaja T.S



ICMR GRANT PROPOSAL



- Development of a new method for antibody production without involving live animals: current target; production of antibodies against HPV antigen in the treatment of cervical cancer

PI- Dr Raghava Varman Thampan

Co- PI- Dr. Shailaja T.S, Dr Arya Ramachandran



Ongoing PG Thesis topics



1. Phenotypic detection of extended spectrum beta-lactamase (ESBL) & Carbapenemase in *Acinetobacter baumannii* in clinical samples from a Tertiary Care Centre: A cross-sectional study - **Dr Sreeraj (3rd Year PG student) - Guide Dr. Shailaja**
2. Risk factors and economic burden in UTI due to multidrug-resistant Enterobacterales at a Tertiary Care Hospital in North Kerala – **Dr Krupa (2nd Year PG) Guide Dr. Gulsiv**
3. Prevalence of high risk Human Papilloma Virus genotypes and its association with cervical cytology among adult females attending a tertiary care Centre, North Kerala- **Dr Sudha (2nd Year PG student) – Guide Dr. Lancy**



Ongoing PG Thesis topics

4. A study on organism profile and local antimicrobial susceptibility pattern for the formulation of Institutional antibiotic policy to treat Community-acquired urinary tract infections in a Tertiary Care Centre of North Kerala -

Dr. Greeshma (1st year PG), Guide Dr. Shailaja T.S

5. Characterization and prevalence of non-fermenting Gram negative bacilli from a Tertiary Care centre in North Kerala -

Dr. Jasna (1st year PG) , Guide Dr. Lancy



ACHEIVEMENTS OF UNDERGRADUATE STUDENTS



- Ms. Meera Sushil got KUHS Research Appreciation Award 2024 for “ Mobile phones as a potential source of Health-Care associated infections – A cross-sectional study”

Guide- Dr. Shailaja T S



UG - RESEARCH ACTIVITIES



Accepted for KUHS Research appreciation award-2025-26

1. Prevalence of nasal carriage of MRSA among Healthcare personnel working in high-risk areas at a Tertiary Care Hospital - Ms. Jaheera: Guide - Dr Shailaja T S
2. A Knowledge, Attitude & Practice (KAP) based survey on infection control practices among House surgeons & Junior residents with special emphasis on instrument sanitation from a Tertiary Care Centre, Kerala - Ms. Harshitha , Guide - Dr Arya Ramachandhran
3. Assessment of adherence pattern for short course antibiotic therapy in outpatient department: a prospective observational study- Archita , Guide - Dr Swetha Sivaraman
4. Matched case-control analysis of risk factors and co-resistance in infections by Carbapenem-resistant organisms among patients with history of previous hospitalization, including economic burden (Ms.Lakshmi Vijendralal: Selected for ICMR- STS) Guide-Dr. Gulsiv Nair



Proposed UG Research (Applied for ICMR STS,'26)



1. Knowledge, attitude and practice regarding antimicrobial stewardship among medical post graduates and interns in a tertiary care centre of northern Kerala. **Ahaan Pushkar; Guide- Dr. Shailaja T.S**
2. Assessment of Awareness Regarding Antimicrobial resistance and self-antibiotic usage among undergraduate medical students in a Tertiary Care Centre – A Knowledge, attitude and practice (KAP) study.
Midhuna; Guide Dr. Arya Ramachandran
3. Analysis of antimicrobial resistance pattern and prevalence of ESBL producers among uropathogens isolated from urinary tract infections in patients admitted to a Tertiary Care hospital.
Nandhana Krishna; Guide Dr. Sharika Ramdas



COLLABORATIVE STUDY



- VAMR – Strengthening the quality of AMR surveillance using automated antibiotic sensitivity testing systems – A large scale multi-centric national study in collaboration with WHO and JIPMER



DEPARTMENT ACTIVITIES



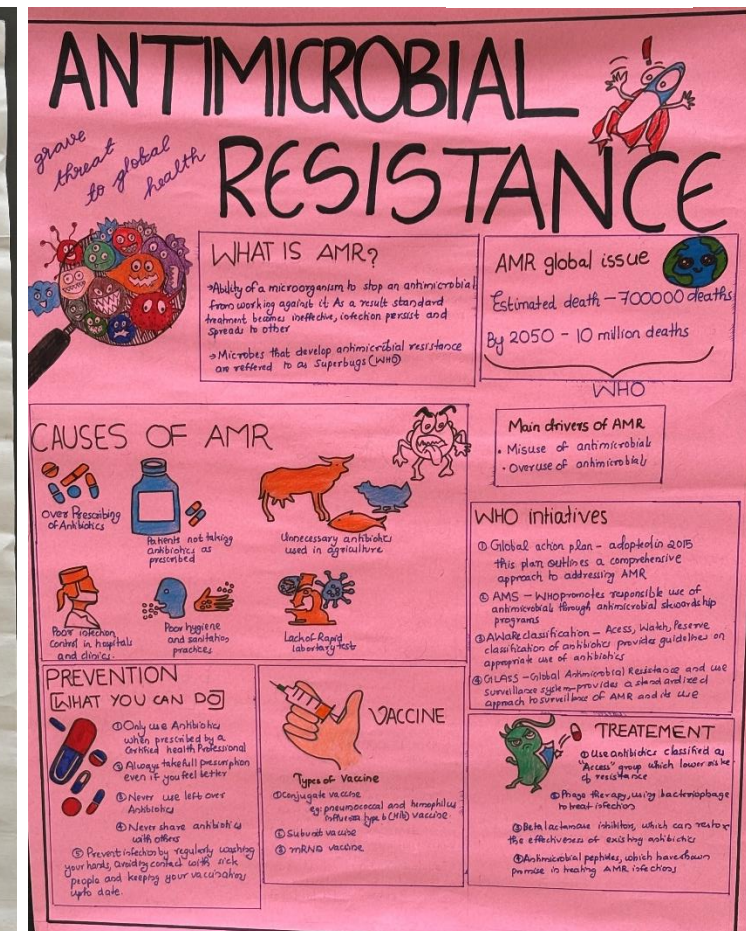
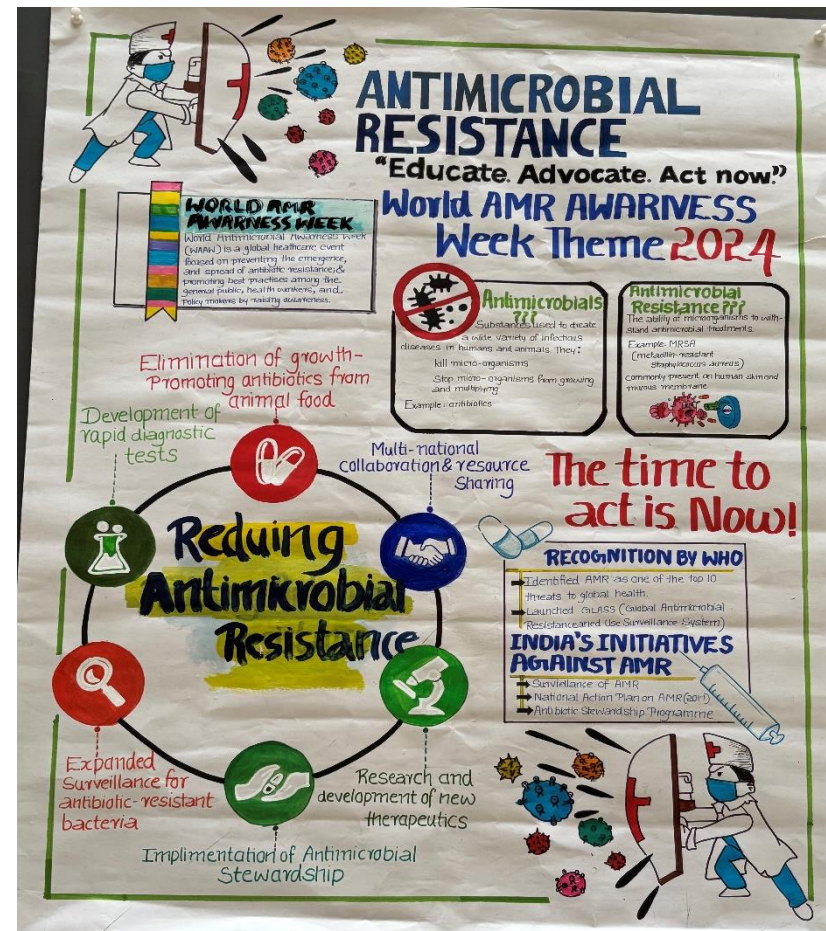
AMR AWARENESS WEEK 2023

DEPARTMENT ACTIVITIES



ACADEMIC FEST – MICROCROSS 2023 (CROSSWORD PUZZLE COMPETITION)

DEPARTMENT ACTIVITIES

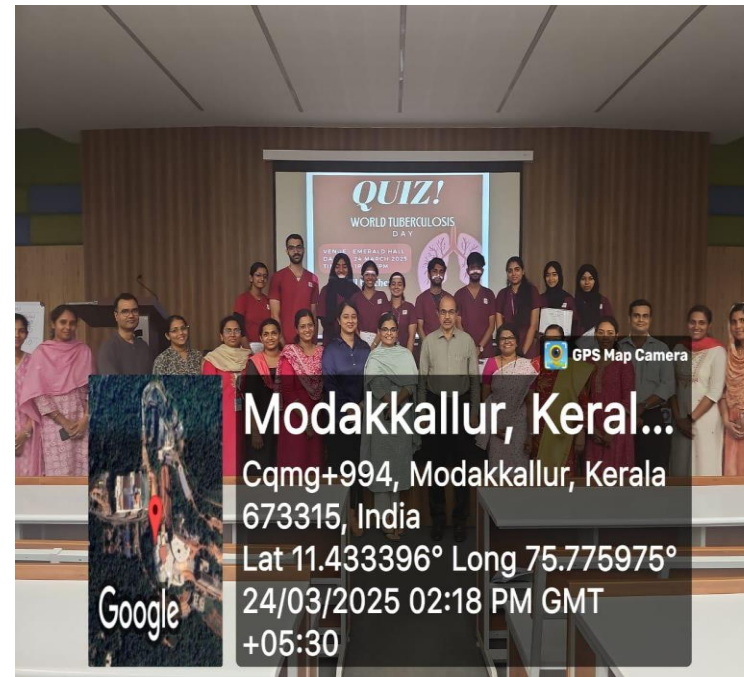


POSTER COMPETITION DURING AMR AWARENESS WEEK 2024

DEPARTMENT ACTIVITIES



AMR AWARENESS WEEK 2024



TUBERCULOSIS QUIZ - 2025

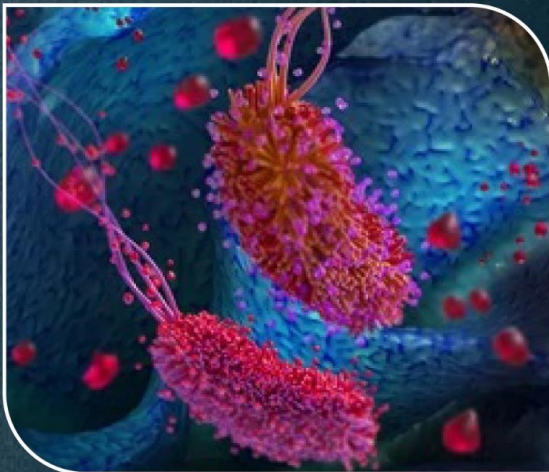


MEDNOVA - MICROSPRINT 2025

DEPARTMENT ACTIVITIES

CLINICAL CLUB OSMOSIS

MASQUERADING MENACE - MELIOIDOSIS



Speaker



Dr. ANIL KUMAR
Professor & HOD, Department of Microbiology
Amrita Institute of Medical Sciences, Kochi

Date: April 4th 2025 | Time: 8.15am
Venue: CME Hall, Hospital, 7th floor

Organised by
DEPARTMENT OF MICROBIOLOGY



DEPARTMENT ACTIVITIES



OSMOSIS

Friday, 28th November, 2025
Time: 08:15 am,
Venue: CME hall 7 th floor
Hospital Block
Malabar Medical College,
Ulliyeri, Kozhikode

TOPIC
"Addressing MDR Gram negative bacterial infections"



SPEAKER
Dr. ADARSH AYILLIATH
Infectious Disease physician
Aster MIMS, Kozhikode

ORGANIZERS
Dr. Gomathy Subramaniam
Prof. & HOD, Department of Radio Diagnosis

Dr. Rijesh P.
Professor, Department of Orthopedic
Department of Microbiology



**MALABAR MEDICAL COLLEGE
HOSPITAL & RESEARCH CENTRE**
Discover a new life



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673321, India
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DEPARTMENT ACTIVITIES

CLINICAL CLUB OSMOSIS

Department of
Microbiology

Hospital Acquired
Infections with special
emphasis on surgical
site infection



Dr Kavita Raja
Medical Superintendent
Sree Chitra Tirunal Institute of Medical Sciences,
Trivandrum



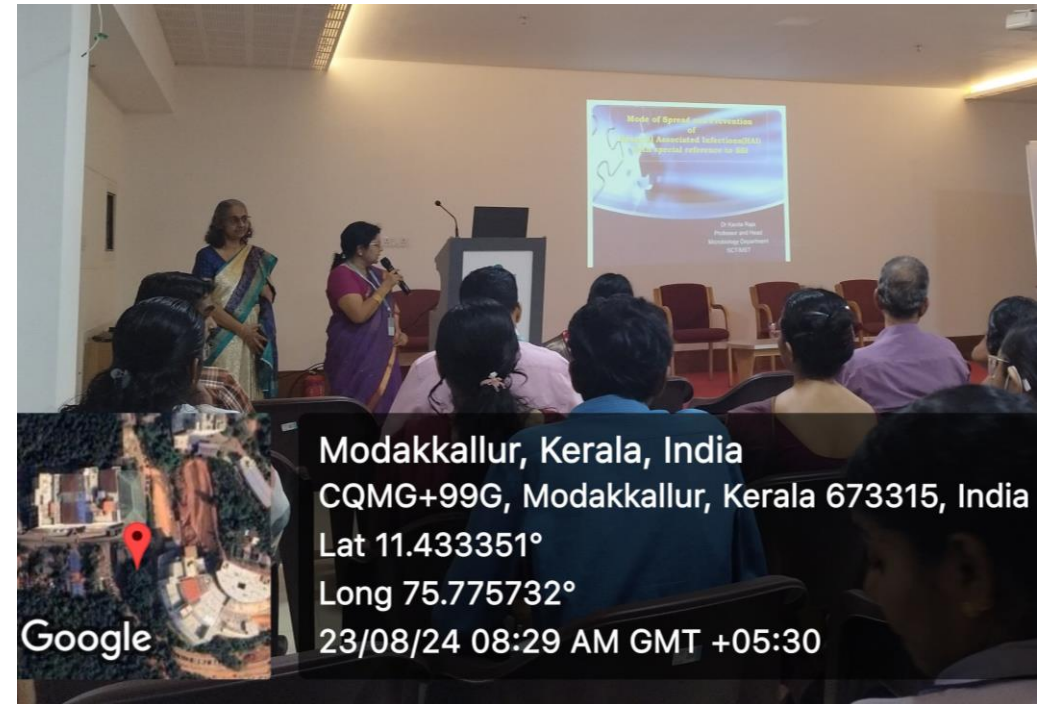
**Friday 23rd
August**

Time : 8:15 am
Venue: CME Hall, Hospital 7th floor

ORGANIZERS

Dr. Gomathy Subramaniam
Prof. & HOD, Department of Radio diagnosis

Dr. Rijesh P.
Professor, Department of Orthopedic



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CQMG+99G, Modakkallur, Kerala 673315, India
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Long 75.775732°
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FUTURE PLANS OF THE DEPARTMENT



- Continue to deliver quality training for PG,UG medical and other students
- Targeted progress towards enhanced molecular diagnosis and research
- Actively promote collaborations with National bodies (ICMR, DBT, CSIR)
- Support innovation through seed grants and mentorship



Thank you !

